

Östersundom  
district was joined  
to Helsinki in 2008



# Östersundom planning area today

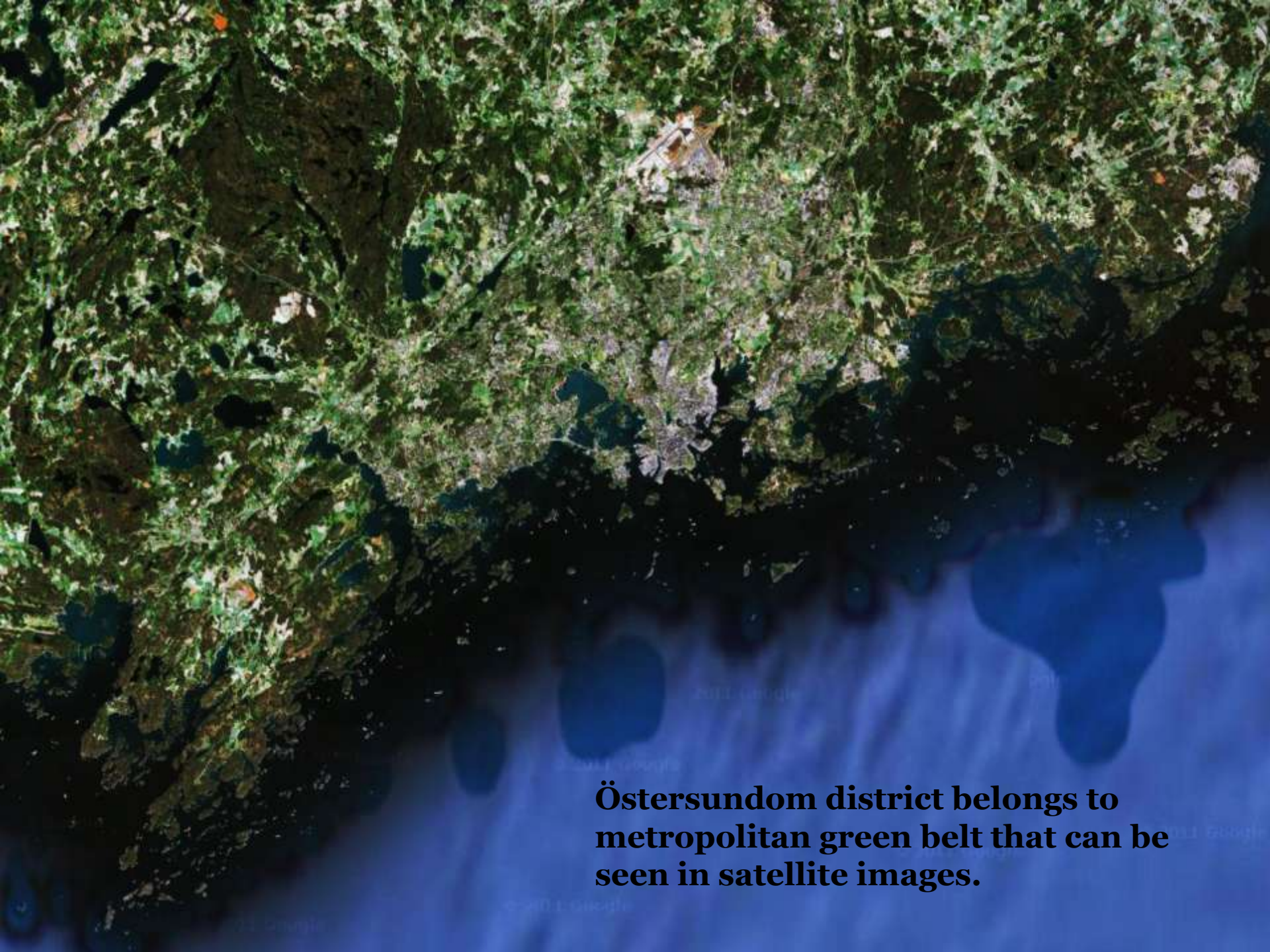


- Rural area with agrarian activities
- Sparsely populated (ca. 6000 inhabitants)
- Local service level low
- Public transportation based on buses

# Landscape and nature



- Mosaic of farmland, forests and seminatural biotopes
- Sipoonkorpi forest area and national park in northern part of planning area is connected to coastal biotopes by ecological corridors (streams or forest sides)
- Natura 2000 area in coastal area is 350 ha (bird directive)
- Conservation areas 193 ha
- Flooding is common in coastal areas



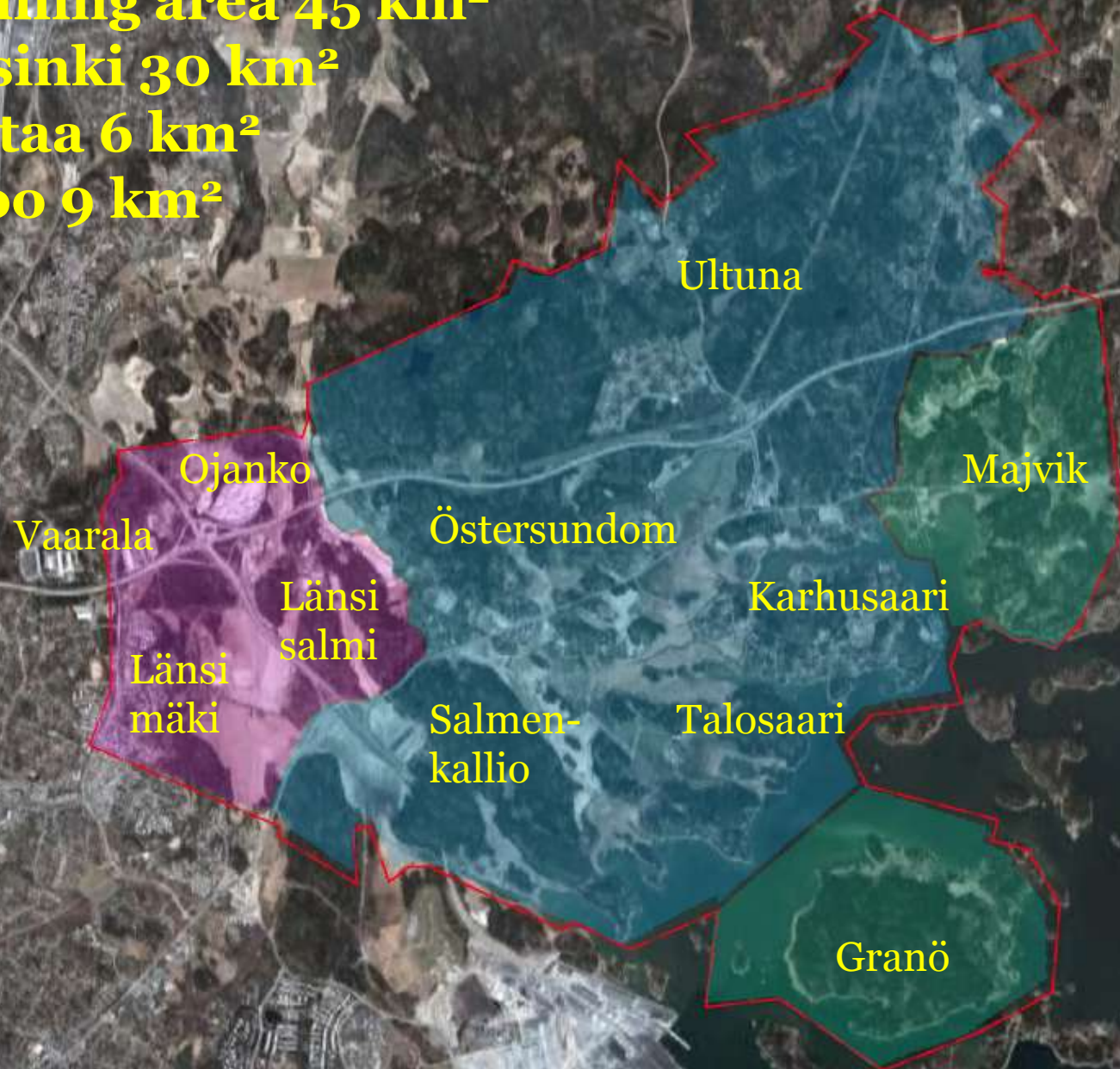
**Östersundom district belongs to metropolitan green belt that can be seen in satellite images.**

**Planning area 45 km<sup>2</sup>**

**Helsinki 30 km<sup>2</sup>**

**Vantaa 6 km<sup>2</sup>**

**Sipoo 9 km<sup>2</sup>**





# Main goal of the official joint master plan: from rurality to urbanity.

**65-70 000 inhabitants**

**15 000 new jobs**

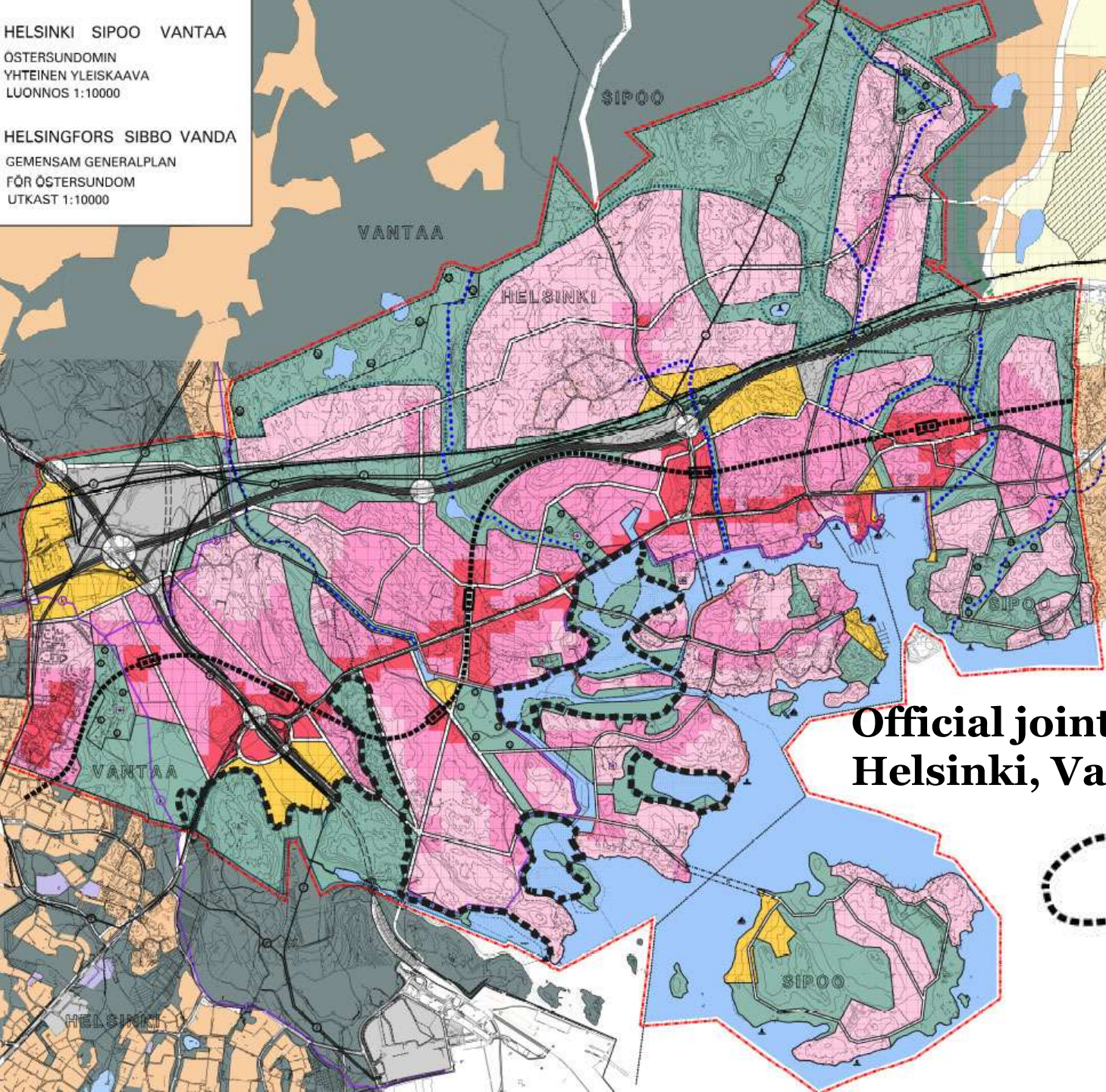
**Compact urban structure**

**Ecologically sustainable**

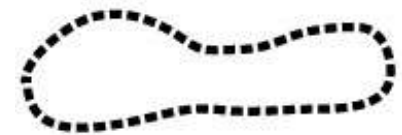
**Connected to metro network**

HELSINKI SIPOO VANTAA  
ÖSTERSUNDOMIN  
YHTEINEN YLEISKAAVA  
LUONNOS 1:10000

HELSINGFORS SIBBO VANDA  
GEMENSAM GENERALPLAN  
FÖR ÖSTERSUNDOM  
UTKAST 1:10000



## Official joint master plan of Helsinki, Vantaa and Sipoo



Natura 2000 network



# Why making alternative master plan?

- **To offer concrete alternative land-use plan to the area**
- **To increase ecological understanding of general public and decision-makers**
- **To increase awareness of citizens about ongoing master plan**
- **To influence to official master plan at very beginning**
- **To offer holistic land-use solution (not just resisting)**



# Background of the project

- Co-work of Helsinki, Vantaa, Sipoo and Uusimaa nature conservation groups
- Coordinator
- Designoffice dadadotank
- Advisory board: nature activists, volunteer species experts
- Planning was based on earlier field inventories made by authorities and volunteers (mainly published, all documented)



# The structure of project

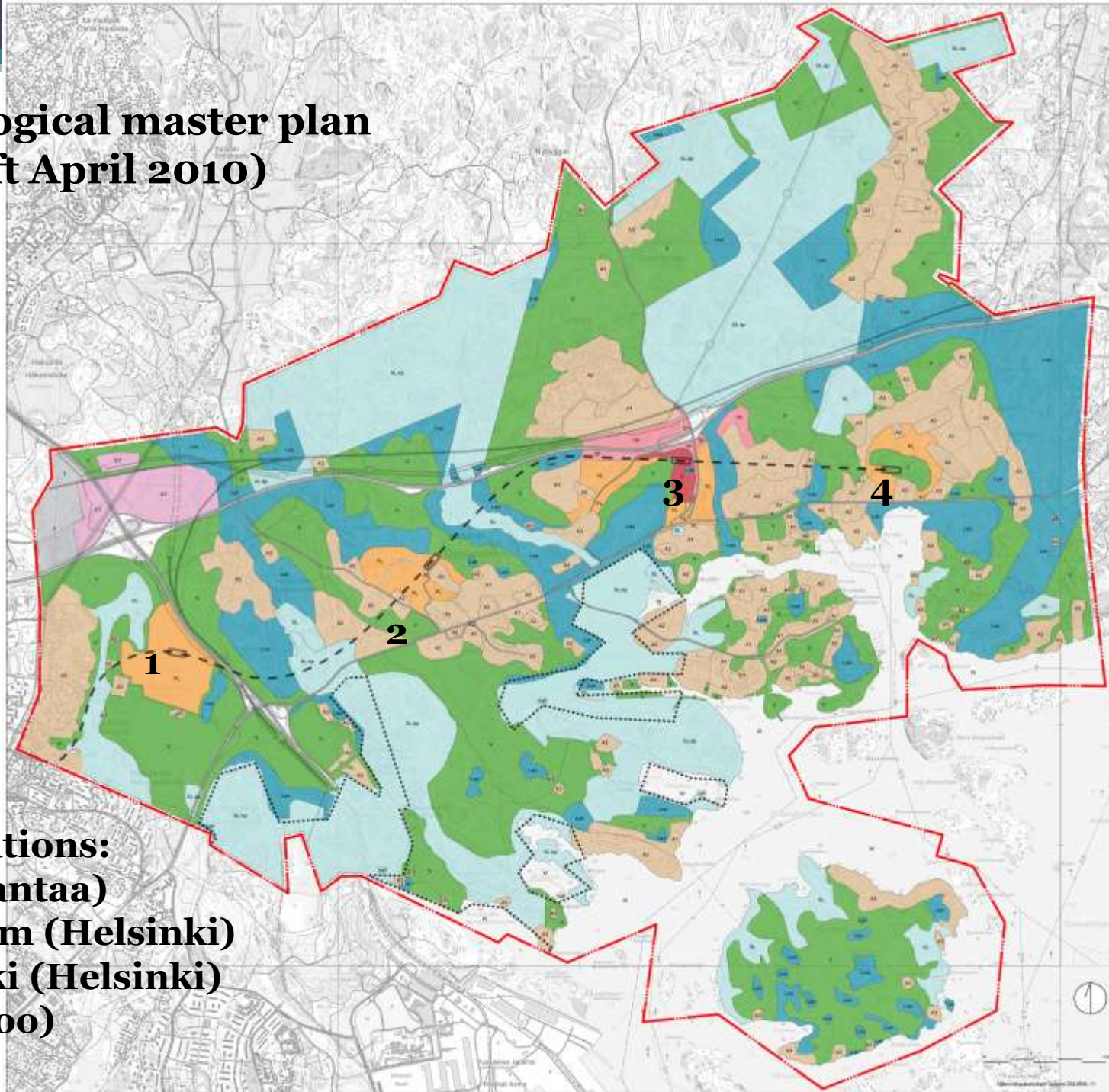
- Advisory board works with maps
- First step: exclude areas with biodiversity and ecosystem function values (flooding)
- Architects produces master plan together with coordinator
- Advisory board comments
- Same time coordinator with activists write master plan principles and aims
- Own websites
- Seminars for authorities, politicians and citizens







# Ecological master plan (draft April 2010)



## Four metro stations:

- 1) Kartano (Vantaa)
- 2) Östersundom (Helsinki)
- 3) Sakarimäki (Helsinki)
- 4) Majvik (Sipoo)



## Green infrastructure

- Aim of the ecological master plan is to minimize direct and indirect impact of constructions to surrounding biotopes and species populations
- Aim is to maximize services provided by rlocal and regional ecosystems (recreation, landscape, citizen's welfare, controlling urban run-off and natural floodings, carbon sequestered, biological diversity)

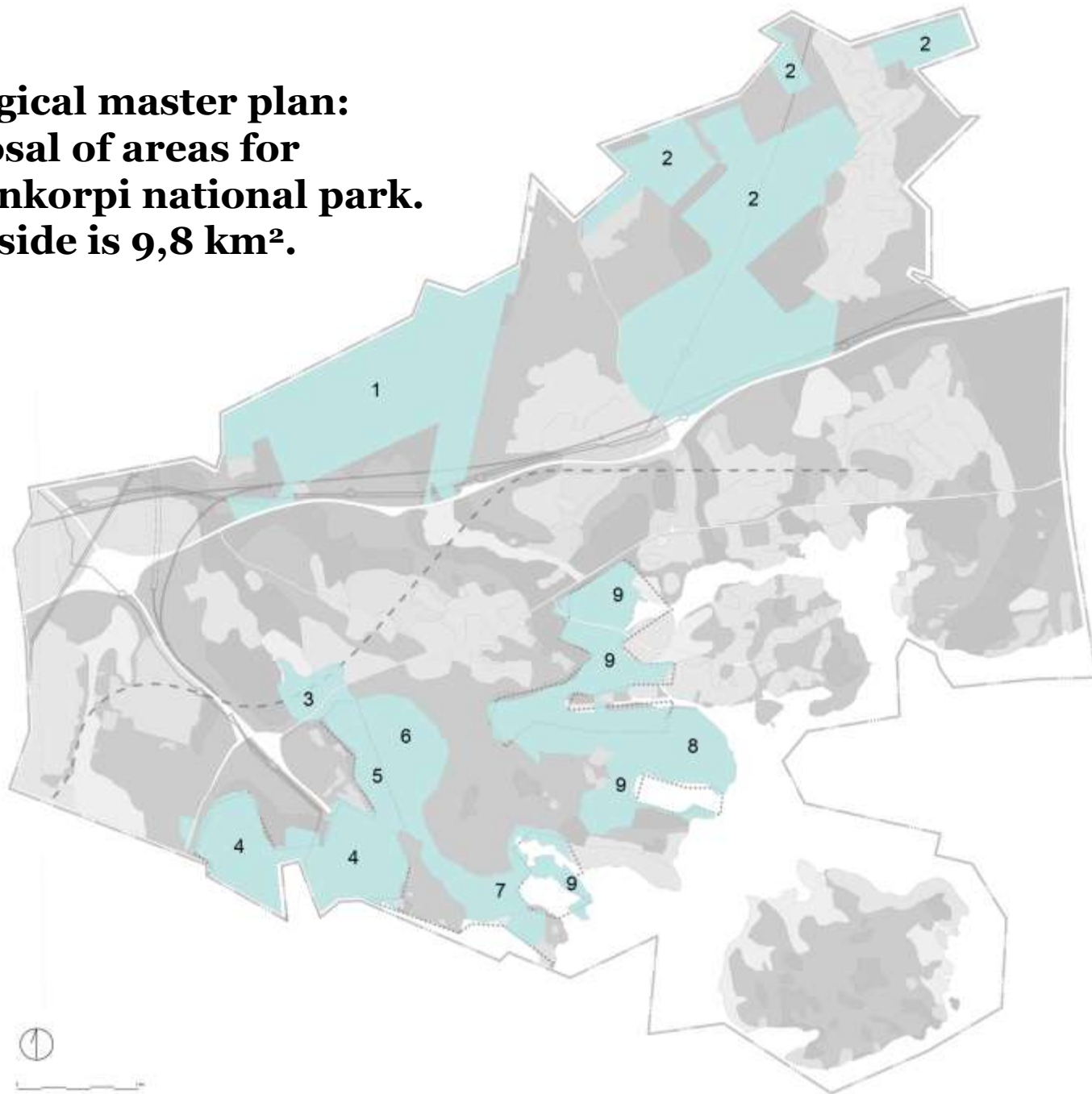
# Biodiversity conservation in Östersundom

- Sipoonkorpi national park joins Natura 200 network to northern forest area
- Maintaining metropolitan green belt
- Ecological corridors and network is maintained
- Small-scale, locally important biotopes are conserved or saved from construction

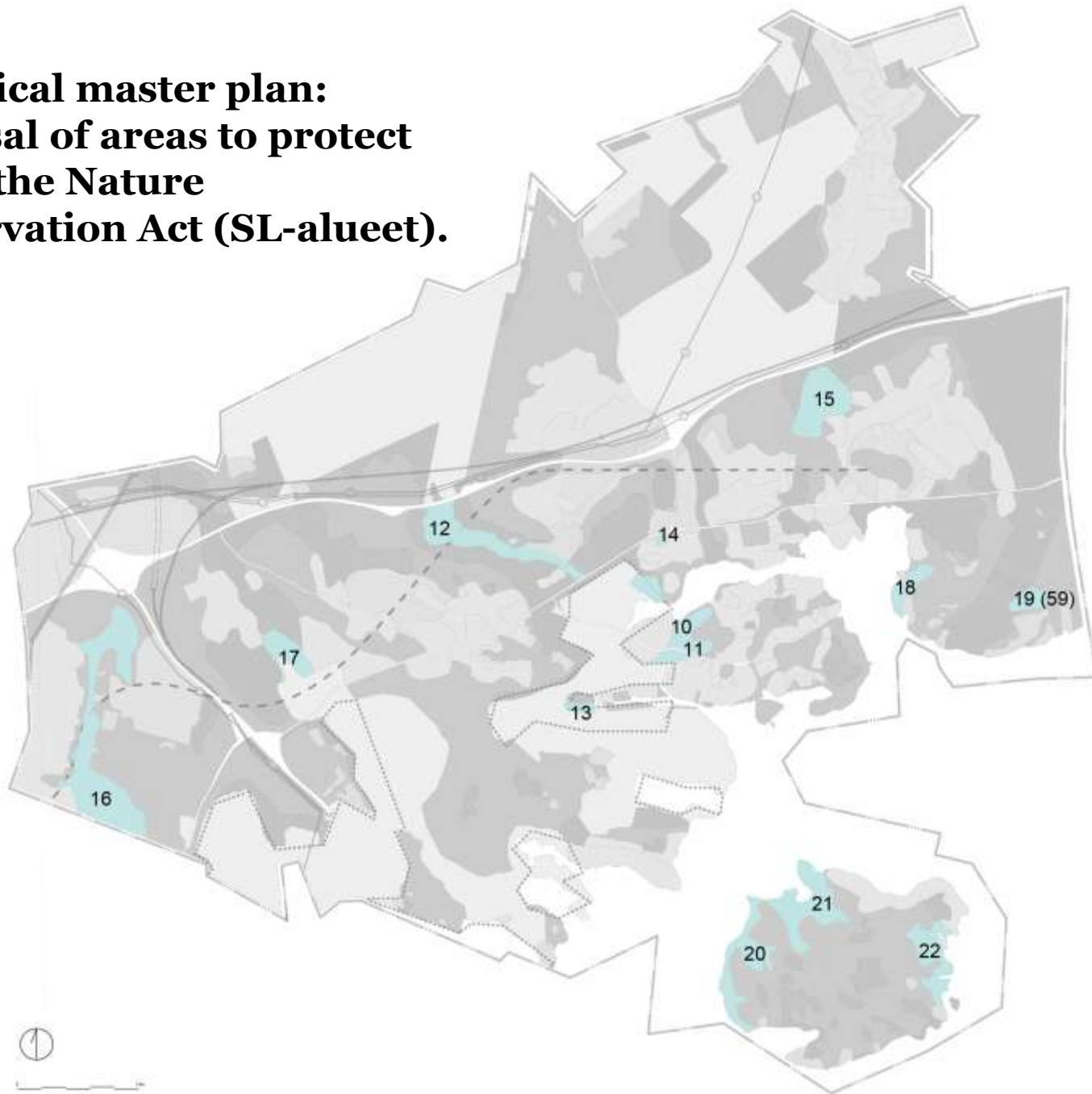




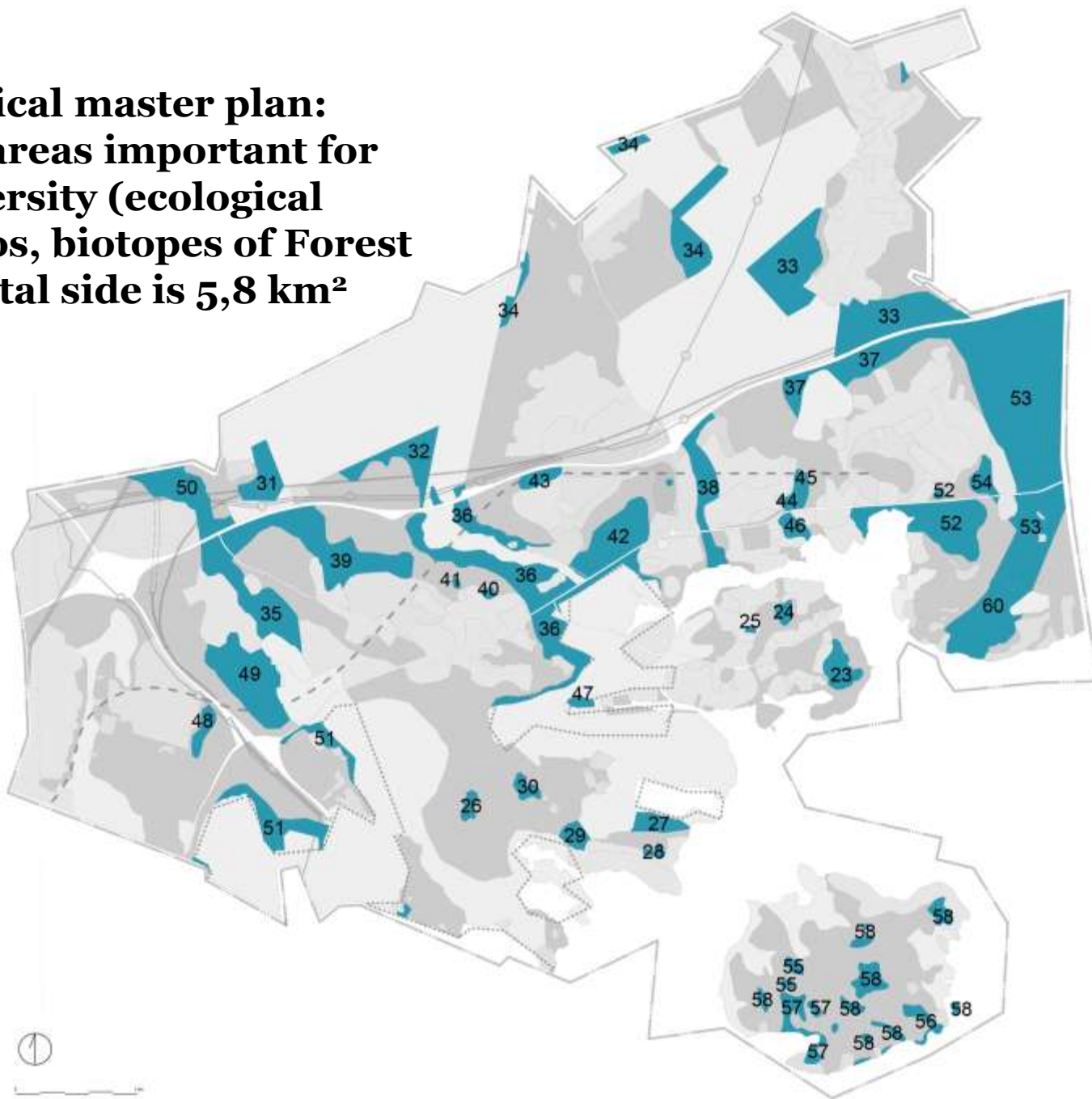
**Ecological master plan:  
Proposal of areas for  
Sipoonkorpi national park.  
Total side is 9,8 km<sup>2</sup>.**



**Ecological master plan:  
Proposal of areas to protect  
under the Nature  
Conservation Act (SL-alueet).**



**Ecological master plan:  
Other areas important for  
biodiversity (ecological  
corridos, biotopes of Forest  
Act. Total side is 5,8 km<sup>2</sup>**



# Urban structure in ecological master plan

- Compact urban structure is concentrated on four metro stations
- Services are nearby (300 m)

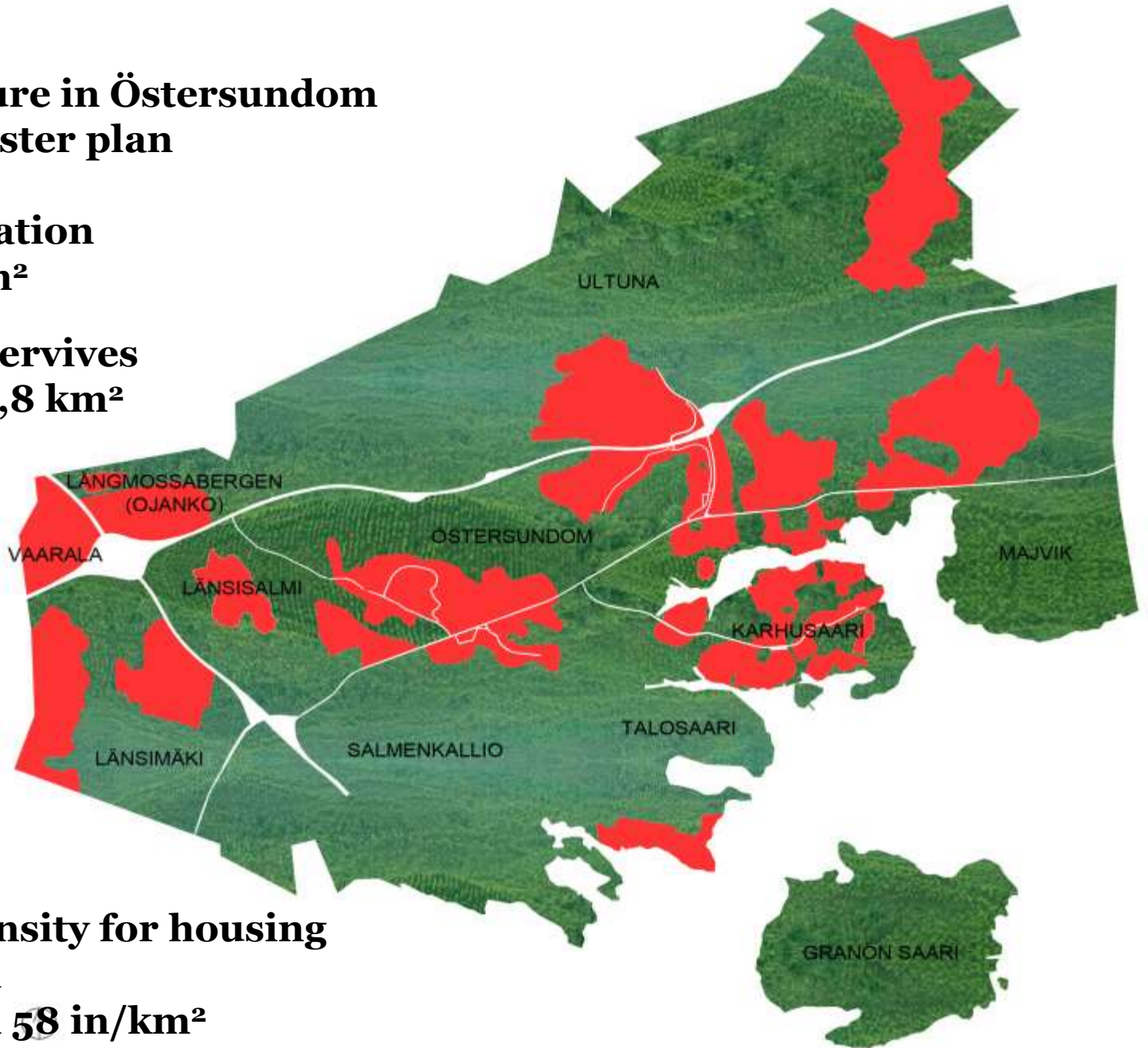


- Powering community strength by shared gardens, offering small-scale joint farming
- Nature can be reached "from outdoor"

# Urban structure in Östersundom ecological master plan

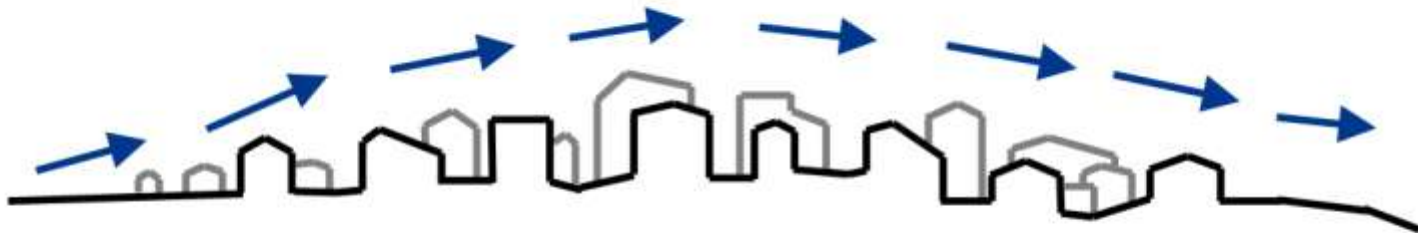
Area for utilisation  
totally 8,59 km<sup>2</sup>

For housing, services  
and working 7,8 km<sup>2</sup>



Population density for housing  
areas 64 in/ha  
For utilisation 58 in/km<sup>2</sup>

## Ecologically and socially sustainable urban structure



Kaupunkirakenne muodostuu tiiviiksi yhdyskunnaksi keskikokoisin rakennuksin, jolloin tuulet ohjaantuvat luonnostaan kaupungin yli.

Compact urban structure controls wind direction.

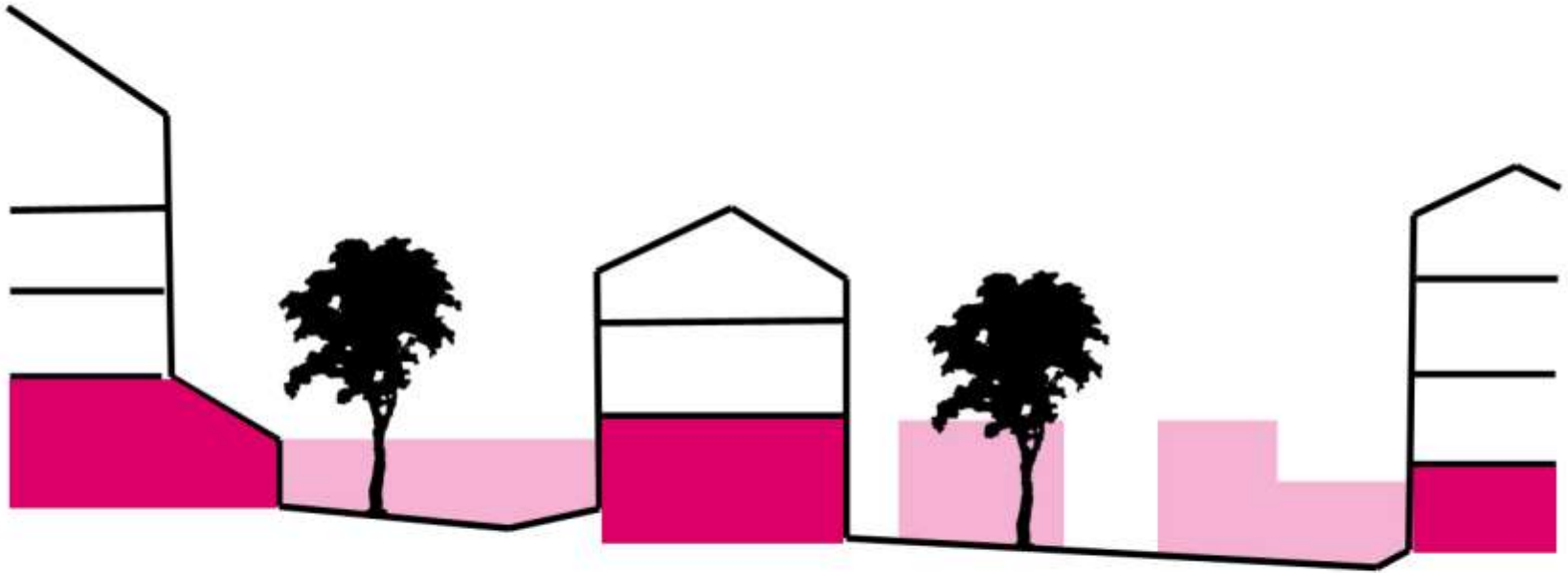
## Ecologically and socially sustainable urban structure



Tiiviissä kaupunkirakenteessa viherkattoja tarvitaan hulevesien ja ilmanlaadun hallintaan. Kasvillisuus toimii lämpö- ja melueristeenä edistäen näin rakennusten energiatehokkuutta.

Green space and green roofs are needed to control urban run-off.

## Ecologically and socially sustainable urban structure

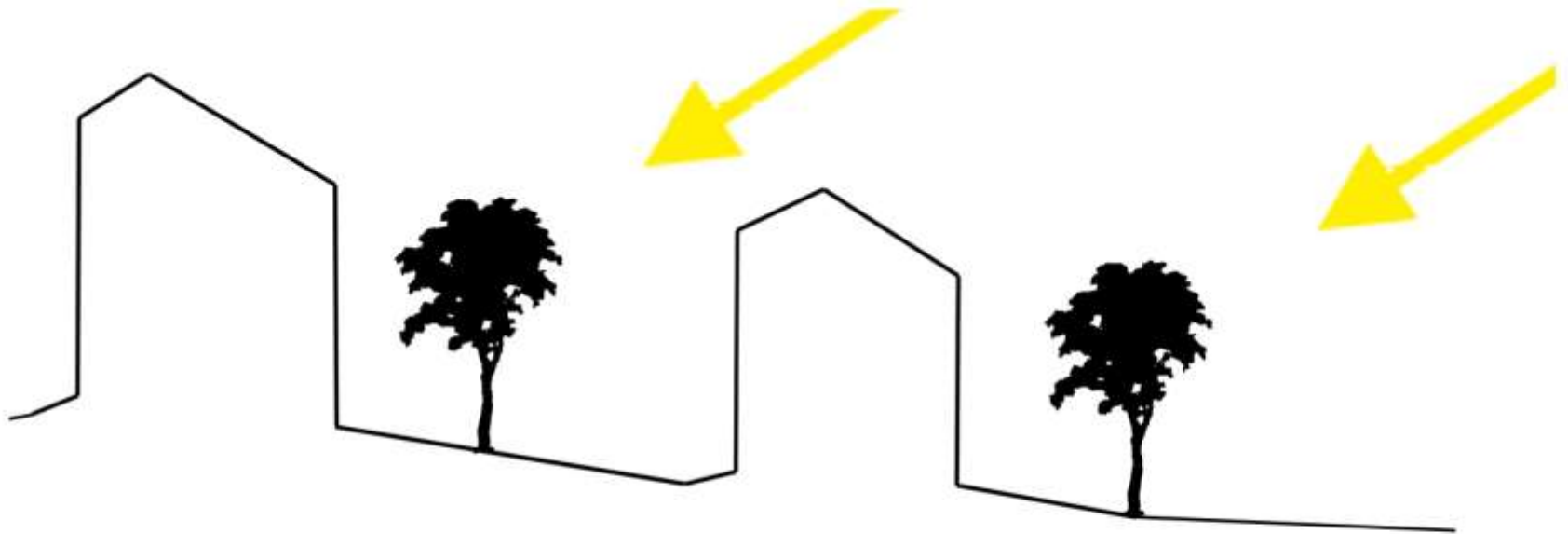


Rakennusten pohjakerrokset aktivoidaan julkisin ja kaupallisin palveluin; päiväkodit, koulut, toimistot ja kaupat elävöittävät kaupunkirakennetta.

Ground floor of buildings are activated by commercial and public services.



## Ecologically and socially sustainable urban structure



Aurinkoenergian hyödyntäminen maksimoidaan suuntaamalla rakennukset etelään. Lehtipuut varjostavat rakennuksia kesäisin, mutta päästävät valon ja lämmön hyödynnettäviksi talvisin.

Passive solar energy are exploited by directing buildings to south. Trees offers shelter.



**Compaction is made by respecting cultural values and existing buildings.**

# Population in different areas: ecological and official

• <b>Inhabitants</b>	<b>45 000</b>	<b>65 000</b>
• <b>Länsimäki</b>	<b>10 000</b>	7 000
• Länsisalmi	200 – 500	4 000
• Salmenkallio	0	10 000
• Talosaari	50 – 100	1 500
• Karhusaari	1 500 – 2 000	2 500
• <b>Östersundom</b>	<b>30 000</b>	21 000
• Ultuna	2 500 – 3 000	4 000
• <b>Majvik</b>	<b>10 000</b>	8 000
• Granö	0	1 000



**Sakarinmäki  
metro center (3)  
15 000- 20 000  
inhabitants**

# Scenery of Sakarinmäki in ecological master plan



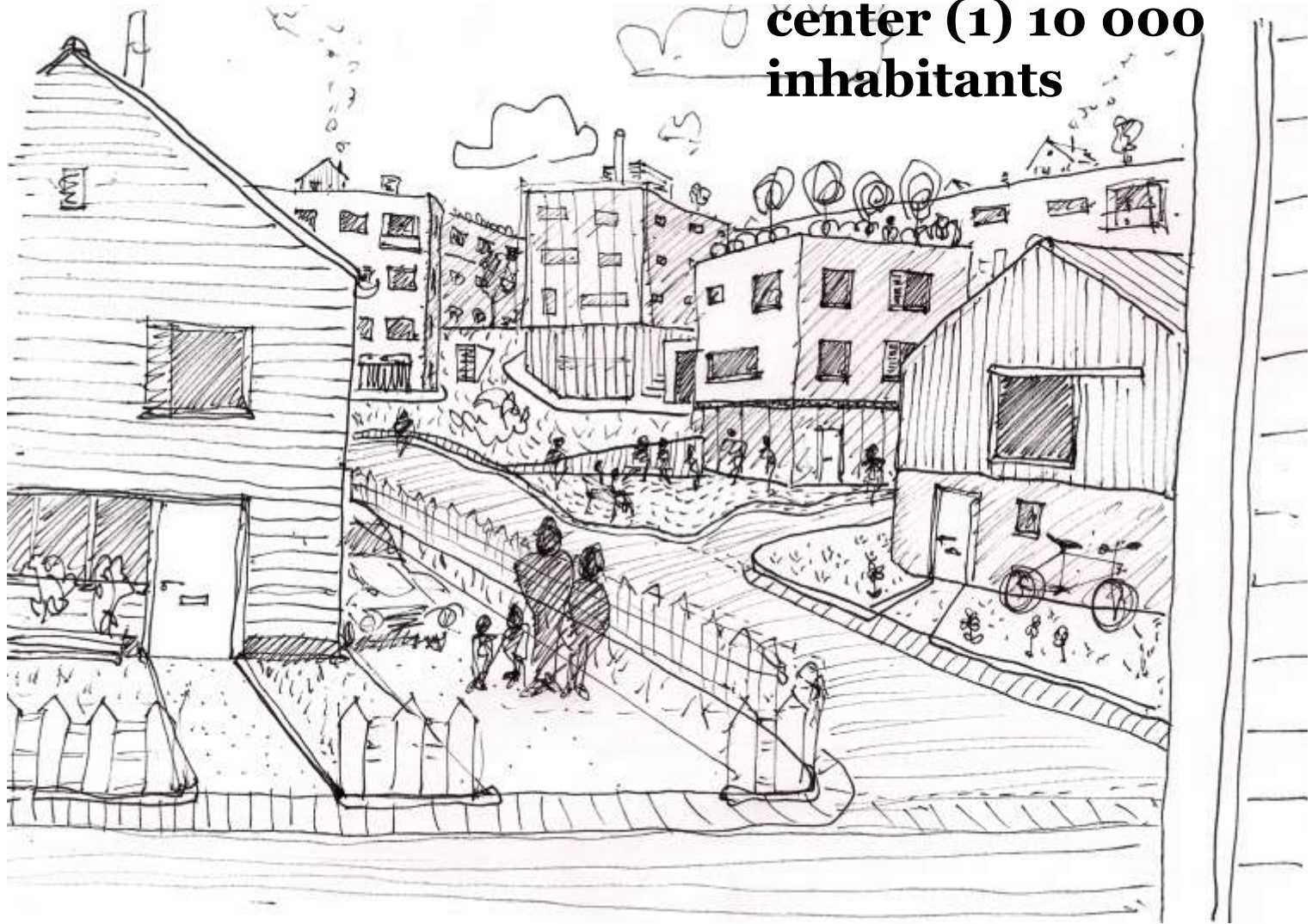


**Östersundom  
metro center (2)  
Ca. 10 000  
inhabitants**

## Scenery of Östersundom in ecological master plan

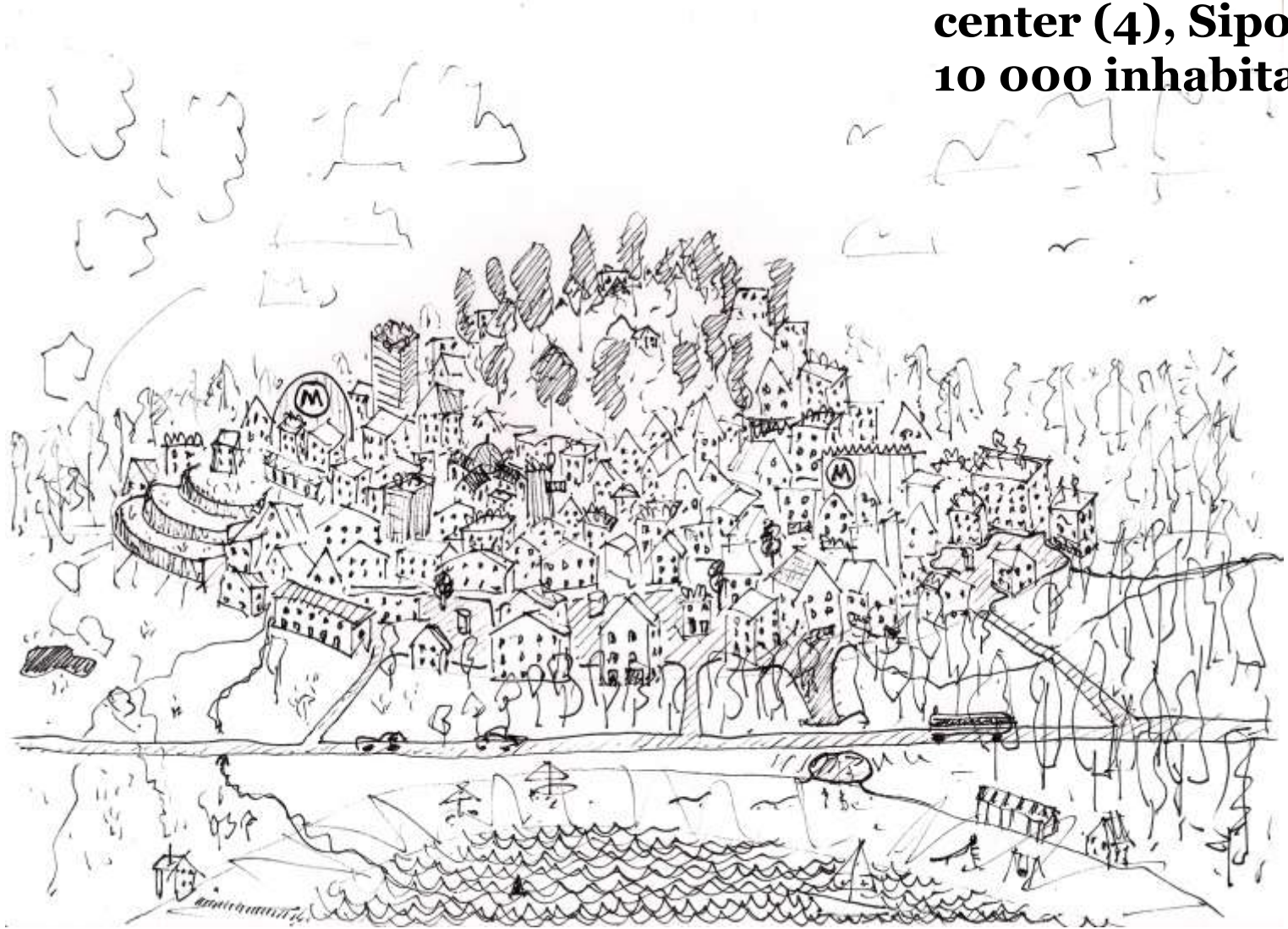


**Kartano metro  
center (1) 10 000  
inhabitants**





**Majvik metro  
center (4), Sipoo  
10 000 inhabitants**



## Comparisons between ecological and official

Aim	Ecological	Official
Inhabitants	50 000	65 - 70 000
Areas for housing, services, working etc.	5 60 ha	2 210 ha
Density in utilised areas	64 inv/ha	34 inv/ha
Metro stations	4	6
Green infrastructure	3 080 ha	1790 ha