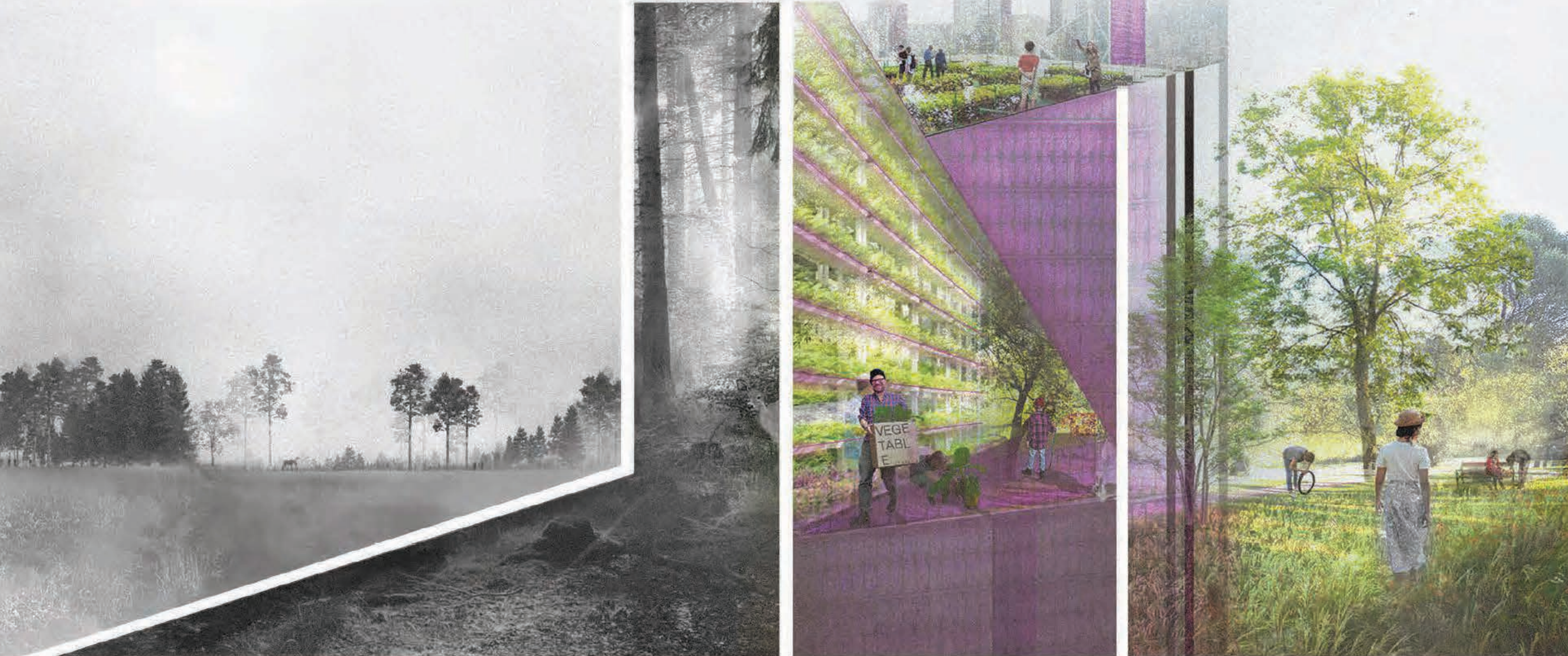


# Peri-Urban Collage

Agroforestry in the Metropolitan Area of Helsinki



Country / City Finland, Helsinki

University / School Aalto University, School of Arts, Design and Architecture

Academic year 2018–2019

Title of the project Peri-Urban Collage: Agroforestry in the Metropolitan Area of Helsinki

Authors Rosaliina Luminiitty



## TECHNICAL DOSSIER

|   |  |
|---|--|
| Title of the project                    | Peri-Urban Collage: Agroforestry in the Metropolitan area of Helsinki    |
| Authors                                 | Rosaliina Luminiitty   |
| Title of the course                     | Peri-Urban landscape: the productive collage                             |
| Academic year                           | 2018-2019  |
| Teaching Staff                          | Prof. Juanjo Galan   |
| Department/Section/Program of belonging | Department of Architecture, Master's Programme in Landscape Architecture |
| University/School                       | Aalto University - School of Arts, Design and Architecture               |



### Written statement, short description of the project in English, no more than 250 words

The Studio "Peri-urban landscapes: The Productive Collage" explored the productive dimension of the landscape with a special focus in production processes and their formal, economic, and social implications. During the Studio, we analyzed why and how different actors make their decisions in the landscape and about the landscape, and how their activities, both independently and jointly, can contribute to create a more sustainable, livable, and "productive" landscape.

The Studio was developed in the peri-urban fringe of the Metropolitan Area of Helsinki, which is a particularly complex and dynamic system of interests which explain the configuration of the landscape collage. In the presented project, my work focused on the forestry and agricultural sectors in peri-urban Helsinki. After a multiscale analysis, the project considered different speculative scenarios and potential transitions for these two economic activities and their associated spaces. The result was a more hybrid landscape collage highly informed by the new ways of living, new values, and new models of production-consumption.

For further information  
Máster d'Arquitectura del Paisatge -DUOT - UPC

T: +34 93 401 64 11 / +34 93 552 0842  
Contact via email at: [biennal.paisatge@upc.edu](mailto:biennal.paisatge@upc.edu)

Máster d'Arquitectura del Paisatge -DUOT - UPC  
ETSAB- Escola Tècnica Superior  
d'Arquitectura de Barcelona  
Avenida Diagonal, 649 piso 5  
08028 Barcelona-Spain



# CLIMATE CHANGE AGAIN

11th International Biennial Landscape Barcelona

Barcelona September 2020  
SCHOOL PRIZE

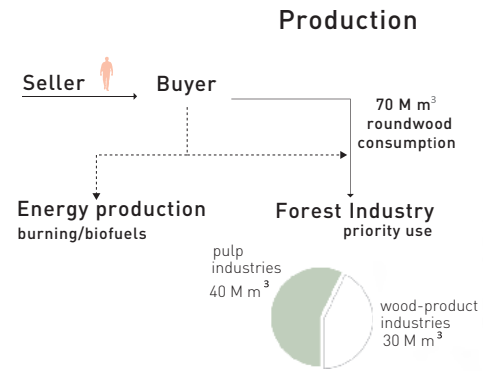
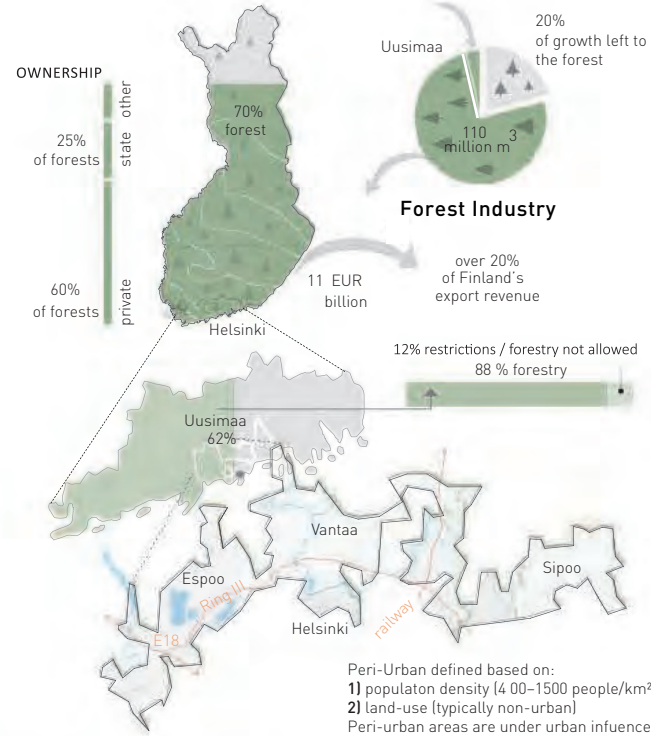


# Forestry Now

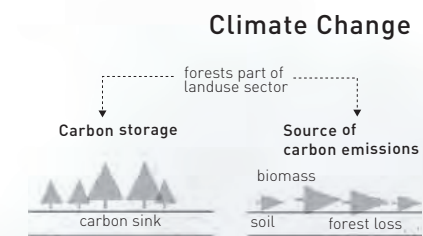
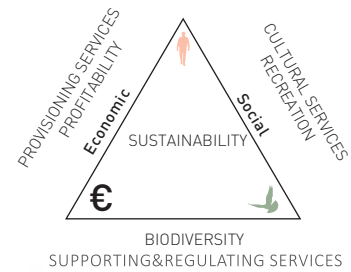
Finland

Uusima

Peri-Urban



**Biodiversity**  
 Forestry in the peri-urban. The management of multiple-use forest aim for economically profitable wood production while securing ecosystem services, forest health and well-being.

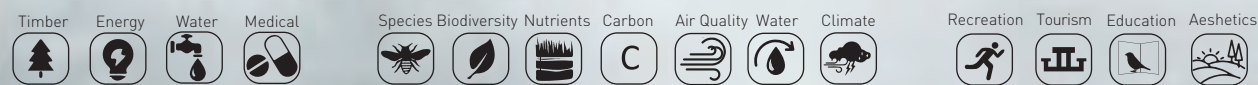


## Succession



## Ecosystem Services

Cultural / Regulating / Provisioning



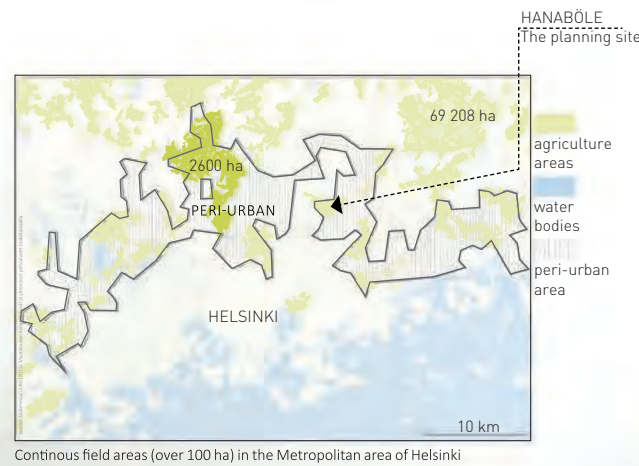
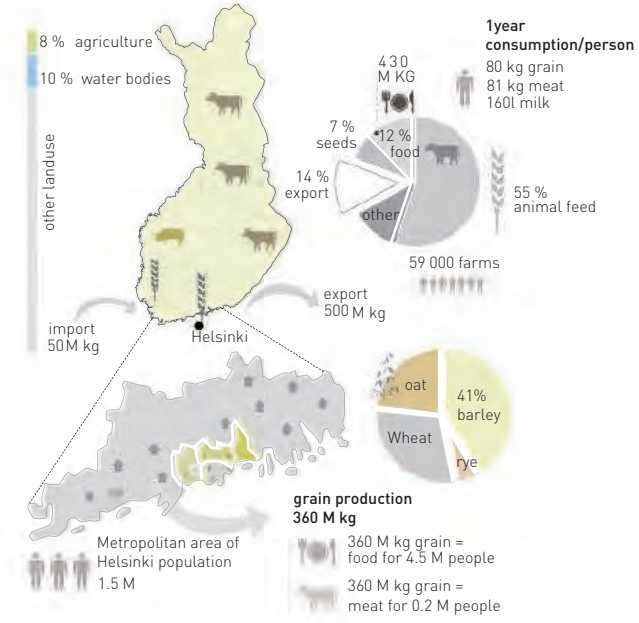
production dependent on soil & land & climate

# Agriculture Now

Finland

Uusima

Peri-Urban



## SWOT - Peri-Urban Agriculture now

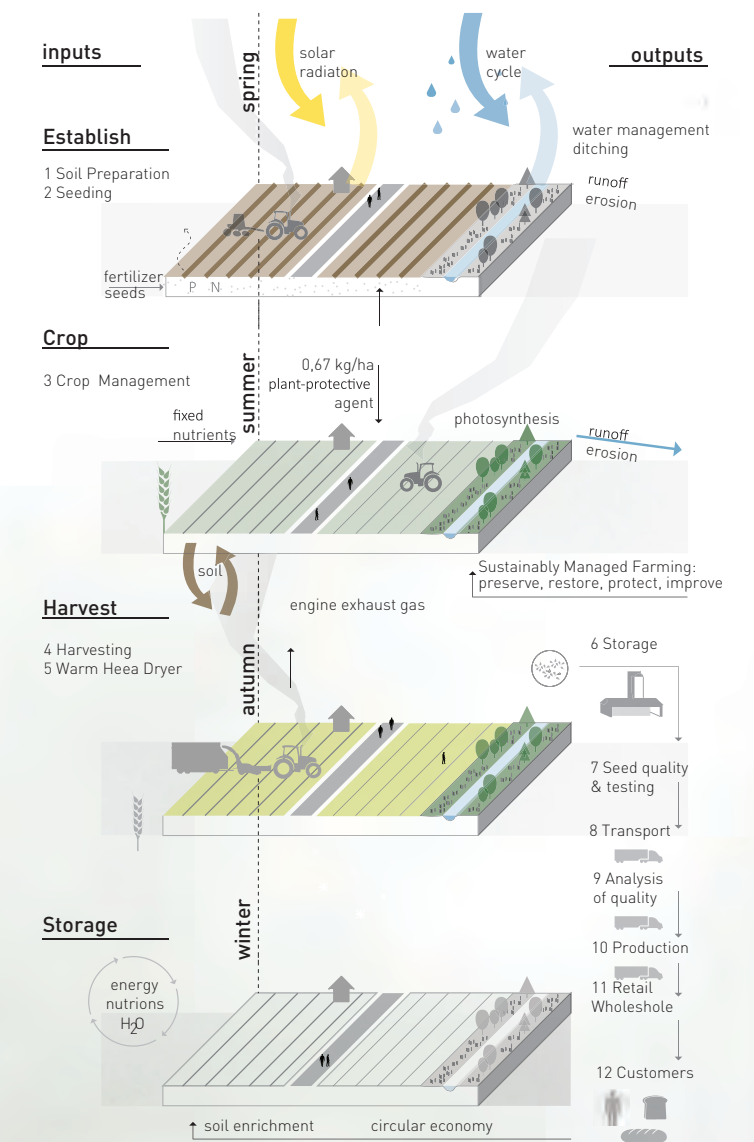
- STRENGTHS**  
 + closeness of markets / consumers  
 + available land  
 + favourable natural environment  
 + agro-forestry system as a carbon sink
- OPPORTUNITIES**  
 + demand for ecosystem services  
 + healthy eating trend  
 + sustainable intensification  
 + tourism / recreation
- WEAKNESSES**  
 - unpredictability  
 - economic situation  
 - large farm sizes / cost of land  
 - pests and diseases  
 - fragmentation
- THREATS**  
 - natural resource degradation  
 - reforestation / urban expansion  
 - climate change  
 - pollution / erosion



## Risto the Farmer



## Process



People often enjoy places they can be hidden and which can be seen at the same time



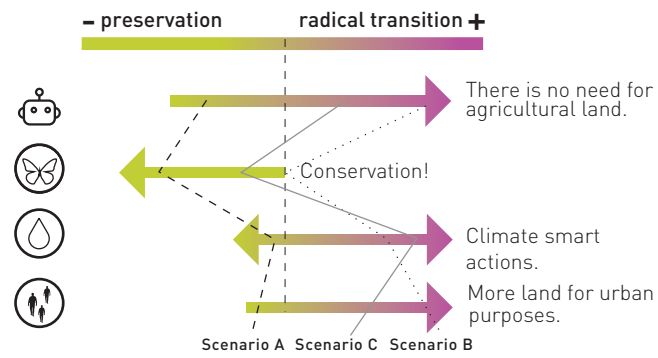
# Speculation - 2100



## Drivers for Change

- technological drivers**
  - automatization & robotics
  - artificial LED cultivation
- cultural drivers**
  - cultural identity & values
  - biotopes & open landscapes
- climate drivers**
  - better cultivation conditions
  - climate change
- urban drivers**
  - demand for recreation spaces
  - urbanisation

## Transitions in Change



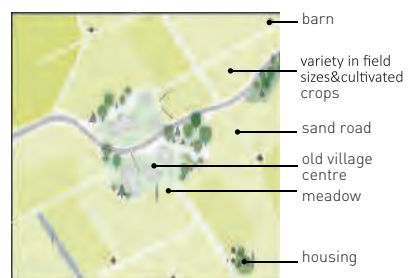
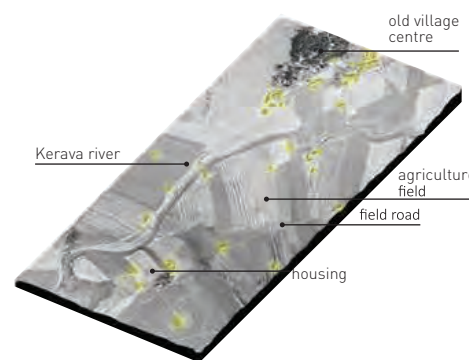
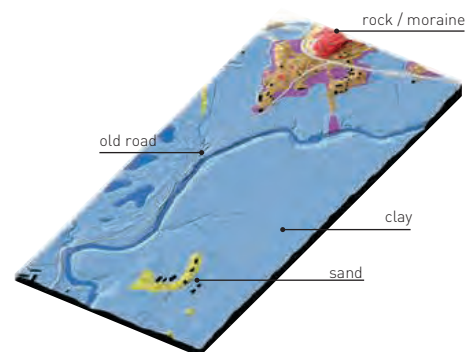
## Criteria

- climate change requires changes in the food production sector.
- urbanisation continues due to the need for sustainable solutions.
- rurbanisation = a process where the physical environment loses qualities that were traditionally associated with urban or rural settings.
- technology will develop rapidly: enables LED indoor cultivation, carbon free energy production, robotisation, new materials to replace plastic.

# Implementation - Future

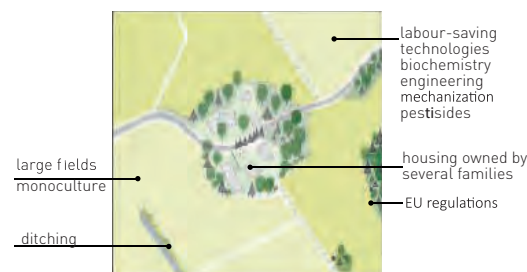
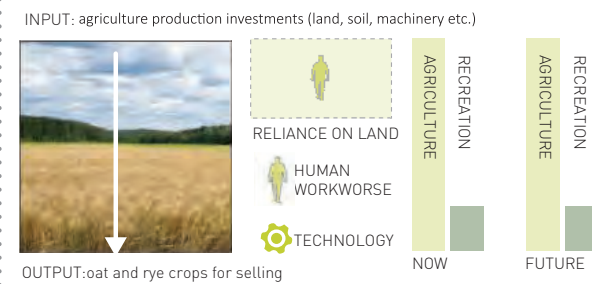
## Past (1954)

Kerava river valley - historically significant and valuable landscape.



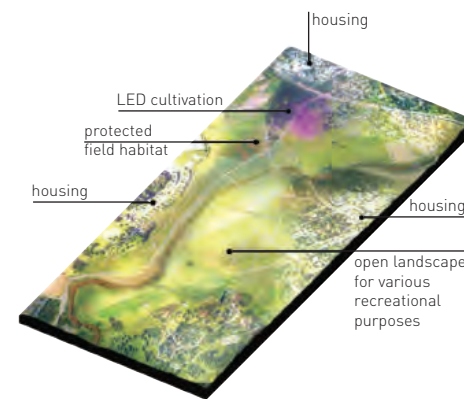
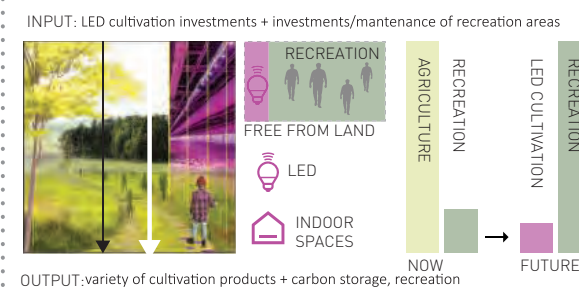
## Scenario A

Risto - The Farmer



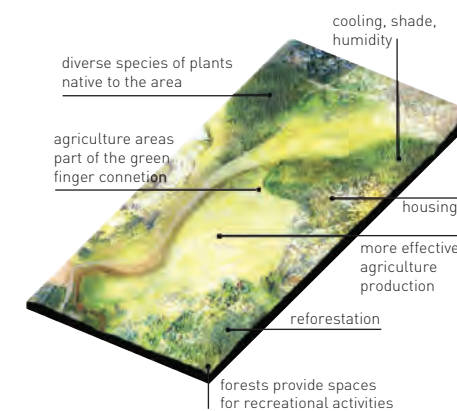
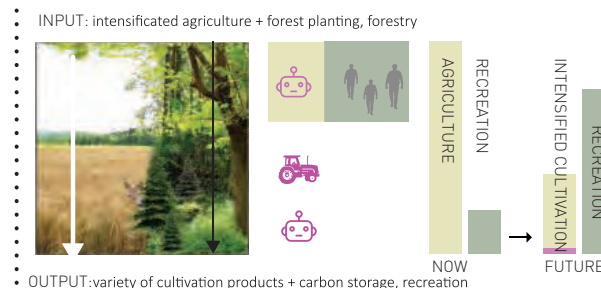
## Scenario B

Risto - The LED farmer & Experience producer



## Scenario C - selected scenario

Risto - The Robot & Climate Saver



Scenario A



Scenario B



Scenario C





# Designing Scenario C



## Criteria for different actors (students)

### Risto - The Robot & Climate Saver

#### Agriculture & Forestry

To optimize the use of agricultural inputs (land, water, energy, fertilizers, seeds) by following the principles of circular economy (reducing, reusing, repairing, recycling).

#### Commerce & Service

- 1) Customer-centric
- 2) Improved environment qualities
- 3) Climate adaptation
- 4) accessibility, connectivity

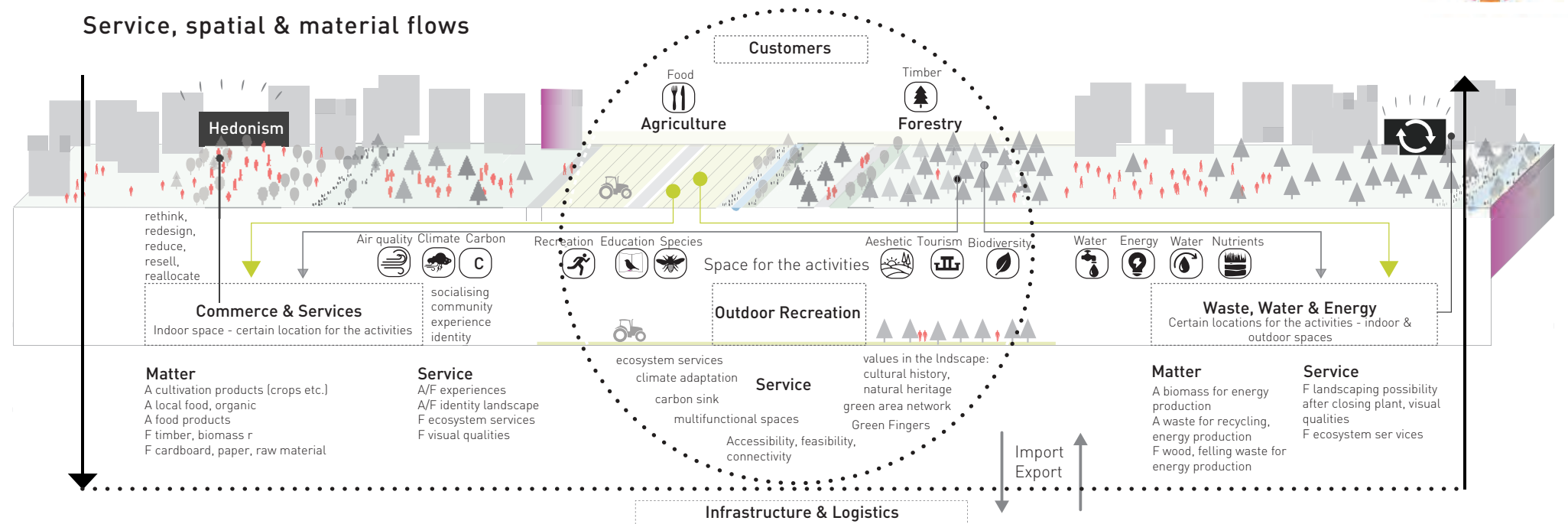
#### Waste, Water & Energy

- 1) circular economy principles: waste is resource
- 2) sustainable environment solutions (decentralized waste treatment + decentralized waste treatment plant)

#### Outdoor recreation

- More recreation opportunities
- 1) planting trees
  - 2) supporting biodiversity
  - 3) improving water quality

## Service, spatial & material flows



## Criteria for the proposal

### 1) Green infrastructure network - Green fingers

Connections to the nature areas  
Agricultural areas connected to the green finger network.

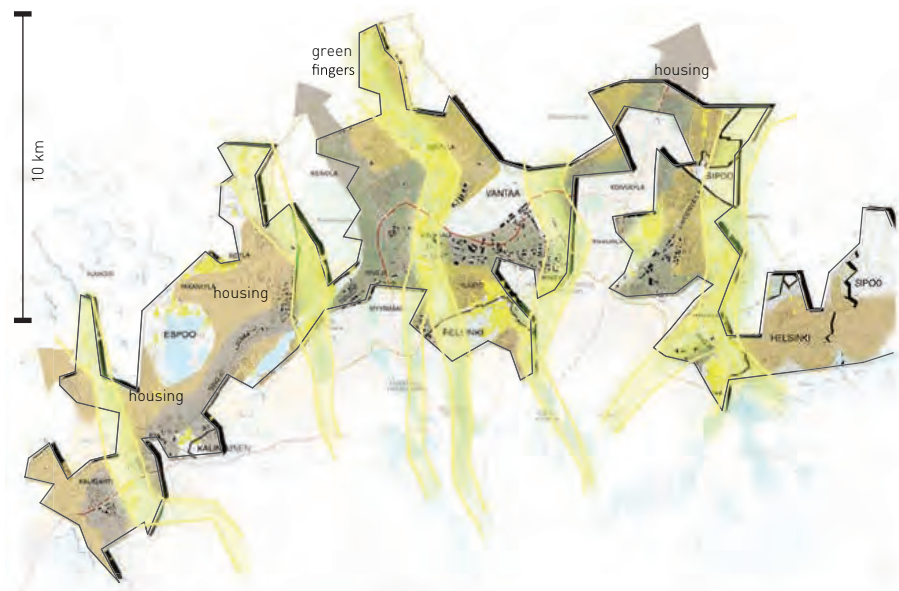
### 2) Agriculture intensification - Cultural history values

Application of more efficient food production methods.  
Reduction of field area required.

### 3) New urban structure along the current road infrastructure and industrial areas

Previously cultivated agricultural areas for the urbanisation purposes.  
Green spaces will extend into the city structure

## Green Finger Concept



## The Final Map in collaboration with other actors (students)

Risto the Farmer's new role and his new fellow actors + city/society development. Map and the Flow diagram were constructed in collaboration with the other students whose work focused on **COMMERCE & SERVICES**, **OUTDOOR RECREATION** and **WASTE, WATER & ENERGY**

