

Published by





# [INTRODUCTION] CIRCULAR ECONOMY OVERVIEW CITIES **NETWORKS IMPRINT**

### Circular City Labs

The reuse sector has emerged as a critical player in the global effort to reduce waste, minimize environmental impact, and foster responsible consumption. As societies grapple with the consequences of unsustainable production and consumption patterns, good practices and role models in the reuse sector are needed. These practices encompass a broad range of strategies, all aimed at extending the lifespan of goods and materials.

This publication was developed as a part of the project 'Circular City Labs - Testing Reusable Packaging Systems in Cities', which aims to reduce greenhouse gas (GHG) emissions by promoting economically viable reusable systems and strengthening the participation of women and female entrepreneurs in local circular economies. Collaborating with local stakeholders, the project will establish Circular City Labs in four different cities. Within these labs, businesses, city administrations, academia, and civil society come together to engage towards a functional and inclusive circular economy and explore the potential of reusable packaging and related business models. The project is carried out by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) in collaboration with ICLEI and on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ).

The purpose of this interactive brochure is to present reusable packaging systems and solutions across various sectors and provide inspiration. However, it should be emphasized that the landscape of reuse systems and businesses is vast and this publication does not aim to cover it in its entirety. It rather provides a small selection of businesses and projects that are progressing in their respective fields.

Furthermore, it includes a brief introduction to the concept of the **circular economy**, definitions of **reusable packaging systems**, and a **gender perspective** within the circular economy, highlighting the importance of gender equality and women's participation in this context. Moreover, it outlines the role of the **local governments** and how it can contribute to the implementation of conducive measures on reusable packaging systems and engage in beneficial processes.

Watch our <u>video</u> to find out more about reusable packaging systems and the Circular City Labs project.



# INTRODUCTION [CIRCULAR ECONOMY] OVERVIEW **FXAMPLES** CITIES **NETWORKS IMPRINT**

#### The role of local governments

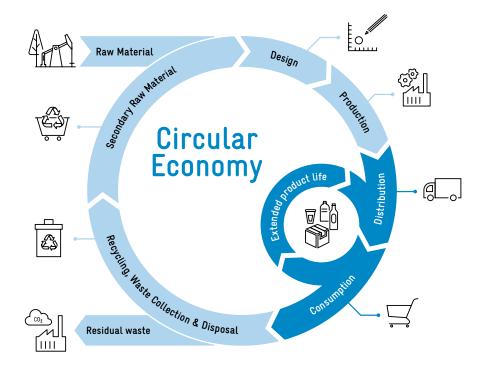
Globally, local governments are facing increasing waste management and resource challenges as a result of the linear economic system. While only representing 3% of global surface area, around half of the waste globally is generated in urban areas, where more than two thirds of global resources are consumed and about 60-80% of global GHG emissions are emitted (UNEP 2017; UN Habitat 2022). The projected population growth will only exacerbate these pressures if they are not systemically addressed.

The circular economy offers a holistic systems change approach to the management of resources and waste in cities, and reuse systems specifically reduce the amount of waste generated. Local governments are well positioned to provide an enabling environment to foster the emergence of reuse systems and stand to benefit from reduced strain on waste management processes. They can contribute to this through a range of measures, including prioritisation of reuse systems and campaigns to raise awareness on reuse, convening of relevant stakeholders for the development of reuse systems, as well as supporting the development of collection and centralised cleaning infrastructure for reusable solutions, among other aspects.

Further, implementing reuse systems locally can enable the density needed to support consumer uptake of the reuse measure, as sufficient touch points are required to ensure the success of such a reuse system. Successful reuse interventions can then be scaled to other jurisdictions.

#### Circular Economy

The circular economy is a sustainable economic system that aims to reduce waste and resource consumption by using resources more efficiently. Instead of the linear economic system, resources are kept in closed loops for as long as possible. This involves practices such as sharing, leasing, reusing, repairing, refurbishing, recovering and as a last resort recycling or composting products (European Parliament 2021). By extending the lifespan of products and reducing resource consumption the circular economy mitigates greenhouse gas emissions and environmental pollution through waste prevention (Ellen MacArthur Foundation 2021). Reusable packaging systems can contribute substantially to these challenges as they address the root causes of the packaging waste problem (Ellen MacArthur Foundation 2019).



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#### Reusable packaging systems

In the field of reusable packaging, it is important to distinguish between two different systems:

**Refillable packaging** involves the refilling of consumer owned containers designed to be used multiple times. The container is not considered as packaging but rather as a product owned by the consumer, who is responsibility for it. Refill practices include "refill on the go" (e.g., at an in-store dispensing system) and "refill at home" (e.g., with refills delivered through a subscription service) (Ellen MacArthur Foundation 2019).

In contrast, **reusable packaging** refers to a packaging system designed to be used multiple times for the same intended purpose. Therefore, reusable packaging needs to be supported by a functional reuse infrastructure that enables it to serve

the same purpose repeatedly. Reusable packaging systems remain a property owned and managed by a reuse system operator, a pool system or the producers themselves, who manage its collection, cleaning, and following refilling (RSVP 2023). To ensure that reuse containers are returned or collected, a deposit-refund system or an incentive system is usually included.

Accordingly, the following collection of good practices in the reuse sector does not only include reusable packaging providers but also operators of corresponding infrastructure like cleaning, transportation and tracking systems. As this brochure also aims to connect actors in the reusable sector with each other, further reuse networks are featured as well.

#### Promoting Gender Equality in the Circular Economy

The shift to a circular economy offers a potential to tackle structural challenges and inequalities. Therefore, understanding this shift as an opportunity for women's participation in local circular economies is essential to encourage gender equality in this momentum.

Women not only play a crucial role in environmentally sustainable consumption, influencing a substantial portion of household purchases but should also be recognised as knowledge bearers and decision-makers involving them in addressing global challenges. By raising awareness about sustainable consumption and production and by encouraging women to take on leadership and managerial positions, a foundation for a more inclusive and gender equal circular economy is created (OECD 2021).

Companies that embrace gender diversity are more likely to engage in sustainable business parties and to adopt sustainable practices by prioritizing social and environmental impacts in their business strategies (UNIDO 2022). However, women face several barriers such as low pay, low security and limited social mobility when entering and advancing in economic and entrepreneurial activities (FPA 2020; Cardella et al 2020). This highlights the importance of policies engaging in gender equality in the context of the circular economy.



#### Overview sectors and initiatives

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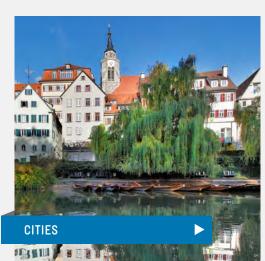


SERVICE/INFRASTRUCTURE

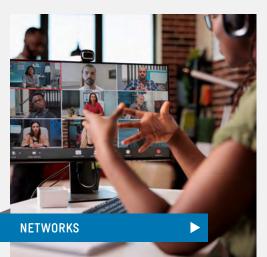












CRAFT ebb&flow NAKES

Profile:

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Name: Ebb & Flow Keg

Founding year: 2021

**Founder:** Philipp Neveling, Deandra Anderson

**Location:** Frankfurt Germany **Number of employees:** 4 (50% females)

Number of customers: 80

Scope: National/International/global (events)

Sector: HoReCa, Event

#### Reuse system:

- Reusable wine containers (kegs) made of stainless steel for gastronomy and events, like festivals or wine-tastings
- Intermediary between wineries and gastronomy
- Delivering kegs to the wineries and customers, picking-up and organising the cleaning

#### Gender equality measures:

• Female founder

For further information click  $\underline{\text{here}}$  or scan the QR-code.

https://www.ebbflowkeg.com/







### fritz-kola®

Profile:

#### CIRCULAR ECONOMY

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**Name:** fritz-kulturgüter gmbh

Founding year: 2002

**Founder:** Mirco Wolf Wiegert, Lorenz Hampl

Location:Hamburg, GermanyNumber of employees:318 (41% females)Scope:International/global

Number three in the category cola

in the off trade.

Market leader in the craft cola

segment.

**Sector:** Beverages

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Reuse system:

• Using exclusively reu

• Using exclusively reusable glass in Central Europe. They can be refilled up to 50 times and then be 100% recycled – without any loss of quality.

• Implemented a new refillable glass bottle filling line in Eilenburg/Saxony in 2023 to further promote the use of glass bottles in the region and beyond.

• Started initiative "Drink from Glass" to drive a system change in the beverage industry and cooperate with retailers, restaurateurs and partners to promote the use of reusable glass bottles. Additionally, the initiative "Every Bottle helps" supports the return of reusable bottles to the deposit system.

#### Gender equality measures:

- Clear guidelines and goals regarding diversity and inclusion to strengthen the participation of all genders and identities.
- Advocating the message of diversity and openness in communication, partnerships and at events.







For further information click <u>here</u> or scan the QR-code. www.fritz-kola.com



Profile:

CIRCULAR ECONOMY

Name: Sai Yok Springs

Founding year: 2022

**Founder:** Elodie Radach, Alexander Radach

Location:Bangkok, ThailandNumber of employees:17 (81% females)Number of customers:25 (& growing)

Scope: Local (city)/regional

**Sector:** Beverages

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Reuse system:

• Returnable glass bottles with deposit refund system

• Own distribution for local hotels and restaurants in Bangkok and Phuket to reduce imports of disposable glass and plastic

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#### Gender equality measures:

• Female CEO

• 80+% female employees. Aimed for a 50/50 ratio but women are more interested in sustainability

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For further information click <u>here</u> or scan the QR-code. www.saiyoksprings.com







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#### Profile:

CIRCULAR ECONOMY

Name: Bioland Weingut Galler

Founding year: 2009

Ansgar Galler Founder:

Location: Kirchheim, Germany Number of employees: 3 (33% females)

International/global Scope:

Sector: Food & Drink

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#### Reuse system:

- Wine made from new resource-efficient grape varieties
- In 2023 the "2/4 Piwi" wine, adapted to the deposit system for beer bottles, was introduced
- Filled in standardized, returnable 0,5L beer bottles to reintroduce them into a deposit system for beer bottles



For further information click here or scan the QR-code. www.weingut-galler.de



**b**comerang<sup>®</sup>

send. enjoy. reuse.

#### Profile:

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Name: Boomerang

Founding year: 2021

**Founder:** Katharina Kreutzer, Christian Putz,

Marc Engelmann

Location:Hamburg, GermanyNumber of employees:15 (33% females)Number of customers:6 online shops

Scope: National

**Sector:** e-Commerce

#### Reuse system:

- Reusable boxes and water-proof bags in 4 adjustable sizes made of recycled plastic (pp)
- Providing online-shops with shipping boxes and bags that can offer Boomerang as a shipping option for a 3€ deposit to customers
- Reverse logistics: receiving used packaging via mail from the customers or collecting them from return points in stores before cleaning and preparing them for the next shipping

#### Gender equality measures:

- Female CEO
- Considering gender equality in the recruiting processes
- Taking part in events like Girls Day





For further information click  $\underline{\text{here}}$  or scan the QR-code. https://www.boomerangpack.eu/



#### CIRCULAR ECONOMY

Name: hey circle Founding year: 2021

Founder: Doris Diebold
Location: Munich, Germany
Number of employees: 8 (50% females)

Number of customers: 25 companies/brands

Scope: National e-Commerce

### [SECTOR EXAMPLES]

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#### Reuse system:

Profile:

- Renting reusable boxes and bags to online retailers
- Boxes and bags have retainer straps to replace cushioning material, can be branded by the retailer and are secured with zipper and seal
- Online shops can calculate their reuse potential with Hey Circle

#### Gender equality measures:

- Start-up with female founder
- Gender neutral recruiting

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For further information click <u>here</u> or scan the QR-code. www.heycircle.com









RePack<sub>6</sub>

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#### Profile:

Name: Original RePack

Founding year: 2011

Founder: Jonne Hellgren, Juha Mäkelä,

Petri Piirainen

**Location:** Helsinki, Finland

Number of employees: 4 Number of customers: 300

Scope: International/global

**Sector:** e-Commerce

#### Reuse system:

- Reusable packaging that folds into letter size for empty return
- Free to return from any country in the world
- Software to manage and optimise the returns cycles

#### Gender equality measures:

• Prefer women hires to balance the current team composition



For further information click <u>here</u> or scan the QR-code. www.repack.com





Profile:

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Name: reCIRCLE Founding year: 2016

**Founder:** Jeannette Morath

**Location:** Switzerland, Bern, (also present in

Belgium, Denmark, Estonia, Germany,

Italy, and the Netherlands)

**Number of employees:** 20 (50% females)

**Number of customers:** 2,500 restaurant partners,

60,000 daily uses

**Scope:** International/global

**Sector:** Gastronomy and take-away

#### Reuse system:

- High quality durable products, made in Switzerland, designed with and for the gastronomy
- Deposit return system and/or digital rental system with the reCIRCLE app
- Customers can easily return or exchange the products at any participating partner restaurant

#### Gender equality measures:

• Equal treatment of all genders (also with regard to wages)





For further information click <u>here</u> or scan the QR-code. https://www.recircle.eu



#### Profile:

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Name:

Relevo GmbH

Founding year: 2020

**Founder:** Matthias Potthast, Gregor Kolb,

Aaron Sperl

Location:Germany, MunichNumber of employees:31 (50% females)Number of customers:3,500 partners with

200,000 registered users

Scope: International/global

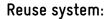
**Sector:** Gastronomy and take-away

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- Deposit-free reusable system for take away and delivery of food & beverages
- Wide range of highly durable cups, bowls and boxes made of distinctly hygienic SAN plastic
- Smartphone based digital rental/return solution with Relevo app for tracking and inventory management

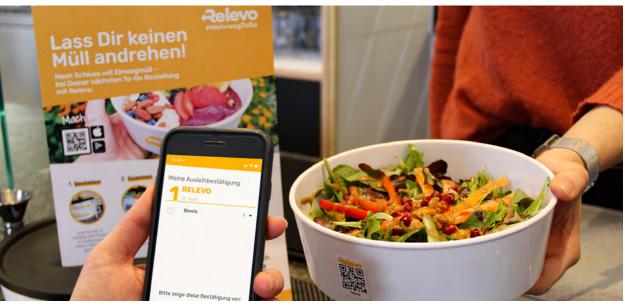


For further information click <u>here</u> or scan the QR-code.
www.relevo.app











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Profile:

Name: Xiclo Founding year: 2021

Founder: Ana Maria Villegas &

Juan Jose Villegas

Location:Bogota, ColombiaNumber of employees:10 (50% females)

Number of customers: 5,000 yearly Scope: Local (city)

**Sector:** Gastronomy and take-away

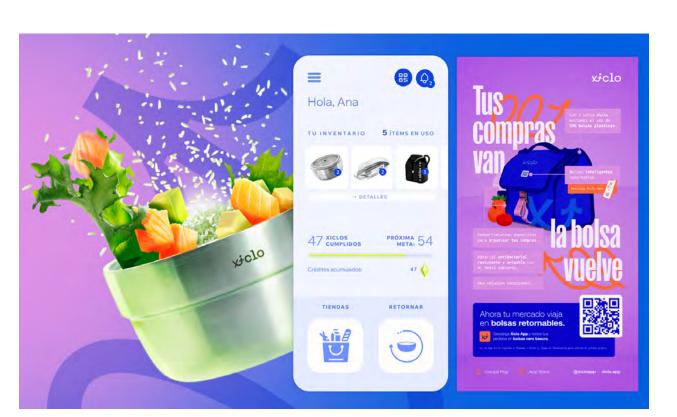
#### Reuse system:

- Reusable containers and bags, digital tracking and return solution, cleaning service
- Robust and hygiene containers for food & beverage, and bags for groceries transport
- Partner rents packaging and users borrow
- Can be used at least 500-1,000 times depending on the material and then be recycled

#### Gender equality measures:

• Gender-inclusive recruitment

For further information click <u>here</u> or scan the QR-code. https://xiclo.app











#### Profile:

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Name: Dotch Founding year: 2022

**Founder:** Veronika Pfender, André Pietzke,

Tim Winkler

**Location:** Berlin, Germany **Number of employees:** 4 (50% females)

Number of customers: 5

Scope: National Sector: Groceries

#### Reuse system:

- 0.5L reusable bottle for culinary oil for consumers and producers as an alternative to energy-intensive disposable glass
- Return at the deposit machine and up to 50 returns possible
- Reusable infrastructure as full service for oil mills and oil brands incl. provision of bottles, return logistics and cleaning.

#### Gender equality measures:

- Appreciative, gender-independent treatment of employees as well as physical and emotional resources
- Weekly, personal appointment for own free arrangement
- Home office as a self-evident means of work









For further information click <u>here</u> or scan the QR-code. https://www.dotch.de/



#### Profile:

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Name:

Stiftung ReFrastructure

2022 Founding year:

Tilmann Walz, Markus Urff Founder:

Location: Esslingen, Germany Number of employees: 10 (40% females)

Number of customers: B2B (Recup, reCircle, Relevo, cooper-

ation with Vytal in progress) + their

customers in the pilot regions

International/global Scope: Service/Infrastructure Sector:

[SECTOR **EXAMPLES**]

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#### Reuse system:

- Digital infrastructure for reusable systems allowing the return of all containers across all providers.
- Neutral non-profit data platform, enabling cooperation between all stakeholders, including competitors.
- Offering scaling effects for logistics and cleaning without creating monopolistic structures.

#### Gender equality measures:

- Fair and transparent HR policy: gender plays no role in remuneration, all salaries are transparent for all employees, thus gender pay gaps are to be avoided
- "Mandatory parental leave" for fathers (reasons must be given if fathers do not want to take parental leave)
- Sensitization of employees to gender-specific issues in order to create an inclusive working environment





For further information click here or scan the QR-code. https://refrastructure.org/



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#### Profile:

Name: Uzaje Founding year: 2019

Founder: Emmanuel Auberger, Gonzague Gru,

François Satin

**Location:** Paris (Neuilly sur Marne 93), PACA

(Avignon, 84), Strasbourg 67

Number of employees: 31 (33% females)

Number of customers: 100

Scope: International/global

**Sector:** Service/Infrastructure for Reuse

#### Reuse system:

- Cleaning solution for reuse systems in gastronomy and food retail
- 3 Industrial cleaning centres for reusable packaging (glass, plastic, stainless steel)
- Consulting businesses and supporting them in the transition from disposable single-use to reusable packaging

#### Gender equality measures:

- Agreement for corporate social responsibility including measures against inequality and social exclusion
- Uzaje is also a B corp certified company







For further information click  $\underline{\text{here}}$  or scan the QR-code. uzaje.com





#### Role of RPE:

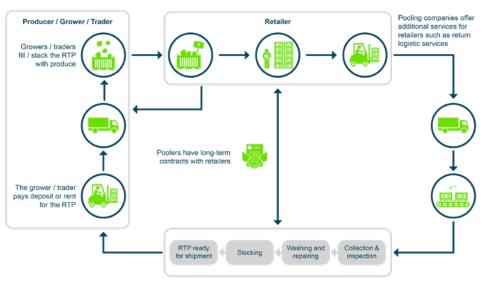
- RPE aligns pooling companys active in the area of Reusable TransportPackaging (RTP)
- Focusing on pooling of Reusable Packaging Containers (RPCs) and Reusable-Wooden Pallets (RWPs)
- Dedicated to promoting RTP use and innovative pooling models for a waste-free, circular economy

#### Reuse system:

- RTP is rented from a pooling company (e.g. in case of RPCs to grower/producer) with all costs included in the rental contract
- RTP delivered to retail warehouses, then distributed to individual shops using RTP
- This process covers the entire transport from warehouse to shop display
- RTP is returned to the pooling company for conditioning, including control, repair, and cleaning berfore being renting again
- RPCs are used 7 to 12 years, with up to 120 use per cycle; RWPs are used 8 years with up to 30 times per year

#### Pooling of reusable transport packaging





#### Members:



















For further information click <u>here</u> or scan the QR-code. https://rpeurope.eu/



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#### Profile:

Name: Worldbag Founding year: 1995

Founder:

**Location:** Waddinxveen, Netherlands

**Number of employees:** <10 (80% females)

**Number of customers:** 5,000 yearly

Scope: International/global

Sector: Transport

#### Reuse system:

- WorldBag collects and reconditions big bags from European end users, ensuring quality
- These bags can be reused up to five times, due to rigorous checks, cleaning, and inspections that are part of the process
- Offering flexible logistic services and working together with sustainable transport companies

#### Gender equality measures:

- Equal compensation by implementing Korn Ferrry Hay Levels
- Monitoring and reporting on discrimination and harassment incidents, disaggregated by gender in place, supported by accompanying policies and internal mandatory training on these topics
- Address gender diversity in recruitment (hiring) and taking proactive steps to recruit woman at all levels – Furthermore, in 2021 LC Packaging has become a member of WEPs (Women Empowerment Principles) and has published a CEO Statement of Support (Leadership Commitment)









For further information click <u>here</u> or scan the QR-code. https://www.worldbag.com/

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#### Profile:

**City:** Frankfurt am Main, Germany

Reuseinitiative(s): #MainMehrweg by Frankfurt Waste

Disposal and Service GmbH (FES)

(Planned) Duration

of the initiative: permanet

**Impact of the initiative:** 138,133 single-use packaging items

saved (as of 11/10/23)

**Sector(s) involved:** Beverages and logistics

Partners involved: City of Frankfurt: supports the efforts

to reduce waste and increase the use of reusables. Vytal: FES collaborates with digital, deposit-free reusable system Vytal. It is Europe's largest digital reuse system and promotes

reuse through its smart app

#### Reuse system:

- In 2019, the municipal #MainBecher return system was adopted by the Frankfurt Waste Disposal and Service GmbH (FES), originating from a citizen's initiative. This to-go cup system used recyclable, plastic-free organic-cups.
- Since October 2022, #MainBecher has been collaborating with the digital, deposit-free reusable system Vytal. #MainBecher has been integrated into the local portfolio as a cup option.
- In Frankfurt am Main, #MainBecher (translates as Main Cup) now becomes #MainMehrweg (Main reuse system)





For further information click  $\underline{\text{here}}$  or scan the QR-code. www.mainmehrweg.de





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#### Profile:

Name: Tübingen

**Reuseinitiative(s):** "tü-go – besser bechern" (2016);

Support program for businesses to convert to reusable system (May 2020); Packaging tax (January 2022)

(Planned) Duration
of the initiative:
Number of users/
citizens reached by

permanet

the initiative:

Partners involved:

More than 100,000

University of Tübingen, City Tübingen, 'Aktionsbündnis Müllarmes Tübingen'

(Action Alliance for Low-Waste)

#### Reuse system:

- 2020, the Tübingen municipal council decided to tax disposable packaging from January 2022.
- Companies from the catering industry that switch from disposable to reusable tableware can apply for subsidies for the purchase of reusable tableware or commercial dishwashers or participation in a deposit pool system (max. € 500 for tableware and max. € 1,000 for a dishwasher).
- The packaging tax aims to create incentives to reduce packaging material and thus reduce waste in public spaces. At the same time, an incentive is to be created to use reusable packaging.







For further information click  $\underline{\text{here}}$  or scan the QR-code. www.tuebingen.de/verpackungssteuer

#### **Networks**

If you are looking for further good practices to learn from and other reuse networks to engage in, please cosider visiting the following websites.

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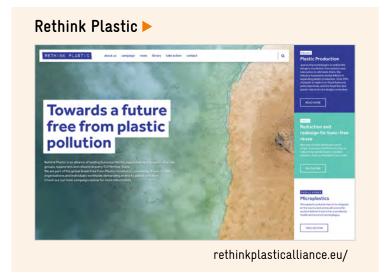
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#### **Imprint** INTRODUCTION As a federally owned enterprise, GIZ supports the German Government CIRCULAR ECONOMY in achieving its objectives in the field of international cooperation for sustainable development. Published by: Deutsche Gesellschaft für OVERVIEW Internationale Zusammenarbeit (GIZ) GmbH Registered offices Bonn and Eschborn, Germany Address SECTOR Friedrich-Ebert-Allee 32 + 36 **EXAMPLES** 53113 Bonn, Germany T +49 228 44 60-0 F +49 228 44 60-17 66 E info@giz.de I https://www.giz.de/en/worldwide/127407.html CITIES Programme/project description: Circular City Labs - Testing reusable packaging systems in cities Responsible: NETWORKS Elena Rabbow E Elena.rabbow@giz.de

[IMPRINT]

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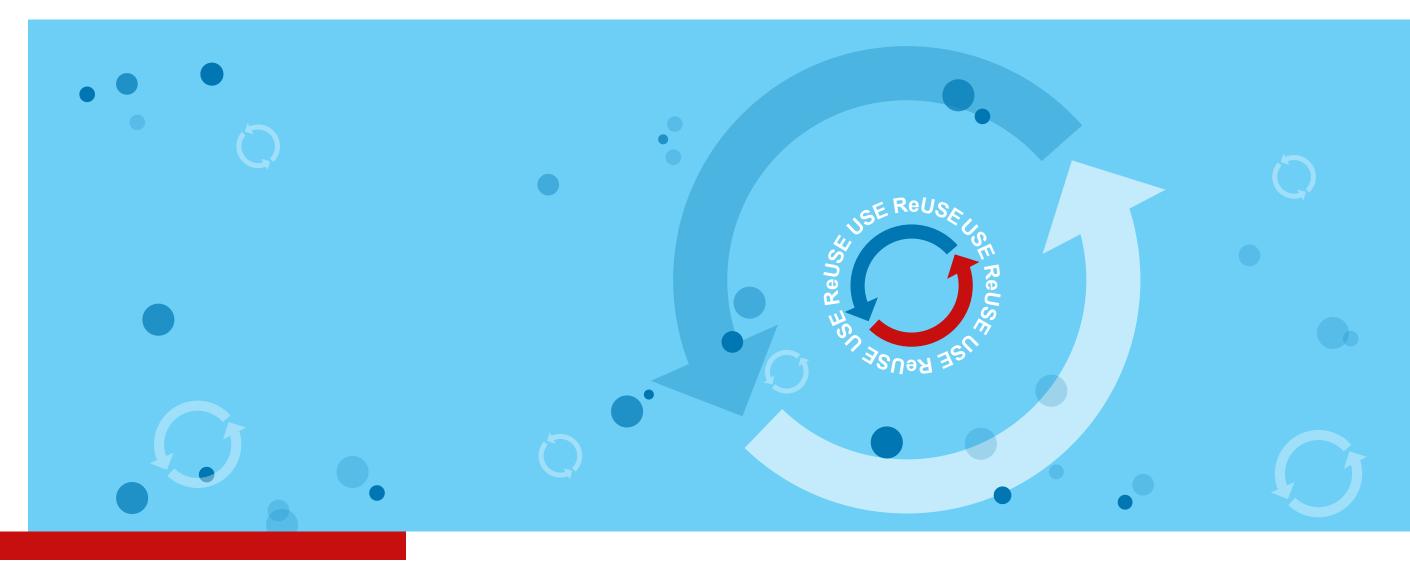
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