

NATIONAL ROUNDTABLE ON ENERGY EFFICIENCY FINANCE IN FINLAND

Association of Finnish Local and Regional
Authorities (AFLRA), 29th of September, 2020

Vesa Peltola



The Association's core tasks

The Association of Finnish Local and Regional Authorities is the voice of all Finnish cities and municipalities, providing



Interest representation

The Association oversees the interests of its members — the Finnish cities and municipalities.

Development

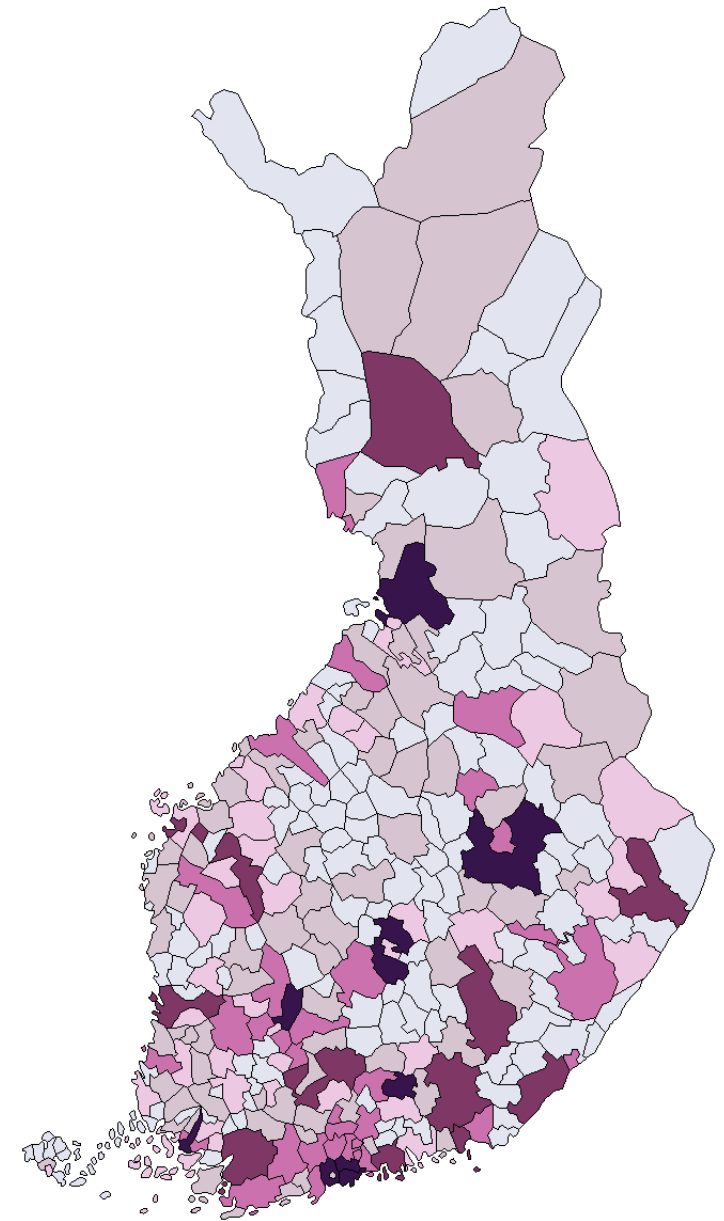
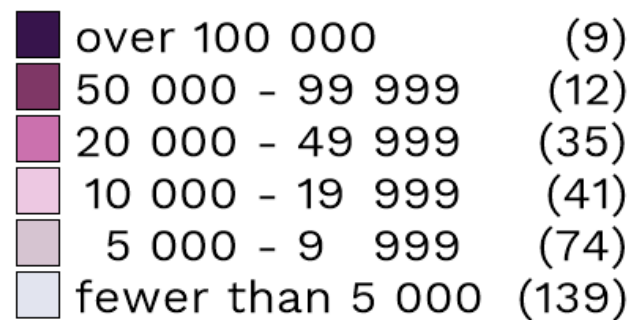
Co-development is used to address challenges faced by the local government sector.

Expert services

The strength of our expert services lies in a profound understanding of the sector's special issues.

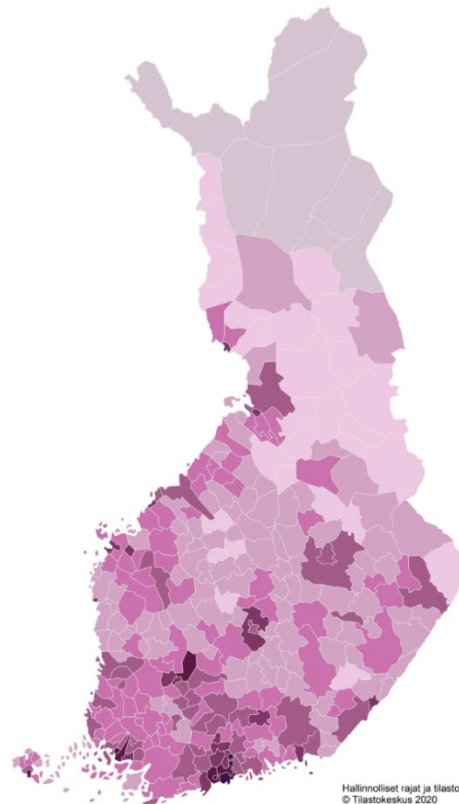
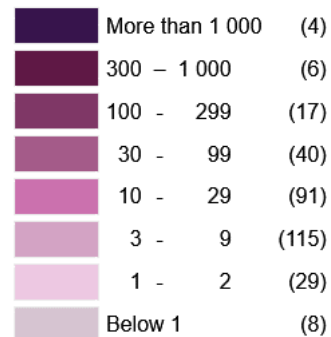
Municipalities in Finland

- 310 municipalities in 2020 (incl. 16 on the Åland Islands)
 - 2/3 have less than 10,000 inhabitants
- 5.5 million inhabitants
- 338 000 km²



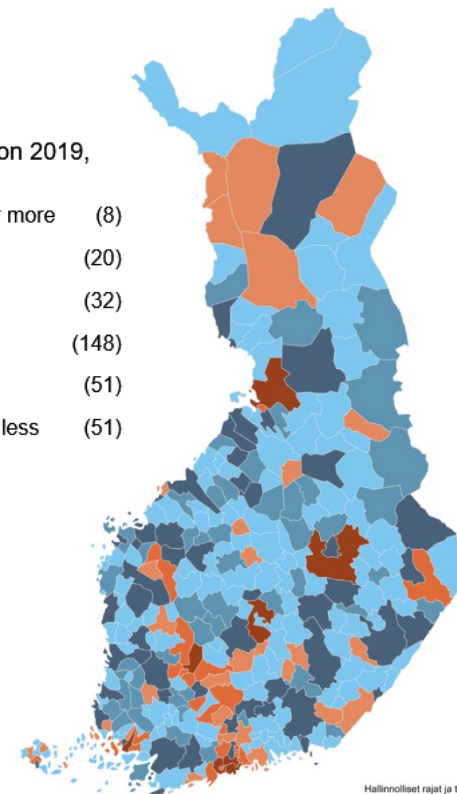
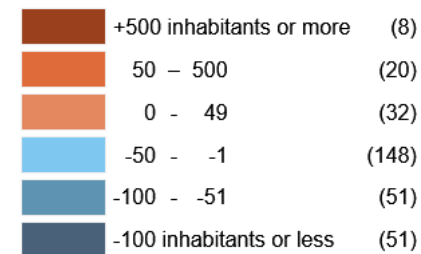
80 per cent of municipalities had negative net migration in 2019

Population density by municipality, 2019
Inhabitants / km²



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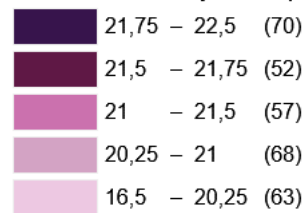
Intermunicipal net migration 2019,
inhabitants



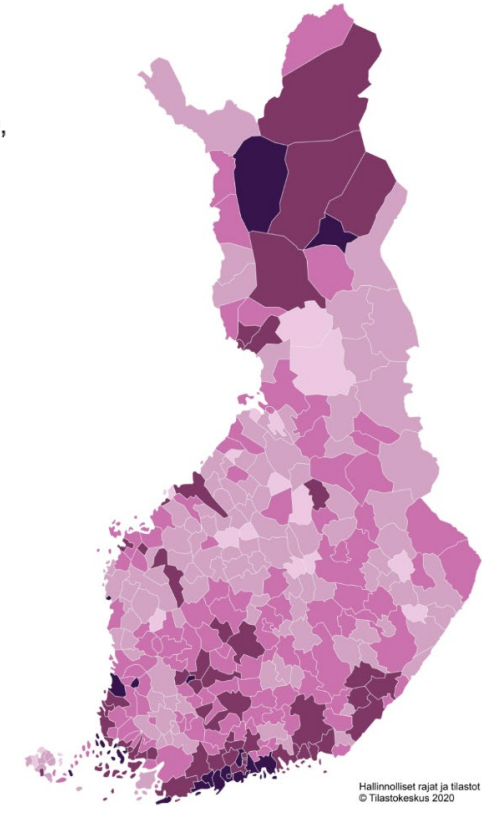
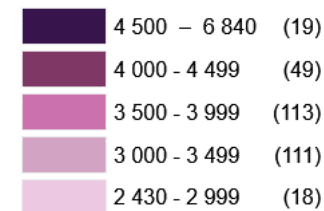
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High income tax rate and low tax income is a difficult combination in remote areas

Income tax rate by municipality 2019 (%)

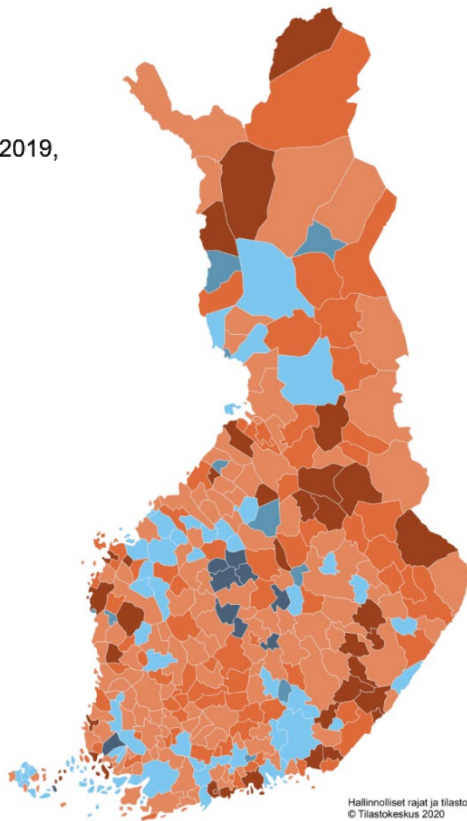
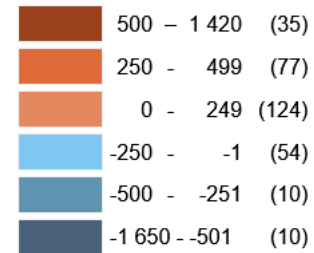


Tax income by municipality 2019, €/inhabitant



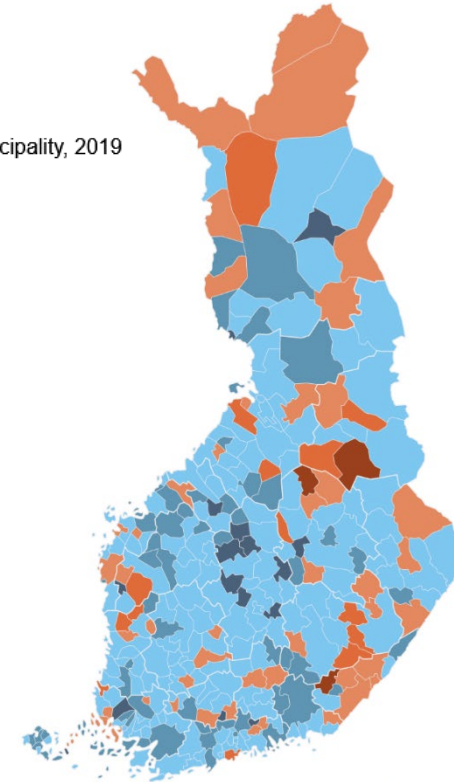
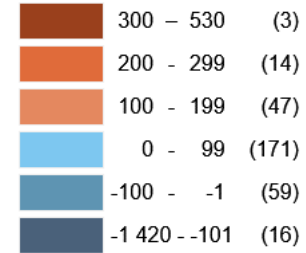
Annual contribution margin is usually positive but still too low (2019)

Annual contribution margin 2019, €/inhabitant



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Share of annual contribution margin of depreciation by municipality, 2019 percent (%)

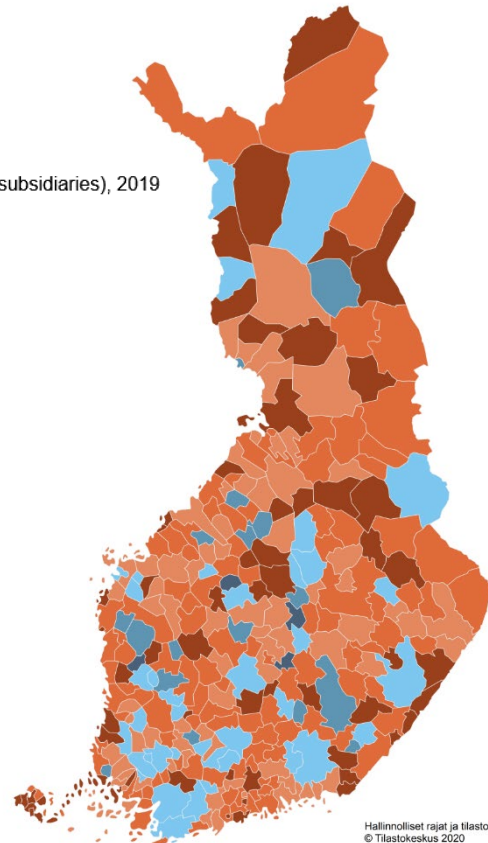
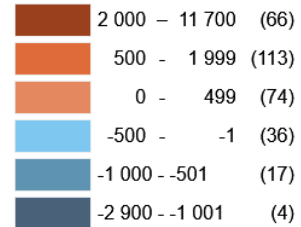


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Cumulative deficit is an alarming and increasing municipal phenomenon

Municipalities

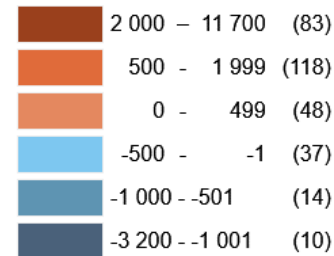
Cumulative residue/deficit by municipality (excl. subsidiaries), 2019
€ / inhabitant



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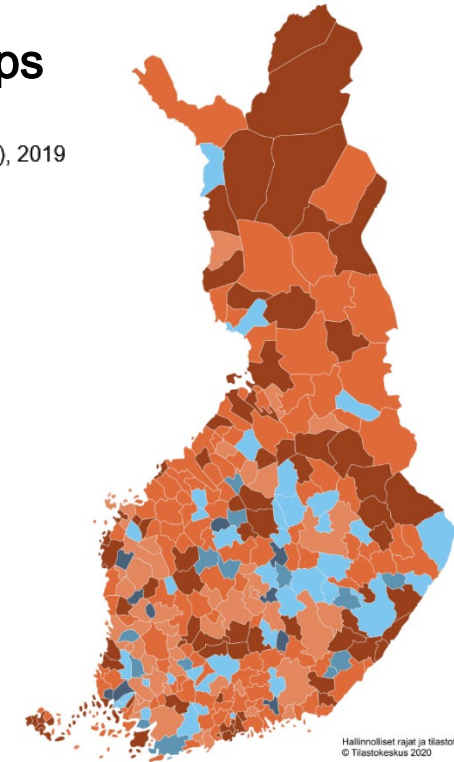
Municipal enterprise groups

Cumulative residue/deficit by municipality (incl. subsidiaries), 2019
€ / inhabitant



Municipal subsidiaries :

- *Real estate companies*
- *Energy companies*
- *Part of waterworks*



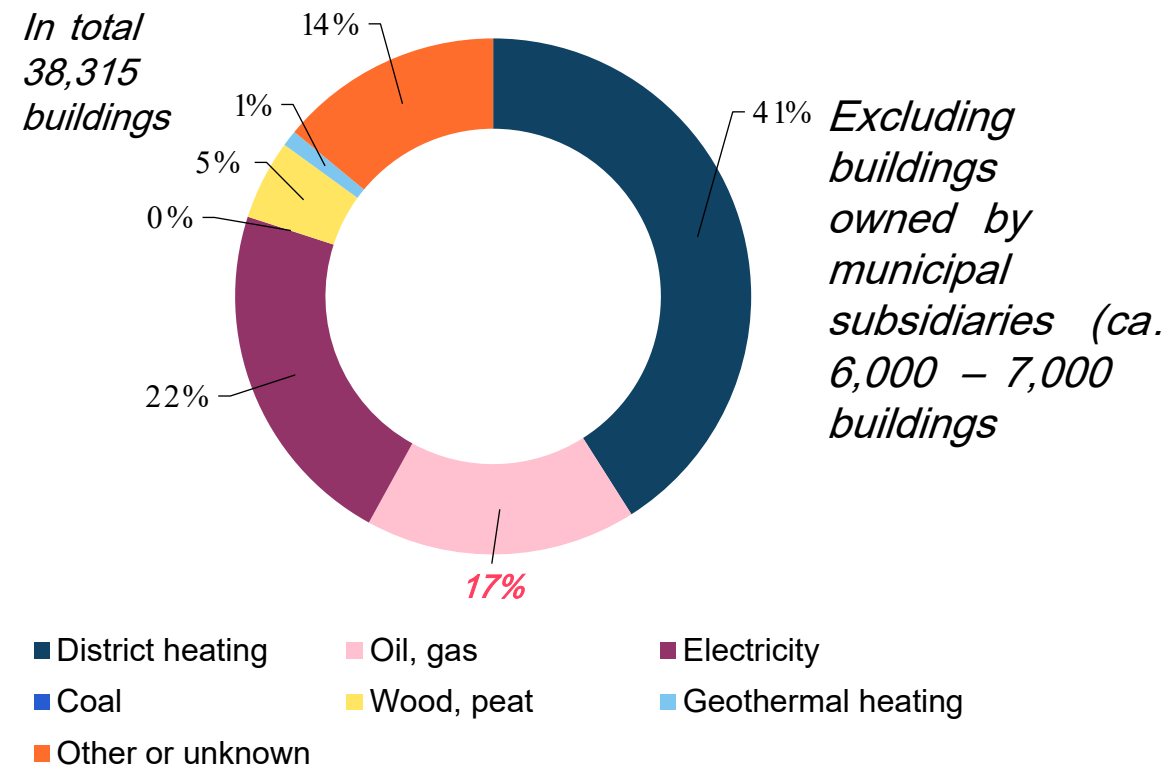
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More than 38,000 municipal buildings

10,000 residential and 28,000 non-residential buildings

- Residential: single houses, row houses, block of flats
- Non-residential : daycare centers schools , hospitals , storages , water supply plants , power plants etc.
- District heating is the main source of energy , then electricity and oil

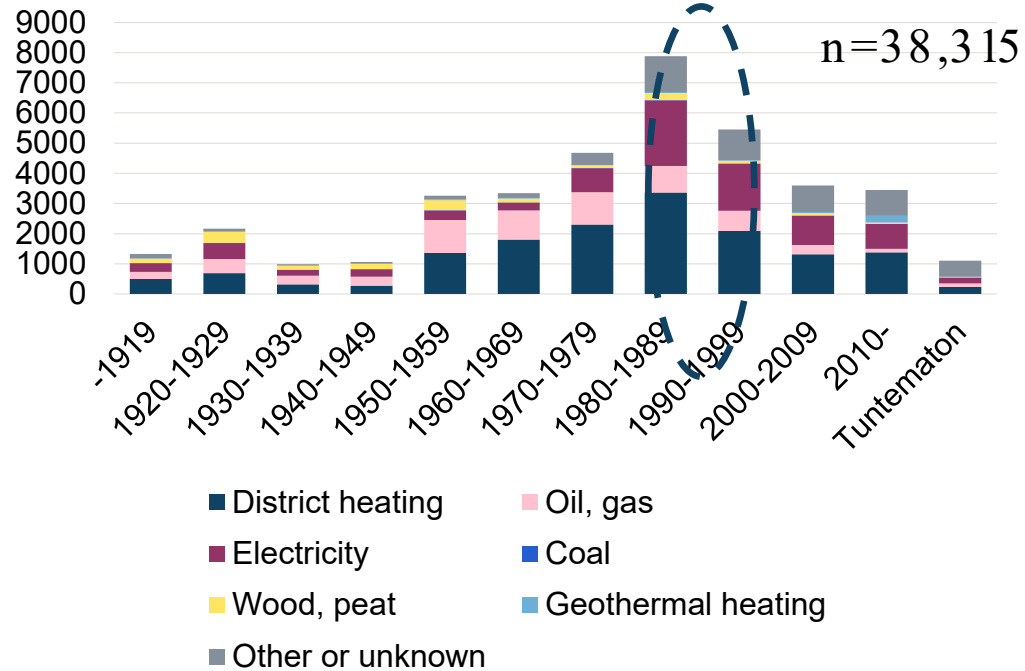
Municipal building stock by heating system



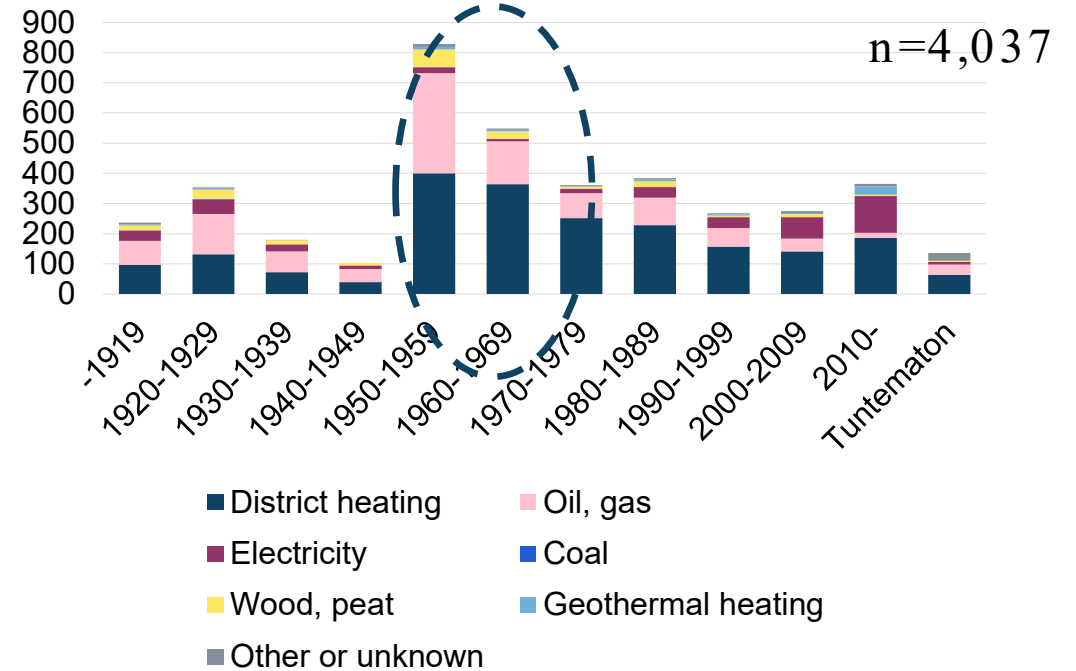
NOTE! Part of oil heating has been replaced with other modes of heating

The peak of all municipal construction in 1980's (schools: in 1950's and 1960's)

Number of municipal buildings by age and heating energy (Finland)



Number of school buildings by age and heating energy (Finland)

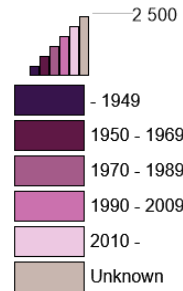


NOTE! Part of oil heating has been replaced with other modes of heating

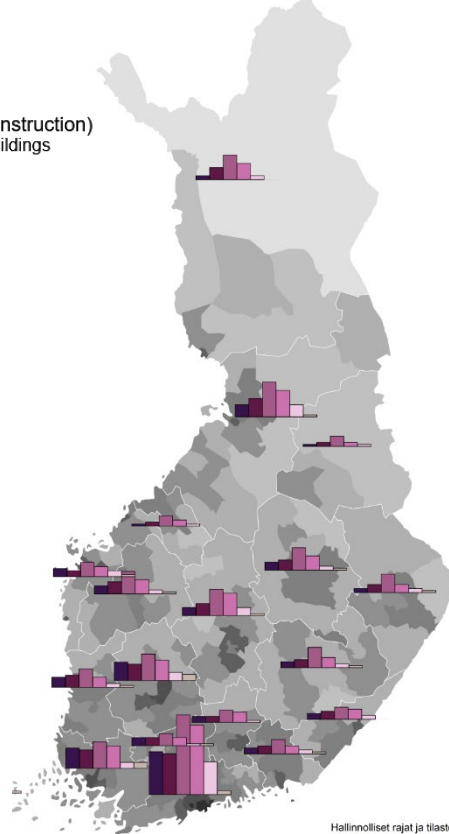
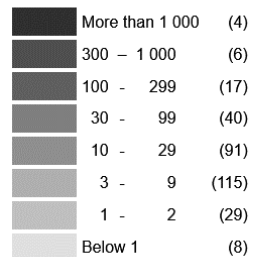
In Finland 2/3 of the municipal buildings have been constructed before year 1990

Age of all municipal buildings

Age of buildings by county (year of construction)
Height of pillar describes the number of buildings



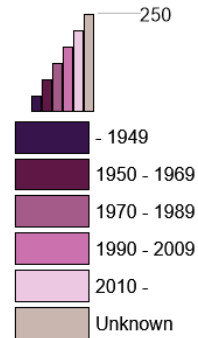
Population density by municipality, 2019
Inhabitants / km²



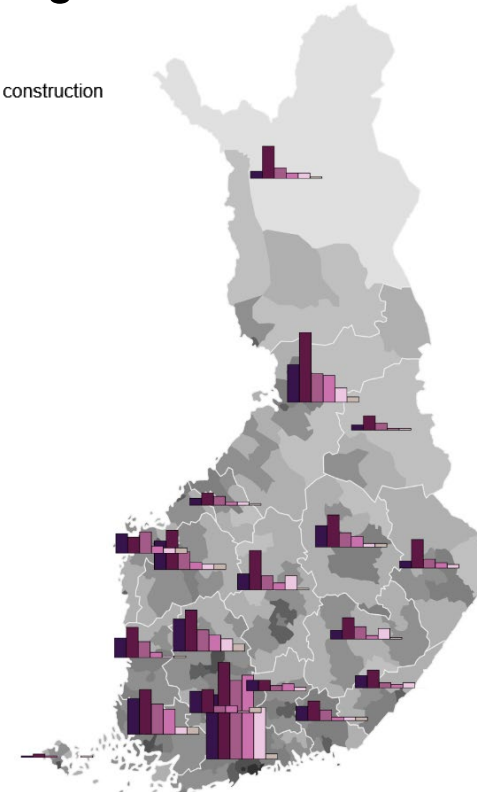
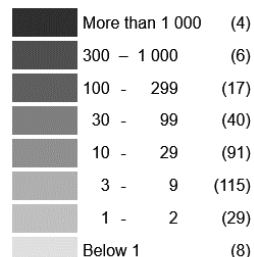
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Age of school buildings

Number of schools (only general education), year of construction
Height of pillar describes the number of buildings



Population density by municipality, 2019
Inhabitants / km²

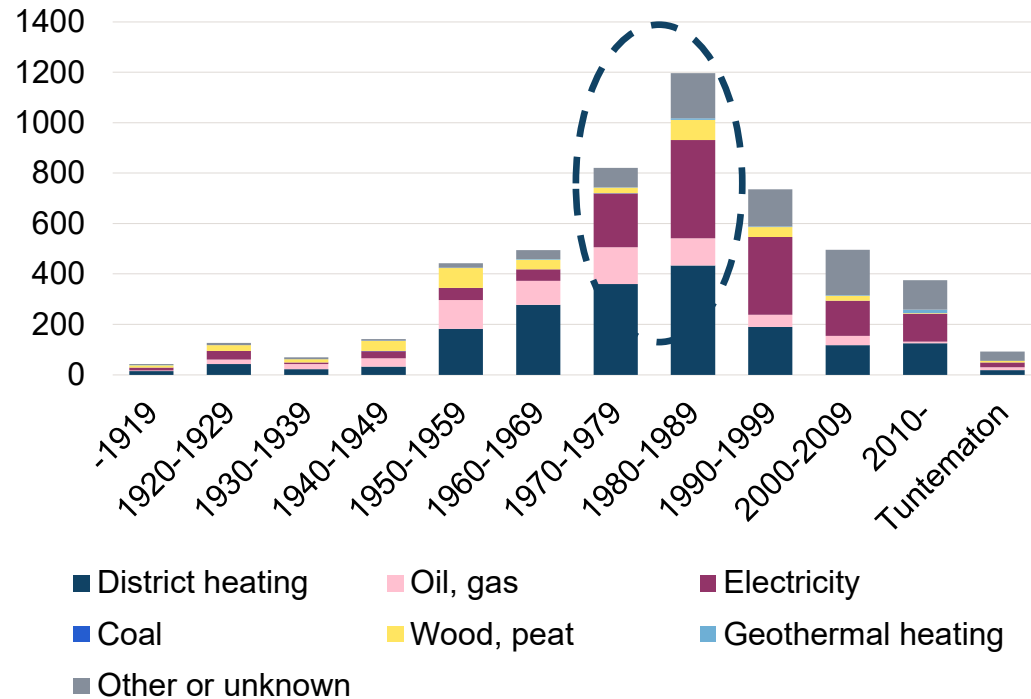


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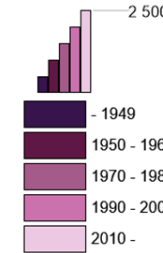
- School buildings :*
- elementary schools
 - junior high schools
 - high schools

Building stock in three remote counties

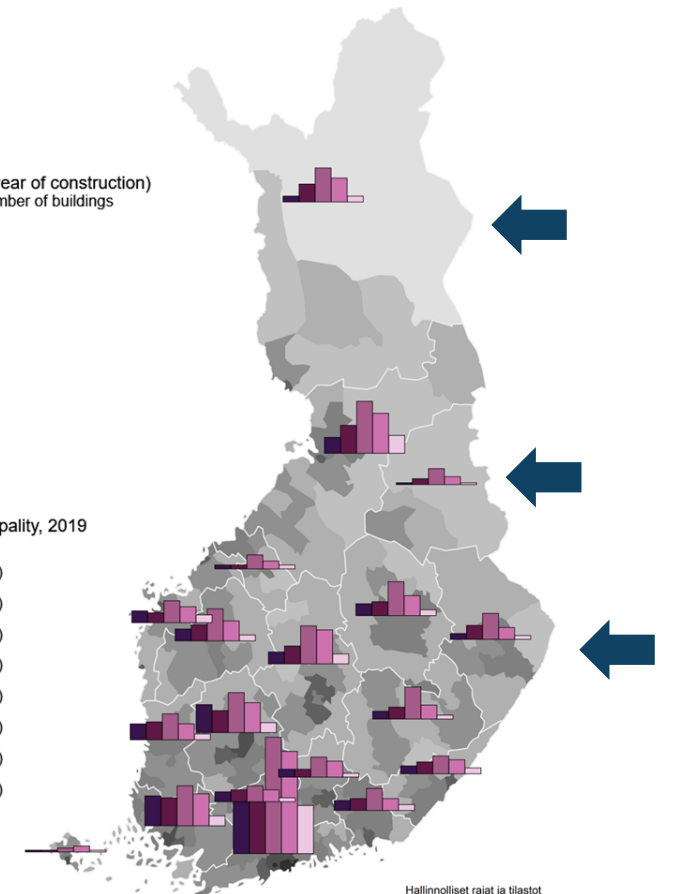
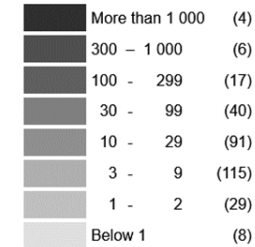
Number of municipal buildings by age and heating energy (Northern Carelia , Kainuu, Lapland)



Age of buildings by county (year of construction)
Height of pillar describes the number of buildings



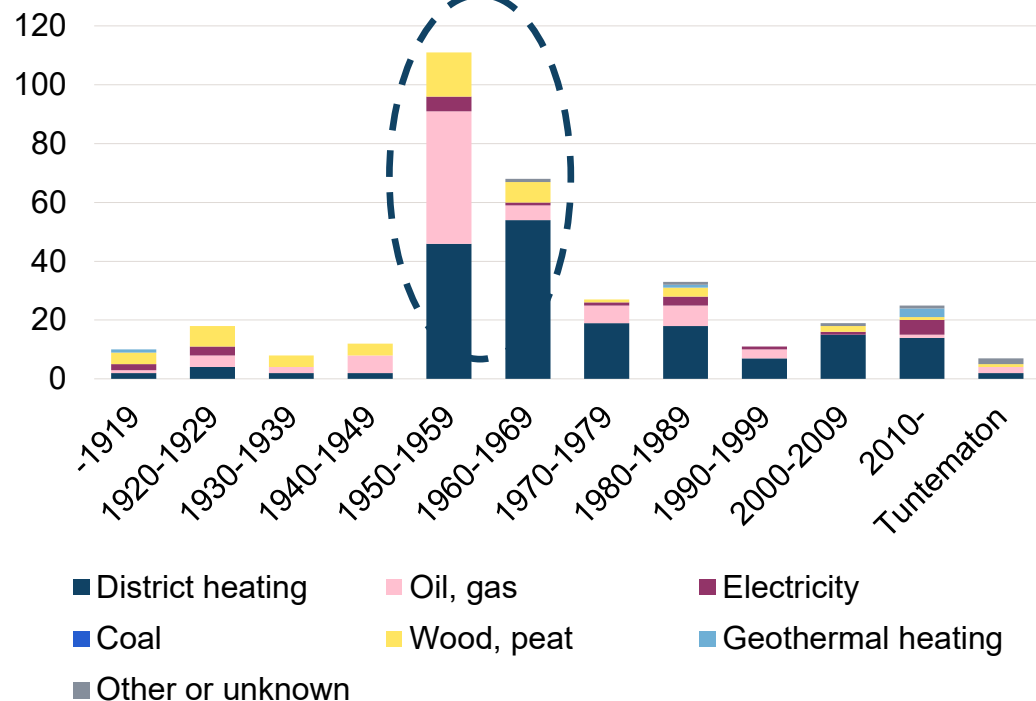
Population density by municipality, 2019
Inhabitants / km2



NOTE! Part of oil heating has been replaced with other modes of heating

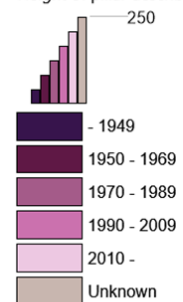
Number of schools in three remote counties

Number of school buildings by age and heating energy (Northern Carelia, Kainuu, Lapland)

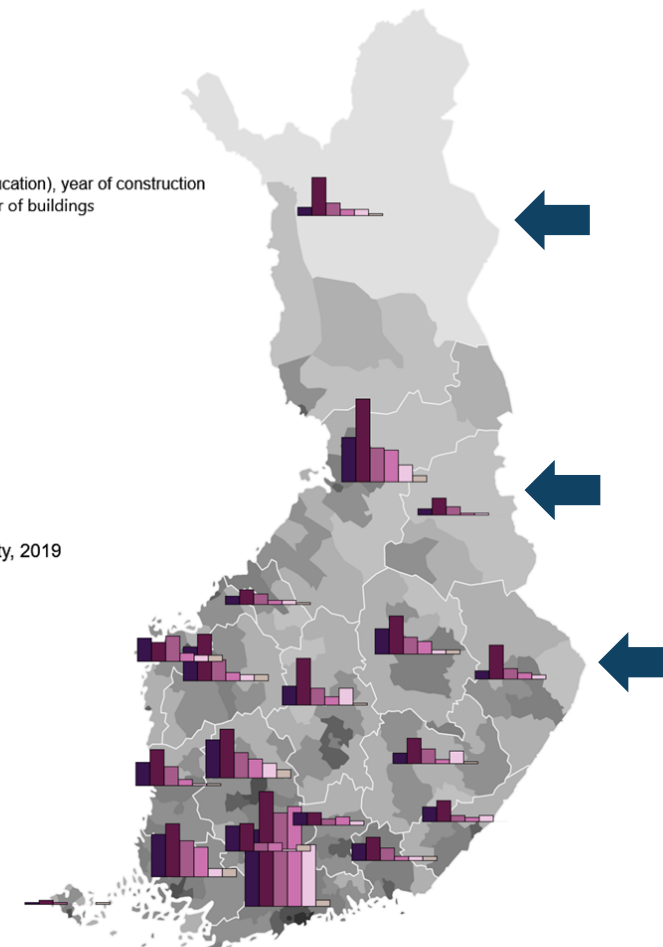
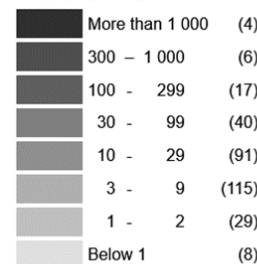


NOTE! Part of oil heating has been replaced with other modes of heating

Number of schools (only general education), year of construction
Height of pillar describes the number of buildings



Population density by municipality, 2019
Inhabitants / km2



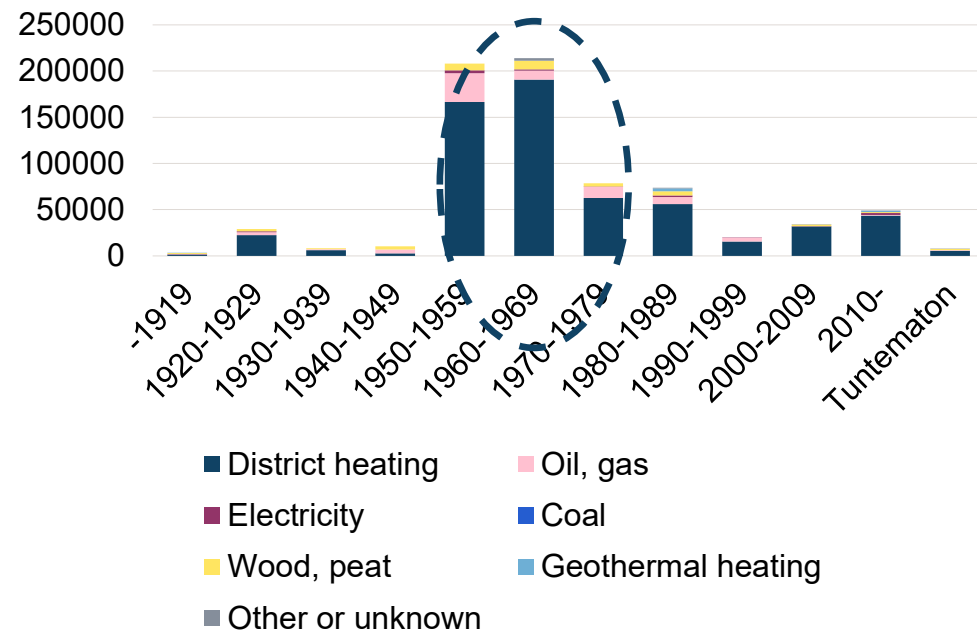
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Schools:

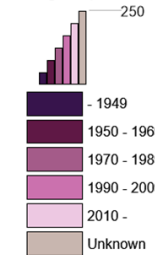
- elementary schools
- junior high schools
- high schools

Gross floor area of school buildings in three remote counties

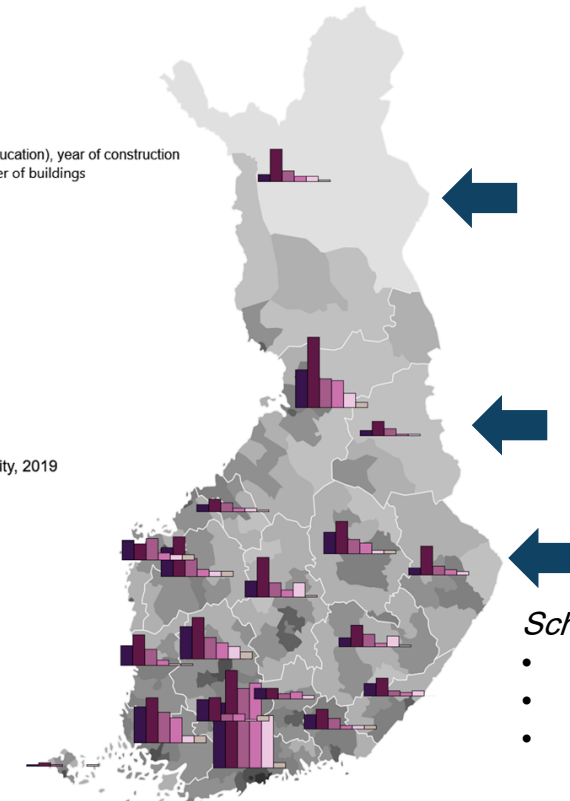
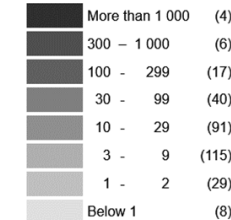
Gross floor area of school buildings by age and heating energy (Northern Carelia , Kainuu, Lapland)



Number of schools (only general education), year of construction
Height of pillar describes the number of buildings



Population density by municipality, 2019
Inhabitants / km2



- Schools:
- elementary schools
 - junior high schools
 - high schools

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Aspects of improving energy efficiency in municipal buildings of remote areas

- 1. Economic situation** of municipalities has deteriorated during last years
 - COVID-19 is an additional burden
- 2. In remote areas, the value of premises** is decreasing and the buildings are old
 - Future of buildings often unclear (a change of use / hiring / selling / demolishing ,...)
- 3. Management problems** hinder energy efficiency investments (lack of resources and know-how, complicate processes of energy investment aid, competing investment projects)
- 4. Availability of loans** for investments is not a significant problem in municipal sector – in Finland a municipality cannot go bankrupt ...
- 5. The economic limits** for investments come from key figures of financial statements of a municipal enterprise group
 - To avoid increasing cumulative deficit , annual contribution margin should cover depreciations in the long run

“In remote areas economic resources, know-how and unclear future prospects set limits to municipal energy investments.”

Thank you!

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**KUNTA
LIITTO**

Association
of Finnish
Municipalities