Modernist urbanism under automated mobility scenarios

Transforming modernist areas for spatial quality in Amsterdam city

Modernist urbanism under automated mobility scenarios, develops a method to intervene and enhance the quality of public spaces in modernist areas, based on a possible automated mobility scenario that triggers new relationships between car infrastructure, public space and the rest of the urban fabric. New uses for mobility landscapes in transformation are proposed, the new interventions stimulate an optimized use of the space, and upgrade the overall quality of the existing urban environment.

In this project, the modern model is, on the one hand, used as an historical / conceptual reference, in which vehicular technology have been used as a determining factor in the development and transformation of cities contributed to the creation of an urban model considered unsuccessful (Aquilué & Ardura, 2017). On the other hand, is also used as a contextual reference, that has produced patterns of open block structure, separation of traffic and functions and the elimination of the street as a 'social space' at a global scale.
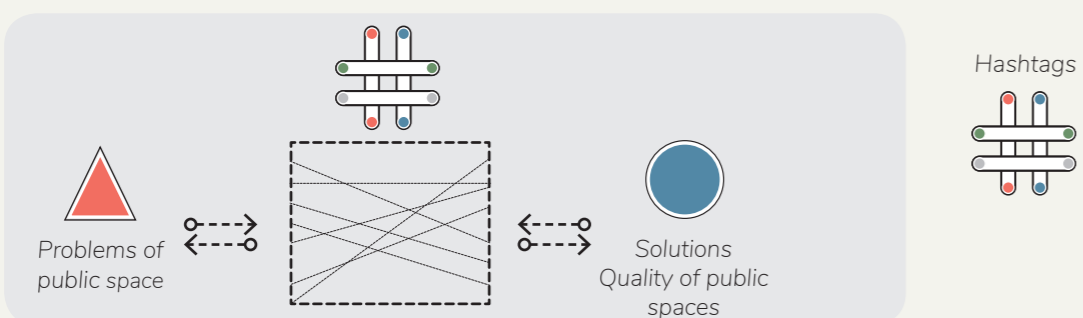
In order to use Automated mobility as a trigger to generate upgrading opportunities for these areas, we try to identify typical patterns of value related to the model, to generate design proposals that can be transferable to different contexts. To this aim, this project develops a Toolbox, where a database combines information from the literature framework, and a system of pattern language is used to combine all the elements, and a possible scenario of automated mobility, to create design proposals that are tested in the Slotermeer area in Amsterdam.

Finally, possibilities for future developments as an Online tool are outlined, envisioning the possibilities of application and knowledge transferability, allowing for different scales of implementation and interaction with users; increasing the flexibility of the system, allowing user interaction, the integration of knowledge, and its use as a basis for the development of participatory processes and interventions in diverse contextual situations.
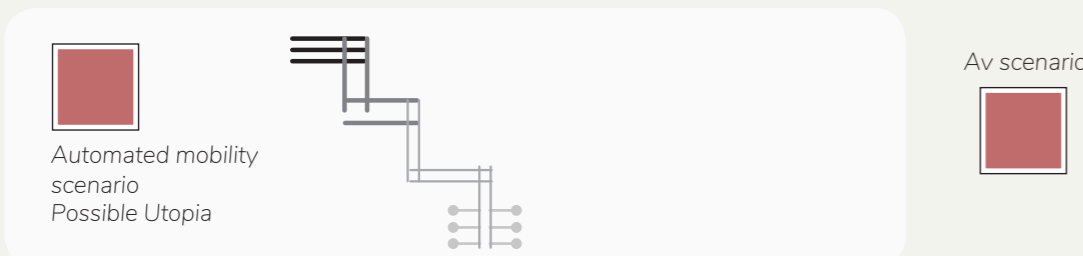
Keywords:

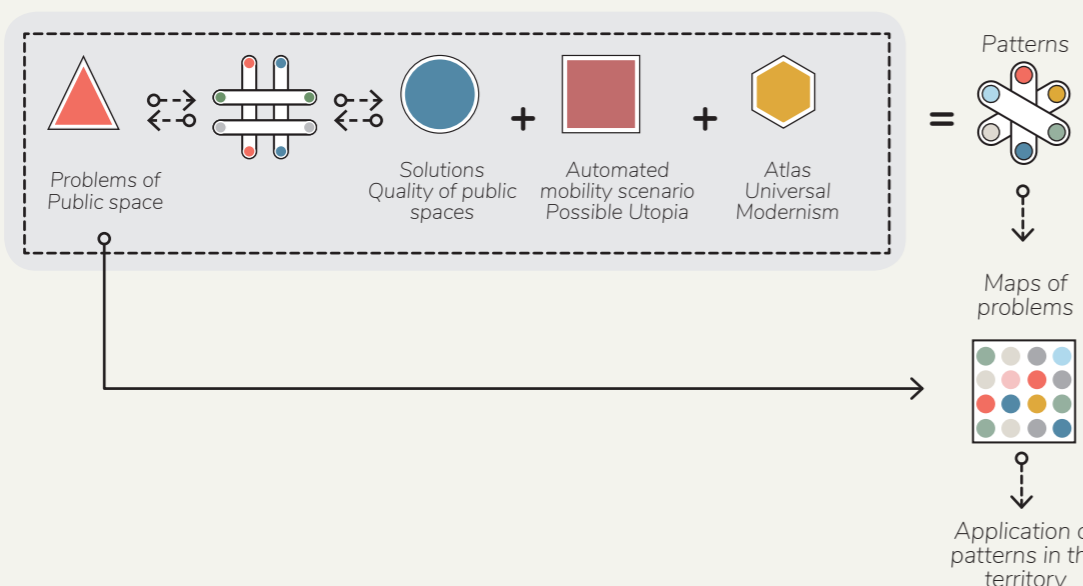Modern urbanism - Automated mobility - Public space quality - Pattern language.
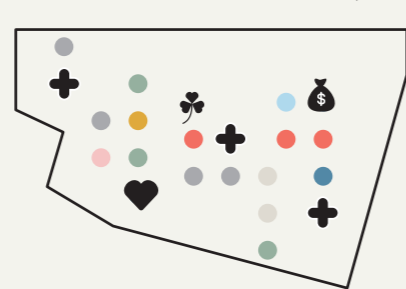

1-Database / 2-Hashtags

Problems of public space — Solutions Quality of public spaces

Hashtags

3-Automated mobility scenario

Automated mobility scenario Possible Utopia

Av scenario

4-Patterns

Problems of Public space + Solutions Quality of public spaces + Automated mobility scenario Possible Utopia + Atlas Universal Modernism = Patterns

Maps of problems
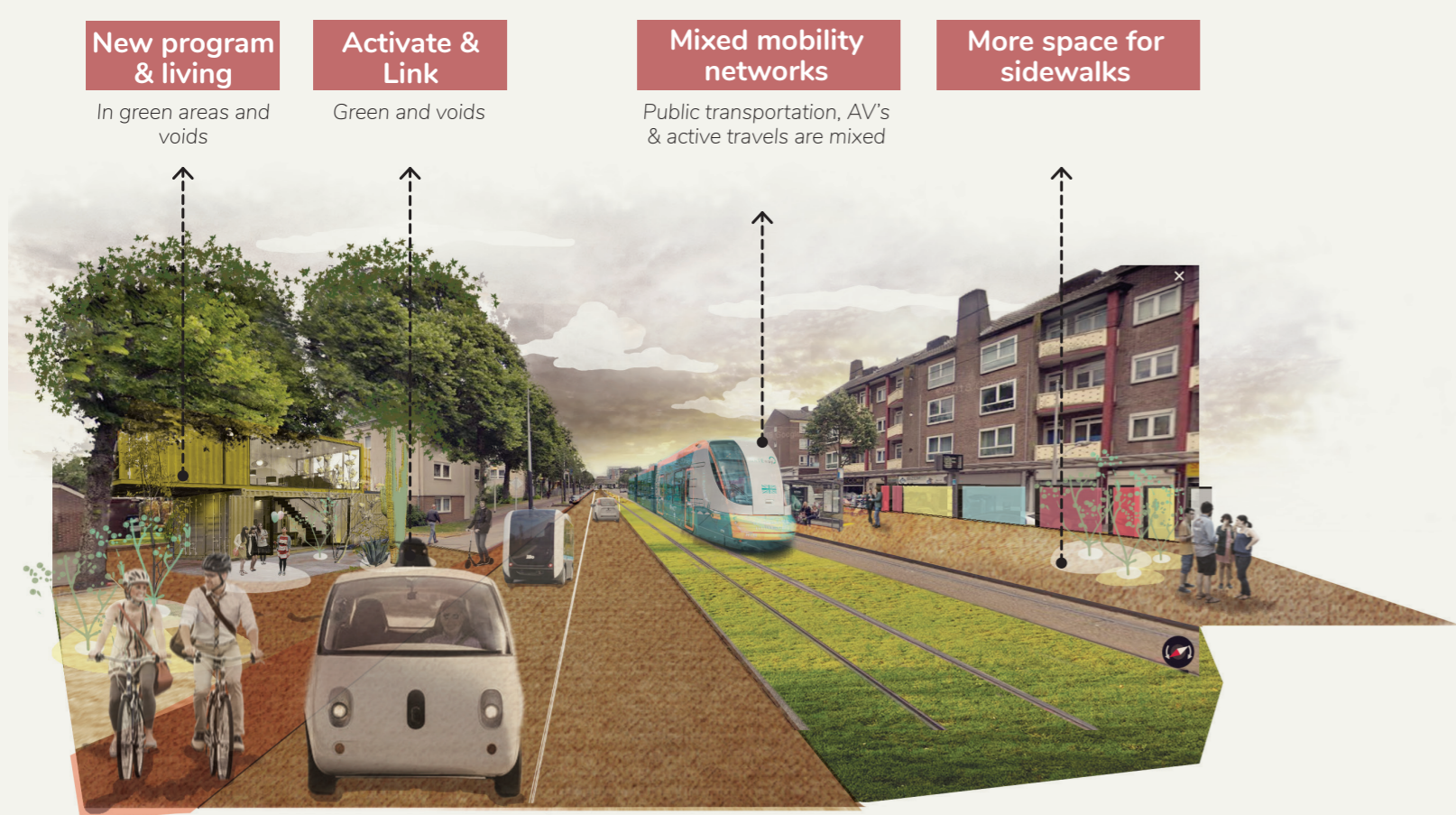
Application of patterns in the territory

5-application of patterns in the territory
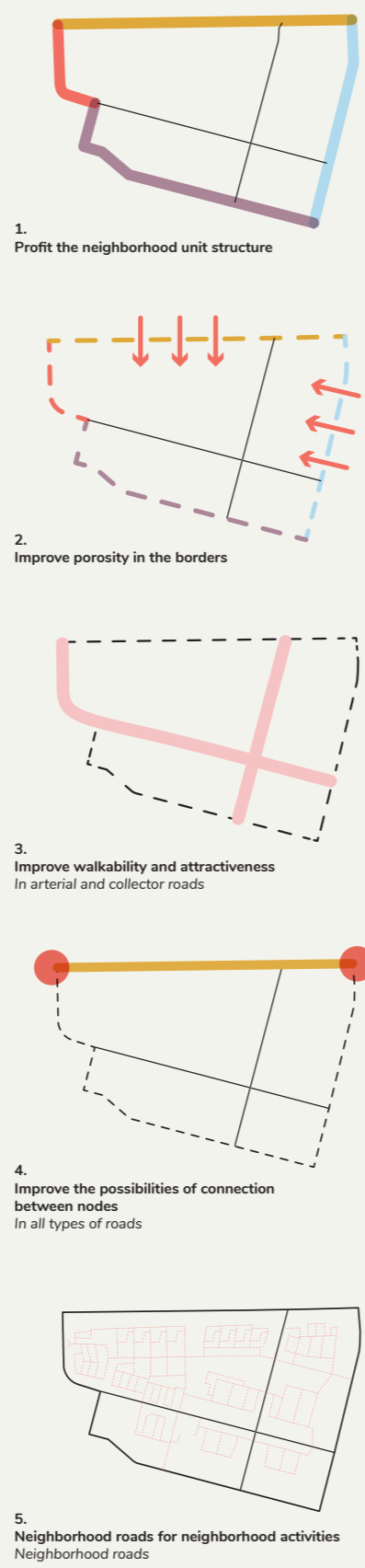
Automated mobility scenario - Possible Utopia

New program & living — In green areas and voids

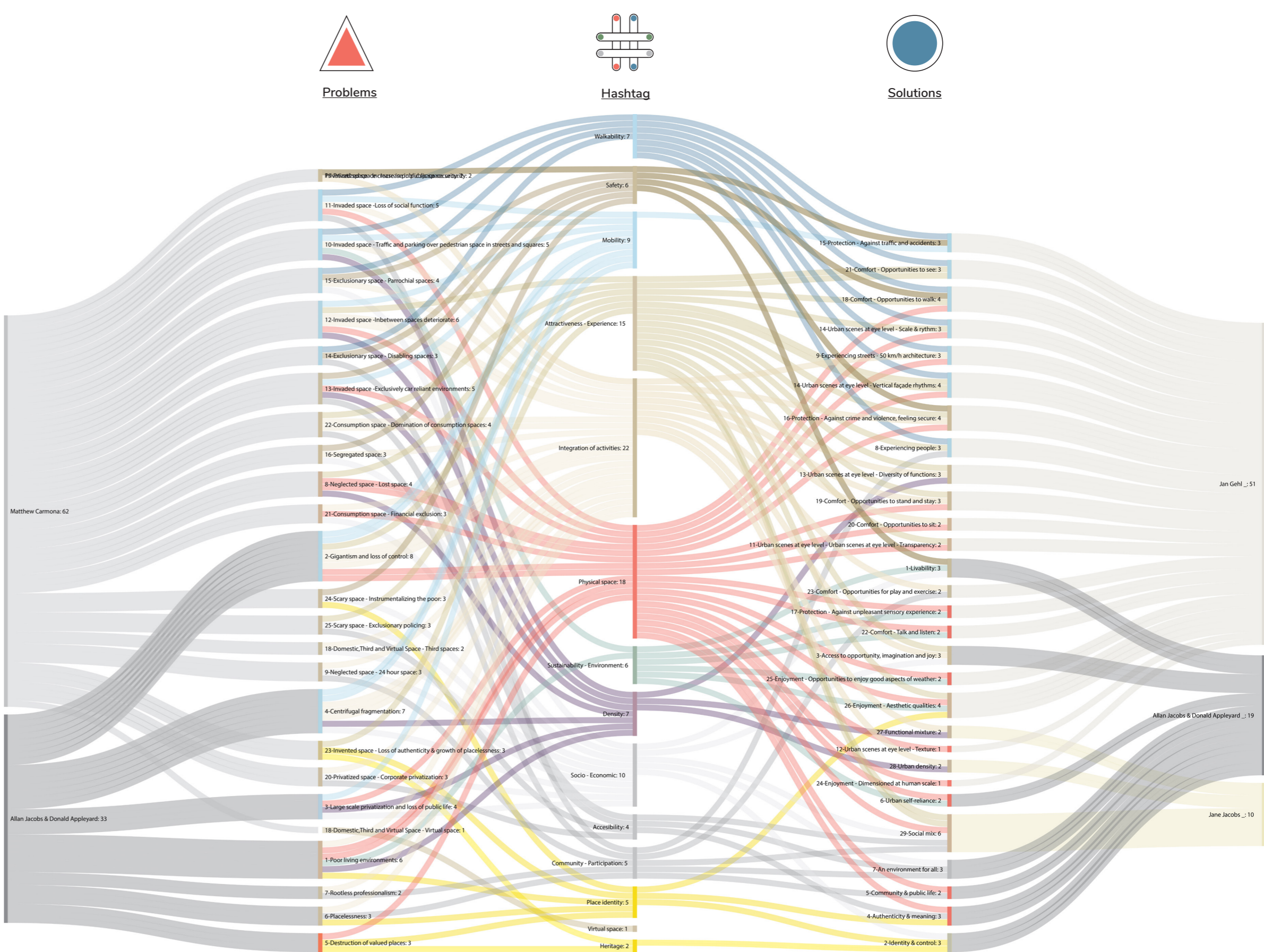**Activate & Link** — Green and voids

Mixed mobility networks — Public transportation, AV's & active travels are mixed
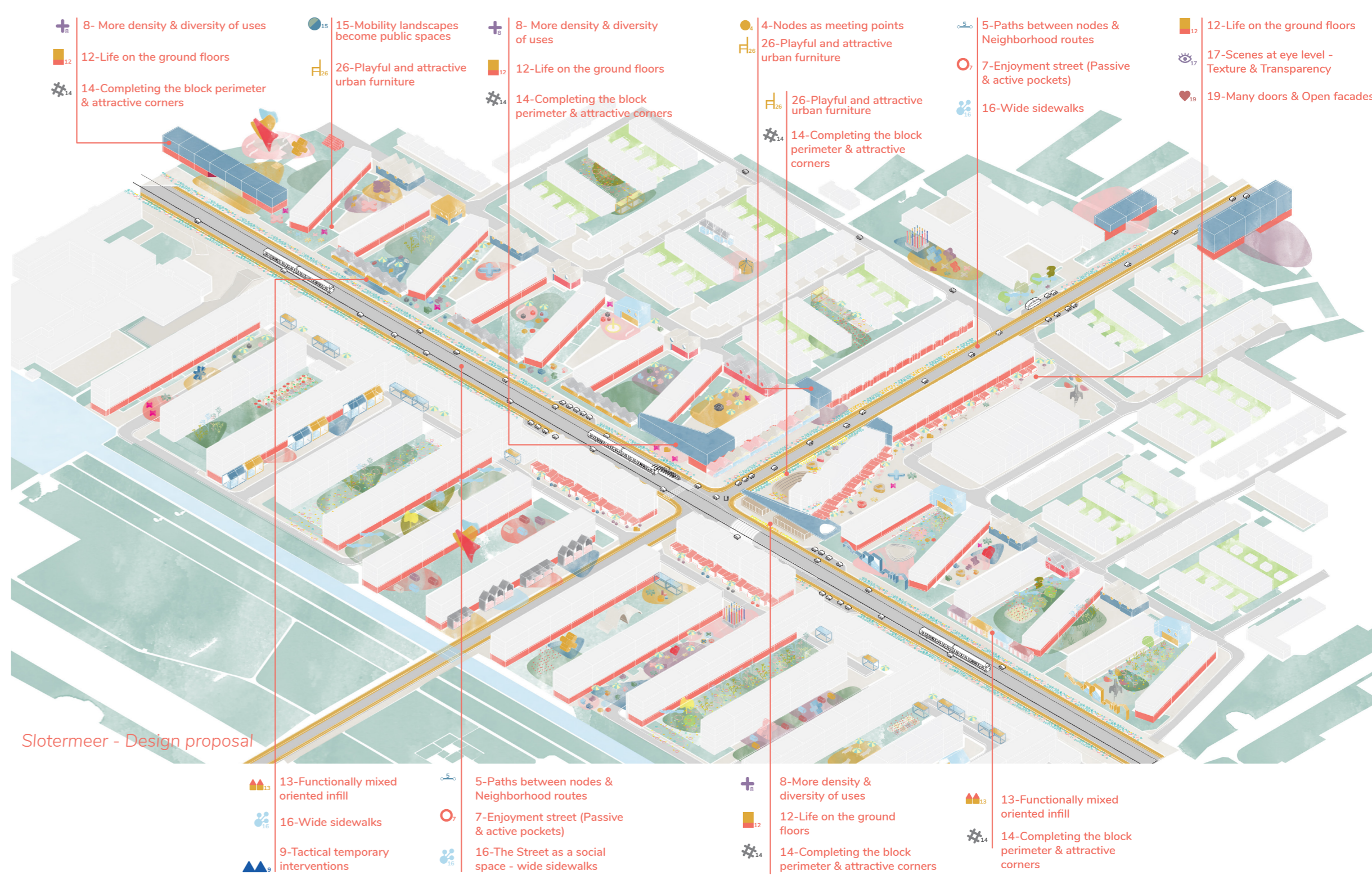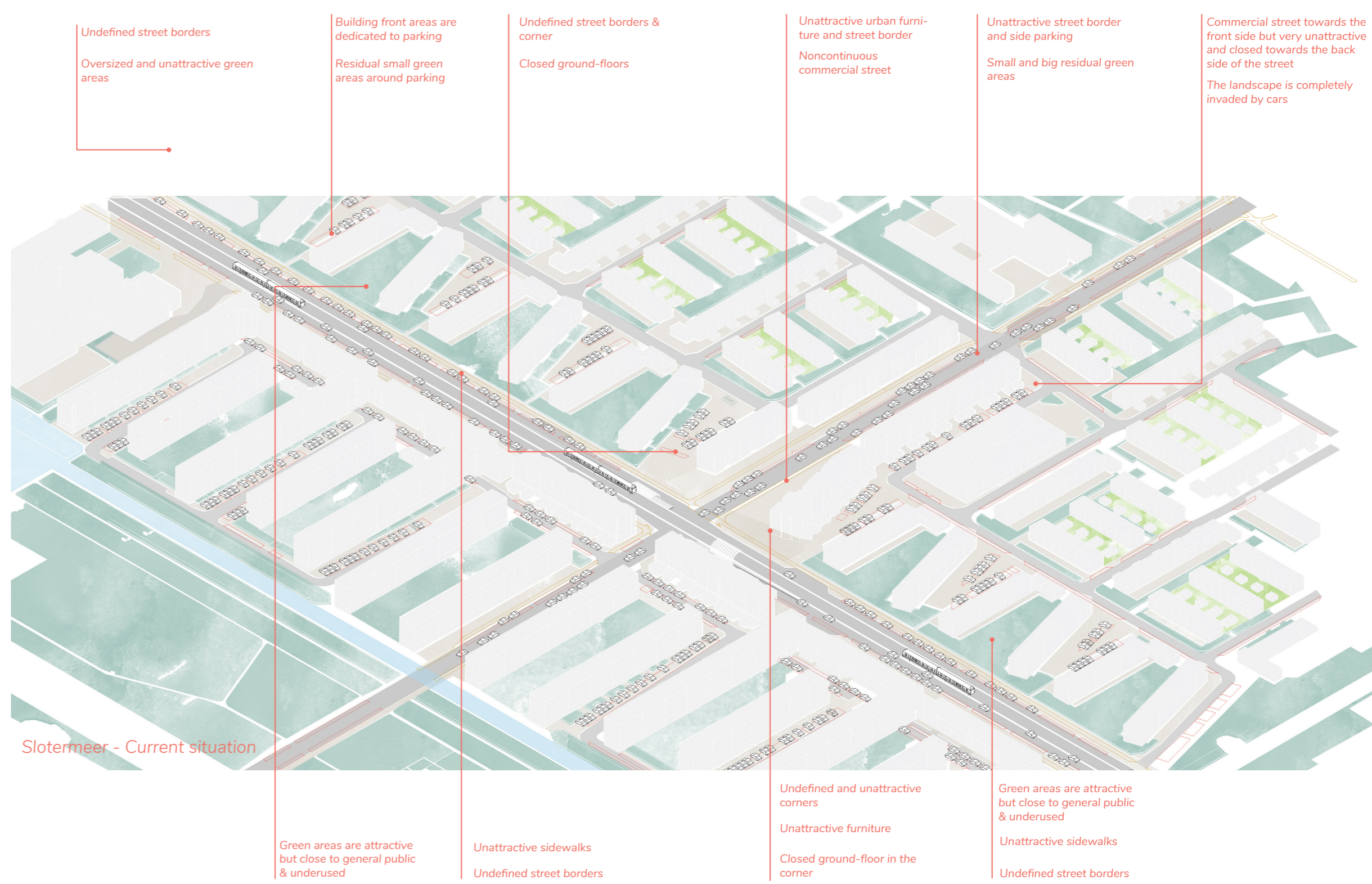
More space for sidewalks

Pattern language & intervention strategy

1-Mobility Hubs & Last mile services.
2-AV Public transportation and Neighbourhood routes.
3- Parking infrastructure.
4-Nodes as meeting points.
5-Paths between nodes.
6-Temporary street.
7-Enjoyment street.
8-More density & diversity of uses & transportation modes.
9-Tactical temporary interventions.
10-Pedestrian streets (Temporary or permanent).
11-Bottom up initiatives in re-converted streets and parking lots.
12-Occupy the ground floor.
13-Functionally mixed oriented infill.
14-Completing the block perimeter.
15-New relation between mobility landscapes and public space.
16-The Street as a social space - Active travels.
17- Scenes at eye level.
18-Playgrounds for all.
19-Attractiveness at human scale.
20-Public spaces as nodes of attraction.
21-Community gardens.
22-Add value to heritage with public space and art.
23-AV Infrastructure triggers more porosity in neighbourhood borders.
24-Protection from rain, sun and wind.
25-Green infrastructure and landscape design, for environmental quality.
26-Playful and attractive urban furniture.
27-Flexible & fixed working units.
28-Communal courtyard.

1. Profit the neighborhood unit structure
2. Improve porosity in the borders
3. Improve walkability and attractiveness
   In arterial and collector roads
4. Improve the possibilities of connection between nodes
   In all types of roads
5. Neighborhood roads for neighborhood activities
   Neighborhood roads

Database of problems and solutions according to literature

Problems — Hashtag — Solutions

Patterns applied in the Slotermeer area

Undefined street borders
Oversized and unattractive green areas

Building front areas are dedicated to parking
Residual small green areas around parking

Undefined street borders & corner
Closed ground-floors

Unattractive urban furniture and street border
Noncontinuous commercial street

Unattractive street border and side parking
Small and big residual green areas

Commercial street towards the front side but very unattractive and closed towards the back side of the street
The landscape is completely invaded by cars

Slotermeer - Current situation

Green areas are attractive but close to general public & underused

Unattractive sidewalks
Undefined street borders

Undefined and unattractive corners
Unattractive furniture
Closed ground-floor in the corner

Green areas are attractive but close to general public & underused
Unattractive sidewalks
Undefined street borders

Slotermeer - Design proposal

8- More density & diversity of uses
12-Life on the ground floors
14-Completing the block perimeter & attractive corners

15-Mobility landscapes become public spaces
26-Playful and attractive urban furniture

8- More density & diversity of uses
12-Life on the ground floors
14-Completing the block perimeter & attractive corners

4-Nodes as meeting points
26-Playful and attractive urban furniture

5-Paths between nodes & Neighbourhood routes
7-Enjoyment street (Passive & active pockets)
16-Wide sidewalks

12-Life on the ground floors
17-Scenes at eye level - Texture & Transparency
19-Many doors & Open facades

13-Functionally mixed oriented infill
16-Wide sidewalks
9-Tactical temporary interventions

5-Paths between nodes & Neighbourhood routes
7-Enjoyment street (Passive & active pockets)
16-The Street as a social space - wide sidewalks

8-More density & diversity of uses
12-Life on the ground floors
14-Completing the block perimeter & attractive corners

13-Functionally mixed oriented infill
14-Completing the block perimeter & attractive corners

Future implementations - The Toolbox as an Online platform

1. Level of knowledge operability — The tool informs the design process.

2. Level of knowledge creation & collaboration — More literature & more patterns.

3. Level of communication & participation — Participative processes with stakeholders & communities.

4. Level of transferability — Inform intervention of modernist urban projects in different contexts.

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