

Development of Russian agglomerations. Some results and actual challenges for St. Petersburg metro

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METROPOLITAN MOTION

Agglomeration economics and scientific innovation. Unexpected lessons from Russian cities

Paris, 15-june-2016

In the mid of 2000s agglomeration in Russia developed as a series separate initiatives in main "growth pole" concept of regional dev-t

Basic processes that were concerned:

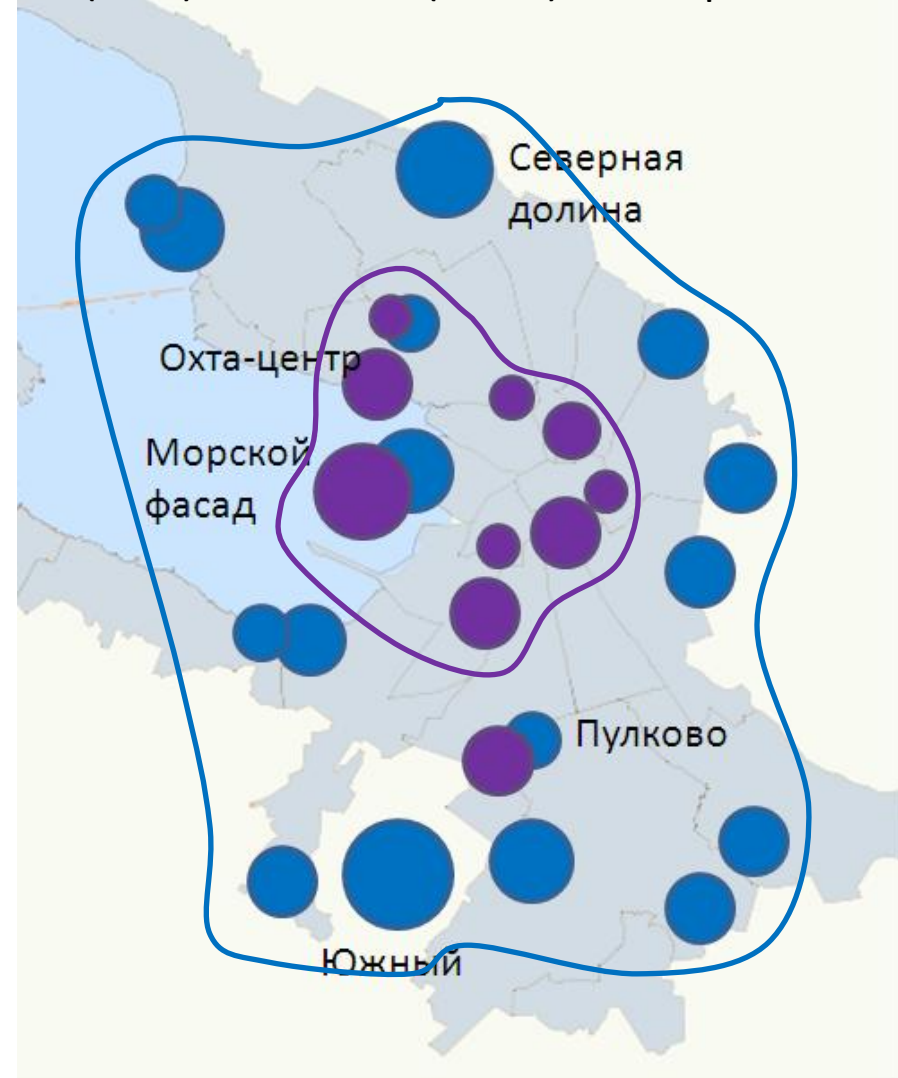
- Metropolisation, concentration of investment growth around large consumer markets
- Globalization, competition between cities for global management functions, investment
- Investment growth of economy based on consumption, personal incomes and service business
- Development of high-speed logistics and hubs

Results of agglomeration growth for St. Petersburg metro in 2000-s

In St. Petersburg, there was no single program of agglomeration development, but the city has received big benefits from the «pole-policy»:

- Single real estate labor and consumption markets, attracting investors and migrants by its size
- Large-scale residential, business and industrial zones development
- High-speed transport, ports, international airport
- Ring Road supporting extensive settlement growth

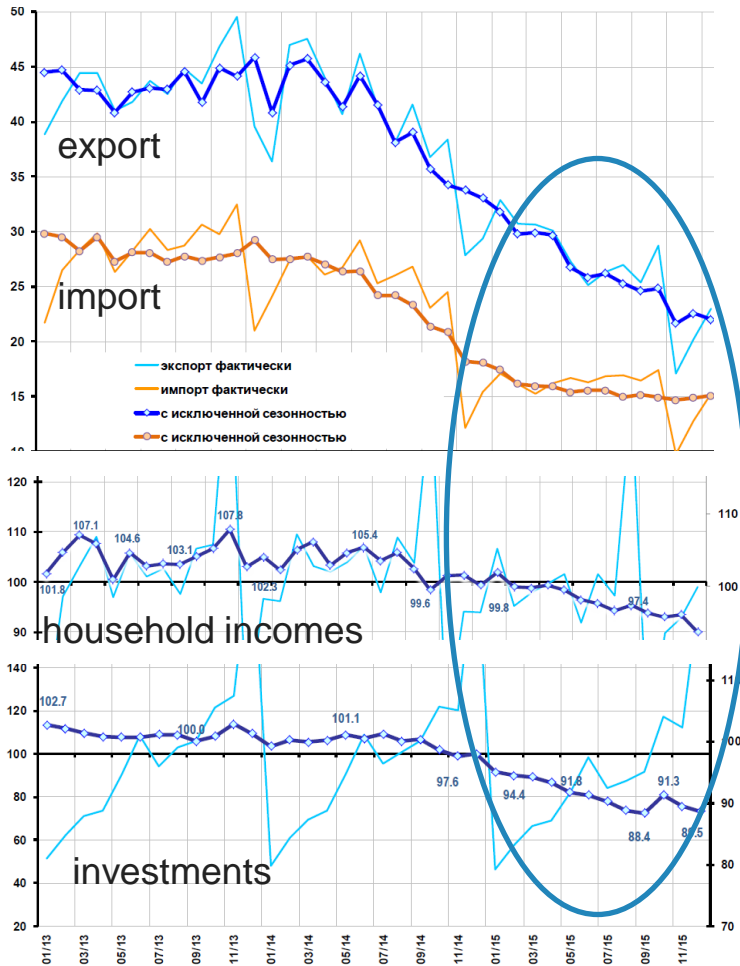
Localization of major projects of residential (blue) and office (violet) development



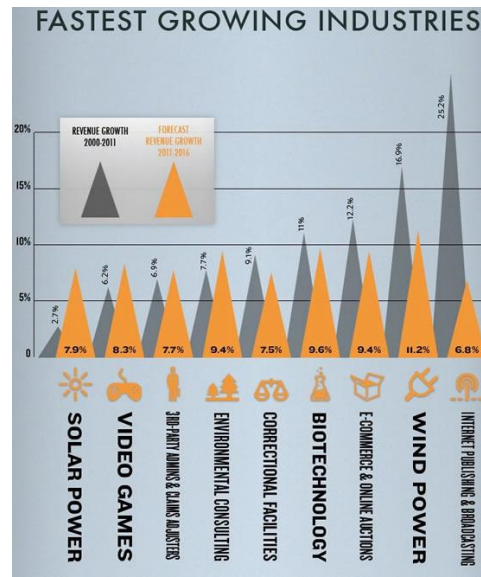
External trends that were not taken into account

- Crucial consequences of the current technological and industrial revolution, fast value chains transformations

Russian economy indicators 2013-2016



Russian economic growth is under pressure due to the oil market decline. There is no more resources for revenue growth and investments. At the same time in the world add up a new and fast growing industries on new technological and infrastructural platforms. The base of growth is digital services and innovative products.

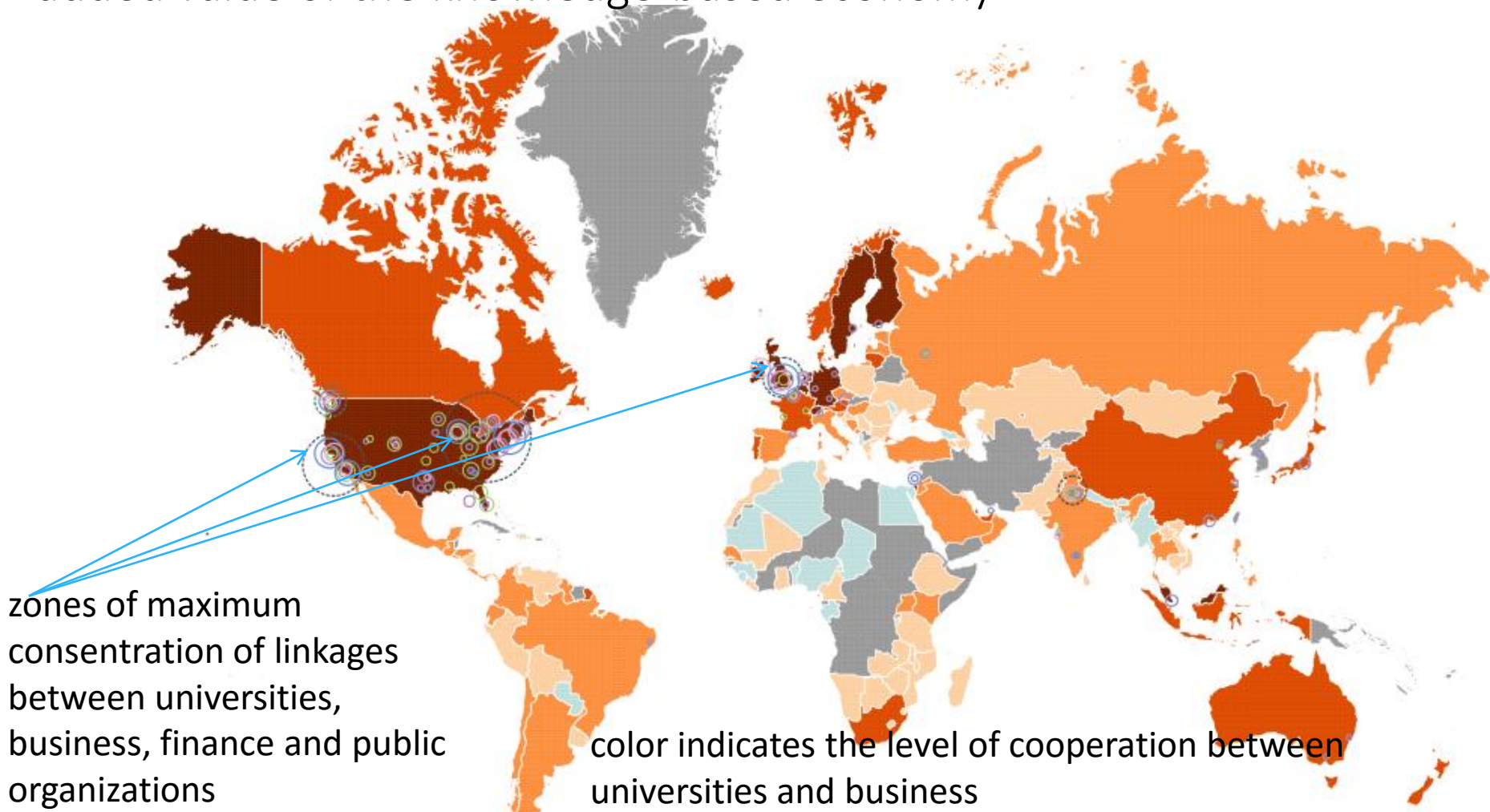


Companies included in Shasta Ventures' research



External trends that were not taken into account

- Super-concentrated development in a few mega-regions, with effective links between science, technology and innovation (STI-regions). While Consumption growth is only the effect that shows the added value of the knowledge-based economy



External trends that were not taken into account

- Social dynamics and complexity. Changing nature of urban life and culture by different micro-communities. Spatial heterogeneity of placing social structures

	«Hidden» (invisible) (1925—1946 DOB)	Baby boomers (1946—1964 DOB)	«Echo-boomers» (generation X) (1965—1981 DOB)	Millennials (generation Y) (1982—2001 DOB)
Preferred self-designation	Responsible generation	Baby boomers	«Techno» generation	Internet-generation
Predominant social pattern	Self made man	Middle class («corporate man»)	«Free agents» (creative class)	«Intellectual» (smart) class
Major social and economic transformations	«Automobile revolution», the boom in complicated household appliances	The boom in electronics and pharmaceuticals, 3rd demographic transition, global warming, the growth of women's status	Internet-boom, biotech, industrial development of Asia, the raw materials «super-boom», multiculturalism	Web 3.0 (?), PosCarbonSociety (?), Well-being —living to 100+, «unlimited mobility» demographic decline
Consumerism	Mall-culture, «consumption society», triumph of brands		Growing importance of «investing in yourself» (in personal development), smart-consumption, Do-it-Yourself-Culture	
Investment policy of corporations is targeted at certain generations (place in ratings)	3	2	2	1

Current challenges for St. Petersburg metro

- Find a new source of the complexity and diversity growth, which will provide a city development in the new cycle. Provide a special space for the new economy drivers

2010-s base
Industrial zones

Global Processing
Manufacturing



Domestic IT-
Industry



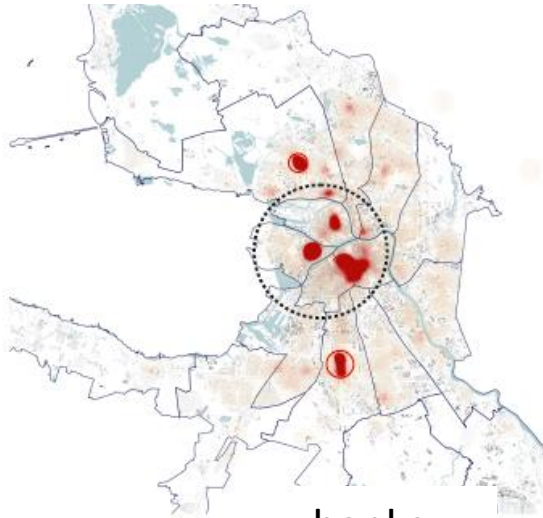
2020-s base - innovation
and tech districts

The city need attract
and rise a digital
born-global brands
and peoples as new
base of growth:

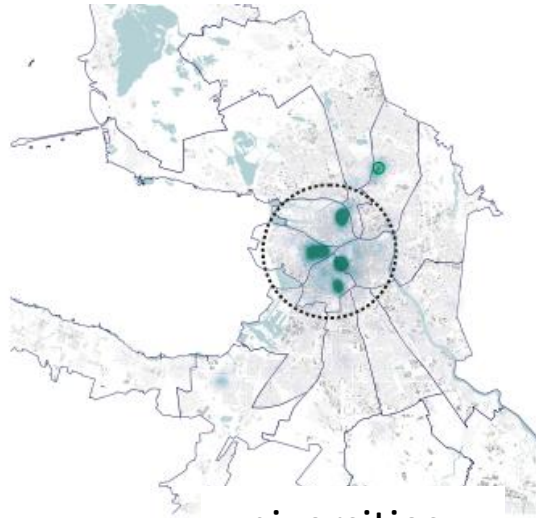
- Engineering business
- Data-driven business
- Creative and media clusters
- Science-out business
- Tech startups

Current challenges for St. Petersburg metro

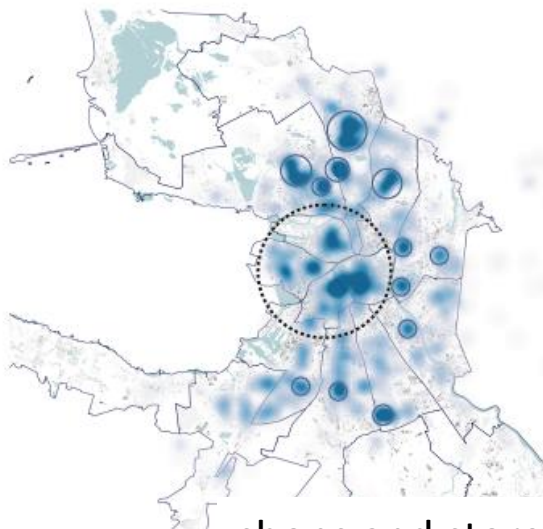
- Balance of space usage that provides effective cooperation between science, business, and community services at the local level



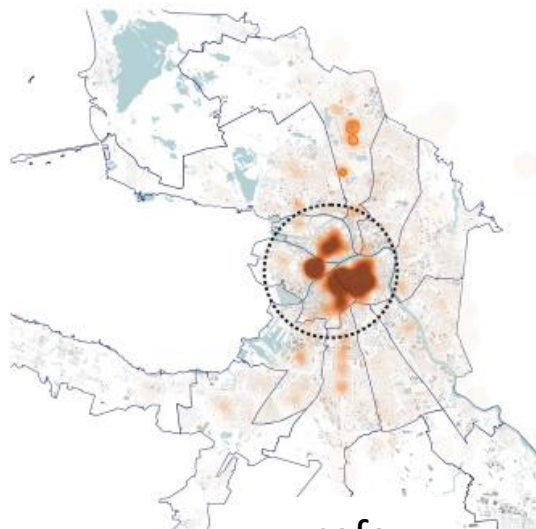
banks



universities



shops and stores



cafe

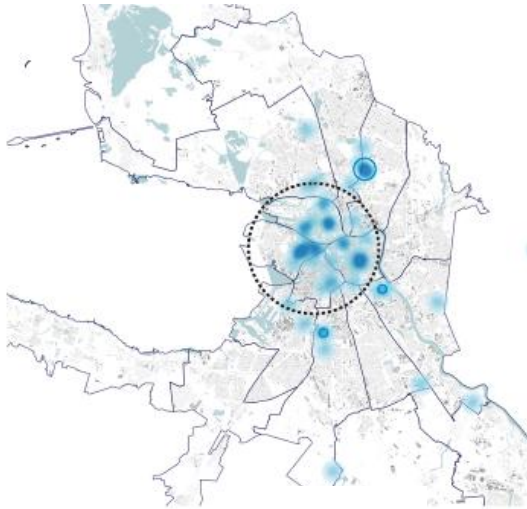
- Third places not only in the historical center

- Innovative quarters around the universities campuses

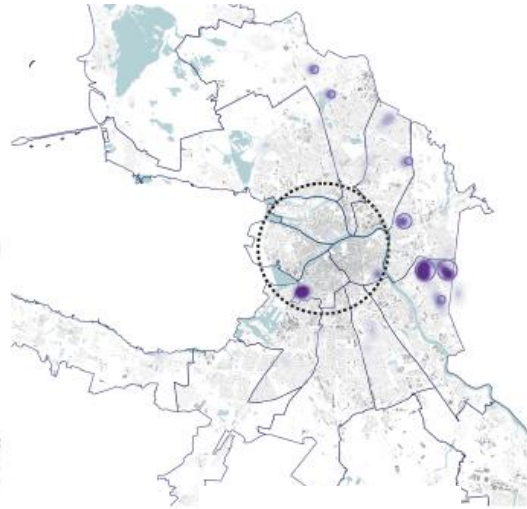
- Different social activities and free time in the outlying areas

Current challenges for St. Petersburg metro

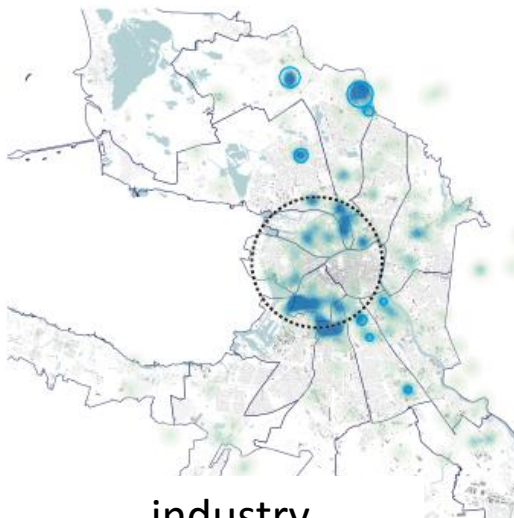
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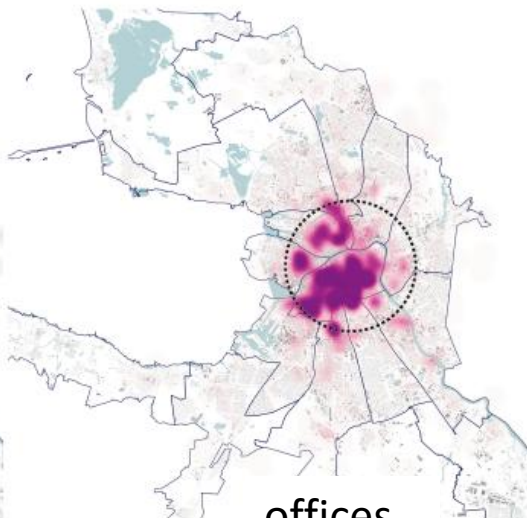
science



recreation



industry

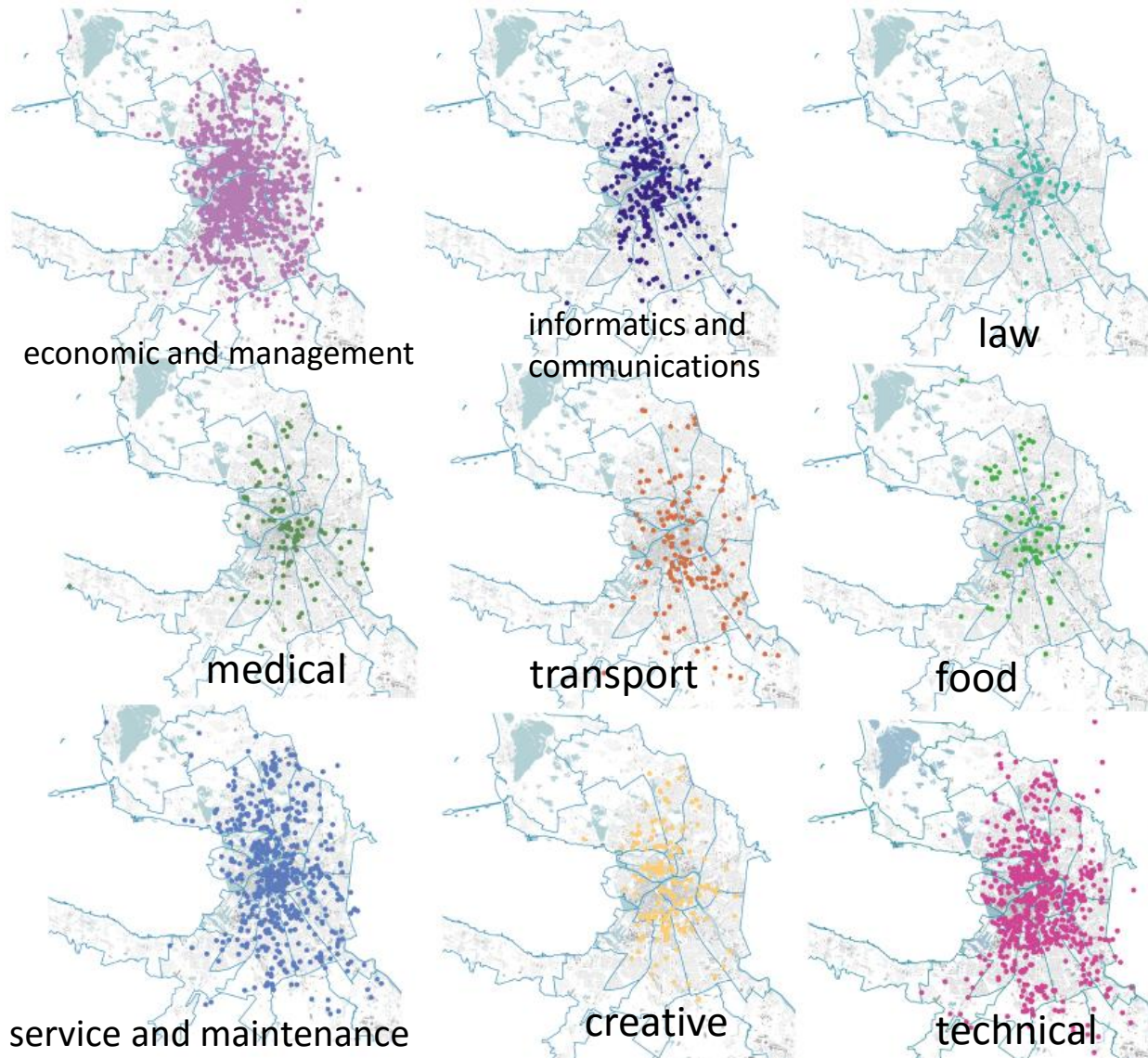


offices

- "New Urbanism" as main concept by city-planners, combined with planning regulations
- We need united equilibrium rules for districts
- ... And 24/7 access to clean nature

Current challenges for St. Petersburg metro

- Consider the territorial aspects of social dynamics and complexity



- Labor division became more and more diversified. Each requires special conditions of space, new standards

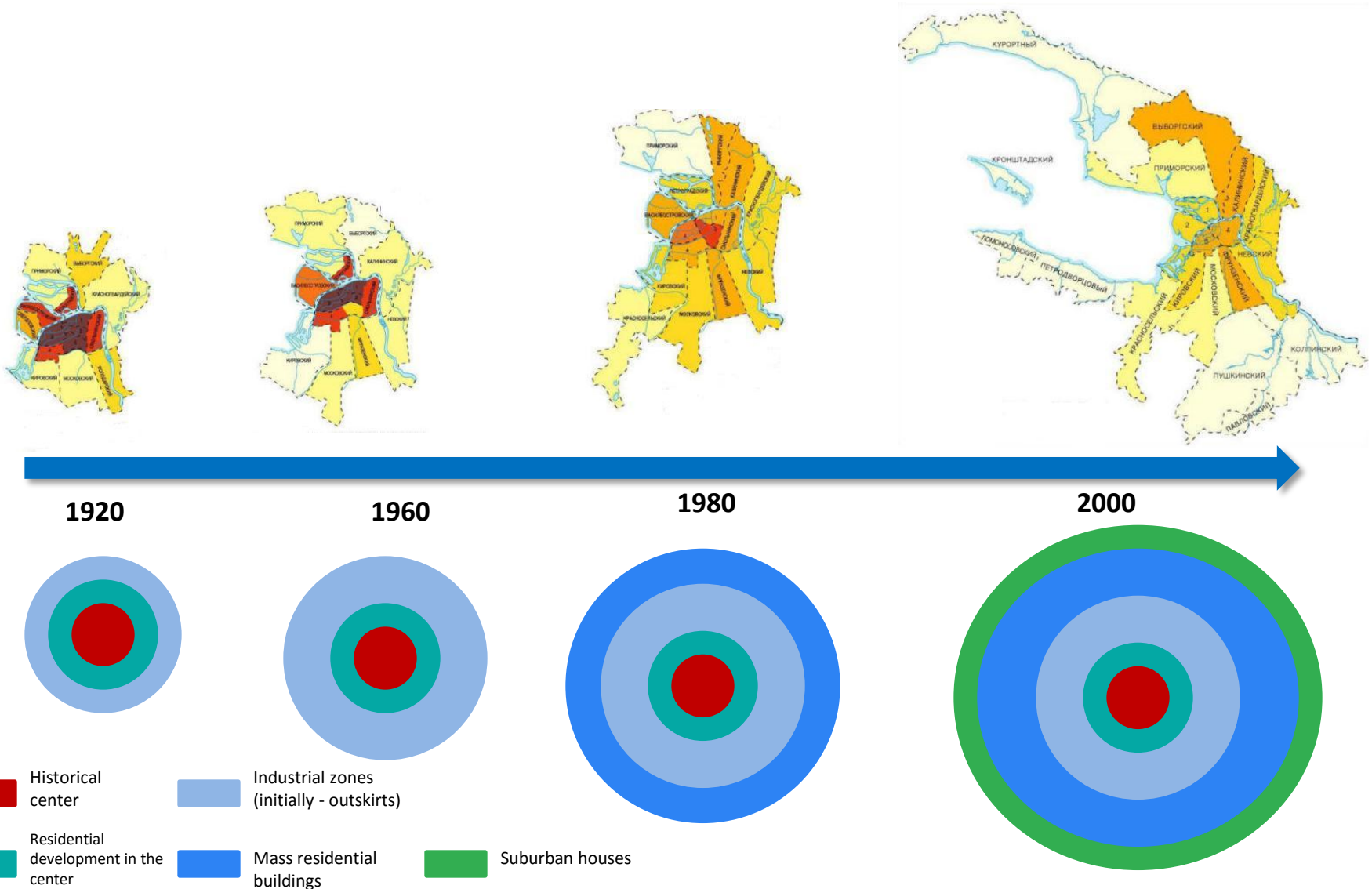
- We have spatial division and irregularity of workplaces.

... And hard calculable spaces for:

- Free workers
- Migrant workers
- Entrepreneurs and Startups

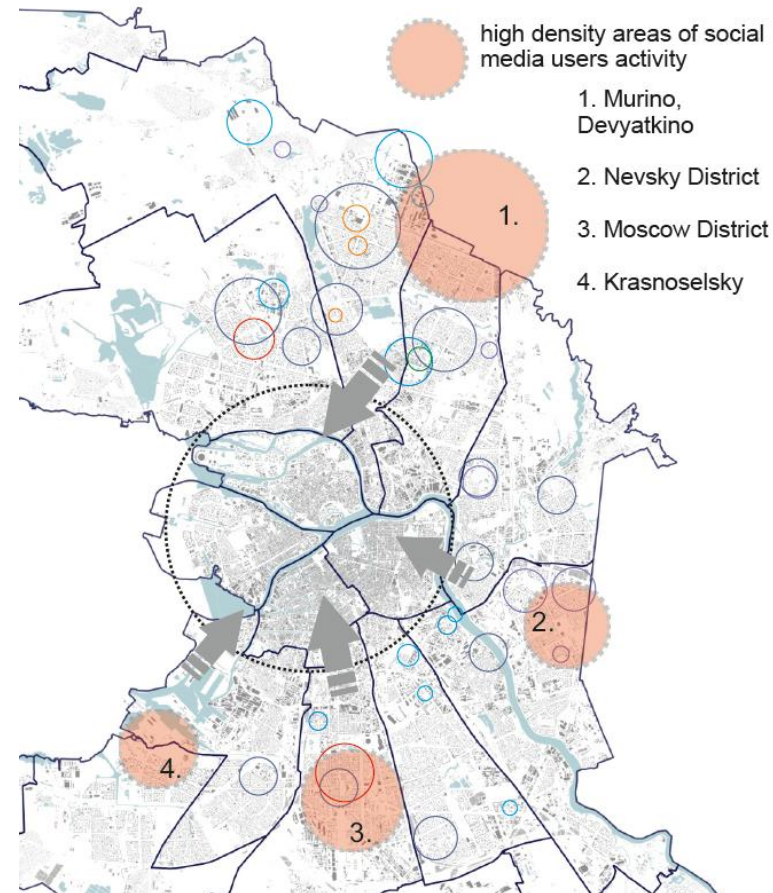
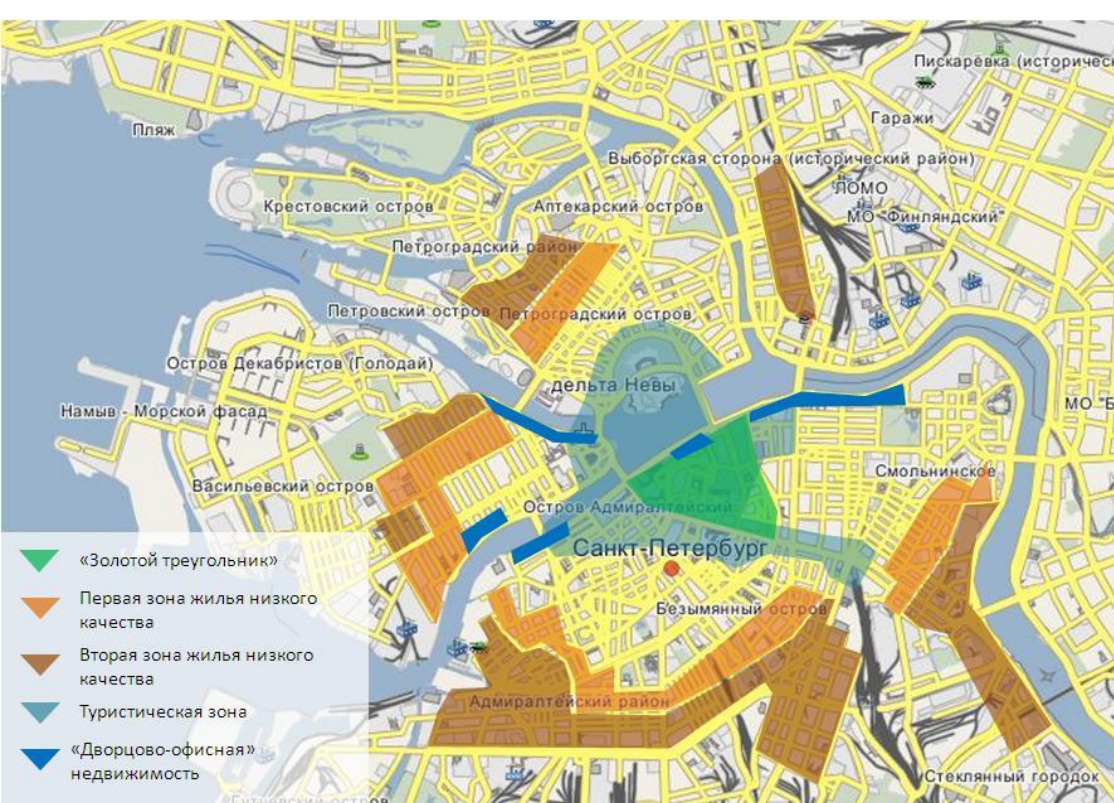
Current challenges for St. Petersburg metro

- Due to extensive growth we have at least five different circles, each has its own «big challenge»



Current challenges for St. Petersburg metro

- Historic center: we need to create the contemporary area.
Reinvestment, social upgrade, new visibility

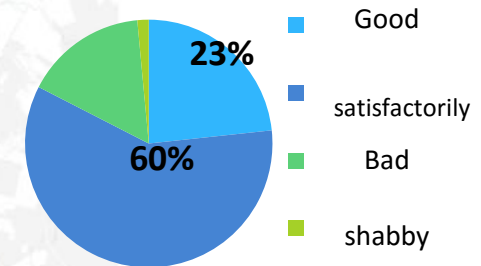


We have the largest city center listed by UNESCO as World Heritage Site. But now its "cramped" tourist zone, reduction in the quality of housing, challenges confronted by new projects

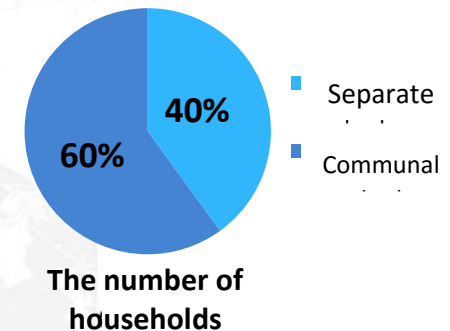
Current challenges for St. Petersburg metro

- Inner city revitalization and capitalization question
 - Agents? – students, families, tourists, entrepreneurs
 - Spatial model? – new buildings vs brownfield
 - Model of investment? – own vs rental
 - Business model – innovation districts, creative zones, business districts...

The technical condition of the housing stock of the central areas



Characteristics of the housing stock of the inner city

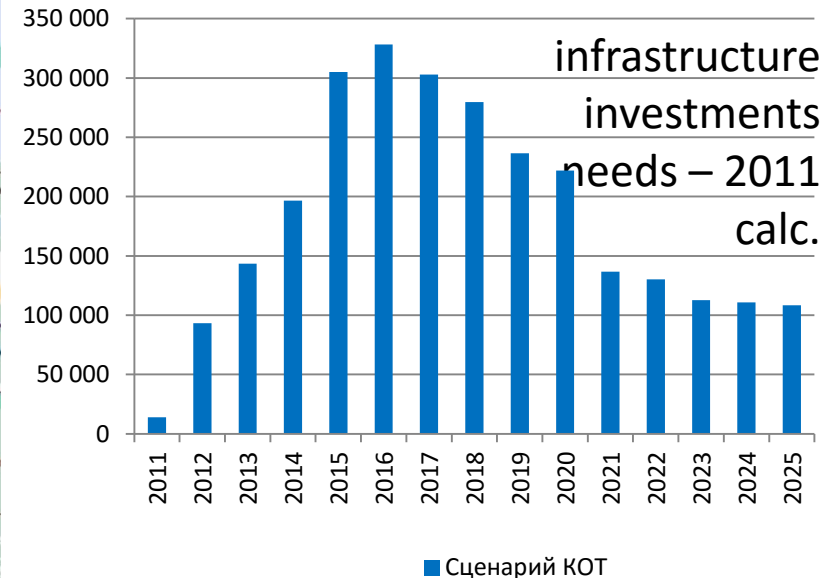
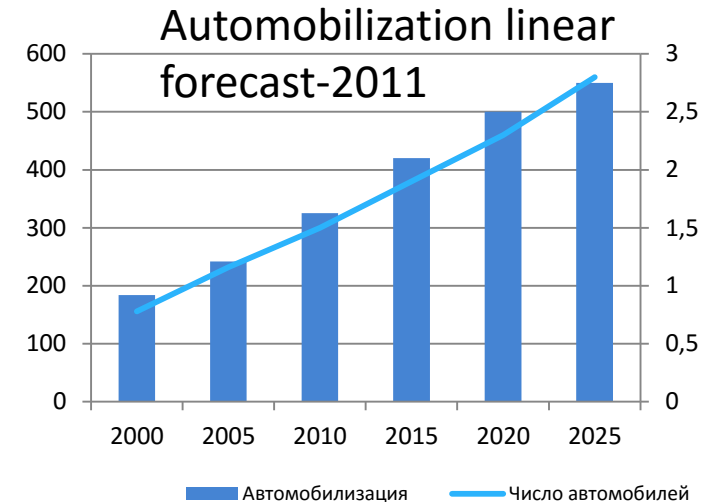
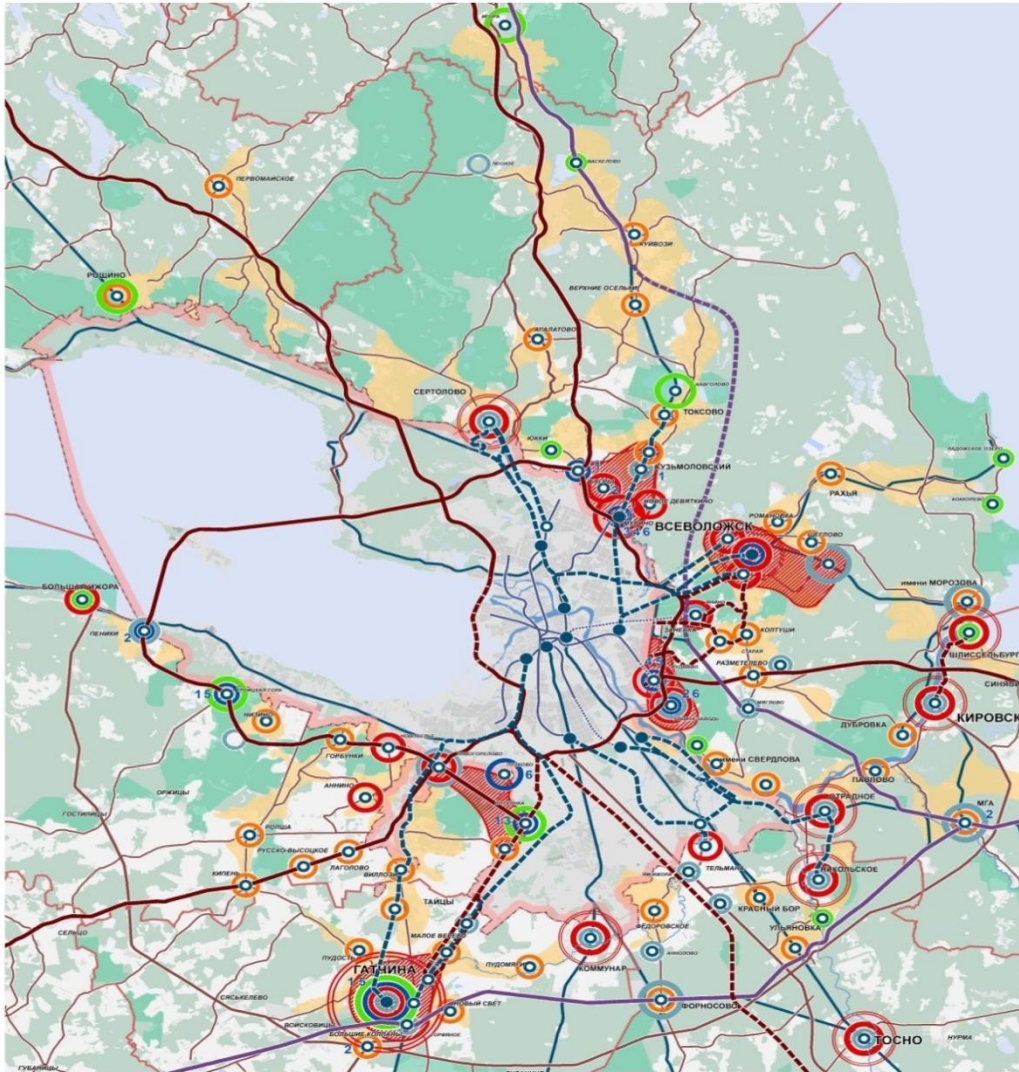


Source: City Administration of inventory and real estate appraisal

Heat map presents most popular areas according to social media activity – center and main sub-zones. Inner city is still not filled with life

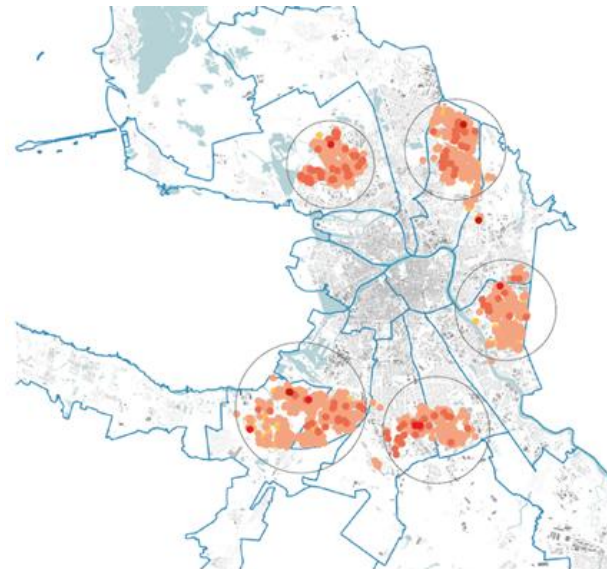
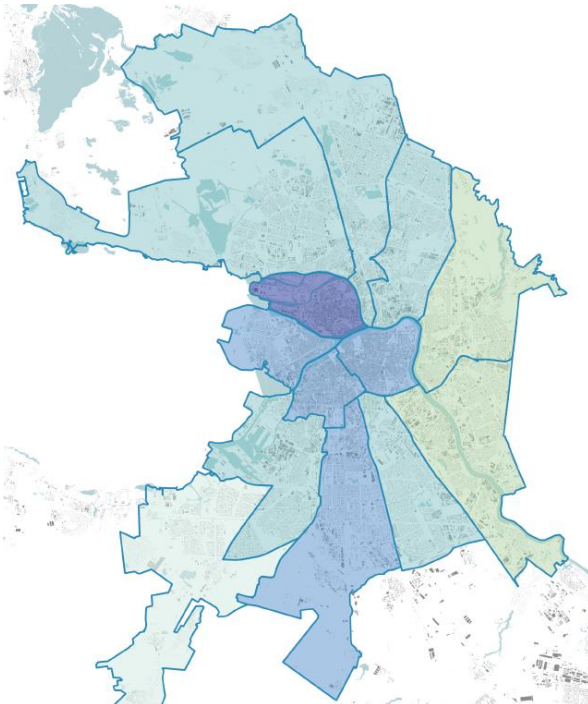
Current challenges for St. Petersburg metro

- “Zakadye” (Outer Suburbs) dilemma: steel large-scale projects or renovation of satellites ? New mobility: predictive analytics, transport solutions

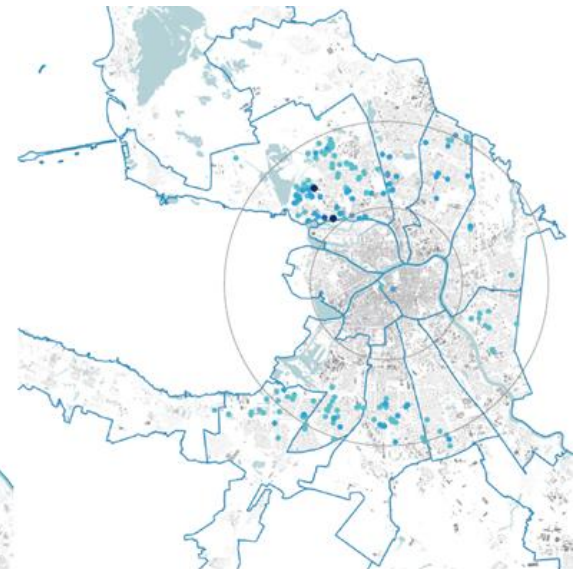
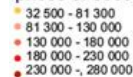


Current challenges for St. Petersburg metro

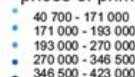
- Ways to converse the investment model in the real estate, based on new construction platform
 - Real estate prices are higher than we predicted in 2011, despite on crisis
 - primary housing is more expensive than secondary, although it built on the same technology platform of 1980s
 - Old neighborhoods do not have their own «landscape capital»



prices of secondary housing



prices of primary housing



Current challenges for St. Petersburg metro

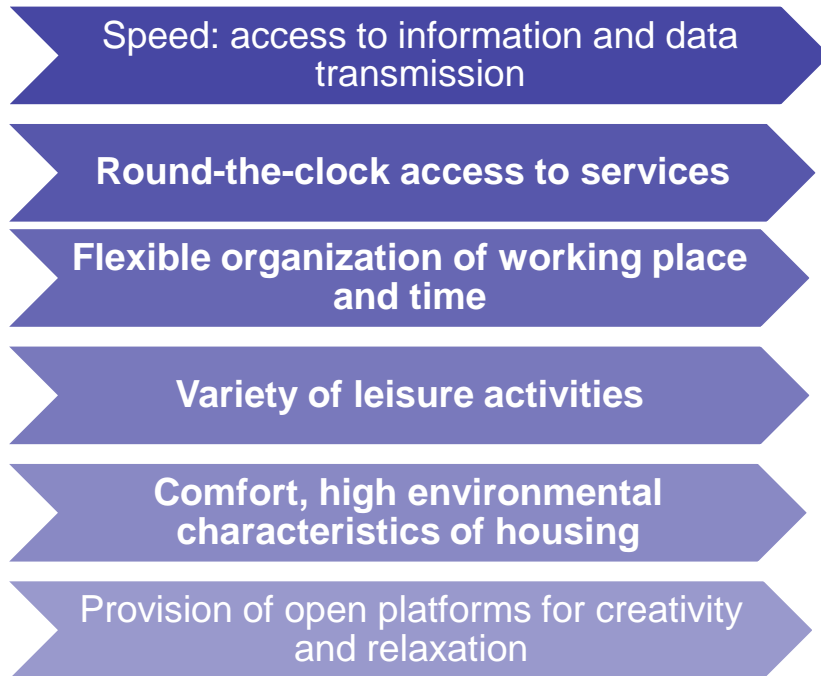
- Modeling metro as an open cyber-physical system. Need to a) utilities lifecycle costs calculation; b) new platform infrastructure testbeds; c) consumers involvement

Most important technology systems for the cities of 2020s, WEC-Report-2016



To respond to all these challenges we need the vision of the next metro paradigm

Tasks for the development



TRANSFORMATION OF
CITIES

Metro of 2020-2025-s



Who will meet the complexity-challenges of Russian agglomerations?

- New system engineers and designers
- New urbanists as communities mediators (urban think tanks)
- Social activists, new culture commons?

THANK YOU FOR YOUR ATTENTION

ABOUT FOUNDATION

CSR «North-West» is an independent non-governmental institute, one of the leading Think Tank center of the Russian Federation.

CSR «North-West» conducts strategic research and gives expert recommendations on a wide range of social and economic issues.

CSR «North-West» activities are primarily addressed to those who make strategic decisions and those responsible for their implementation, and also to expert consulting groups and design groups.

For preparing the presentation I used our studies, as well as an interviews with famous Russian urbanists and city-planners, Yuri Pereygin, Anton Finogenov, Daniyar Yusupov

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