

The Use of Web-based SoftGIS Method in the Urban Planning Practices

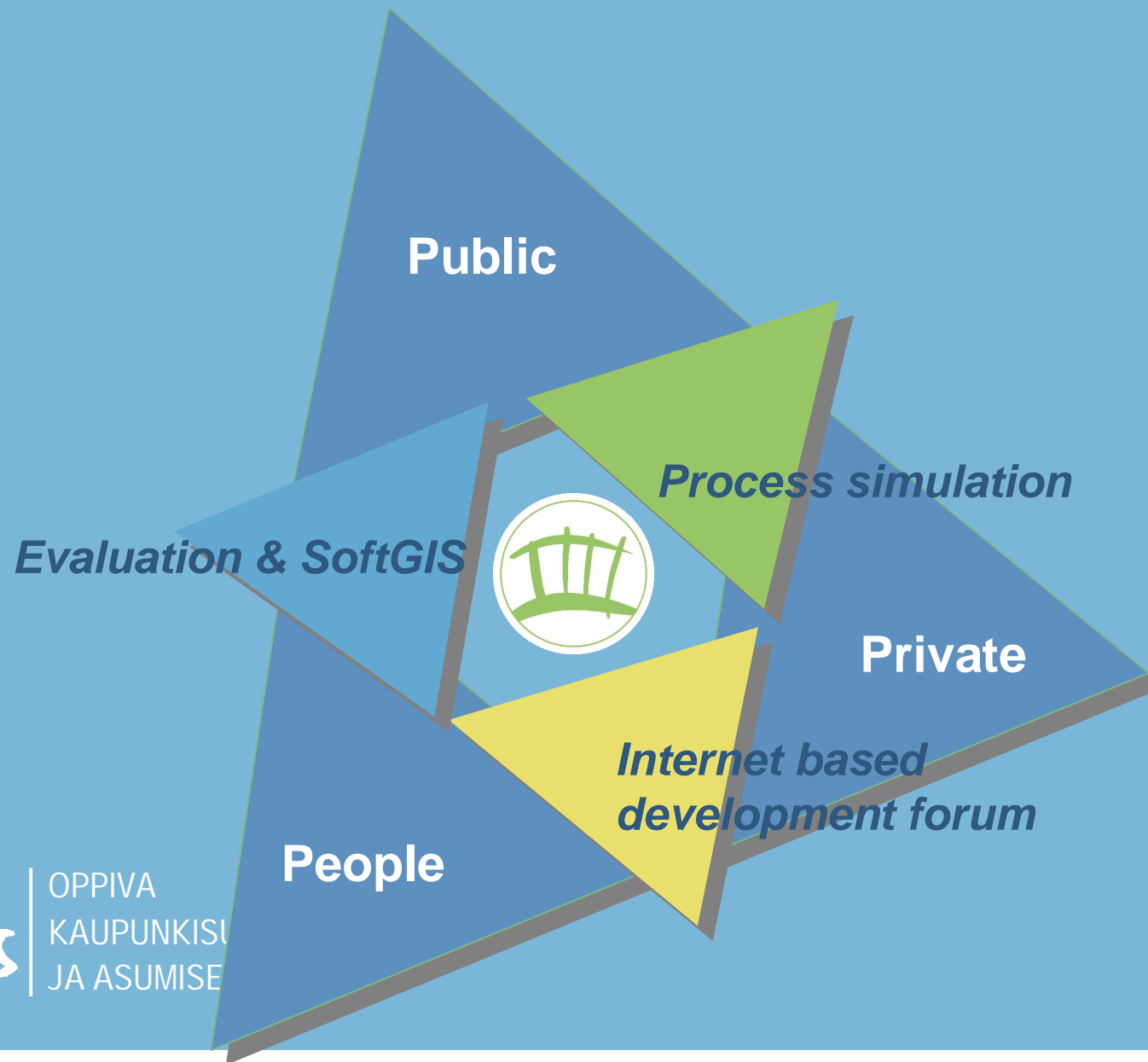


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Maarit Kahila & Marketta Kyttä
Conference Urban Conditions and Life Chances
Amsterdam
2006

URBAN PLANNING AND EVERYDAY LIFE:
A LEARNING PROCESS

OPUS & P4-model (Public-Private-People -Partnership)



opus

OPPIVA
KAUPUNKISU
JA ASUMISE



Aim of softGIS study

Gather research data about residents experiences related to their living environments

Linking the research data and structural features of the environments with the help of geographical information systems (GIS)

Research and development themes

Developing new Internet-based methods

- SoftGIS for evaluating the quality factors of living environments
- SoftGIS for children and youth

To utilize the evaluation knowledge in planning process

Research cases

- Järvenpää, Nurmijärvi, Mäntsälä, Kerava
- City of Turku
- Asuntosäätiö



softGIS Methodology

Planning theory:

Collaborative planning, local knowledge

(Horelli, Staffans)

Environmental psychology:

Perceived quality

(Kyttä)

GIS Science:

Participative GIS

ICT:

www-environment

MODEL of THE PERCEIVED ENVIRONMENTAL QUALITY

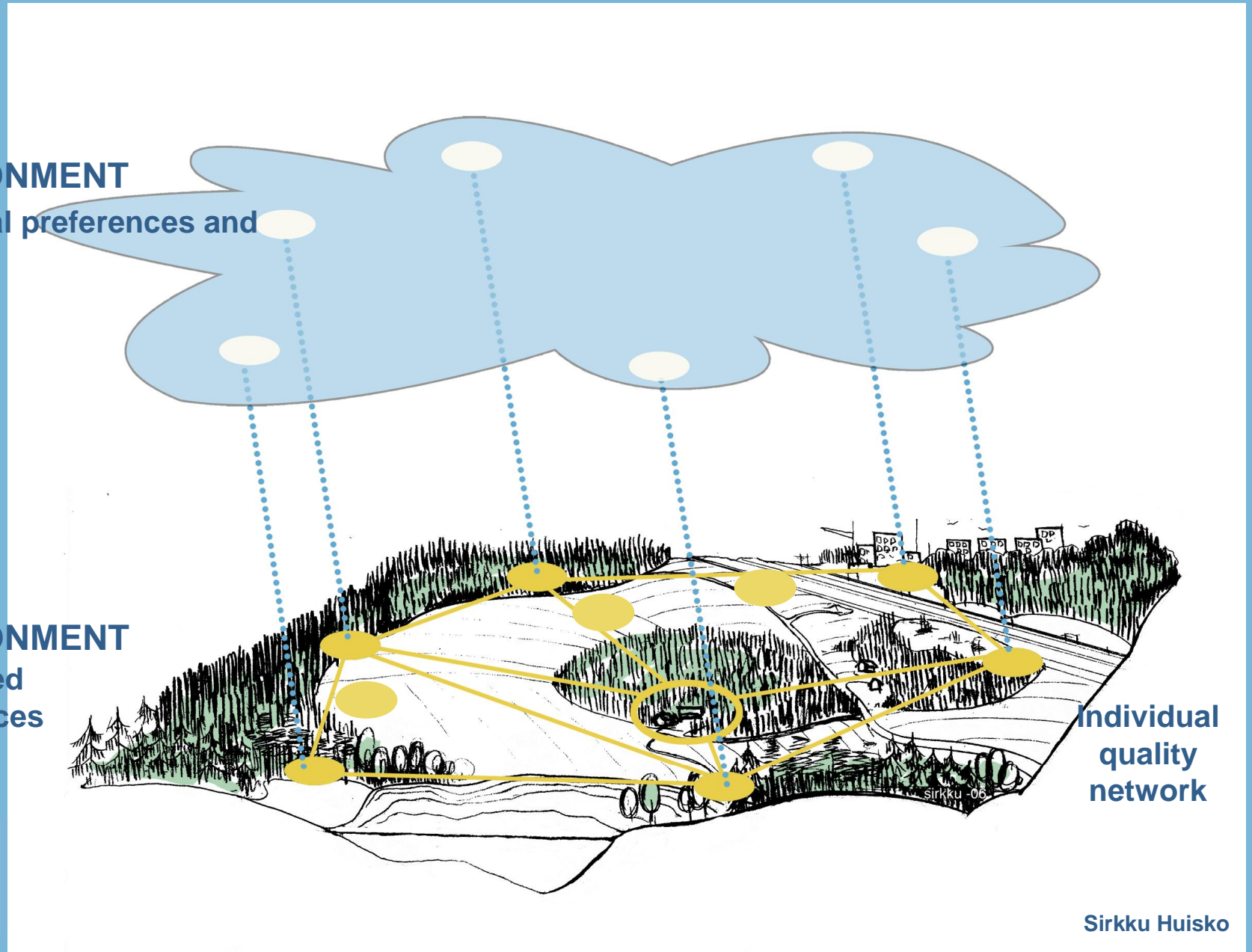
(Marketta Kyttä)

IDEAL ENVIRONMENT

Individual preferences and projects

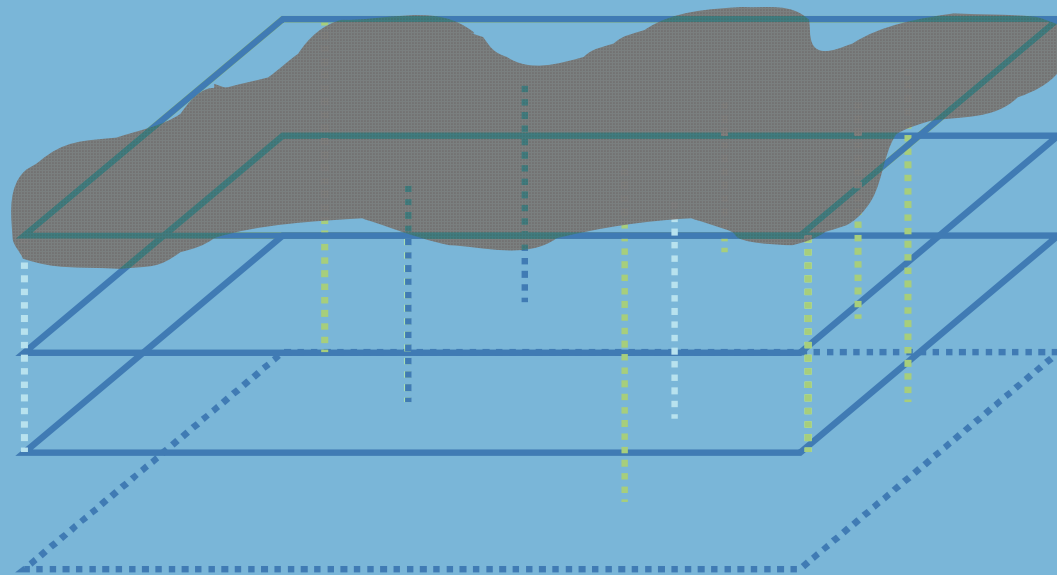
REAL ENVIRONMENT

Actualized affordances



The 'soft' GIS

Developing a GIS-based method for
studying the perceived environmental quality



a new layer for the Geographic Information System



softGIS The perceived quality of environment



JÄRVENPÄÄ

POSITIVE QUALITY FACTOR 1: PEACEFUL

Please mark to the map the place, area or route, where this quality factor is located. If it is impossible to locate the factor, press continue-button. [Here you will find some more instructions.](#)

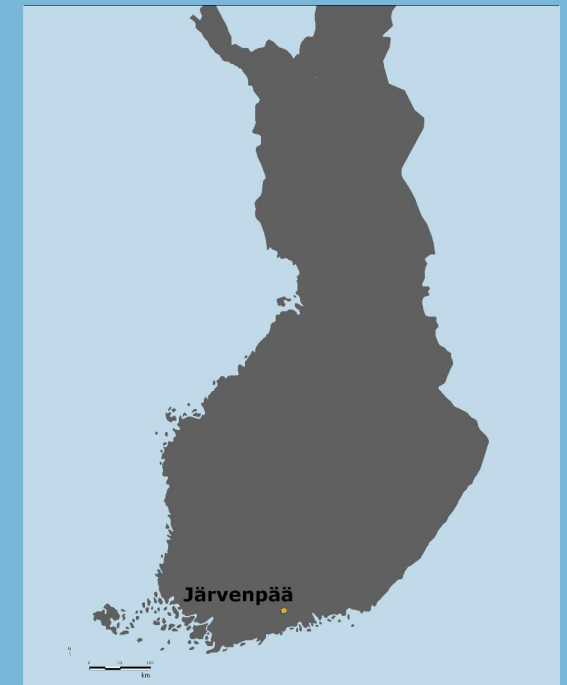
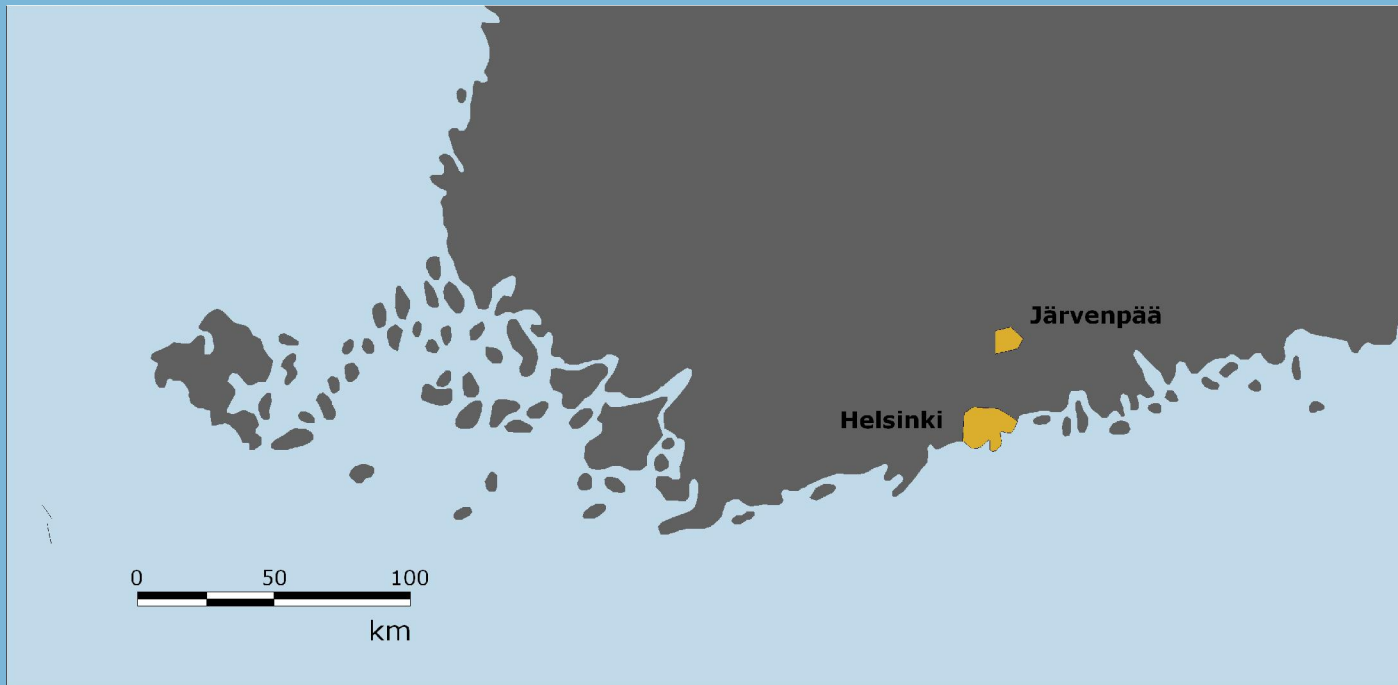


Please continue

Previous page

End

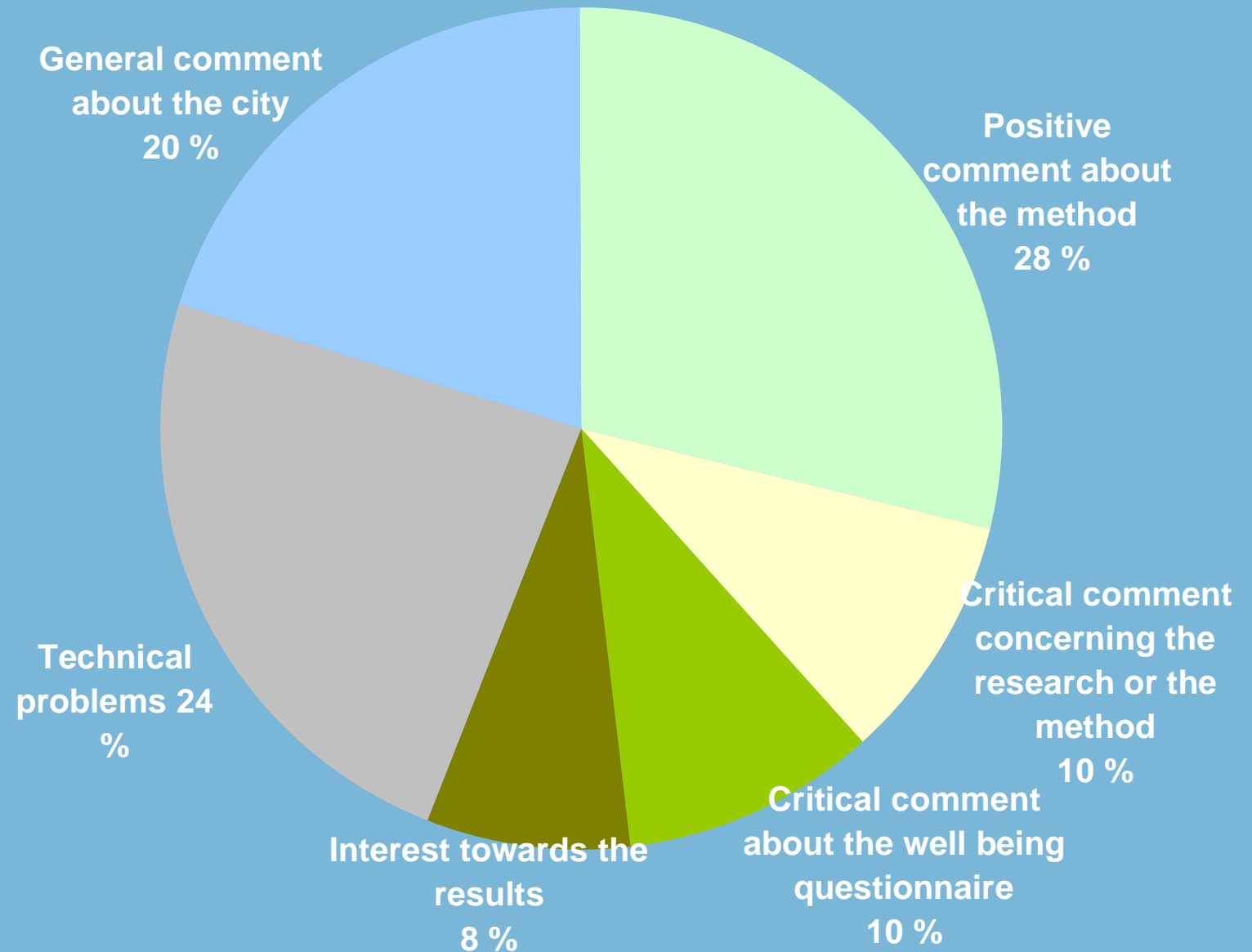
Some results of sotfGIS –study Järvenpää



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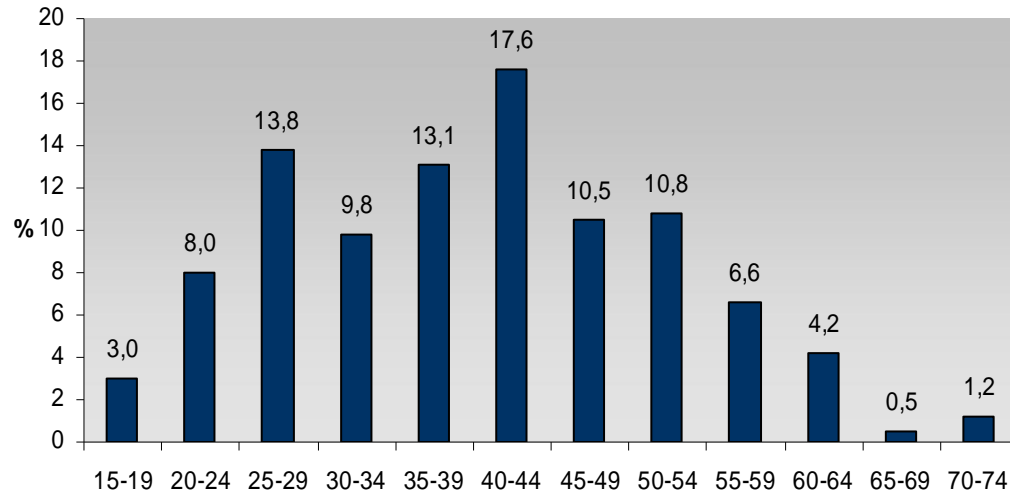
SoftGIS experiences



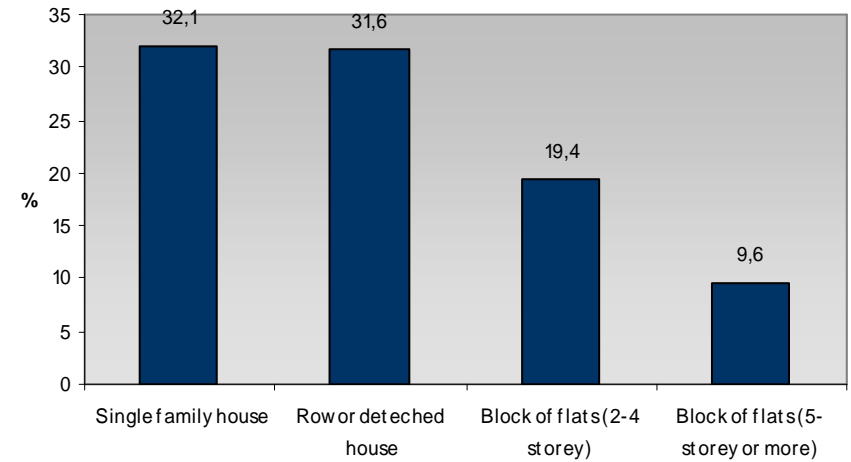
Subjects

N 427

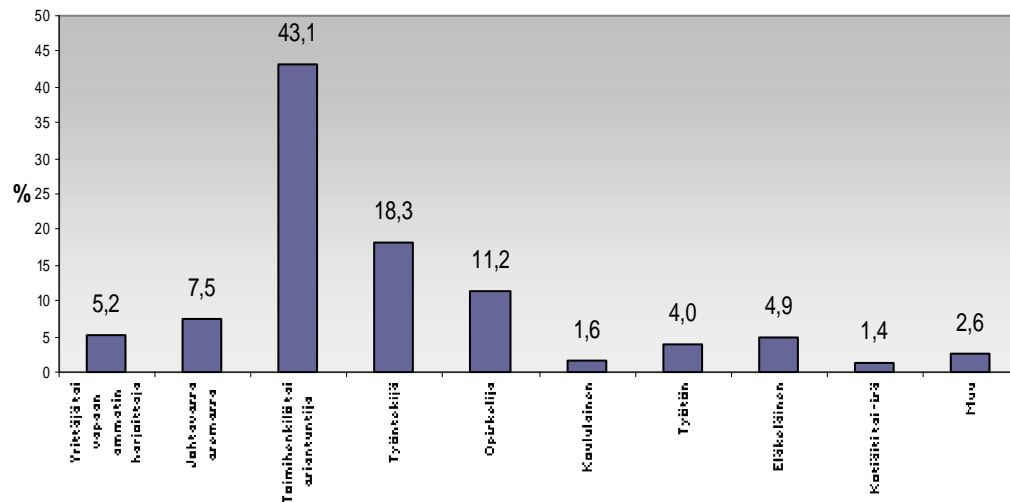
Age group



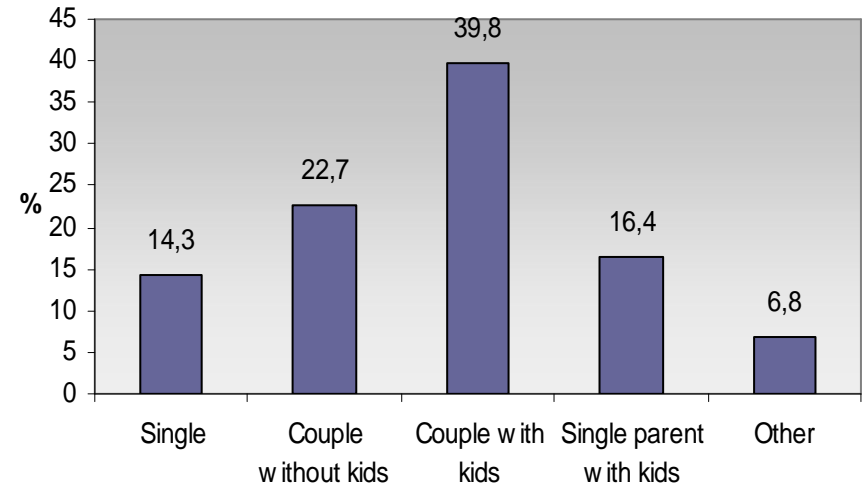
House type



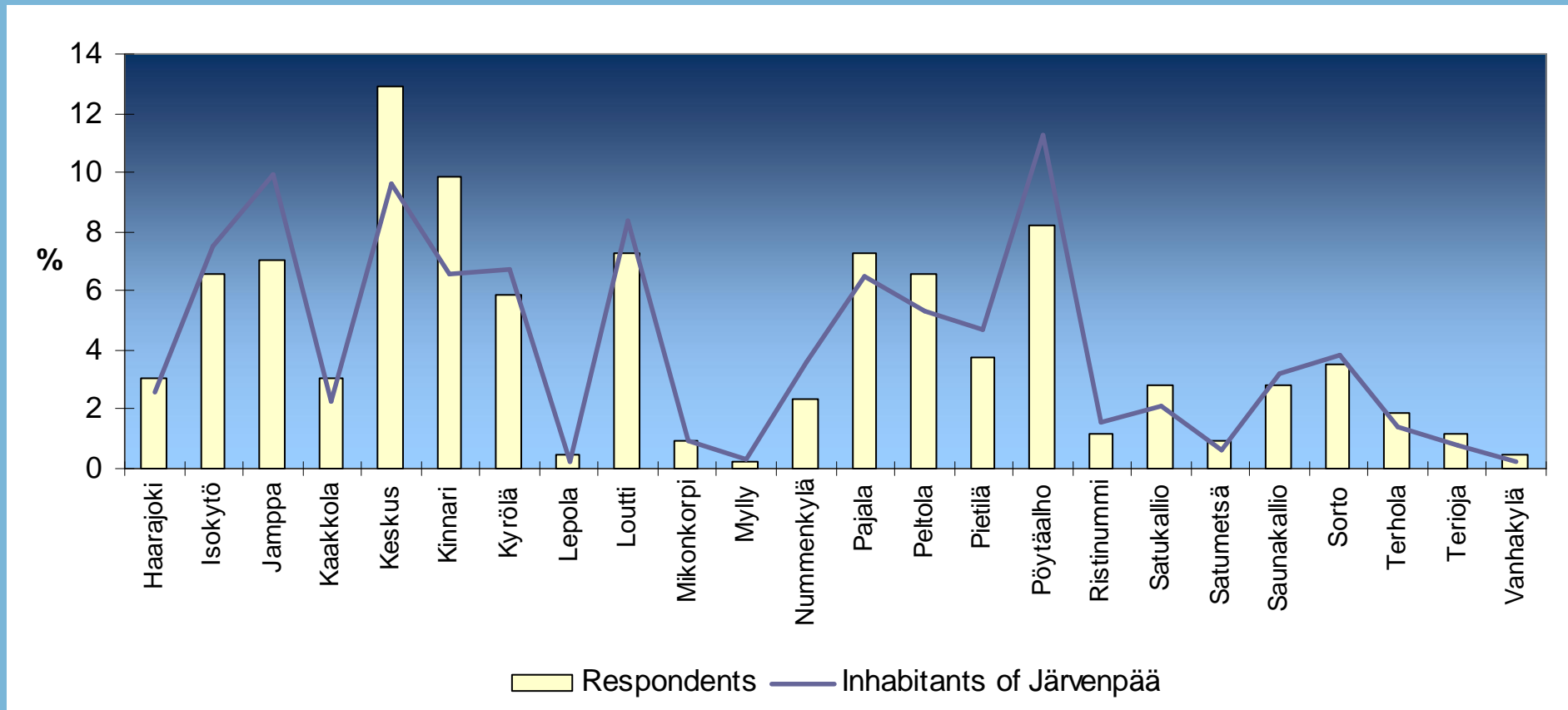
Socioeconomic status



Family type



Geographic representativeness



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THE CONTENTS OF QUALITY FACTORS



peaceful	220
safe	199
well taken care of	144
close to nature	116
cozy	80
good services	75
good connections	43
spacious	30
child friendly	22



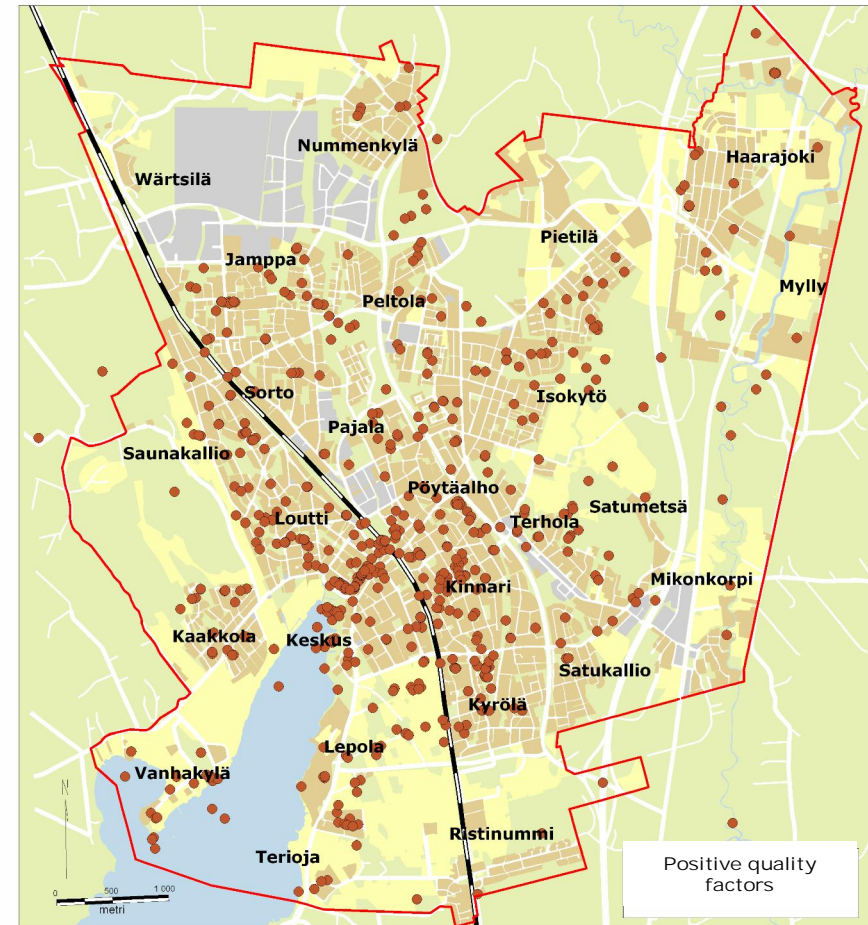
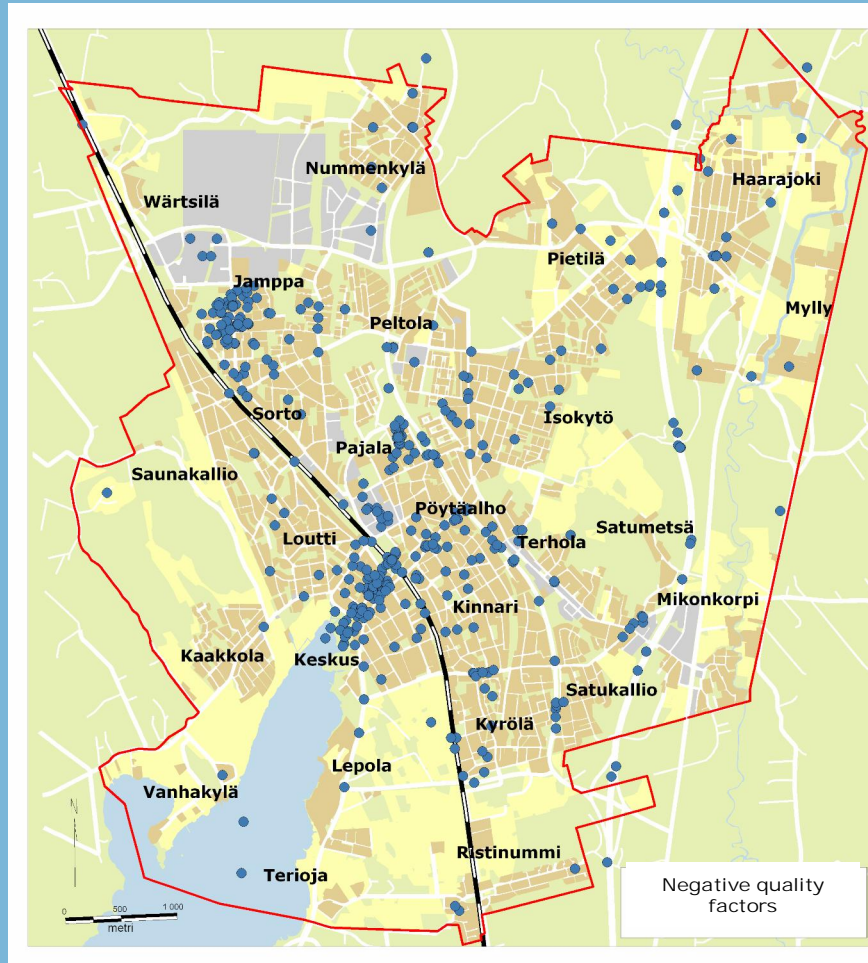
Restless, noisy	230
dense	154
insecure	121
untidy	121
bad location	83
crowded	74
uncozy	72
polluted	46
ugly	18

"Real nature close by." "Buildings that are human scale (one family dwellings)." n = 427



JÄRVENPÄÄ

The location of quality factors

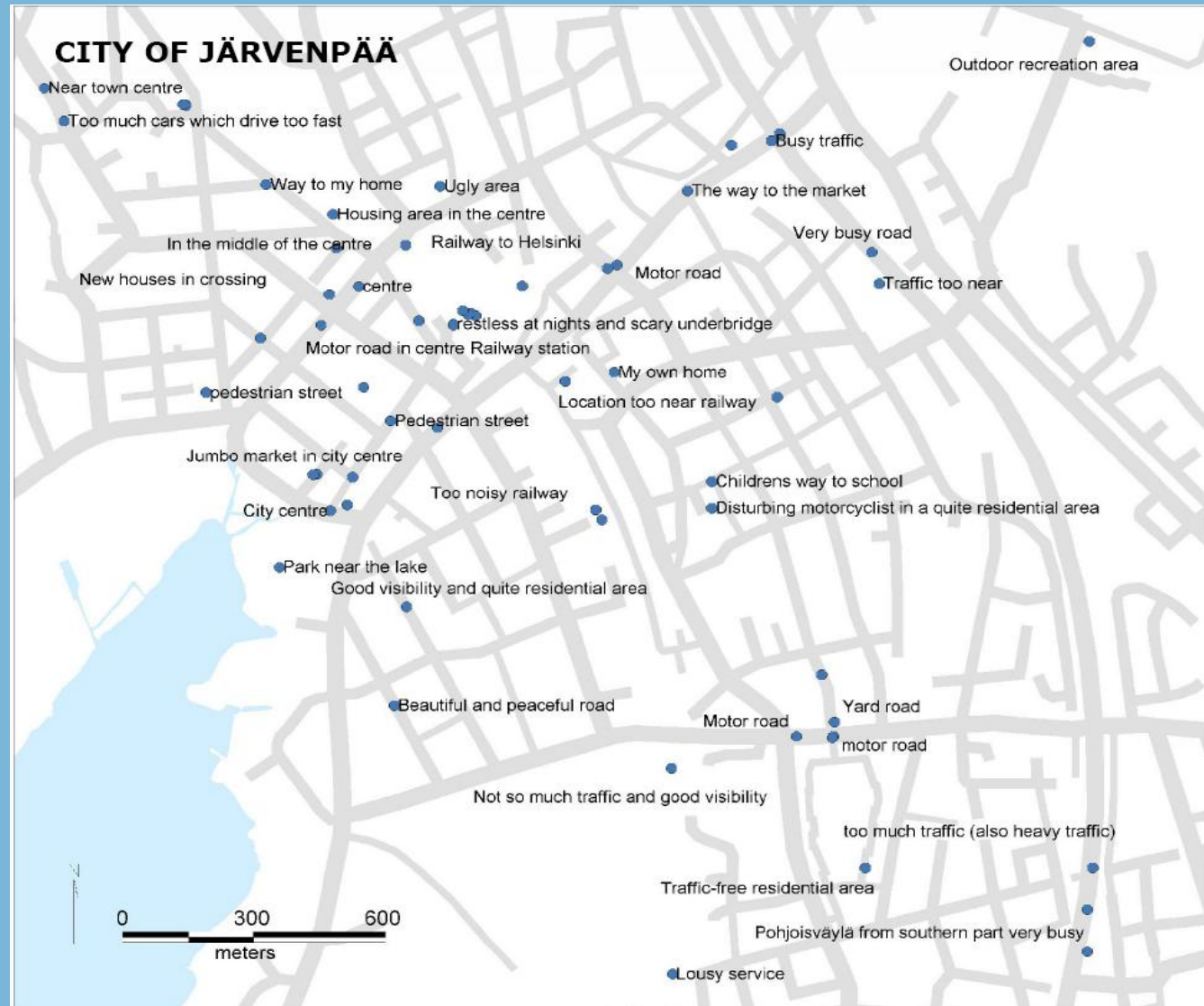


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+

Quality factors thematically:

Traffic network



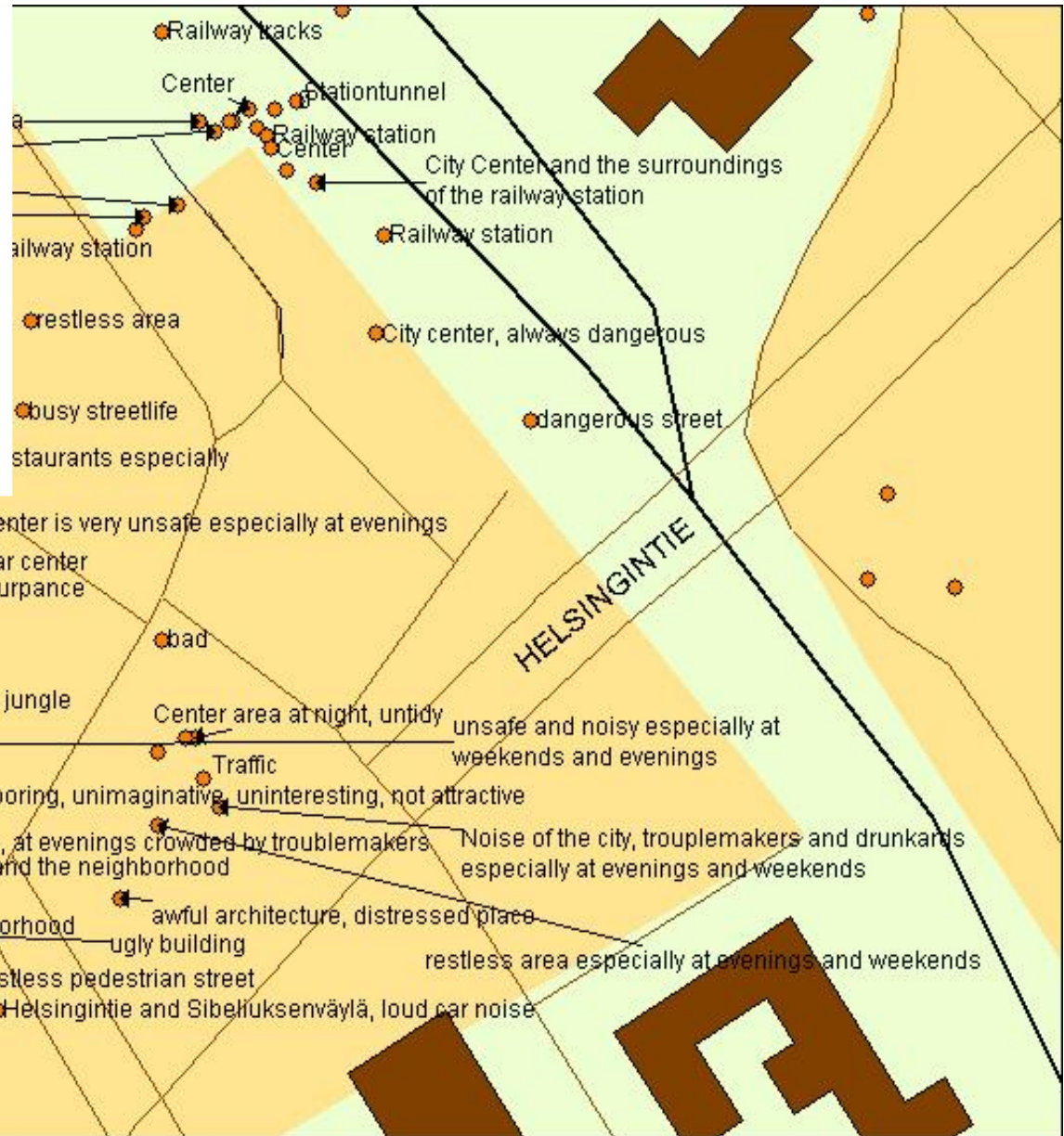
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Positive 'hot spot': The shore and the lake



Negative 'hot spot': The centre of the town



The location of affordances: The distance from home

”Järvenpää is a village like town, familiar faces are everywhere. Good place for children to grow up. Nature next door...”



under 20 m à **18 %**

20 m - 1 km à **50 %**

1 - 3 km à **19 %**

3 - 10 km à **5 %**

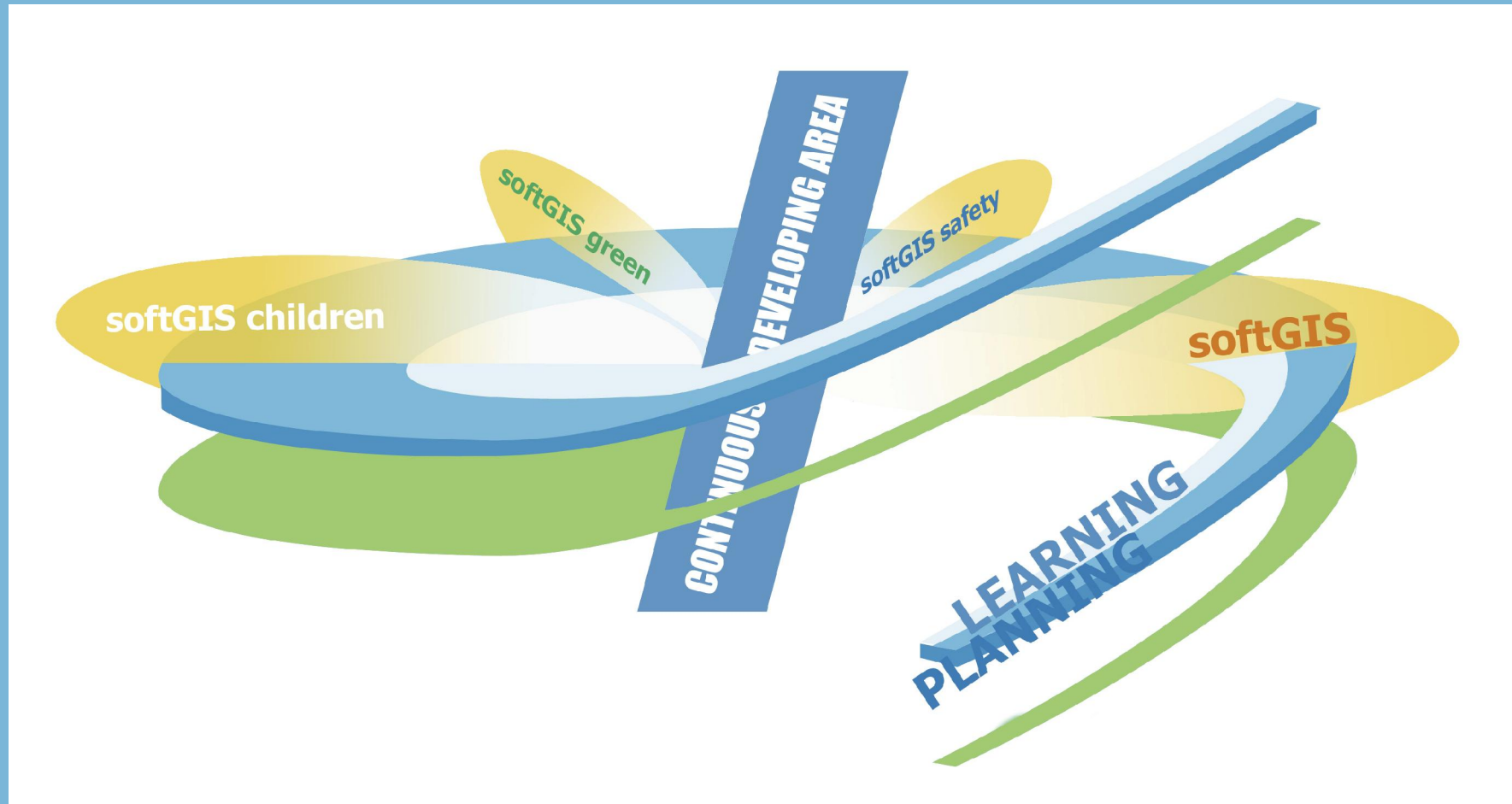
Over 10 km à **9 %**



softGIS-information



softGIS-tools



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Residents

Possibilities

- + wide participation
- + easiness of the collaboration/cooperation (independence of time and place)
- + continuous information flow
- + user-friendliness
- + anonymity

Threats (Viherä, 1999)

- interface (technical abilities)
- motivation
- know-how

Planners / Decision makers

Possibilities

- + wide participation
- + affordability
- + easiness of the collaboration/cooperation (independence of time and place)
- + continuous information flow
- + anonymity
- + geographical information (coordinates)

Threats

- technical abilities
- planning traditions
- closed technical systems
- reliability/representativeness
- information overflow

A more democratic planning process?



**INHABITANTS'
EXPERIENCES**

**DESIGN AND
PLANNING
PRACTICES**

TACIT KNOWLEDGE

TACIT KNOWLEDGE