Amsterdam PED Implementation

Rudy Rooth

Municipality of Amsterdam

AmsTErdam BiLbao cItizen drivEn smaRt cities

atelier
Positive Energy Districts

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.864374

PED Implementation aspects

- Project background
- Key elements of Amsterdam PED demonstrator
- Exemption regulation
- Citizen initiatives fostering
  - Sustainable initiative funding

- Tendering procedures
- Heat transition approach

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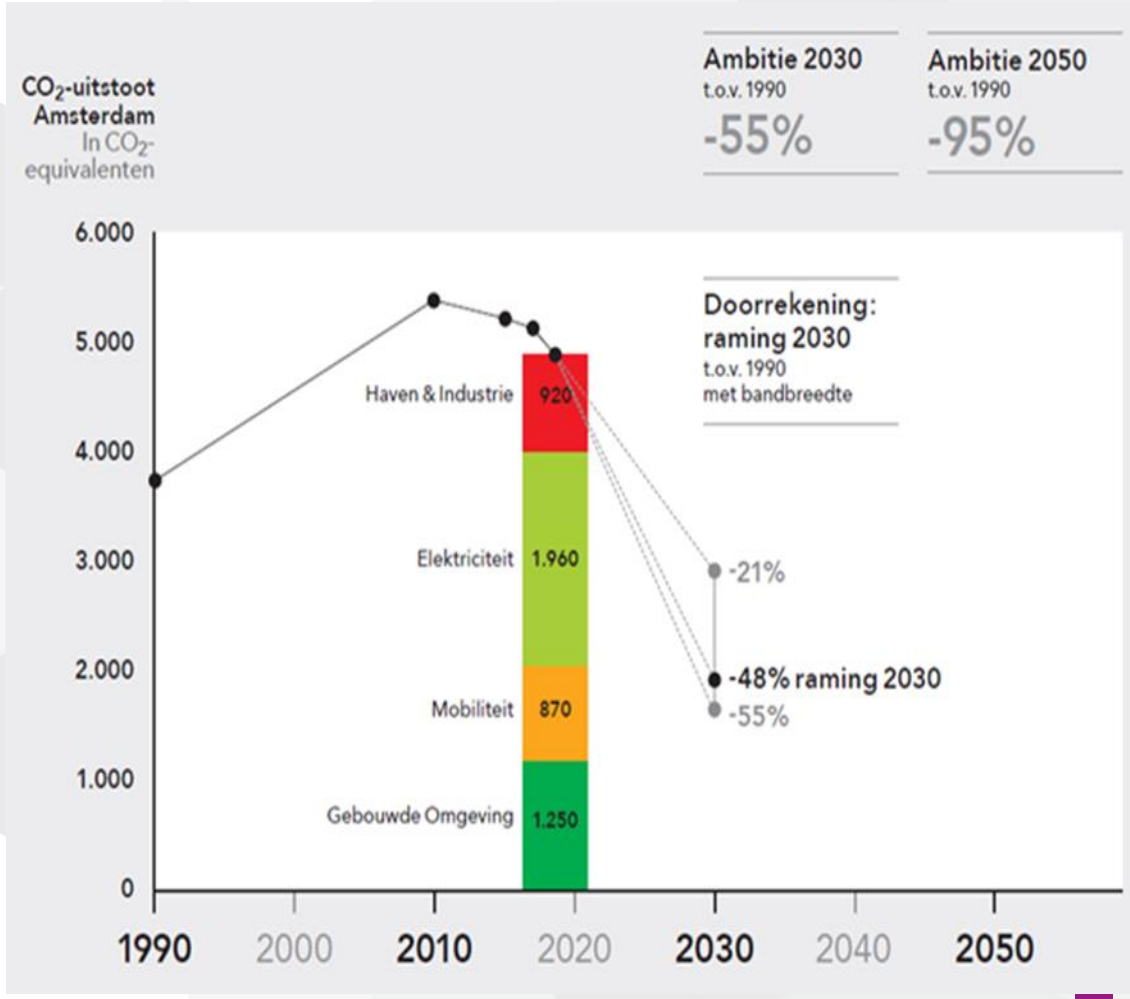
Amsterdam, status 2022

Achievements

- Energy Transition roadmap 2050
- Transition vision heat, approach for natural gas free neighbourhoods, low emission transport zones
- Strategy Amsterdam Circular towards 2050
- Green and healthy city
- Amsterdam Doughnut Economy: City portrait



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A Positive Energy District?

- As the result of a lot of discussion, the reference framework definition for PED/PENs is as follows:
- “Positive Energy Districts are energy-efficient and energy-flexible urban areas or groups of connected buildings which produce net zero greenhouse gas emissions and actively manage an annual local or regional surplus production of renewable energy. They require integration of different systems and infrastructures and interaction between buildings, the users and the regional energy, mobility and ICT systems, while securing the energy supply and a good life for all in line with social, economic and environmental sustainability.”
  - https://jpi-urbaneurope.eu/ped/

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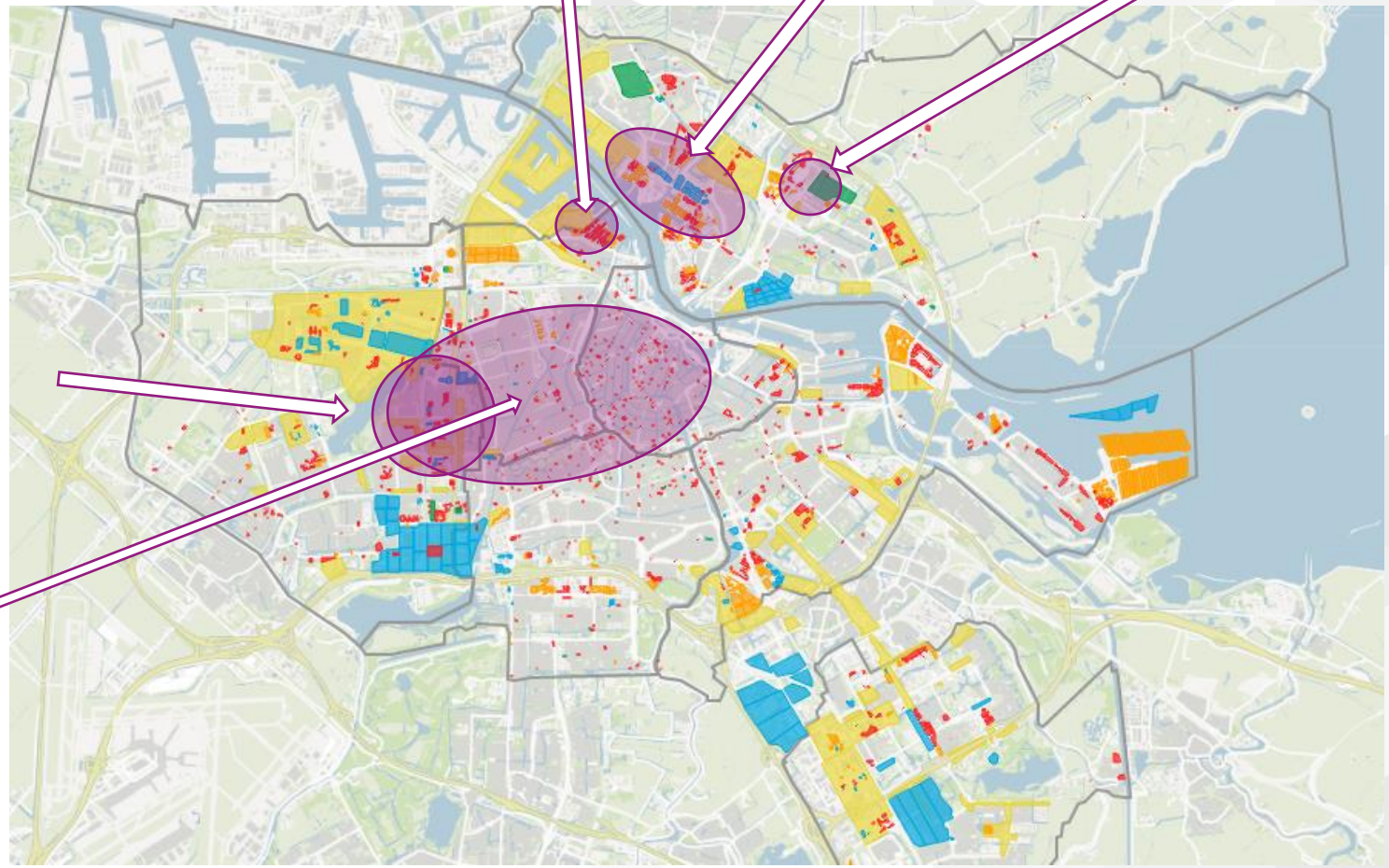
How did we get here?

https://smart-cities-marketplace.ec.europa.eu/city/amsterdam



https://maps.amsterdam.nl/woningbouwplannen/?LANG=nl

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5 Demo projects and TRANSFORM

ECOSTILER ENERGY-EFFICIENT COMMUNITIES

- When? 2005-2012
- Theme: Eco-refurbishment
- Focus area: New West

staccato

- When? 2007-2014
- Theme: Eco-refurbishment
- Focus area: Amsterdam Noord (Het Breed)

NEXT buildings

- When? 2012-2017
- Theme: New Build
- Focus area: Houthaven

TRANSFORM TRANSFORMATION AGENDA FOR LOW CARBON CITIES

- When? 2013-2015
- Theme: City planning for low carbon
- Focus area: Amsterdam

CITY-zen New urban energy

- When? 2014-2019
- Theme: Eco-refurbishment
- Focus area: West

atelier Positive Energy Districts

- When? 2019-2024
- Theme: Positive energy district (New build)
- Focus area: Buiksloterham

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Ambition levels rising

- Ecostiler and Staccato: Eco refurbishment with 30% reduction in energy use
- NEXT-Buildings: Energy neutral new buildings
- City-zen: Refurbishment to new build energy performance, integration with mobility and ICT
- ATELIER: Positive energy district







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Selection process Buiksloterham

- Multiple ambitious development areas (Amsterdam South-East, Bajeskwartier, Strandeiland, Sluisbuurt, Buiksloterham, Haven-Stad)
- Criteria:
  - Ambition level
  - Commitment of stakeholders
  - Development stage (timing with respect to project period)
- A discussion with involved people led to the Buiksloterham choice

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Amsterdam PED ingredients

- Positive energy buildings
- PV plant
- Smart mobility
- Smart micro-grids
- Local energy communities
- Sewage energy recovery

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Exemption regulation

- Permission to deviate from electricity law
- Applicable to a „projectnet“
- Permitted in 2017!
- Many conditions, related to planning, calculation of tariffs, maintenance etc.

- The exemption regulation targets innovation based on bottom-up initiatives


> Retouradres Postbus 40225, 8004 DE Zwolle

Coöperatie Republica Papaverweg U.A.
t.a.v. Spectral Utilities B.V.
T. Westra
Meteorenweg 280
1035 RN Amsterdam

Rijksdienst voor Ondernemend Nederland

Datum 16 november 2017
Betreft Verlening ontheffing Besluit Experimenten decentrale duurzame elektriciteitsopwekking

Geachte heer Westra,

U heeft voor de coöperatieve vereniging Republica Papaverweg U.A. een aanvraag ingediend in het kader van het Besluit experimenten decentrale duurzame elektriciteitsopwekking (hierna: het Besluit).

U vraagt ontheffing aan voor het project **Republica Papaverweg**. Het betreft een projectnet als bedoeld in artikel 2, eerste lid, onderdeel b, van het Besluit.

Wij hebben aan Liander een zienswijze gevraagd op uw aanvraag. Die hebben we op 10 oktober 2017 verkregen. Ter informatie sturen wij u deze brief mee als bijlage.

Beslissing

Ik heb besloten de coöperatieve vereniging Republica Papaverweg (hierna: de vereniging) voor het project ontheffing te verlenen van het bepaalde in artikel 16 derde lid, artikel 16a in samenhang met artikel 16 eerste lid (uitgezonderd h, j en m) in samenhang met artikel 93 van de Elektriciteitswet.

De ontheffing heeft mede betrekking op de toepassing krachtens artikel 10 van het Besluit van de artikelen 26b, 28, eerste en tweede lid, 29, 30a, 36, eerste lid, 53 tot en met 59, 86d, 95lb, en 95lc van de Elektriciteitswet 1998.

De ontheffing is beperkt tot aansluitingen op het projectnet in Amsterdam Buiksloterham Kavel 14 zoals aangegeven in uw aanvraag.

Rijksdienst voor Ondernemend Nederland
Postbus 40225,
8004 DE Zwolle
www.rvo.nl
T 088 042 42 42

Onze referentie
Kenmerk
DGE/PN/2017/001
Bijlagen
Zienswijze Liander
Kvk-nummer

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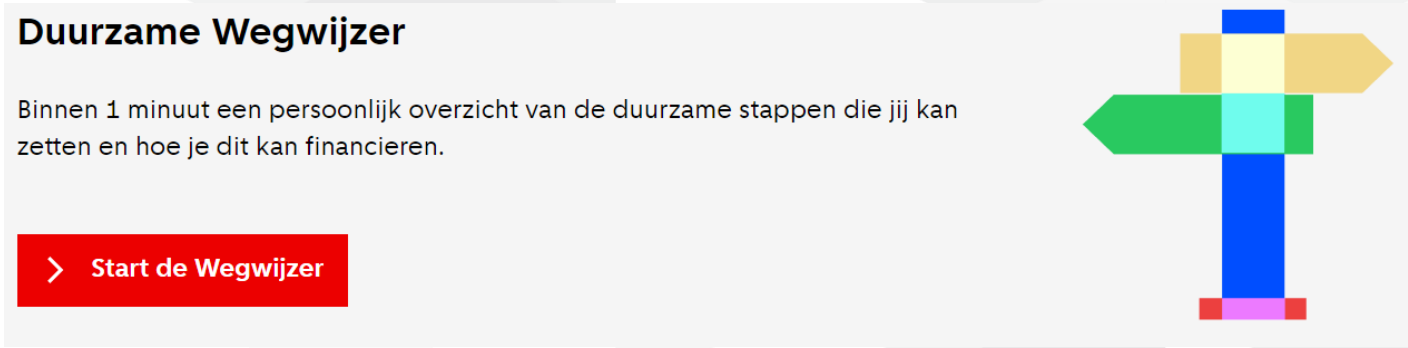
Citizen initiatives fostering

- Amsterdam has been European Innovation capital in 2016
- Some activities:
  - Amsterdam Smart City: an urban open innovation platform for change makers to meet, interact and collaborate, business oriented
  - Nieuw Amsterdam Klimaat: https://www.nieuwamsterdamsklimaat.nl/wat-kan-jij-doen



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Subsidy for sustainable initiatives

- This has for example supported the Schoonschip inhabitants in promoting and sharing the knowledge they acquired with their sustainable floating neighborhood

Subsidie Ruimte voor duurzaam initiatief

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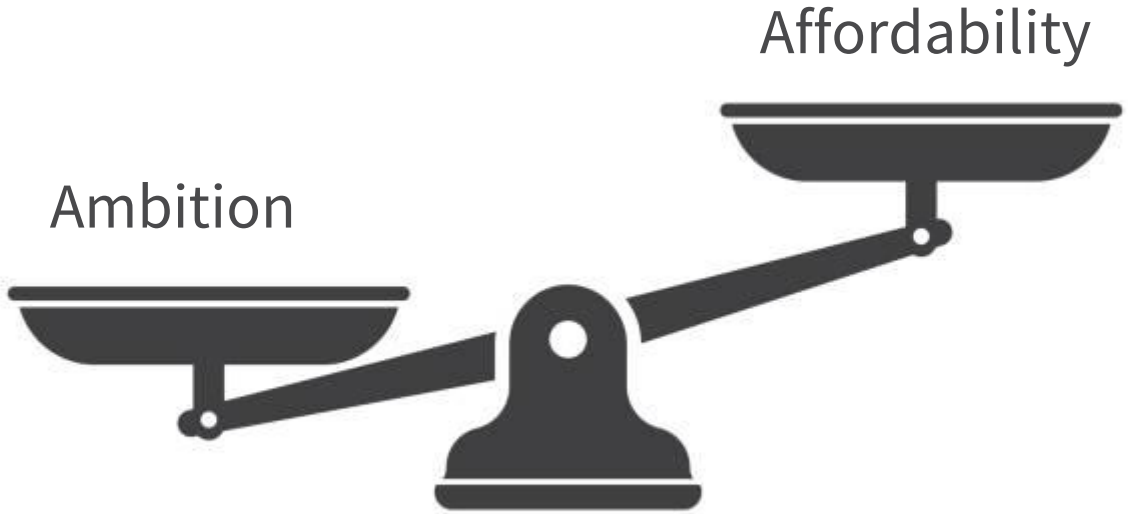
Tendering procedures

- Amsterdam considers putting additional sustainability requirements in tenders whenever the municipality has a ground position
- Examples
  - Poppies energy and circularity performance
  - Strandeiland: Sustainable and smart EV charging infrastructure



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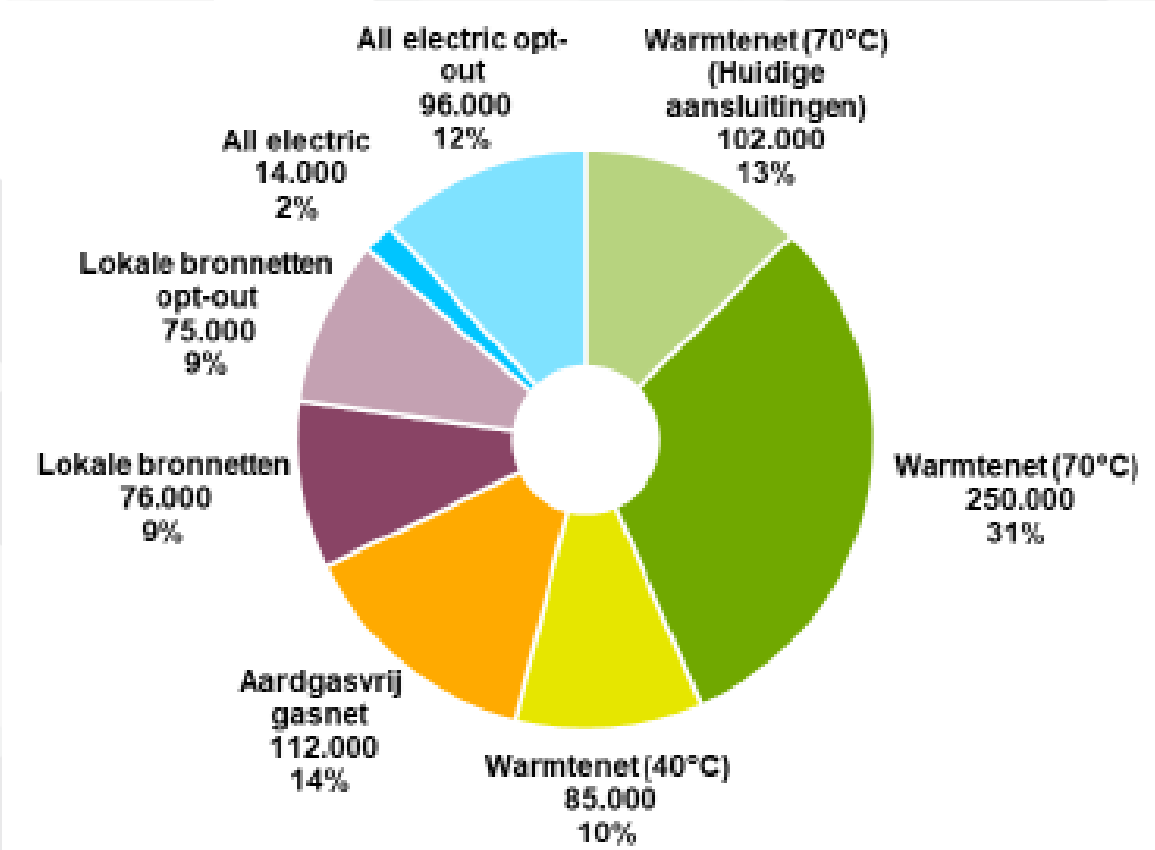
Heat transition approach (natural gas free)

- Based on transition vision heat
- WAM (making neighbourhoods natural gas free)
- Based on citizen consultation, natural moments for infrastructural and renovation measures, availability and feasibility of various alternatives, further neighborhood characteristics
- Drawback: process is slower than expected.



Heat options distribution in Amsterdam

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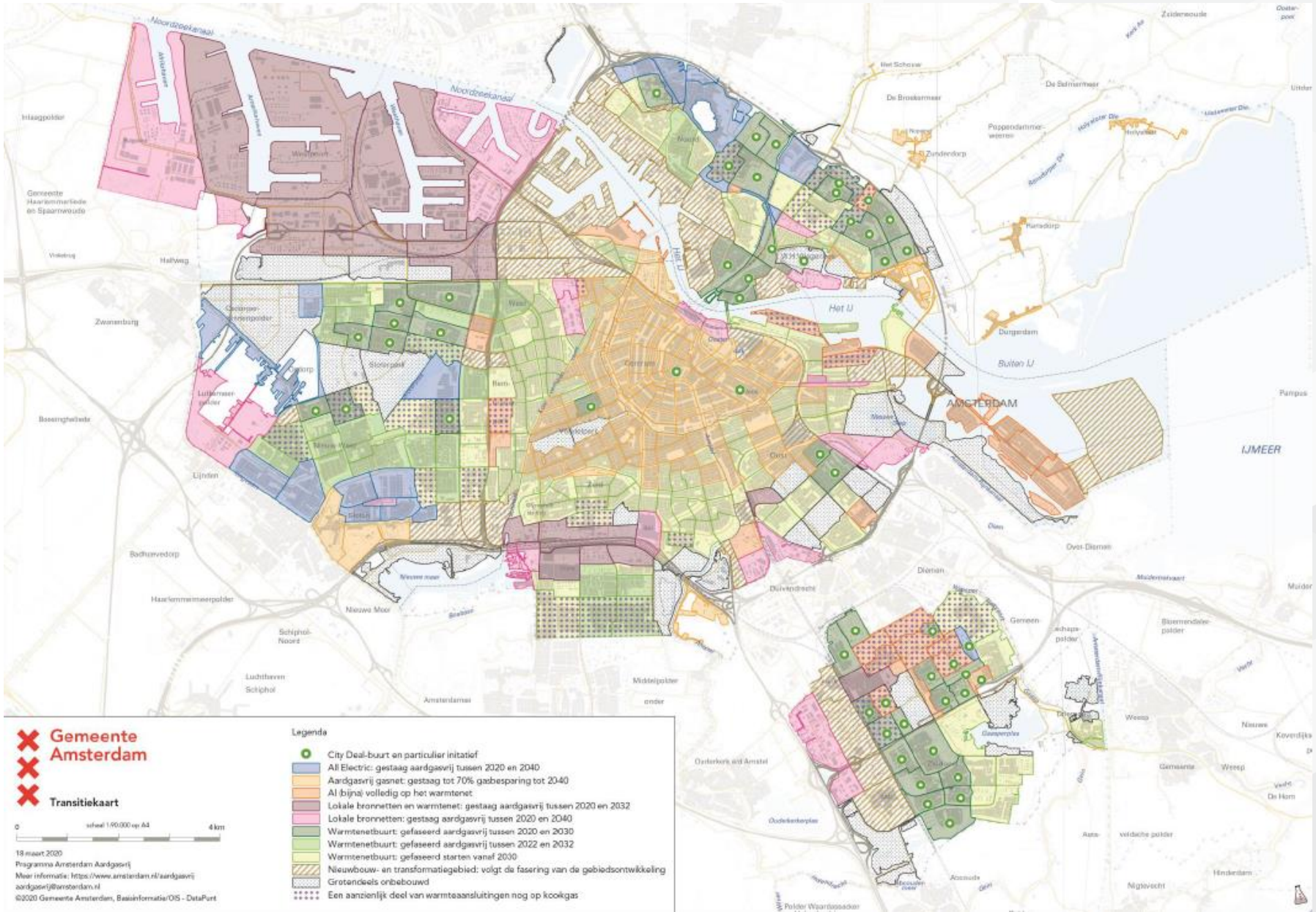
Heat transition map Amsterdam



Colors indicate heat options

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Main hurdles in acceleration for Amsterdam

- Pressure on sustainability requirements from the urgency to expand the building stock
- Reinforcement of the electricity grid to accommodate a more”electrical” society
- Integrated planning across departments

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Contact

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Municipality of Amsterdam

Thank You!

www.smartcity-atelier.eu

@AtelierH2020 AtelierH2020

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