

Cross-provider REUSE INFRASTRUCTURE for take-away

Pilot project in the municipality of Haar
June – December 2023



ReFrastructure

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IMPRESSIONS

SOURCES

INITIAL SITUATION - Reusables for take-away



POTENTIAL

15 billion pieces of packaging are used annually in the German catering industry, esp. in the take-away area. These could be replaced by **reusable packaging**.¹



REALITY

Despite the range of **established reuse solutions** on the German market, only 0.7% of food and beverages-to-go were sold in reusable packaging in 2022.²

The **obligation to offer reusable containers** (VerpackG §§ 33, 34), which has been in force since 2023, led to an increase in the use of reusable beverage cups to 7%. Overall, however, the rate remains low at 1.6% despite the law.¹



The potential for replacing single-use packaging cannot be exploited, as the parallel operation of many reuse systems causes a high level of effort for all stakeholders (esp. Inconvenience for consumers).



There is no cross-provider infrastructure that can unlock synergy effects in reuse cycles.

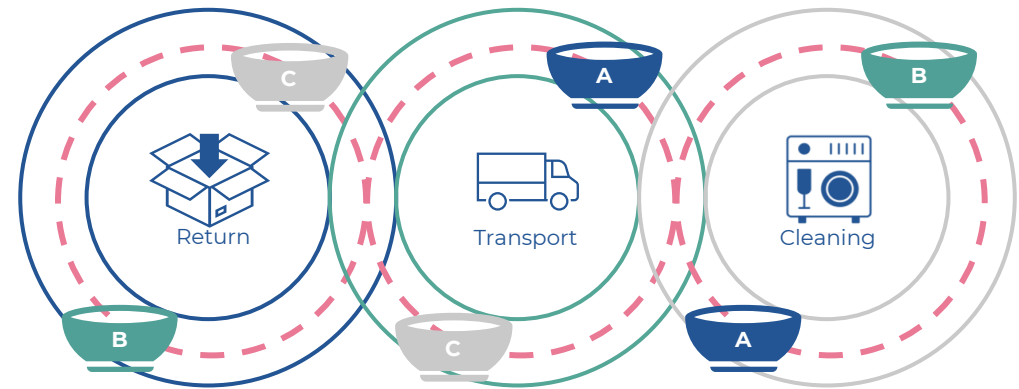
¹WWF 2023: Pre-publication on "One Year of Reusable Offering: What Has Changed??"

²WWF 2023: Reusables in German gastronomy

REFRASTRUCTURE – Our vision of a reuse infrastructure

ReFrastructure (= **Infrastructure** for **Reusables**) offers a logistics platform oriented towards the **common good**. It **tracks and records** the reusable containers of all established reuse systems.

This digital platform enables a regional **cross-provider** infrastructure across the steps in the reuse cycle.



Our community is less littered, and we are developing a circular economy.



Municipality

We can leverage synergy effects and scale!



Providers

I can drop off all containers anywhere – as I do with returnable bottles!



Consumer

The concept offers **advantages** for all parties involved in the reuse cycle

- Consumers benefit from convenience via a **densified return network** ("return-anywhere").
- Reuse system providers **save emissions** and **costs** in logistics and cleaning.
- Municipalities **reduce costs for cleaning public spaces** by offering a reuse infrastructure.



PILOT PROJECT



HAAR Mehr
GEHT DEN Weg

Goal and hypotheses

With the pilot project in the municipality of Haar near Munich, ReFrastructure Foundation is testing a **cross-provider infrastructure for reusable packaging in the take-away sector** for the first time physically and digitally in a microcosm.

Together with the three reusable system providers RECUP, ReCircle and Relevo, a focused return network was simulated in Haar over a period of three months. Reusable containers of all three providers could be returned at all participating catering establishments - "cross-return" and "return-anywhere".

The pilot provides relevant insights for **scaling the concept** to the approx. 30,000 distribution points from reuse pool providers for take-away containers all over Germany.



HYPOTHESIS - RAISING AWARENESS

With a communication campaign, we can increase citizens' knowledge about reuse solutions, arouse interest in their use and make the pilot project in Haar known.



HYPOTHESIS – FEASIBILITY OF INFRASTRUCTURE

A cross-provider infrastructure for the physical take-back and reprocessing of reusable containers in the take-away sector can be implemented with the help of a digital, common good-oriented software and creates simpler return options.

Location and consortium

MUNICIPALITY HAAR

Third largest municipality in Munich district



23.000 residents, 12.790 households (2023)



Workplace location for 11.000 employees
High number of commuters in both directions



Circular Economy anchored in municipal guidelines - striving for Circular City status



Initiators



System providers



Municipality Haar



Scientific support



Gastronomy

Local gastronomy, DEHOGA



Sponsors

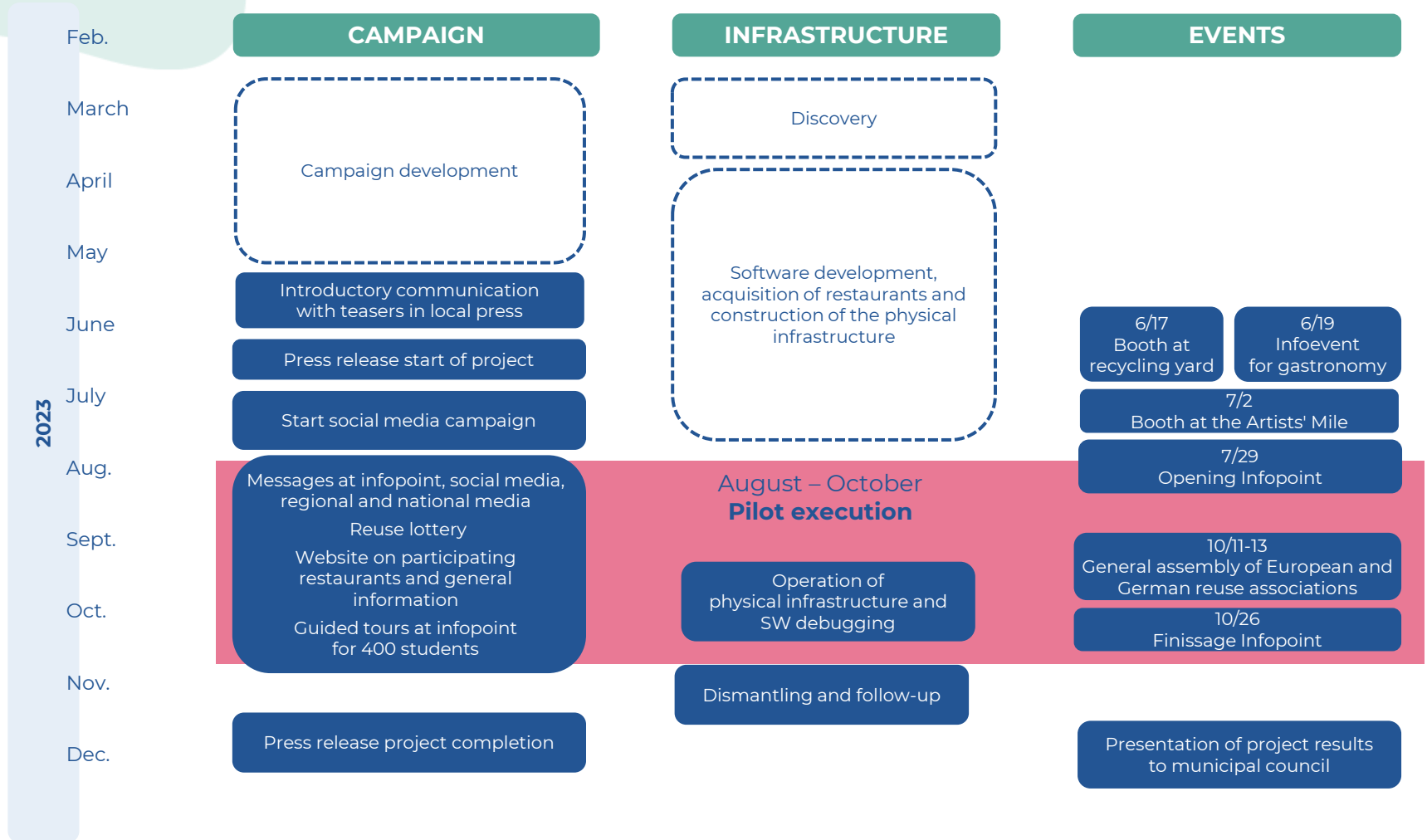


+ Philanthropy
+ Voluntary work

Service providers



Timeline



Citizens' campaign



MEDIA



- Over 140,000 media reach via print and social media
- Regional and national media coverage

[Video link](#)

EVENTS



- Booths at community events
- General assemblies of German and European Reuse Associations



REUSE LOTTERY



- Distribution of lots for each reuse order
- Winning food vouchers (€5-20) from participating restaurants



INFOPOINT



- **Central point of contact** of the pilot for citizens in the Haarer shopping street - premises provided by the municipality
- Exhibition on topics of circular economy, packaging turnaround and reusable packaging, **≈ 700 visitors**
- One of **8 locations** for cross-provider **return** of reusable containers

HAAR GEHT DEN Mehr Weg

Feasibility study - infrastructure



Relevo



RETURN-ANYWHERE

- Reusable containers can be returned at all participating locations in Haar, regardless of the reuse system

GASTRONOMY

- 7 out of 10 companies that use reuse pool systems, participate in the pilot - 5 restaurants and 2 bakeries
- 1 central drop-off point at infopoint

= 8

cross-provider
return points

DIGITAL INFRASTRUCTURE

- Development of a software for logistics management and deposit clearing
- Test under real conditions



TRANSPORT AND CLEANING

- Micro-logistics with cargo bike
- Central cleaning by external service provider



CONTAINER HANDLING

- Physical warehouse and inventory management

IMPACT MEASUREMENT

DER DEUTSCHE
DURCHSCHNITTS-
MONAT

 **HAAR**
GEHT DEN  **Mehr
Weg**

Key figures

Transaction data collected from the 8 participating locations show that...



- The focused return network was not able to increase reuse adoption in a significant way.
- **319** of the 1,303 pool system containers in the system were actively used.
- **564 loans** and **440 returns** of reusable containers took place, resulting in 3,659 digital recordings of containers.
- Individual containers have been borrowed **up to 6 times**.
- The **infopoint** was accepted as a central point of return (80 returns).
- Café Jedermann as a "**heavy user**" (86% of all transactions).

Collection and documentation of **garbage in public spaces in the pilot area** show that...



- Single-use waste from take-away packages is a **real problem** in the municipality of Haar. There is a **high potential for trash avoidance**.
- Mainly beverage **cups and lids** are disposed of in public spaces.
- Municipalities such as Haar pay **around €140,000 per year for removal of single-use plastic food packaging, beverage packaging and shopping bags¹**, which could be invested in the **operation of reuse cycle**.

Repeated **citizen surveys*** (digital and in pedestrian zone) show that...



- Approx. 3/5 of the citizens have heard about the pilot.
- **To-go consumption patterns** have **not changed** during the pilot period.
- **Lack of return options** is currently not perceived as the main reason against reuse adoption. **Instead, obstacles arise earlier, e.g. due to a lack of offers.**
- The pilot has increased citizens' **satisfaction** with the reuse offer.

* Sample sizes N = 39-47)

¹VKU 2020: Determination of [...] disposable plastic products in public spaces, p. 21

TO®

FINDINGS AND RECOMMENDATIONS FOR ACTION



#1

Condition of the current political framework are unfavorable for positioning reusable packaging as a competitive alternative to single-use packaging.

We recommend

- Stronger enforcement of the obligation to offer reusables.
- Additional regulation (e.g. packaging tax).

#2

Restaurateurs are generally willing to participate in reuse cycles, but the willingness to make additional efforts (e.g. scanning containers) depends heavily on situations and the motivation of the staff.

We recommend

- Optimize software and processes to simplify handling for restaurateurs.

#3

Simplified returns alone do not increase consumers' adoption of reuse, but they are the prerequisite for sustainable (long-term) acceptance of reuse.

We recommend

- To implement additional stimuli for the adoption of reusables.
- To require a minimum reuse quota of 10 percent for future pilots and to choose longer pilot periods.

#4

Cooperation with municipalities is essential for a reuse pilot. Municipalities are interested in circular models as an addition to linear waste management operations.

We recommend

- Close networking with local stakeholders.
- Check feasibility and financing of a municipal operator model ("reusable collection").

CONCLUSION



*“**Stricter regulatory tightening** is essential to help pilot projects like ours succeed at scale and make reusable packaging the new standard.”*

Tilmann Walz
ReFrastructure

Practice instead of theory

In Haar, ReFrastructure Foundation has proven that a cross-provider infrastructure...

- is feasible.
- cannot increase the reuse quota on its own.

Strong local effects – increasing awareness among citizens and imparting knowledge – were achieved in particular with the accompanying campaign.

The **first cross-provider** pilot in Germany and Europe provides important insights for all stakeholders who intend to implement follow-up pilots and scale reuse infrastructure.

The project has a lighthouse character and has achieved **international industry recognition**, for example by hosting the general assembly of the European reuse association, NewERA.

The results provide inspiration for reuse promotion in **other packaging industries**, esp. e-commerce and food retailers.

*„Let’s work together
to make reuse
the new standard!“*



**Ines
Vanlangendonck**



**Markus
Urff**



**Tilmann
Walz**

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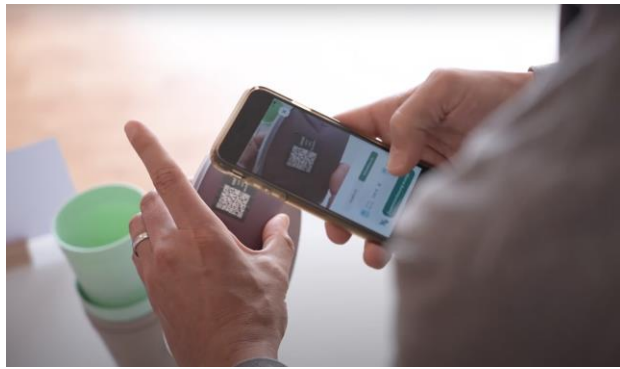
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IMPRESSIONS



VKU 2020:

Determination of quantities and costs for the collection and disposal of single-use plastic products in public spaces

Retrieved December 2023 from:

<https://www.vku.de/presse/pressemitteilungen/archiv-2020-pressemitteilungen/einwegplastik-und-zigarettenkippen-in-der-umwelt-kosten-kommunen-jaehrlich-700-millionen-euro/>

WWF 2023:

Pre-publication on "One Year of Reusable Offering: What Has Changed?"

Retrieved January 2024 under:

<https://www.wwf.de/fileadmin/fm-wwf/Publicationen-PDF/Plastik/Ein-Jahr-Mehrwegangebotspflicht-Erste-Ergebnisse-der-WWF-Marktanalyse.pdf>

WWF 2023:

Reusable in German gastronomy

Retrieved January 2024 under:

<https://www.wwf.de/fileadmin/fm-wwf/Publicationen-PDF/Plastik/WWF-Erhebung-Mehrweg-in-der-deutschen-Gastronomie.pdf>

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