# How we can use GIS in our projects

Liza Belyakova urban planner, gis analyst

### Workshop plan

- 1. GIS for decision making
- 2. GIS for developing apps
- 3. Spatial analysis and spatial data
- 4. Consider the example of a topic with the logistics of products from farms to restaurants:
- **determine** the places in the city with the biggest number of restaurants
- build routes for delivery
- determine the most suitable time for delivery using traffic analysis

### How I use GIS

### gisfriends

Spatial analysis that helps the government and **architects** make decisions about the development of the territory.

### PIK Group

The largest housing developer in Russia.

I work as a team leader. My team has been designing an app for pre-purchase land analysis.

# GIS for decision making



Where does municipality need to develop new public places?

How it should be developed to be more interesting for citizens?

# GIS for decision making



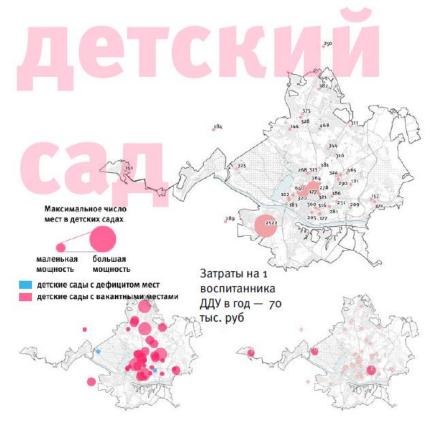
Where do I need to open new cafes/shops to attract more visitors?

Which territory is the most active in the city and has more pedestrian flows?

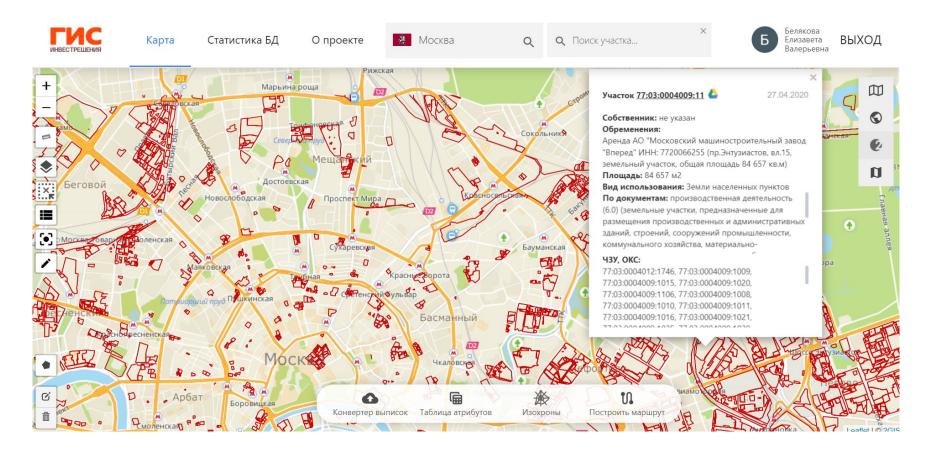
# Map / slide design is important

социальная инфраструктура





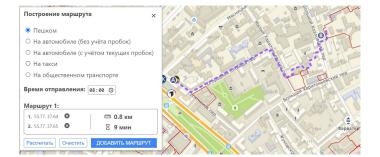
# GIS for developing apps



# GIS for developing apps

#### App can help users to:

- take information about territory or object map
- create simple analysis online by app tools



### Map instruments:

- collection data
- data visualization
- algorithms for data analysis



### Spatial data

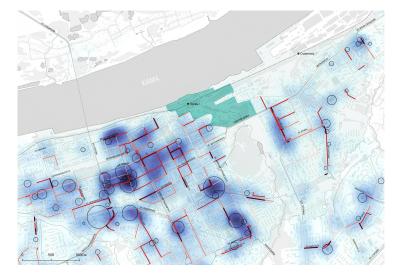
Geospatial data typically combines location information (usually coordinates on the earth surface) and attribute information (the characteristics of the object, event or phenomena concerned) with temporal information (the time or life span at which the location and attributes exist).

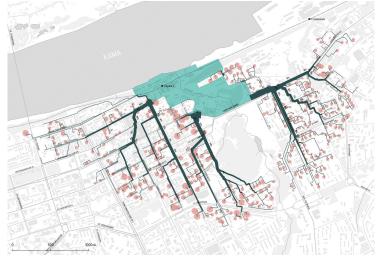
The location provided may be static in the short term (for example, the location of a piece of equipment, an earthquake event, children living in poverty) or dynamic (for example, a moving vehicle or pedestrian, the spread of an infectious disease).



# Spatial analysis

- density maps
- calculating routes
- creating accessibility zones
- geocoding
- data transformation by space relation





### Practical task

Logistics of products from farms to restaurants:

- determine the places in the city with the biggest number of restaurants
- build routes for delivery
- determine the most suitable time for delivery using traffic analysis