

Neighbourhood consultancy centres for the adoption of low-carbon technologies by homeowners

Experiences from Dutch initiatives

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Energy transition challenges for Dutch municipalities

Dutch housing:

- 7,7 million houses
- 60% built between 1946 – 1992

Ambitions Netherlands (Dutch Climate Agreement):

- 2030: 1,5 million houses free of natural gas
- 2050: built environment is CO₂-neutral

Main management challenges:

- Policy management: Local authorities have to develop and realize a heat transition plan per district in collaboration with stakeholders
- Portfolio management: Renovation rate has to increase from 1% to 3% per year and more 'deep' renovations are needed
- Communication management: Find a way to get 'behind the door': 93% of Dutch households have an individual heating system (gas boilers)



Source: RVO, 2019



Source: PAW, 2020



Triple-A

Awareness + Access = Adoption
of low-carbon technologies by homeowners

Duration: January 2017 – October 2021

Total budget: 5,297,095.30 €

(60% supported by ERDF via the Interreg 2 Seas programme)

Partners:

Delft University of Technology (NL)

City of Rotterdam (NL)

City of Breda (NL)

Kent County Council (UK)

City of Antwerp (BE)

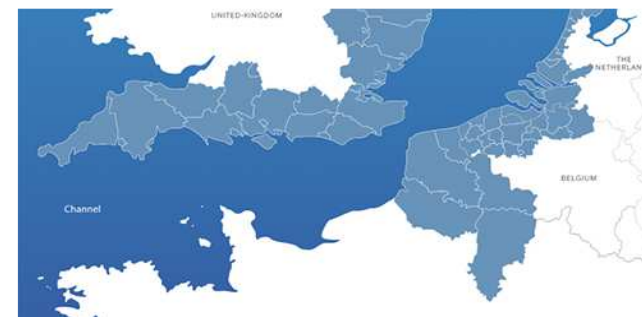
City of Mechelen (BE)

EOS Oostende (BE)

PSEE Hauts-de-France (FR)

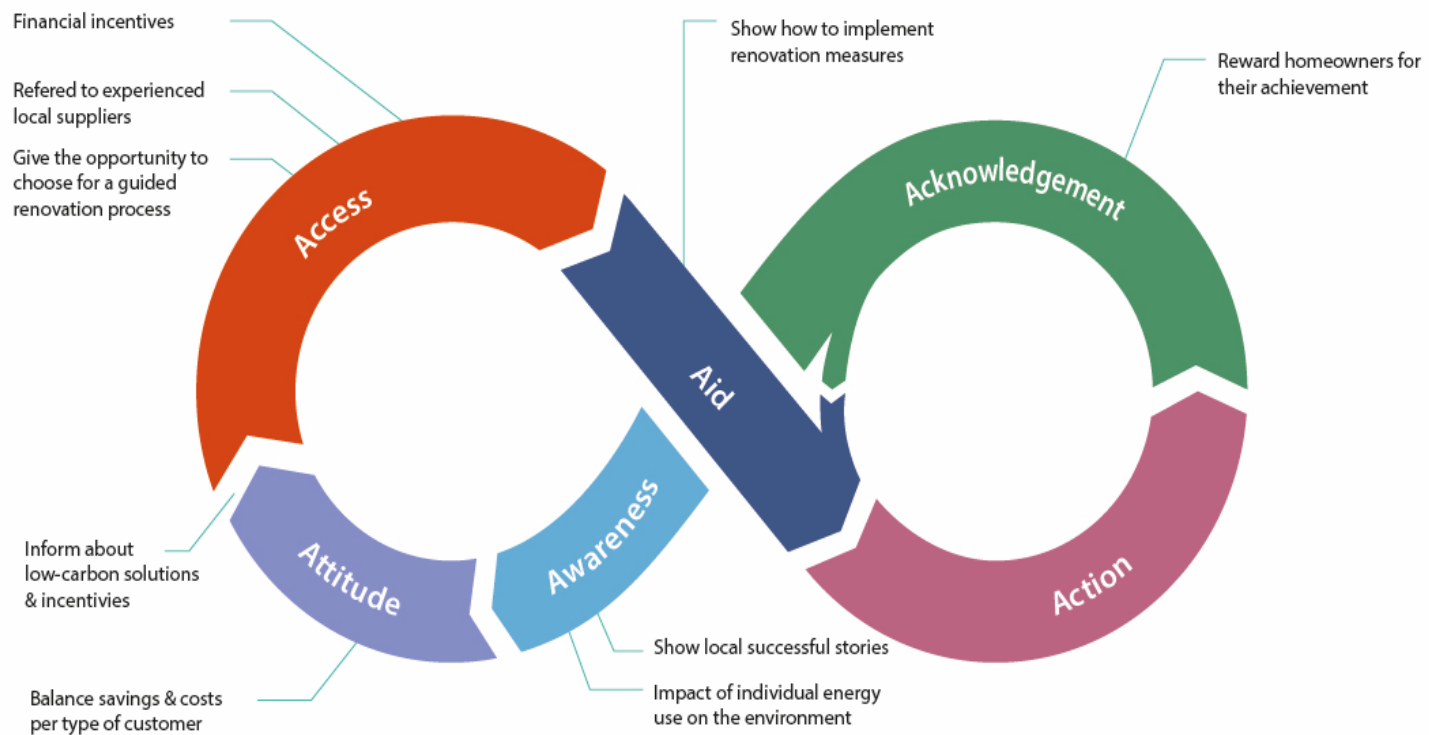
Ghent University (BE)

Fluvius (BE)



The Triple-A approach

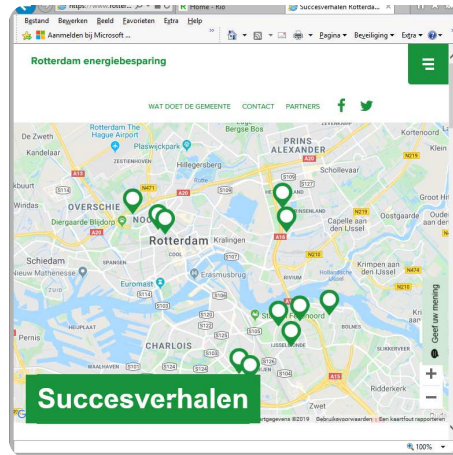
Connecting local authority activities to the homeowner renovation journey



The model explained: https://youtu.be/jo_TOxGn4K0

The Triple-A approach

*Web
Modules*



*Home
Energy
Monitoring
Systems*

*Consultancy
Pop-ups*



*Demo
Exemplars*

Reports, guidelines, hands-on recommendations, “get-started”:

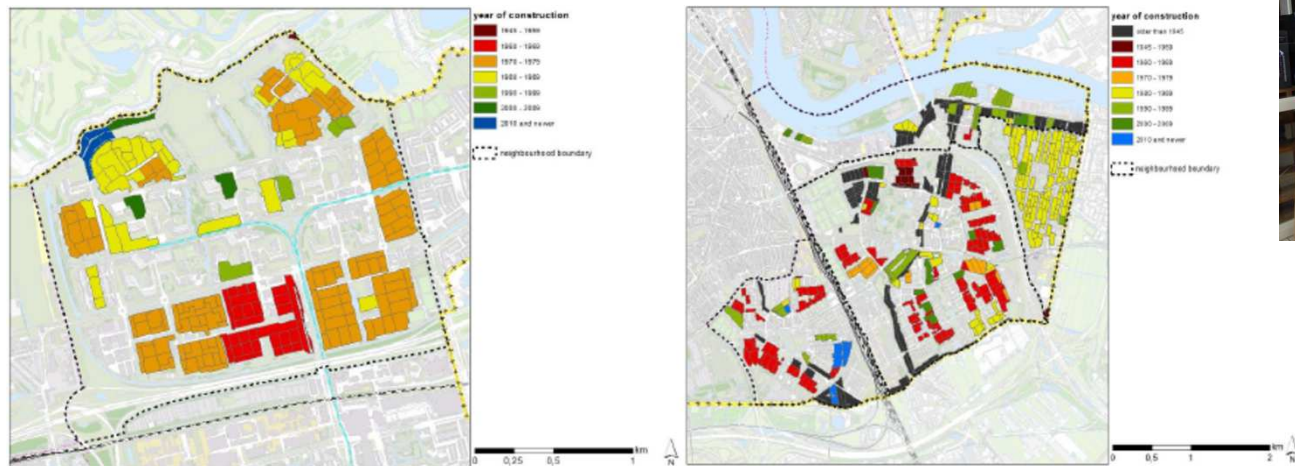
<http://www.triple-a-interreg.eu/>

Experiences with pop-up consultancy centres (Rotterdam)

Fixed longer-term in 2 focus areas:

Prins Alexander/shopping center Ommoord

IJsselmonde/ shopping center Keizerswaard



Ommoord



Keizerswaard



Source: A. De Groot, City of Rotterdam

Experiences with pop-up consultancy centres (Rotterdam)

| Pop-up initiative and location | Testing period | Estimated total number of visitors | Average number of visitors per hour | Number of visitors registered for follow-up | Share of registered visitors per total number of visitors (%) |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------|------------------------------------|-------------------------------------|---------------------------------------------|---------------------------------------------------------------|
| Book shop Donner, city center, Rotterdam | open February-June 2016, 43 hours/week | > 1000 | 1 | 150 | 15 % |
| Koopgoot, city center (Beurstraverse), Rotterdam | open October-November 2016, 55 hours/week | ≥ 1000 | 2 | 75 | 7,5 % |
| Shopping center Binnenhof, Ommoord, Rotterdam | open March-June and September-December 2017, 12 hours/week | ca. 800 | 2 | 150 | 19 % |
| Sustainability Shop, Shopping center Keizerswaard, IJsselmonde, Rotterdam | From November 2018 – December 2019 (35 hours/week, later 20 hours/week) | ca. 1400 | 1 | 1200 | 86 % |

Experiences with pop-up consultancy centres (Breda)

Mobile unit, short-term on multiple locations



Source: C. Vos, City of Breda

Experiences with pop-up consultancy centres (Breda)

| Pop-up initiative and location of the Greenhopper in Breda | Testing period | Estimated total number of visitors | Average number of visitors per hour | Number of visitors registered for follow-up | Share of registered visitors per total number of visitors (%) |
|------------------------------------------------------------|-------------------------------|------------------------------------|-------------------------------------|---------------------------------------------|---------------------------------------------------------------|
| Grote Markt | Opening 10/10/2018; 6,5 hours | 131 | 20,15 | 2 | 2 |
| Kasteelplein | 2018; 14 hours | 160 | 11,43 | 9 | 6 |
| IJpelaar | 2018; 19 hours | 127 | 6,68 | 15 | 12 |
| Ulvenhout | 2018; 22 hours | 121 | 5,50 | 37 | 31 |
| Boerderij Wolfslaar | 2018; 18 hours | 141 | 7,83 | 18 | 13 |
| Teteringen | 2019; 20 hours | 83 | 4,15 | 7 | 8 |
| Brabantpark | 2019; 16 hours | 60 | 3,75 | 7 | 12 |
| Hoge Vught | 2019; 18,5 hours | 103 | 5,57 | 6 | 6 |
| Prinsenbeek | 2019; 18 hours | 119 | 6,61 | 22 | 18 |
| Koepelgevangenis | 2019; 7 hours | 25 | 3,57 | 2 | 8 |
| Belcrum | 2019; 17 hours | 60 | 3,53 | 13 | 22 |
| Centrum | 2019; 17 hours | 92 | 5,41 | 6 | 7 |
| Wolfslaar | 2019; 15 hours | 78 | 5,20 | 8 | 10 |
| Bavel | 2019; 16,5 hours | 57 | 3,45 | 7 | 12 |
| Ginniken | 2019; 19 hours | 107 | 5,63 | 34 | 32 |
| Kasteelplein | 2019; 15,5 hours | 113 | 7,29 | 1 | 1 |
| Heksenwiel | 2019; 16 hours | 90 | 5,63 | 15 | 17 |
| Breda: TOTAL 2018 | 2018; 79,5 hours | 680 | 8,55 | 81 | 12 |
| Breda: TOTAL 2019 | 2019; 195,5 hours | 987 | 5,05 | 128 | 13 |
| Breda: TOTAL | 2018-2019; 275 hours | 1667 | 6,06 | 209 | 13 |

Experiences with pop-up consultancy centres

- Internal procedures can reduce effectiveness: follow-up of visitors is not always possible
 - Proposed and executed renovation measures are too often “quick wins”
 - Staff needs and opening hours are difficult to predict
-
- + Co-creation with cooperatives, citizens, non-profit organisations,.. is feasible
 - + The developed pop-ups have already been “copied” by multiple local authorities

Conclusion

- Pop-ups in specific target areas can raise awareness and attract and activate local residents to seek consultancy for their renovation
- There is no “one size fits all” solution: both short-term mobile and longer-term fixed pop-up models can be suitable
- It is important to analyse the target areas, the customer segments and channels they use, the building typologies
- Operational effectiveness of pop-ups can be influenced by location, timing and weather, staff training, related events, co-creation effort

Acknowledgements

project partners...



Gemeente Rotterdam



with financial support of...



Supporting:

