

AUTONOMOUS SHARED MOBILITY & THE CITIES OF TOMORROW

IMPACT OF SHARED SELF-DRIVING VEHICLES ON THE URBAN FORM OF THE CITY OF
AMSTERDAM

BHAVANA VADDADI
4513762

DOMINIC STEAD
STEFFEN NIJHUIS
ALPER ALKAN

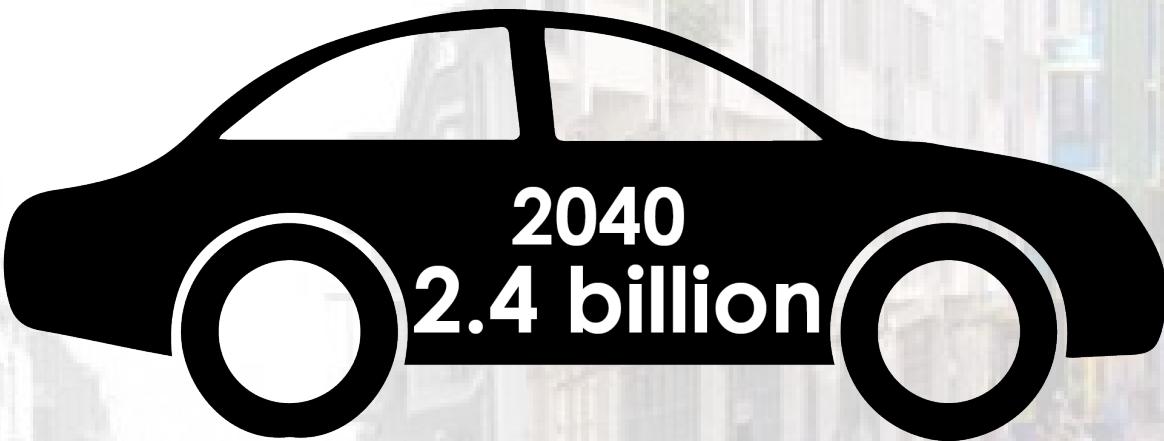
FACULTY OF ARCHITECTURE,

DELFT UNIVERSITY OF TECHNOLOGY

MSC TRACK URBANISM

GRADUATION STUDIO COMPLEX CITIES



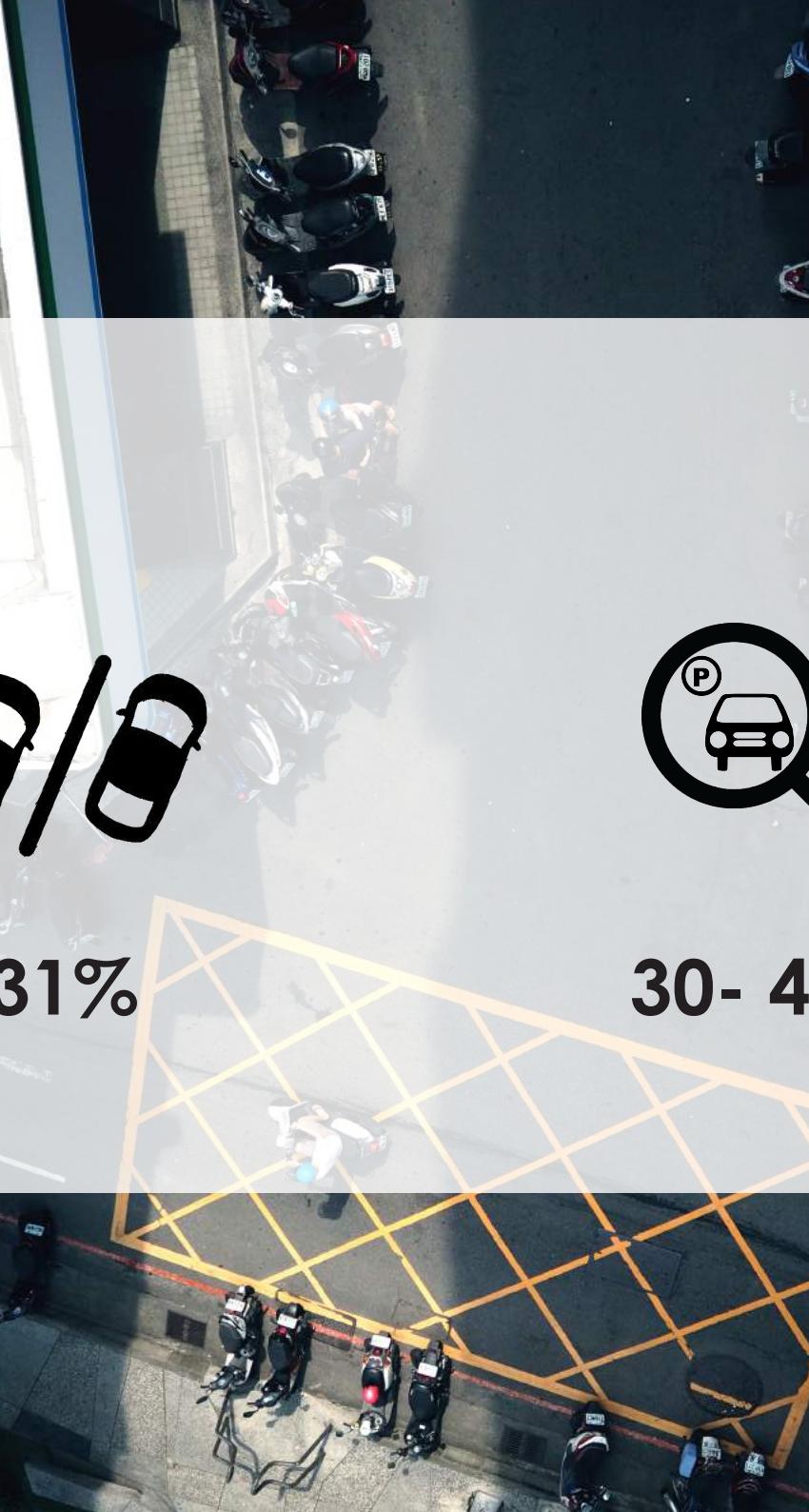




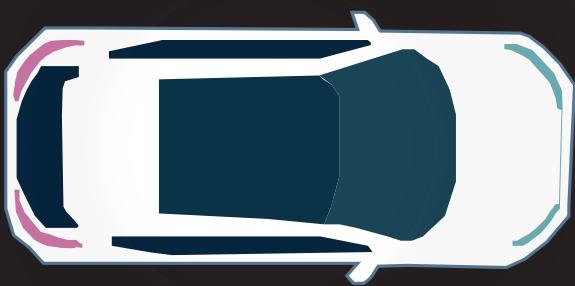
80%



70%

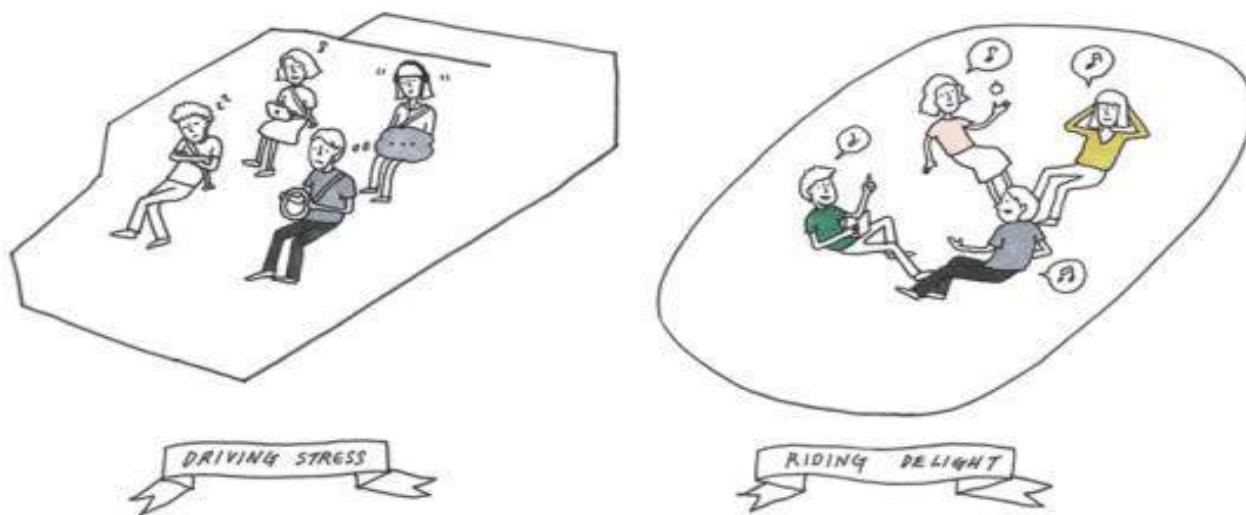


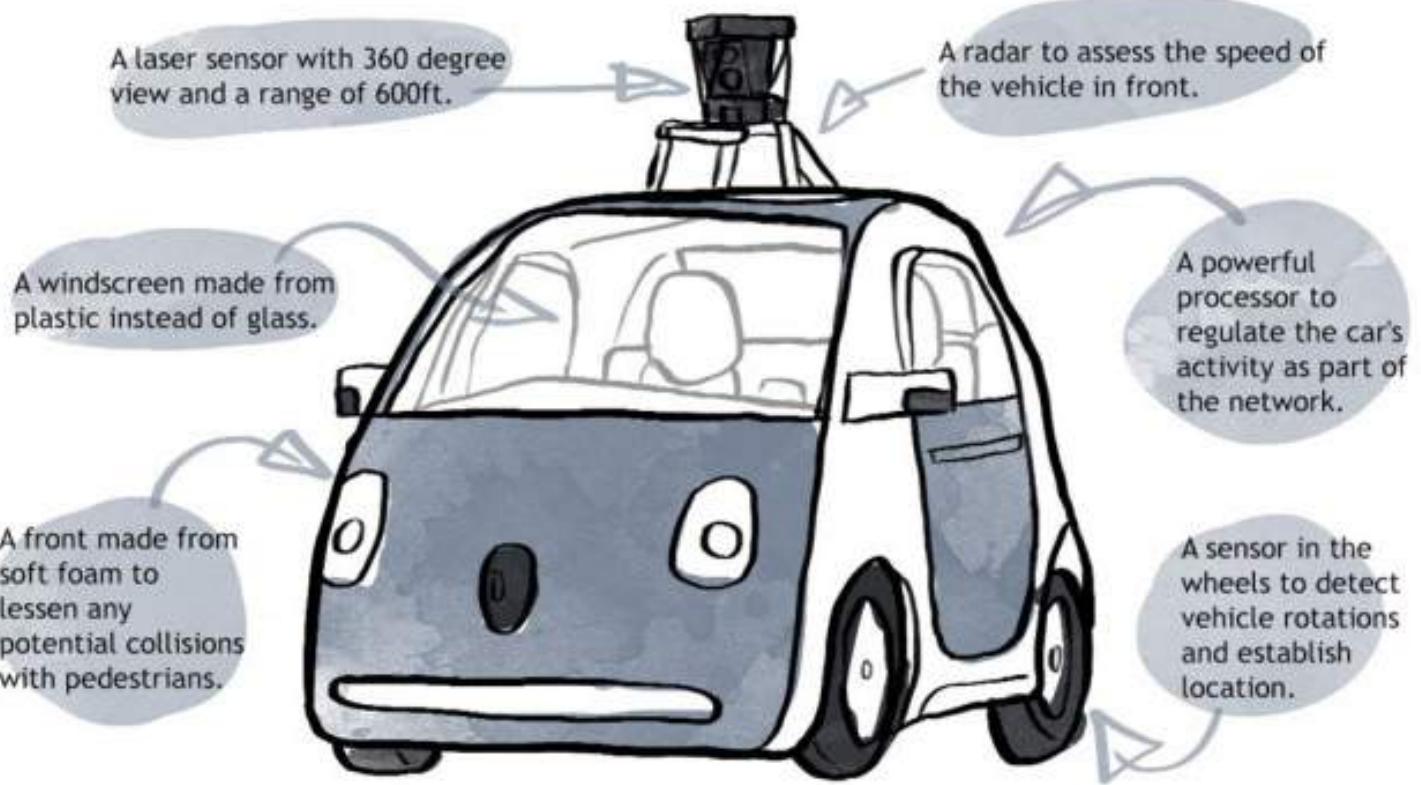
#SELFDRIVINGVEHICLES #CARSHARING #RIDESHARING #COMPLETESTREETS #INTEGRATEDPUBLICTRANSPORT
#CARFREEZONES #SMARTMOBILITY #BIKESHARINGPROGRAMMES
#TRANSITORIENTEDDEVELOPMENT #ONDEMANDMOBILITYSYSTEMS



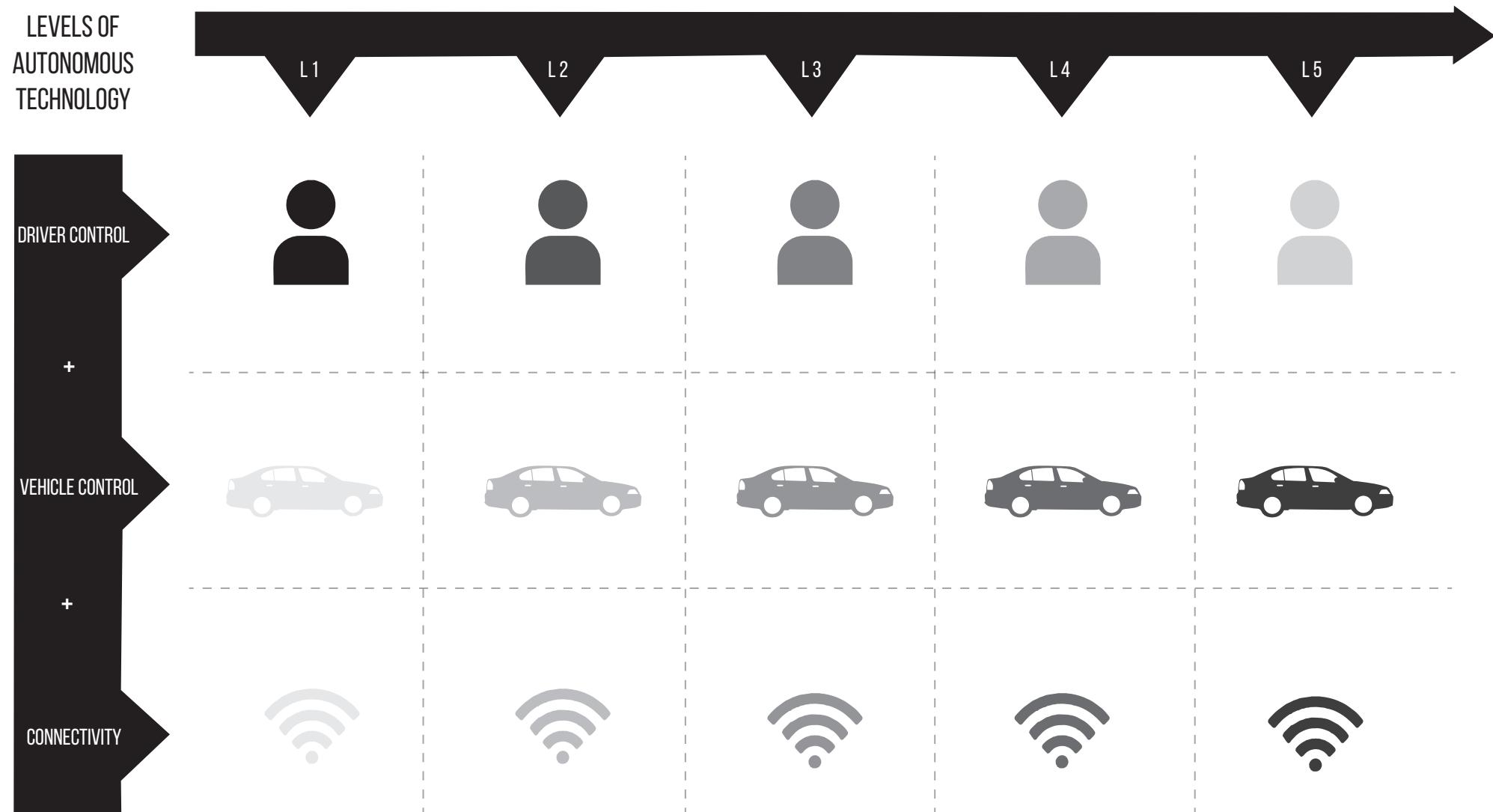
AUTONOMOUS SHARED MOBILITY & THE CITIES OF TOMORROW

IMPACT OF SHARED SELF-DRIVING VEHICLES ON THE
URBAN FORM OF THE CITY OF AMSTERDAM





LEVELS OF
AUTONOMOUS
TECHNOLOGY





INCREASED SAFETY



MORE ENERGY EFFICIENT



INCREASED
PRODUCTIVITY



SAFER
MULTITASKING



FEWER CARS ON THE
ROAD



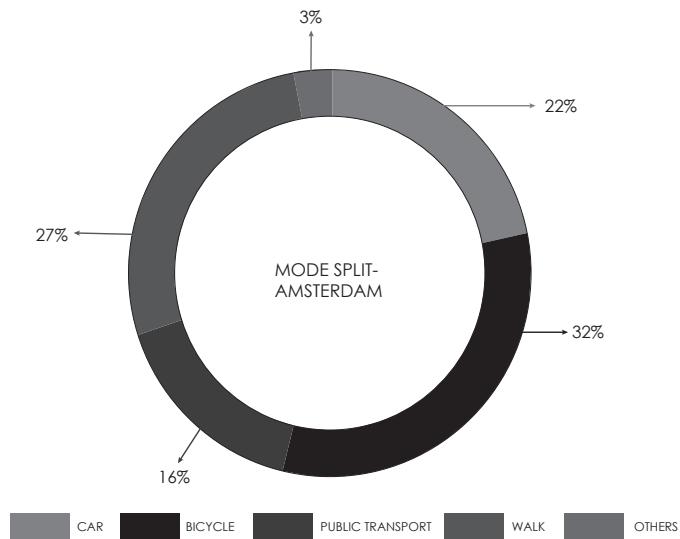
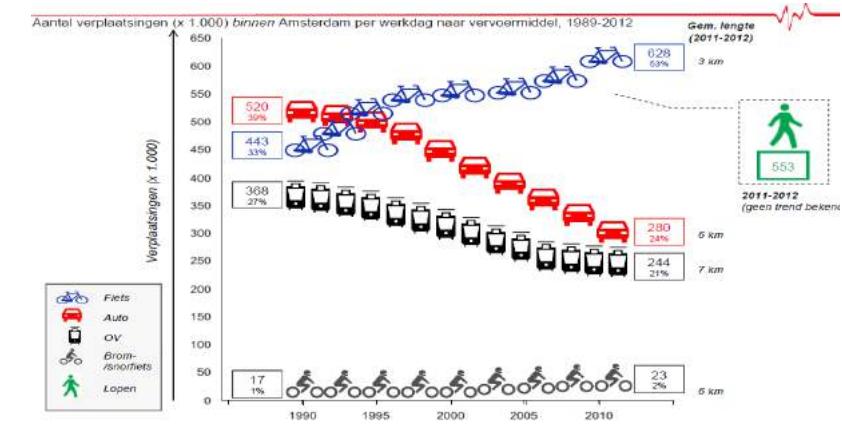
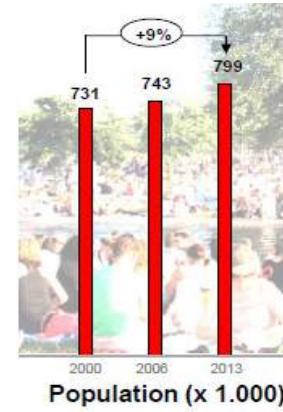
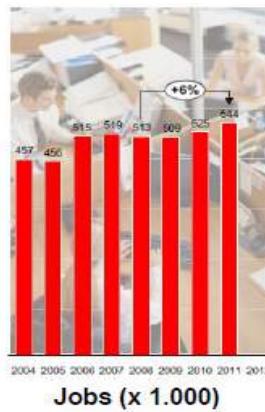
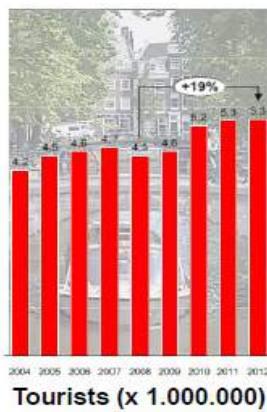
LESS
DEPENDENCE ON CARS

A CHALLENGE?

POLICIES INSURANCE LICENSING URBAN PLANNING LAWS AND LEGISLATIONS SOCIAL ACCEPTANCE









nl
EU
2016

Declaration of Amsterdam

Cooperation in the
field of connected
and automated
driving

14-15 April 2016



GOALS

DENSIFY

TRANSFORM

PUBLIC TRANSPORT ON REGIONAL
SCALE

HIGH QUALITY LAYOUT OF PUBLIC
SPACE

INVEST IN RECREATIONAL USE OF
GREEN SPACE AND WATER

CONVERTING TO SUSTAINABLE
ENERGY

OLYMPIC GAMES, AMSTERDAM
2028



ACTIONS

THE ROLL-OUT OF THE CITY CENTRE

THE INTERWEAVING OF THE METROPOLITAN
LANDSCAPE AND THE CITY

THE REDISCOVERY OF THE
WATERFRONT

THE INTERNATIONALIZATION OF THE CITY'S
SOUTHERN FLANK

PLAN
Amsterdam

DE NEDERLANDSE DEELECONOMIE v1.0

De deeleconomie, ook wel collaborative consumption genoemd, is een nieuw economisch systeem waarin delen en gezamenlijkheid centraal staan. Het zorgt ervoor dat mensen weten wat ze willen op een (kosten)efficiënte manier.

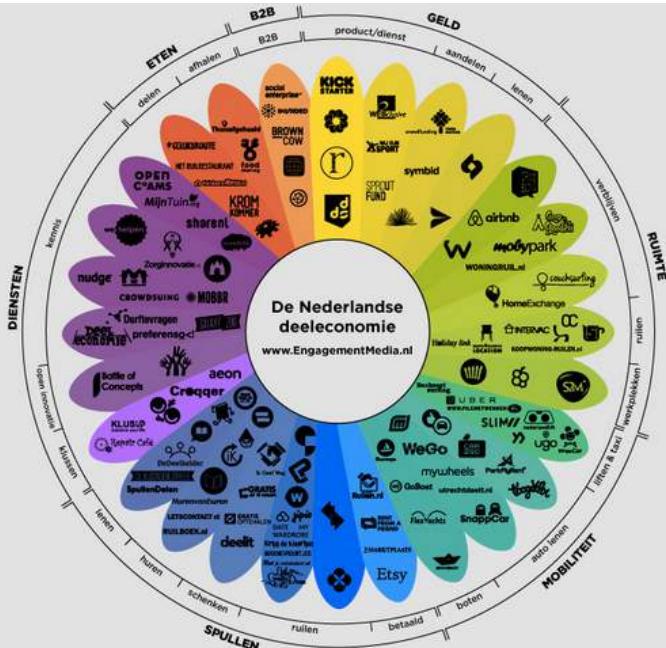
Deze visuele weergave geeft inzicht in de Nederlandse deeleconomie initiatieven en in die internationale initiatieven die uitdrukkelijk op de Nederlandse markt vertegenwoordigd zijn.

Voor een uitgebreid (klikbaar) overzicht kijk op: www.platformsocialbusiness.nl/deeleconomie

Dit weergave wordt u aangeboden door Antal de Wijf, Chief Engagement Officer van Engagement Media in samenwerking met Platform Social Business.

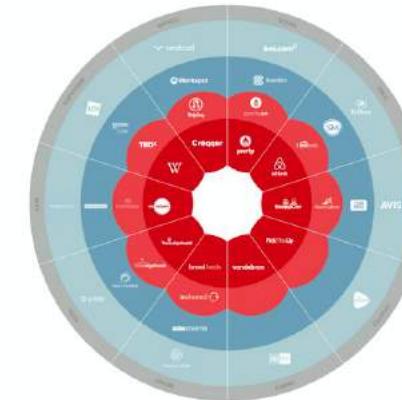
Bijsamenvoeging van dit prima zijn de volgende uitgangspunten gehanteerd:
 a) Nederlandse initiatieven
 b) Internationale platforms met een lokale pagina/blog (Nederlandstalige versie) of een actief Nederlands aanbod hebben.
 c) Het platform is actief. Aankondigingen zijn niet opgenomen.


augustus 2014: creative commons licentie:
Naamsvermelding - Niet commercieel



De Nederlandse
deeleconomie
www.EngagementMedia.nl

Collaborative Economy EcosystemTM
Instituting Sharing Economy



Traditional Economy



BUSINESS TO CONSUMER
BUSINESS TO BUSINESS

Collaborative Economy



PEER TO PEER
PEER TO BUSINESS



N.A.P.

Willen Amsterdammers wel met elkaar delen?

Het percentage inwoners dat bereid is spullen of diensten te rullen of (uit) te lenen

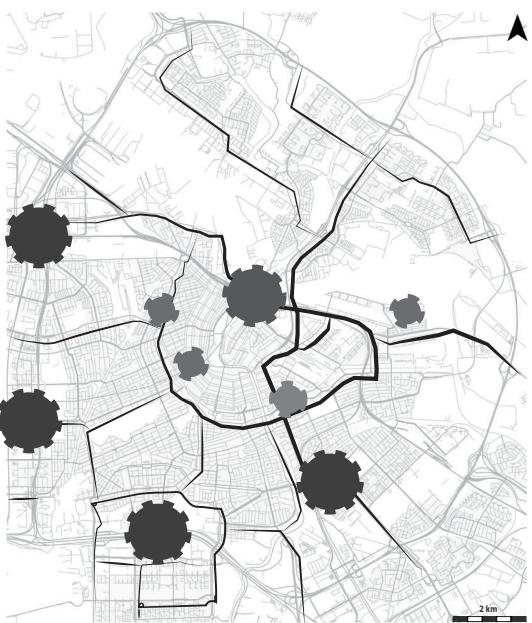


amsterdam
sharing city

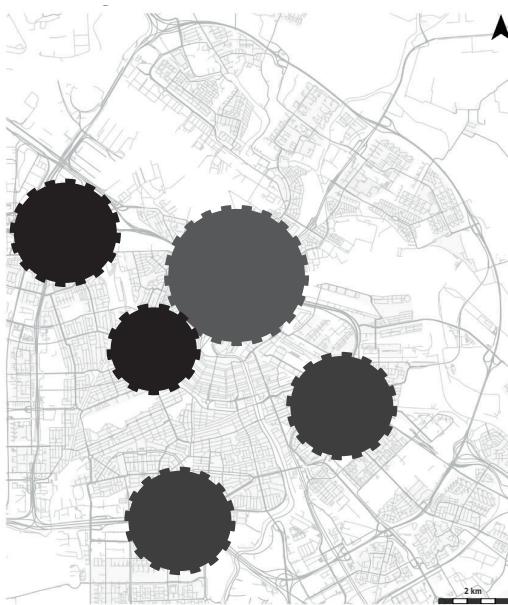


- Current residential Zones
- Future Residential Re- development
- Future Business Re- development
- Business Re- development
- Public Spaces Re- development
- Potential public squares
- Streets for Re-development

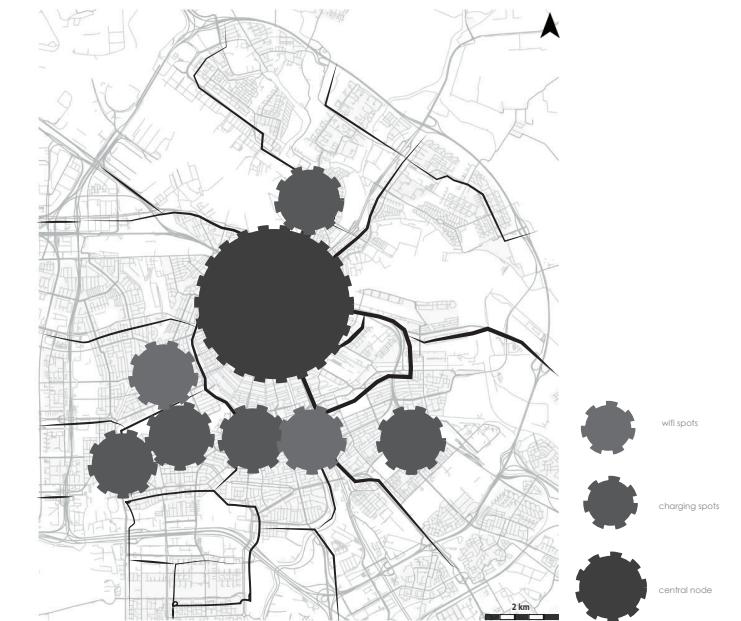
POTENTIAL REDEVELOPMENT ZONES SUGGESTED BY AMSTERDAM 2040



MOBILITY



PARKING



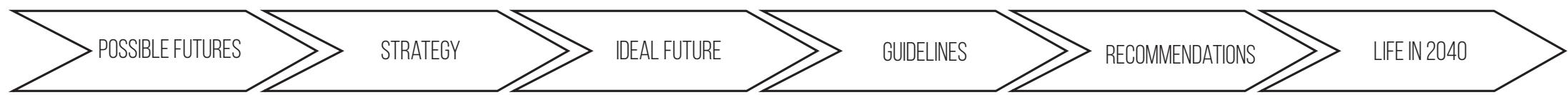
WI-FI AND CHARGING NODES

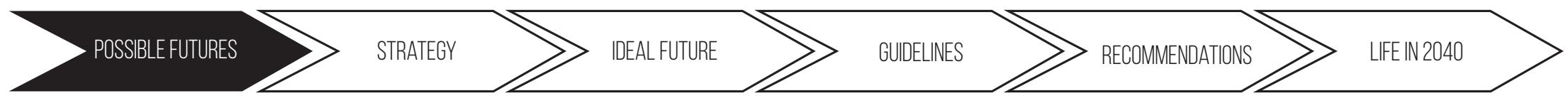
HOW DO WE PLAN FOR THE FUTURE?

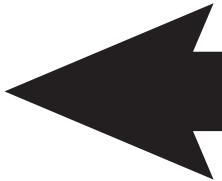
SCENARIO DEVELOPMENT STUDIES

BACKCASTING

HOW CAN SCENARIO DEVELOPMENT STUDIES BE USED AS A TOOL
TO FORMULATE A STRATEGY TO TRANSFORM THE URBAN FORM OF
THE CITY IN THE AGE OF DEVELOPING TECHNOLOGY
OF AUTONOMOUS SHARED VEHICLES?







BACKCASTING VIEW



2040 AND BEYOND
LUXURY RIDE
LOW SHARING
LEVEL 4 AND ABOVE



2040 AND BEYOND
CAR ON DEMAND
HIGH SHARING
LEVEL 4 AND ABOVE

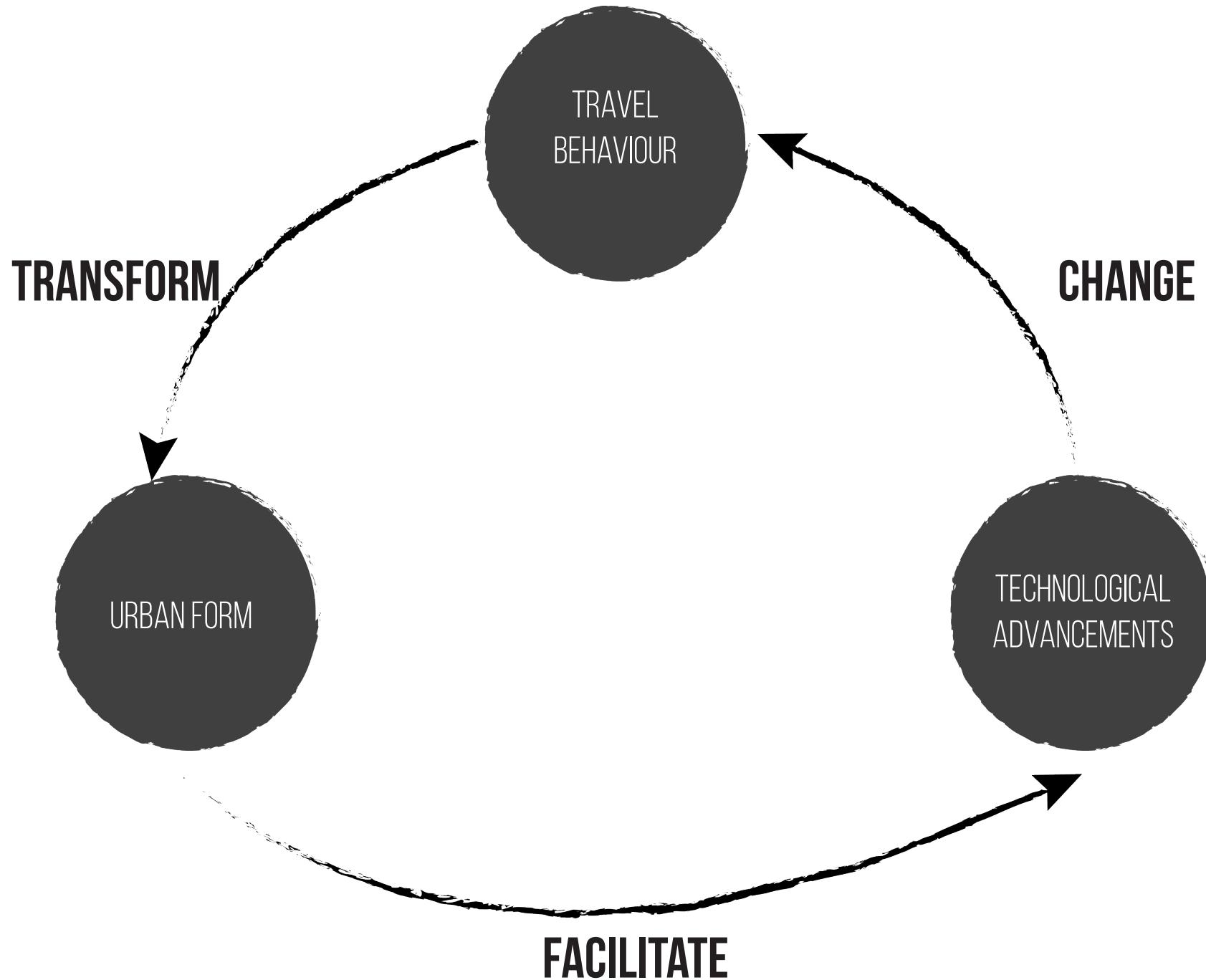


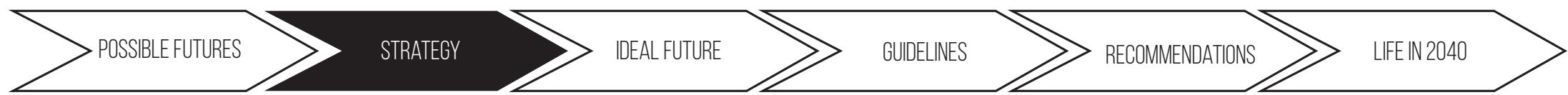
2025

THE RIGHT MIX OF EVERYTHING
HIGH SHARING
LEVEL 1 TO LEVEL 3



UPTILL 2017
CURRENT SITUATION
A MIX OF LEVEL 1 TO LEVEL 3





GOALS

- DENSITY
- TRANSFORM
- PUBLIC TRANSPORT ON REGIONAL SCALE
- HIGH QUALITY LAYOUT OF PUBLIC SPACE
- INVEST IN RECREATIONAL USE OF GREEN SPACE AND WATER

CONVERTING TO SUSTAINABLE ENERGY

OLYMPIC GAMES
AMSTERDAM 2028

**UPGRADING CURRENT
INFRASTRUCTURE TO ADAPT
TO AUTONOMOUS VEHICLES**

ACTIONS

**ADAPTING A PROACTIVE
ROLE IN THE DEVELOPMENT
OF ASV'S**



THE ROLL OUT OF CITY
CENTER

THE INTERWEAVING OF
METROPOLITAN LANDSCAPE
AND THE CITY

THE REDISCOVERY OF THE
WATERFRONT

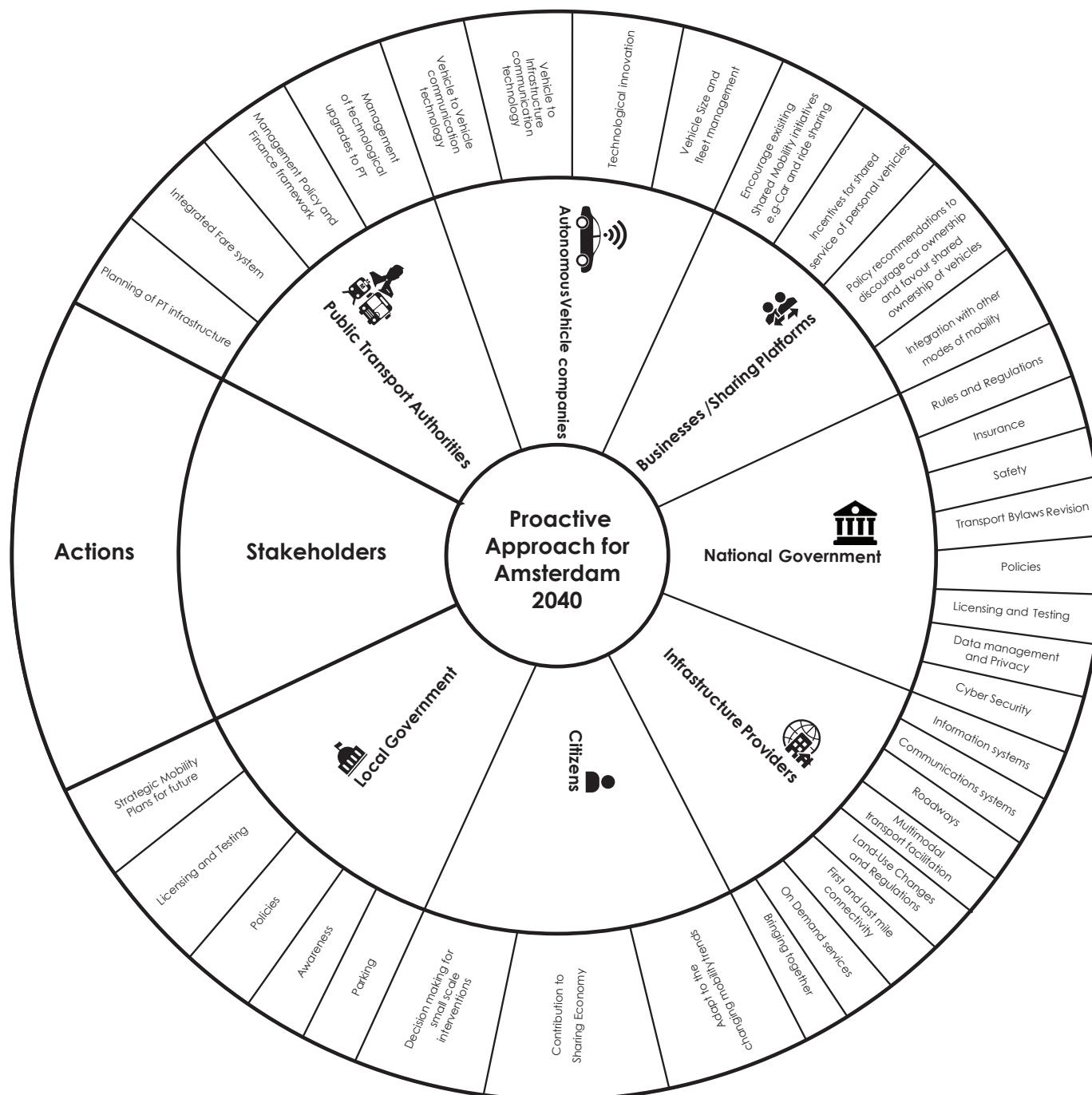
THE INTERNATIONALIZATION OF
THE CITY'S SOUTHERN FLANK

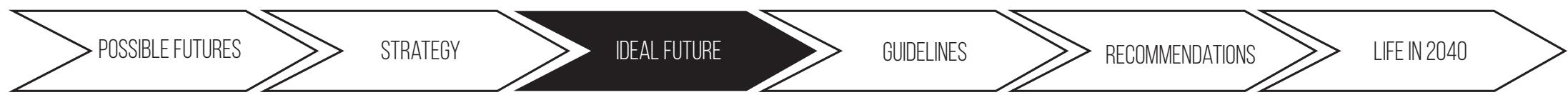


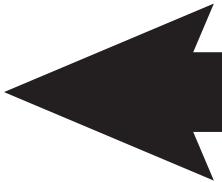
**amsterdam
sharing city**

**amsmartsterdam
city**

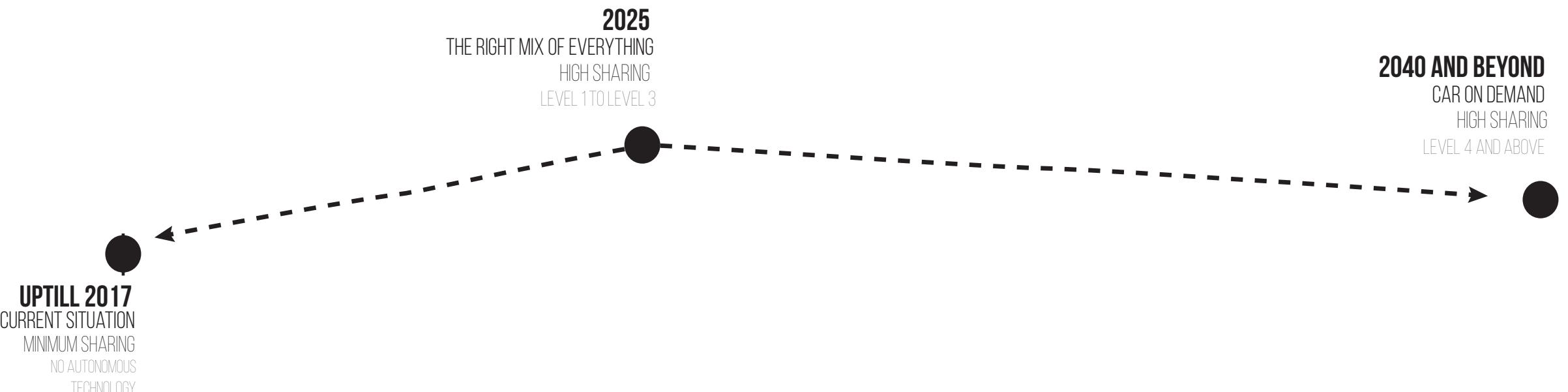
- current residential zones
- potential zones for the development of ASV
- potential industrial zone for the development of ASV
- potential green spaces
- potential public squares
- potential streets for the development of ASV
- plusnet car network

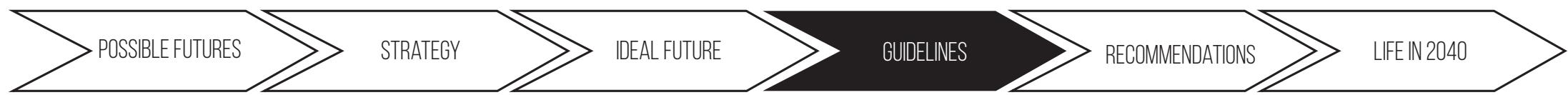






BACKCASTING VIEW







CO-OPERATION OF PUBLIC
TRANSPORT AUTHORITIES
AND THE AUTONOMOUS CAR
COMPANIES IN TERMS OF
CREATING INTEGRATED
MOBILITY HUBS



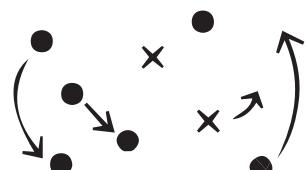
ESTABLISHING IMPROVED MULTI-MODAL
TRANSPORTATION SOLUTIONS IN THE TECHNOLOGY



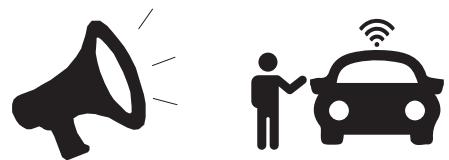
REGULATIONS ON ROAD
USER AND PARKING
CHARGES



INCENTIVES AND
INITIATIVES TO
ENCOURAGE SHARING
ECONOMY



STRONG MOBILITY
BUSINESS MODELS



PUBLIC AWARENESS AND
ACCEPTANCE



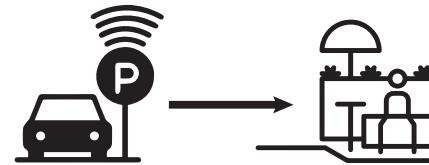
POLICIES AND REGULATIONS TO
PROMOTE NEW FORMS OF
PUBLIC- PRIVATE COLLABORATION



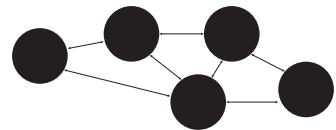
FLEXIBLE
SPACES



TECHNOLOGY
FRIENDLY



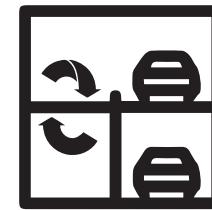
ON STREET PARKING TO ON
STREET PARKLETS



INTEGRATE MULTIPLE ACTIVITIES
IN A SAFE ENVIRONMENT



DECUTTER THE
STREETS



REPURPOSING EXISTING
CAR PARKS



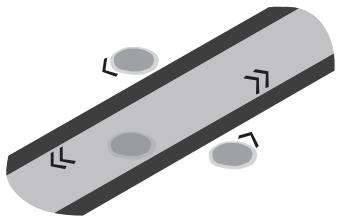
ROAD SENSORS



SURFACE CHARGING
TECHNOLOGY



SMART LIGHTS



DIGITAL SURFACE
WARNINGS



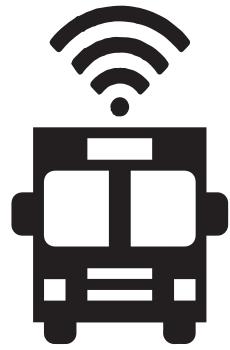
MULTIMODAL APP



INFORMATION
DISPLAYS



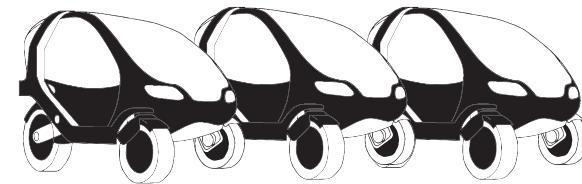
CHARGING STATIONS



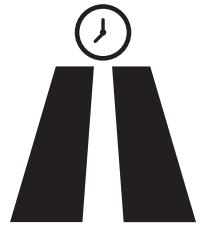
DEVELOPMENT OF
AUTONOMOUS
PUBLIC TRANSPORT



BICYCLE SHARING PROGRAM



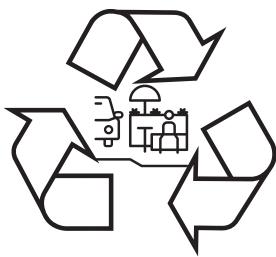
FLEET OF LIGHT WEIGHT AUTONOMOUS
VEHICLES



FLEXIBLE
INFRASTRUCTURE



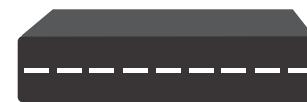
PARK+RIDE+CHARGE



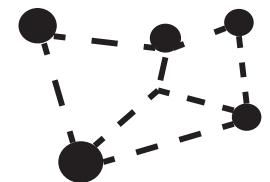
POP UP PUBLIC SPACES



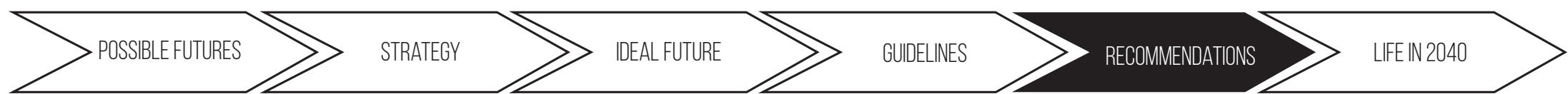
SHARED SPACES

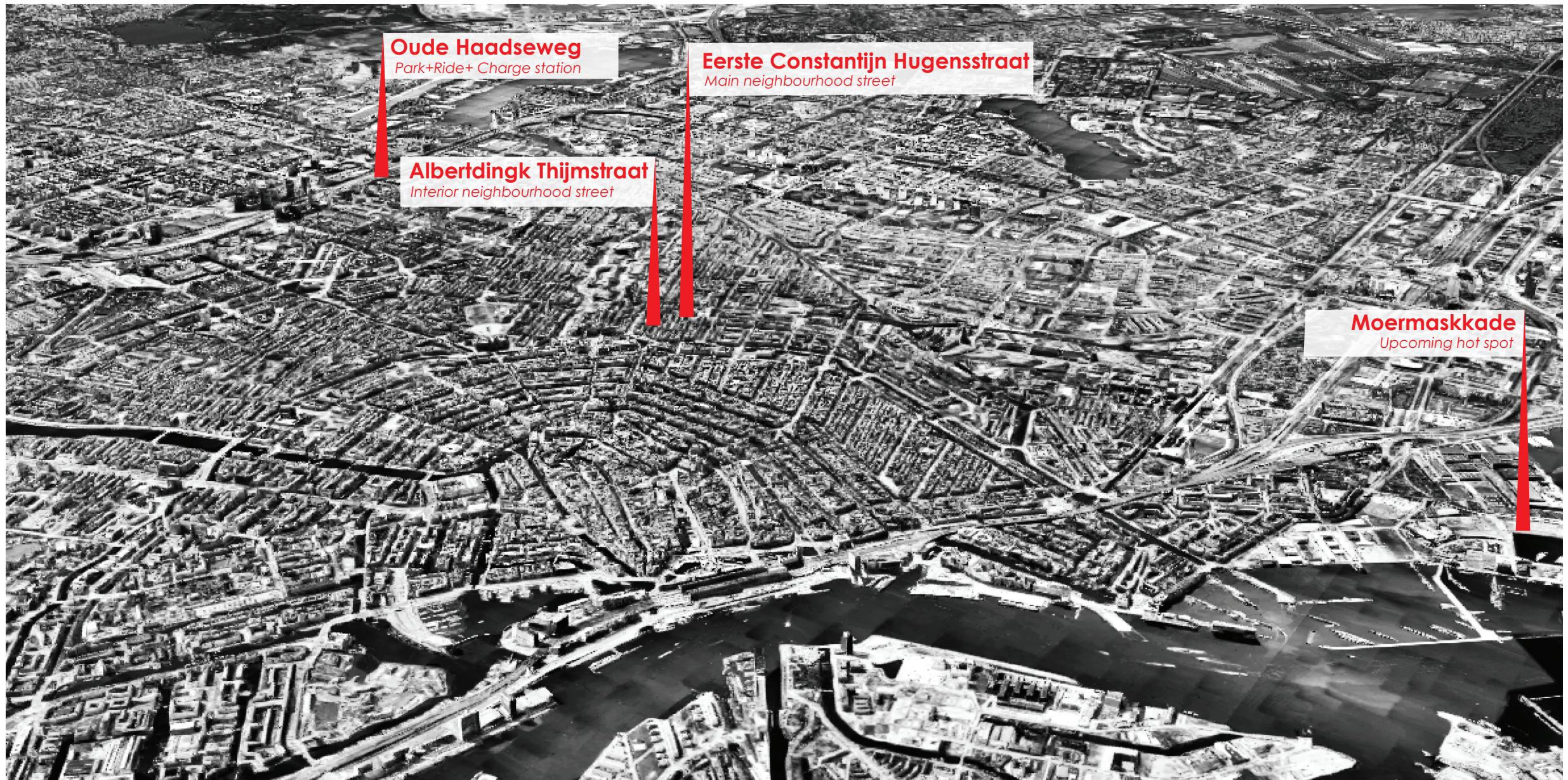


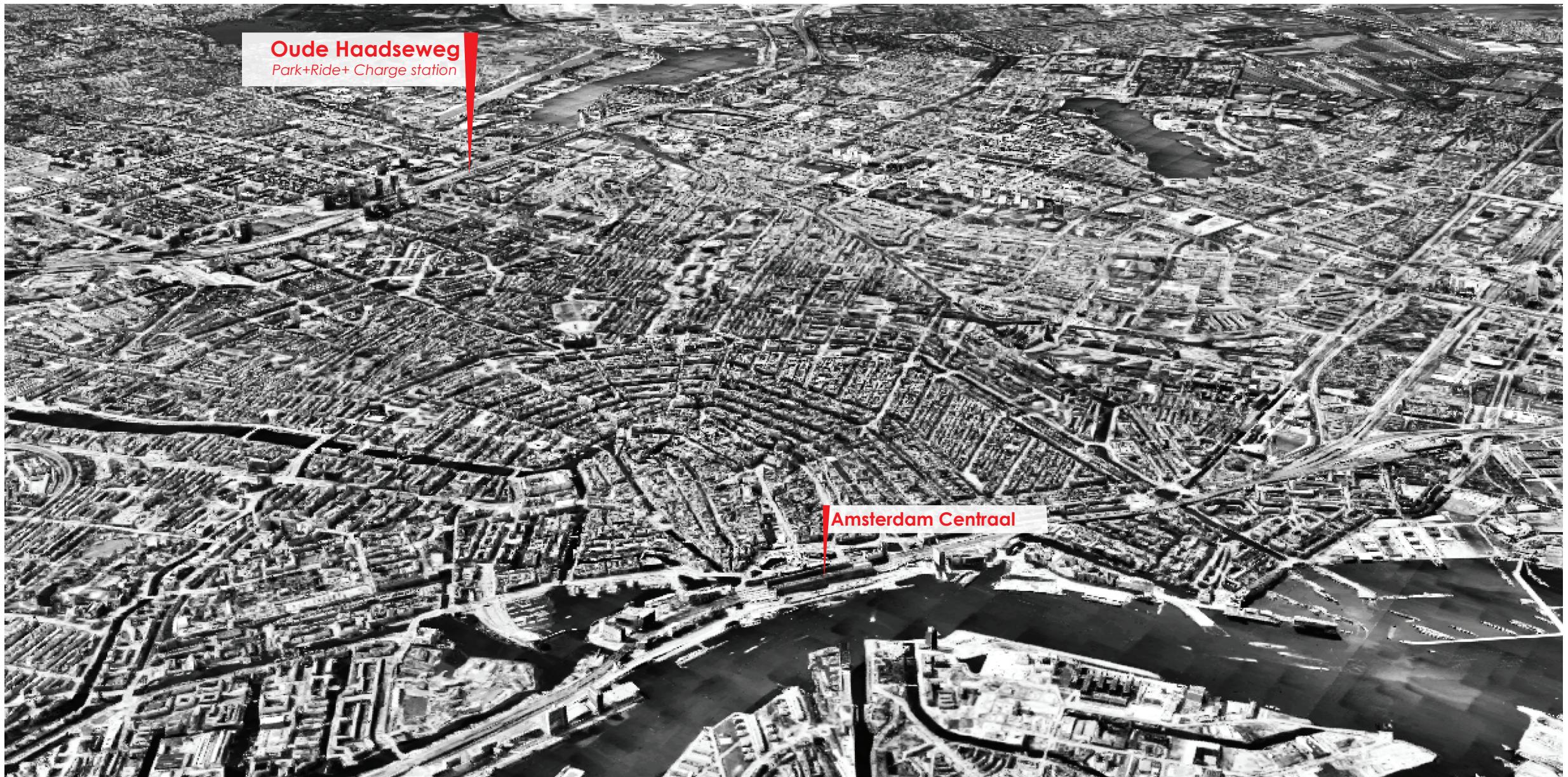
PRIORITY LANES
HOP IN - DROP OFF ZONES



MULTIMODAL HUBS







Oude Haadseweg
Park+Ride+ Charge station

Amsterdam Centraal



CO-OPERATION OF PUBLIC
TRANSPORT AUTHORITIES
AND THE AUTONOMOUS CAR
COMPANIES IN TERMS OF
CREATING INTEGRATED
MOBILITY HUBS



ESTABLISHING IMPROVED MULTI-MODAL
TRANSPORTATION SOLUTIONS IN THE TECHNOLOGY



REGULATIONS ON ROAD
USER AND PARKING
CHARGES



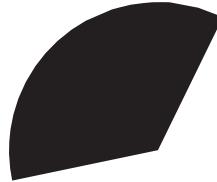
FLEXIBLE
SPACES



TECHNOLOGY
FRIENDLY



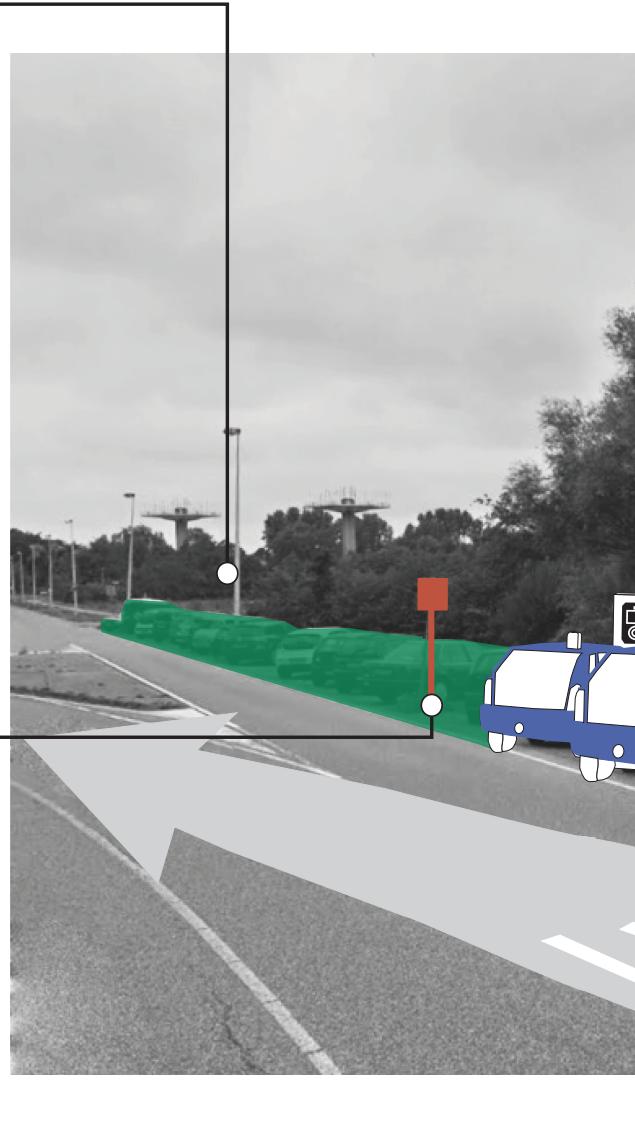
DECULTTER THE
STREETS



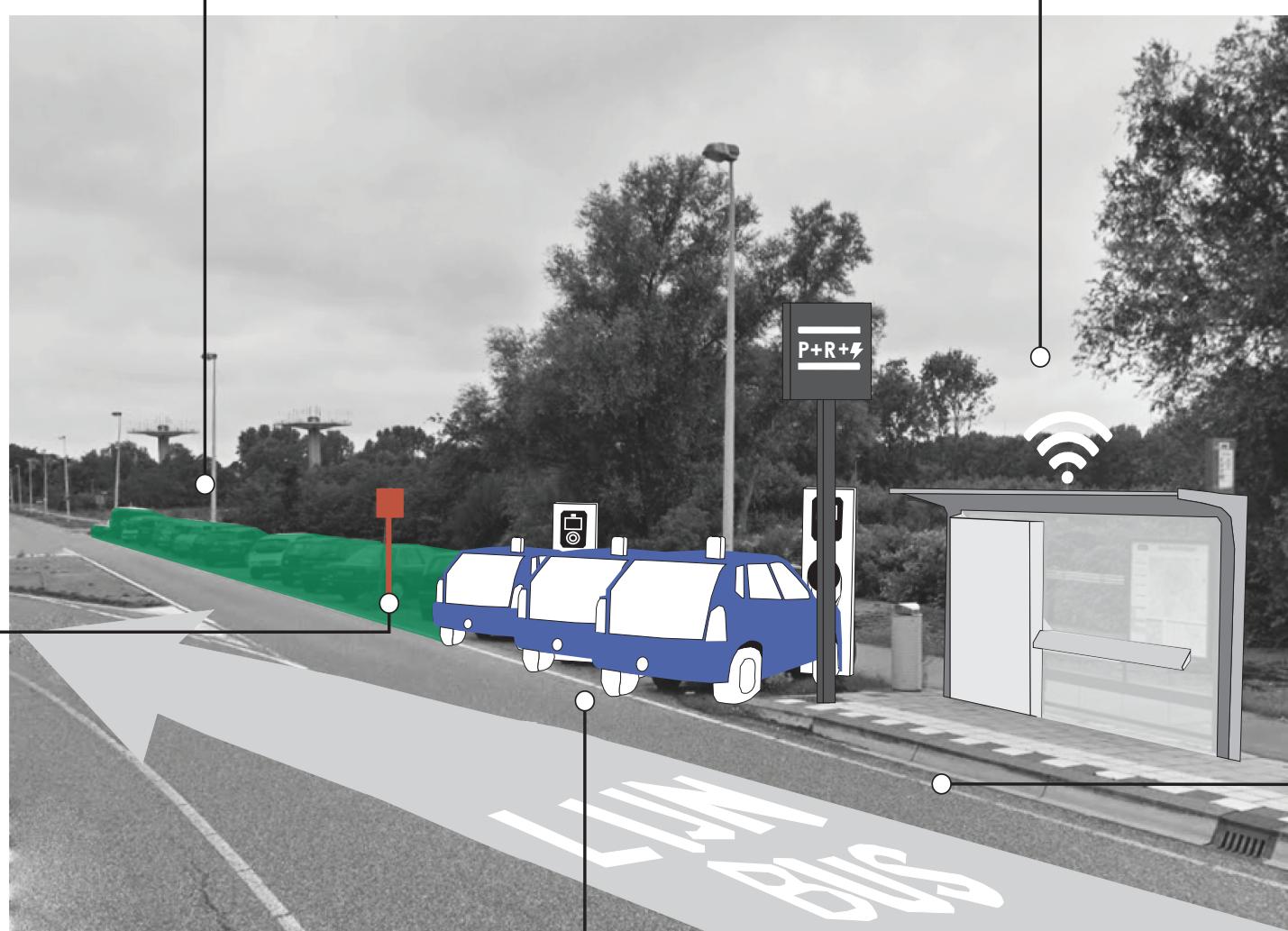
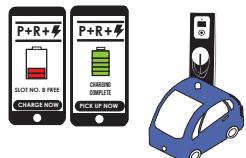
APPROXIMATELY 40%
SPACE SAVED FROM
ONSTREET PARKING



ELIMINATION OF ROAD SIGNS



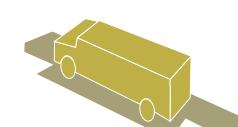
VEHICLE PICK UP AND
DROP OFF AREA



WIFI ENABLED
AUTONOMOUS PUBLIC
TRANSPORT STOP



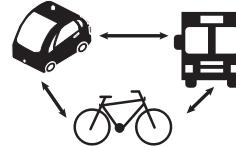
PRIORITY LANES DEDICATED TO
AUTONOMOUS PUBLIC TRANSPORT



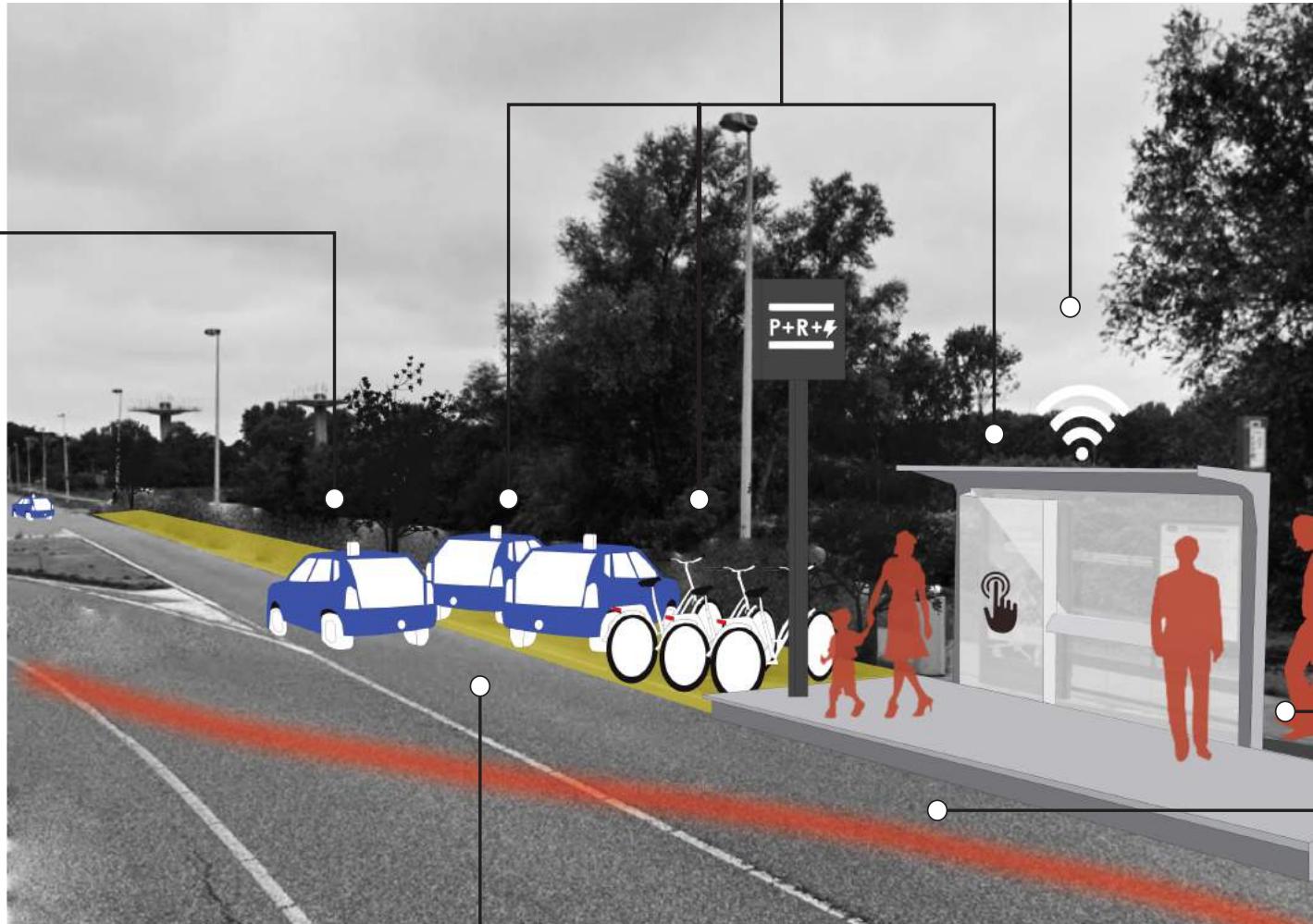
HIGHLY SENSITIVE SENSORS TO
DETECT VEHICLE LEAVING A SPOT
OR ARRIVING AT A SPOT



MULTIMODAL INTEGRATION



WIFI ENABLED DIGITAL
INTERACTIVE AUTONOMOUS PUBLIC
TRANSPORT STOP



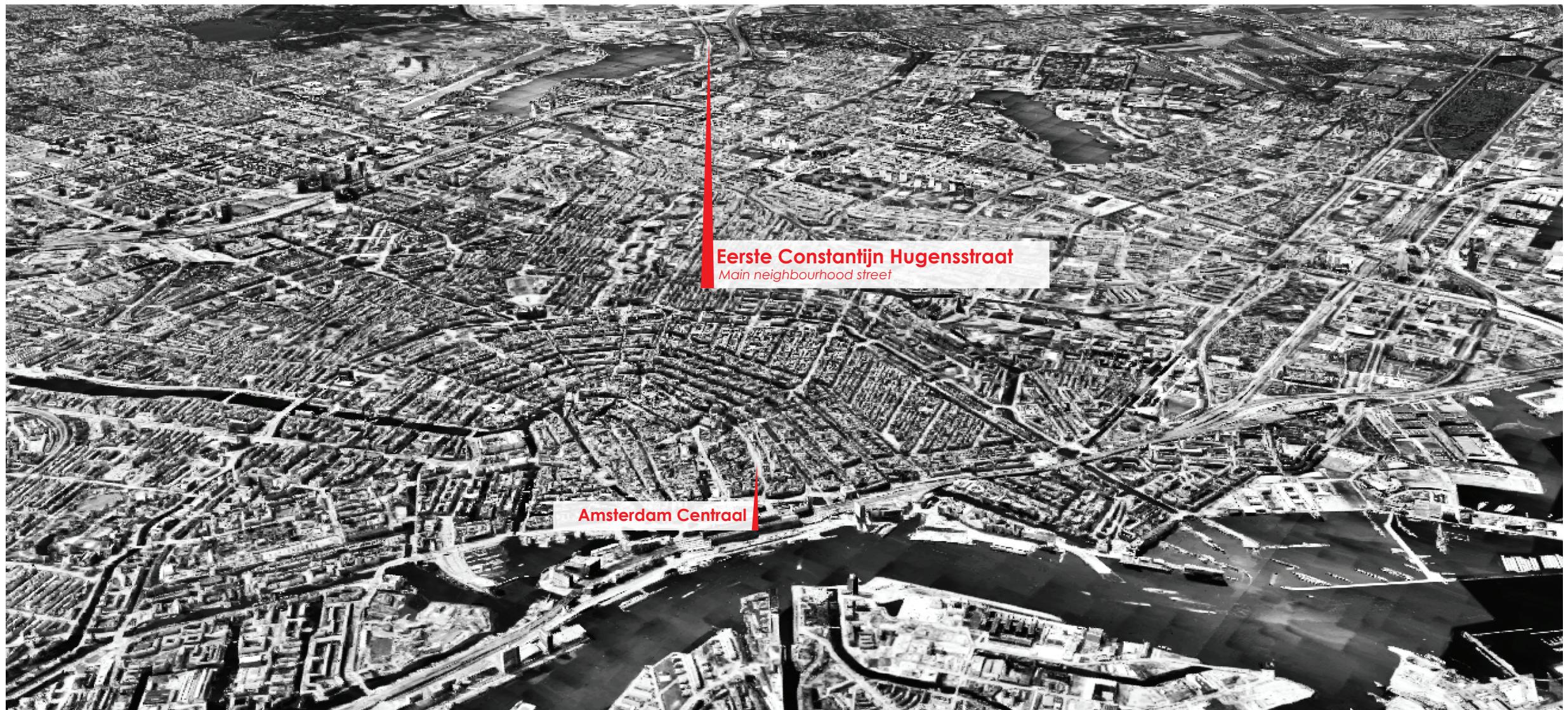
VEHICLE PICK UP AND DROP OFF
AREA



INTEGRATED
MULTIMODAL APP

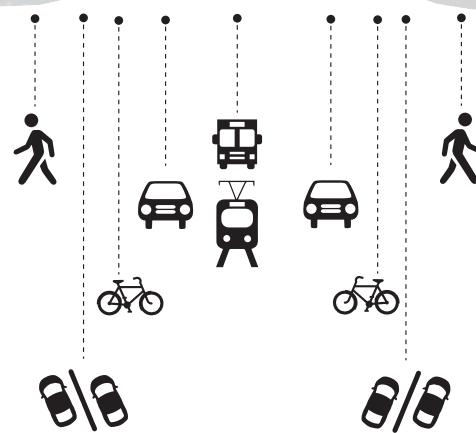
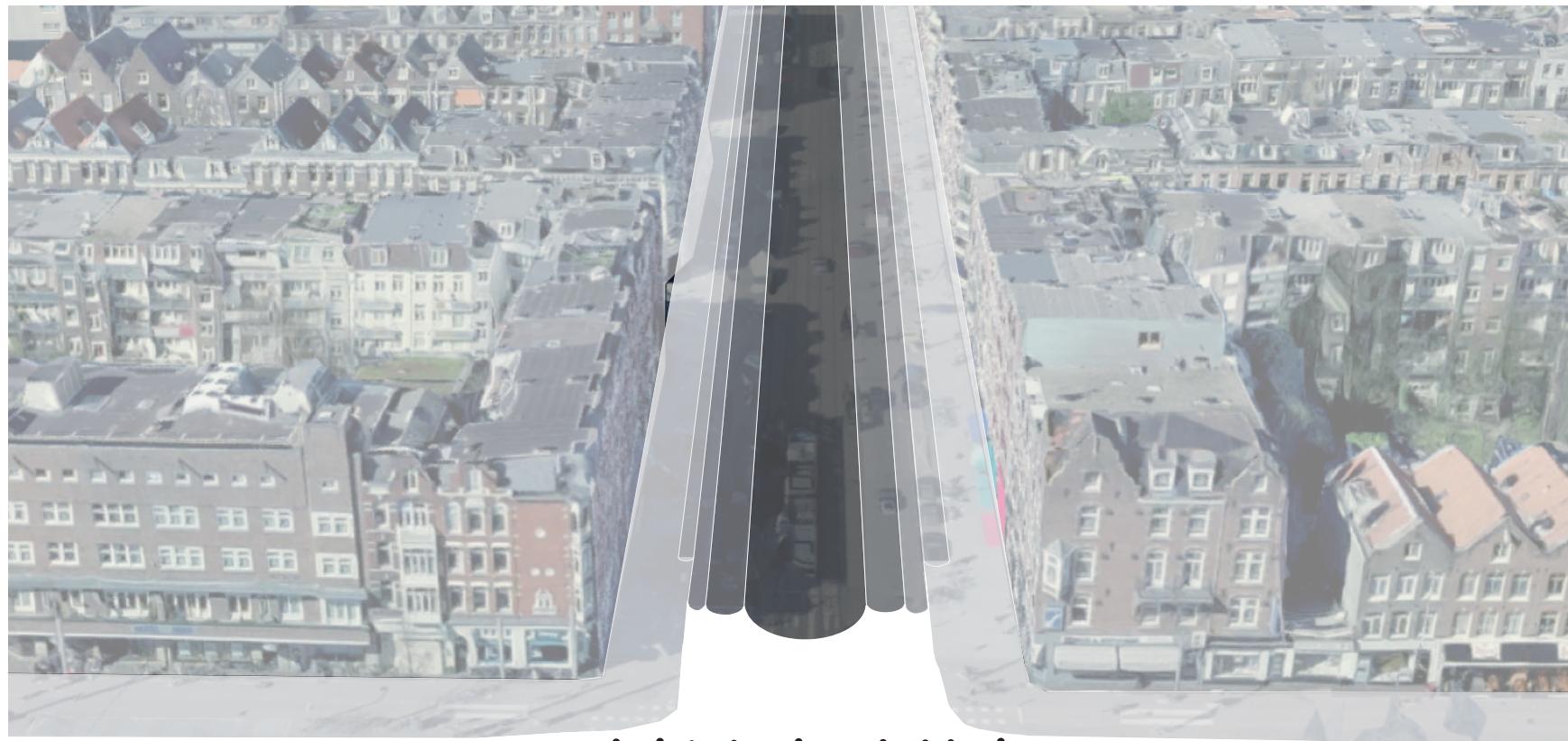


DIGITAL GUIDANCE DISPLAYS ON HIGHWAYS FOR BETTER
NAVIGATION OF ALL THE MODES OF TRANSPORT

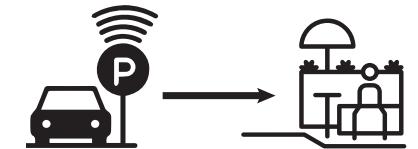


Eerste Constantijn Hugensstraat
Main neighbourhood street

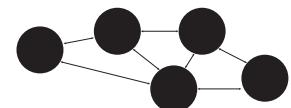
Amsterdam Centraal



ESTABLISHING IMPROVED MULTI-MODAL



ON-STREET PARKING TO ON-STREET WALKING



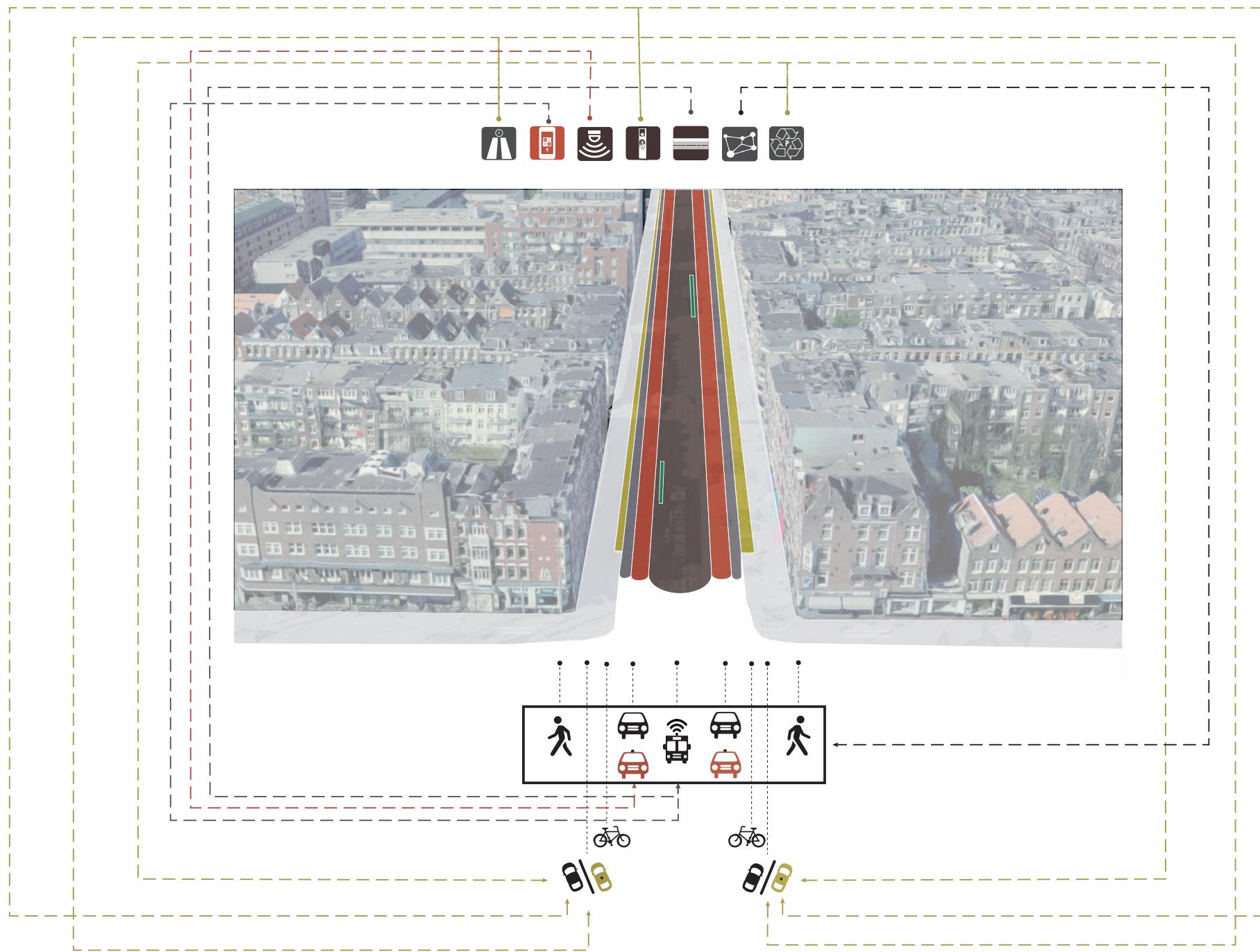
INTEGRATE MULTIPLE ACTIVITIES

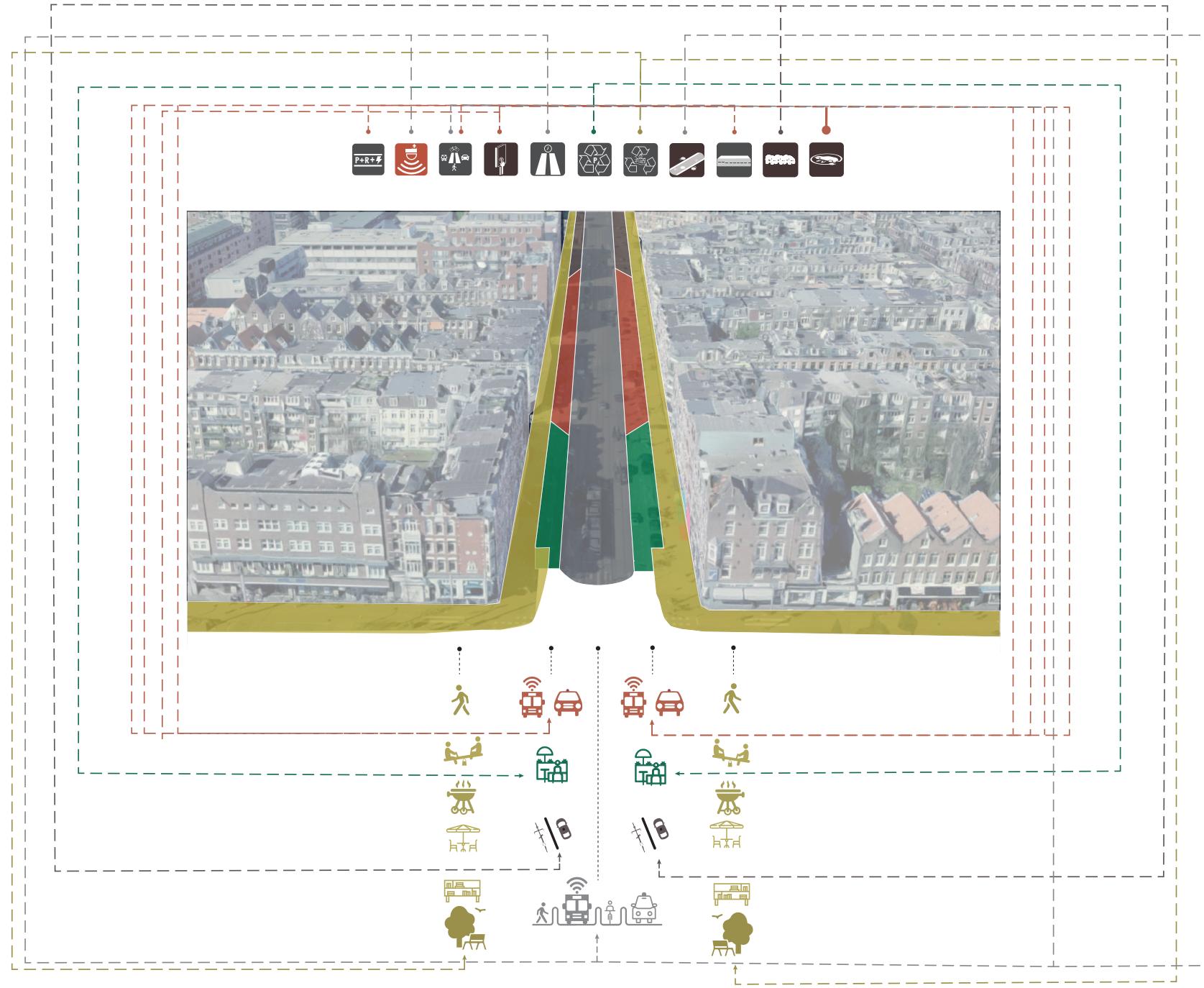


TIME SAVING

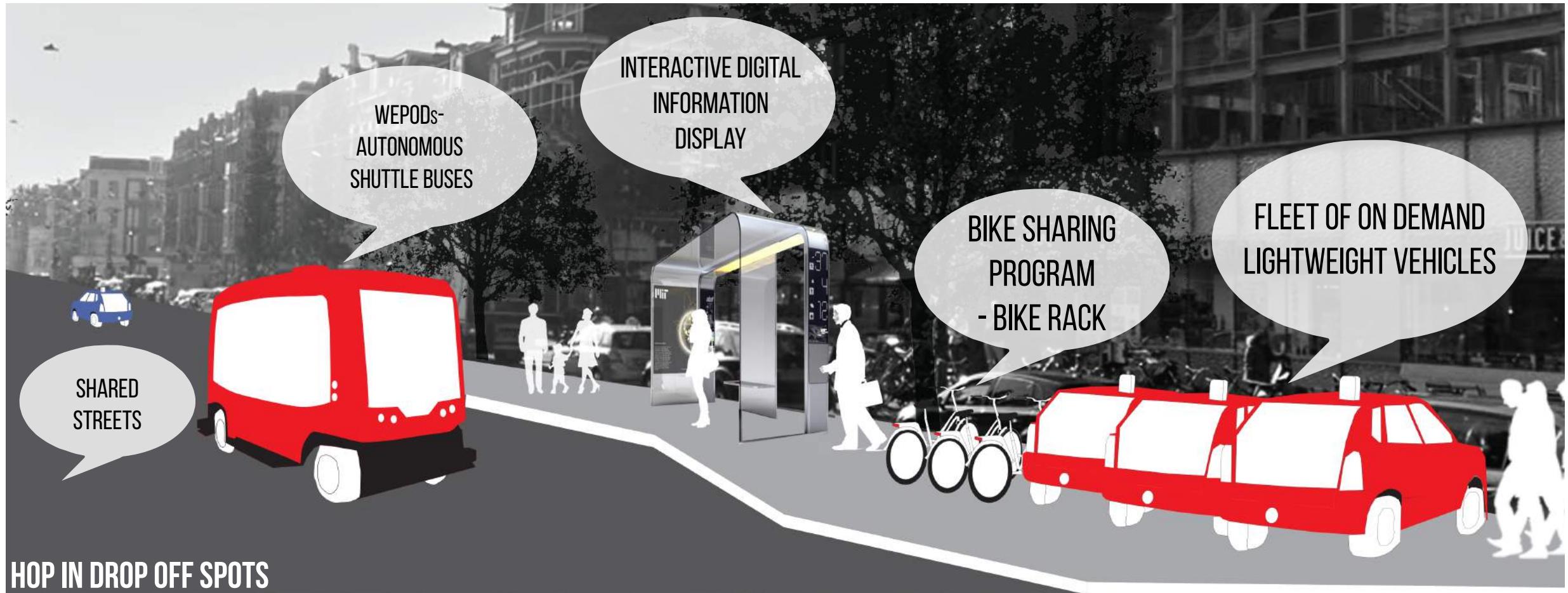


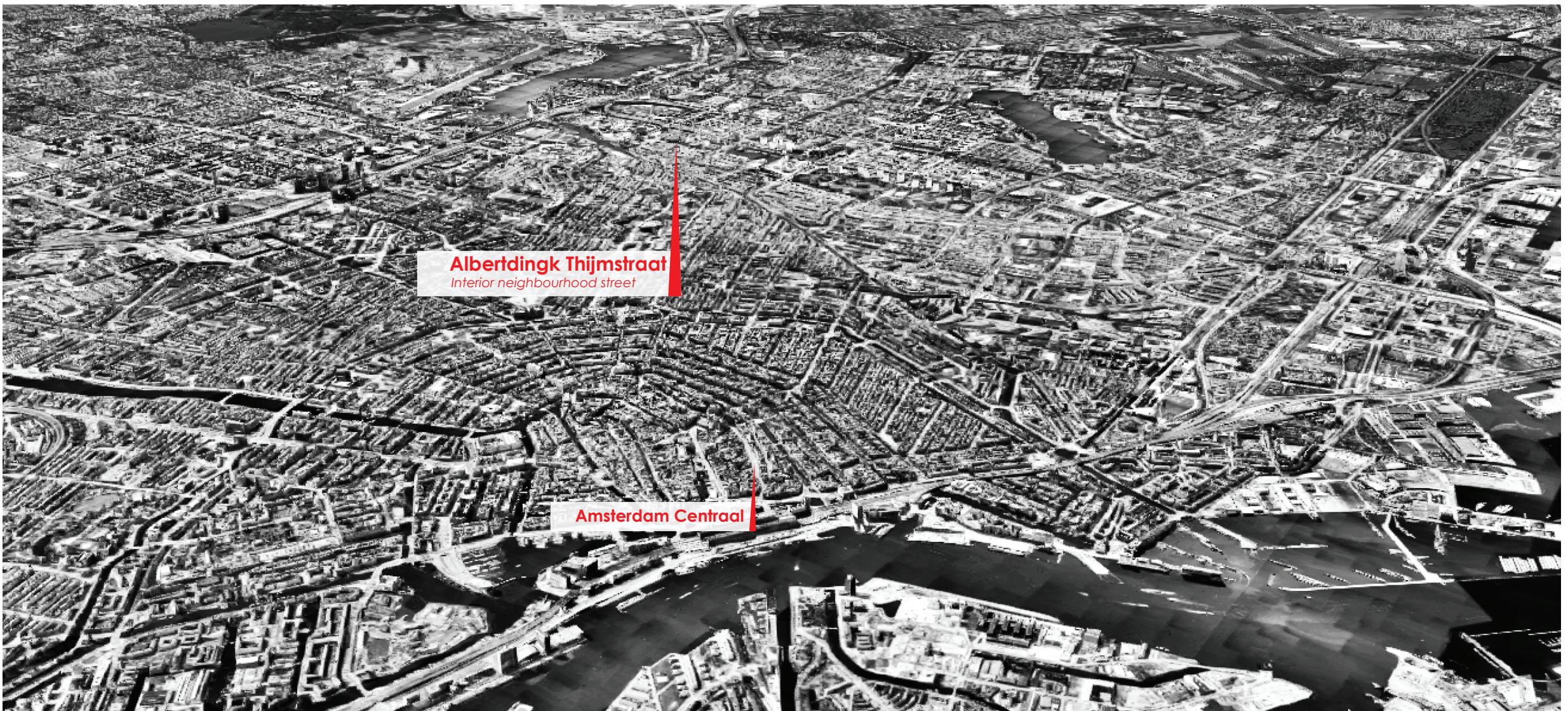
TECHNOLOGY





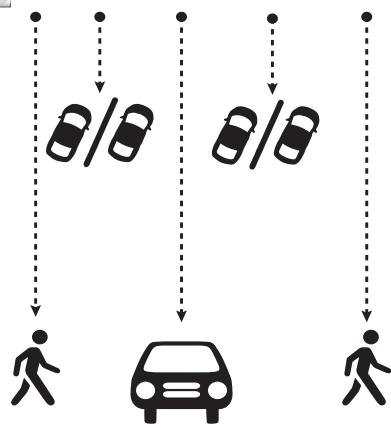
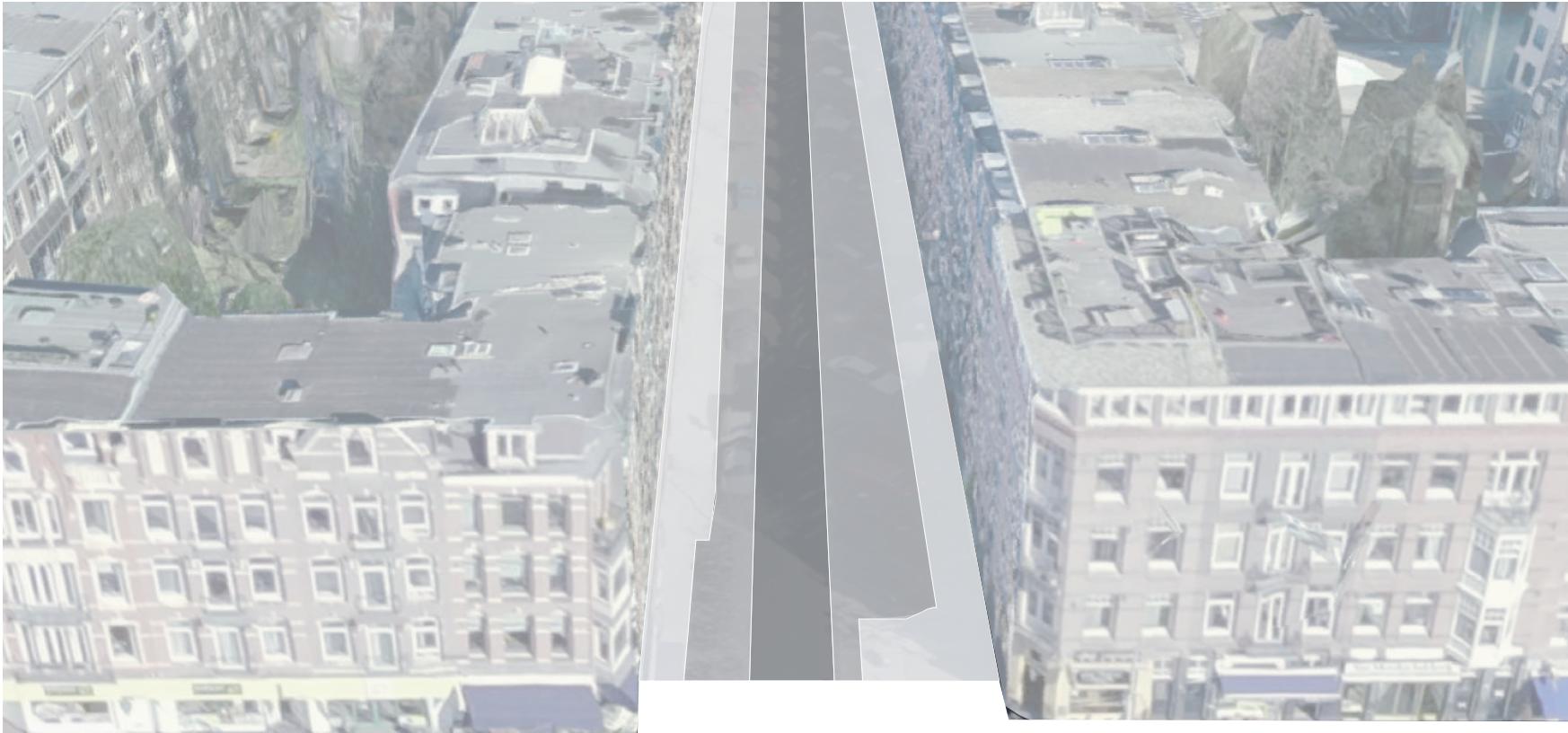


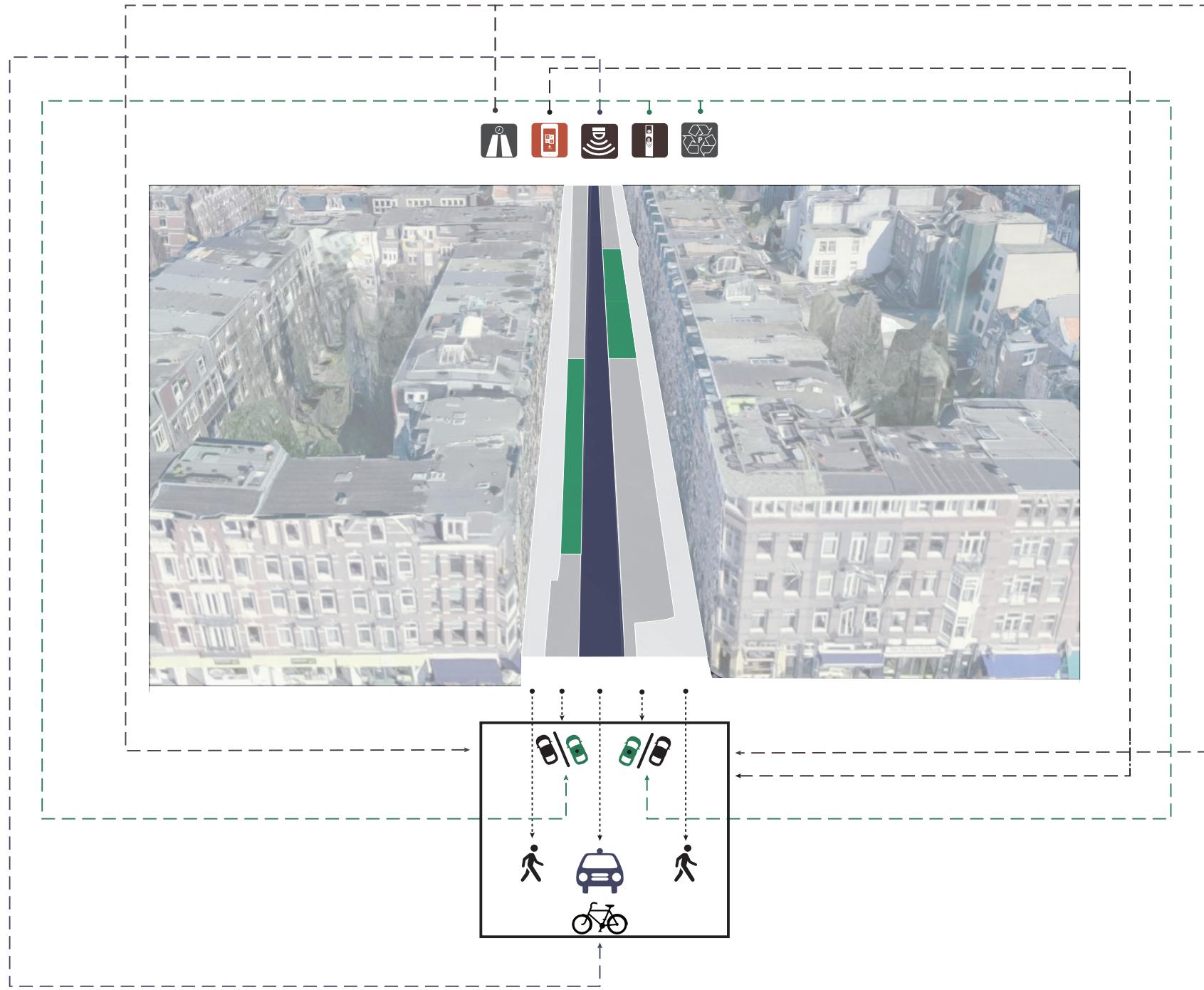


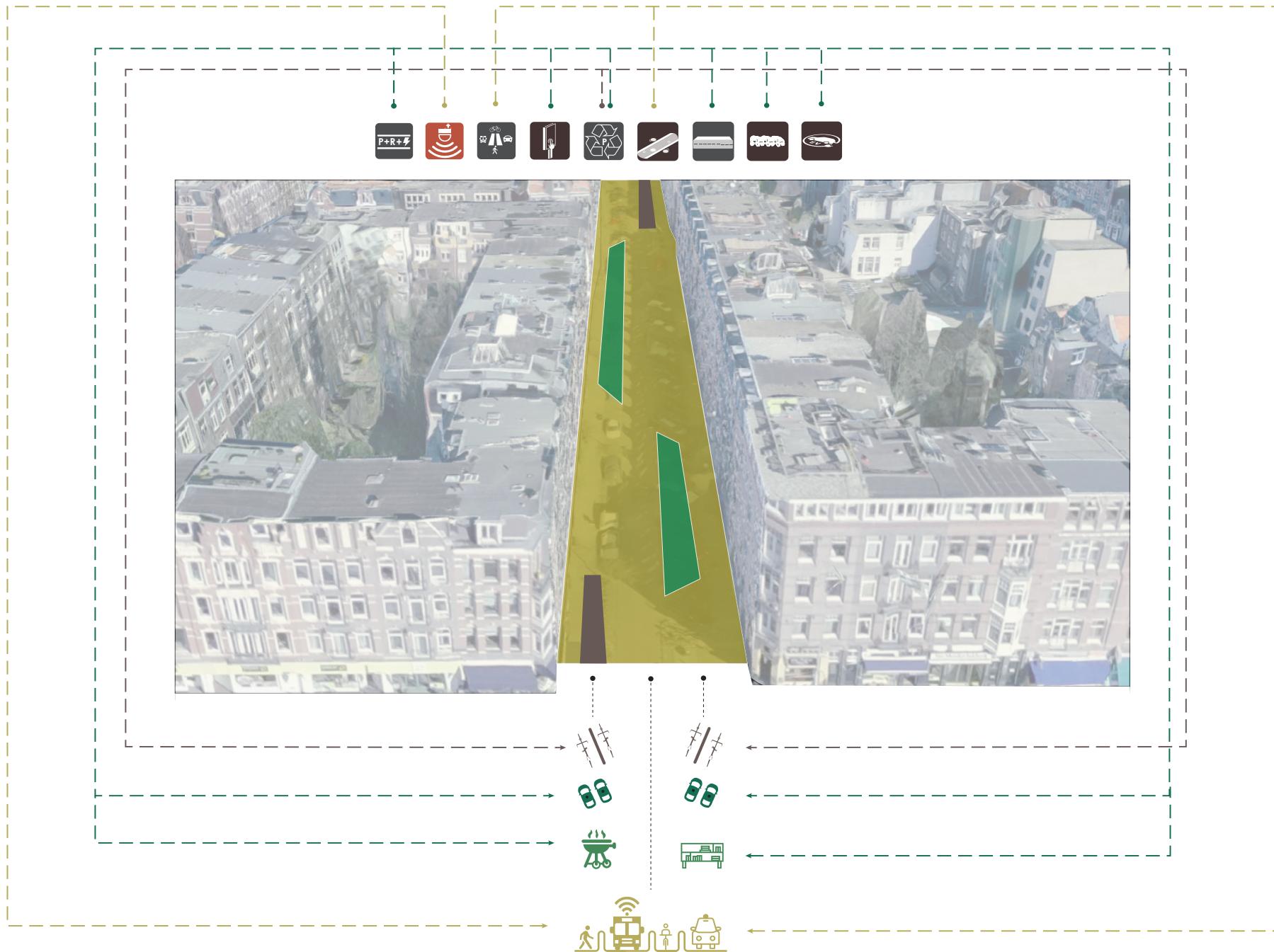


Albertdingk Thijmstraat
Interior neighbourhood street

Amsterdam Centraal











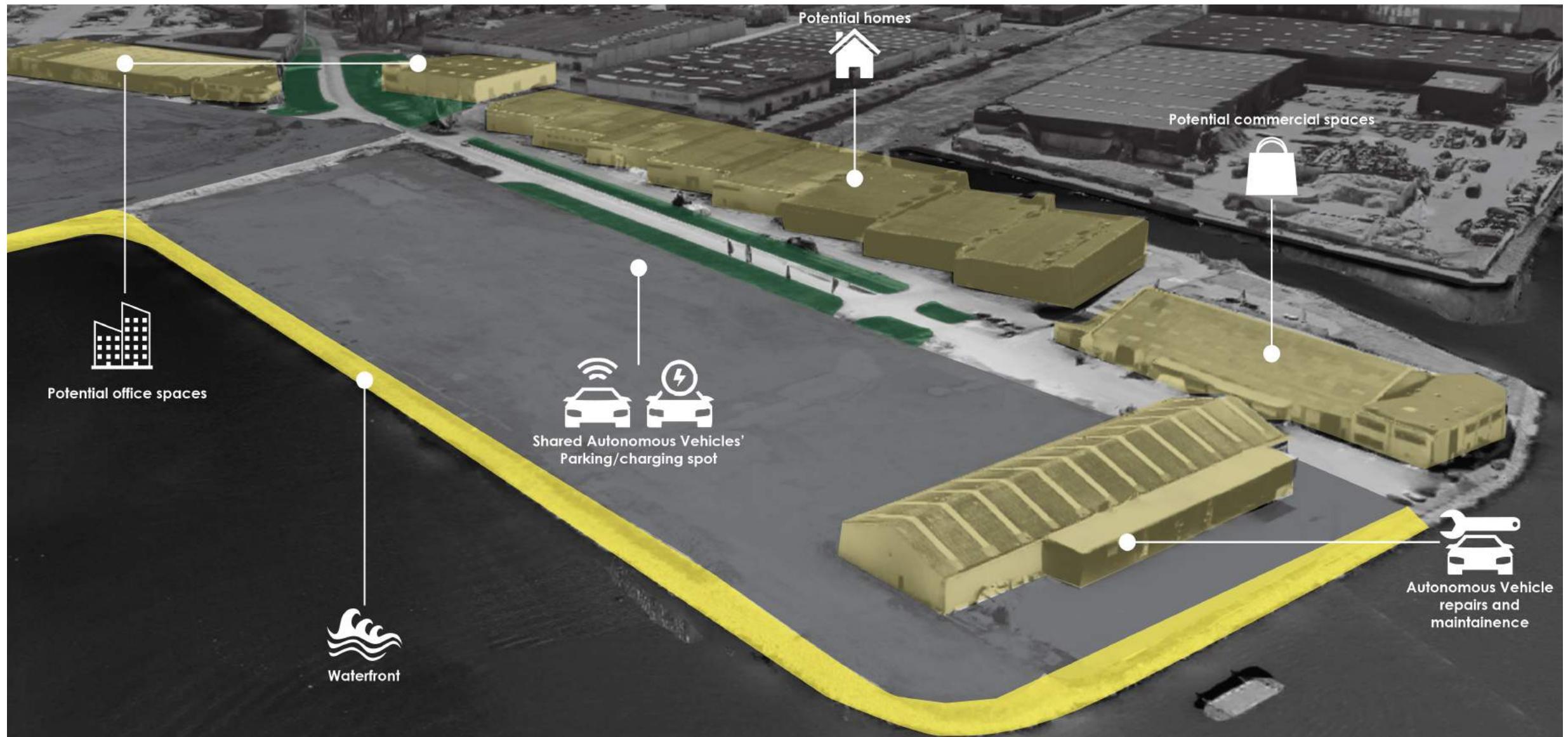


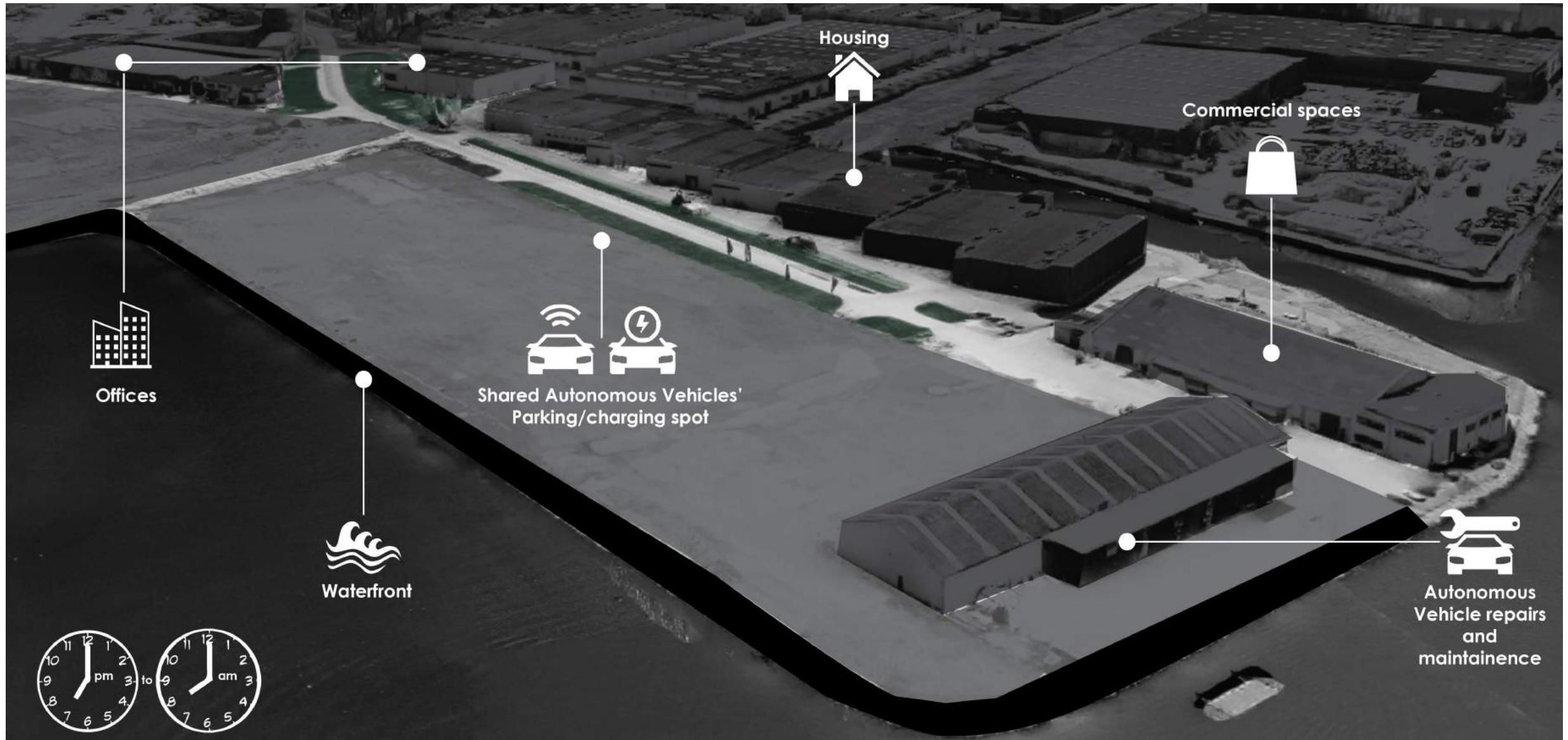
Amsterdam Centraal

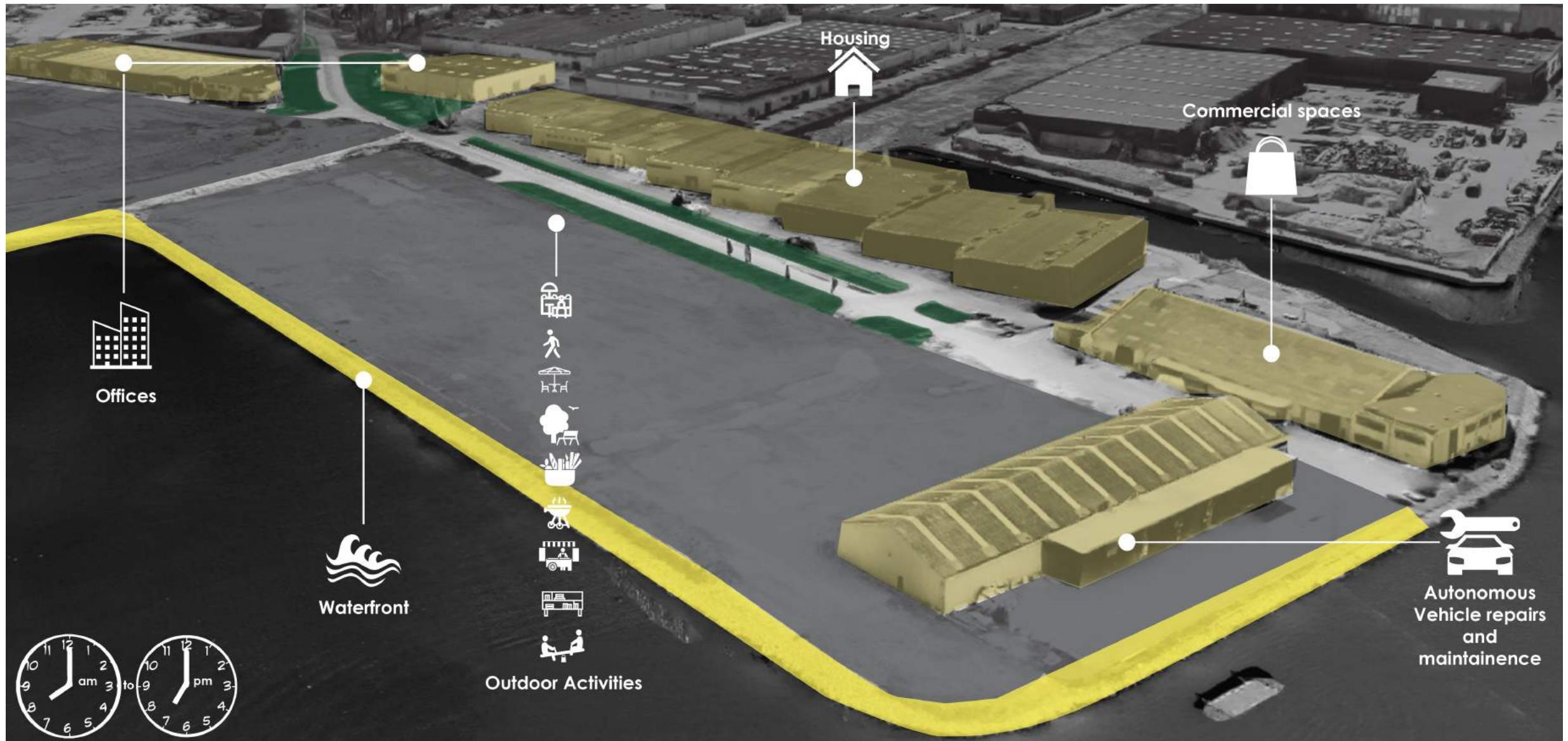
Moermaskade
Upcoming hot spot







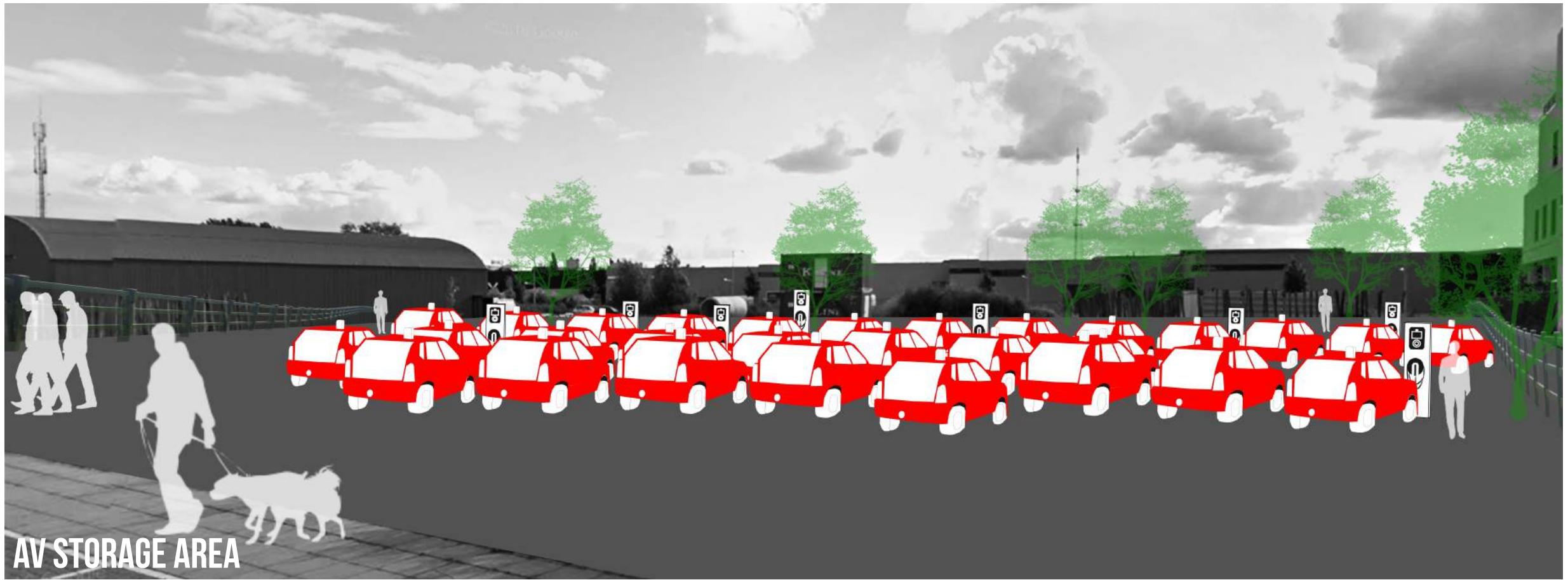




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EMPTY INDUSTRY PLOT





FARMERS MARKET- FLEXIBLE USE OF SPACE



UNDERGROUND PARKING SPACES



NEIGHBOURHOOD PUBLIC SPACE

