



Introduction e-buses in Utrecht “Just e-Start!”

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**Interreg
Europe**



European Union | European Regional Development Fund



Content

•Short Introduction Province

- Housing, Mobility & Energy

•Public Transport Utrecht

- Organisation & Tenderingproces
- Zero Emission PT so far
- Buses & Charging Infrastructure
- Our experiences

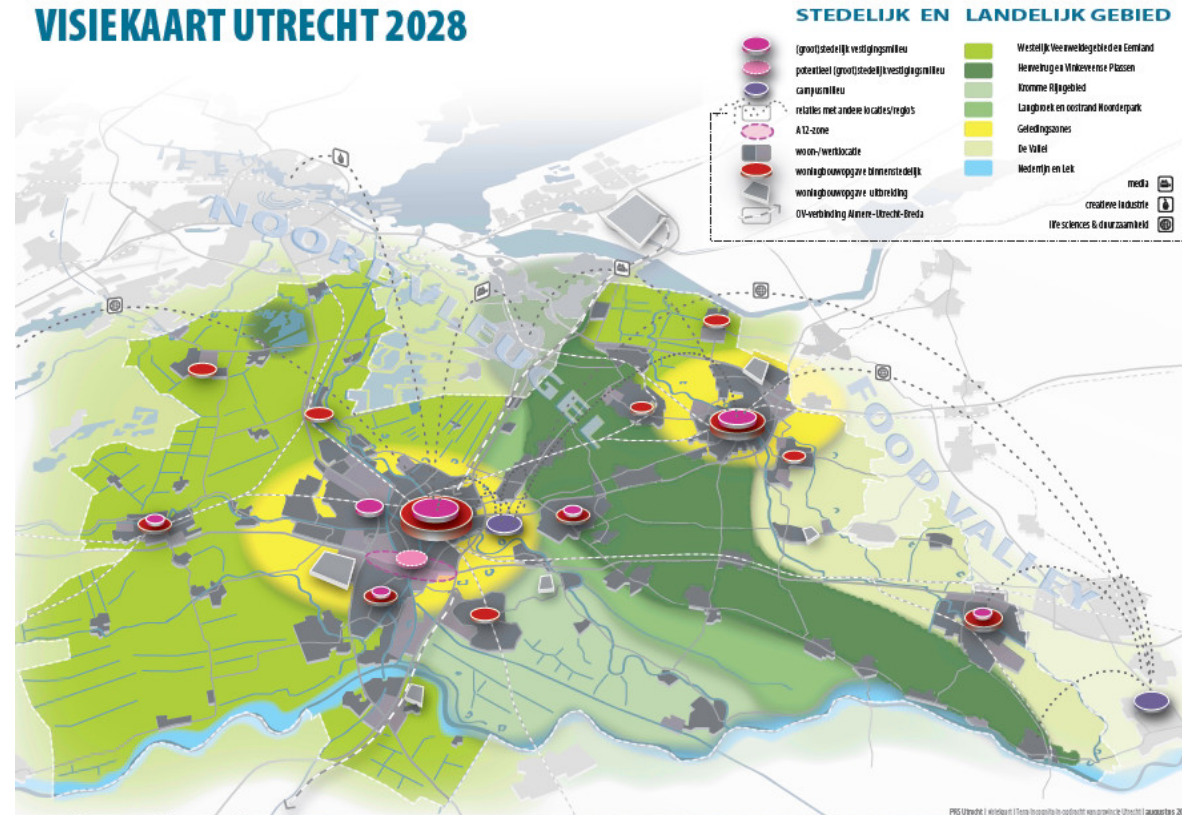
•Our our next steps



Provincie Utrecht:



VISIEKAART UTRECHT 2028



- 1,3 mln inhabitants
- 26 municipality's
- 2 urban area's; densely populated and dynamic economic region
- National/UNESCO-landscape's
- Central Position in the Netherlands:
 - High Mobility-profile (water, rail, road)



Main challenges in Utrecht Region Transport:

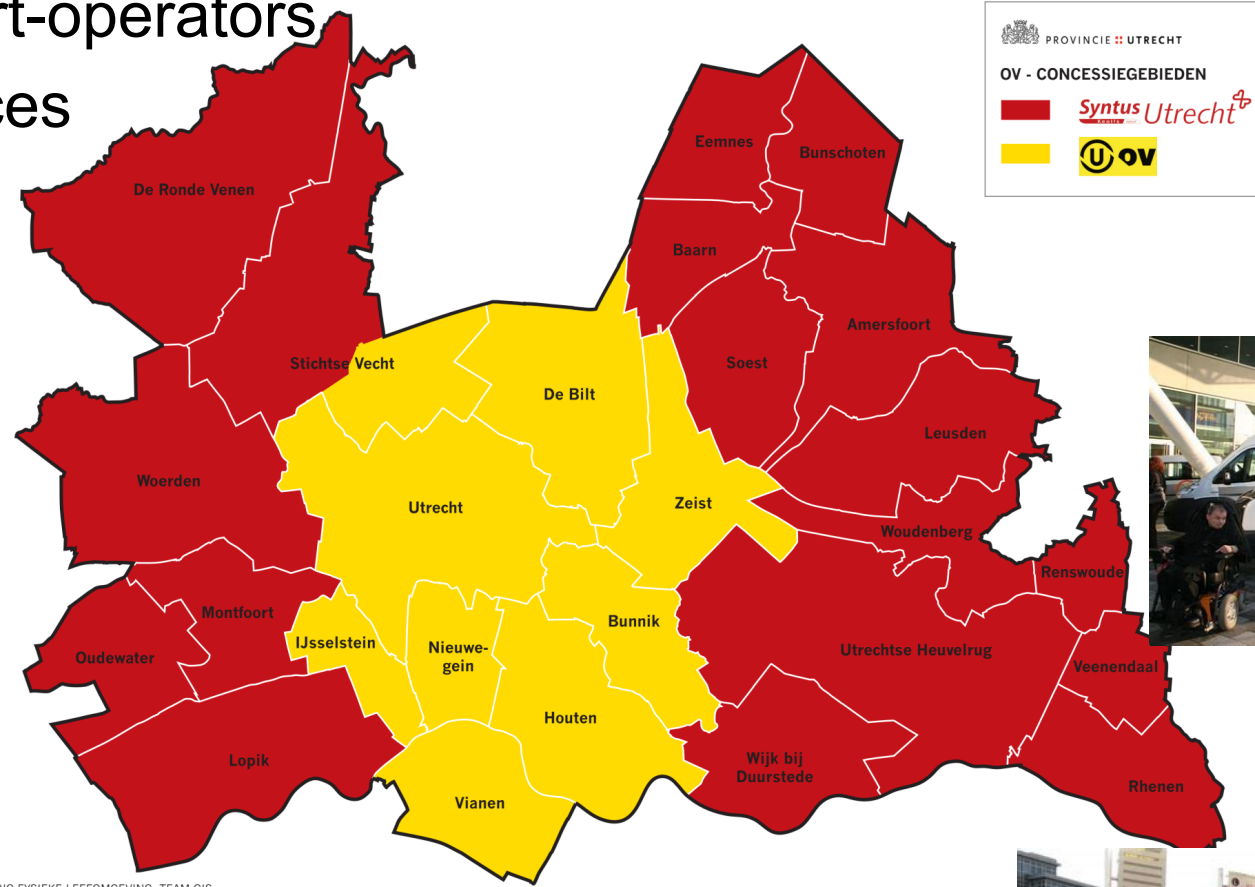
- Facilitation growing population in new urban housing project
- Towards Healthy Urban Living
- Transition to Carbon free energy
- Transition to sustainable Mobility:
 - **Modal Shift to walking, bike and Public Transport**
 - **From carbon fuel Mobility to Zero Emission vehicles**





Contracts:

- 2 Public transport-operators
- Social taxi services



LING FYSIEKE LEEFOMGEVING, TEAM GIS



Tendering new concessions 2025-2035

Working on:

- Spring 2022: Decision making Policy Principles PT-Tendering
- End 2022: Program of Requirements
- 2023-2024: Tendering & Implementation
- 2025: Start new concessions

Looking for:

- 2 public transport operators
- As partners to meet our (public) aims



Movie “Excellent PT for a growing Province”:
<https://youtu.be/AKFbE-Jn6x4>



Our Zero Emission Targets & Schedule

Provincie of Utrecht aims at:

- **100% zero emission public transport in 2028:**
 - About **520 Zero Emission buses in total (+60 trams)**
 - Since 2013 till 2021: 76 e-buses





Why zero emission bustransition and eBussed ?

- **E-buses gives clear benefits to the region:**
 - Cleaner air
 - Noise reduction
 - Clean Energy transition
 - Higher appreciation/comfort by passengers
 - Happier busdrivers, beter workspace



eBussed
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Just e-bus in Utrecht!



- 2014: First 3 e-midibuses in operation in the city of Utrecht
- 2016: Pilot with electric Vienna-bus: charging by tram electricity
- 2016: Provincial Government adopted the Action Plan ZE-Buses.
- 2016: National Agreement: Zero Emission Public Transport 2030
- 2017: First 12 meter e-buses in Utrecht in operation
- 2018 First e-buses in the city of Amersfoort
- Since 2020: 76 e-buses in operation





Existing e-Bus fleet in Provincie Utrecht

- Ebusco (31x)
- BYD (7x)
- Hueliez (38x)





What difficulties in e-bus practices eBussed found?

- **Technical limitations:**
 - Reliability-performance
 - Early technology & innovations
 - Operational ranges/longer buses
 - Weather conditions: airco & heating
 - More & complex System integration
- **Longer Implementation-phases**
 - Realistic time schedule
 - Testing & Training & Acceptance
- **Acceptance & commitment new innovations**
 - Politicians and citizens
 - PT-company: management & operational staff



E-Depots Province Utrecht & Charging infra

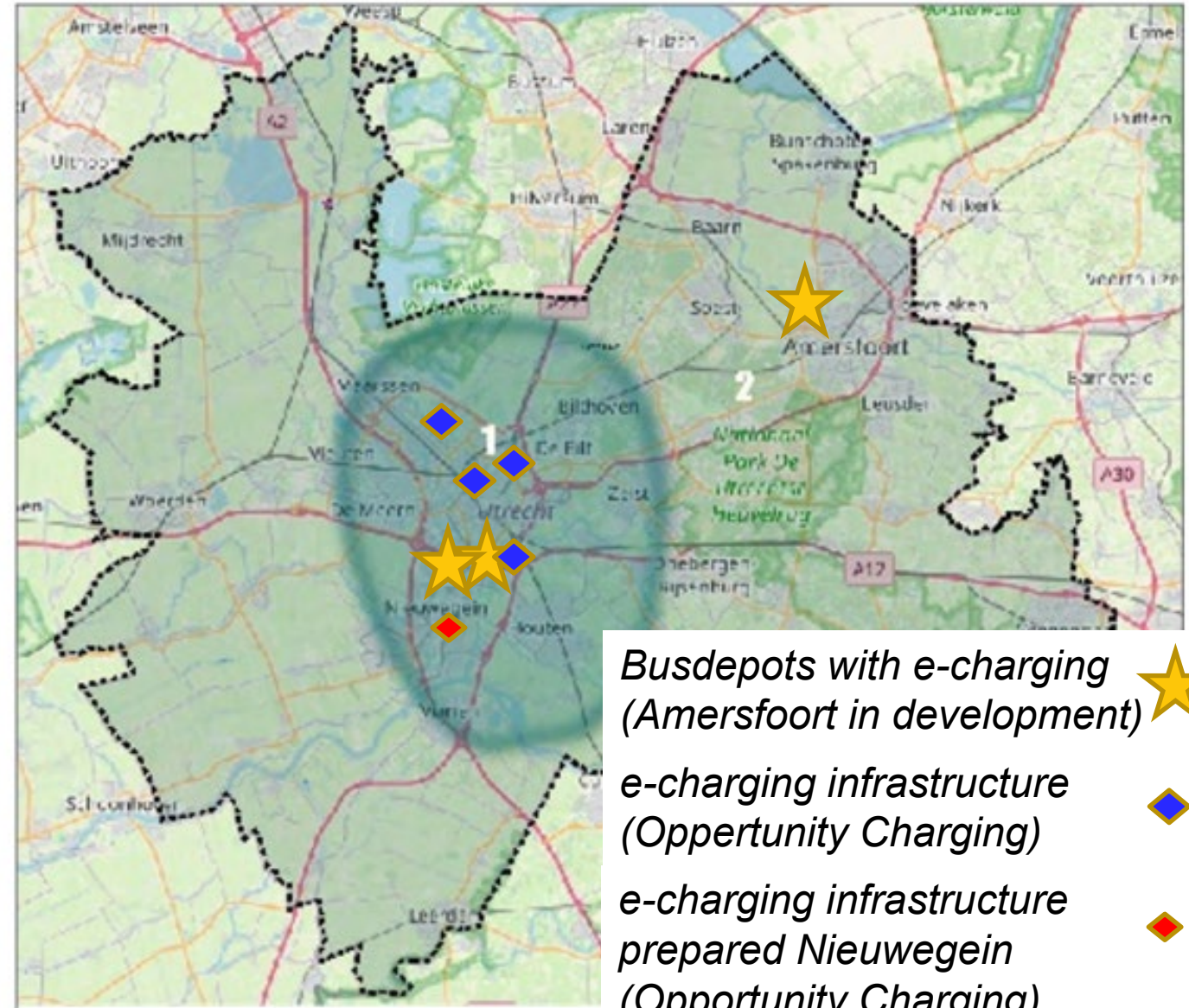


Provincie Utrecht owns the main bus depots:

- Essentials for e-buses operations
- Level-playing field in tenders

What we see:

- More depot charging; due larger range battery-buses
- Big-scale e-charging on depots is challenging:
 - E-network capacity/Energy storage/peak shaving
 - Safety
 - Space & Costs
 - Development and building time





What are our next steps towards 100% clean PT?

- **eBussed Action Plan:**
 - More monitoring, training-projects and pilots
- **Procurement of new e-buses in the U-OV concession**
 - About 20 buses in operation 2023-2025
- **Preparations for new Tender 2025-2035:**
 - Market consultations (electric and hydrogen fuel)
 - ZE-bus transition in Program of Requirements
 - Make our main bus depots Zero Emission ready
- **Implementation ZE-fleet/new concession**
 - 2025-2028 (depends on outcome tendering)





Thank you!

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More information

- on e-Bussed website:
 - Ebussed Library-Status Quo Fact Sheets
 - Good Practices
 - Thematic articles
 - News



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