



Plastic pellets in the rivers

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www.zwerfafval.rws.nl



Motive



2018

Motion plastic soup surfer accepted



2019 - 2021

Program microplastics



2022 - 2025

Program plastic litter in rivers

First indicative results

Microplastic

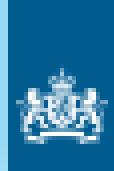
- Through Lobith and Eijsden comes 2,5 million kg microplastics in NL
- Measured microplastics concentrations (**g/kg**) are high, in comparison with other contaminants (**mg** of **µg/kg**)

Macroplastic

- Riverbanks: 100 meter: 65 pieces (median); outliers 900 pieces
- Floating: 80 pieces a hour (median); Maastricht 250 pieces a hour

2024: Start trendmonitoring micro- and macroplastic in rivers





Plastic zwerfafval in rivieren

Vanuit de plastic keten komen plastics in onze rivieren terecht. Dit is wat producenten, gebruikers, beheerders en beleidsmakers kunnen doen om zwerfafval in rivieren te verminderen.

Producenten

- Plasticvrij produceren
- Good housekeeping
- Consumenten voorlichten over plastic in producten
- Consumenten stimuleren tot het juiste weggooi-gedrag

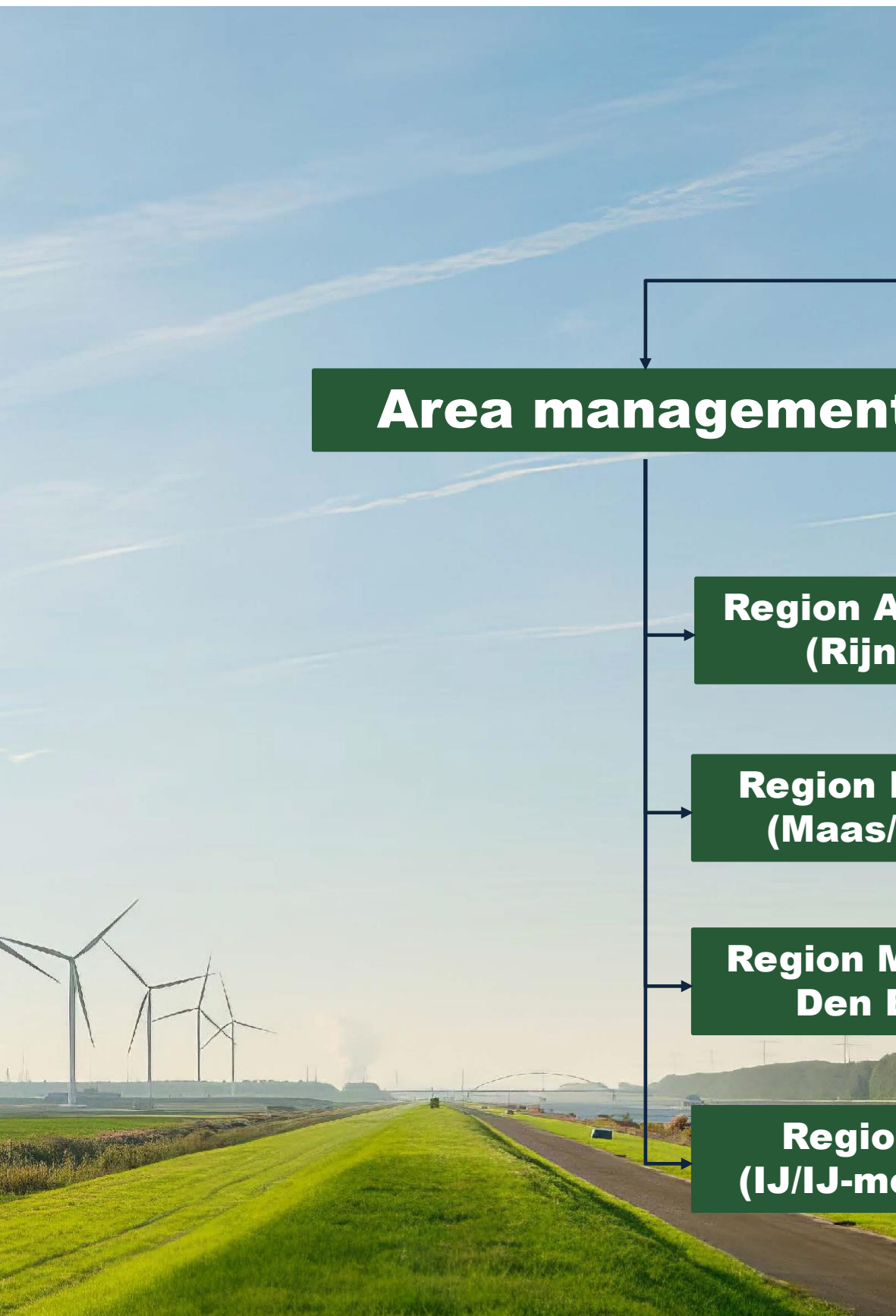
Gebruikers

- Zwerfafval opruimen
- Eigen afval mee naar huis nemen
- Afval in water/op oever melden bij beheerder
- Uitdragen naar andere gebruikers dat een schone omgeving belangrijk is

Beheerders en Beleidsmakers

- Doelen en normen stellen
- Regelgeving naleven, vergunningen verlenen en handhaven (bijvoorbeeld: SUP, UPV en statiegeld)
- Monitoring van zwerfafval in en rondom rivieren
- Kennisdeling
- Gedragsbeïnvloeding en communicatie
- Opruimen





**Program plastic litter in rivers
2022-2025**
Ambition: rivers free of plastic

Area management

Region Arnhem/Nijmegen
(Rijn/Waal/IJssel)

Region Hollandse Delta
(Maas/Merwede/Lek)

Region Maastricht/Venlo/
Den Bosch (Maas)

Region Amsterdam
(IJ/IJ-meer, N-Z kanaal)

Producers

Sanitary litter

Companies

Pellets

Shipping industry

Construction sites

Industrial estates



Monitoring

Development measuring methods| 2020 – 2023-24

Start trend-measurement banks- surface: 2024

Start trend-measurement water column: 2025



Examination Origin plastic pellets in surface water

Locations where plastic pellets are found



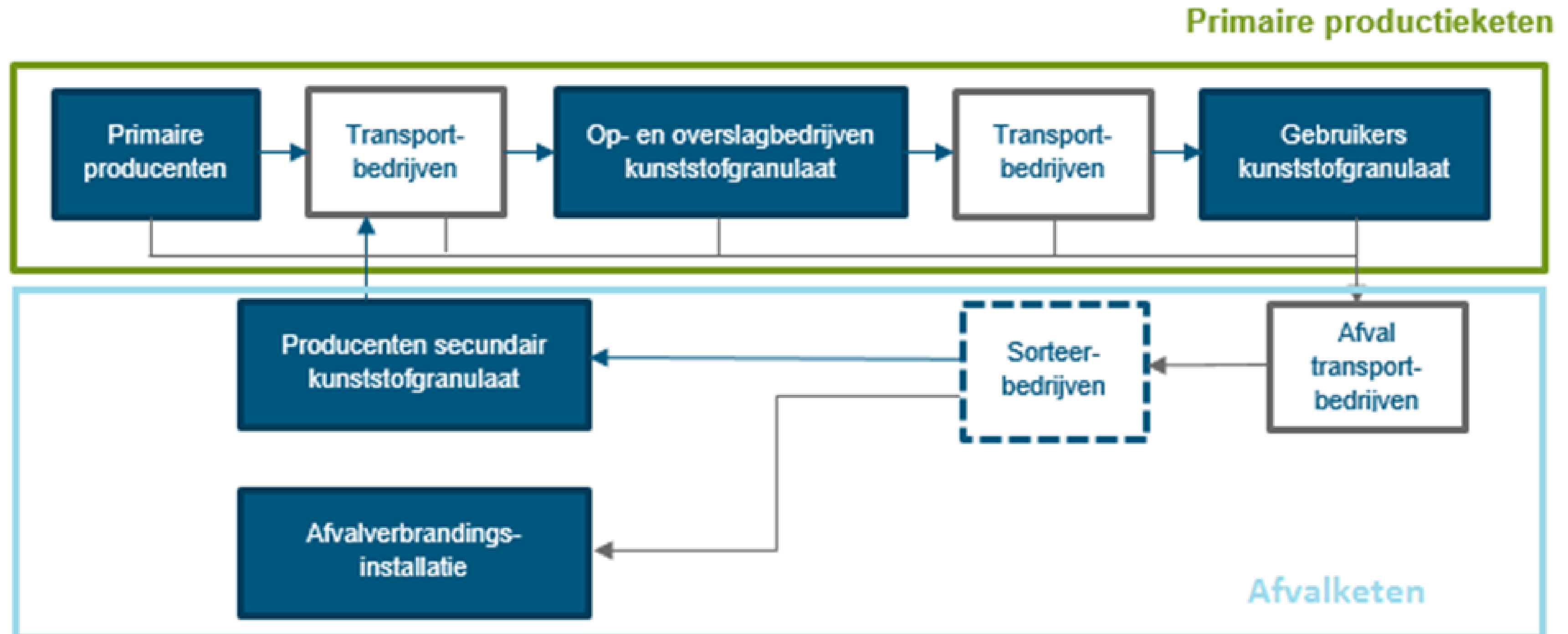
Yellow – location where pellets are found
Red – Hotspot (> 400 pellets per square meter)
Grey – Plastic producer and/or distribution

Examination origin plastic pellets

- Which companies work with plastic pellets and where are the spills?
- How many spills are in the Netherlands and what is the estimated amount?
- Which links in the chain are there?
- Which legal measures are there against spills?



Identification companies



Scope plastic pellet spills

- No validated measurements of plastic pellets in rivers, waterways and lakes
- Companies have no measurements of plastic pellet spills
- Eunomia-study, not representative for the Netherlands

Spill of plastic pellets - activities

- **Big:** with the transport of plastic pellets in (big) bags and containers
- **Average:** cleaning of spill locations, repackaging damaged packaging, (un)loading silos, storage of plastic pellets in big bags
- **Little:** remaining activities
- Most situations with spills are inside a facility and can be controlled by management measures
- Spills outside a facility are difficult to handle and results most likely in a spill to the environment

Measures against spills

- **Conscience and education** of personnel is crucial in preventing spills of plastic pellets
- **Regulations** No direct measures, only duty of care (zorgplicht in Wet Milieubeheer) and 25 meter rule (Omgevingswet). Possibilities in different Dutch laws (Besluit activiteiten leefomgeving, Wegenverkeerswet en/of de Wet verontreiniging oppervlaktewateren)
- **Management measures** overview of measures against preventing or reducing spills of plastic pellets

Actions and developments

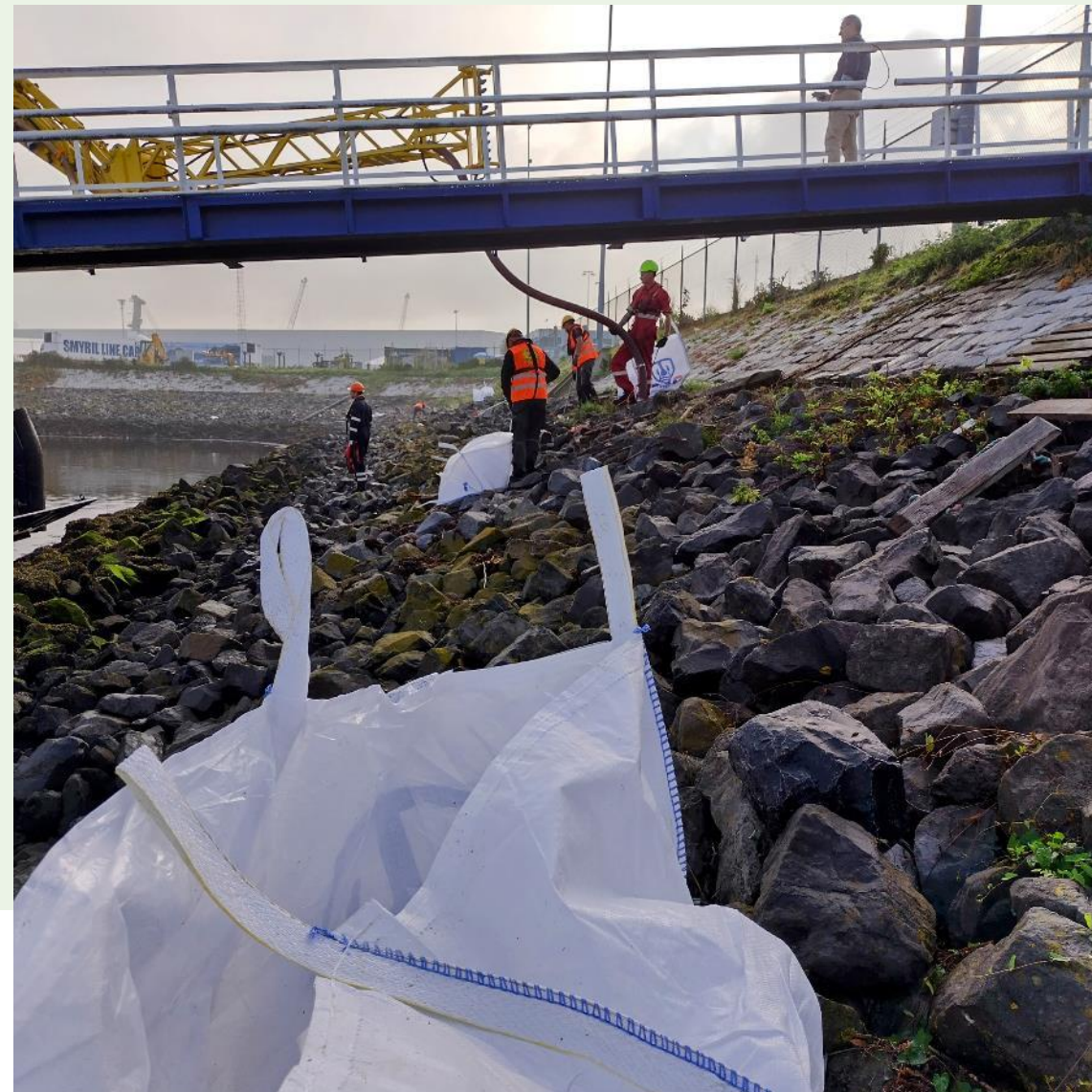
- **Communication and behavioural change:** Checklist 'good housekeeping' and duty of care (zorgplicht).
- **Monitoring:** 2024 Start trendmonitoring plastic pellets riverbanks
- Research possibilities in adjusting **laws and regulations**
- Involve **stakeholders:** NRK, Plastics Europe, DCMR, TLN, environmental services, local & port authorities and companies
- Proposal **EU:** among others registration and good housekeeping

What can we do together

- **Share knowledge and experience** about measures, results of monitoring (amount, composition, origin of the plastic pellets), implementation EU-proposal
- Harmonisation **monitoring**; protocol

Thank you for your attention

Questions?



If you have any ideas/suggestions, please contact me at bob.smit@rws.nl