

METROPOLIS HUBS



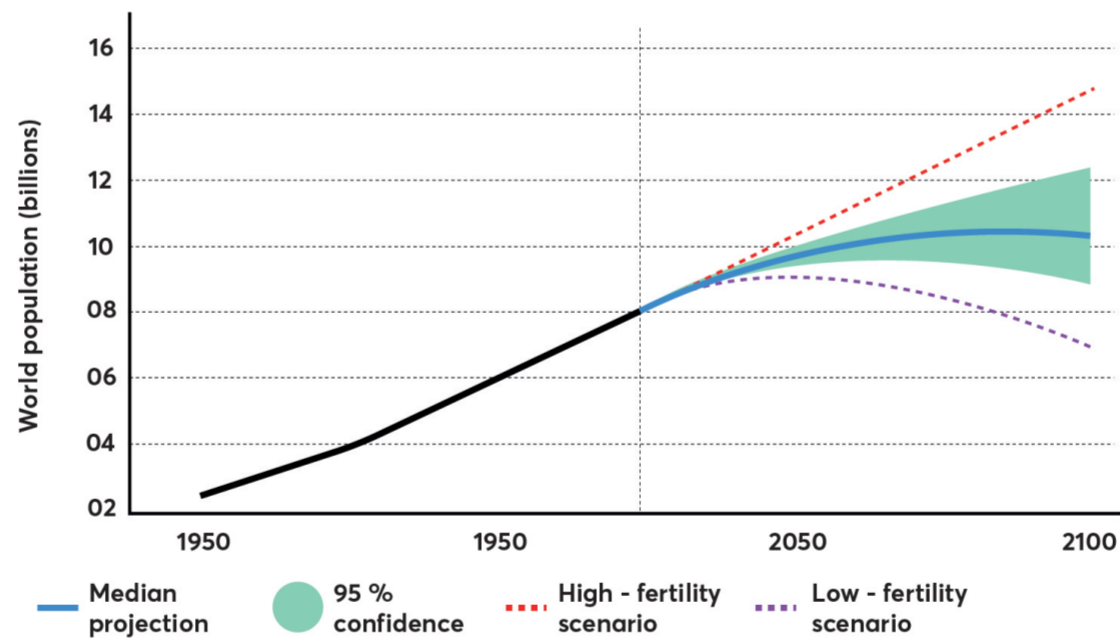
The year 2050

It is estimated that, for the first time in history, the world population will start to drop. Our generation will experience the peak of human population on earth, and the start of its decrease. However the world will further urbanise. More and more people will move to the cities, driving the need for their further expansion, particularly in prosperous regions.

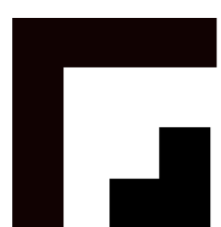
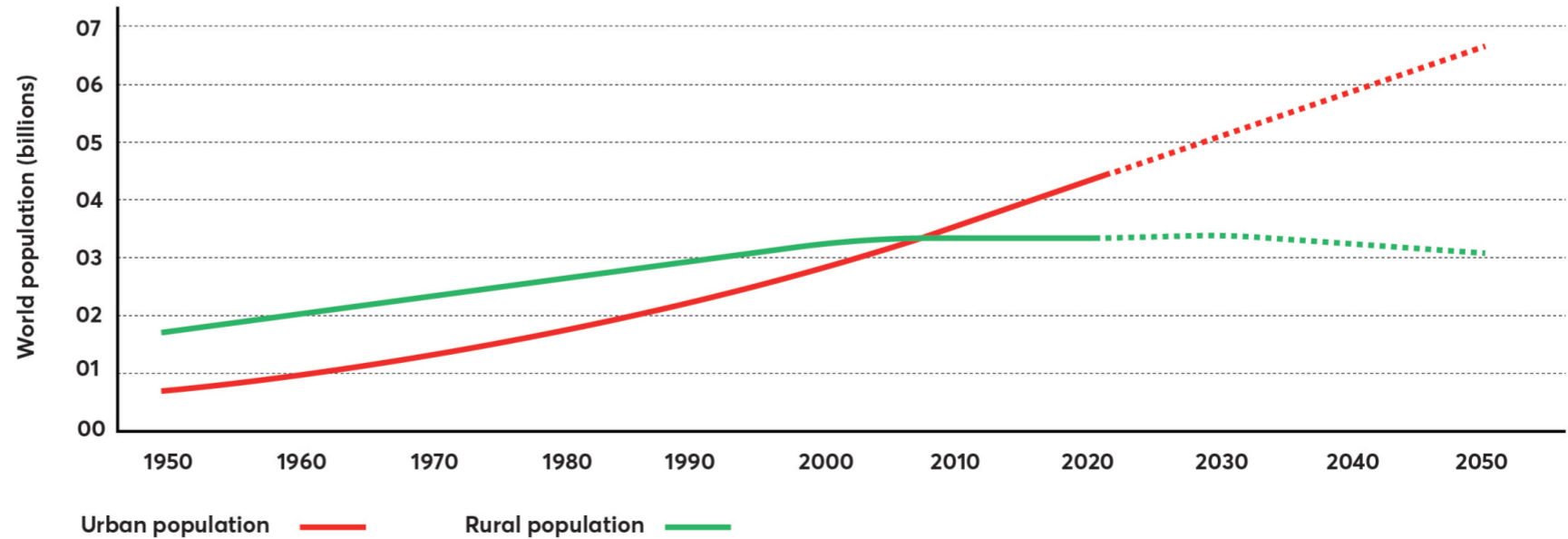
The dense city

This anticipated future is also on the horizon for the Netherlands and the Randstad area. The cities will become denser to prevent urban sprawl. Nowadays there are still a lot of cars within our cities. However, we've acknowledged their inefficiency as a mode of urban transportation, and they require a lot of space. Therefore cars are no longer compatible with the denser cities of the future. Prioritizing walking, cycling, and efficient public transit will be crucial for the success of the dense cities. The cities will be attractive for mixed use urban areas, that will foster a variety of local economies. Those functions will cluster around areas where they are best accessible by the public transport network, further contributing to the appeal and functionality of these urban hubs.

Population projections to 2100

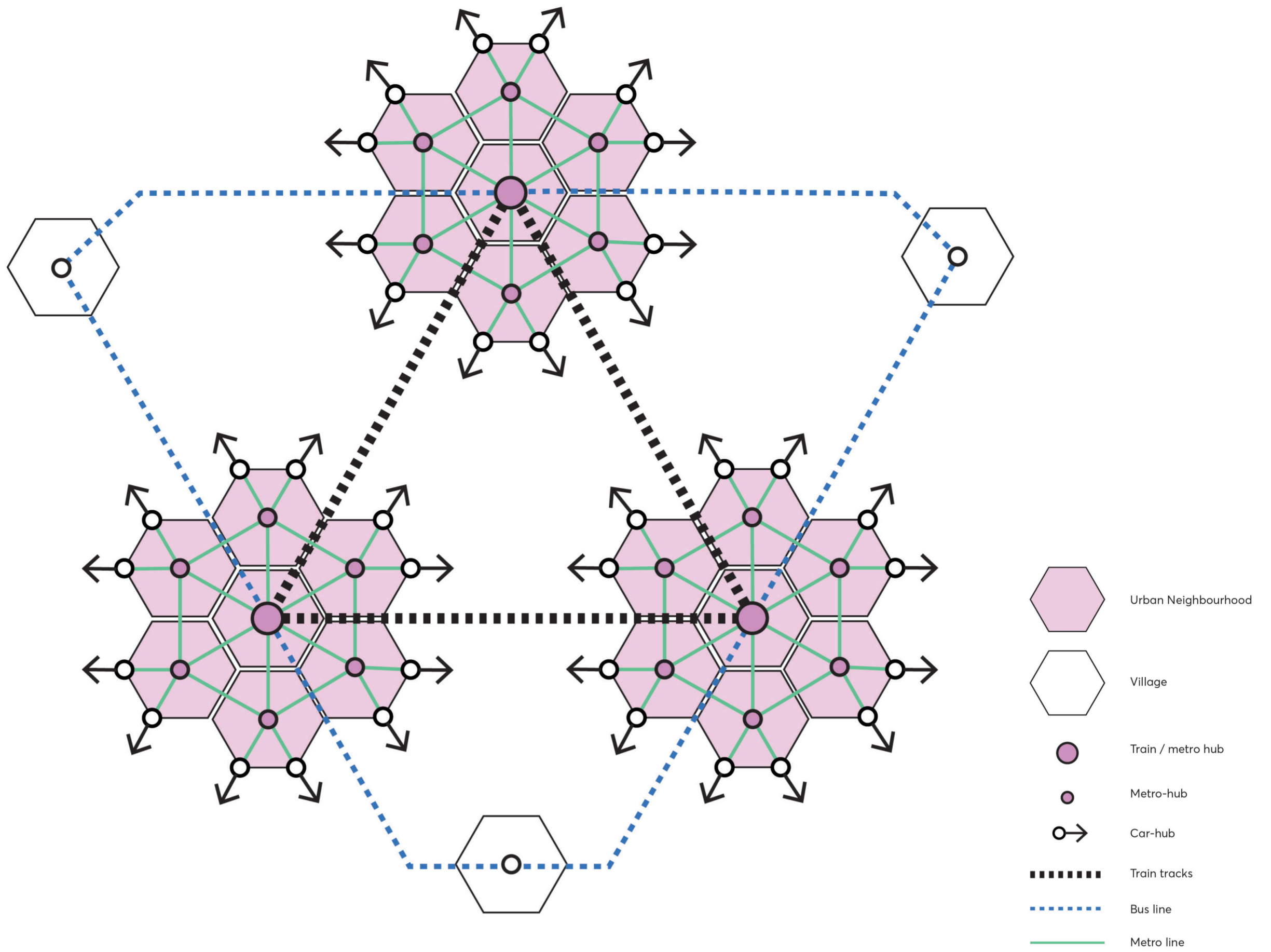


Urban vs rural population



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Concept system + Design principles

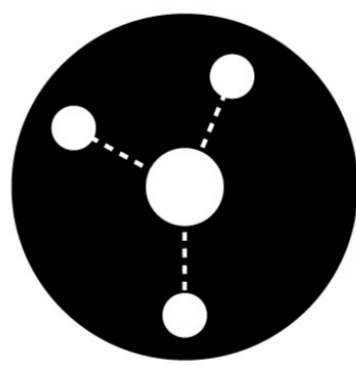
The future cities will have various hubs will be integrated with the public transit network. Accessible within a 15-minute cycling distance from any residence, these hubs will serve as centralities. Around these hubs mixed use facilities will emerge along with increased urban density.

The cities will mostly be car free, therefore car hubs are situated in the outskirts of the city, connected to the highway system. Private and shared car mobility is situated in these hubs as well as the bus stations. Along with the car they provide the connection to smaller villages, rural countryside and nature.

Different service areas

The modes of transport provide different service area's. The train is accessible within the urban area and serves on urban ,regional and national scale. Similarly, the metro, is also accessible within the urban area and serves on urban and regional scale.

The bus and car are both accessible on the outside of the cities. The car serves the national and the regional scale and the bus only serves the regional scale.



METRO HUB
WITHIN 15 MIN



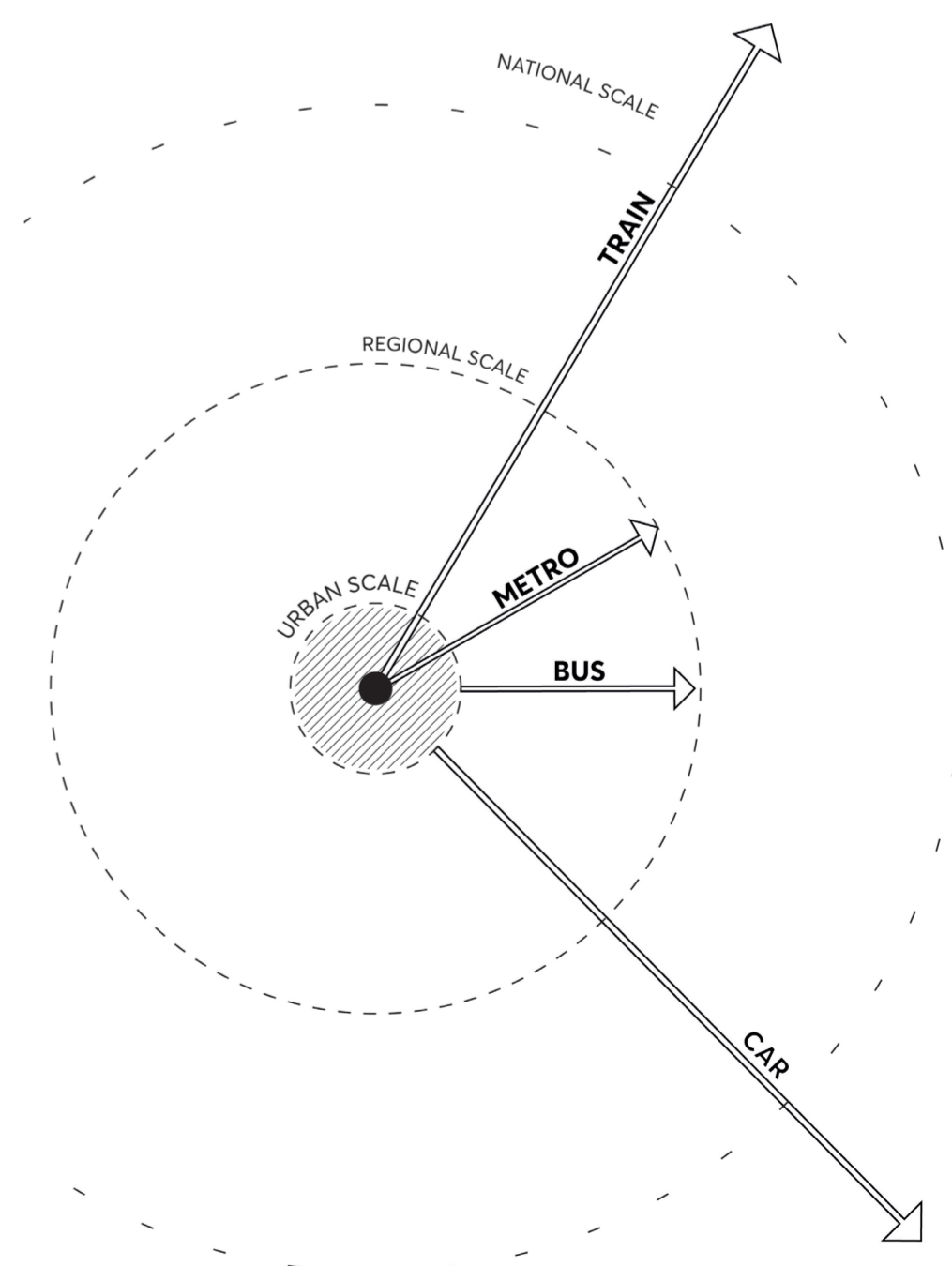
CLUSTERING FACILITIES
AROUND HUBS

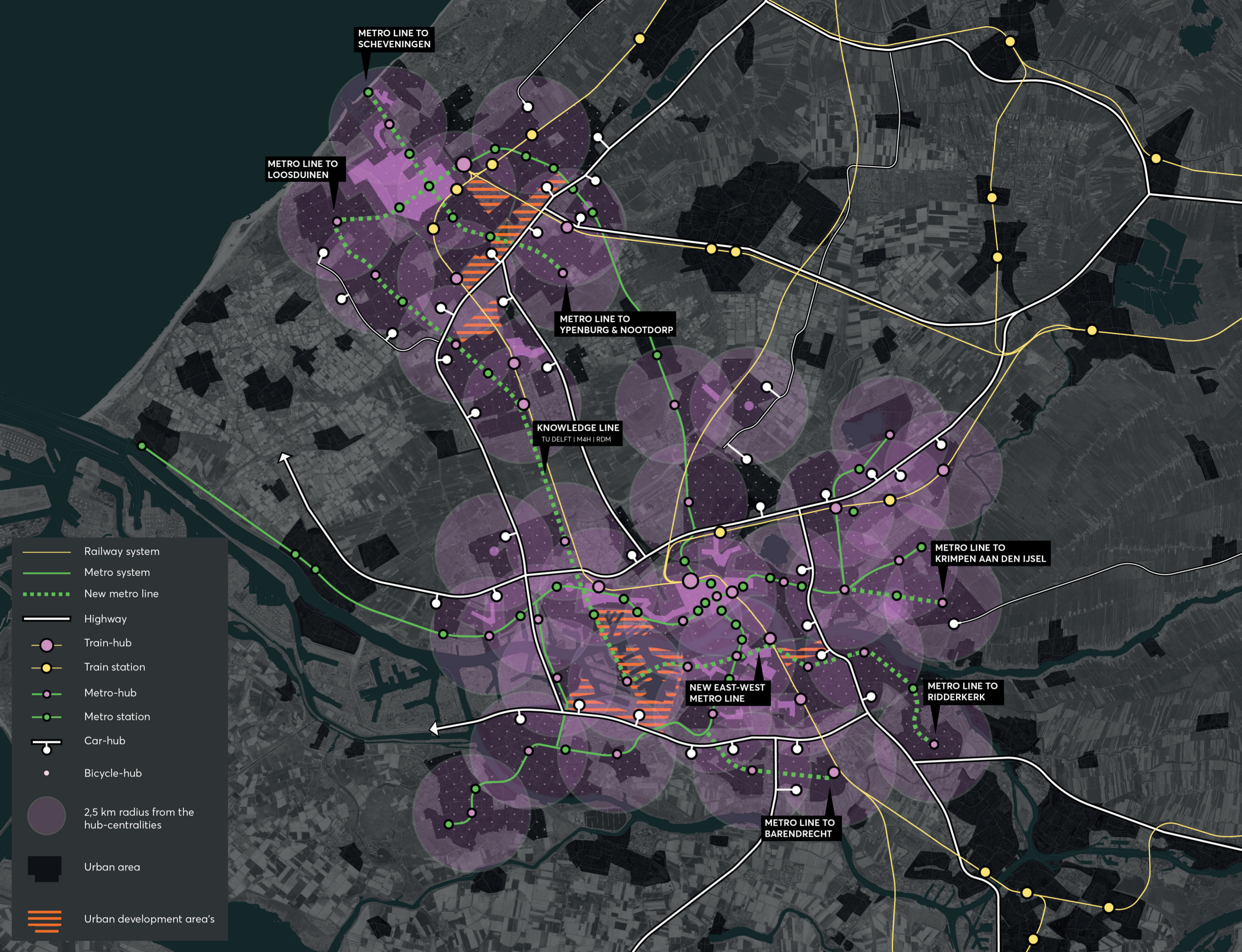


DENSIFYING
AROUND HUBS



DECREASING CAR
INFRASTRUCTURE





Metropolis Hubs

Because of the different service areas of the modalities, different types of functions should function around the hubs. These functions should serve the same service area as the nearby modality. For example, a regional orientated hub should have functions clustered around it that are also regionally orientated.

To connect all parts of the city to the metro network, new metro lines need to be made. Also a new "knowledge line" can be made between The Hague and Rotterdam. This line will connect the Technical University of Delft with the innovative districts M4H and RDM.

Certain areas within the cities are likely to be transformed into mixed use neighbourhoods. These places are formally used industrial areas or car orientated places, where new space is unlocked with the new mobility system.

MOBILITY HUBS	FUNCTIONS	DENSITIES
<p>TRAIN + METRO</p>	<p>REGIONAL FUNCTIONS</p> <p>SHOPPING CULTURE OFFICE MUSEUM UNIVERSITY HOSPITAL</p>	<p>HIGH DENSITY</p>
<p>METRO</p>	<p>URBAN FUNCTIONS</p> <p>STORES BAR SUPERMARKET HIGH SCHOOL DOCTOR</p>	<p>MEDIUM / HIGH DENSITY</p>
<p>SHARED BICYCLES</p>	<p>LOCAL FUNCTIONS</p> <p>PLAYGROUND CAFE SUPERMARKET PRIMARY SCHOOL PHARMACY PARK</p>	<p>MEDIUM / LOW DENSITY</p>
<p>CAR + BUS</p>	<p>REGIONAL FUNCTIONS</p> <p>BUILDING STORE FUEL STATION GARAGE</p>	<p>LOW DENSITY</p>



Charlois + Waalhaven

A new metro hub is created in the area once dedicated to cars in Charlois. Around the hub and in a part of the Waalhvaen a new dense neighbourhood is created with functions clustered around the metro hub. Additionally, the hub connects to the existing shopping street and the historical area of Charlois.



Personal Trip Owen Simons

