SOCIAL INTERACTIONS

NEW TYPOLOGY OF HOUSING, BASED ON THE SOCIAL CHALLENGES OF THE XXI CENTURY

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NEW TYPOLOGY OF HOUSING, BASED ON THE SOCIAL CHALLENGES OF THE XXI CENTURY

MASTER PROTOTYPING FUTURE CITIES

GRADUATE SCHOOL OF URBANISM,
NATIONAL RESEARCH UNIVERSITY HIGHER SCHOOL OF ECONOMICS

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SELF-SUFFICIENT CITY
1000 PEOPLE BLOCK PROTOTYPE

The society does not stand still and dynamically develops reacting to the slightest possibilities of moving forward in this or that area. Architecture, however, reflecting society is a more static non-dynamic structure that for a long time accepts new conditions for the existence of society and, in its mass, is heavily adapted to them. Therefore, it is necessary to formulate very precisely the needs and demands of the society of today, and, among other things, to predict the development of society for the foreseeable future. With the specific formulation of the demands of society, it is possible to design the architecture in accordance with the realities of today, which will remain relevant not only by the time of the completion of construction, but also decades later.

Residential architecture today in Russia remained in the position of the USSR, while all the collective bonuses that were present in the communist architecture of the Soviet Union disappeared and the importance of commercialization as a factor of evaluation was maximized. The number of social functions in our time has greatly diversified. The feeling of private property has significantly decreased and it also gives new opportunities for a more flexible organization of society. These issues will be considered in detail for the formation of new demands of modern society.

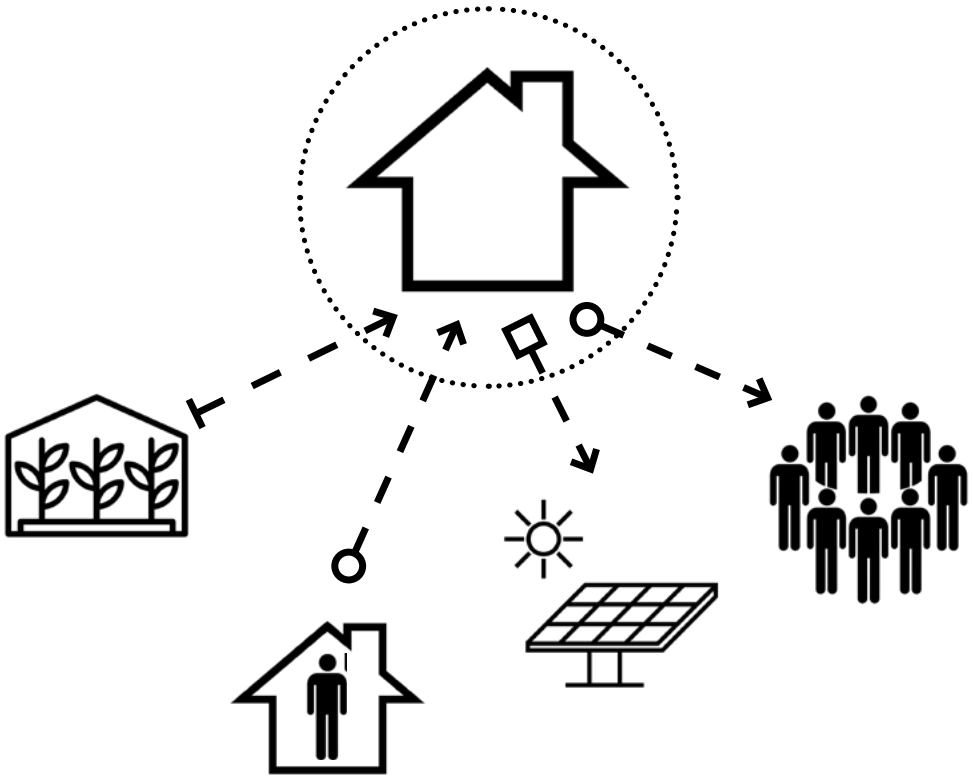


Figure 1.
Main component of new social structure in residential building .

Modern urban conditions and lifestyle dictate their own rules for changing the living environment. Following the principles of distribution, sustainable development, self-sufficiency and social microeconomics, the modern concept of housing is more open to external factors and flexible with respect to emerging functional typologies and the disappearing traditional.

The above-mentioned trends in the development of residential space lead to an increase in its area and, as a consequence, an increase in value. One of the vectors of regulation of this trend is the formation of a new type of living space, which will take into account the aspect of "flexibility" of the dwelling, as well as its relationship with the environment of the building itself, in which it is located.

"Increase" of living space can be achieved due to its "distribution" in the volume of the building, in other words, transferring some functions from the apartment to its environment, we form new spaces that can become new social sites, places of exchange of knowledge or goods within the community inhabiting a dwelling house.

The purpose of this work is to identify existing and future functional typologies that will be possible to take outside the apartment, creating new sites within the residential structure, with varying degrees of publicity, determining the characteristics of these premises, analyzing existing examples that use the above-mentioned principles for the formation of living space, the formation of economic models.

Figure 2.
Planning general characteristics of social functions and common space.

Scale of influince- Means possibility of function to serve different types of communities based on locational parameter

Ownership- Characteristic of who will own or share (on legislative level) space, took responsibility of it and get profit from its usage if it exist. In situations when community need higly cost facility here can use public-private scheme of ownership. In this case government or residents of the block provide external businesses special offers for renting, functioning etc., in other words creating convenient environment for business existing and at the same time satisfying residents or local community needs (coexisting).

Location- Spatial characteristic of location of common space in a volume of residential block. Including distributed ones, which locate on each floor or in each building and which will only serve needs of residents and centralized ones which can be only one in the whole block and serve needs starting from local community to city or region itself.

Working (business) model- Means which business or working model using to make space functioning and who participate in it. This parameter includes next types of models: Resident to Resident, Resident to External society, External business or service to Resident, External business or service to External society including residents, Govermental organisations or institutions to Residents or Govermental organisations or institutions to External society including residents.

Demand - characteristic of what type of our home life needs this function or space satisfy. Physiological demand also includes need of human in social communications.

Frequency of usage - means how often residents of the block or local community will use certain type of common space or participate in social functions (events,actions).

People involved - number of people and relations between them, that participate in action or sharing common space. Some functions imply a certain level of privacy, despite the fact that the action is committed or space shared by several people.

Involvement (service) - charactiristic of who will be serve common public or semi-private space. Including external services like private businesses or companies. Semi-obligatory means semi-obligatory involvment of residents of the block in common space maintenance or in preparing and participation social events.

Usage time (one cycle) - time required while sharing or using common public or semi-private space. This parameter includes short term category for example usage of photocopy room, laundry or kitchen and long tetm category which imply long usage of space such as storage of bulky equipment or growing plants in public garden.

Cost (of participation/usage) - monetary characteristic or its absence of usage of common functions or sharing public space. This point includes scenarios then residents can get profit while using common spaces by providing their services or goods to external community or other residents of the block.

Space required - material characteristic of square or cubic meters that needs certain type of action or space for functioning.

Equipment required - level of complexity of equipment required for common space functioning. Higtech parameter imply higly cost equipment and need for its maintenance by special professionals or services.

Input - charactiristic of which types resources you should use to make common space or social function work. Including material resourses such as money or goods and immaterial such as your freetime, knowledge etc.

Output - typology of resources which you can get while using common space or partisipating in social action (function). This characterestic includes both material and immaterial types of resources such as social communications and connections between residents of the block, local community and citizens.

Demand:
physiological
domestic
entertainment
educational
commercial

Frequency of usage:
Everyday
Weekly
Monthly

People involved:
1(private)
1(public)
2+(family,friends)
2+(strangers)

Involvement(service):
external service
voluntary
semi-obligatory
(between residents)

Usage time (one cycle):
short term:
~10 mins
~30 mins
~1 hour
>1 hour

long term:
day
month
year

Cost
(of participation/usage):
free
paid
profit

Space required:
occasionally(not fixed)
~5 m2 (small)
~25 m2 (medium)
~50 m2 (large)
>100 m2 (xlarge)

Equipment required:
no need
lowtech
hightech

Input:
no
money
goods
physical labor
intelectual labor
intelectual

Output:
service
goods
social communication
entertainment
education

Scale of influence:
appartment
building
block
neighborhood (2+ blocks)
district
city

Ownership:
private (business)
public
(residents or government)
private-public

Location:
each floor
(only for residents)
inside the building
(only for residents)
street facade
(for everyone)
on the roof
underground

Working (business) model:
r2r
r2s (incl. residents)
b2r
b2s (incl. residents)
g2r
g2s (incl. residents)

*r-resident
s-society
b-business
g-government

SOCIAL FUNCTION

SOCIAL FUNCTION

Social organizations happen in everyday life. Many people belong to various social structures—institutional and informal. These include clubs, professional organizations, and religious institutions.To have a sense of identity with the social organization, being closer to one another helps build a sense of community.While organizations link many like minded people, it can also cause a separation with others not in their organization due to the differences in thought. Social organizations are structured to where there is a hierarchical system. A hierarchical structure in social groups influences the way a group is structured and how likely it is that the group remains together. Four other interactions can also determine if the group stays together. A group must have a strong affiliation within itself. To be affiliated with an organization means to have connection and acceptance in that group. Affiliation means an obligation to come back to that organization. To be affiliated with an organization, it must know and recognize that you are a member. Often affiliates have something invested in these resources that motivate them to continue to make the organization better. On the other hand, the organization must keep in mind the substitutability of these individuals. While the organization needs the affiliates and the resources to survive, it also must be able to replace leaving individuals to keep the organization going. Because of all these characteristics, it can often be difficult to be organized within the organization. This is where recorded control comes in, as writing things down makes them more clear and organized. Social organizations within society are constantly changing. Social organizations are seen in different forms within society such as created through institutions like schools or governments. Smaller scale social organizations in society include groups forming from common interests and conversations. Social organizations are created constantly and with time change. Smaller scaled social organizations include many everyday groups that people would not even think have these characteristics. These small social organizations can include things such as bands, clubs, or even sports teams. Within all of these small scaled groups, they contain the same characteristics as a large scale organization would. While these small social organization do not have nearly as many people as a large scale would, they still interact and function in the same way. Looking at a common small organization, a school sports team, it is easy to see how it can be a social organization. The members of the team all have the same goals, which is to win, and they all work together to accomplish that common goal. It is also clear to see the structure in the team. To achieve their goal they must be one, and that is what makes them a social organization. In large-scale organizations, there is always some extent of bureaucracy. Having bureaucracy includes: a set of rules, specializations, and a hierarchical system. This allows for these larger sized organizations to try maximize efficiency. Typically, the impersonal authority approach is used. This is when the position of power is detached and impersonal with the other members of the organization. This is done to make sure that things run smoothly and the social organization stays the best it can be.

Typology	Demand	Frequency of usage	People involved	Involvement	Usage time	Cost	Space (m^2)
Screen	Ent/Edu	Monthly	2+(S)	ExstSrv/Volnt	>1h	F/Pd	L
Gym	Phys/Ent	Weekly	2+(S)	ExstSrv/Sobl	>1h	F/Pd	XL
Public garden	Domst/Ent	Everyday	2+(S)	Volnt	Year	F	XL
Library (bookcrossing)	Ent/Edu	Weekly	2+(S)	Volnt/Sobl	~1h	F	M
Public workshop	Domst	Monthly	2+(S)	ExstSrv/Sobl	~1h	F/Pd	L
Coworking	Domst/Edu/Cmrcl	Everyday	2+(S)	ExstSrv/Sobl	>1h	F/Pd	L
Public kitchen	Domst/Phys	Everyday	2+(S)	ExstSrv/Sobl	~1h	F	M
Storage (long term)	Domst	Monthly	1(P)	ExstSrv/Sobl	Year	F/Pd	SxN
Event space	Ent	Monthly	2+(S)/ 2+(F)	Volnt/Sobl	>1h	F	L
Laundry	Domst	Everyday	2+(S)	ExstSrv/Sobl	~1h	F/Pd	M
Market (micro economy)	Domst/Cmrcl	Weekly	2+(S)	Volnt	>1h	F/Pf	XL
Studying room	Domst/Edu	Everyday	2+(S)	Volnt/Sobl	~1h	F	M
Kindergarden	Edu	Everyday	2+(S)	ExstSrv	day	F/Pd	XL
Photocopy room	Domst	Everyday	2+(S)	ExstSrv/Sobl	~10 mins	F/Pd	S
Cafe	Phys	Everyday	2+(S)	ExstSrv	~30 mins	Pd	L
Fab Lab	Domst	Monthly	2+(S)	ExstSrv	~1h	Pd	XL
Athletic field (outdoor)	Phys/Ent	Everyday	2+(S)	ExstSrv/Sobl	~30 mins	F	L
Playground	Phys/Ent	Everyday	2+(S)	ExstSrv/Sobl	~30 mins	F	L
Greenhouse	Domst/Ent	Everyday	2+(S)	ExstSrv/Volnt	Year	F/P	XL
Sharing goods room	Domst	Weekly	2+(S)	Voltnt	~10 mins	F	S
Small manufacture	Cmrcl	Everyday	2+(S)	Voltnt	day	Pf	L
Parking	Domst	Everyday	2+(S)	ExstSrv	day	F/P	XXL
Daily shop	Domst	Everyday	2+(S)	ExstSrv	~10 mins	Pd	L
Mushroom farm	Domst/Ent	Everyday	2+(S)	ExstSrv/Volnt	Year	F/P	XL
Drone delivery	Domst	Weekly/ Everyday	2+(S)	ExstSrv	~10 mins	F	M?
Fish tank	Domst/Ent	Everyday	2+(S)	ExstSrv/Volnt	Year	F/P	XL
Renewable energy storage	Domst	Everyday	1(P)/2+(S)	ExstSrv/Volnt	Year	F	S
Vegetable storage	Domst	Weekly	1(P)	ExstSrv/Sobl	Year	F/Pd	SxN
Garden equipment storage	Domst	Weekly	1(P)	ExstSrv/Sobl	Year	F/Pd	SxN
Storage (short term)	Domst	Everyday	2+(S)	ExstSrv	day	F	M

Figure 3.
Table of potential of the function. Part 1

Cost	Space (m²)	Equipment	Input	Output	Scale	Ownership	Location	Model
F/Pd	L	Ltech	No/$	Soco/Ent/Edu	Blck/Nhood	Pblc/Pblc-Prvt	InBld/StrF	R2R/R2S/B2R/B2S
F/Pd	XL	Htech/Ltech	No/$	S/SoCo	Blck/Nhood	Pblc/Prvt/Pblc-Prvt	InBld/StrF	B2R/G2R/B2S/G2S
F	XL	Ltech	$/PhysL	Gds/Soco/Ent/Edu	Blck	Pblc	Roof	R2R/G2R
F	M	Ltech	No	Soco/Ent/Edu	Blck	Pblc	InBld	R2R/G2R
F/Pd	L	Htech/Ltech	No/$	Srv/SoCo	Blck	Pblc/Prvt/Pblc-Prvt	InBld	B2R/G2R
F/Pd	L	Ltech	No/$	Srv/Edu	Bld/Blck	Pblc/Prvt/Pblc-Prvt	InBld	B2R/G2R
F	M	Htech	No	Srv/SoCo	Aprt/Bld	Pblc/Pblc-Prvt	InBld	B2R/G2R
F/Pd	SxN	Ltech	No/$	Srv	Aprt/Bld	Pblc	InBld	G2R
F	L	Ltech	No	Srv/SoCo/Ent	Blck	Pblc	InBld/StrF	R2R
F/Pd	M	Htech	No/$	Srv	Aprt/Bld	Pblc/Prvt/Pblc-Prvt	InBld	B2R/G2R
F/Pf	XL	Ltech	No/PhysL	Srv/Gds/SoCo	Blck/Nhood	Pblc	StrF	R2R/R2S
F	M	Ltech	No	Srv/SoCo/Edu	Aprt/Bld	Pblc	Flr	R2R
F/Pd	XL	Htech	$/IntL	Srv/Edu/SoCo	Blck/Nhood	Pblc/Prvt/Pblc-Prvt	StrF	B2R/B2S/G2R/G2S
F/Pd	S	Htech	$	Srv	Bld/Blck/Nhood	Pblc/Prvt/Pblc-Prvt	InBld/StrF	B2R/B2S/G2R/G2S
Pd	L	Htech	$	Srv/Gds/SoCo	Bld/Blck/Nhood	Prvt/Pblc-Prvt	InBld/StrF	B2R/B2S
Pd	XL	Htech	$/PhysL/IntL	Srv/Gds/SoCo	Blck/Nhood/Dstct	Prvt/Pblc-Prvt	StrF	B2R/B2S/G2R/G2S
F	L	Ltech	PhysL	Srv/SoCo	Blck	Pblc	Roof	R2R/G2R
F	L	Ltech	PhysL	Srv/SoCo	Blck	Pblc	Roof	R2R/G2R
F/P	XL	Htech	PhysL/$	Gds/SoCo	Blck/Nhood	Prvt/Pblc-Prvt	Roof	B2R/G2R
F	S	Ltech	$	Gds/SoCo	Aprt/Bld	Pblc	Flr/InBld	R2R
Pf	L	Htech	PhysL	Srv/Gds/SoCo	Blck/Nhood	Pblc	StrF	R2R/R2S
F/P	XXL	Ltech	$/No	Srv/SoCo?	Blck	Pblc	Underground	G2R/B2R
Pd	L	Htech	$	Srv/Gds/SoCo	Blck/Nhood	Prvt	StrF	B2R/B2S
F/P	XL	Htech	PhysL/$	Gds/SoCo	Blck/Nhood	Prvt/Pblc-Prvt	Roof	B2R/G2R
F	M?	Htech	No	Srv/Gds	Blck	Pblc	Roof	G2R
F/P	XL	Htech	PhysL/$	Gds/SoCo	Blck/Nhood	Prvt/Pblc-Prvt	Underground	B2R/G2R
F	S	Htech	$/No	Gds	Aprt/Bld	Pblc/Prvt/Pblc-Prvt	Flr/InBld/Underground	R2R/R2S
F/Pd	SxN	Ltech	No/$	Srv	Aprt/Bld	Pblc	InBld	G2R
F/Pd	SxN	Ltech	No/$	Srv	Aprt/Bld	Pblc	InBld	G2R
F	M	Ltech	No	Srv	Aprt/Bld	Pblc	InBld	G2R

Figure 4.
Table of potential of the function. Part 2

Figure 5.
Typologies including traditional (old) and speculative ones

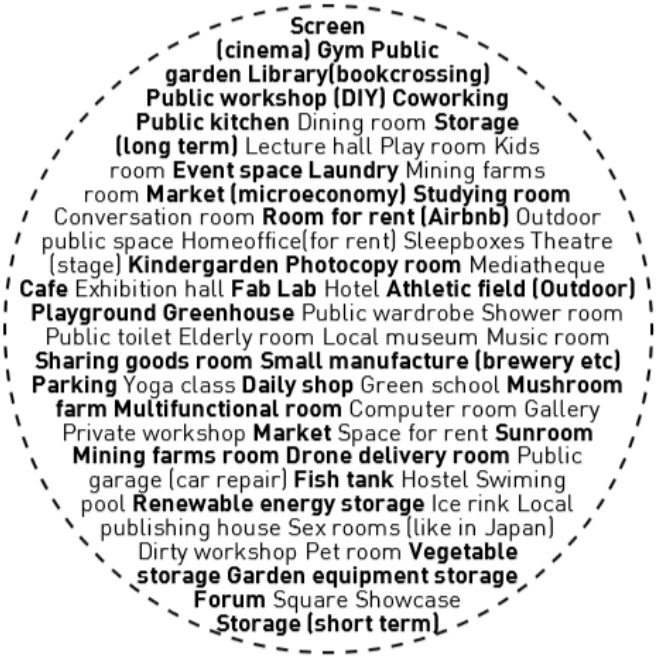


Figure 6.
Remaining typologies which past selection based on expendiency (highlighted)

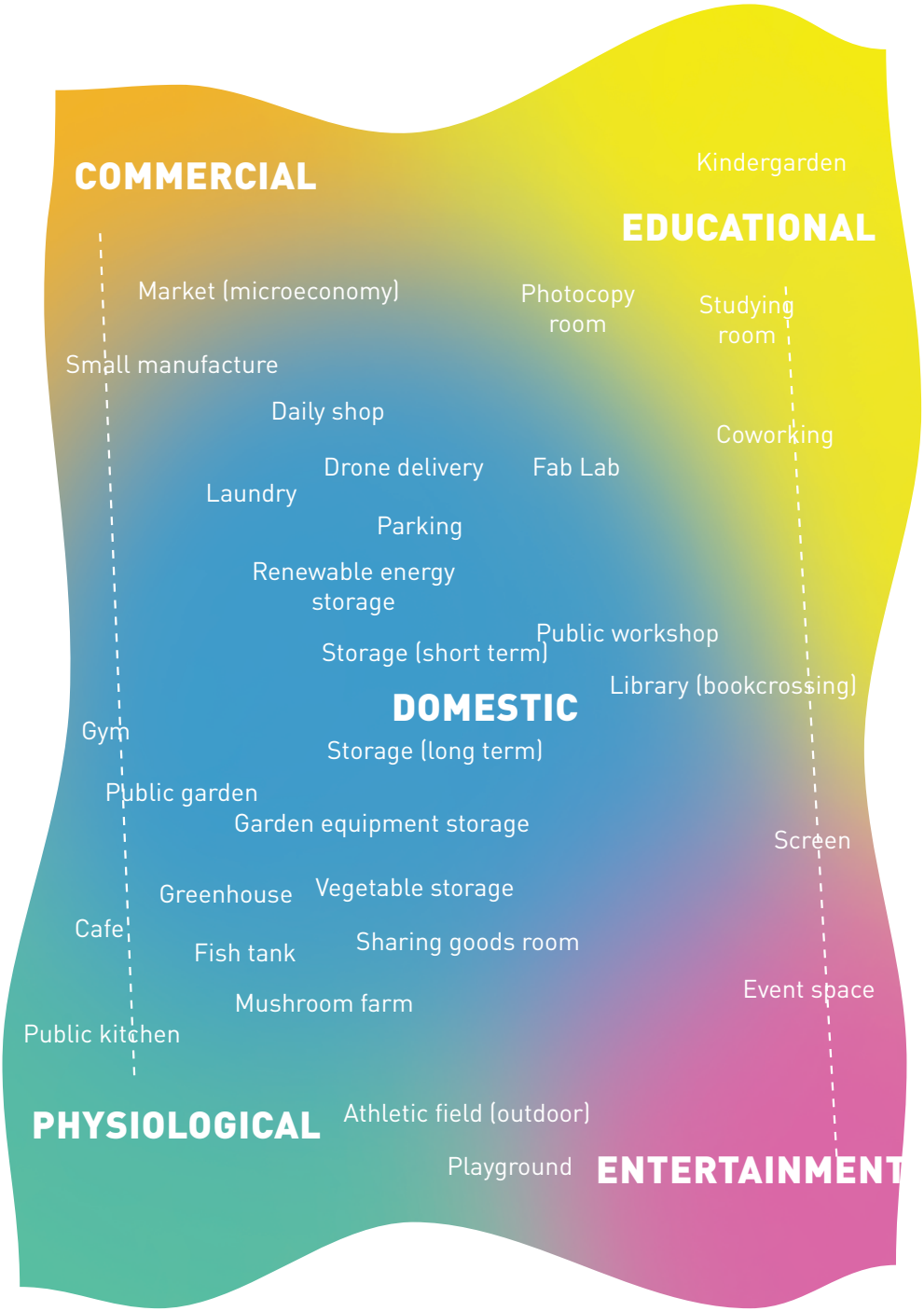


Figure 7.
Remaining typologies which past selection based on expendiency (highlighted)

SOCIAL ORGANIZATION

SOCIAL ORGANIZATION

Social organizations in general, that is to say, and is the life of people. Every day they all follow some kind of routine, everything is cyclical. This all happens because of the organization. It is possible to divide people into different groups, depending on various factors, a person refers himself to different kinds of communes, and such communities are of very different types, ranging from hobbies like sports and ending with religion. Attachment to something more, the presence of like-minded people give a person a sense of security and commune. At the same time, the social organization necessarily has vertical division, which is one of the main features of a strong community. Members of a social organization should feel their belonging and loyalty. Social organizations in

Society is constantly changing. Smaller public organizations include a lot of everyday groups. Even small groups of fans of any sport is already a social organization. Any social organization, be it small or large, consists of the same structure, the functional within the community in both cases is similar.

For example, you can take a jazz band - a small social organization. All its participants have one goal - to perform well and to please the public. To make them all work well, all should be moved by a single impulse, one goal, otherwise if someone from the group falsifies or does not get into the notes, the music will not succeed. In larger organizations, the structure is more detailed, but the functions are the same. There is a clear organization of work, so that everything goes by its order there is a division of all duties, for the sake of achieving a common goal. Speaking in general, the social organization can be compared with the clock mechanism.
Moscow is the capital city and most populous federal subject of Russia, and the northernmost megacity on the planet. It's also the second most populous city in Europe and the 11th largest city proper on earth. In 2018, the estimated population was 12.19 million.

At its last census in 2010, Moscow had a population of 11.5 million. In 2012, its territory expanded from 1,000 to 2,511 square kilometers, which added an additional 233,000 people. As Russia's official figures are not believed to be completely accurate, and taking into consideration the high rates of illegal immigration, the true figure today may be anywhere from 13 to 17 million, although 2016 estimates put the population right under 13 million.

Moscow's population of about 12.19 million makes it the 6th largest city in the world and the most populous city in Russia.

Moscow is run by one mayor, but the city is actually divided into 12 administrative okrugs and 123 districts, each with its own coat of arms and flags and individual heads of each area.

Figure 8. (left)

Population composition by place of residence

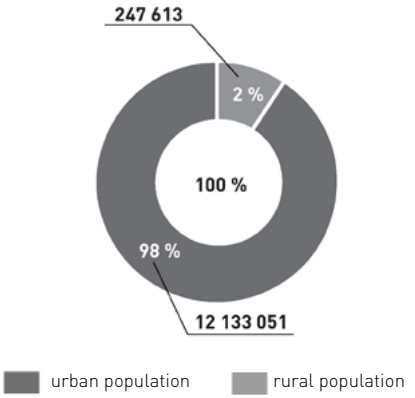


Figure 9. (right)

Population composition by sex

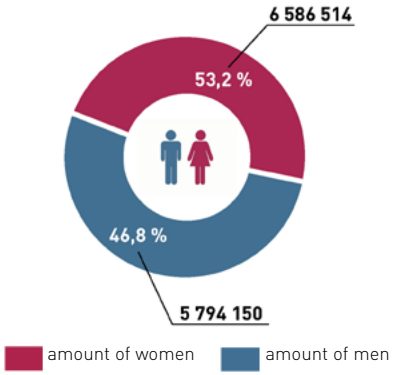


Figure 10. (left)

Population composition according to working conditions

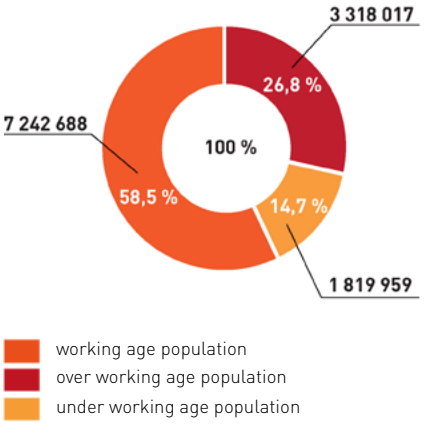


Figure 11. (right)

Classification of Moscow schools

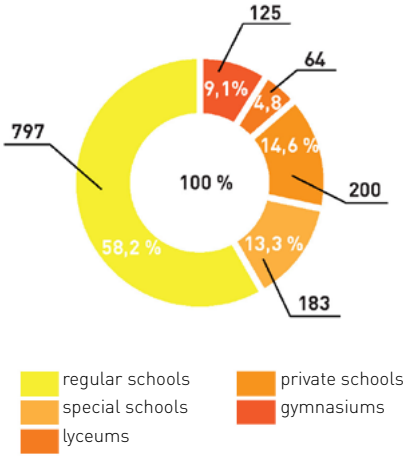


Figure 12. (left)

Classification of Moscow kendergarten

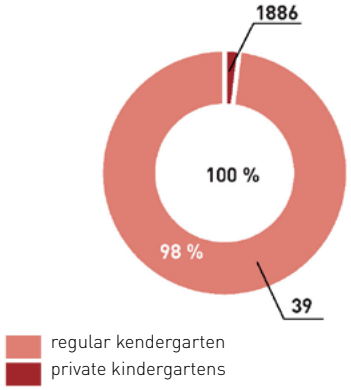
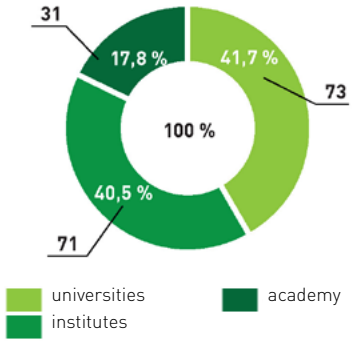


Figure 13. (right)

Classification of Moscow higher education



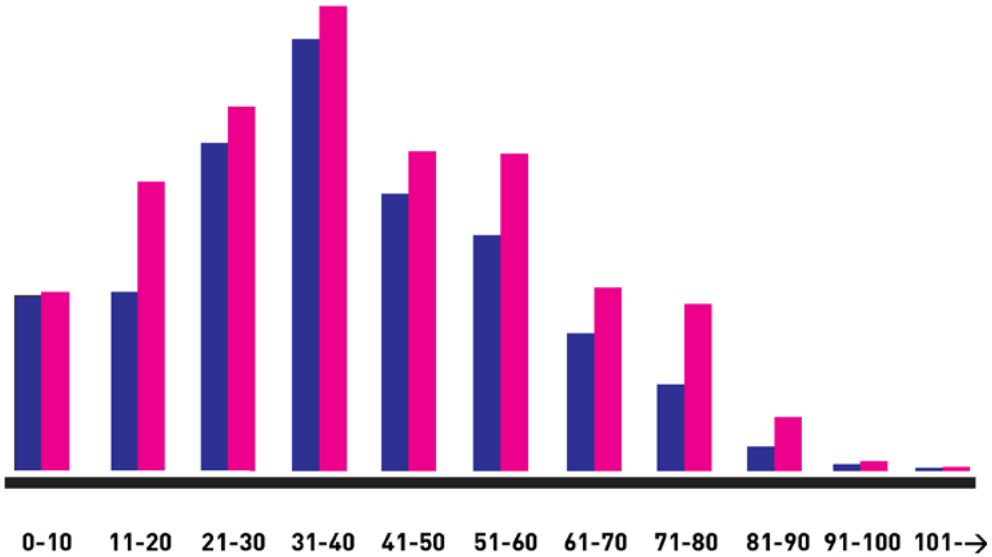


Figure 14.
POPULATION OF MOSCOW
By age and gender

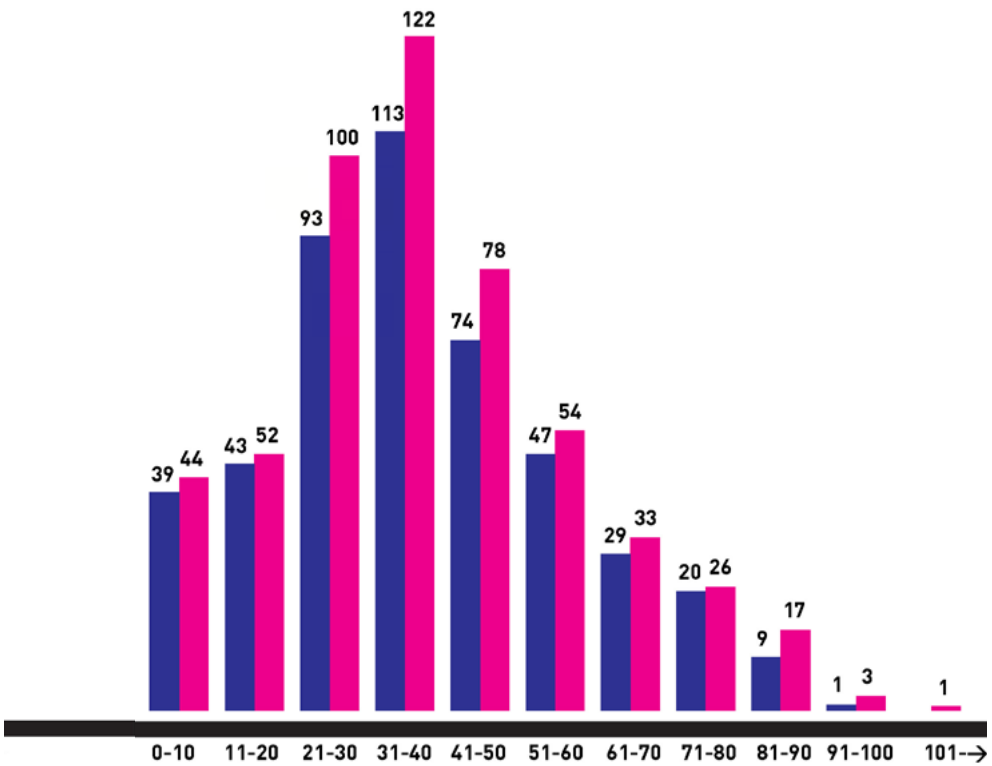


Figure 15.
POPULATION OF MOSCOW
By age and gender for 1000 people

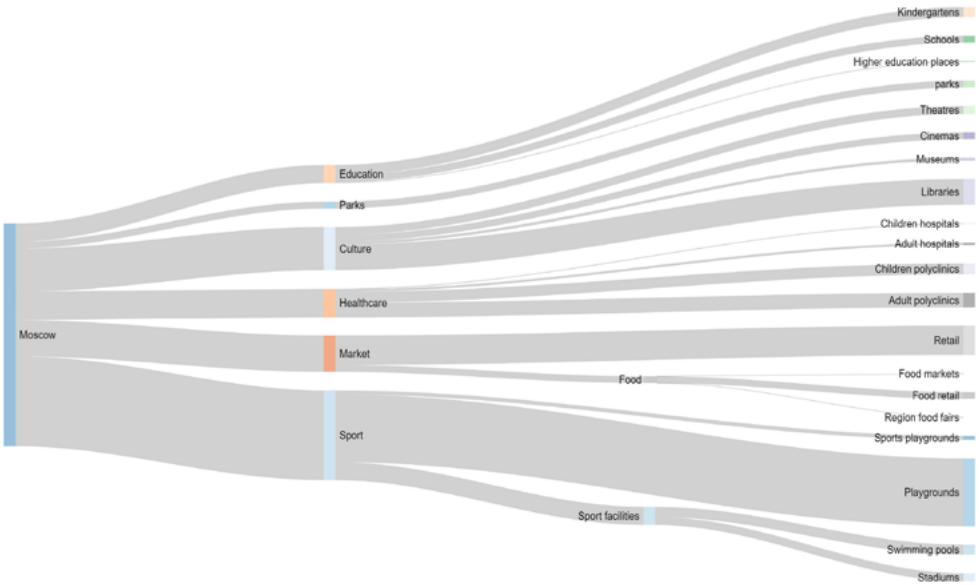


Figure 16.

SOCIAL ORGANIZATION
Of Moscow

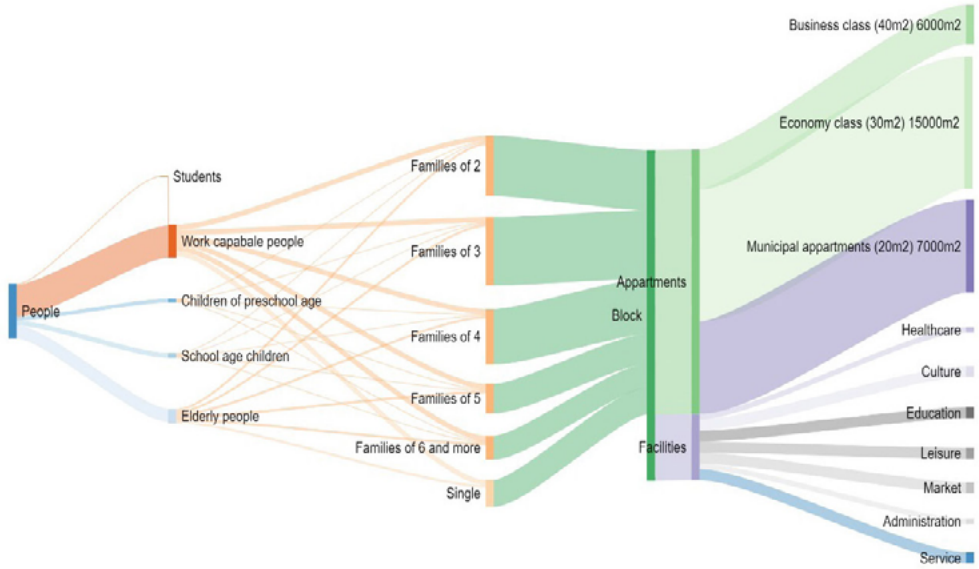


Figure 17.

SOCIAL ORGANIZATION
For block of 1000 pesons

SOCIAL ECONOMICS

SOCIAL ECONOMICS

Real estate economics is the application of economic techniques to real estate markets. It tries to describe, explain, and predict patterns of prices, supply, and demand.
The property market is a complex and heterogeneous entity. Even if it is only a market for urban housing, it's millions of apartments with their unique properties, up to the kind of windows or repair level, the state of the entrance or the presence of a concierge. All these apartments are scattered at different ends of the city, each of which is endowed with its infrastructure and transport accessibility, has a certain level of ecology and prestige. But everything becomes even more complicated and more diverse when it comes to office buildings or shopping and entertainment complexes, cottage settlements or land plots.

Successful location of the house. In modern large cities for a multi-apartment house the most successful location is considered quiet, quiet streets near major highways. Some remoteness from noisy transport arteries is a kind of "golden mean" for occupants: on the one hand it is convenience and comfort of movement, and on the other - a favorable (quiet) place for living.

Nature. Proximity to the "green" zones and recreational facilities (forest, park, lake, etc.) Good prospects for the development of the district (for example, just outside the metro station).

The location of the apartment in an area with poor ecology, the proximity of industrial enterprises makes an apartment not attactive.

Excessive distance from the metro, from major transport highways, which creates obstacles for comfortable travel around the city.

Weak infrastructure of the microdistrict, the absence of shops, pharmacies, schools and kindergartens, garages and car parks near the house. Littered environment, criminal district, etc.Also, Industrial zones have a big potential for redevelopment
and during last years becoming attractive zones in Moscow both for work and living.

Property location

If an apartment is in dirty and noisy areas of the city, it will have a negative impact on its attractiveness and quality of life. And on the contrary, location in a quiet and peaceful area, where social infrastructure is concentrated around the house with low level of crime,
then its attractiveness automatically grows.

Figure 18.

Property location

Positive factors of location

The developed infrastructure, proximity to the metro, transport highways, shops, kindergartens, schools,makes an apartment more attractive.

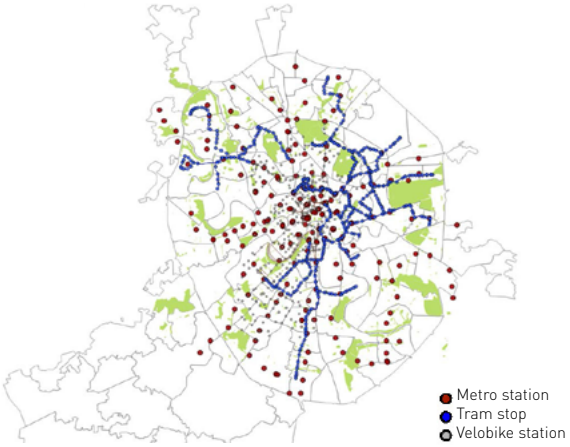


Figure 19.

Positive factors of location

Negative factors for location

What makes an apartment not attactive?

The location of the apartment in an area with poor ecology, the proximity of industrial enterprises.
Excessive distance from the metro, from major transport highways, which creates obstacles for comfortable travel around the city.

Figure 20.

Negative factors of location

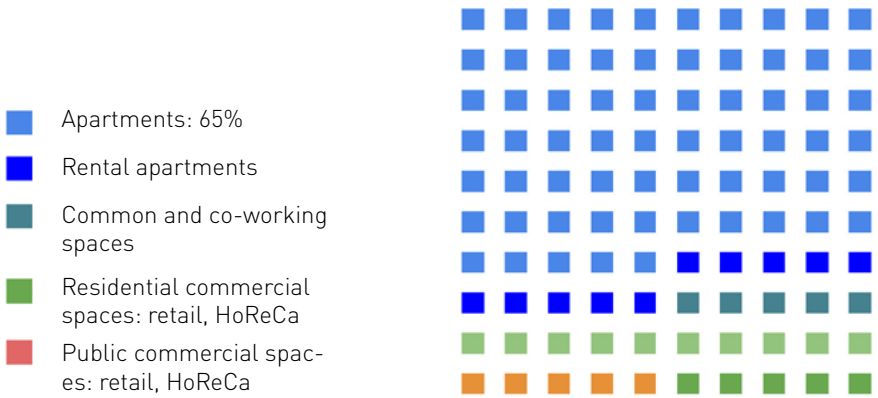


Figure 21.

Economic structure of 1000 people block

Residental

Residential property is stable asset with stable demand and low income rate.
Profitability of an apartment with a long-term lease is an average of 3-4% up to 6% per year, taking into account costs and downtime.
The annual increase in capital due to rising prices can not be expected, as prices do not rise. Today, the middle class in large cities is probably inclined to regard the acquisition of real estate as a more successful instrument for saving earned money and solving the future housing problem for members of their families than a successful and profitable investment.

Street retail

The most profitable segment for private investment is street retail. According to consultants data(JLL, Cushman and Wakefield)[1], the average yield on the Moscow market is now about 11-12% per annum excluding taxes (rental yield without taking into account the growth in the value of the underlying asset)
The greatest attraction for an investor who wants stability is represented by commercial premises from 3 000 - 4 000 m2 and more. Such an object with a good location is much better "insured" against downtime. If the retailer receives profits here, there is a set to conclude a long-term contract.

Offices: co-working

Office real estate for a long time was the leader in investment. But this was mainly due to companies that purchased space for their own needs in the hope of increasing the value of assets. Now, according to consulants data(JLL, Cushman and Wakefield)[1], the average profitability in the office real estate segment is 1-0.5 percentage points lower than in the trading segment. Moreover, the market still has a fairly high vacancy rate (according to various estimates, it is more than 11%), which makes office is a
high-risk and high profit asset with 10 % average income

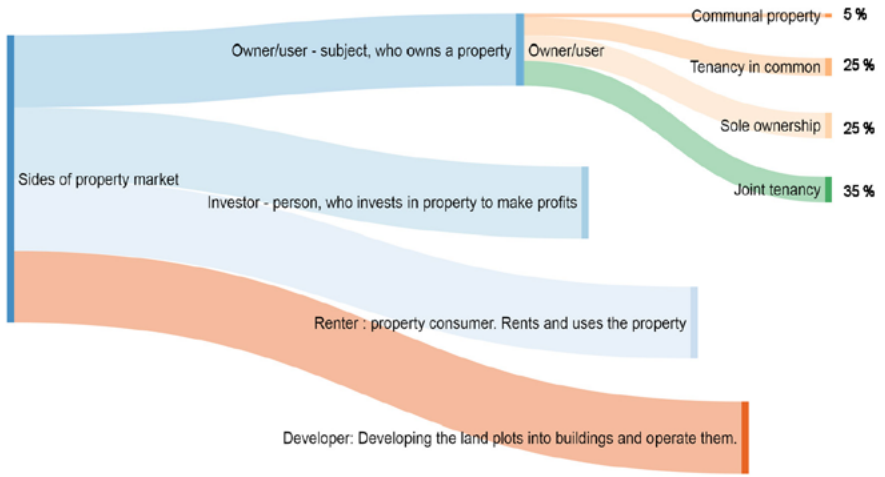


Figure 22

The sides of property market components

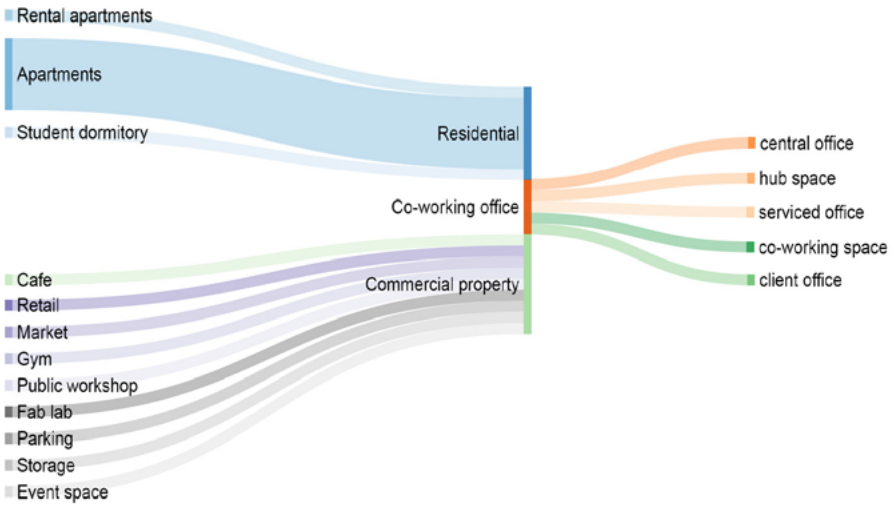


Figure 23

Property classification

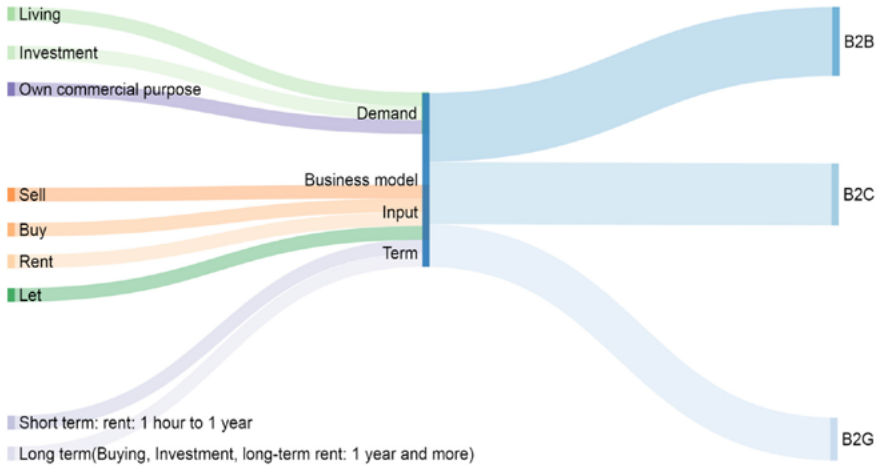


Figure 24.

The sides of property market components

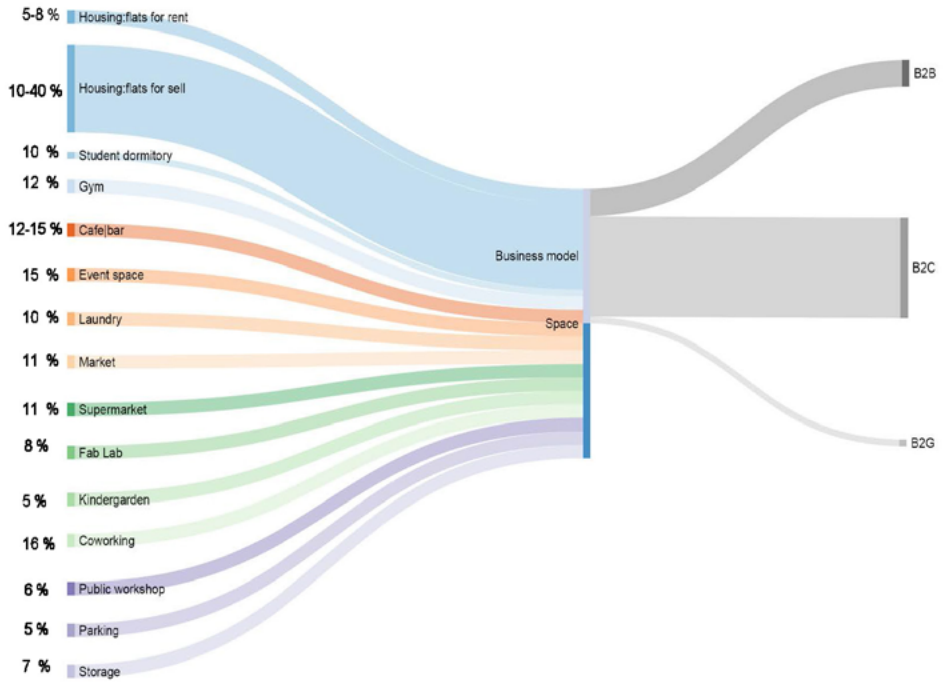


Figure 25.

Property classification

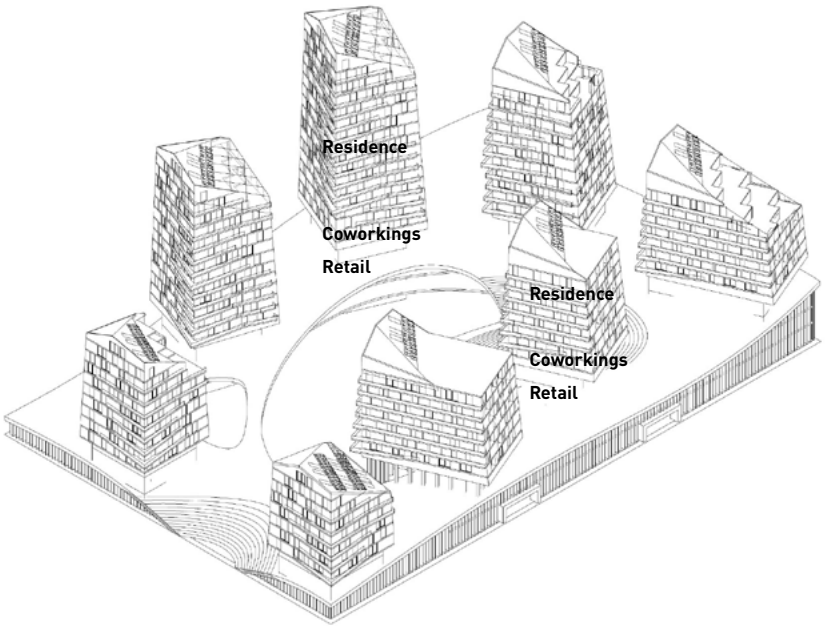


Figure 26.

Economic structure of proposal block

Residential property is stable asset with stable demand and low income rate.
Profitability of an apartment with a long-term lease is an average of 3-4% up to 6% per year, taking into account costs and downtime.
The annual increase in capital due to rising prices can not be expected, as prices do not rise. Today, the middle class in large cities is probably inclined to regard the acquisition of real estate as a more successful instrument for saving earned money and solving the future housing problem for members of their families than a successful and profitable investment.[5]

The most profitable segment for private investment is retail and restaurants. According to consultants data(JLL, Cushman and Wakefield)[1], the average yield on the Moscow market is now about 11-12% per annum excluding taxes (rental yield without taking into account the growth in the value of the underlying asset)

The greatest attraction for an investor who wants stability is represented by commercial premises from 3 000 - 4 000 m2 and more. Such an object with a good location is much better "insured" against downtime. If the retailer receives profits here, there is a set to conclude a long-term contract.[5]
Office real estate for a long time was the leader in investment. But this was mainly due to companies that purchased space for their own needs in the hope of increasing the value of assets. Now, according to consulants data(JLL, Cushman and Wakefield)[1], the average profitability in the office real estate segment is 1-0.5 percentage points lower than in the trading segment. Co-workings are more profitable: their income rate is 16%. Moreover, the market still has a fairly high vacancy rate (according to various estimates, it is more than 11%), which makes co-working and office is a high-risk and high profit asset with 16 % average income.

SOCIAL TIME

Figure 27.

Data of Moscow touristic sector, 2018

In the modern metropolis, the importance of time is very important. Domestic and external tourism in Russia shows that large flows of people move. This leads to the tasks that face the layout of living spaces. In a modern residential block all these tasks should be provided. For example, the temporary organization of processes and space in a residential block during periods of tourist and visitor activity. How can businesses and residents of the bloc be able to cooperate with each other on favorable terms. Referring to the data from Rosturizm, Rostat, Airbnb and others, two types of cooperation will be further considered and proposed: the first is time share (union), the second is space share (common space). These two methods save time and financial costs for both business and residents of the block, bringing only benefits to both parties. Also, it is expected, a combined application of the two methods in a residential block.

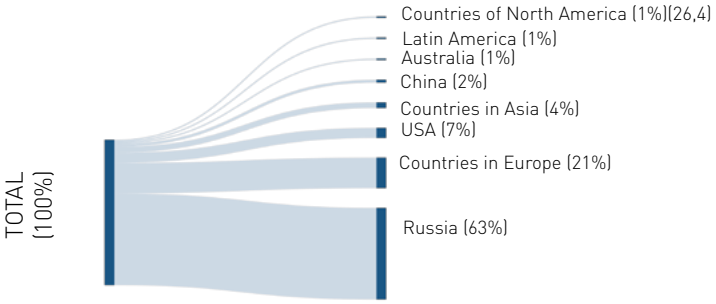


Figure 28.

From wher airbnb users come to Russia

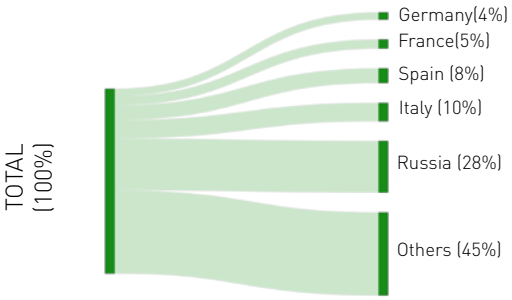


Figure 29.

The most popular destinatios for travel of airbnb users from Russia

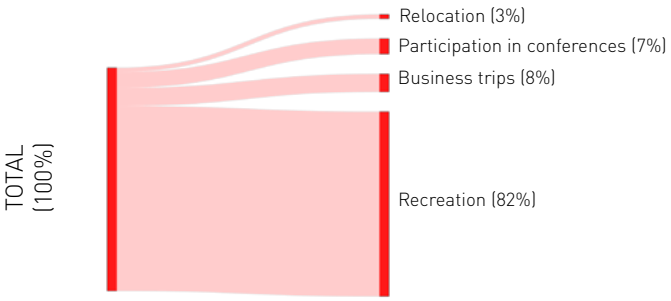


Figure 30.

Why guests come to Russia

According to data provided by Airbnb, from the period of May 2016 to April 2017, the service offered 42,000 ads for housing in various cities of Russia. In this case, in just 12 months in Russia, 13.3 thousand owners actually handed over their housing through the service. On average, each of the owners of real estate earned $ 900 for a tenancy. The average age of the landlord in Russia is 37 years. Most often, the area of the woman is rented (59%).

The goal of trips to Russia was for 82% of Airbnb users to rest. Most tourists booked apartments in Russia - 77% of ads. Separate rooms accounted for 19%, and common rooms (usually a bed with a shared kitchen and bathroom) - 4%. On average, the guests stayed for 4.5 nights.

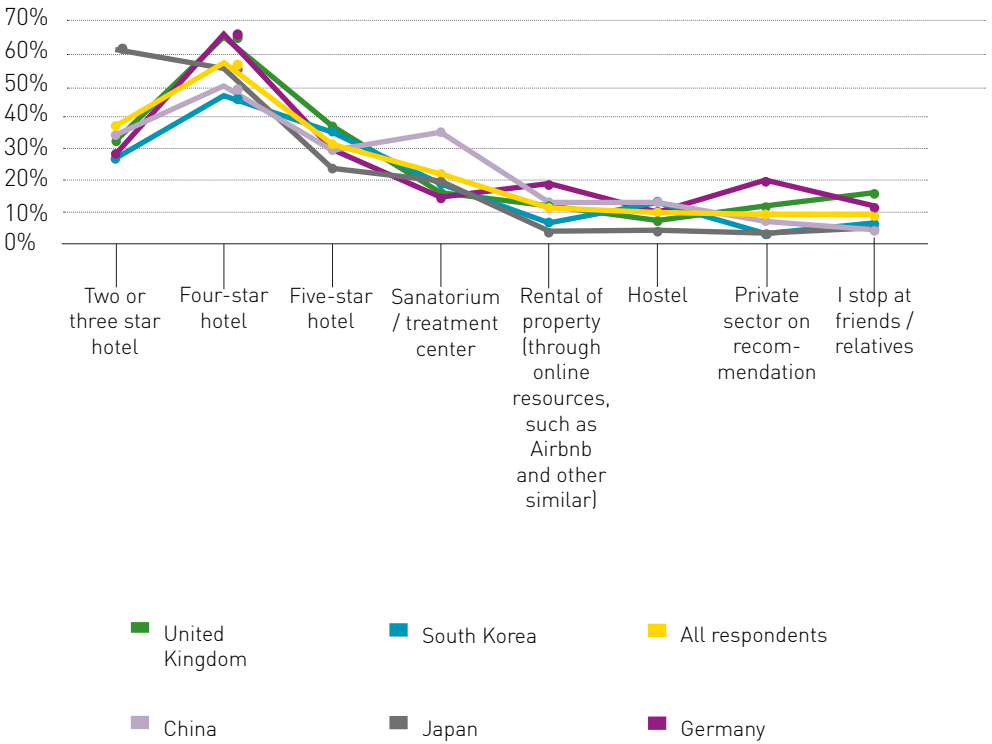


Figure 31.

Tourists preferences in types of housing Federal Agency for Tourism (July-August 2017)

The online survey was conducted by Federal Agency for Tourism in July-August 2017. The survey involved 1535 people aged 25 and over from five countries: China, Japan, South Korea, United Kingdom and Germany.Most respondents prefer individual trips to group tours and independently organize them. Booking, Expedia, Hotels.com included in the top 3 resources for finding and booking travel for respondents from all five countries. All respondents went outside the country of residence for tourism at least once in the past two years and have income, exceeding 20 thousand dollars US per person annually. More than half of all respondents (57%) choose hotels for four-star hotels.

CREATING A PLATFORM?
Create a platform is not advisable.
Even if it is local in the size of one block, it's still a big question

Figure 32.

The total number of hotels in 14 Russian cities in Booking exceeds their number in Russian services by 2.6 times

Experts believe that the analogues of the Booking are losing the original for all indicators and Russian hostels do not make sense to register in domestic services, and tourists - to use analogs when there is an original.

The average congestion through Booking.com in the regions is 70-80%. But still Russian tourists - the vast majority. In turn, Airbnb - a system that is basically sharpened for the delivery of apartments. The percentage of sales in hostels through this system is insignificant - up to 3%. Against this background, there is no sense in domestic systems.

In general, services other than Booking, including Russian ones, account for about 10% of the market. But the problems are not in the success of Booking, but in the relative inconsistency of other services.

The principle of operation of most online booking systems is very simple. Hotels in them register, making all their data, and usually pay only a commission, if they have booked a room through this service. The system itself monitors availability, and the price is set by the account owner.

For tourists looking for where to stay, the site will give out all available accommodation options in the desired city, from which he chooses the suitable one and book it.

The Russian Ostrovok service operates according to the same scheme as the rest. If the payment for renting a room goes through the service, then a commission is charged from the hostels, and when the guest prefers to pay upon the fact of settling in cash, the hostel must pay the service himself.

Figure 33.
Union

This variant of the proporsal suggests separate areas are integrated to maximize income and productivity. Institutions are combined taking into account similar or complementary functions, for example, work time: one function works in the afternoon, the other in the evening. Cafes and bars adjust the work time for attendance, special in peak time.

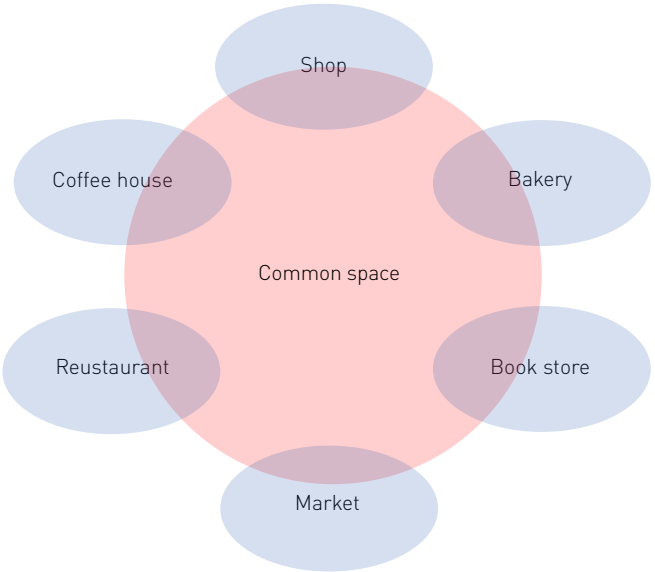


Figure 34.
Common space

In the second purpose, the services are distributed around the common space that belongs to the tenants of the residential block. In periods of time with a large number of visitors, a store or bar can occupy one public unit of the area or several. This can be done in the form of an application in which the business and tenants of the house can rent public space.

Also, if we consider tourists and visitors of the block as additional consumers - the burden on the block.

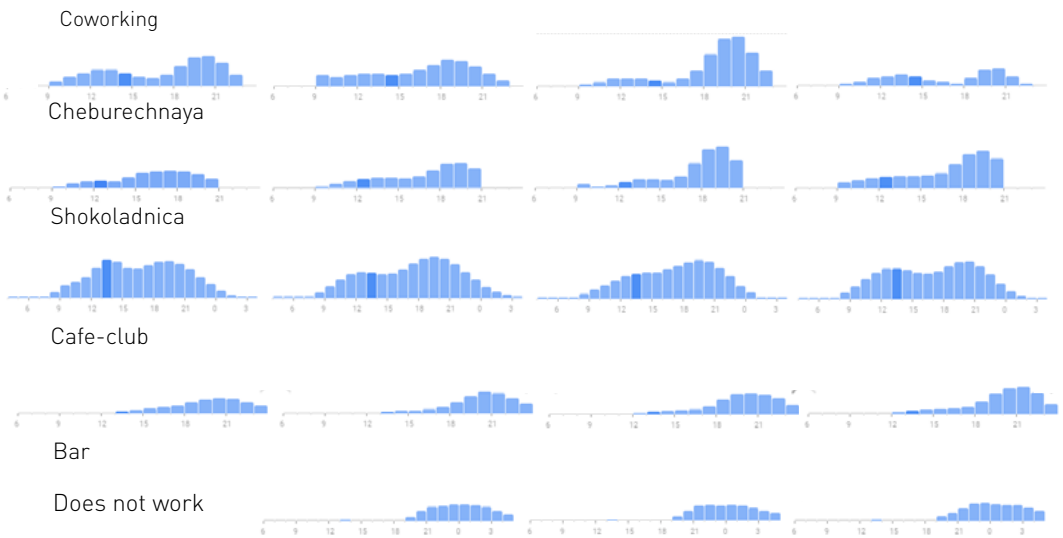
Symbiosis: cooperation to increase profits, cafe and bakery - an example of successful coexistence. Quantitative description of the similarity of institutions. Properties: spatial proximity, temporal proximity, proximity of the audience, order of decreasing co-occurrence frequencies.

Government: Cafes
Financial services
Services
Retail trade
Food

Retail trade: Cafes
Food
Services
Financial services
Government

TEMPORAL PROXIMITY

Attendance of different types of services on the days of the week

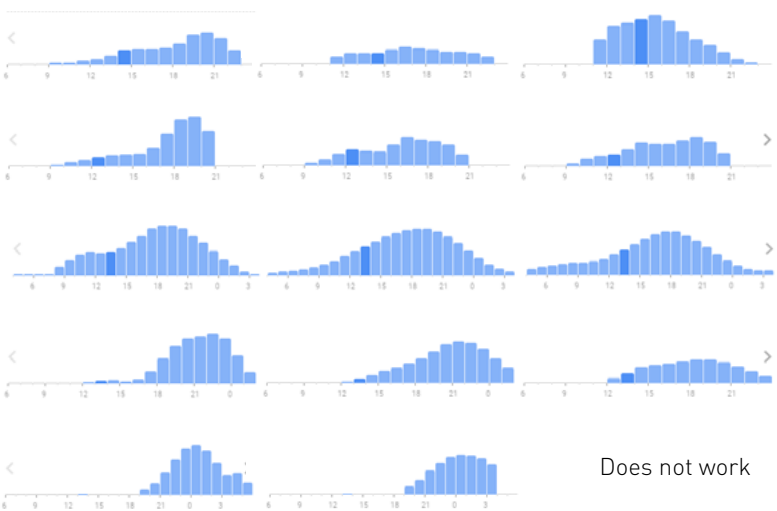


Cafes: Retail trade
Government
Food
Services
Financial servies

Services: Cafes
Government
Retail trade
Food
Financial services

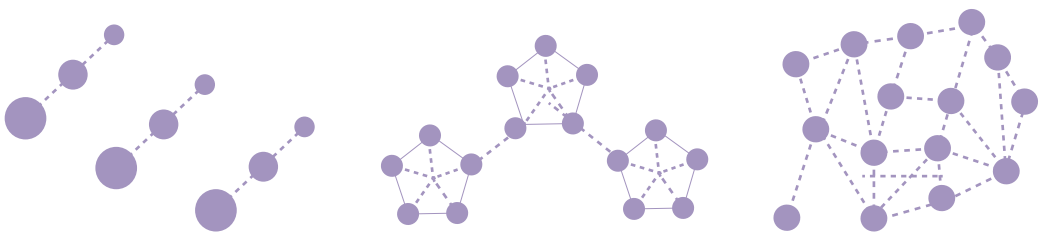
Food: Cafes
Services
Financial services
Government

Financial services: Government
Cafe
Services
Retail trade
Food



Does not work

SOCIAL COWORKING



YESTERDAY:
HIERARCHY

TODAY:
TEAMS

TOMORROW:
NETWORKS

Figure 35.

NEW WAYS OF WORKING/
PEOPLE AND CHANGE

Coworking spaces (CWS) in different forms emerged in urban contexts to challenge meaning of the workplace definition and the location of creative work, it shows the way in which creative workers interact with and relate to each other as well as with space and to place. CWS is a solution of creating working patterns within the creative industries and considered as chosen alternatives to home working or to semi-public "Third Spaces" such as cafés or libraries, particularly for young entrepreneurs and independent creative professionals. As Spinuzzi asserts, for these so called boundary less workers the irony is that; "the freedom to work anywhere often means isolation, inability to build trust and relationships with others, and sharply restricted opportunities for collaboration and networking." As "a collective, community-based approach to the organisation of cultural and creative work", coworking has engendered "high expectations concerning the improvement of the socio-economic conditions of workers". CWS are both imagined and presented as spaces of opportune encounter, open knowledge sharing and spontaneous collaboration.

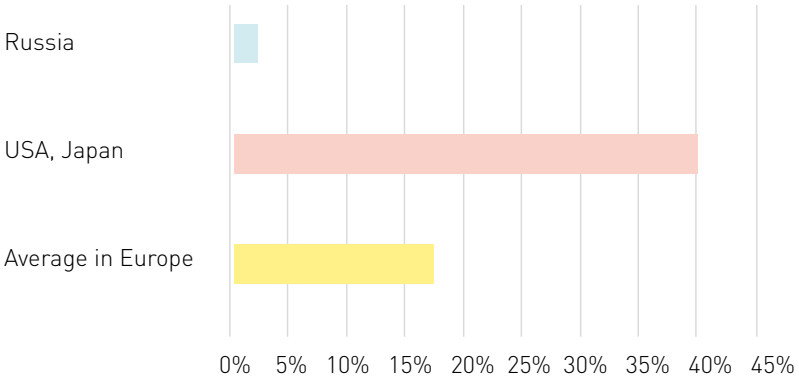


Figure 36.

Increment in quantity of co-working places in Moscow

As follows from the section of the ILO and the European Fund for improving living and working conditions, the number of employees working remotely outside the employer's office continues to grow. In Europe countries, their share in the labor market is 17% and in almost all countries, including Japan and the United States, almost 40% of all workers (see graph above). In most cases, employees working remotely, take the position of managers or specialists and at the same time meet the criteria of self-employed.
Calculate the number of remote workers in Russia because of the complexity of their accounting is not yet possible. At the same time, a number of data are provided by studies of freelancers. So, according to the Higher School of Economics, while their share of the total number of employees in the Russian labor market is no more than 2% (up to 1.5 million people). According to census data, for about 80% of all freelancers, the income from such work does not determine their social status: they are, in fact, "part-timers": university students, private entrepreneurs, housewives, genuine part-time employees, that is, staff members of organizations that earn freelance work.

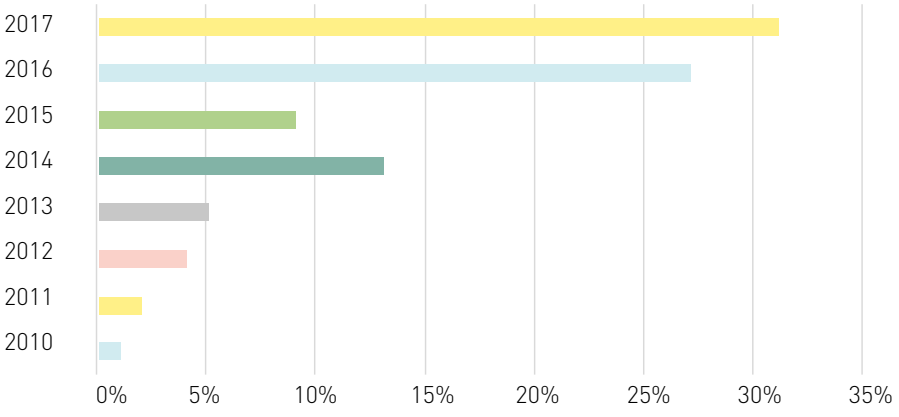


Figure 37.

Increment in quantity of co-working places in Moscow

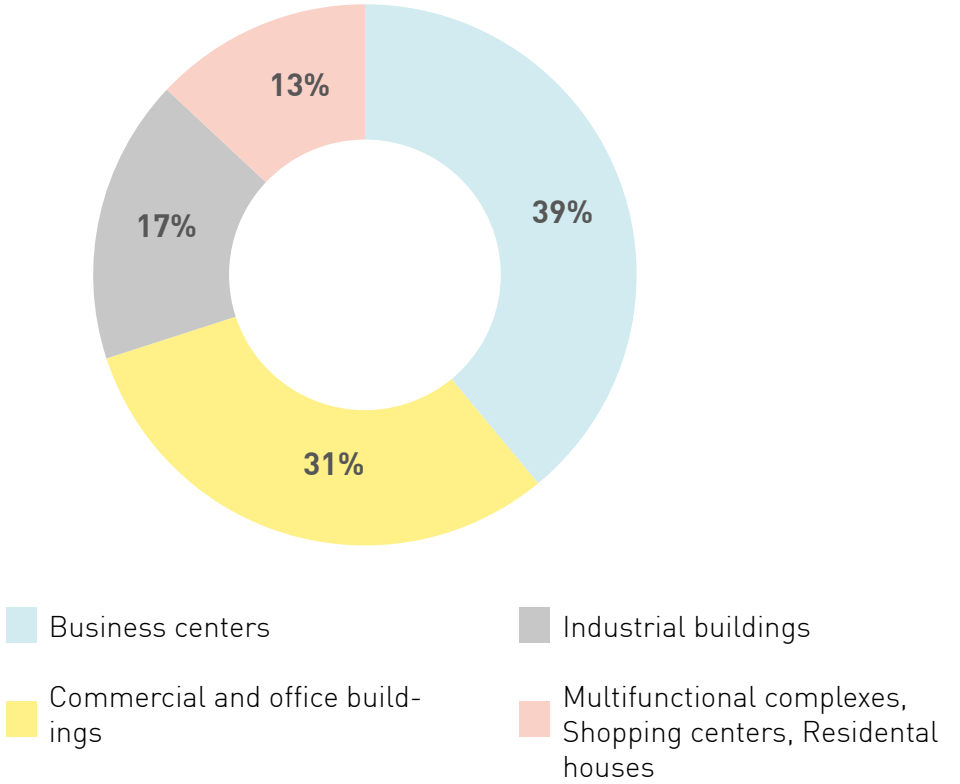


Figure 38.

LOCATION OF COWORKING SPACES IN MOSCOW

REVIEW OF COWORKING SPACES OF THE 1ST QUARTER OF 2018 BASED ON ANALYTICS OF THE COMMERCIAL REAL ESTATE MARKET IN MOSCOW

Total amount of coworking places/ total square	**135/ 73 800 sq.m**
Classic coworkings	98/ 64 250 sq.m
Specialized* coworkings	37/ 9 550 sq.m
Opened in the 1st quarter of 2018	**8**
Dynamics of quantity of growth comparing with 4th quarter of 2018	**70% ↑**
Amount of working places	**10 770**
Classic coworkings	9 530
Specialized* coworkings	1 240

*Specialized - studious of various directions (41%), objects in the IT and innovation field (19%) and sewing covorking (16%). There are objects in the field of art, architecture, design, education.

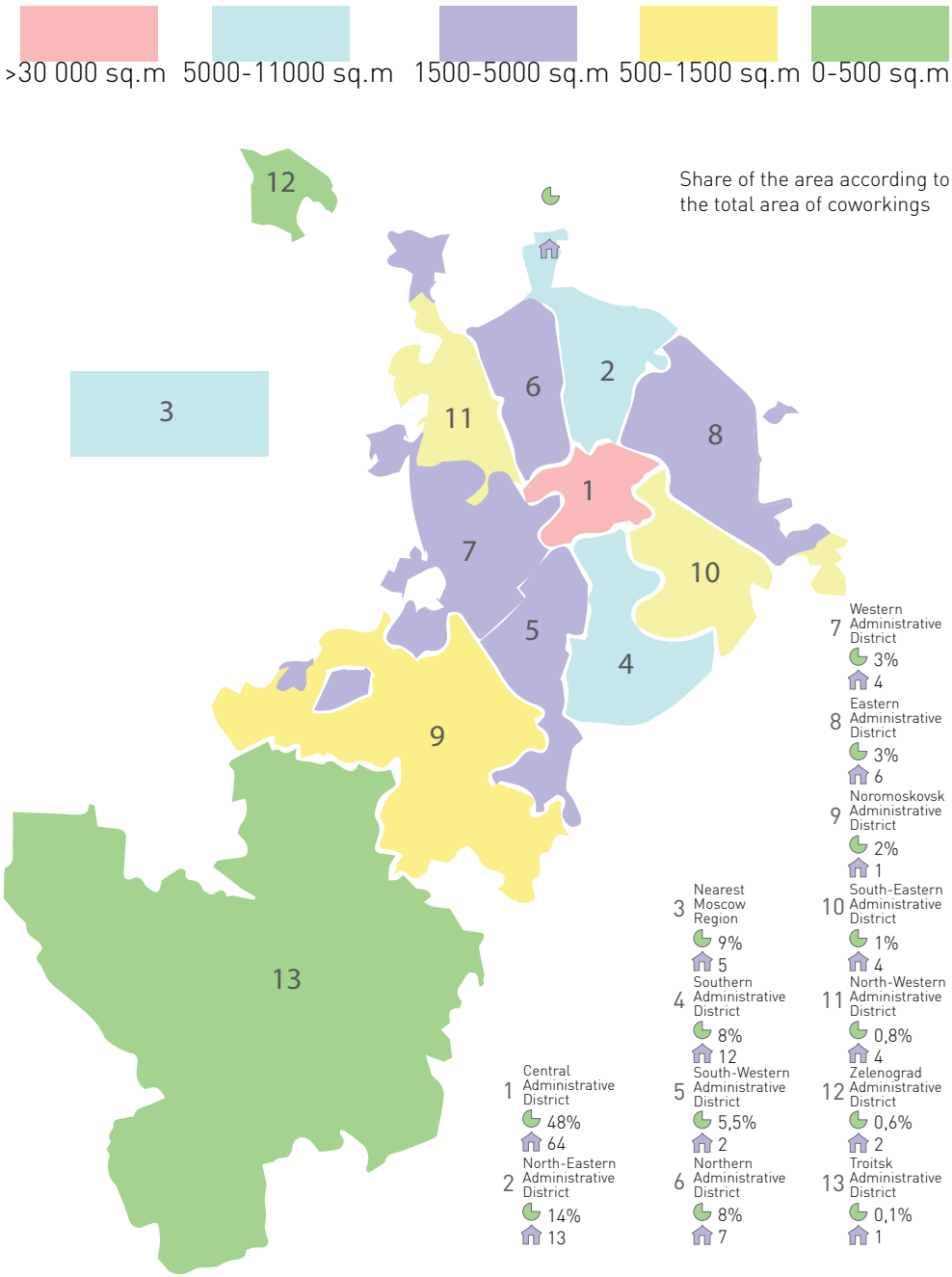


Figure 39.

RATIO OF AREA TO NUMBERS OF COWORKING SPACES

COMFORT LOOCATION

ROUND-THE-CLOCK ACCESS

SPACE ORGANIZATION FOR INDIVIDUAL AND GROUP WORK

HR SERVICE

REGISTRATION OF LEGAL ENTITY

LEGAL SUPPORT

COURIER SERVICE

TECHNICAL EQUIPMENT

CONFERENCE HALL AND LECTURE HALL

KID'S ZONE

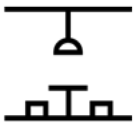
BREAK ROOM

KITCHEN

GYM

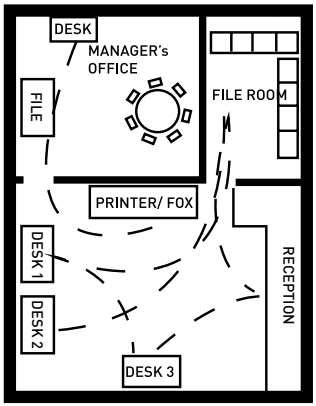
PARKING

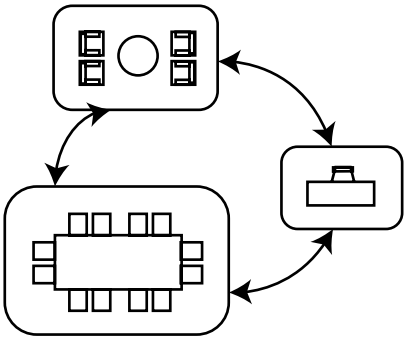
WI-FI ACCESS



COMFORT INTERIOR

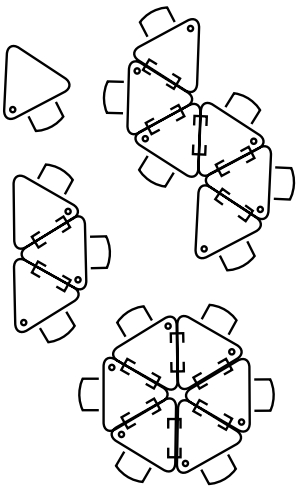
1. SHARED SPACE TO INTERACT. At its most basic level, a coworking space provides somewhere else, outside of the home, where serendipitous interactions can occur. But these interactions don't always happen in open flexible coworking space or event space—just as many introductions and chance meetings happen in kitchens and stairwells. Designing these less-obvious elements of shared space is key to enhancing these social collisions: thoughtful design encourages utilization. For example, including branded messaging as elements of interior design invites users to pause there because they know that the space has been purposefully considered as an occupied place—not simply a thoroughfare.



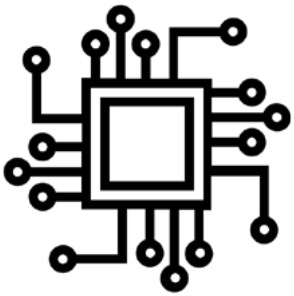


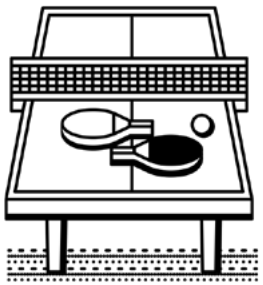
2. PRIVATE SPACE TO FOCUS. The "Yin" to the shared space "Yang" is private workspace—a must-have for balancing an otherwise stimulating environment. At 25N Geneva, two open flex spaces with traditional office furniture are balanced by seating areas that include sofas and/or non-traditional surfaces and lighting that are suited for diverse work preferences. "With the two floors of space, we created a variety of work zones, nooks and crannies," explains Mara Hauser (Founder and CEO). "Depending on the project or task at hand, one can be in the mix of the buzz or tucked away for heads-down work."

3. CUSTOMIZED MEETING EXPERIENCES. When the serendipity has worked its magic, or an idea has been ignited, coworkers need space to close the deal or execute the project. Here's where a good-old-fashioned meeting room comes in—with a twist. We've established that a diverse community calls for diverse workspaces, and the same goes for the spaces in which planned sessions occur. Successful meeting room design depends on providing a variety of options that cater to different objectives. For example, 25N's Ideation Vault includes modular desks that allow custom configurations: perfect for workshop sessions that balance presentations with group work and collaboration. For meetings that require intimate discussions and a stellar first impression, 25N provides its conspicuous Third Street Meeting Room, which boasts eye-catching, comfortable furniture and an impressive wall of windows.



4. SERIOUS FLOW. Coworking spaces also owe their coworkers easy, intuitive wayfinding—that is, it should be easy for coworkers to move from zone to zone, private to shared space, with minimal interruption and minimal frustration. This can be as simple as clean paths through furnished areas or target lighting to highlight social spaces. And this doesn't only apply to interiors; exterior signage and cues that funnel traffic to the entrance are crucial to efficient time management and positive first impressions on both prospective new members and, more importantly, the constant influx of clients of current members who visit a coworking space to meet.
Successful meeting room design depends on providing a variety of options that cater to different objectives.

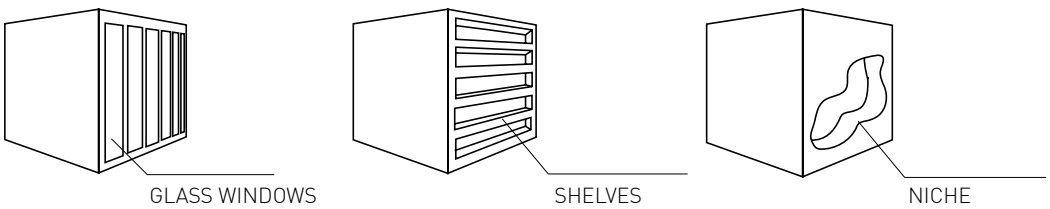




5. WELCOME INTERRUPTIONS. Coworking spaces can also leverage opportunities to interrupt the "flow" of a space. Much like a rest area on an interstate, interruptions in flow don't interfere with the overall circulation, but provide opportunities for coworkers to "pull over" and develop productive conversations with potential collaborators. For example, designers noticed that coworkers at 25N Geneva seemed to congregate around the corners of built-in counters in Geneva's café/hub space, so 25N's second location, Arlington Heights, includes an oversized island with extra corners to maximize the effect.

6. IINTERIOR. Interior solution should help to avoid the most common psychological problem-deprivation (sleep disorders, depression, hypertension, sudden mood changes or immersion in apathetic impotence) that occurs because of monotonous lifestyle-every day is similar to previous. Human brain needs to analyze changes in the environment, processing information that smells, colors and sounds carry. As a result the olfactory system stops to fix the usual smells, visual, auditory, tactile and emotional systems suffer from a lack of external stimuli. So interior should create diversity of changing visual, smells, audio, tactile feelings.

TYPOLOGY OF INNER
CONFERENCE STANDARD BLOCK



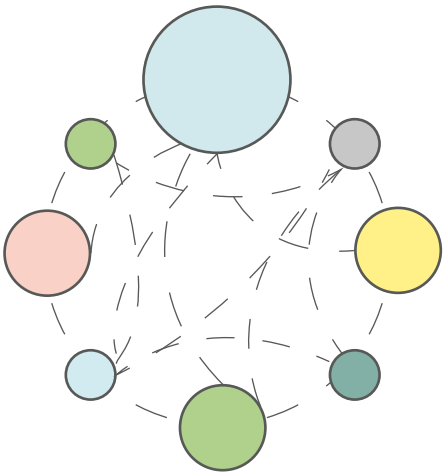
PHYSICAL NEEDS 	SPACE LIGHT VIEW VENTILATION TEMPERATURE ACOUSTICS FURNITURE EQUIPMENT ERGONOMIC COMFORT
SOLO ACTIVITIES 	SELLING DEALING RESEARCHING WRITING DRAWING TELEPHONING THINKING READING COMPUTING
GROUP ACTIVITIES 	MENTORING COUNSELLING MONITORING INTERVIEWING MEETING TEAM WORKING BRAIN STORMING INFORMING BRIEFING CONFERENCING
GENERAL ACTIVITIES 	MAILING CIRCULATING PAPER PROCESSING GETTING SUPPLIES PERSONAL CARE COFFEE-MAKING BROWN-BAGGING WORKING LAUNCHES
SOCIALIZING 	EATING ENTERTAINING CHATTING SMOKING EXERCIZING
PSYCHOLOGICAL NEEDS 	INTERACTION PROXIMITY STIMULATION PEACE PRIVACY CONFIDENTIALITY SECURITY TERRITORIALITY STATUS IMAGE

Dividing spaces needed by an organization into:

- **Primary:** the principal workspaces
- **Circulation:** spaces to do with movement around the office
- **Support / Service:** spaces containing functions to do with operation and maintenance of the building or containing functions that support the work of whole organization
- **Social:** spaces containing functions to do with non-work activitios of the occupants

SQUARE

- Primary: 238 sq.m per 1000 person
  17 people from the calculation of adults and students in the block
  and comparing with statistics of nowadays freelancer market - 2%
  14 sq.m per person * 17= 238 sq.m
- Support/ Service: 1/3 from total amount of Primary
- Social: 1/3 from total amount of Primary



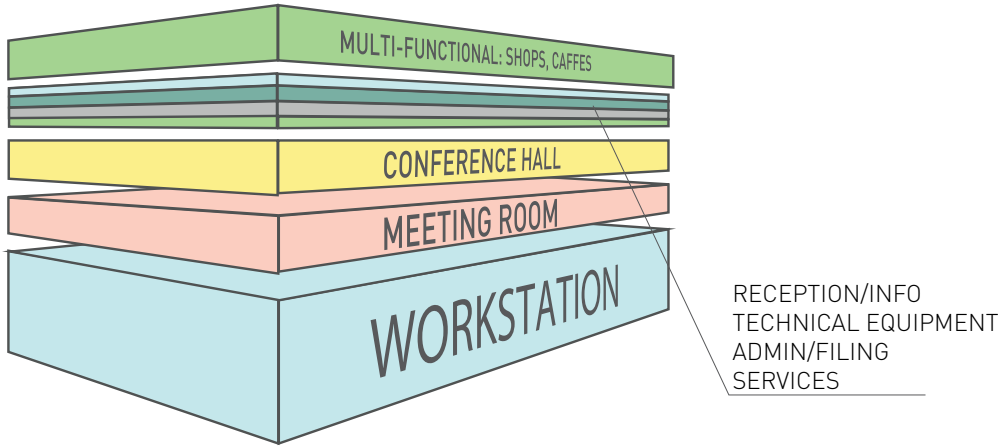
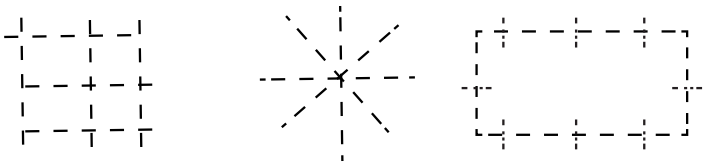


Figure 40.

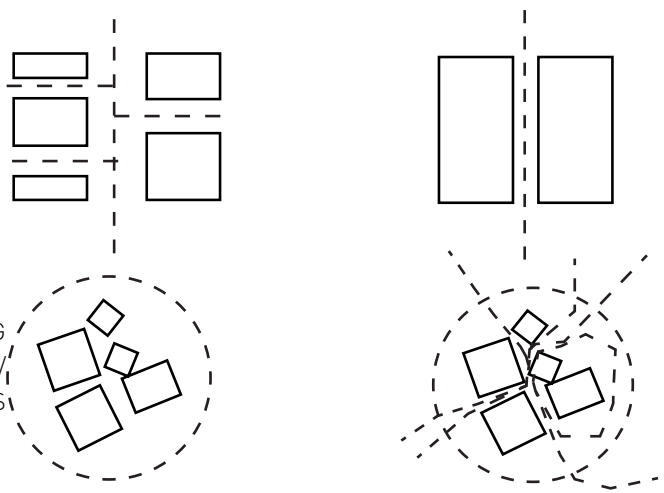
Functional zones and interaction between each other

OVERALL COMMUNICATION



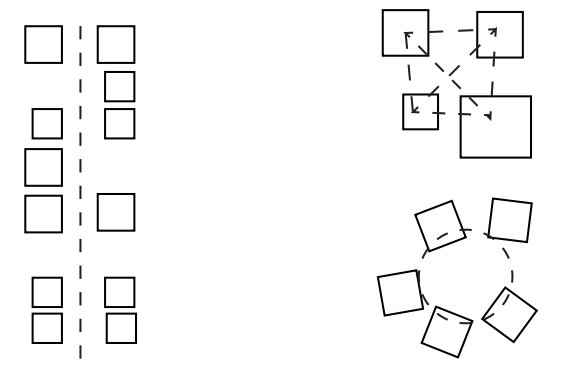
GRID STAR RING

POZITIONING WORKSTATIONS/ WORKBLOCKS



LINEAR FORM OUTLINE FORM

FORM OF INTERACTION WORKPLACE



LINEAR FORM CENTRALIIZE FORM

"The future of co-working will include building trusted community of like-minded peers, partners, and supporters to exchange thoughts and collaborate on projects within creative spaces designed to accelerate learning. Co-working spaces will introduce great thought leaders, connect entrepreneurs with new collaborators, all in service of creating solutions-focused businesses and building a better world we know is possible."

Kristin Hull,
Co-founder of Impact Hub Oakland & CEO of Nia Community Investments.

"Coworking spaces will continue to increase in popularity not only because of economic and technological reasons but also due to innate sociological and psychological factors. While modern workers increasingly will be drawn to the flexibility of a free agent workstyle, many will find themselves anxious or de-energized by the prospect of spending hours in isolation at a home office. Many people are hardwired with a drive to interact with others. For these natural extroverts, coworking spaces will offer an outlet for social connection among peers. Recognizing this benefit, the most successful coworking spaces will offer common areas that allow tenants to interact intermittently throughout the workday as a form of connection, solidarity, and rejuvenation. Advances in technology and workplace trends will always run up against our immutable human nature."

Matt Poepsel,
VP of Product Management at The Predictive Index

"Traditional workspaces haven't changed for decades, but rather underwent a minor disruption with the proliferation of co-working spaces. Employees nowadays want freedom and flexibility. 10 years from now, the flexibility that co-working spaces offer today might become the new norm for office leases. With over 7000 providers and a handful global players, we'll see consolidation and specialization in niche markets, such as spaces for biotech with labs-as-a-service.As the focus on core continues, businesses will opt to outsource workplaces as-a-service. Co-working providers will compete to provide a work culture that is comfortable, functional, social, and embraces people's lifestyles. Enterprises will drive this trend, favoring results over physical presence and face-time. They will leverage co-working spaces and technology to set up and dynamically scale branches wherever talent can be found."

Dan Zakai,
CEO of Mindspace

SOCIAL SHARING

SOCIAL SHARING

With emergence of Internet, technology is connecting individuals to information, people, and physical things in very efficient and intelligent ways. The phenomenon of the sharing economy emerges within the frame of the technological advancements that have simplified sharing of both physical and non-physical goods and services through the availability of various information systems on the Internet. Technology is changing how we consume, socialize, mobilize and ultimately how we live and function together as a society. Thus, social sharing will be studied through the lens of information technology.

In past several years the term 'shared economy' and other associated terms such as 'peer to peer economy' and 'collaborative consumption' gained popularity and become a popular buzz word in public media. Those terms are closely associated with the concept of as peer to peer sharing of access to underutilised goods and services, which prioritizes utilization and accessibility over ownership (Schor and Fitzmaurice, 2015).

Codagnone et al. (2016) mentioned that the term sharing economy is often used to indicate a wide range of digital commercial or non-profit platforms that facilitate and make efficient exchanges amongst a variety of players through a variety of interaction modalities such as P2P, P2B, B2P, B2B, G2G. These platforms enable consumption or productive activities by leveraging capital assets (money, real estate property, equipment, cars) goods, skills, or time.

In 2010, Botsman and Rogers published the first book about the sharing economy: What's Mine Is Yours—the rise of collaborative consumption, providing a general definition of: traditional sharing, bartering, lending, trading, renting, gifting and swapping redefined through technologies and peer communities. In their book, authors three different forms of the sharing economy: 1. Collaborative consumption, 2. Collaborative economy and 3. Sharing economy (Botsman and Rogers, 2010). Collaborative consumption is defined as a economic model that is based on sharing, swapping, trading, or renting products and services, enabling access over ownership. Botsman and Rogers suggest that collaborative consumption is reinventing what we consume and how we consume. Collaborative consumption has three distinct systems: redistribution markets, collaborative lifestyle, product service systems. Botsman and Rogers went on defining collaborative economy as an economy which is built on distributed networks of connected individuals and communities versus centralised institutions, transforming how we can produce, consume, finance, and learn. Collaborative economy has four main components: production, consumption, finance and education. Sharing economy is defined by Botsman and Rogers as an economic model which is based on sharing underutilised assets, from spaces to skills to items for monetary or non-monetary benefits. Shared economy is currently talked about mainly in relation to P2P marketplaces. P2P processes create use-value through the free cooperation of producers who have access to distributed capital: they produce use-value not for the market, but for a community of users that governs these processes making use-value accessible on a universal basis.

In the study conducted by Hamari et al., they suggested two motivations that make people participate in collaborative consumption: intrinsic and extrinsic motivations.

In their work they defined the term collaborative consumption as the peer-to-peer-based activity of obtaining, giving, or sharing access to goods and services, coordinated through community-based online services. By investigating 254 different CC platforms, Hamari et al. categorized them based on the mode of exchange: sharing, new purchase, second-hand purchase, renting, donating, swapping, and lending or borrowing. Further, they separated all the platforms into two key modes of exchange: access over ownership and transfer of ownership.

Access over ownership - platforms that users may offer and share their goods and services to other users for a limited time through peer-to-peer sharing activities - was found to be a popular mode of exchange. According to authors, the most common is a renting, such as Airbnb, RentTheRunway and many more.

Alternatively, the transfer of ownership passes ownership from one user to another through swapping, donating, and purchasing of primarily second-hand goods. It was found that swapping and donating are more preferred as compared to purchasing of pre-used goods.

Despite the fact that CC operates through technological platforms, such as a website or mobile app, Hamari et al. suggest that CC heavily relies on social dynamics such as enjoyment and self-marketing of a community. In addition, they suggest that socioeconomical aspects should be taken in account along with technological aspects of CC because socioeconomical aspects manifest varying degrees of digital and physical exchange.

Shared economy also known as collaborative consumption or collaborative economy or peer economy. It refers to a hybrid market model of a peer-to-peer exchange with transactions that are often facilitated via community-based online services.

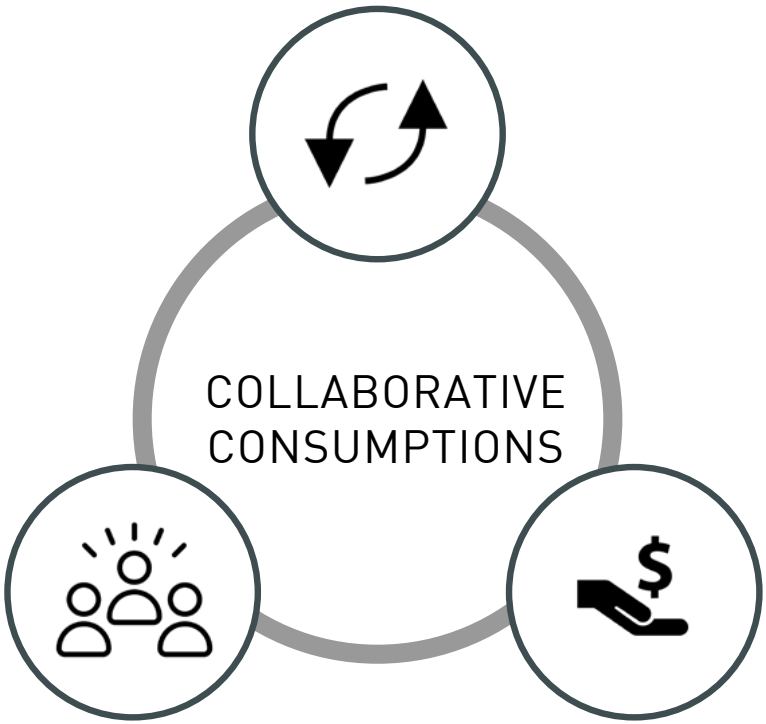
Collaborative consumption is an economic model based on sharing, swapping, trading, or renting products and services, enabling access over ownership. It is reinventing not just what we consume but how we consume.

Idling capacity refers to underutilised value - time over which products, services and talents lay idle. The most common example is that the average car is unused 90% of the time. This wasted value can be a resource, and hence an opportunity, for sharing economy car solutions.

Peer-to-peer marketplace is an e-commerce site where product or service information is provided by multiple third parties. The transactions are usually processed by the marketplace operator and the delivery is provided by the participation retailer. P2P type of sites allow users to register and sell single items to a large number of items for a "post-selling" fee.
Blockchain is an open, distributed ledger that can record transactions between two parties efficiently and in a verifiable and permanent way (Iansiti, Marco; Lakhani, Karim R., 2017). Blockchain is managed by a peer-to-peer network collectively adhering to a protocol for inter-node communication and validating new blocks. Ethereum is an example of a distributed public blockchain network. It focuses on running the programming code of any decentralized application. Miners work to earn Ether - a token allows to network to function - which later can be exchanged or traded. Smart contract is unique feature of Ethereum that facilitate the exchange of money, content, property, shares, or anything of value. It is a computer program/code that is automatically executed when specific conditions are met.

Hyper-local is a term that is used to refer to the information oriented around a well-defined community with its primary focus directed toward the concerns of the population in that community. It is an emergent ecology of data, publication mechanism and user interactions, and behaviours which centre on a resident of a location and the business of being a resident.

REDISTRIBUTION MARKET



COLLABORATIVE LIFESTYLE

PRODUCT SERVICE SYSTEMS

Botsman and Rogers (2010) have identified three resource circulation systems within collaborative consumption.

1. **Redistribution markets** - enables users to give away/donate/sell used or pre-owned goods. This approach is an alternative to the common 'reduce, reuse, recycle, repair' methods of dealing with waste. The popular examples of such systems are Swap.com,eBay and craigslist.

2. **Collaborative lifestyle** - enables consumers to engage in monetized exchanges through peer-to-peer systems for services or access to resources such as money or skills. The crucial component is this approach is the people with similar needs and/or interests which are banding for exchange of non-physical assets such as time, space, skills, and money. A good example of collaborative lifestyle are crowdfunding platforms.

3. **Product service systems** - enables consumers to engage in monetized exchanges through peer-to-peer-based for temporary access to goods which are shared or rented out thought peer-to-peer marketplaces. For example, BelkaCar is a car rental service that offers an alternative to owning a car. Users can access a car when and where they need them and pay for their usage by the minute.

TECHNOLOGY

accelerates and facilitates the rise of the sharing economy by enabling upscaling and enhancing economic impact.

ENVIRONMENTAL CONCERNS

many people who decide to adopt sharing practices consider their choices as being 'better for the environment'.

GLOBAL RECESSION

at times when people lose purchasing power and gain increasing awareness about purchasing decisions, stressing practicality over consumerism.

COMMUNITY

on-line connectivity and off-line sharing allow direct contact among people who live in the same area but do not interact.

According to a study by Latitude (2010), there are four main components that contributed to the emergence of shared economy. Technology played a crucial role in building large-scale sharing communities. Bartering, sharing and renting existed long before the internet that is why it is evident that new technologies has accelerated and facilitated the rise of the sharing economy.

INTRINSIC MOTIVATION

Enjoyment
Sustainability

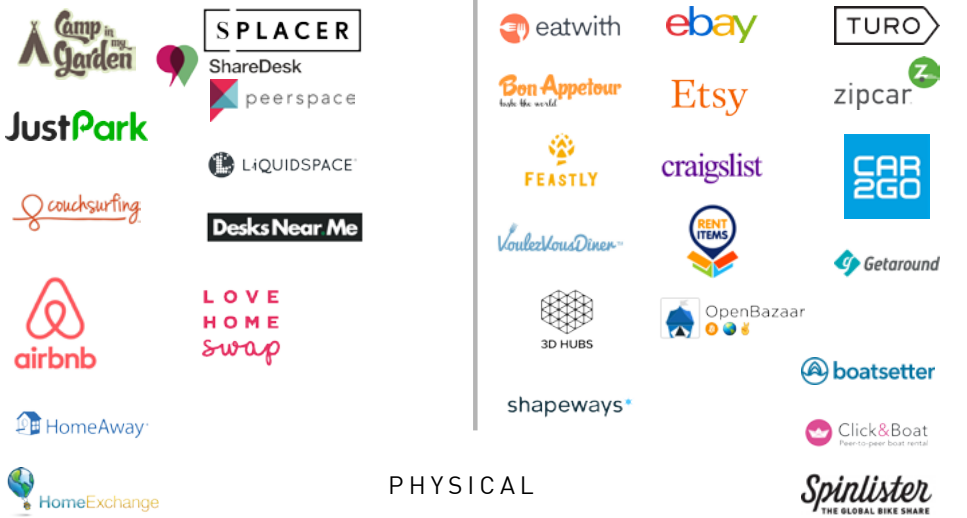
Extrinsic motivation

Reputation
Economic outcomes

In the study conducted by Hamari et al., they suggested two motivations that make people participate in collaborative consumption: intrinsic and extrinsic motivations.

PLACES

ITEMS/THINGS

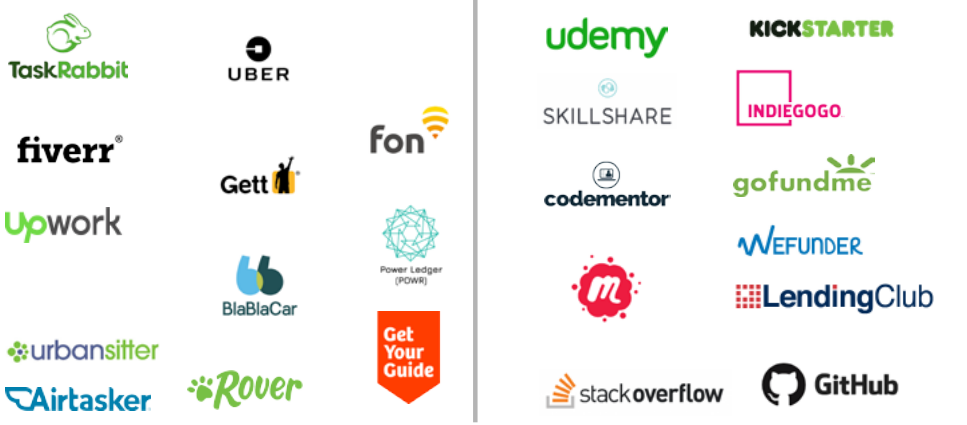


PHYSICAL

NON-PHYSICAL

SERVICES

IDEAS/CONCEPTS/
FINANCIAL SUPPORT



PLACES

ITEMS/THINGS

PHYSICAL

NON-PHYSICAL

SERVICES

IDEAS/CONCEPTS/
FINANCIAL SUPPORT

230 bn
of rubles

Sharing-services market in Russia (2017).

YouDo has 4 500 posts with 'tasks' for user daily.

Avito has 65 000 000 registered users (2017).

Yula has 22 000 000 active users monthly.

Moscow car sharing services operate 10 000 — 15 000 cars.

165 285 kg of food 'saved'/shared

30 000 registered cars

8 000 - 10 000 registered cars

12 000 - 15 000 registered cars

PapaJobs has 100 000 registered users.

Knock

Services
- online discussions
- online meetings
- items exchange
- services exchange

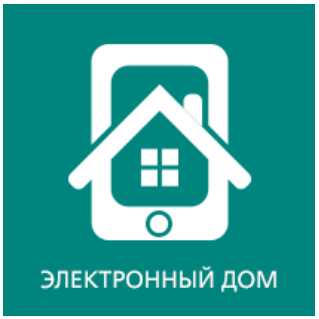
"KnockChat" is a mobile application that allows neighbors to discuss problems at block/apartment building, offer their belongings, services, and unite for events in the courtyard. KnockChat is an application to enables the creation of good-neighborly communities.

To become part of community, user registers at platform with his/her home address. User only sees the people living in the neighbourhood. In the 'Things' sections users can give away / sell / lend to their neighbours the household items such as drill, or salt. It as well allows skills exchange such as tutoring, volunteering such as offering help with block events, car pooling services or pet related services. Platforms allows the creation of shared chats to discuss different topics or just for the sake of chatter.

Nextdoor

Services
- online discussions
- online meetings
- items exchange
- services exchange

Nextdoor is a social network for neighborhoods. It is a new way to connect neighbours with each other, allow them to exchange tips, buy and sell things and more. Nextdoor users can buy and/or sell household items such as desks and bikes, users can find on-demand services such as babysitters and veterinarians, users can use platform to get together for block parties or to run together. The drawback of such platform is the requirement to reach a certain scale that will turn Nextdoor into a useful platform.



Services

- blockchain technology
- polling
- online discussions
- online meetings

Digital Home is a unique project and service that allows neighbours to collect electronic voices and communicate with each other on issues such as replacing the front door of a building or hiring a new management company.

What can the Digital Home do? First of all, it make convenient for residents to participate in 'the life of your own block/ apartment building'. Residents of the block can conduct a variety of surveys, receive information about surveys and innovations in the home through applications, e-mail or SMS. The service will save time collecting and counting votes. And most importantly - it will be possible to hold meetings of homeowners online, which greatly simplifies this process.

Digital Home is built onto the electronic platform Active Citizen which was created by the initiative of the Moscow Government in 2014 as a site for holding open polls and / or assessments of citizens in digital formate. The project allows to conduct citywide and local voting on a wide range of topics. Currently, the project has registered more than 1,980,000 users and to ensure the transparency of the project, the blockchain technology has been implemented.

Active Citizen platform rewards users with points which they can later exchange for city services such as parking hours, tickets to theatre and museums and/or city souvenirs.

	Discussion space	Goods and services	Transactions
Digital Home	●	●	●
KnockChat	●	●	●
NextDoor		●	
Proposed Platform	●	●	●

DISCUSSIONS SPACE

Discussions is an alternative to the analogue bulletin, feedback and surveys and residents gatherings for the discussion of issues and/or projects that concerns the residents of the block.

This component enables:

- community discussions
- plan events such as sport activities, birthday celebrations and on
- book common spaces
- exchange knowledge and advices

P2P MARKETPLACE

Peer to peer marketplace will leverage the blockchain technology, allowing people to rent and/or sell the goods and services such as fruits and vegetables from block-gardening, generated and stored electricity in exchange for tokens or money.

This component enables:

- generate revenue from idling household goods
- provide on-demand services

We suggest to use Ethereum blockchain that allows to build and deploy decentralized applications (Dapp) to serve particular purpose to its users. By building Decentralized Autonomous Organizations (DAO), it will be are run by programming code, on a collection of smart contracts. The code is designed to replace the rules and structure of a traditional organization, eliminating the need for people and centralized control. A platform is owned by everyone who purchases tokens, but instead of each token equating to equity shares & ownership, tokens act as contributions that give people voting rights. Key strengths of decentralised system are immutability, corruption & tamper proof, zero downtime and security.

Following the case studies, it can be suggested that there should be two main components included within block's social platform - discussion space and goods and services exchange. Discussion space is a social aspect of the platforms that allows people to socialise and have a dynamic social interactions. On the other hand, is a marketplace. The proposed block uses the hybrid energy system that is partially centralised and distributed.

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