

# Transport system planning in the Helsinki region

Helsinki Regional Transport Authority



Tuire Valkonen, transport planner

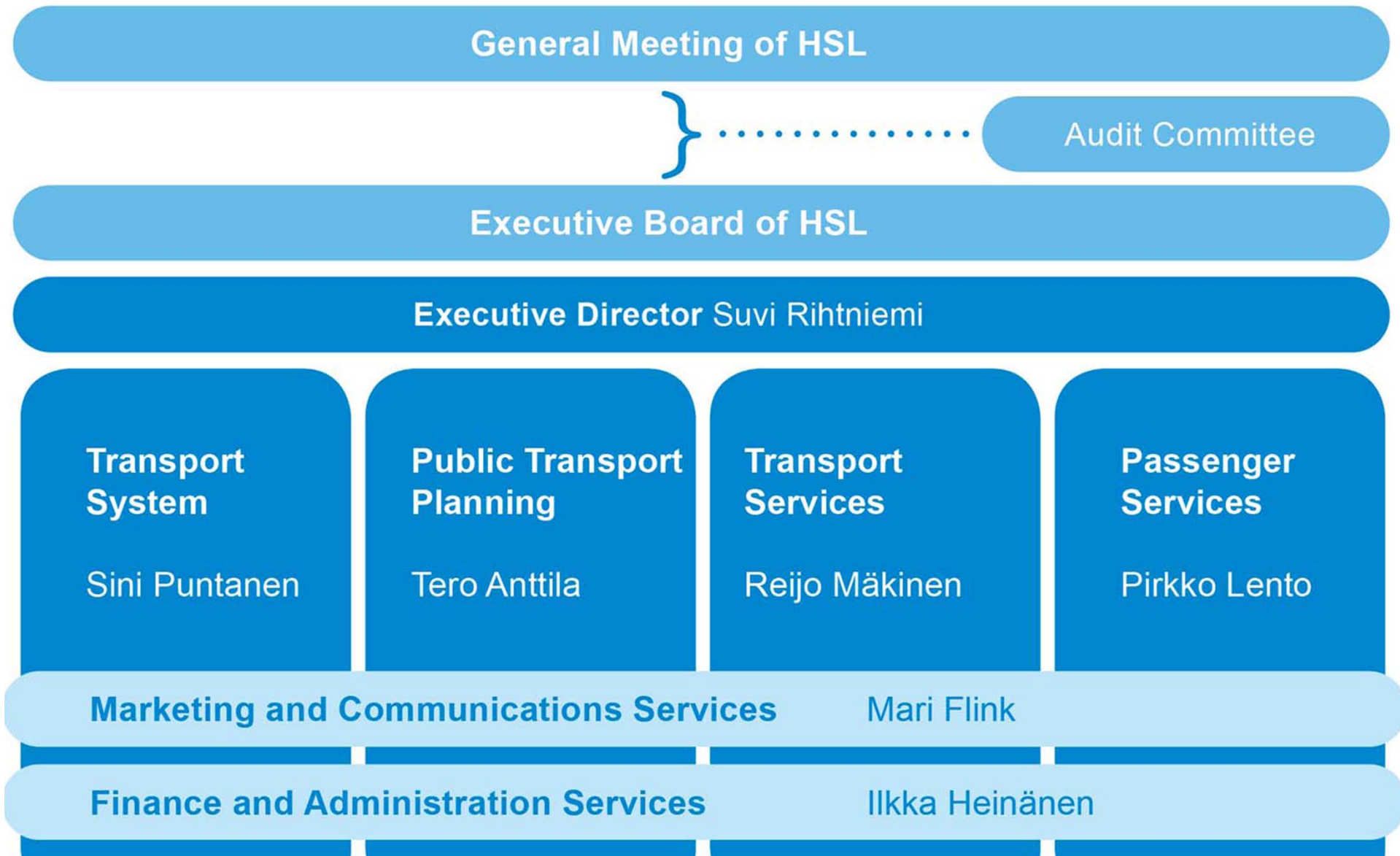
# Contents

1. Helsinki Regional Transport Authority HRT in general
2. Helsinki Region Transport System Plan (HLJ)
  - The role of the plan
  - Background
  - Preparation process
  - HLJ 2015 policies
    - Examples of measures
  - How we communicate with citizens?

# What does HRT do?

- Is responsible for the preparation of the Helsinki Region Transport System Plan (HLJ).
- Plans and organizes public transport in the region and works to improve its operating conditions.
- Procures bus, tram, Metro, ferry and commuter train services.
- Approves the public transport fare and ticketing system as well as public transport fares.
- Is responsible for public transport marketing and passenger information.
- Organizes ticket sales and is responsible for ticket inspection.

# HRT's basic structure (c. 360 persons)



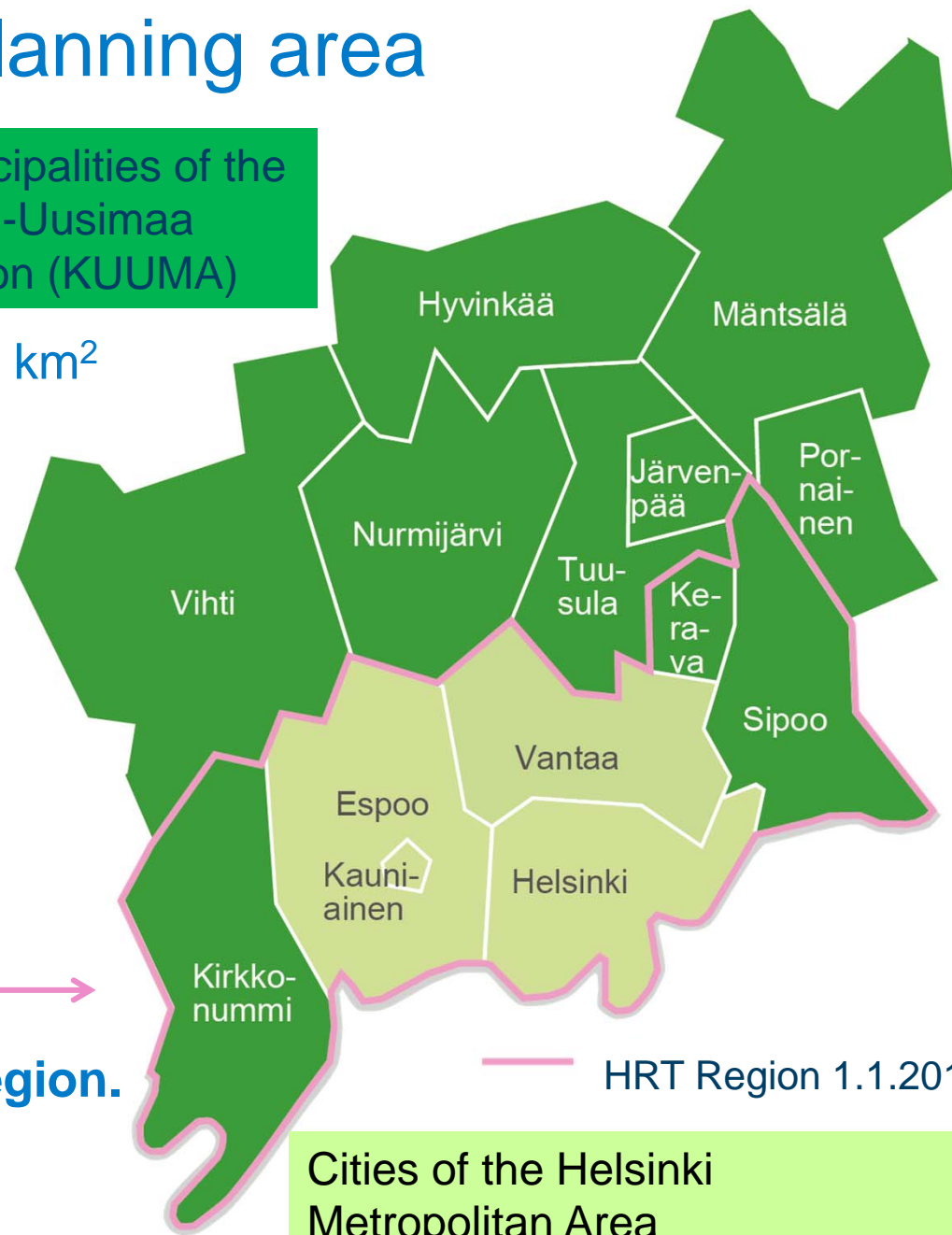
# The location of the Helsinki Region in Europe



# HRT area and HLJ planning area










Municipalities of the Keski-Uusimaa Region (KUUMA)

- Land area approximately 3700 km<sup>2</sup>
- Population 1.38 million



**According to its charter, HRT may expand to cover all 14 municipalities in the Helsinki region.**

# The main networks and terminals

-  Nationally significant public transport terminal
-  International airport
-  Harbor
-  Railway
-  Railway for freight traffic
-  Metroline
-  Highway
-  Main road
-  Regional way



In process...

Ring Rail Line

The west metro





# Helsinki Region Transport System Planning



# The role of the Helsinki Region Transport System Plan (HLJ)

- A long-term strategic plan that considers the transport system as a whole.
- Aligns regional transport policy and guidelines primary measures for the development of the transport system.
- An important part is **the Land use, Housing and Transport co-operation** of the 14 municipalities of the Helsinki region.



# A transport system plan aligns regional transport policy

A key goal of the plan is also to

- produce binding decisions and a letter of intent on transport system development measures over the next few years



- ensure implementation and funding of the agreed measures in cooperation with the parties

# Cooperation is an important part of transport system planning

- Transport system planning is based on dialogue and cooperation between interest parties
  - Regional and state authorities
  - Cities and municipalities
  - Business community
  - NGOs and residents
- Transport system planning and cooperation is an ongoing process
- A Transport System Plan is revised / compiled approximately once in every four years.

# Helsinki Metropolitan Area Transport System Plans (PLJ) have been made in 1994, 1998, 2002 ja 2007

PLJ 1994:n and PLJ 1998 target year: 2020

PLJ 2002 and PLJ 2007 target year: 2030



# HLJ 2011

First time Transport System Plan made covering whole of the Helsinki Region (14 municipalities)



14

29.3.2011

Helsingin seudun  
liikennejärjestelmäsuunnitelma  
HLJ 2011

[www.hsl.fi](http://www.hsl.fi)

# The purpose and basis of the Letter of Intent

- The Letter of Intent is an agreement between the Helsinki region municipalities as well as between the municipalities and the Government representing the common will and intention of the contracting parties with regard to land use, housing and transport.
- The aim is to improve the effectiveness and competitiveness of urban and municipal balanced development. The contracts are determined, for example, the objectives of the next few years housing production and the transport key development projects.

## Basis:

- Sustainable structure
- Energy efficiency
- Joint responsibility for housing policy

# Contracting parties

- **Government:** Ministry of Transport and Communications; Ministry of the Environment; Finnish Transport Agency; Centre for Economic Development, Transport and the Environment for Uusimaa; The Housing Finance and Development Centre of Finland (ARA)
- **Helsinki region municipalities:** Espoo, Helsinki, Hyvinkää, Järvenpää, Kauniainen, Kerava, Kirkkonummi, Mäntsälä, Nurmijärvi, Pornainen, Sipoo, Tuusula, Vantaa, Vihti
- **Joint local authorities:** Helsinki Regional Transport Authority(HSL)



# Letter of intent on the implementation of the Land Use Plan and Helsinki Region Transport System Plan (HLJ 2015):

*“The contracting parties will jointly prepare the common land use plan for the entire Helsinki region. The land use plan is coordinated at regional and urban structure and transport development principles and solutions.”*

# The draft HLJ 2015

HLJ 2015 has been prepared in tight co-operation and interaction with a common **Regional Land Use Plan and Housing strategy.**

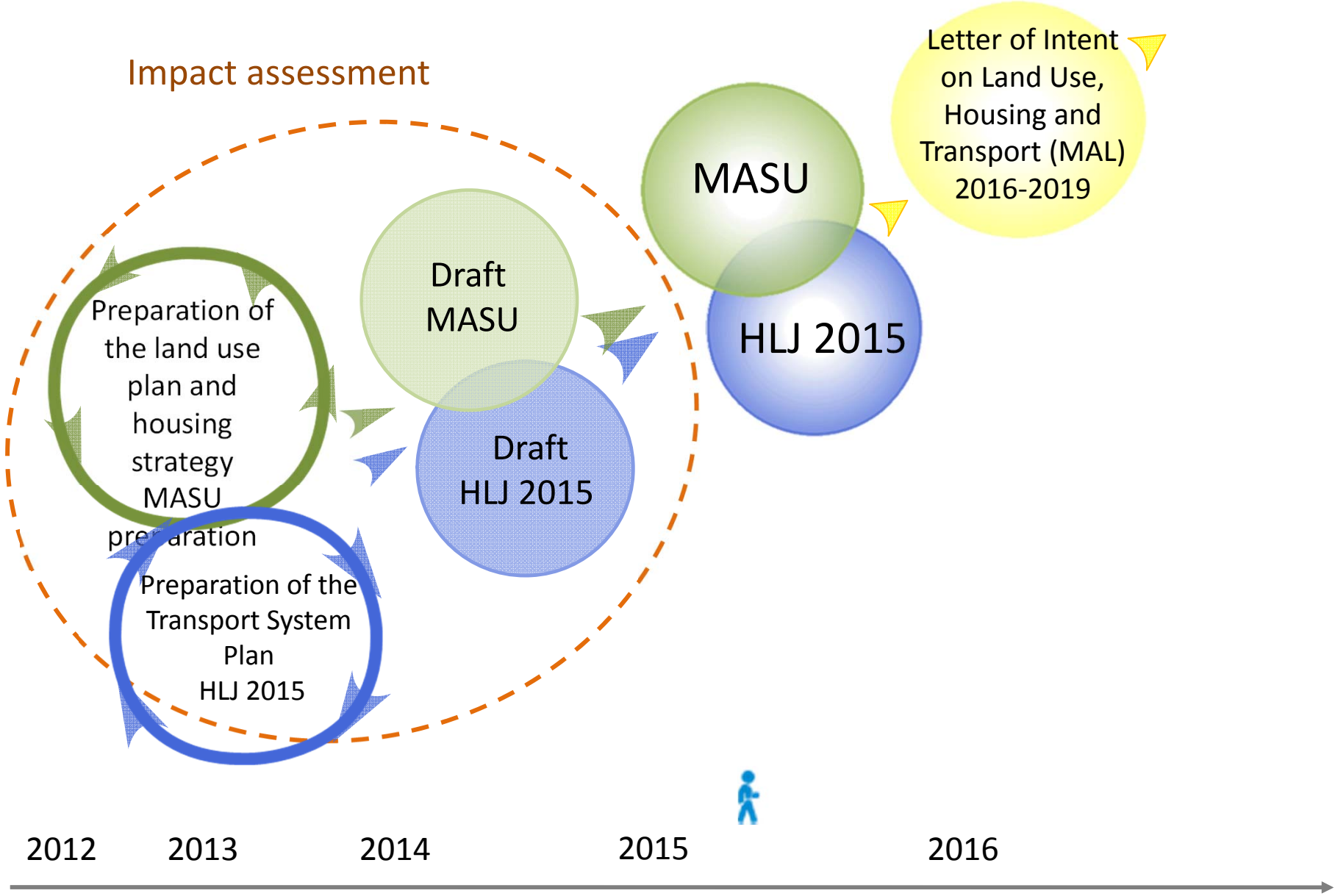
Helsingin seudun  
liikennejärjestelmä-  
suunnitelma  
HLJ 2015 -luonnos

16  
2014



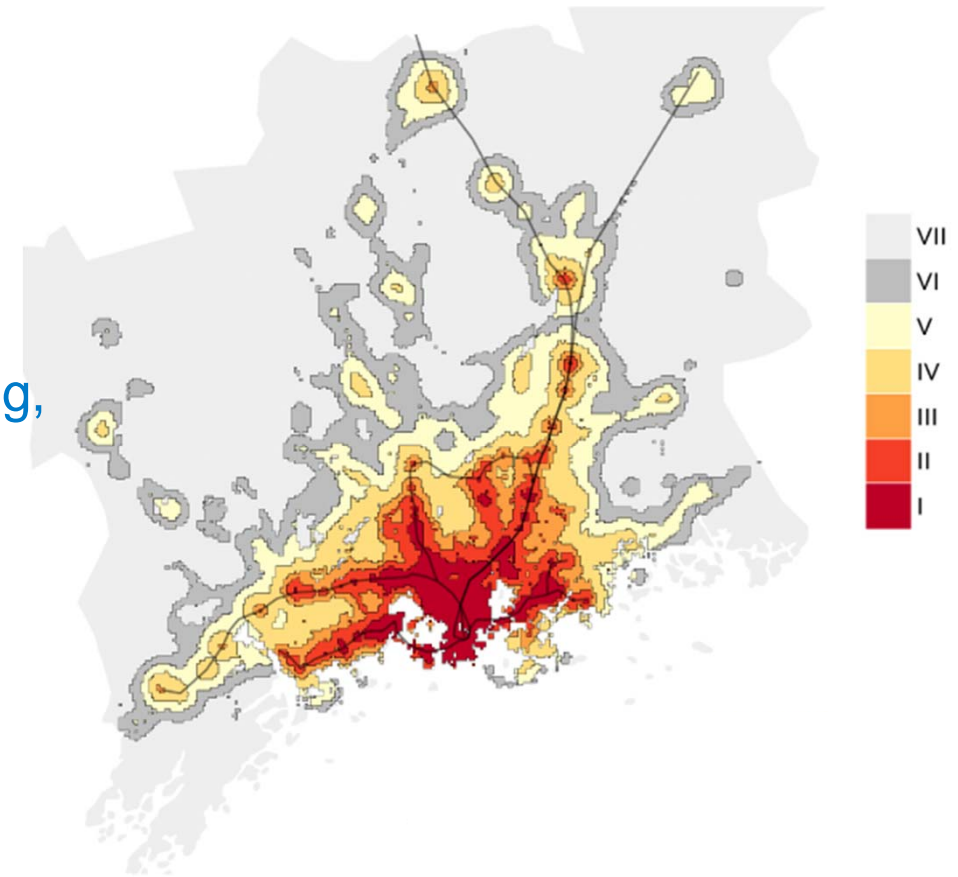
# Transport System Plan and Land Use Plan -process

Implementation



# Ongoing trends

- Stronger focus on systemic and regional thinking (land use, housing, transport, service, business life)
- Nodepoints and accessibility
- Functionality and customer orientation
- Economical thinking
- Prioritizing



Regional  
accessibility :  
Accessibility by walking,  
cycling or using public transport 2012

# In 2050, the Helsinki region is home to



Every third Finn



2,000,000  
inhabitants



Network-like  
public transport



1,050,000  
jobs



5.7  
million  
daily trips



A strong  
metropolitan  
area

# HLJ 2015 policies

The service level of sustainable modes of transport is improved 

- Rail and bus trunk route network
- Supplementary feeder services
- Division of responsibilities for Park & Ride
- Nodes and pedestrian environments

Information and steering tools are effectively utilized 

- Vehicular traffic pricing
- Incident management and information
- Regional parking policy
- Mobility management

The needs of logistics and flow of road traffic are catered to 

- Logistics links and service level of national main routes
- Freight traffic service areas
- Performance of the street and road network

**Results are achieved by effective methods**



Long-term funding for small, cost-effective infrastructure projects (KUHA)



Integrated public transport area



Resource-efficient operating models

# HLJ 2015 policies

The service level of sustainable modes of transport is improved



- Rail and bus trunk route network
- Supplementary feeder services
- Division of responsibilities for Park & Ride
- Nodes and pedestrian environments

Information and steering tools are effectively utilized



- Vehicular traffic pricing
- Incident management and information
- Regional parking policy
- Mobility management

The needs of logistics and flow of road traffic are catered to



- Logistics links and service level of national main routes
- Freight traffic service areas
- Performance of the street and road network

Results are achieved by effective methods



Long-term funding for small, cost-effective infrastructure projects (KUHA)



Integrated public transport area



Resource-efficient operating models

# The service level of sustainable modes of transport is improved

## Themes

## Measures

Rail and bus trunk route network, supplementary feeder services

- The predictability of journey times is improved and number of services increased.
- The trunk route network is strengthened with radial and transverse links and well-working feeder services.
- Rail services are developed as the basis of the transport system supplemented by trunk bus routes.
- Rail service network is expanded in phases beginning from the core area.

Regional main cycling network

- A high-quality regional main cycling network is implemented.
- Parking, information and maintenance services for cycling are developed.
- A method for monitoring cycling in the region is defined.

Division of responsibilities for Park & Ride

- Park & Ride for cars and bicycles is developed as part of the public transport system.
- The responsibilities for the costs of Park & Ride are reorganized and regional Park & Ride areas implemented accordingly
- Provisions are made for pricing of Park & Ride beginning from the core area.
- The Pasila-Riihimäki project is intended to pilot the division of responsibilities for the implementation and maintenance of Park & Ride

Nodes and pedestrian environments

- Trunk route nodes are improved
- Transfers are made smoother by improving feeder links and the service level of nodes
- Pedestrian environments in centers are made more attractive and safer.
- Construction of housing is intensified around public transport nodes.

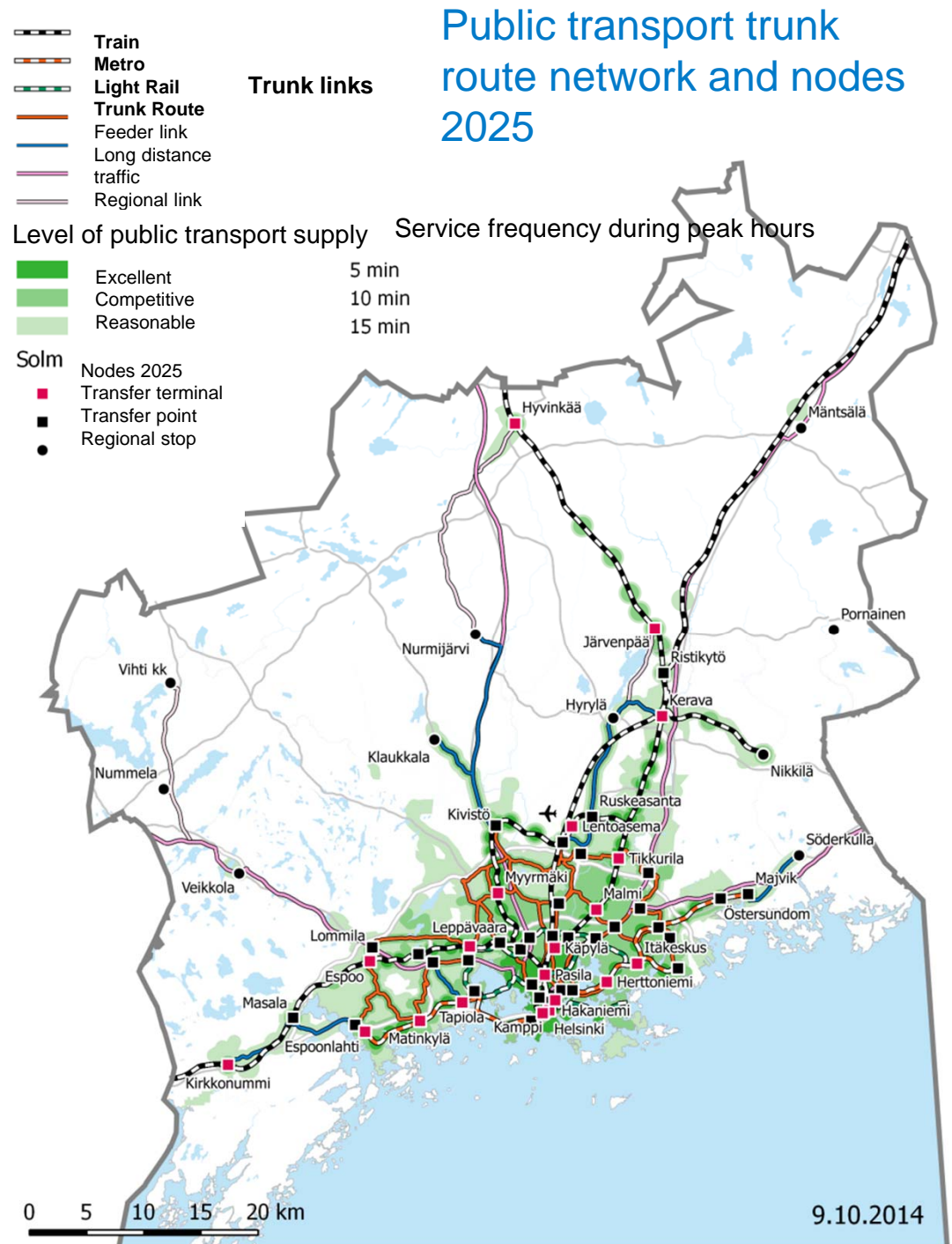




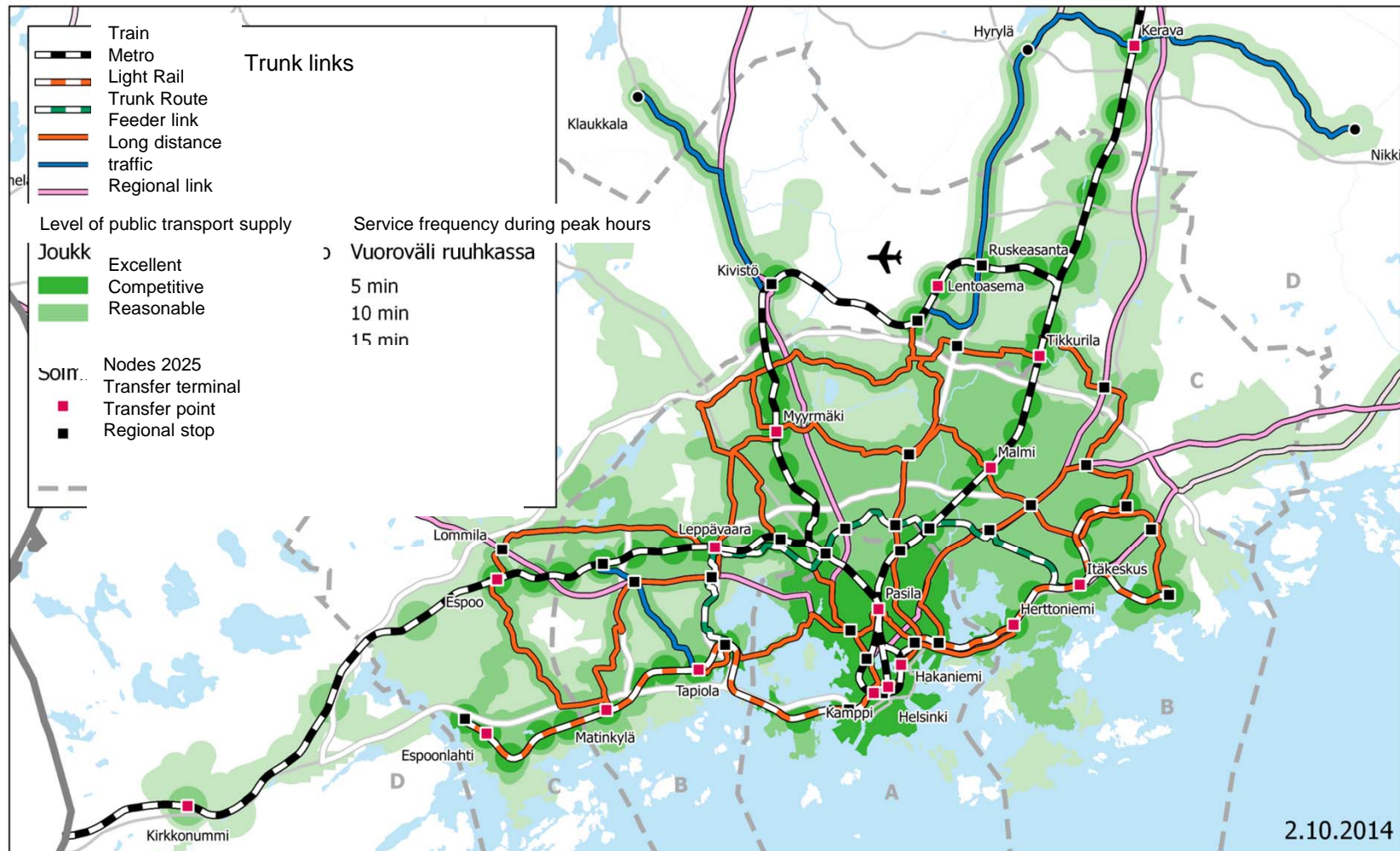
The service level of sustainable modes of transport is improved

## Rail and Bus trunk route network

- The predictability of journey times is improved and number of services increased.
- The trunk route network is strengthened with radial and transverse links and well-working feeder services.
- Rail services are developed as the basis of the transport system supplemented by trunk bus routes.
- Rail service network is expanded in phases beginning from the core area.



# Public transport trunk route network and nodes 2025



The service level  
of sustainable  
modes of  
transport is improved

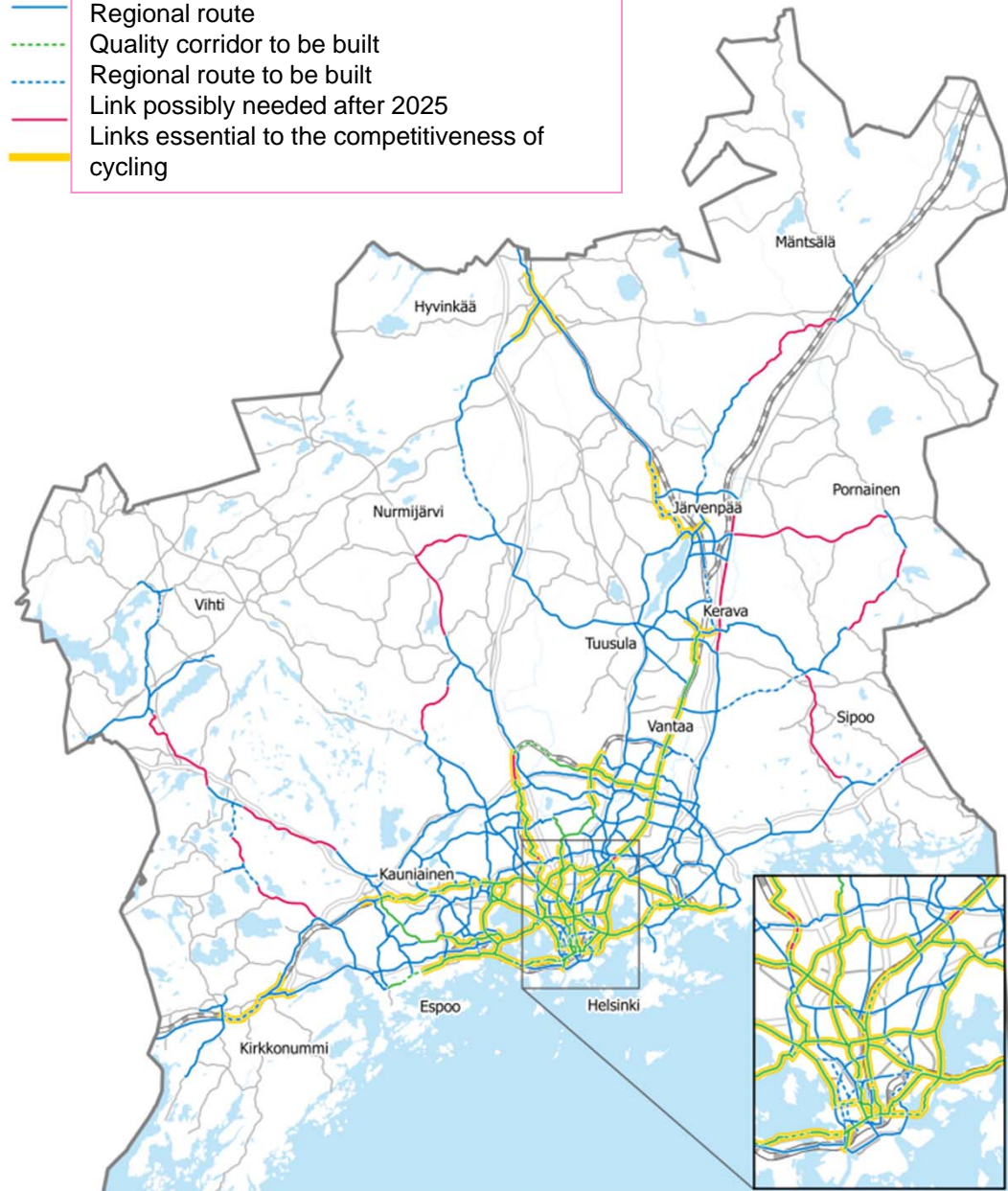


## Development of the regional main cycling network

- Quality corridor
- Regional route
- Quality corridor to be built
- Regional route to be built
- Link possibly needed after 2025
- Links essential to the competitiveness of cycling

### Regional main cycling network


- A high-quality regional main cycling network is implemented.
- Parking, information and maintenance services for cycling are developed.
- A method for monitoring cycling in the region is defined



# HLJ 2015 policies

The service level of sustainable modes of transport is improved 

- Rail and bus trunk route network
- Supplementary feeder services
- Division of responsibilities for Park & Ride
- Nodes and pedestrian environments

Information and steering tools are effectively utilized 

- Vehicular traffic pricing
- Incident management and information
- Regional parking policy
- Mobility management

The needs of logistics and flow of road traffic are catered to 

- Logistics links and service level of national main routes
- Freight traffic service areas
- Performance of the street and road network

Results are achieved by effective methods



Long-term funding for small, cost-effective infrastructure projects (KUHA)




Integrated public transport area



Resource-efficient operating models

# Information and steering tools are effectively utilized

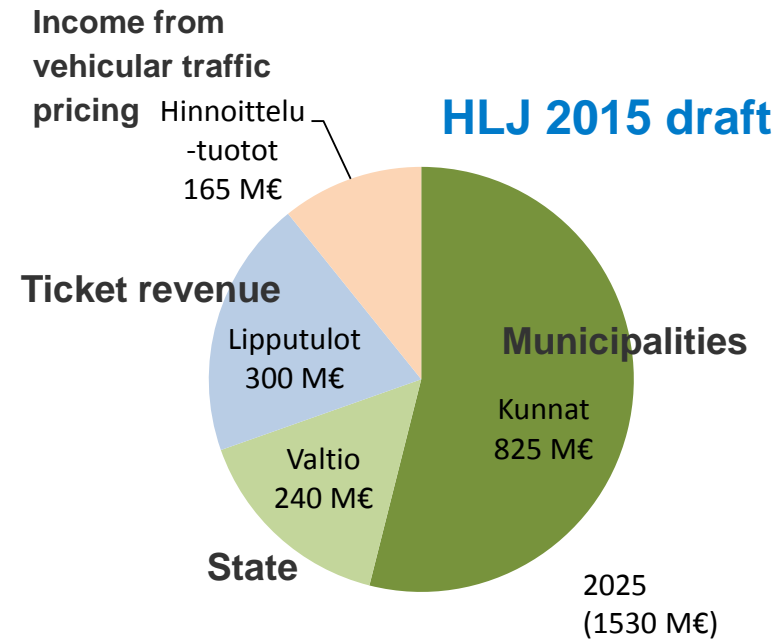
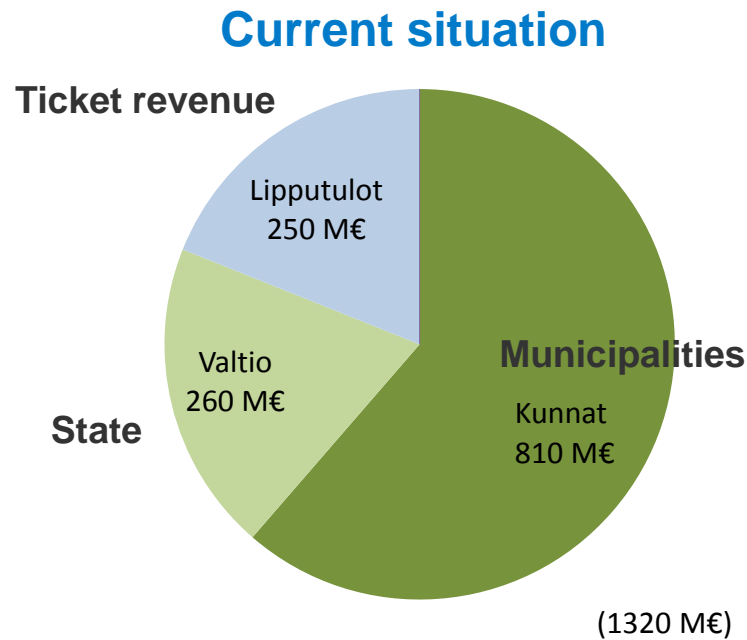
Themes	Measures
Vehicular traffic pricing	<ul style="list-style-type: none"> <li>• A pricing model for vehicular traffic and the conditions for its implementation are defined.</li> <li>• A decision-making model is developed for revenue allocation in the region.</li> <li>• Legislative changes required to introduce vehicular traffic pricing are prepared.</li> <li>• Pricing of vehicular traffic is introduced; the revenue produced is directed to the development of the region's transport system.</li> </ul>
Incident management and information	<ul style="list-style-type: none"> <li>• The package of measures to improve the monitoring and control system of the main road network is implemented and the operation of the Helsinki rail yard is improved.</li> <li>• Authorities and service providers cooperate to develop information and incident management covering all modes of transport.</li> <li>• Operating principles for incident management on the Helsinki region transport network are established.</li> <li>• The operational activities of incident management and up-to-date information for all modes of transport are centralized at the traffic control center.</li> </ul>
Regional parking policy	<ul style="list-style-type: none"> <li>• The "beneficiary pays" principle is strengthened in the development of regional parking policy.</li> <li>• Regional principles for parking at business premises are set out.</li> <li>• Parking standards are reviewed and centralized parking solutions promoted.</li> </ul>
Mobility management 	<ul style="list-style-type: none"> <li>• Mobility plans are created and implemented for places that generate significant numbers of journeys.</li> <li>• Mobility management tools are systematically utilized.</li> <li>• Communications and interaction related to the development and use of the transport system are made more efficient</li> </ul>



# Vehicular (car)traffic pricing

- An effective means for achieving transport policy goals
  - Directs people to sustainable modes of transport
  - The income generated to be invested in developing the region's transport system
  - Increases the cost of driving slightly but reduces congestion and thus shortens journey times by car
  - Without pricing, congestion will compromise the flow of bus, freight and car traffic
- **How to proceed?**
  - Design of the implementation model and technical solution
  - Preparation of the decision-making model
  - Introduction at the earliest in 2020

# Sources of funding in the current situation and in 2025



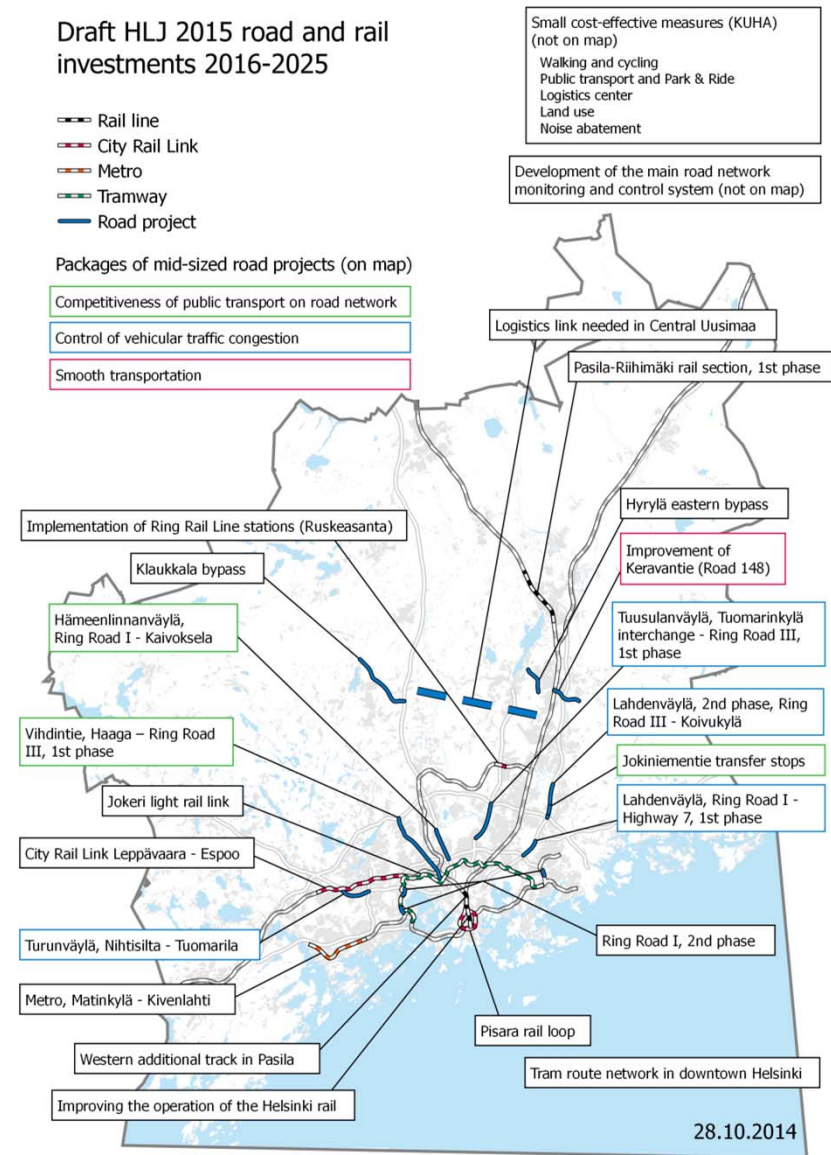
# HLJ 2015 INVESTEMENT PROJECTS, TO BE LAUNCHED IN 2015-2025

- 1a. Small cost-effective measures KUHA (continuous) \*
- 1b. Helsinki downtown tram network (continuous)
2. Improvement of Keravantie (Road 148) (supp budget 2014)
3. Western additional track in Pasila (budget 2015)
4. Pasila–Riihimäki rail section, 1st phase (budget 2015) \*
5. Metro Matinkylä – Kivenlahti + street and road arrangements \*
6. Pisara Rail Loop (more detailed cost estimate on 15 Oct 2014) \*
7. Klaukkala bypass Road 132
8. Hyrylä eastern bypass\*
9. Improving the operation of the Helsinki rail yard (HELRA) (Decreasing the vulnerability to disturbances)
10. Development of the main road network monitoring and control system
11. Mid-sized road packages (Public transport, congestion management, smooth transportation)
12. Logistics link needed in Central Uusimaa (to be launched, smooth transportation)
13. Espoo City Rail Link (efficient operation of the Pisara Rail Loop)
14. Jokeri Light Rail
15. Ruskeasanta station (utilizing the existing structure, feeder links)
16. Ring Road I, 2nd phase (congestion management)

€375m/year

\*Projects named as an outcome of negotiations between the State and Helsinki region municipalities (25 Aug 2014)

## Draft HLJ 2015 road and rail investments 2016-2025



28.10.2014



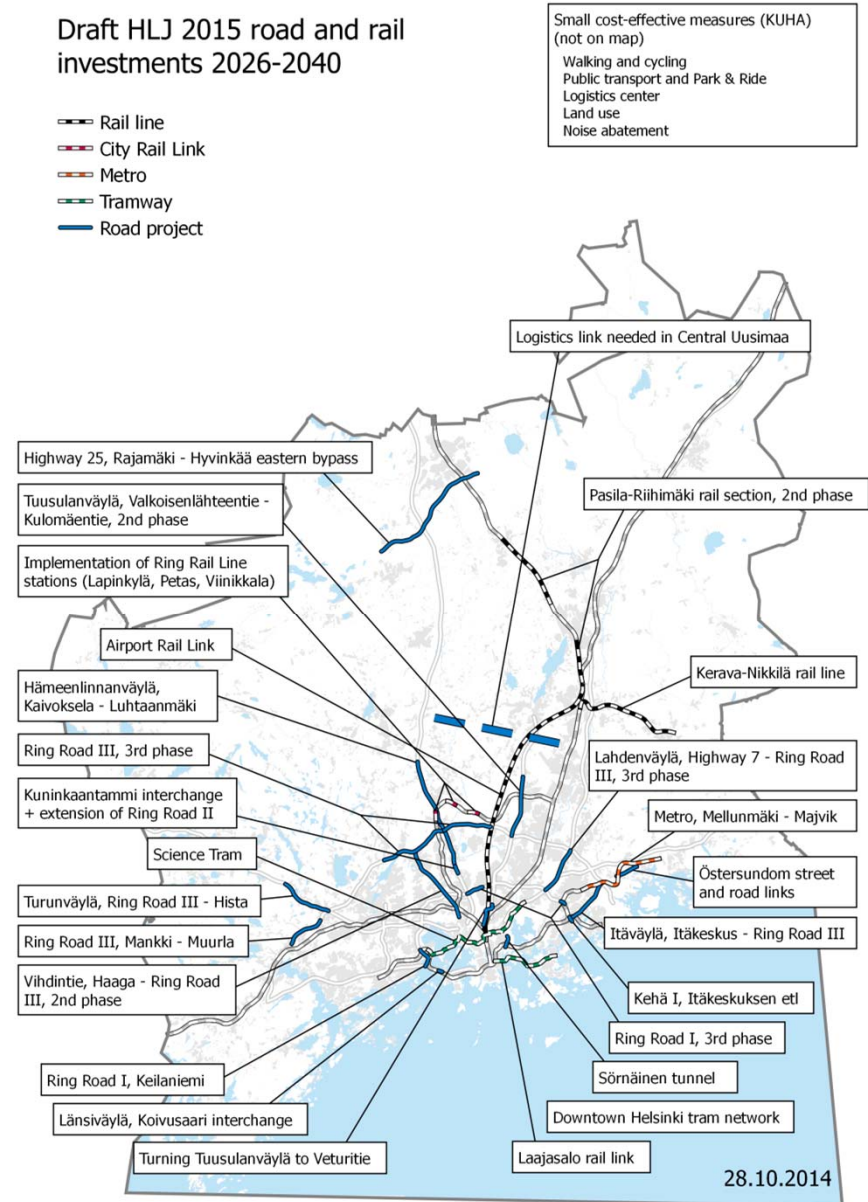
# HLJ 2015 INVESTMENT PROJECTS, TO BE LAUNCHED IN 2026-2040

- Small cost-effective measures KUHA (continuous)
- Helsinki downtown tram network (continuous)
- Laajasalo rail link
- Pasila-Riihimäki rail section, 2nd phase
- Ring Rail Line stations (Lapinkylä, Petas, Viinikkala)
- Science Tram (possibly bus in the first phase)
- Metro, Mellunmäki –Majvik
- Kerava-Nikkilä rail line
- Airport Rail Link (to be launched)
- Logistics link needed in Central Uusimaa (underway)
- Kuninkaantammi interchange + extension of Ring Road II
- Länsiväylä, Koivusaari interchange
- Ring Road I, Itäkeskus interchange
- Lahdenväylä, Highway 7 – Ring Road III, 3rd phase
- Ring Road III, 3rd phase
- Turunväylä, Ring Road III - Hista
- Improvement of Highway 25 between Mustio and Mäntsälä (to be planned and phased)
- Highway 3 Hämeenlinnanväylä, Kaivoksela-Ring Road III
- Highway 3 Hämeenlinnanväylä, Ring Road III – Luhtaanmäki
- Tuusulanväylä, Valkoisenlähteentie - Kulomäentie, 2nd phase
- Sörnäinen tunnel
- Östersundom street and road links
- Turning Tuusulanväylä to Veturitie
- Itäväylä, Itäkeskus-Ring Road III
- Ring Road I, 3rd phase
- Ring Road III, Mankki-Muurla
- Vihdintie, Haaga - Ring Road III, 2nd phase
- Ring Road I, Keilaniemi
- Länsiväylä, Koivusaari interchange
- Kehä I, Itäkeskuksen etl
- Ring Road I, 3rd phase
- Sörnäinen tunnel
- Downtown Helsinki tram network
- Laajasalo rail link

€275m/year



Draft HLJ 2015 road and rail investments 2026-2040



# HLJ 2015 policies

The service level of sustainable modes of transport is improved 

- Rail and bus trunk route network
- Supplementary feeder services
- Division of responsibilities for Park & Ride
- Nodes and pedestrian environments

Information and steering tools are effectively utilized 

- Vehicular traffic pricing
- Incident management and information
- Regional parking policy
- Mobility management

The needs of logistics and flow of road traffic are catered to 

- Logistics links and service level of national main routes
- Freight traffic service areas
- Performance of the street and road network

**Results are achieved by effective methods**



Long-term funding for small, cost-effective infrastructure projects (KUHA)



Integrated public transport area



Resource-efficient operating models

## Results are achieved by effective methods

Themes	Measures
Long-term KUHA funding	<ul style="list-style-type: none"> <li>• The long-term funding for small and mid-sized KUHA projects is ensured and programmed to promote walking, cycling and public transport, logistics links and services as well as dense land use and noise abatement.</li> <li>• The programming of KUHA projects is continued and funding for the projects in the State and municipal budgets from 2016 on is ensured.</li> <li>• The programming of KUHA projects is coordinated together with the infrastructure subsidies of the Housing Finance and Development Centre of Finland (ARA).</li> </ul>
Integrated public transport area	<ul style="list-style-type: none"> <li>• Public transport is planned and organized as an integrated whole across the region.</li> <li>• An integrated ticketing system is created for the Helsinki region.</li> <li>• Sufficient depot capacity is ensured in locations suitable for the operation of public transport.</li> <li>• A regional public transport management group is established as a cooperation forum.</li> </ul>
Resource-efficient operating models	<ul style="list-style-type: none"> <li>• All-round cooperation and mobility development pilots are increased.</li> <li>• The transport as service concept is studied from the point of view trip chains and the promotion of sustainable modes of transport together with various actors.</li> <li>• The use of operating models, rolling stock and vehicles that reduce environmental load is promoted.</li> </ul>



Integrated public  
transport area

- 
- Public transport is planned and organized as an integrated whole across the region.
  - An integrated ticketing system is created for the Helsinki region.
  - A regional public transport management group is established as a cooperation forum.

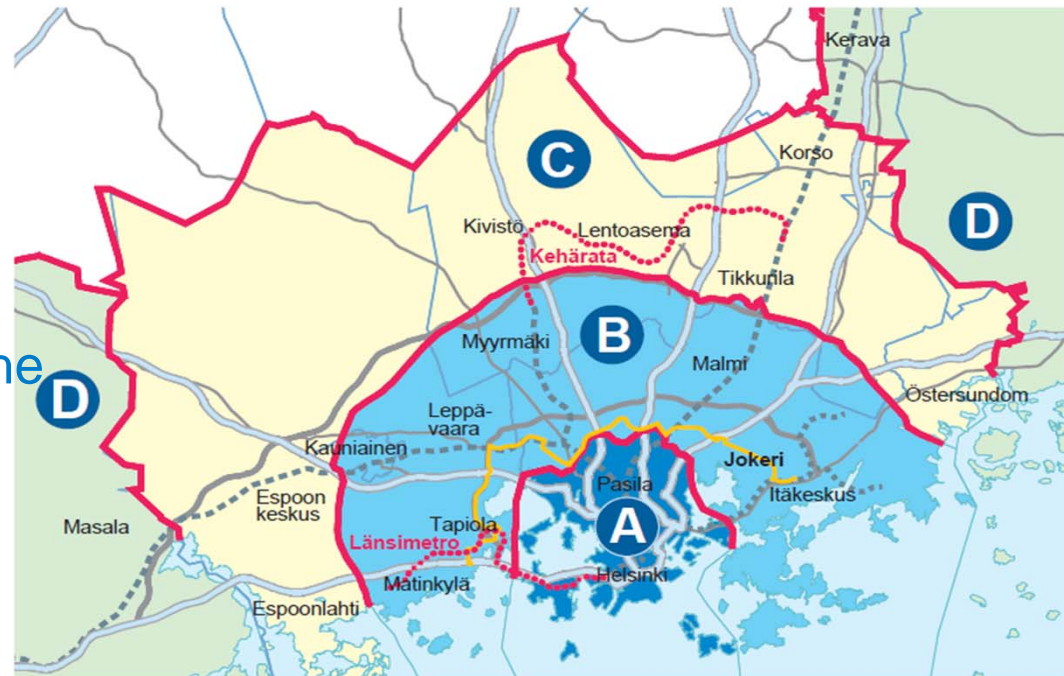
# Two projects

- Ticketing and information system 2014 (TIS2014)
  - Reforming the current travel card system by the end of 2015
  - Implementation of real-time information system in the whole region
- The new tariff system 2017
  - Reforming the current zone system and pricing principles -> a new zone model

## The Circle Zone Model

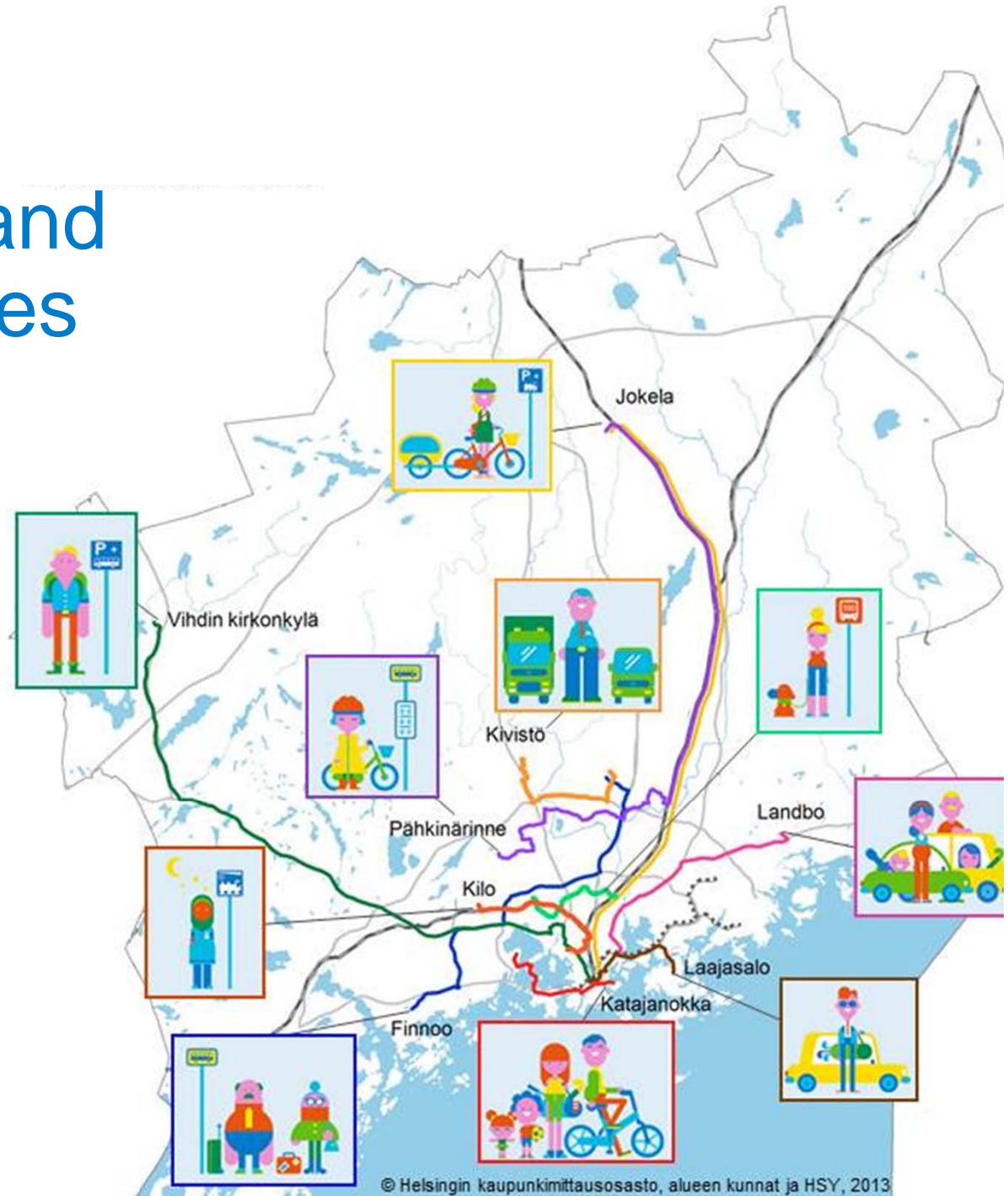
- Zone boundaries are based on the distance from the centre of the Metropolitan area (the centre of Helsinki)
- The new zones do not necessarily follow any municipal boundaries
- The circle model is easier to expand, if/when the HRT-area expands and/or the municipal structure changes

The new zones 2017 (A-C in the capital area, surrounding municipalities D-F )





# Travel profiles and daily travel routes





# Fatima – a shift worker who uses train and busses



**Fatima:** I use lot of time on my commuting trip, because I need to change from train to busses. Do I get any relief soon? I also need to travel sometimes at late hours. That's not very nice because I feel unsafe at stations.

Fatima lives in Kilo in Espoo and has a family with 3 kids. He works on shift at Meilahti hospital. Fatima uses train and busses daily to get to her workplace.



**Planner:** Your commuting trip will get easier when a trunk bus from Pasila to Meilahti gets going. Busses will also get better schedules so that passengers don't need to wait long for the next one. Pasila station will be improved as there will be better service level in the future.



**HSL**  
**HRT**

## Contact information:

Tuire Valkonen

[tuire.valkonen@hsl.fi](mailto:tuire.valkonen@hsl.fi)



Helsingin seudun liikenne -kuntayhtymä