



The value of open information to waste collection

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Description

The city as an ecosystem of waste.

Households and companies producing waste. The council and commercial parties collecting. A flow we want to understand, facilitate and optimize.

Amsterdam: underground/overground containers.

The city is an anonymous and diverse environment with inherently misuse and pollution.

Resources needed

- **Container management**
 - To know where all containers are.
- **Weighing containers at collection**
 - To know how much waste was collected when.
- **(Some) Sensors**
 - To know the amount of waste more accurately
 - And in locations where prediction is bad
- **Digital planning of waste collection**

Waar laat ik mijn afval

Vul hieronder uw adres in. Dan ziet u wat u moet doen met uw afval.

Vul uw adres in

Wethouder Abrahamspad

Huisnummer
+ toevoeging

5



Informatie Wethouder Abrahamspad 5



Restafval

Hoe In de container voor restafval

Waar [Kaart met containers in de buurt](#)



Groente-, fruit- en tuinafval (gft)

Hoe In rolcontainer

Ophaaldag Dinsdag

Buiten Maandag vanaf 21.00 uur



Grof afval

Ophaaldag Dinsdag

Buiten zetten Maandag vanaf 21.00 uur tot dinsdag 07.00 uur

Waar Aan de rand van de stoep of op de vaste plek



Papier en karton

Hoe In rolcontainer

Implementation - (virtual) sensors

Locatieomschrijving
Nabij Weesperzijde 48, 1091EG Amster...

Cluster ID
122306.785 | 485395.46

Actief ☒

Straat
Weesperzijde

Huisnu...
48

Toevoegi...

Huisletter

Postcode
1091EG

Plaatsnaam
Amsterdam

Gemeentenaam

Provincienaam

Stadsdeel
Oost

Gebied
DX13

Wijk
Weesperzijd

Buurt
Weesperzijd

Opmerkingen



Papier

16%

Container(s): 1
Capaciteit: 4,00 m3
Laatste weging: 145,00 kg
Laatste weegdatum: 18-05-2021
Laatste lediging: 27-05-2021
Verwacht vol op: 28,72 kg/dag
Vulsnelheid:

Restafval

30%

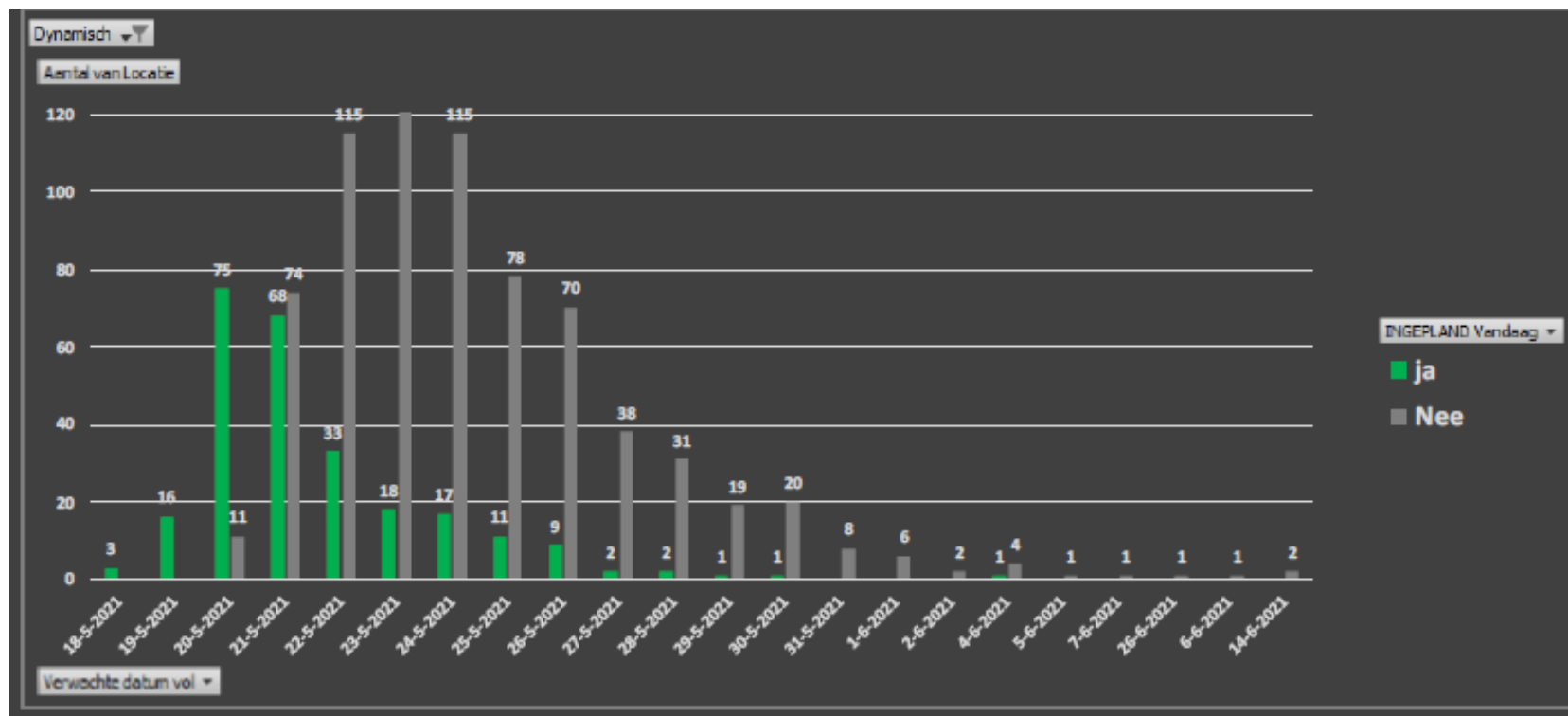
Container(s): 2
Capaciteit: 10,00 m3
Laatste weging: 630,00 kg
Laatste weegdatum: 13-05-2021
Laatste lediging: 18-05-2021
Verwacht vol op: 22-05-2021
Vulsnelheid: 171,23 kg/dag

Glas

100%

Container(s): 1
Capaciteit: 3,50 m3
Laatste weging: 370,00 kg
Laatste weegdatum: 03-05-2021
Laatste lediging: 19-05-2021
Verwacht vol op: 70,89 kg/dag
Vulsnelheid:

Implementation - planning



Evidence of success

Amsterdam has an open and real-time data portal for waste. Stakeholders & suppliers easily derive necessary data.

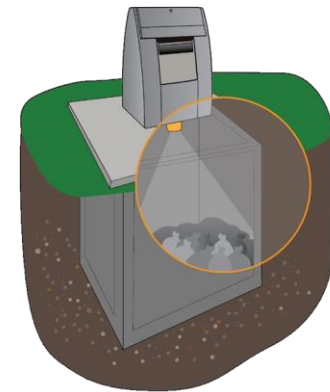
- **Households**
- **Containers**
- **Collections**
- **Sensors**
- **Complaints**
- **Local collection calendar**
- **...**

Overground containers are less efficient

Overground containers overflowed much more frequently. Why?



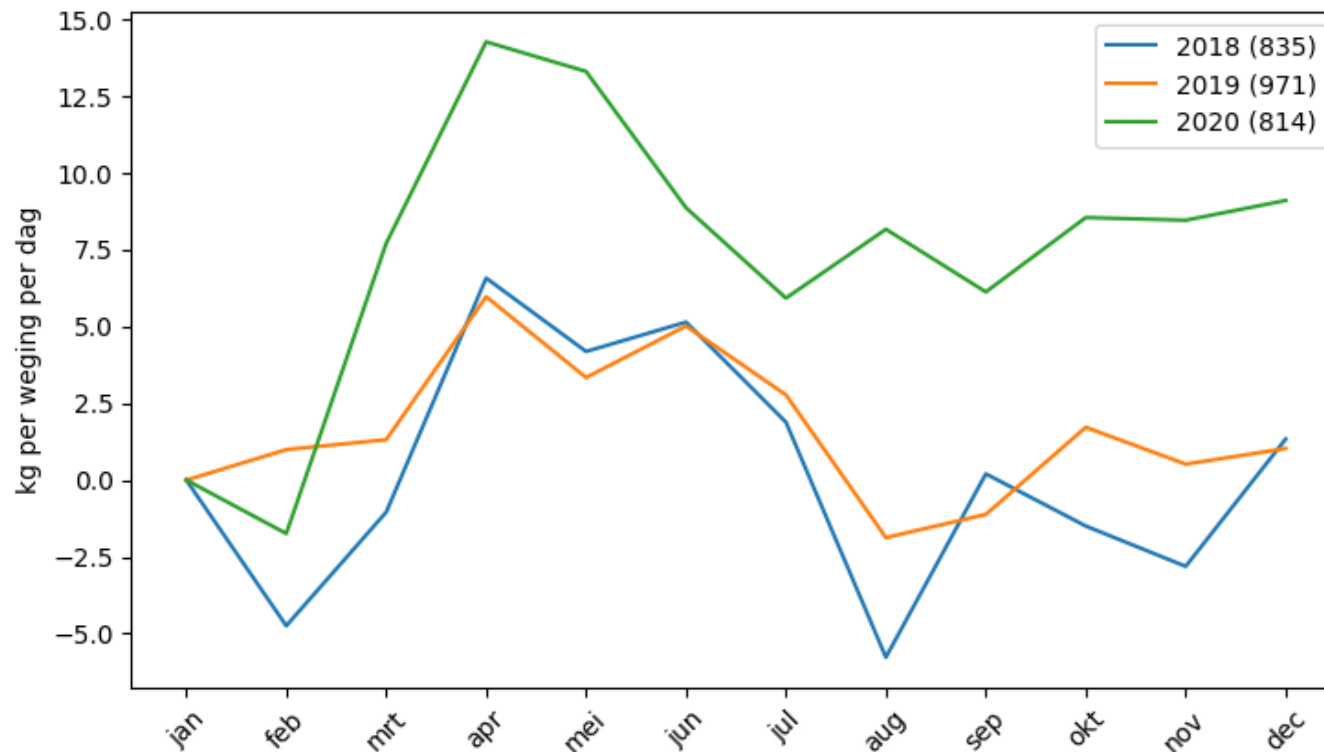
Weighing at collection: volume in *kilogram*



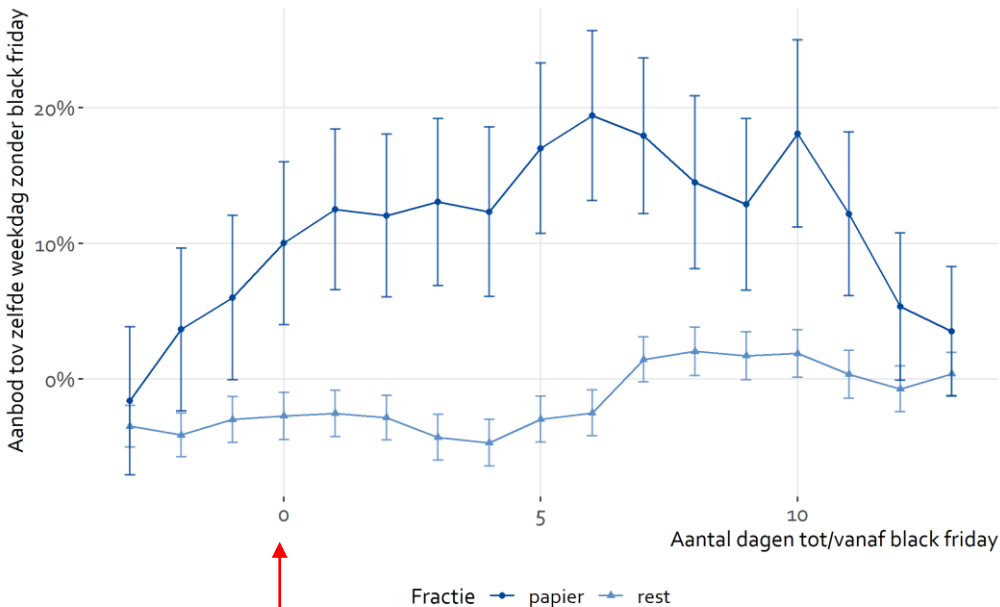
Sensors: volume in *cubic meters*

Density: *kg/m³*

Corona increased household waste

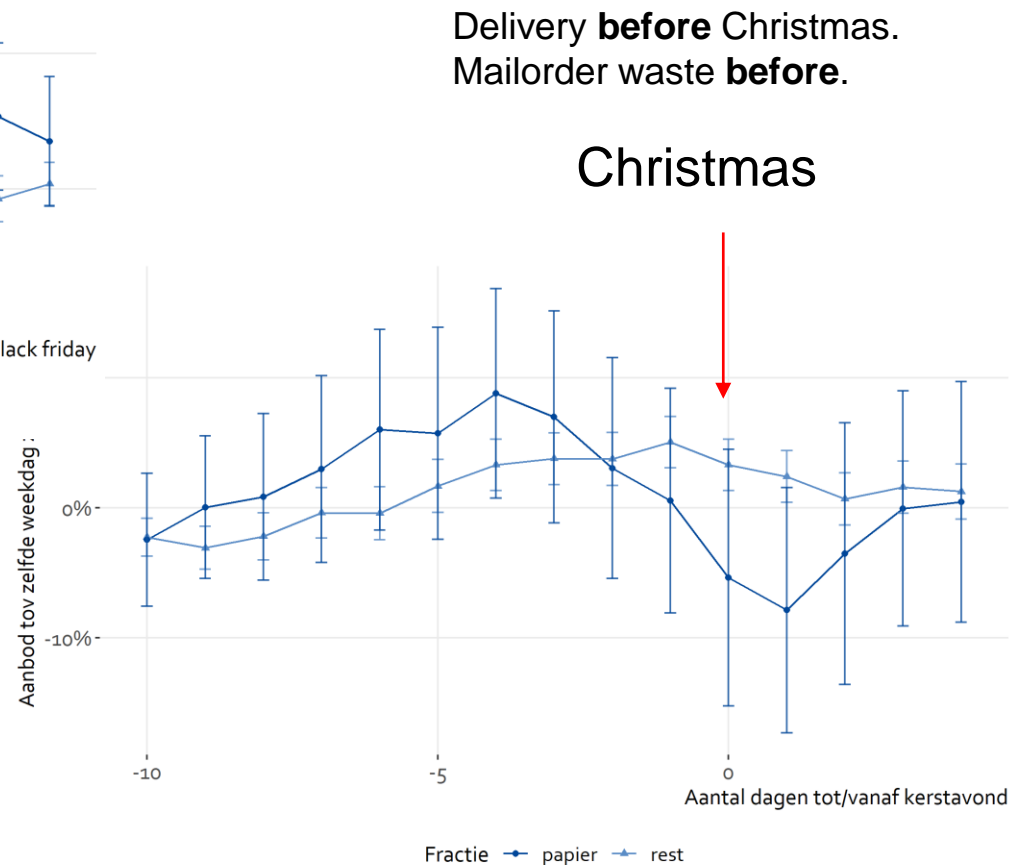


Seasonal patterns

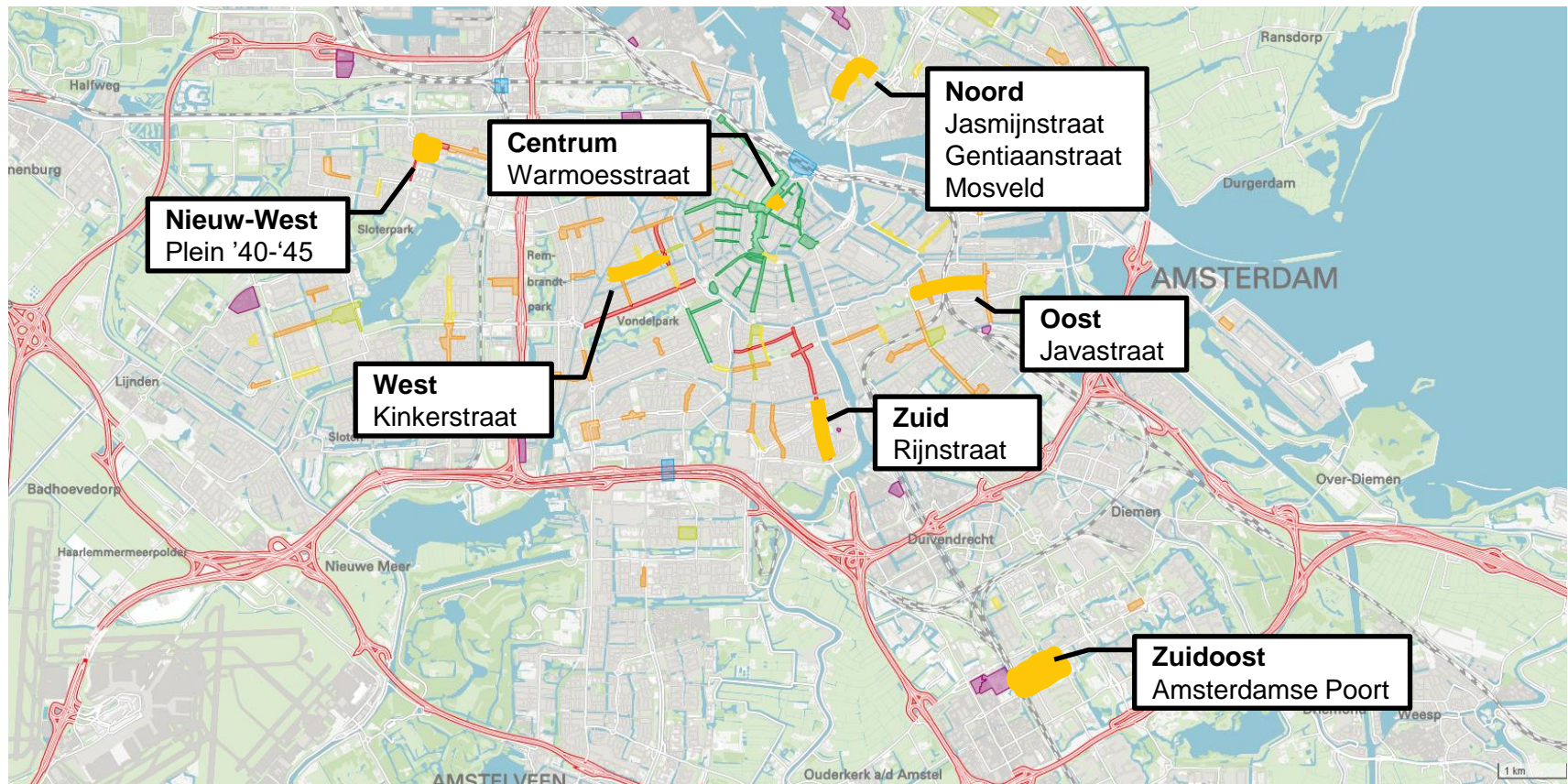


Black Friday

Delivery **after** Black Friday.
Mailorder waste **after**.



Misuse of household waste facilities



Lessons Learned

To manage the waste flow,

A rapid response approach (with use of sensors, prediction and visual recognition to focus collection efforts) has not been successful yet.

Day-to-day collection for now remains regular, but...

Lessons Learned

To manage the waste flow,

Understanding behaviour from data works really well and opens the way to find suitable and tailored alternative collection methods.

Improving our understanding enables us to facilitate and optimize the city's waste flow.

It improves decision making.



WINPOL
Interreg Europe



European Union
European Regional
Development Fund

Thank you

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www.interregeurope.eu/winpol