



City
Nieuwegein

Welcome!

30th march 2022

Lessons from Nieuwegein City

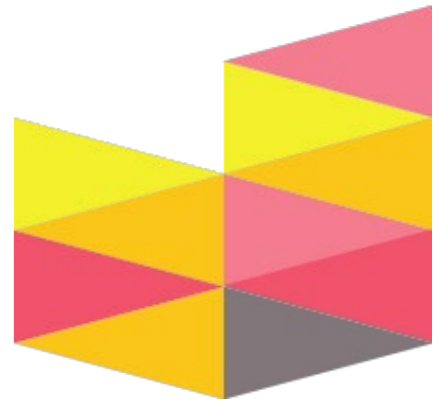
The implementation of electric charging facilities in a high density urban environment presents challenges because it demands space and specific design choices in an area where availability of space is limited and where many other interests have to be served.

These challenges can be overcome because zero emission public transport is recognized as a crucial aspect of sustainable urban development by all actors.



Structure of this presentation

- Nieuwegein, its historic growth and present challenges
- Future plans for Nieuwegein City and new public transport hub
- Challenges around implementing electric charging infrastructure
- Consequences for urban planning and development
- Questions and discussion



Nieuwegein

Geographically located:

- Direct south of Utrecht
- Between three major national highways

Growth and current challenges:

- 1969 merger of the former villages of Vreeswijk and Jutphaas
- Designated by the national government as a growth city the 1970s



Vreeswijk 1960



Jutphaas 1973



Nieuwegein City 1978



Nieuwegein City 2010



Current Challenges

- Housing shortage
- Qualitative mismatch
- Car oriented / underused public transport / poor bike connections
- Vacancy in commercial real estate
- Poor spatial quality





New regional growth strategy

- Healthy Urban Living as leading principle (spatial quality)
- Concentrated growth:
 - addition of 125.000 houses and 80.000 jobs
 - mainly around public transport hubs and at inner-city locations
 - Addition of 5.800 hectares of nature and recreational area
- Development of a comprehensive multimodal transport system



Nieuwegein City 2010





A new public transport hub



Electric charging infrastructure

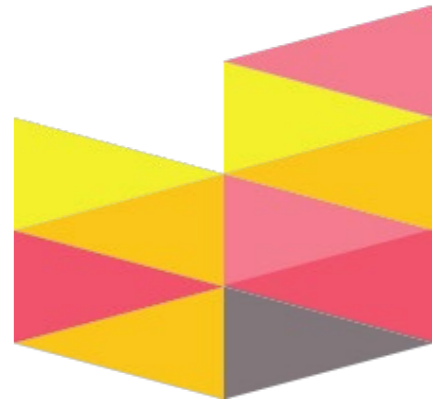
Introduction of electric charging infrastructure (opportunity charging) after the first spatial outlines and agreements for the public transport hub.

Space demand / a larger bus station:

- Charging time means longer stop-over times and less flexibility in the use of platforms → need for more platforms (from 6 to 10)

Consequences for spatial quality:

- Larger bus station → more concrete + less room for other functions and elements + less options for layout and design choices (still a topic of debate)
- Placement of charging stations → interruption of sightlines + issues around (social) safety → decision to build an cellar under the bus station / less charging stations







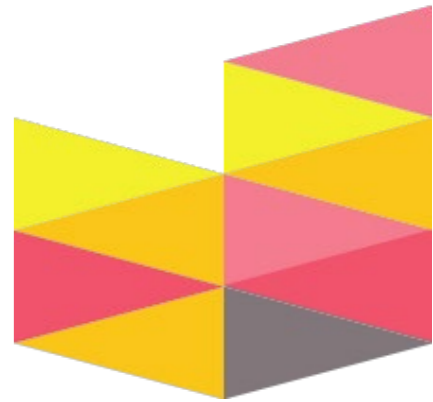




Electric charging infrastructure

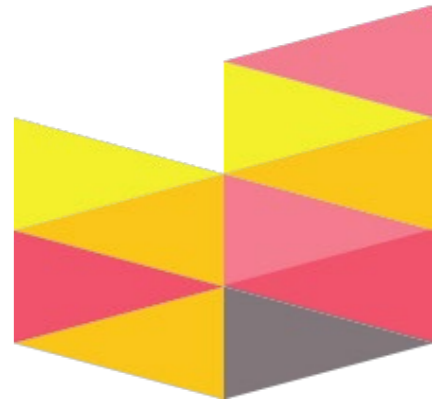
Various discussions with stakeholders:

- Alternative locations for charging? (around the corner / at other stops along the line)
- Future technological developments (larger batteries / smaller charging stations)
- Other systems? (hydrogen)
- Integration with other electric infrastructure in the surrounding area
→ tram / all-electric buildings (overcapacity)



Consequences for urban planning and development

- Zero emission public transport is recognized as a crucial aspect of sustainable urban development by all actors
- Electric charging facilities can be at odds with other interests in sustainable urban development...
- ... but optimal solutions are found in multidisciplinary cooperation
- Integration of electric charging facilities with regards for spatial quality costs money that must be budgeted in advance



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Questions and discussion