

Statistics Norway: Small area index mapping and analysis

Socio-economic indicators in Oslo and Kongsvinger

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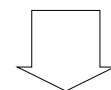
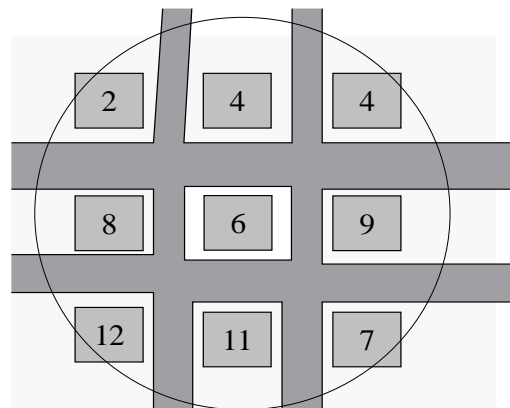
Background

- Statistics Norway has in cooperation with Institute for Transport Economics developed techniques for displaying geo statistics at **neighbourhood** level.
 - Pilot on neighbourhood sonoscape – connect sensitive noise impact mapping (2004)
 - Neighbourhood mapping for indicators like income, education, social assistance, sickness absence, living conditions etc. (2005/2006)
- The neighbourhood method is based on the dynamic models (blobs) in Statistics Norway from automatic delineations of;
 - Urban settlements (1996)
 - Land use models for urban settlements (2002)
 - Central business districts and leisure home areas (2003)

Method of neighbourhood

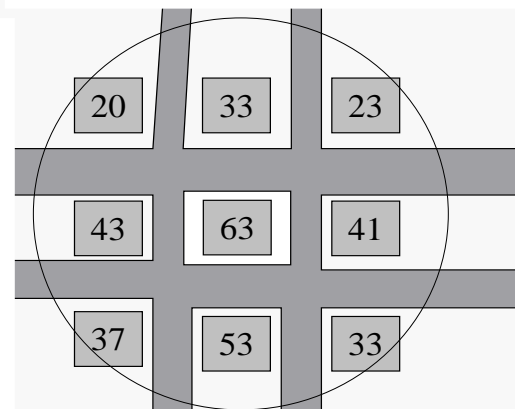
Step one

A: Each building by address get a value. In this case the amount of residents



B: Buildings with residents within 75 meter. The amount of residents are summarized.

These also may be the average of residents, income, education and so on.



Building with residents

37

Road



75 meter radius



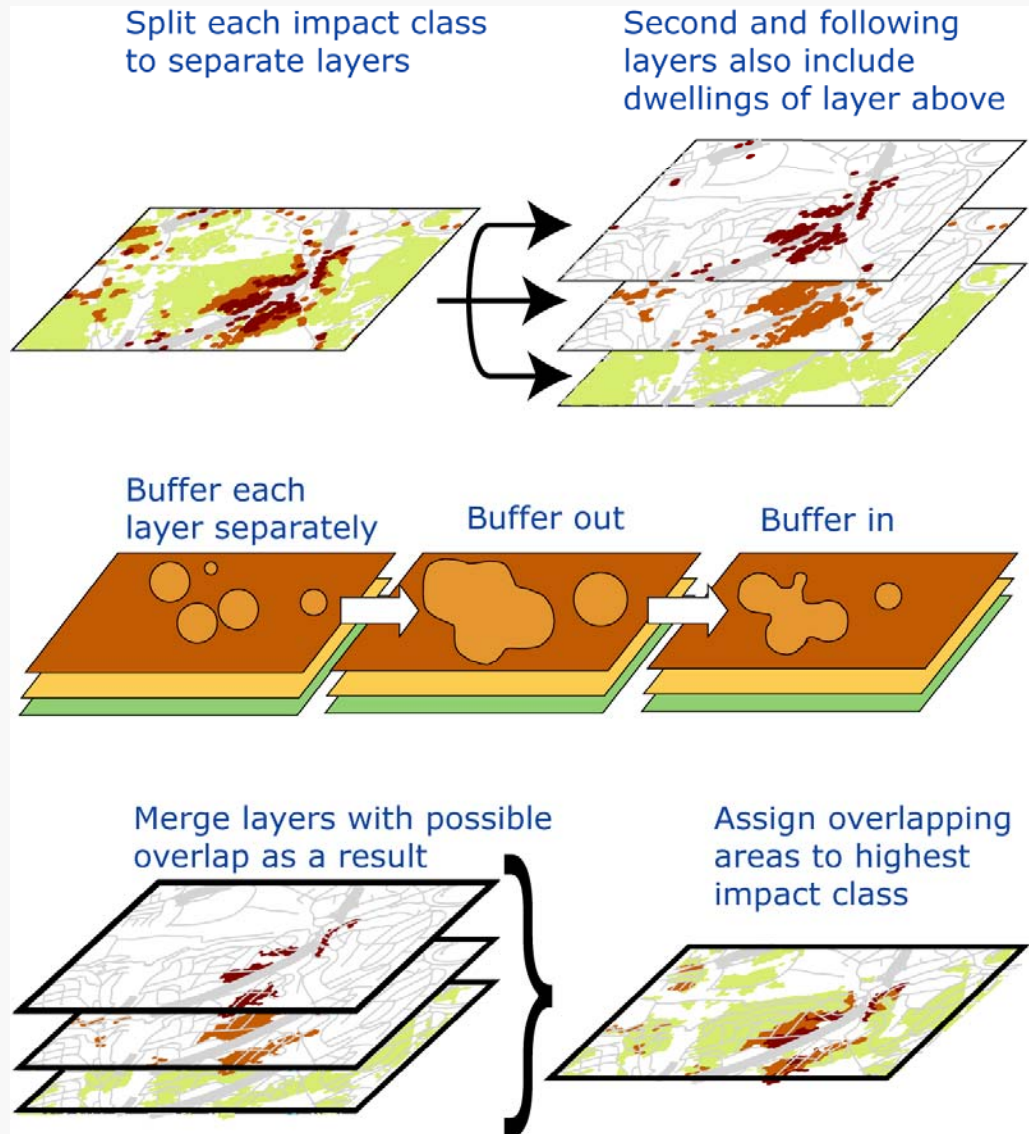
Step two

First we have to classify the amount of residents in each building

Each address get 75 meters area around it self, so it is fewer but larger continuous areas.

Then the area get shrink so the line goes close up to the addresses.

Areas less then 5 decare will be eliminated. This remove "noise" in the map and the pattern is easier to observe.



Socioeconomic mapping on neighbourhoods

- The dataset- register have to have coordinates
- Shows the best results if the values have geographical spreading
- Mapping urban areas and small communities – but not individuals
- The method is blur for each individual, and therefore suitable for smaller regional level then the grid method
- Mapping the invisible for none-statisticians
- Showing inequalities
- Measure of welfare distribution
- Monitoring policy impacts

Socioeconomic indicators in Oslo and Kongsvinger

- This year, in 2007 the neighbourhood model is used in a new project where the goal has been to develop statistics and maps for three new socioeconomic indicators
- Financed by The Directorate for Public Health and TOI
- Social inequalities
- Some neighbourhoods have up to 12 years higher death-rate
- The causes are many and complexes
- Immigrants- live in “ghettos”/segregation or integration
- Unstable neighbourhoods- with high turnover

Indicators and criterias

- **Indicator for income- related variable:**

The register of private vehicles

Categorize: - Private cars registered in or after 1997 are considered as newer
 - Private cars registered before 1997 are considered as older

- **Indicator for demography- related variable:**

The register of movements from addresses by person

Categorize: Moved from addresses - low
 - medium
 - high

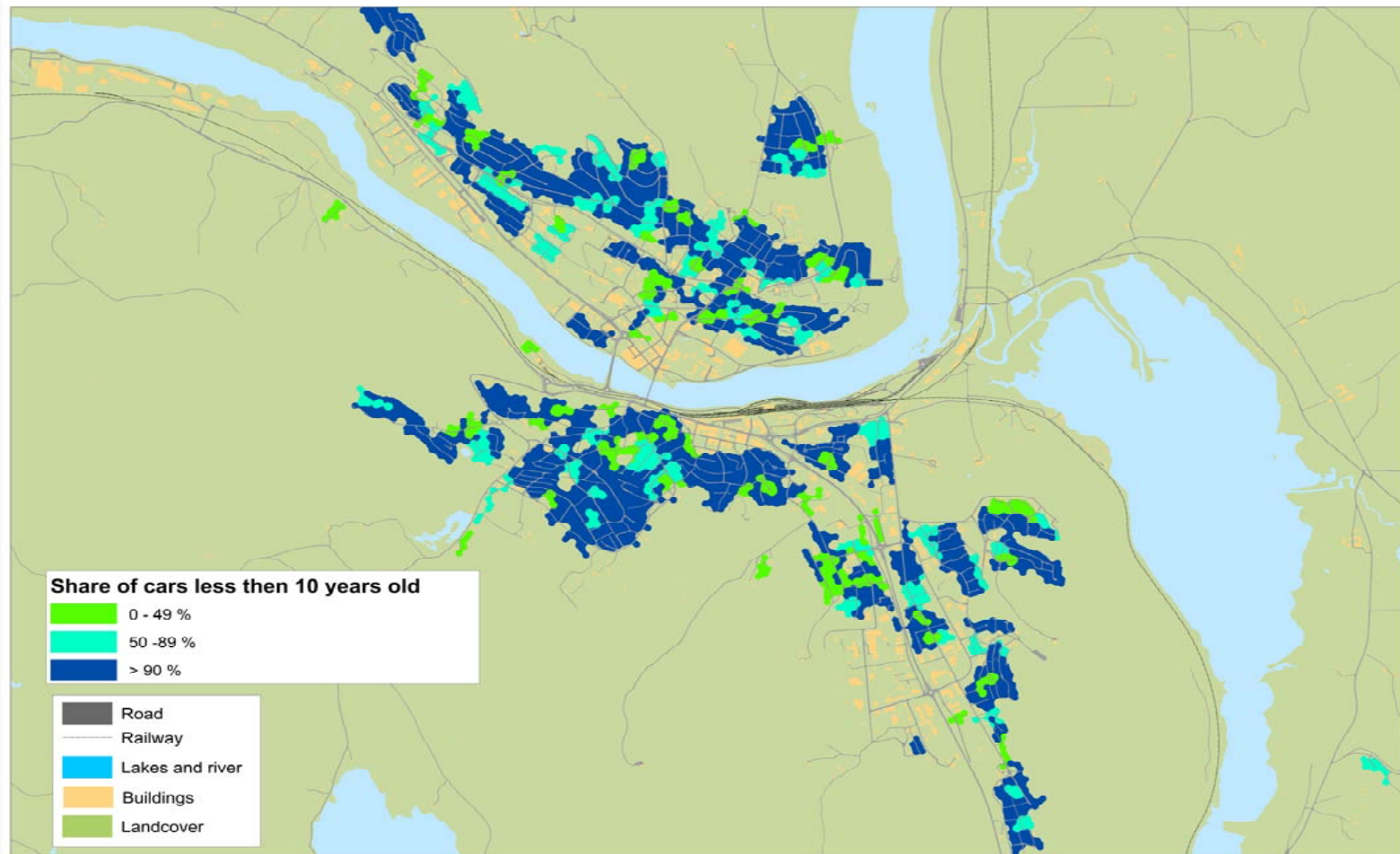
- **Indicator for ethnicity:**

The register of the population with land of birth

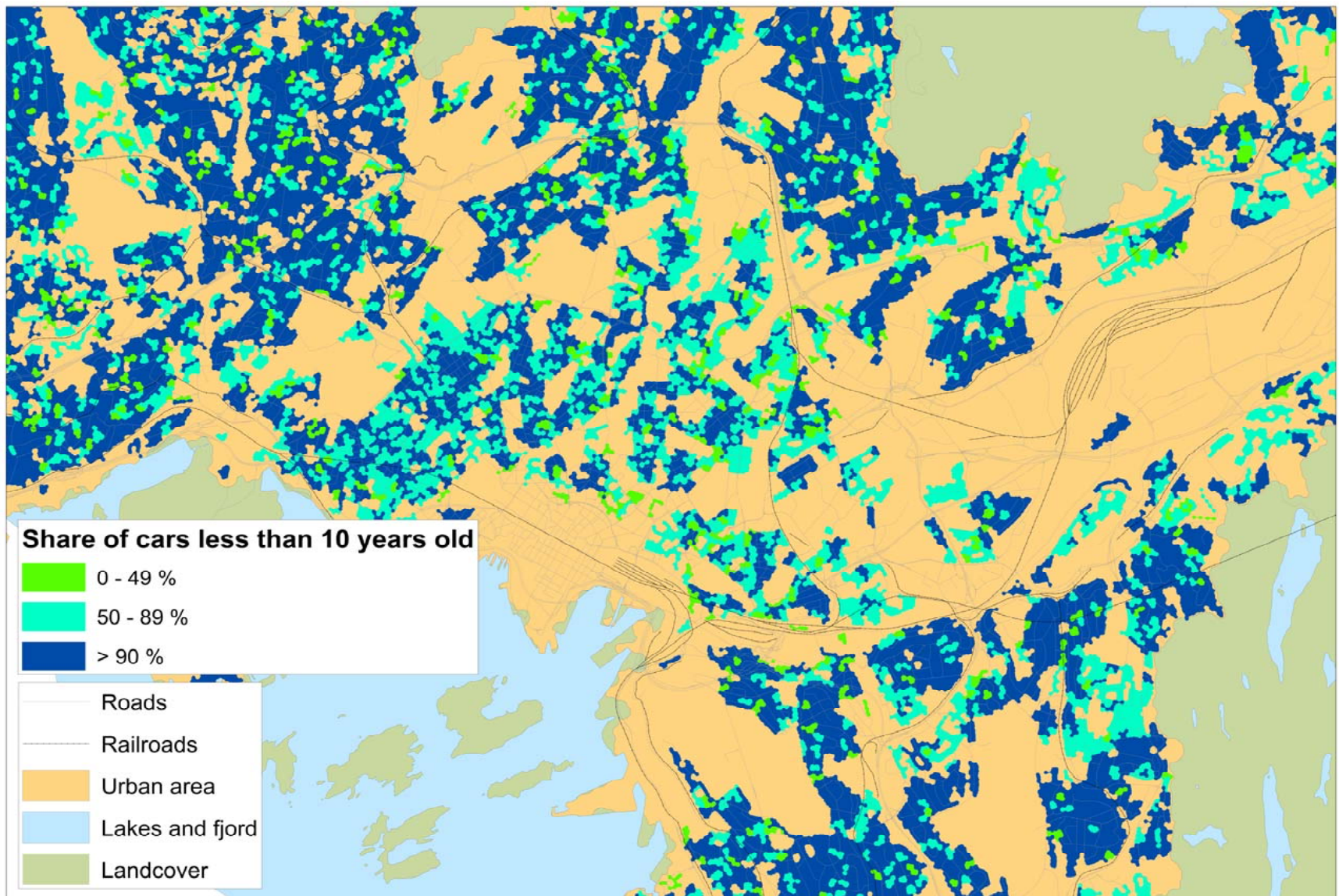
Categorize: - Western land background
 - Non western land background

Resultes

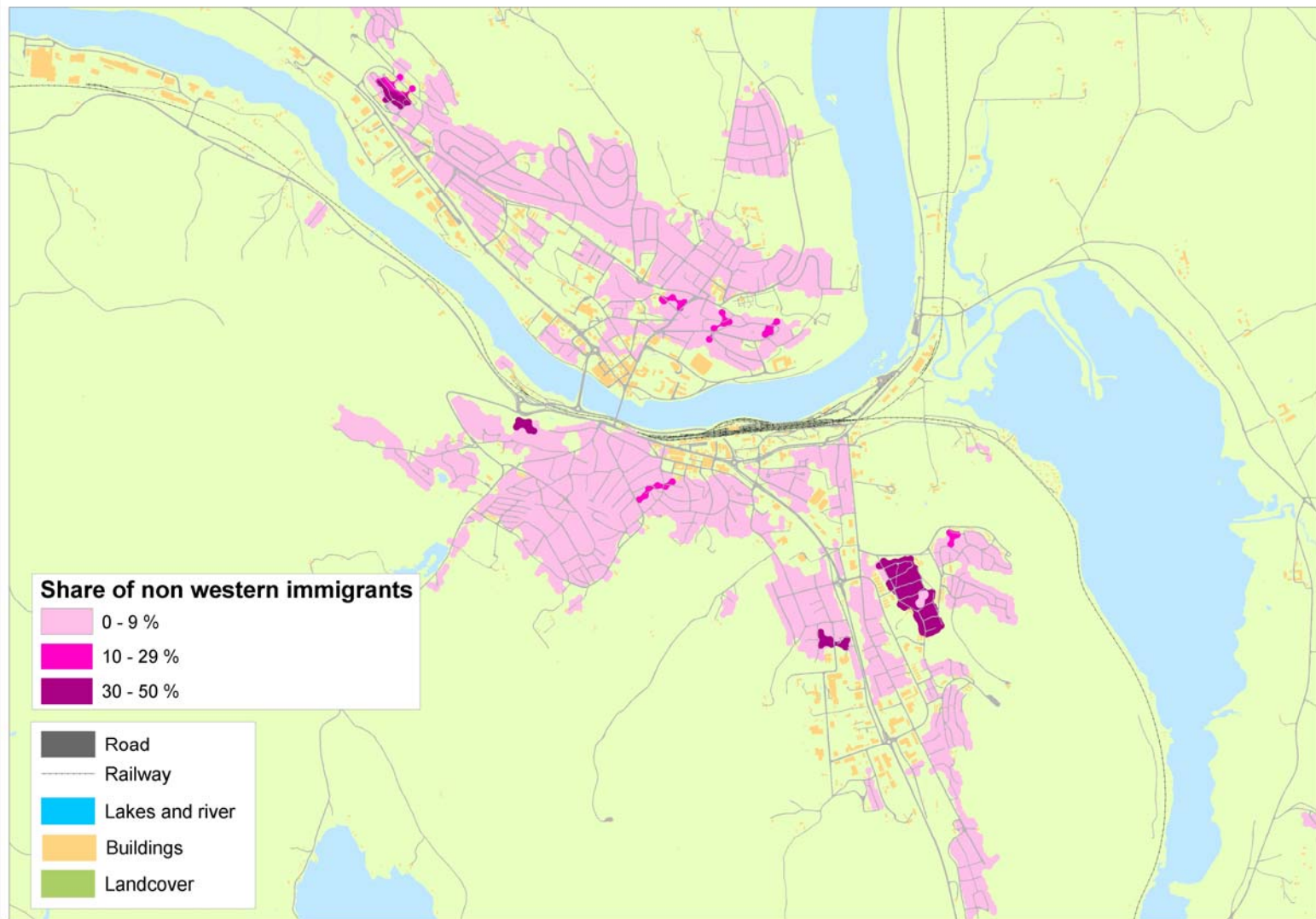
- Share of newer cars in Kongsvinger



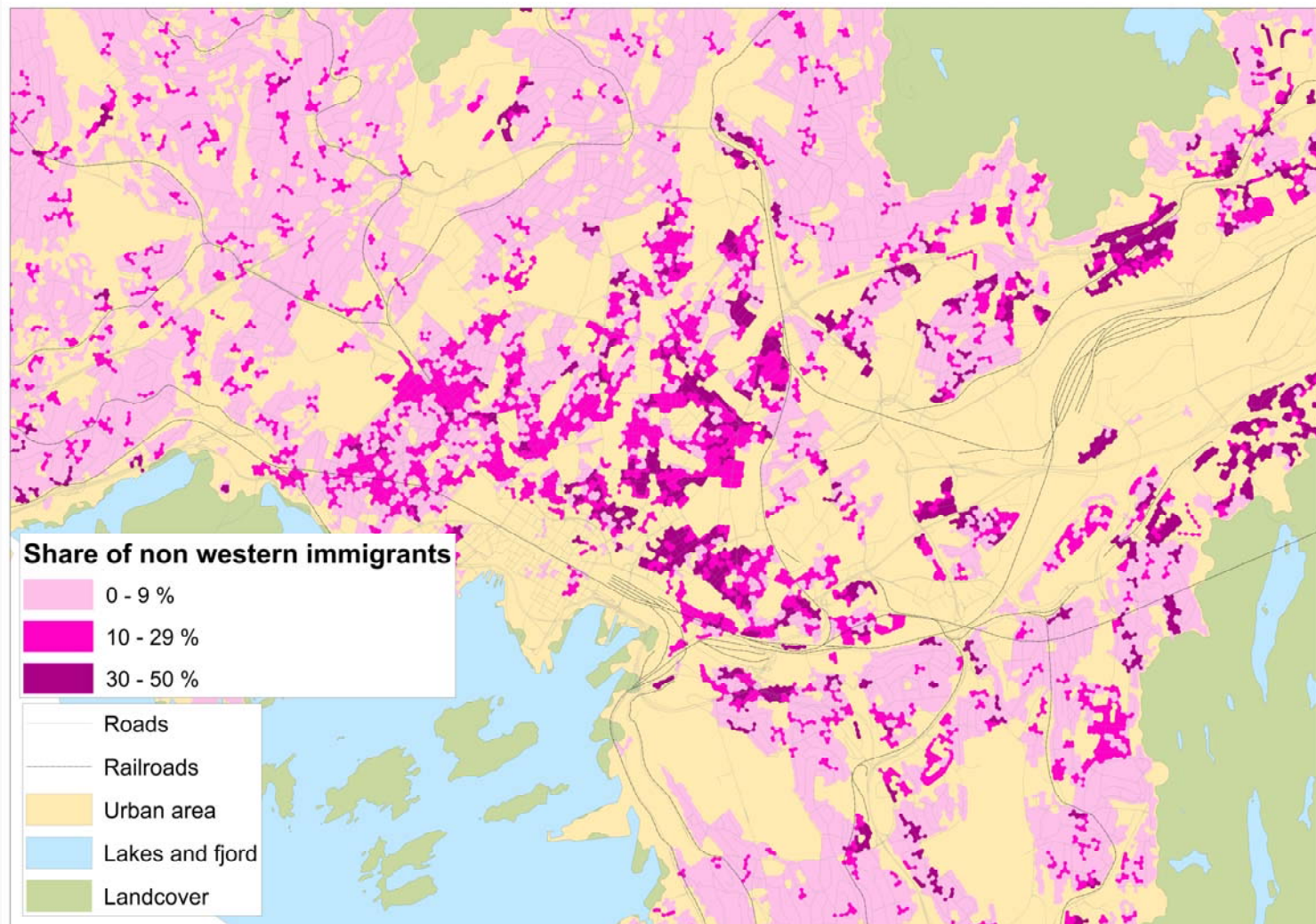
- Share of newer cars in Oslo



- Share of immigrants with non western land background in Kongsvinger



- Share of immigrants with non western land background in Oslo



- Share of moving from adress in neighbourhood in Konasvindaer

