



POHJOIS-POHJANMAAN
YMPÄRISTÖKESKUS

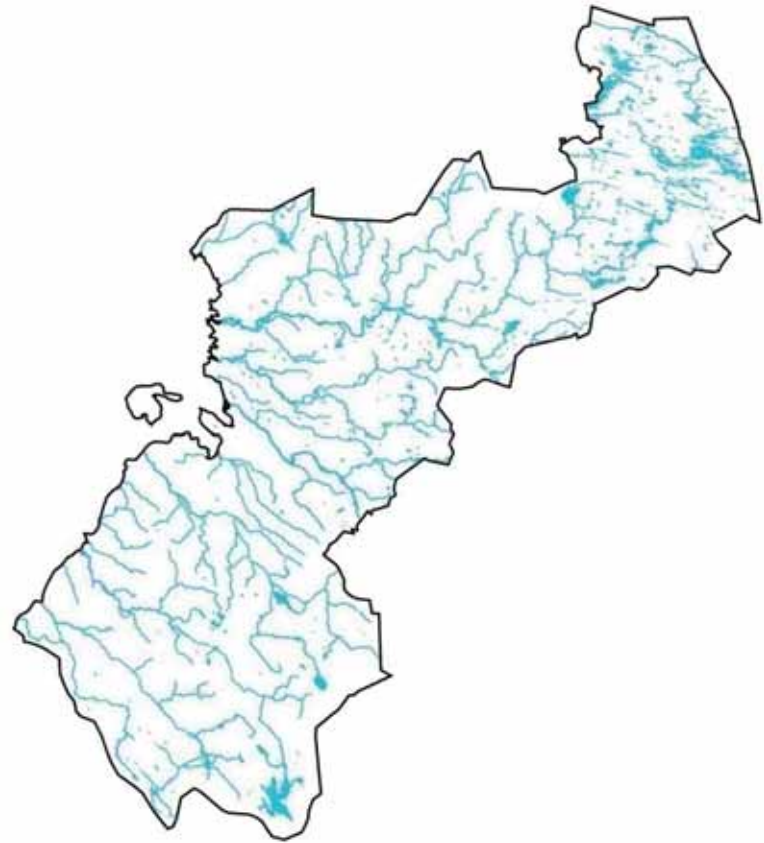
INNO URBA CONFERENCE

URBAN STRUCTURE IN NORTH OSTROBOTHNIA

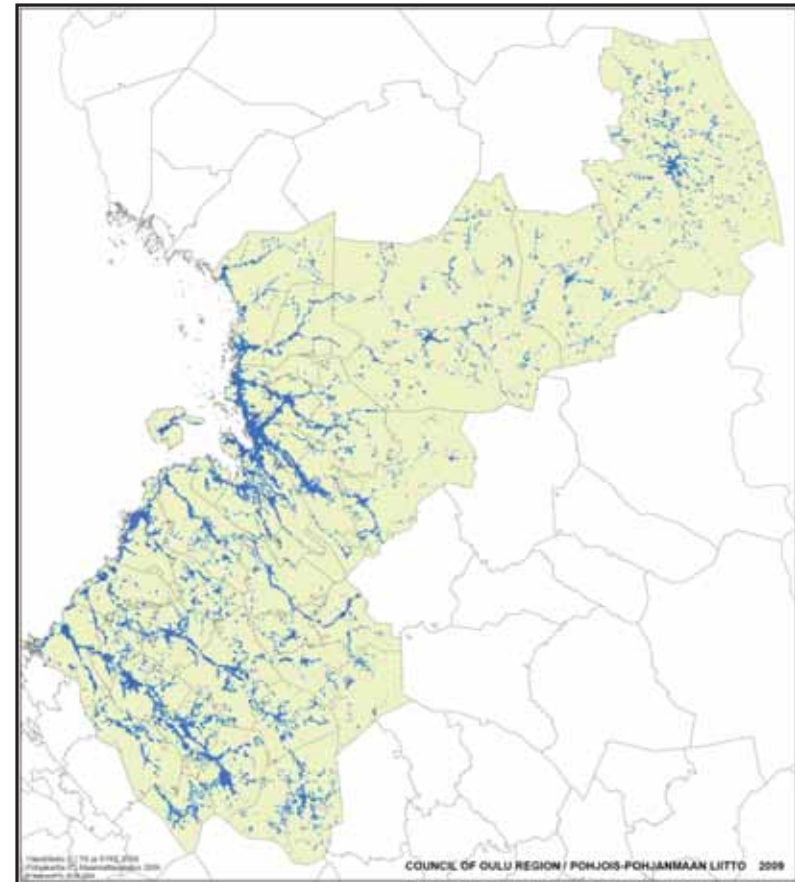
Heikki Aronpää, Director
North Ostrobothnia
Regional Environment Centre
2009.05.28

EARLY PERIODS

- **Settlement has its historical roots in business and culture.**
- **Ancestors began to settle North Ostrobothnia 1000 years ago.**
- **The seaside and river basins were important to give subsistence.**



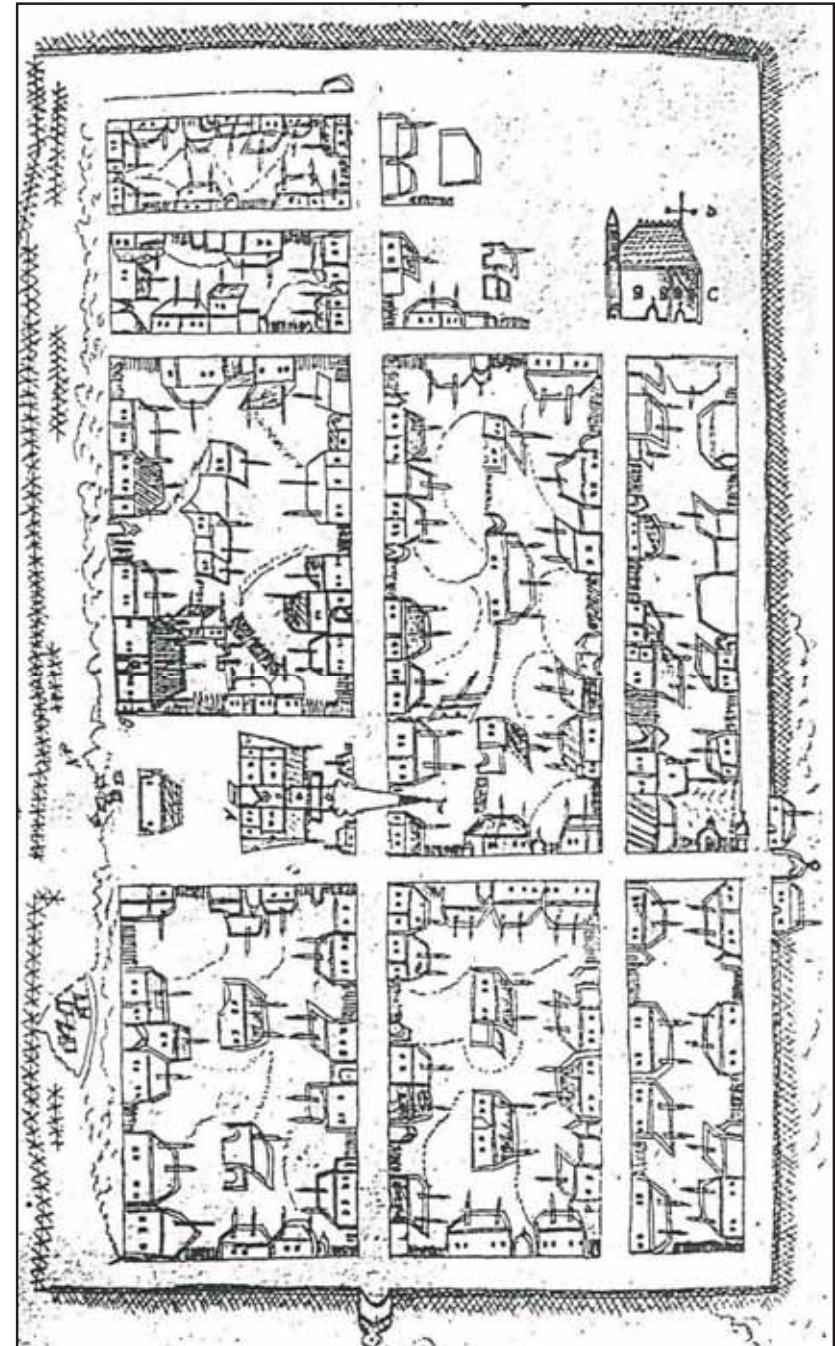
- **The organized society came behind in form of catholic church and joined people to the western culture.**
- **Rivers functioned as watercourses, there were no roads.**
- **The thread-like regional structure is still in view.**



- The peace of Täyssinä 1595 joined North Ostrobothnia to The kingdom of Sweden. Before the peace conditions were uncertain in this area.
- Oulu was the first town in North Ostrobothnia. Grounded in 1605.
- The second town was Raahe, grounded in 1649.



- The mercantilistic system separated towns steeply from countryside and ordered them as trading centres.
- In 1619 the crown gave an order that every town must have a town plan.
- Renaissance chequer plan was fashionable and contemporary at that time.



URBANIZATION

- North Ostrobothnia had a tardy developing till 1800 AD.
- The Great North War in 18th century and War of Finland in the beginning of 19th century ruined the region. The country was occupied for years and after 1809 joined to Russia.
- Big town fires destroyed many times badly wooden towns.
- Industrialization began in 19th century.



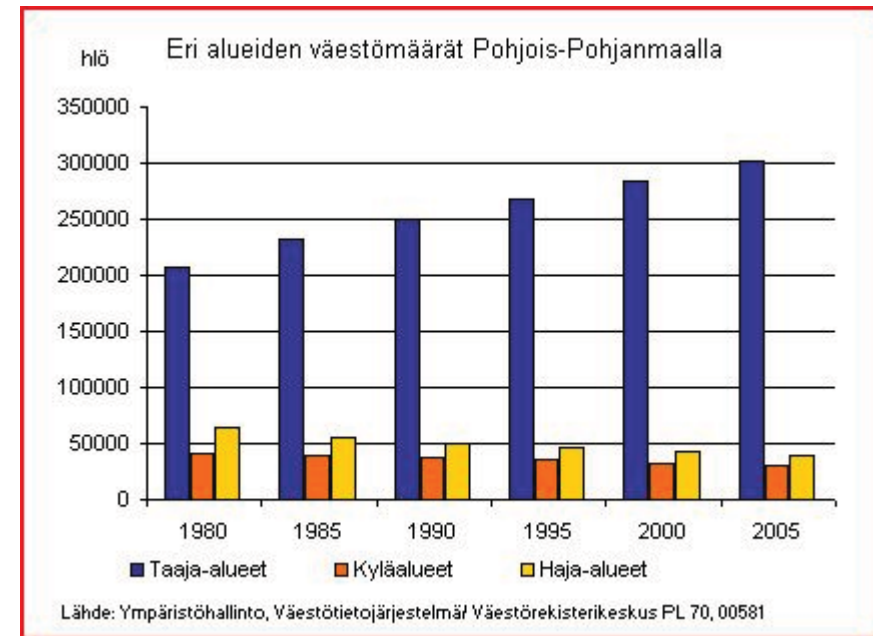
- In the latter half of the century the railway reached Oulu.
- Road connections got better.
- The region began to get north-south direction structure besides the traditional river course.
- From 1930s generalization of cars and busses connected the region. For the first time one could do business in town during one day from distant countryside.



- **After WW II the urbanization developing and industrialization accelerated.**
- **Heavy industry needed more energy. Big Oulu river and Ii river were built for electricity production.**
- **Because the countryside didn't need more labour force, urbanization accelerated and countryside began to depopulate.**



- They, who had no job even in town, moved to Sweden in 60s and 70s. Plenty of them remained there.
- Due to developed means in farming, the landscape has changed remarkably in the countryside.



Developing of population 1980 – 2005

- Urban
- Village
- Thinly populated countryside

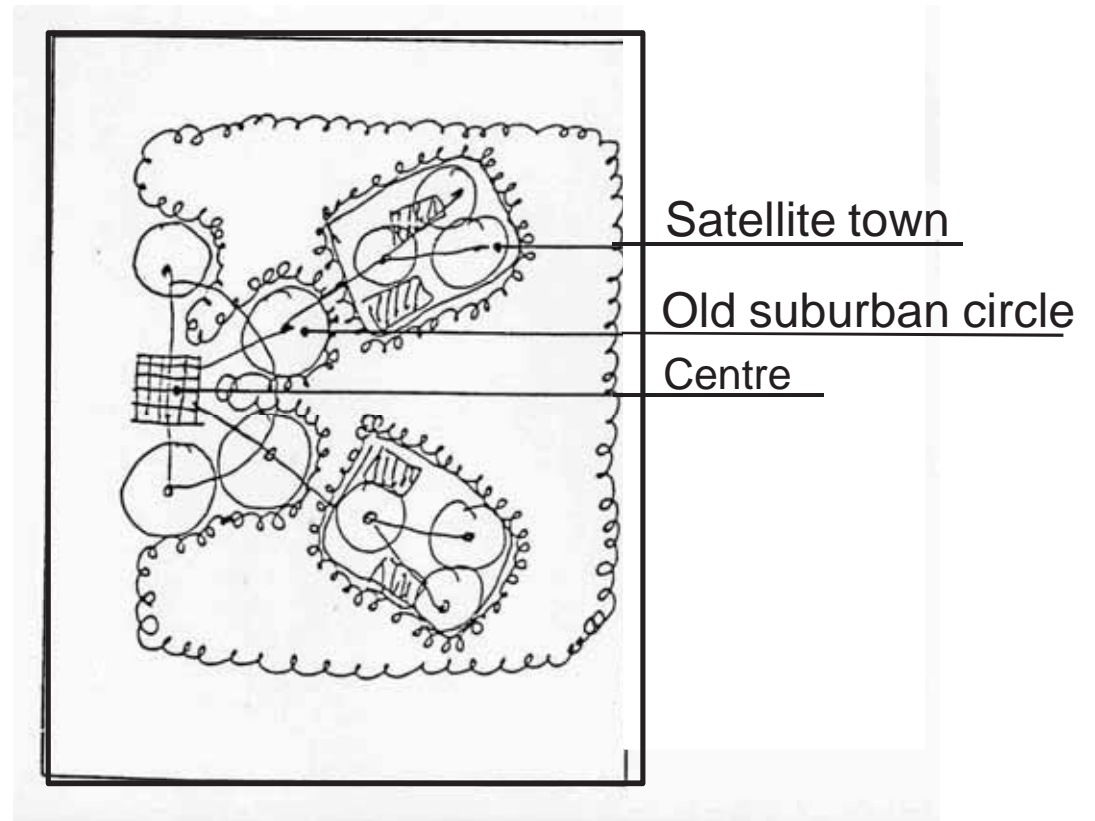
- **After WW II there became new elements in towns**
 - **wooden veteran housing in the outskirts**
 - **new apartment houses instead of old wooden city structure in the centre**
 - **functionalistic ideas moved closed blocks open – the city landscape moved expressively**
- **In Raahe development was slower, it was not reached to demolish before the protection measures saved the wooden centre.**



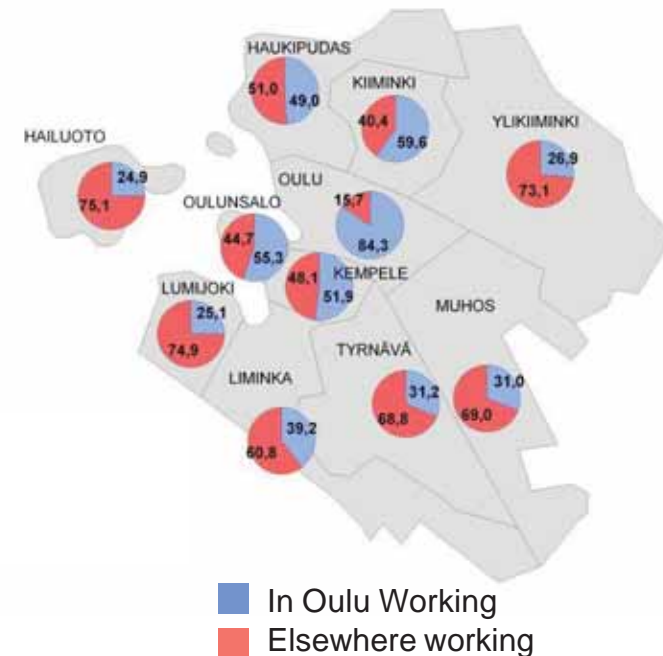
DISINTEGRATION OF URBAN STRUCTURE

- The next period in urban structure was industrial suburban building development since 60s.
- The aim was to settle people near nature like in garden cities.
- The aim hasn't been implemented. The result is neither city nor countryside.
- Adequate services did not follow the suburban development.

Oulu region structure schema in region plan



- In the end of 20th century the urban structure was planned believing in continuous growth, industrial production and private car traffic.
- Neighbor municipalities of Oulu offered more countryside alternatives for dwelling.
- It began to create unplanned scattered settlement here and there.
- The growth of neighbor municipalities led to expanding of urban structure, growth of traffic and diverging of services and work places.
- Finnish urban structure has not developed very successfully.



CLIMATE CHANGE AND URBAN STRUCTURE

- Finland has its own responsibility together with other EU countries to carry its part of climate load.
- Buildings and urban structure means about half of our greenhouse emissions.
- The national climate policy stresses building, land use and housing.
- We are now in front of choices of the regional and urban structure.



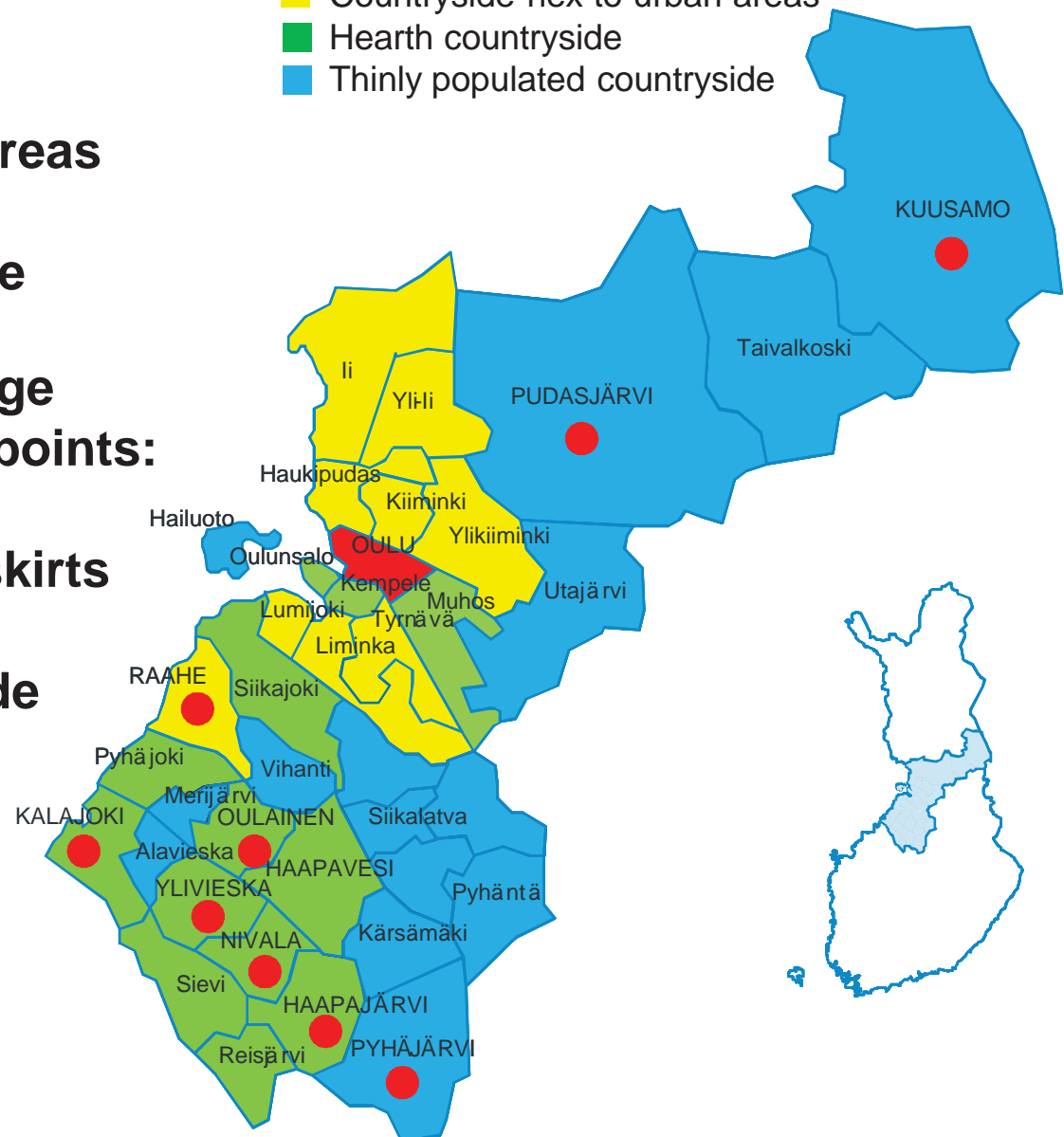
- **There are four kind of areas:**

- **urban zones**
- **countryside next to urban areas**
- **hearth countryside and**
- **thinly populated countryside**

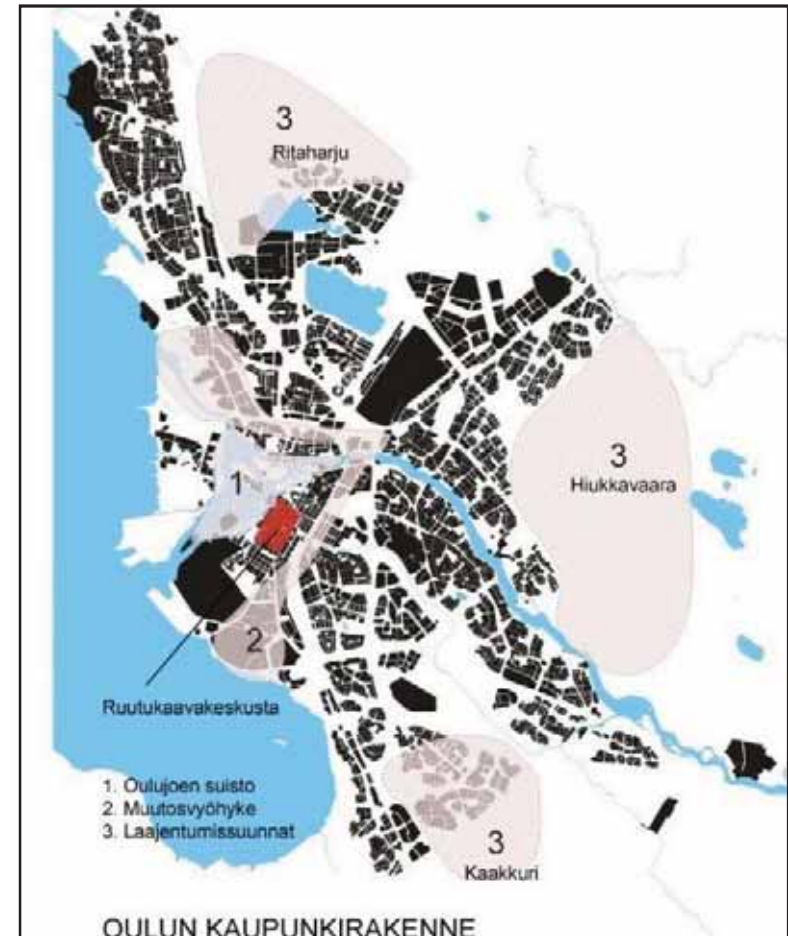
- **Restraining of climate change requires decisions in three points:**

- **diffusion of housing to outskirts of urban regions**
- **separate location of big trade units and other traffic intensive activities from other urban structure**
- **growth of private car traffic**

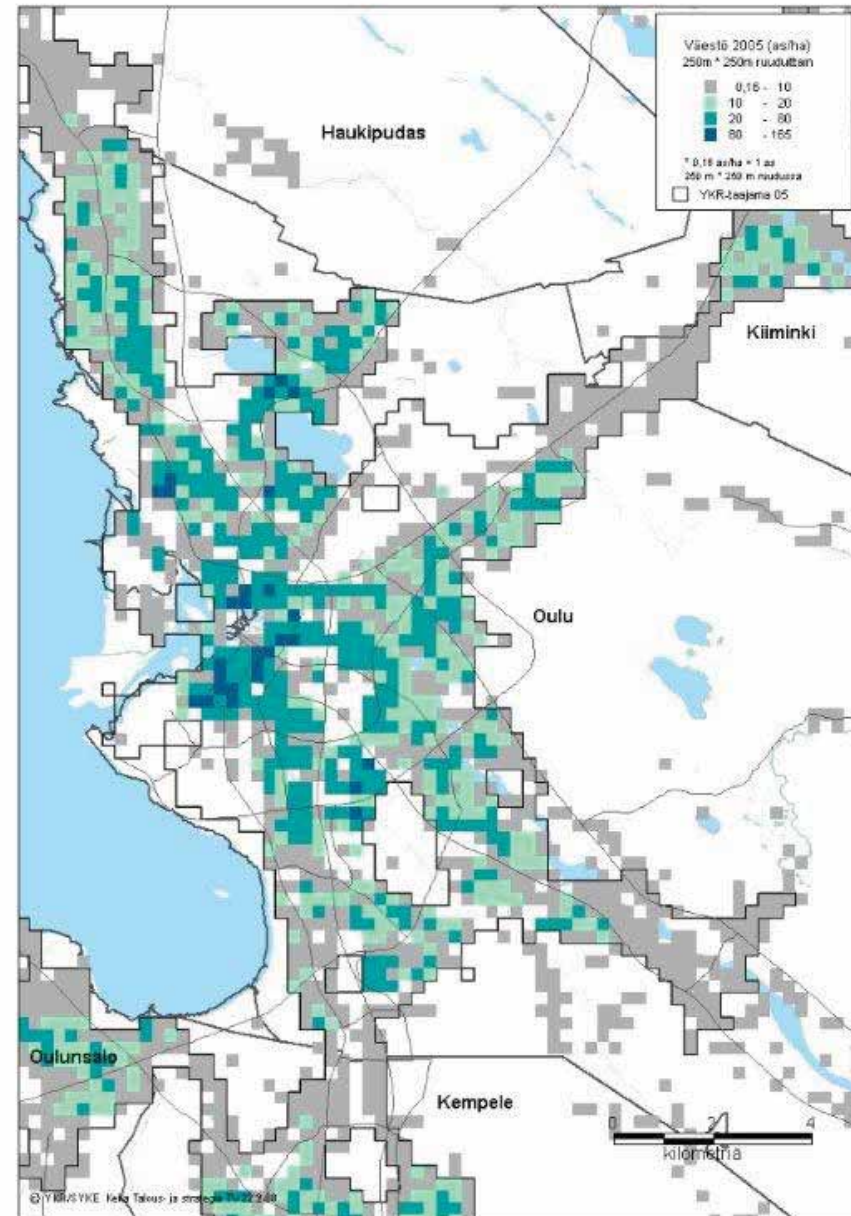
- Urban zone
- Countryside nex to urban areas
- Hearth countryside
- Thinly populated countryside



- **We can achieve best results in climate change restraint in packing urban structure.**
- **We must develop the more attractive forms of low and dense housing, because many people like to live in one family houses.**
- **On the other hand we need more urban single people apartments, because more and more people live in a one person household.**



- An "American" pattern to live in countryside and work in the town is very common in north Ostrobothnia.
- Public transport doesn't serve very well.
- On the point of view of climate change, this is not desirable.
- In long term it is obvious that the society uses economical steering means.



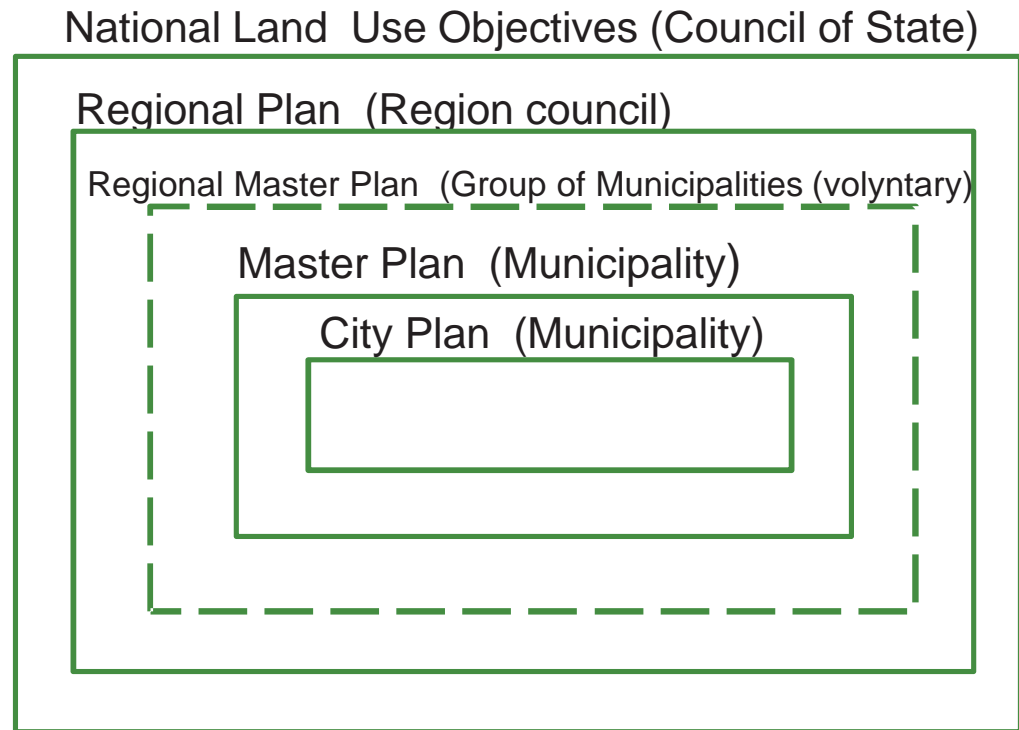
- **It is reasonable to develop hearth countryside where people get their livelihood in agricultural industry and primary production.**
- **The problem is thinly populated countryside. It doesn't offer enough labor. The level of services decreases. The spiral of marginalization goes deeper.**



Kuva: Hannu Vallas
(Pohjois-Pohjanmaan liiton kuva-arkisto)

Land use Planning system

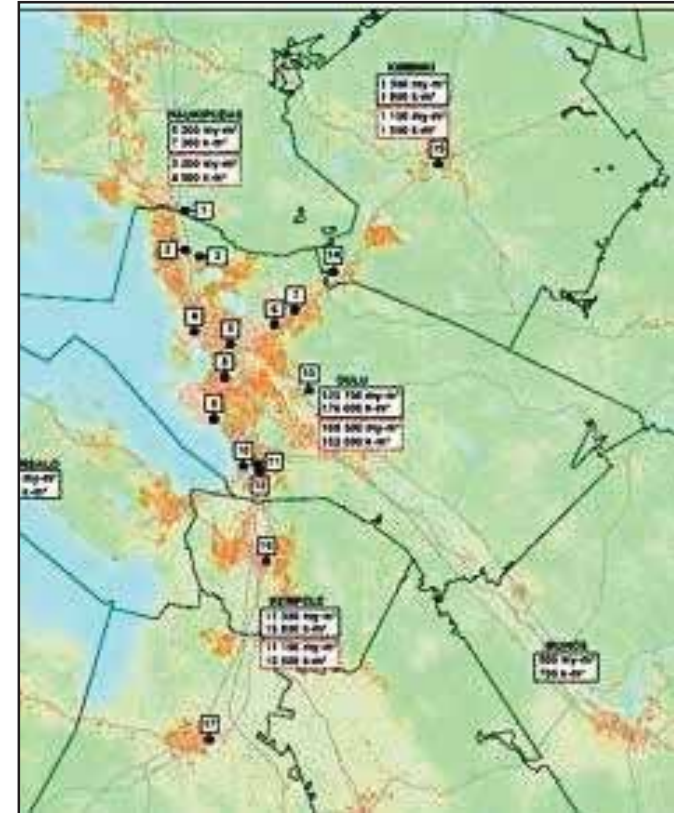
- The national land use objectives emphasize utilization of existing urban structure and public transportation.
- This means that the society plans enough land in advance, instead of making sudden hasty decisions in land use cases.



- The consistent land use policy is challenging on city region where there are several municipalities with their own self-interest goals. This leads easily to more disintegrated structure.
- Cooperation is needed over municipality borders.

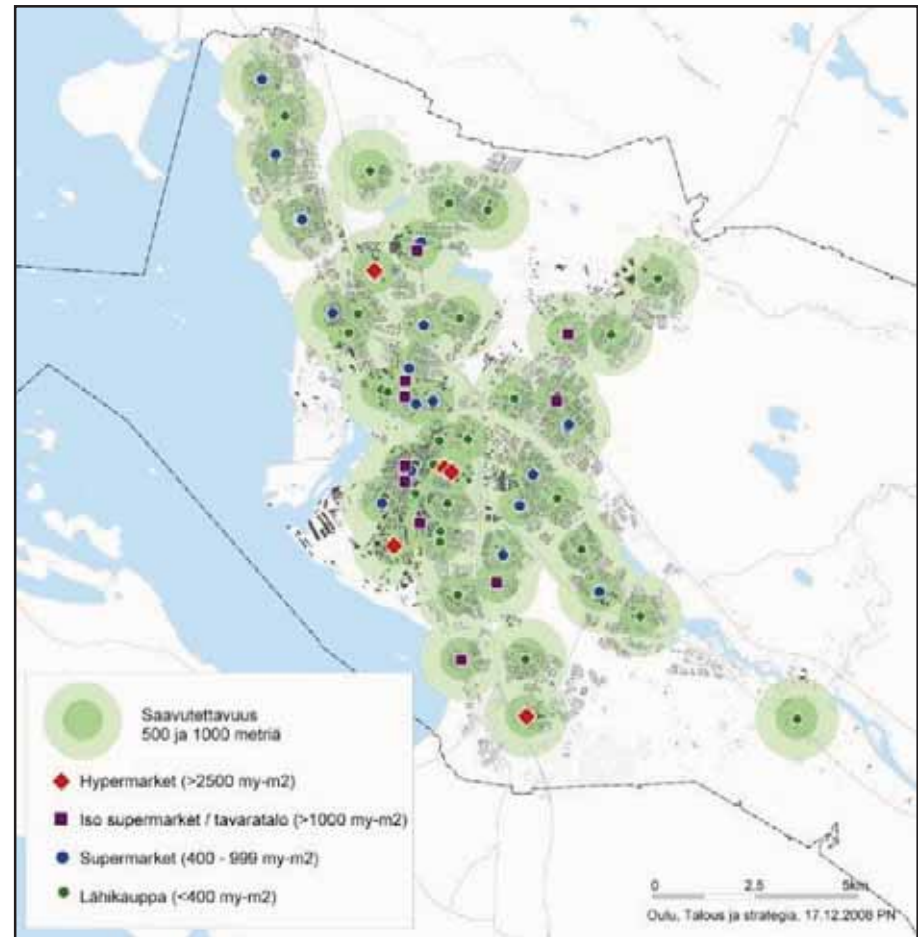
- The site of trade services influences decisively to urban structure, accessibility of services and traffic.
- The contemporary trend to point more and more bigger malls to the edge of urban structure is unsustainable.
- The Ministry of the Environment follows the development and considers effective steering means.

Speciality retailing in Oulu region 2008

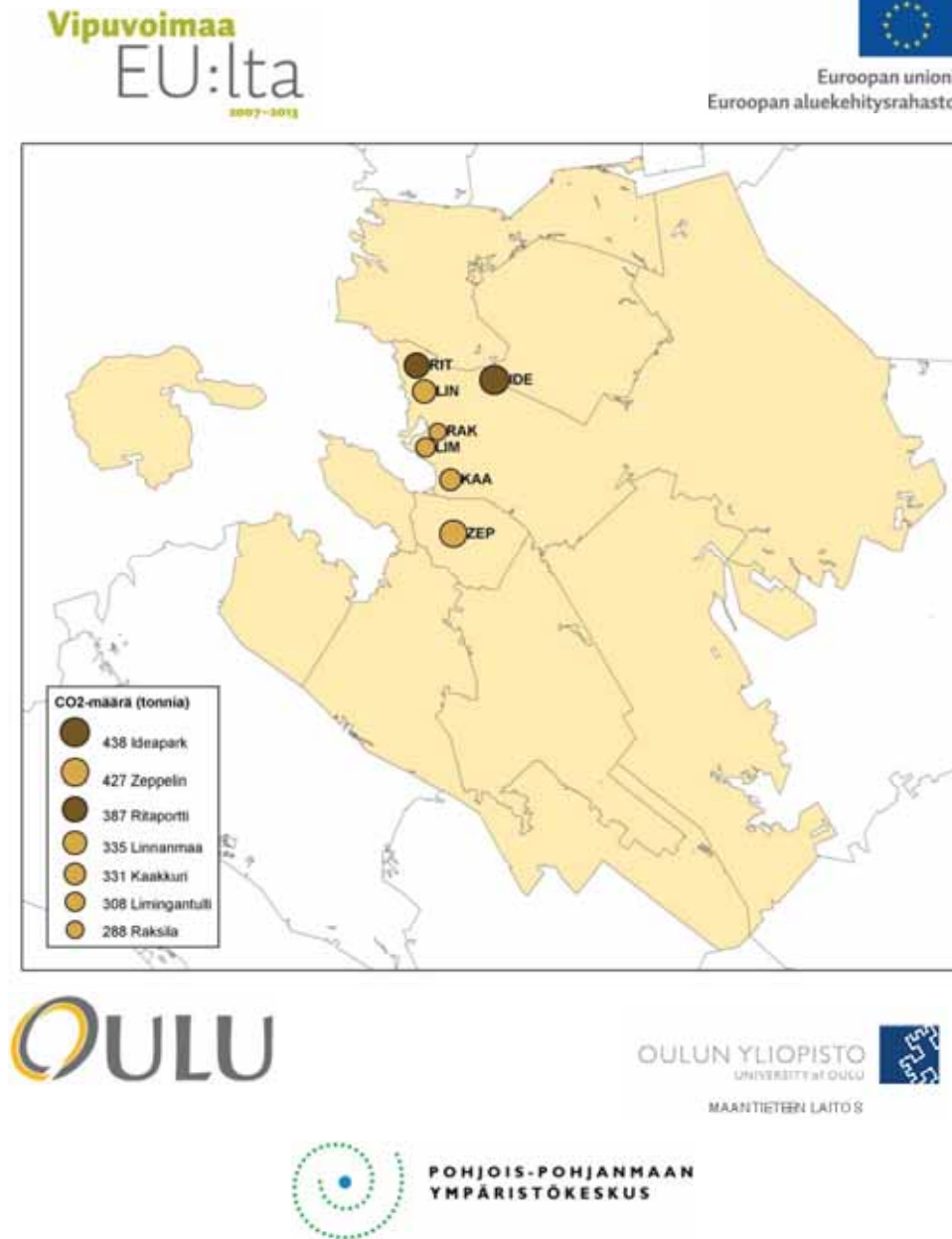


CO2 STUDY IN OULU REGION

- There are 13 regionally remarkable big trade projects in Oulu region.
- The university of Oulu has set to work a study to clear up how the site of planned trade projects influences to CO2 emissions in the region.
- The method is based on geographical information of planned trade projects, site of cars and real routes from home to the malls.

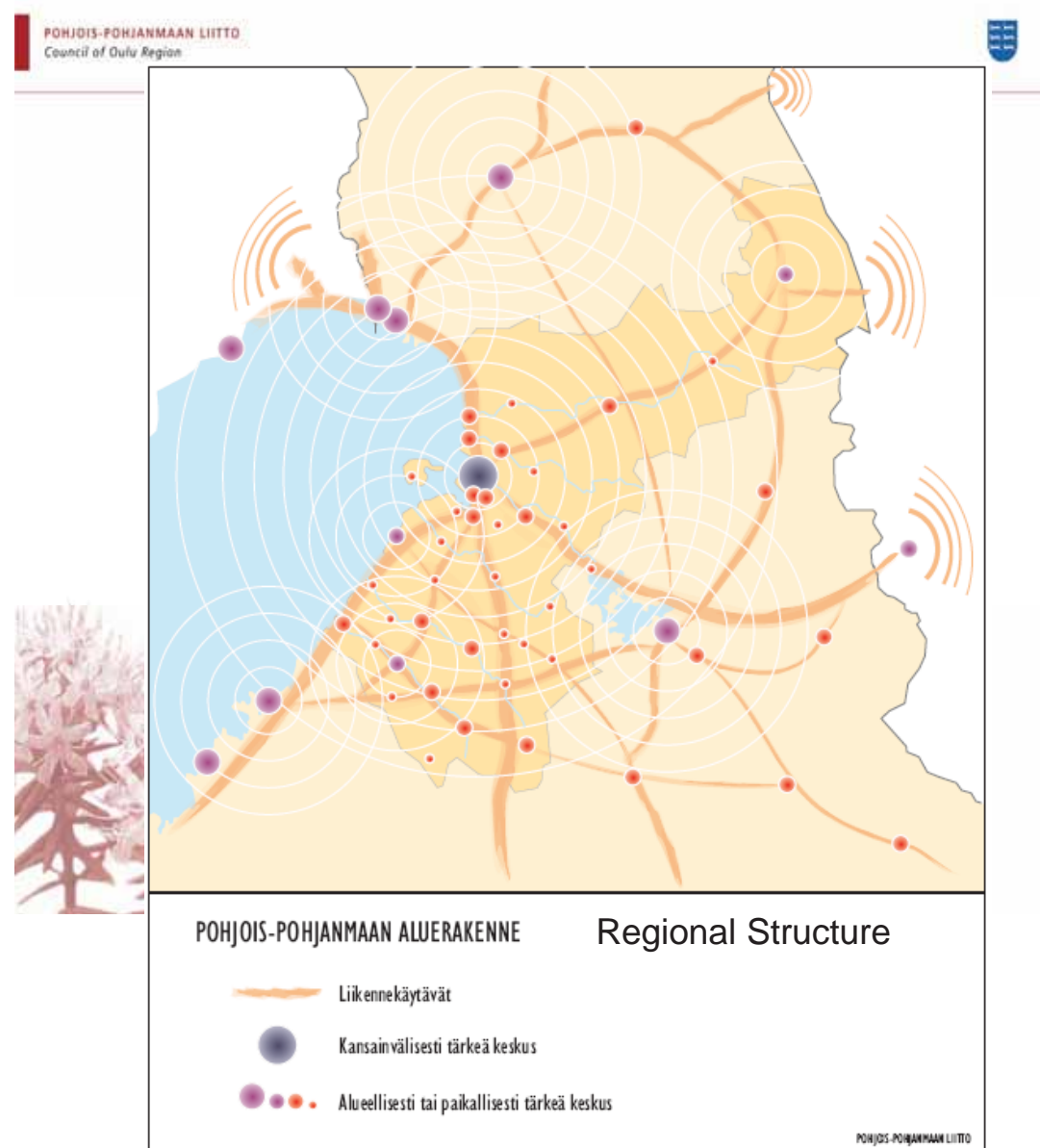


- The result is a relative advantage in CO2 emissions among trade project candidates.
- This study gives one point of view to make decisions in trade project planning in Oulu region.



THE TRAFFIC IN URBAN STRUCTURE PLANNING

- Limitations of green house gas emissions and climate change are very strong factors in planning in the future.
- A strong development of public transportation is needed.
- Deduction of private car traffic is needed.
- The urban structure of Oulu region in north-south direction is thread-like reaching about 70 km.



- A big possibility is local fast train transportation from Liminka in the south to Ii in the north.
- A train doesn't stay in traffic jam and traffic lights.
- The capacity of train is unbeaten in comparison with other vehicles.
- The fluent public transportation requires compact urban structure. Public transport requires masses of people.



Densely populated area in Oulu region



EPILOGUE

- **Restraining and adjustment of climate change arouses new challenges to guidance of land use planning and building activities.**
- **Reduction of numbers of municipalities opens new possibilities to consolidate urban structure.**
- **Increasing environment awareness is needed.**

- There are plenty of difficult question to solve. The decisions of municipalities are essential.
- The parliament and environment administration lays down the means to achieve the objectives.
- Decisions are political and politics belong to the democracy.

