



**MEER MET
MINDER
PLASTIC**

On the road to a circular plastics economy in the Netherlands

Working group Reduce & Reuse

Progress report, June 2021

Author:

Stijn Bartelink (Enviu), working group coordinator

Many thanks go out to Jennifer Meerding and Miriam van de Kamp of the Dutch Government for their valuable feedback and ideas in the realization of this report.

www.meermetminderplastic.nl



Contents

- Working group reduce & reuse: context and ambitions 3
- Project overview 4
- Findings & learnings 5
- Spotlight on project Loop-a-Cup 8
- Spotlight on project Reusable Food Containers 12
- Spotlight on project Smart Supermarkets – Zero Waste 15
- Spotlight on project Closing the B2B chain 20
- Appendix 1: overview of working group participants 25
- Appendix 2: related projects 27

Context and ambitions

- In Plastic Pact NL, launched during spring 2019, frontrunners in the Netherlands have committed to a shared ambition of more sustainable production and use of **plastic products and packaging**.
- This commitment translates into 4 concrete goals for 2025:
 1. 100% of plastic packaging and single-use products **will be reusable** if feasible and meaningful, but at least 100% recyclable.
 2. **There will be 20% less use of plastics for single-use products and packaging.**
 3. A minimum of 70% of single-use plastic products and packaging will be recycled with high-quality.
 4. All single-use plastic products and packaging contain on average at least 35% recycle.
- In the working group Reduce & Reuse, collaborative innovation projects are carried out to work towards a combination of the first and the second goal: Products will be reusable, if feasible, and there will be 20% less use of plastics for single-use products and packaging.



WG Reduce & Reuse: project overview

- Members of the workgroup reduce & reuse currently work on implementation of innovative pilot projects in 4 key domains.
- Main goals of these projects are to deliver operational reuse systems with potential for (inter)national scaling. Furthermore, the projects aim to deliver insights into the best fitting government policies and the associated business and impact potential.

Loop-a-Cup



Reusable Meal Containers



Smart Supermarkets: Zero-Waste



Closing the B2B chain



Key findings in working group facilitation (1/2)

- Achieving key results, such as the implementation of the pilot projects, is **dependent upon** commitment and priority given by **individual** working group **participants**.
- **In practice**, commitment to action **differs per participant**, for which each has its own reasons.
- The assumption is that **opportunities exist** for more effective ways to **attain impactful results** in the working group's projects.
- Some examples of **measures to improve** the working group: ask for a **participation fee**, ensure **project financing** and make **sharing of learnings** and best practices mandatory within the group.



Key findings in working group facilitation (2/2)

- Besides the 4 core projects, we do see a lot of promising initiatives of other working group members arise.
- These activities have been explored and discovered through individual interviews with working group members around their ambitions.
- Firstly, this leads to inspiring updates and conversations in working group meetings, encouraging others to take action.
- Secondly, this brings the potential for shared learnings and for synergies with core projects – resulting in a more vibrant community that leads the way for the wider market.
- More can be read about related projects in Appendix 2 of this progress report.



Lessons learned

- COVID19 and 'the virtual world':
 - Working virtually leads to challenges for stimulating and creating the experience of a vibrant community.
 - Reduce and reuse had lower priority in 2020 for various market parties, due to a focus on becoming COVID compliant (retailers) and reduced sales volumes (catering industry).
- Sharing of insights and learnings depend upon (interests and priorities) of individual organizations.
 - Willingness to share learnings from projects is not a given.
 - Commercial interests of some parties make them hesitant to be open to competitors.
- Although there is a reuse target in place, this is not a mandatory one.
 - This brings the risk of reduction approaches that do not solve but shift environmental problems.
- There is no independent implementation partner for pilot projects.
- Participants need to organize and ensure project funding themselves.

3. Spotlight on Project Loop-a-Cup



Project Loop-a-Cup | Results thus far

- In the second half of 2020, Paardekooper started out on a mission to innovate its business model from selling disposable packaging to delivering service models including reusable packaging.
- Having multiple packaging streams within its scope, **replacing single-use cups by reusable cups has been the first** line to actually start testing with in practice.
- Firstly, a lightweight, durable and sustainable polypropylene (PP) cup has been developed for a reuse system with cafés in the open environment.
- In november and december this cup has been tested as part of a reuse system **in a real-life pilot** with 2 cafés in the city center of Utrecht in collaboration with **Mission Reuse**¹ – a transition program of Enviu, Natuur & Milieu and Recycling Network.
- After the pilot, a **partnership has been set-up with PackBack**: an enabler of reuse systems from the Netherlands, whose platform has a perfect fit for the open, urban environment.
- Moreover, a proposal for a 'LIFE integrated projects' subsidy has been **submitted at the EU**, together with PackBack and Mission Reuse, to fund activities related to technological development, nationwide scaling and driving market development.



 Koninklijke
Paardekooper
Group


PACKBACK



Loop-a-cup



Pilot Summary

Testing of a reusable cup-sharing service for on-the-go drinks with cafés in the city center of Utrecht.

Key Issue

Annually, 3 billion single-use coffee cups (and even more when other drinks are included) are disposed in the Netherlands. This leads to a variety of environmental issues, including excessive litter and unsustainable waste handling practices such as incineration.

Plastic flows

Single-use cups for out-of-home drinks – potentially (in the near future) also PET-bottles for beverages.

Potential impact

- * Reduction of plastic waste from disposable cups & bottles
- * Reduction of CO2 emissions

Solution

A system that delivers end-to-end operations of a network of reusable cups, including hardware (cups), software, incentive schemes and return logistics (smart drop-off possibilities, recycling damaged cups (closed loop)).

This system has been validated on a local level and is ready for scaling

Pilot lead

Dorine Koopmans (Paardekooper)
dorine.koopmans@thelcacentre.com

Partners involved

Enviu

Participants interested

NS

Current status

Value proposition has been validated in 1st pilot in Utrecht Partnership with software provider PackBack has been set up
 Pilot for business model validation is running in Rotterdam

Relation to other projects

The lessons learned in this pilot could easily be expanded to other types of reusables, e.g. for cold drinks, for food (to-go and meal delivery) and other settings, such as office buildings (with a closed loop system) or public transport systems.

Next steps

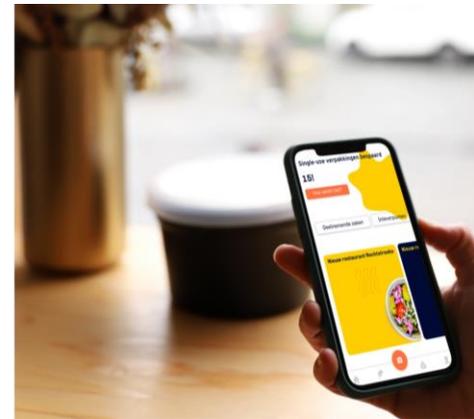
Test model in a small-scale pilot. Commit corporate partners to enable a larger scale pilot in, and to scale up the Proof-of-concept to other areas in the Netherlands.

Needs

Strategic collaboration opportunities with national coffee store chains and beverage brands.
 Learnings about best practices for centralized return logistics and sanitization

Project Loop-a-Cup | What's next

- Before this year's summer, 3 key activities will be carried out as part of this project.
- Firstly, a pilot in Rotterdam will be carried out where the PackBack application will be introduced and through which **viability of a profitable business model** will be tested.
- Secondly, improved design of the cup will be developed and tested with target segments.
- Thirdly, an action plan for communications will be developed to support cafés with implementation and marketing this system to their customers.
- In July, the next phase will start. The system will be rolled-out to a large and continuously growing number of clients in the Paardekooper network **across the Netherlands**.



Koninklijke
Paardekooper
Group



4. Spotlight on Project Reusable Food Containers

Reusable Food Containers



Pilot Summary Key Issue

Testing of a reusable food container system for meal delivery.

The meal delivery market is growing rapidly. Restaurants use different types of single use packaging products & materials (plastic/ compostable / mix materials) and create a lot of waste. This pilot ultimately aims to reduce plastic waste from food containers and to offer a sustainable future-proof solution.

Solution:

A complete system for reusable food containers: packaging, software, drop-off facilities, washing/sanitizing, return logistics, recycling options.

To make the solution work we need:

- Commitment local entrepreneurs
- Integrate learnings from other pilots, such as Take Back Box, about consumers and providers preference to find the right model and evaluate the system.

Pilot lead

Dorine Koopmans (Paardekooper)
dorine.koopmans@thelcacentre.com

Current status

A partnership with software provider PackBack has been set up
Currently we are in the process of finding and selcting the best containers
Also, we're awaiting the result of the current pilot with cups.
Based upon these learnings, this model is planned to be piloted in june 2021.

Relation to other projects

The lessons learned in this pilot could easily be expanded to other types of reusables.
Also, the learnings are applicable to other participants' projects in the area of take-away and delivery of food.

Next steps

Select best containers in may 2021
Execute pilot as of june 2021

Needs

Pilot partners who like to join the new concept.
Learnings about best practices for centralized return logistics and sanitization.

Project Reusable Food Containers | Results & what's next

- The project Reusable Food Containers has quite a bit in common with project Loop-a-Cup, as **meal containers are the second packaging format** on project lead Paardekooper's internal roadmap for implementing reusables.
- Therefore, Paardekooper's recent closing of a **partnership with PackBack** can also be considered **an important step** in this project.
- Also, the recent proposal for a 'LIFE integrated projects' subsidy of the EU that was submitted **applies** to the advancement and scaling of a system for **reusable meal containers** in the open environment – next to reusable cups.
- **Testing** this system in practice will be done **with a pilot in the summer of 2021**, but not before the first learnings are in from the cups pilot with PackBack.
- In preparation of a real-life pilot, time will be invested to **source the best possible meal containers** for deployment in the system.
- There are **numerous interesting other projects in this domain** in the Netherlands, 3 of which are (co-)initiated by working group members ISS Catering Services, Enviu and Ozarka.





5. Spotlight on Project Smart Supermarkets, Zero Waste

Project Smart Supermarkets | Zero Waste

Results thus far

- In the second half of 2020, project lead SupZero has extensively explored possibilities with Dutch supermarkets to set up a pilot and test smart refill solutions as an alternative.
- Such systems can, combined with reusable packaging formats, be a waste-free alternative for products such as non-perishable food that is currently wrapped in single-use plastics.
- If implemented correctly, its impact potential is huge as it reduces both primary, secondary and tertiary single-use packaging throughout the complete supply chain.
- Although international results are very promising, reusable systems are pretty new in the Netherlands. We find that **putting such systems into practice proved a step too far at the moment for Dutch supermarkets.**
- After exploring alternative pilot opportunities in Q1 2021, **working group members ALDI and LIDL** indicated that they **need more *insights*** into the desirability and feasibility of (the more complex, yet promising) reuse solutions, **before they are ready to implement** such solutions in their stores.
- Therefore, **ALDI, LIDL, Utrecht University, SupZero and Enviu** have taken the initiative to set-up a **research project** that aims to **provide insight into the feasibility and potential of reuse systems for supermarkets.**



Research project | Feasibility and potential of refill systems for supermarkets

Research questions

- Which products are most feasible for refill?
- Where can we achieve the most plastic reduction?
 - What is the current SUP volume per category?
 - What reuse solution should be implemented to get best LCA outcome?
 - *To what extent we believe consumer behaviour can be changed for good?*
- Which refill solution should be selected for implementation?

Corresponding activities

- Analysis of worldwide best-practices for discounter formulas (desk research & 5-10 interviews)
- Analysis of internal data regarding SUP volumes
- Use the LCA Tool of the knowledge institute for sustainable packaging (KIDV)
- Worldwide scouting of best-practice reuse innovations for product categories where refill is most suitable

Project Smart Supermarkets | Zero Waste

What's next?

- Going forward, Utrecht University will take the necessary steps internally to secure the right resources for this project.
- The idea is that a dedicated student of the MSc. in Sustainable Business and Innovation will be selected to carry out the research project.
- ALDI and LIDL will aim to devote the required resources needed to organize and analyze internal data that is relevant to this project.
- The research project is aimed to start in september 2021, the beginning of the new academic year.
- The envisioned project will run throughout the fall semester of the academic year of 2021/2022.
- In the months preceding the research project, Enviu and SupZero will organize a focused inspiration session for supermarkets in the Netherlands in which international reuse cases will be presented and discussed.



Universiteit Utrecht



6. Spotlight on Project Closing the B2B Chain – ReBucket



Project Closing the B2B Chain

Results thus far

- Workgroup members Dijkstra Plastics, Enviu and KIDV have taken the initiative to explore opportunities for reuse of *sauce* buckets in the Netherlands.
- Preferred application is a system where these buckets are sanitized, transported and refilled with (the same) sauce by brand-owners again.
- In Q1 2021, 2 ideation sessions have been organized, with the goal of thinking through a business concept for delivering this service.
- Outcome of the sessions is twofold:
 - We have first, thought-through understanding of how such a service should work in practice.
 - Reuse of these buckets for the same purpose (refill with sauce) is not yet feasible in practice in the Netherlands.
- Steps have been taken to explore alternative applications for reuse of sauce buckets, such as refilling it with paint or residual flows.
- DeClique, a circular startup in Utrecht, has shown interest to use these buckets to pick up B2B residual flows – and reuse them multiple times afterwards.
- Currently the fit of these buckets for the applications of DeClique is being tested.



Closing the B2B Loop: ReBucket

A mission to reuse buckets in B2B chains.



Pilot Summary

In the B2B market a lot of reusable packaging systems are used already, such as pallets, crates, trays, etc. How can we build on this success for other packaging in different B2B market segments – such as buckets?

Key Issue

Replacing one-way packaging systems by reusable and refill systems, and reducing the amount of waste in the B2B market. A key issue of plastic waste in the B2B market is the lack of waste separation practices, resulting in unsustainable / harming waste processing such as incineration or landfill. Current focus is on market segments food and catering (buckets), potentially extended to cleaning detergents (jerrycans), building materials (bigbags) and pallet foils.

Suggested solution:

Developing a system for reuse of sauce buckets, including a take-back system. To make this solution work there should be a clear pool management system., such as is now common with IBCs, pallets or beercrates.

Pilot lead

Stijn Bartelink (Enviu) – Stijn@Enviu.org

Partners involved/ interested

Enviu (concept testing (through pilots) & venture building)
KIDV (knowledge partner)
Dijkstra Plastics (Packaging producer)

Current status

Pilot exploration & preparation

Next steps

Customer testing with restaurants in Utrecht
In case of fit: pilot planning and execution will follow.

Needs

No needs at this moment.

Project Closing the B2B Chain | What's next?

- In May 2021, the first customer testing will take place with restaurants from the client network of DeClique.
- The findings will indicate if the current buckets will be a good fit for purpose, and if not, what needs to be improved in order to be applicable in practice.
- In case of a good fit, this pilot project will be rolled out in June in Utrecht in collaboration with Enviu, Dijkstra, DeClique and its client network.
- The project will focus on gaining insights into the following:
 - How might we create a positive business and impact case as compared to the current single-use practice?
 - How might we organize sanitization and redistribution of buckets in the most efficient and environmental friendly way?
 - How might we include pick-up of used sause buckets in this model?
- If succesful, this application will be sustained as part of the daily operations of DeClique. Furthermore, opportunities for scaling this to other businesses will be explored with Dijkstra Plastics.



**DIJKSTRA
PLASTICS**



Appendix 1:

Participants of working group Reduce & Reuse

Participants of the working group reduce & reuse

Businesses

Erwin van Limpt (Haval Disposables)
Elmie van Hoof (ALDI)
Martijn Visser (Lidl)
Elisabeth Bakker (Lidl)
Eva Amsterdam (Coca-Cola)
Sanna van Doorn (Spadel)
Lotte van Grol (NS Stations)
Han Meiberg (Filigrade)
Remy Notten (Dijkstra Plastics)
Roger Loop (NRK)
Cara Coffyn (ISS World Catering)
Danique Lindner (ISS World Catering)
Herco Klaver (KFC / YUM)
Yvonne de Jager (Ozarka)
Lobke Smits (UDEA)
Adriaan Verbeek (A-Top Packaging)
Dorine Koopmans (Paardekooper)

Knowledge experts

Siem Haffmans (Partners for Innovation)
Marcel Keuenhof (KIDV)
Agnieszka van Batavia (The LCA Center)
Rosemarie Wuite (Searious Business)
Patricia Megale Coelho (CRiSP/UU)
Esther Zondervan – van den Beuken (TNO)
Hilde van der Vegt (SUP Zero)

Government

Jennifer Meerding (NL Government, project lead)
Miriam van de Kamp (NL Government, steering group member)
Sanne Westra (NL Government)

Other partners

Emmelien Venselaar (ASN Bank)
Guy de Sevenaux (InvestNL)

Process facilitation

- Stijn Bartelink (Enviu)

Appendix 2:

Related projects of other working group members

Related project around reusable food containers: replacing all single-use tableware at large offices with a smart reusable system



- Global headquarters of Accenture have committed to phase out all single-use food packaging in canteens of their offices worldwide.
- PwC has the ambition to become fully circular by 2030.
- In collaboration with working group member ISS Facility Services, a pilot with reusable alternatives will take place in summer of 2021 in a number of their offices in the UK and the Netherlands.
- If the pilot is successful, ISS Facility Services will include the reuse system as integral part of its proposition to its (global) client network.

Related project around reusable food containers: business model validation for take-away and delivery of meals in reusable containers in Utrecht



- Since January 2021, Mission Reuse runs its pilot project 'Take Back Box' with restaurants in the city of Utrecht to learn best practices around a business model with take-away and delivery in reusable meal containers.
- The project started with low-tech validation of the value proposition with restaurant Broei, resulting in 45% adoption rate and very high enthusiasm.
- In this project, consumers pay a deposit fee to participate and take care of returning empty containers to Broei themselves – whereas Broei takes care of cleaning.
- A partnership with PackBack has been set up, to test viability of a (competitive) business model with a larger network of restaurants.
- As part of this pilot, centralized return logistics and sanitization will also be tested.

Related project around reusable food containers: rolling out DeliverZero - a zero-waste B2C platform for take-away and delivery

deliver**zero**
Ozarka



- Amsterdam based startup Ozarka, member of this working group, has closed a partnership with US zero-waste food delivery platform DeliverZero – giving Ozarka the exclusive rights to introduce this concept into the Netherlands.
- First pilot with this system will take place in spring 2021 in Landsmeer, a municipality close to Amsterdam.
- This pilot focusses on take-away meals, requiring consumers to bring back their empty packaging themselves.
- A central, smart return location will be opened in the local shopping center of Landsmeer in collaboration with supermarket Jumbo.
- Ozarka takes care of sanitization of the containers in a so-called sparkle jar in the neighbouring town of Oostzaan.

Related project to smart supermarkets – zero waste: a study to understand the perception around reuse solutions in the supermarkets segment



Ministerie van Infrastructuur
en Waterstaat

KANTAR

- The Ministry of Infrastructure and Water Management funded a study to the perception of Dutch consumers and supermarket managers around reuse solutions. Results are expected in July 2021.

Related project around closing the B2B chain: a study to the feasibility of reuse of syrup containers for beverage dispensers in B2B chains

The logo for Vrumona, featuring the word "Vrumona" in a bold, dark blue, sans-serif font. The letter 'i' at the end is stylized with a dot above it and a small circle to its right.

Universiteit Utrecht



- Vrumona has expressed interest to conduct a feasibility study to implement reuse systems for syrup containers that are applied to beverage dispensers at B2B customers.
- Exploration of this project has started with Utrecht University and Enviu, who are both interested to take part.
- Ideally, this project will be carried by multiple stakeholders in the Dutch soft drinks industry.
- As a next step, Vrumona will pitch the project at an industry meeting of FWS – where other industry players will be invited to participate.
- The research project will be carried out in the second half of 2021 and serve as a stepping stone, in case of proven feasibility, to testing a reuse system in 2022.



**MEER MET
MINDER
PLASTIC**

On the road to a circular plastics economy in the Netherlands

Working group Reduce & Reuse

Progress report, June 2021

Author:

Stijn Bartelink (Enviu), working group coordinator

Many thanks go out to Jennifer Meering and Miriam van de Kamp of the Dutch Government for their valuable feedback and ideas in the realization of this report.

www.meermetminderplastic.nl

