



1

LANDUSE PLANNING, PUBLIC TRANSPORT AND PERSONAL MOBILITY

Entries propose fundamentally different regional scenarios. A commonly agreed principle is increasing building density near rail stops. Challenging topics in any scenario include avoiding unnecessary rail investment and the related need to densify existing built-up areas.

Instead of focusing on the transport system itself, the focus should rather be citizens' personal mobility needs and the coordination of different transport modes. A whole range of services and techno-social innovations can reduce the travel demand. It is important to develop a low-carbon urban culture through spatial and temporal integration of uses and by revealing the consequences of everyday mobility choices.



1. LAND-USE PLANNING, PUBLIC TRANSPORT AND PERSONAL MOBILITY

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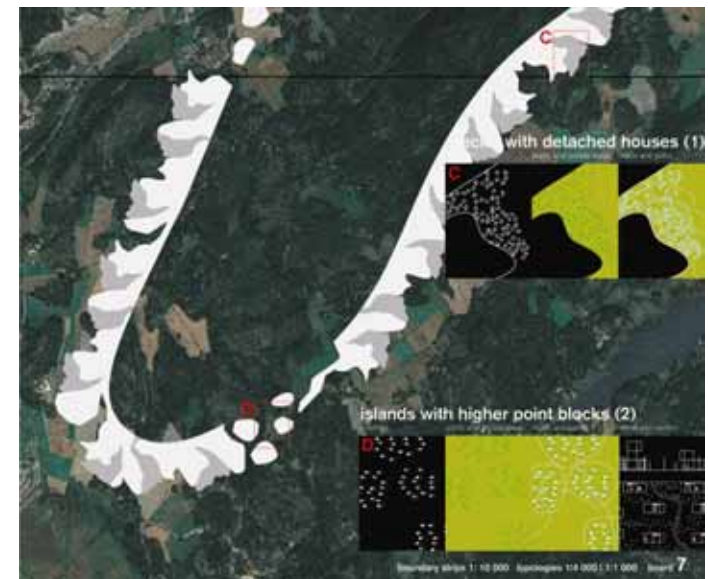
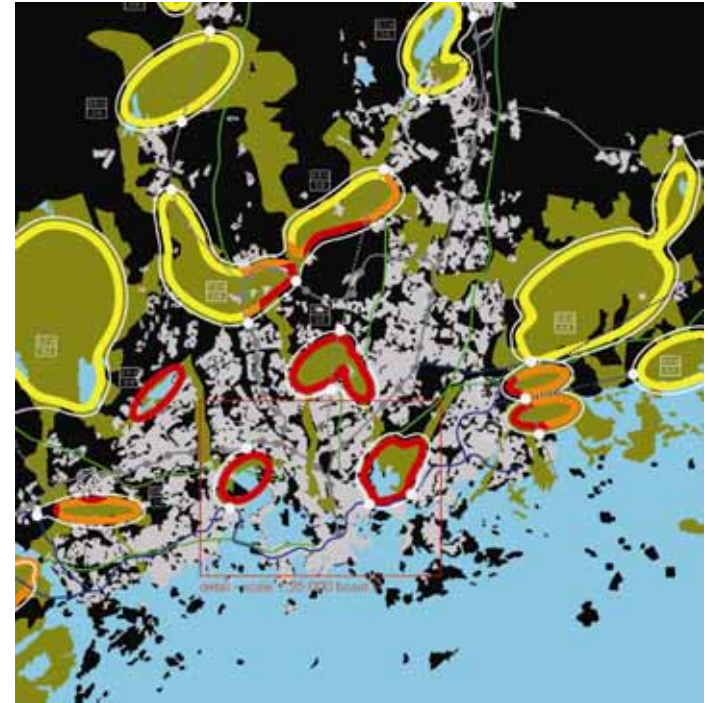
1.1 Boundary Strips

The entry *Boundary Strips* proposes a new type of settlement model for Greater Helsinki. Very big areas of open space – diameter up to 10-15 km – are surrounded **by narrow urban structures, so-called "boundary strips"**. With the green areas encircled by them, they form a new spatial system of protected open areas.

The breadth of the "boundary strips" is 250 - 500 m. There are several models according to which the built structure in strips can be organized. In general, the pattern and design aim at **maximizing the edge between the built and the green area.**

The strips are surrounded by **a public transport system which is connected with the regional public transportation network.** A "knot" (the connection to public transportation system) is always within walking distance of 5 minutes.

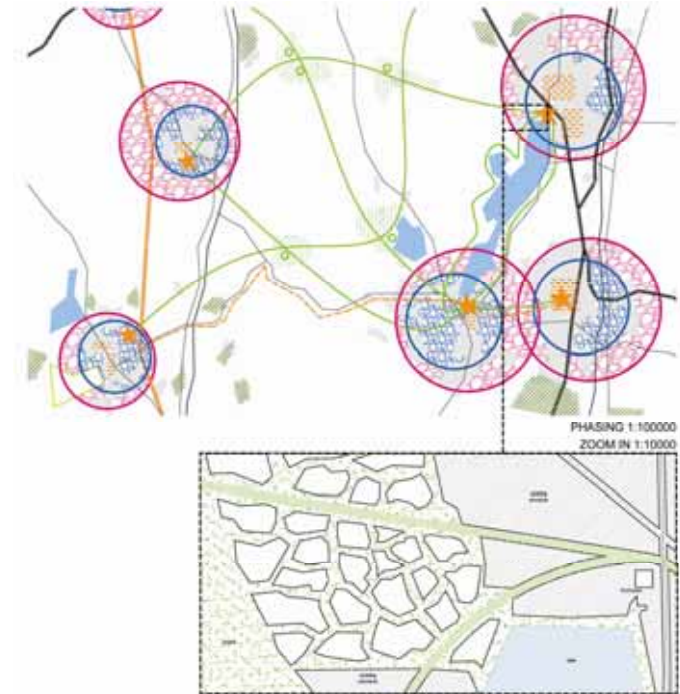
Each "boundary strip" can be realized either in one step or in successive steps. The density and character can vary according to the surrounding areas.



1.2 Human-mobility-sized towns

The entry *Holistic Uniqueness* proposes that the Helsinki metropolitan region will be developed as a configuration of **eight larger urban areas**, each developing a characteristic profile based on programmatic and spatial specialities.

One of these proposed areas, so-called “Finlegacy”, consists of eight medium-sized urban cores. These urban cores will be densified and enlarged, but **only to a maximum size of a diameter of 6 km (= human-mobility-size)**. The relatively small size fosters biking and pedestrian movement.



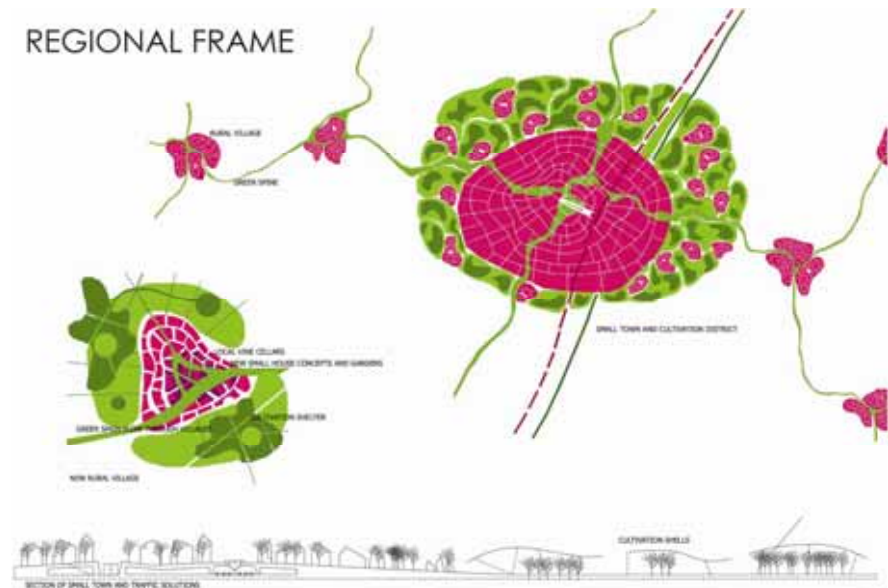
1.3

Emphasis on pedestrian oriented areas

The entry *Emerald* states that diversified mixture of housing, jobs and services everywhere decreases commuting both out and inside the metropolis.

“A guideline is emphasis **on pedestrian oriented areas, new public spaces and high quality public transport stops**. Attractive stations house various facilities and services. Street patterns encourage walking, biking and using local services. A consistent high quality bicycle path network covers evenly the region through public transport nodes and other central places. Bikes can be rented in these nodes by a digital Smart Card system.”

“[The small towns have] a clear centre with diverse services in the vicinity of the railway station. **Clear boundaries between the town and surrounding production and natural areas** encourage densification instead of spreading. The limited dimensions and the dense and organic structure of small towns contribute to pedestrian and bicycle traffic.”

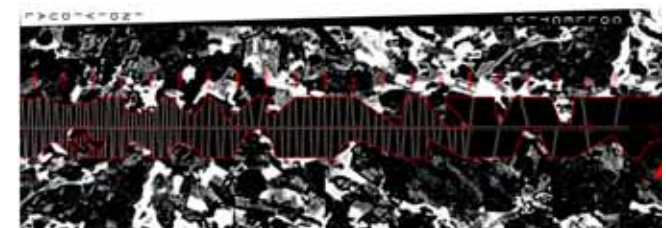
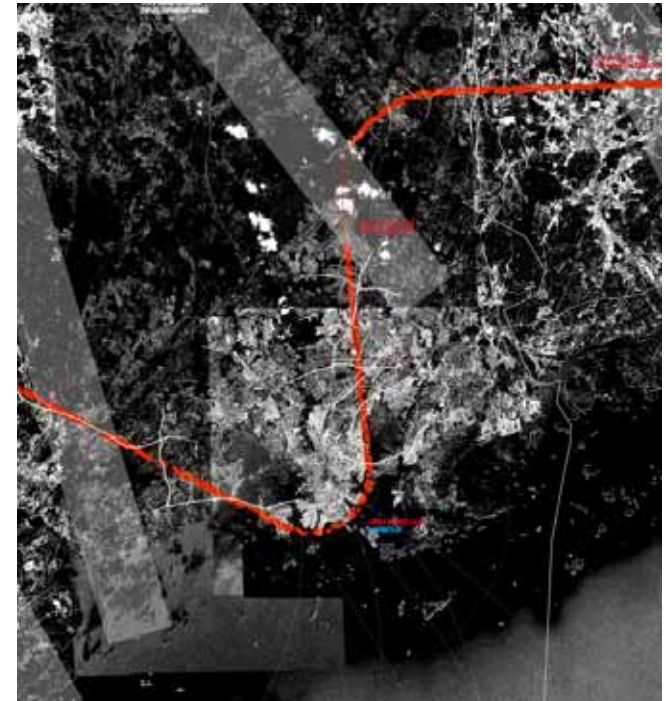


1.4 Line TM

The entry *LINE_TM* provides an idea of a **hyper-fast train connection between Baltic capitals & Oslo**. The narrow area above the train tunnel is, at the same time, seen as a development zone, called “LINE_TM”. It can be developed into ultra-dense urban construct, especially near international stops, airports and city centers. The definition of the LINE_TM in its width is set at 414 m.

The high-speed transport system is built on the idea that **any point along its extension is reached much faster than through private means**. There are international hubs/stations, periurban stops and local stops. The maximum walking distance to the closest local stop is 5 minutes. On-ground circulation in the zone is provided by a fishbone like street system.

LINE_TM is based on the idea of Public-Private-Partnership. **The design will provide benefit for owners of existing land**. The increase in value due to the high-speed transportation system is the main source for financing this inter-regional and international project. The benefits will be divided between existing land owners, the governments and the chosen investors.



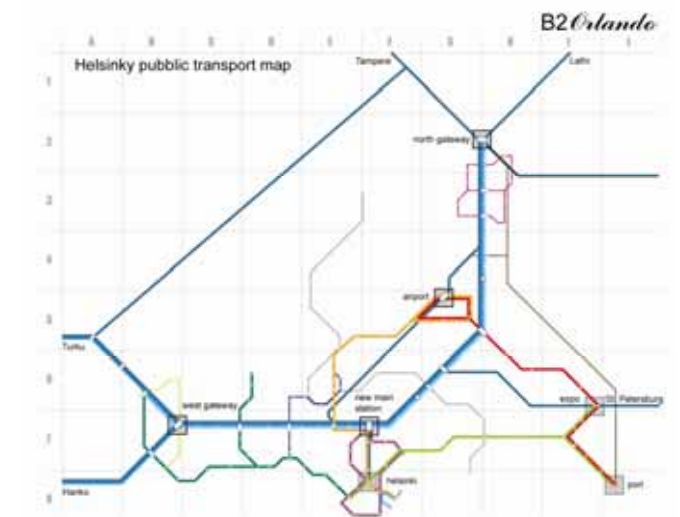
1.5

“Hook”

In the entry *Orlando*, different areas in Helsinki region will be tied together with a **strong regional main railway line called “the Hook”**. It extends from Nummela via Espoo and Pasila to Hyvinkää. The Hook works as an infrastructural spine for the region, serving national, regional and local railway traffic and uniting the different metropolitan realities. (see idea card 7.2, “Well-connected lifestyle regions”.)

Around **the main stations of the Hook are the most important urban densification projects, the “Synapses”** (see idea card 1.6). Between Synapses are numerous smaller stations. The stations are connected with the other public transport systems (trams, metro-lines) which link the different areas together in a transversal direction.

Strategic choices in the land use ensure that **48 % of the total gross floor area to be built up to 2050 will be included in the range of the Hook’s catch-man area**, thus implementing the public transport utilization rate. “Greater Helsinki 2050 will define itself as a system of several compact cities immersed in the amazing Finnish nature, hooked together by an ... efficient infrastructural spine.”



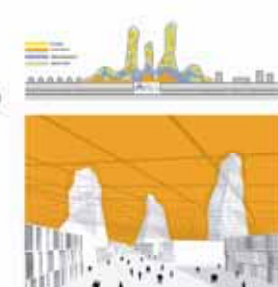
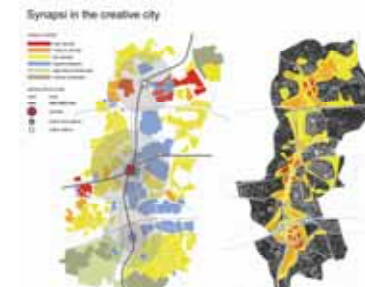
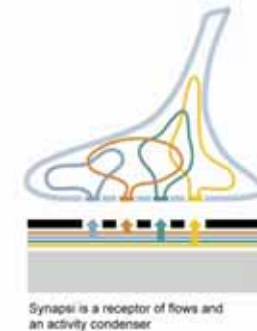
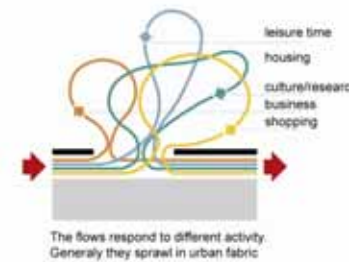
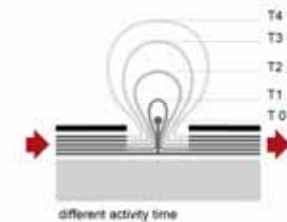
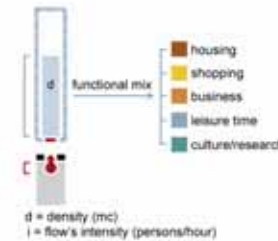
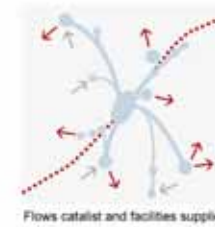
1.6 Synapsi

The entry *Orlando* proposes a fast main railroad “spine” for the region, called “The Hook”, and 7 differently profiled areas along the line. (See idea cards 1.5 and 7.2.)

On main stations of the Hook are located **the most important densification projects, called “Synapses”**. They contain **functional mix** (office, research, commerce, houses and spare time activities) and can be described as “micro cities”, “receptors of flows” and “activity condensers”.

In Synapses, **functions are near to one another (within 200 - 500 m) and they are connected to the station**. At least 10 % of the total new floor area of the region is planned to be built in the Synapsis. The series of Synapses can be called the Warm-City; a linear warm indoor city, bridged together with effective public transport lines. The aim is to maximize connectivity, speed and functional mix.

Synapsi



1.7

Design based, infrastructure based and policy based planning

According to the entry *(R)evolver*, the key issue in planning in HMR is to decide how to *guide* the change. The authors propose three different types of planning activity:

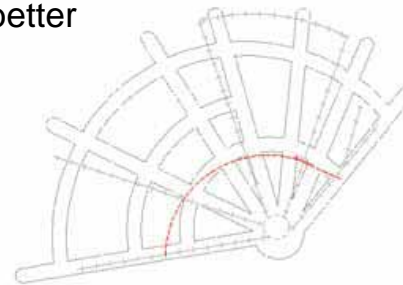
- *Design based planning*, that has dominated the Finnish planning, is most suitable for **decisions concerning large areas where the land ownership is quite concentrated**. Typical implementation areas are extensions of continuous built structure in virgin landscape (e.g. by transportation lines).
- *Infrastructure based planning* is most effective in suburban fringe, where totalistic design based strategies can lead to opportunistic land speculation. The strategy is more evolutionary based. It **guides the development by targeting voluntary investments according to infrastructure** and encourages voluntary activity.
- *Policy based planning* sets the framework for development in outer fringe areas where allocation of large investments or detailed regulation is not motivated. Policy based planning aims at **binding up the true land use potential with spatial typology**.



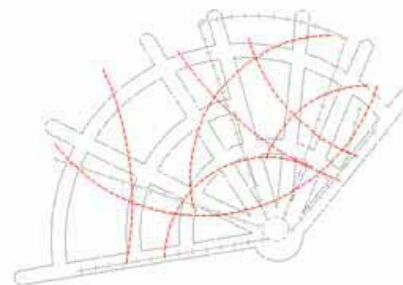
1.8

New diagonal connections in public transportation

Eight new diagonal connections of public transportation (e.g. light-rail) are gradually built in the area of Helsinki, Espoo & Vantaa in the entry *(R)evolver*. These lines **guideline** the modeled **population dynamics** of the entry. The aimed result is a more connected, more urban and better functioning city fabric.



2015



2050

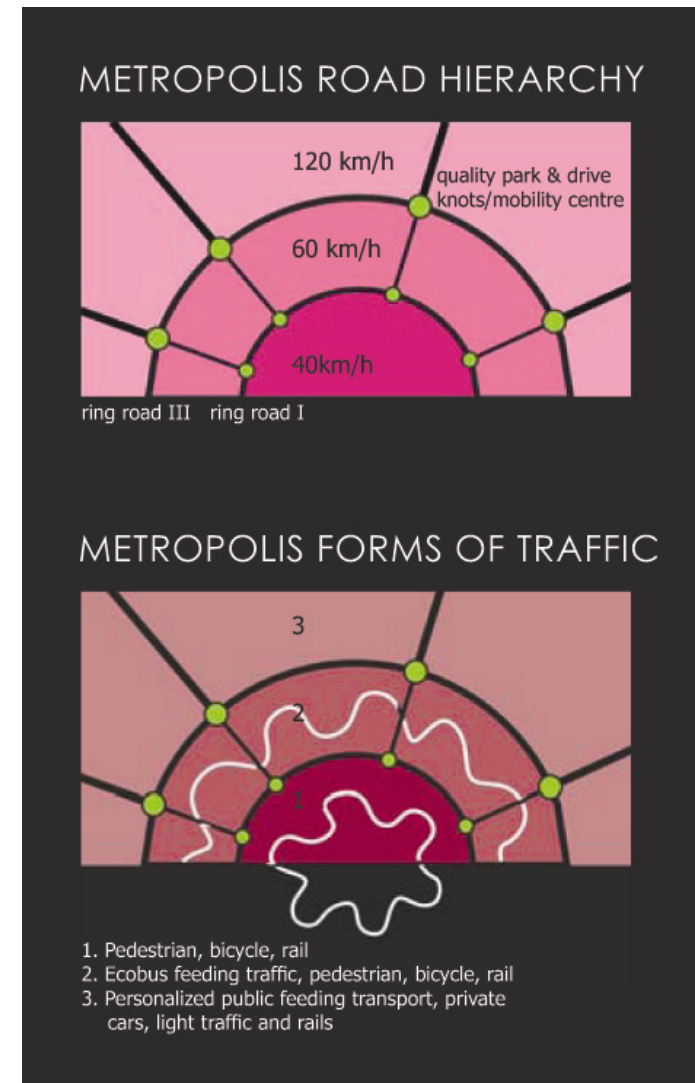


1.9

New road hierarchy inside Ring Road 3

The entry *Emerald* proposes that Helsinki metropolitan region is divide roughly to two different areas: (1) a **'dense metropolis'**, and (2) **the 'regional frame'**, including small towns and and rural areas. Appr. 99 % of new inhabitants (= appr. 620 000) are proposed to be allocated to the 'dense metropolis'. This means that densifying and intensifying the existing urban structure is an essential part of the proposal.

Connected to this idea, the entry proposes that **inside Ring Road 3 the maximum speed is 60 km/h**. In this way, the streets can more **effectively serve land use** and residents while **noise is minimized**.



1.10

Work Oasis

“In 2050 working hours are adjustable which has – among other things – reduced congestion. The need for traveling of individuals has become less also thanks to local integrated services. Still people do not tend to work at their homes too much. **Instead of travelling all the way to the office they have a chance to place themselves in one of the Working Oases**, a kind of office cafés, which are located in almost all neighborhoods.”

(Entry: *Emerald*)



1.11

New logistic solutions & Shop-on-rail

In the entry Emerald, “[t]he delivery time of raw material from a producer to the end-user has diminished dramatically. **Local production combined with short-distance logistics has replaced a great deal of freight transportation.**” On the local level logistics are managed mainly by automatic goods movers located underground.

The **main logistic corridor runs around the Greater Helsinki region via Highway 25 and the rail along it.** The fast train rail line going through the airport will be used for transporting goods by night. **New logistic centres are founded on strategic spots** of the region linked to the fast rail line.

An idea also connected to transportation of goods is “Shop-on-rail-metro”.



1.12

Integrated travel chains & personal mobility management solutions

Integrated travel chains are important to quality public transport, **to achieve minimum amount of transfers, to make them easy, and to provide services in focal points of the trip.** Quality mobility management solutions help people use public transport effectively.

The entry *Emerald* proposes that in future in every urban settlement is **a local mobility centre**, where Mobility Agents can recommend to people which mode of transport to choose. In addition to public transport management, individual vehicles (car, moped, boat, bicycle etc.) can be rented there for a reasonable price.

METROPOLIS PASSENGER RAIL NETWORK

Quality public transport system includes new rail, metro and light rail links connecting the existing lines and land use hot spots. The densest structure is found around stations. New horizontal rail links follow roughly Ring Roads 1, II and III. Direct rail links develop connections to airport from eastern and western sectors of the Metropolis as well as Helsinki city core.

