Refillable bottle systems in Germany – a Model for Well-Designed Pool Systems in Europe?

Zero Waste Europe Webinar

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Genossenschaft
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Characteristics of the German Beverage Market

▸ Many Regional/Local producers: 1,350 breweries, 180 mineral water bottlers, 400+ softdrink & fruit juice producers

▸ Beverages are sold in crates

▸ A rich, diverse and specialized retail structure for beverages: 3,500 wholesalers, 12,000+ specialized beverage retailers

▸ This does not mean that the German example is not relevant to other European countries – but copy & paste will not work

GDB: facts and figures

- Trading and service company of German mineral water bottlers,

- Cooperative (non-profit business)

- Headquarters: Bonn, Germany

- Founded: 1937

- Members/Customers: 162 (nearly all German mineral water companies)
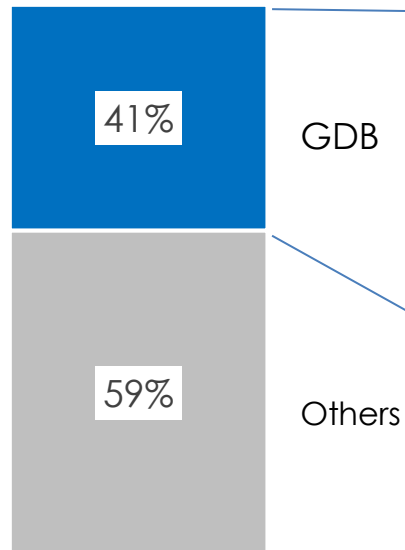
- turn over 2020/21: about 130 m. €

- Staff (group): 50

GDB Packaging Systems 2021

Mineral Water Market
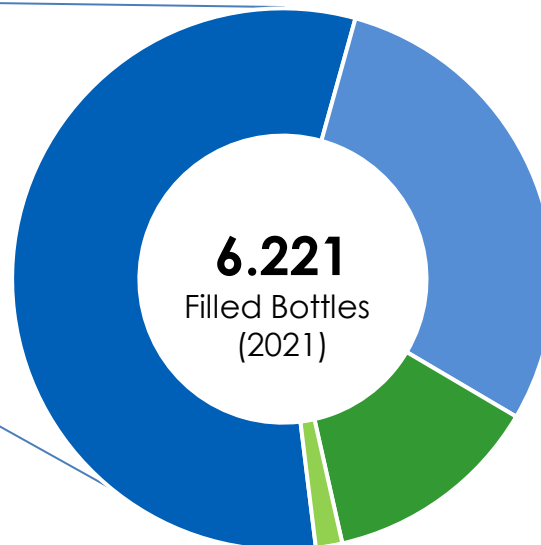Based on liters filled in 2021
Source: VDM

- 41% — GDB
- 59% — Others

GDB Packaging Systems
Million Bottles Filled
Source: GDB

6.221
Filled Bottles (2021)

3.500 GDB Glass Reuse

1.814 PET Reuse

809 PET Circular

98 Logicycle Reuse

GDB Glass- and PET-Reuse-Pools
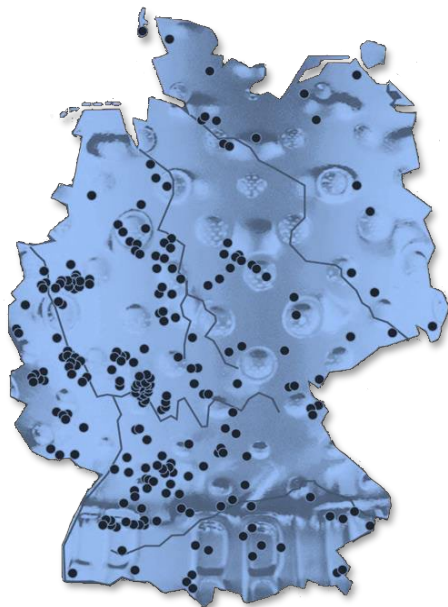
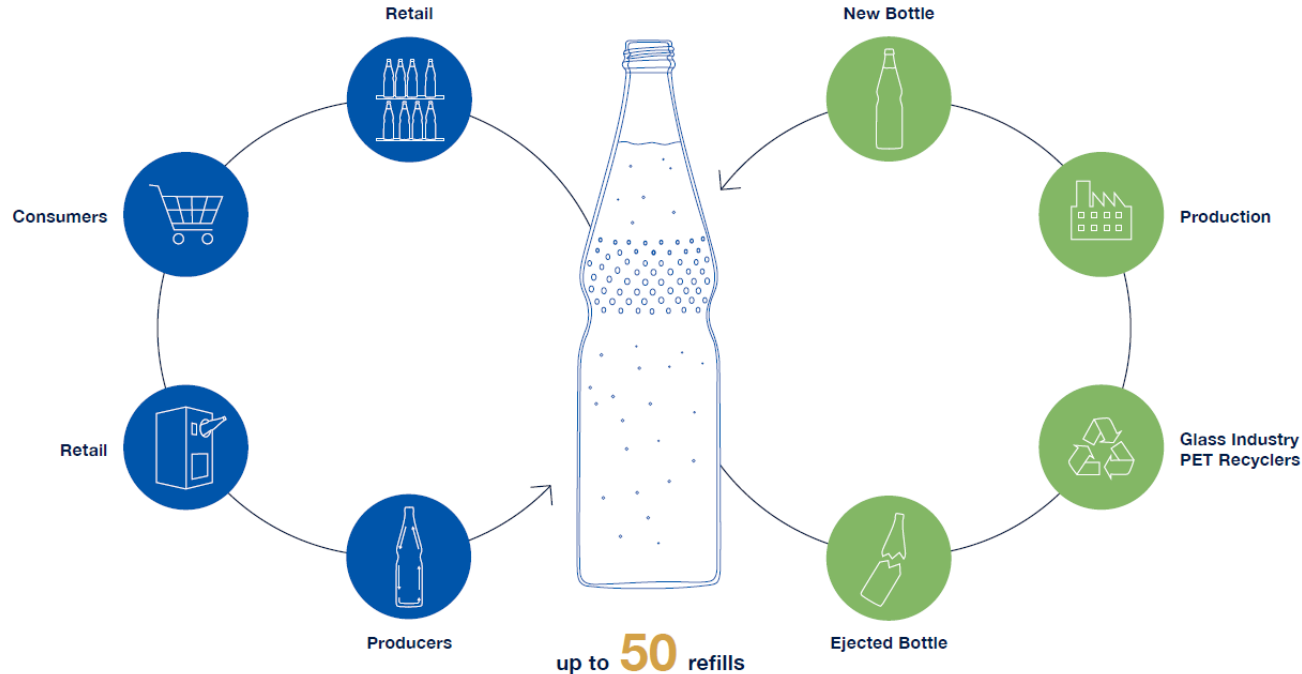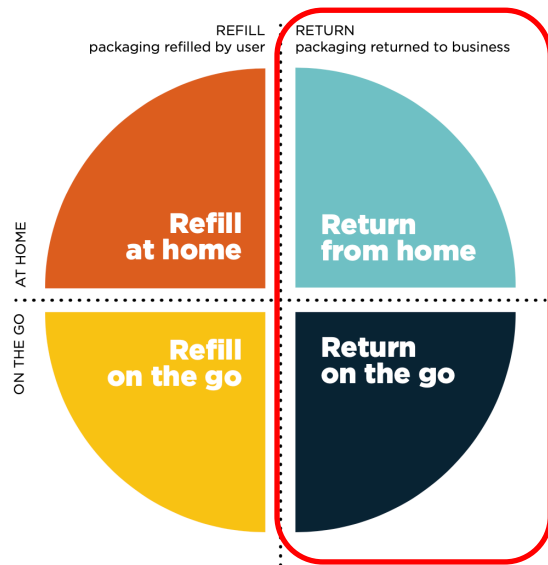|	
GDB Share in Reuse: GDB Glass- & PET-Reuse in Mineral Water Market	> 70 %
Number of Reuse Bottles: Glass- und PET-Reuse of GDB	> 1 billion
Deposit Value: Glas- und PET-Mehrwegpools der GDB	> 300 million €
Share of Consumers familiar with the GDB bottle:	97 %
Current System in place since	1969
Newest Bottle Type introduced in	2018

Source: GDB, 2021

Reuse   **System**

System: The Double Circle of Reuse

The system has a structure with a defined set of players and defined processes for the refill trips and recycling of ejected containers.

Retail

New Bottle

Consumers

Production

Retail

Glass Industry
PET Recyclers

Producers

up to **50** refills

Ejected Bottle

Reuse Return rate: up to 99 %

The four reuse models

Business-to-consumer reuse models differ in terms of packaging 'ownership' and the requirement for the user to leave home to refill/return the packaging.

Refill at home
users refill their reusable container at home (e.g. with refills delivered through a subscription service)

Return from home
packaging is picked up from home by a pick-up service (e.g. by a logistics company)

Refill on the go
users refill their reusable container away from home (e.g. at an in-store dispensing system)

Return on the go
users return the packaging at a store or drop-off point (e.g. in a deposit return machine or imailbox)

Note: B2B packaging and 'naked'/packaging-free products are not included in this framework.

Source: Ellen McArthur Foundation 2019, Reuse, p 12-13
www.ellenmacarthurfoundation.org

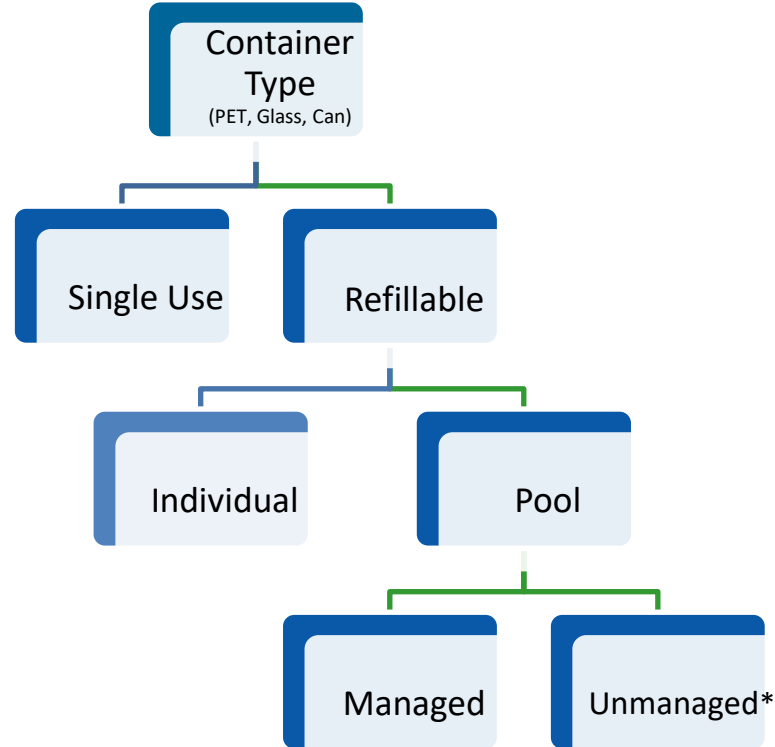# Reuse II: It's not „just" Refill – A Taxonomy of (Beverage) Containers

Typical Questions Associated

- Type of beverage?
- Are there branding considerations?

- What are customers and consumer preferences
- Strategy (Corporate, Brand, Sustainability)

- Economic and environmental efficiency
- Costs
- Independence

- Quality
- Fair Share of burdens

Container Type
(PET, Glass, Can)

- Single Use
- Refillable
  - Individual
  - Pool
    - Managed
    - Unmanaged*

Typical Issues Associated

- Beer in PET is a „no-no" in Germany

- Most discounters won't list reuse
- Glass associated with high-quality (Branding!)

- Pool bottles = co-operation with competitors
- Individual bottles higher costs

- Unfair practices in unmanaged pools
- Quality issues

* Our prediction: remaining unmanaged systems will be transferred into managed governance schemes

© T. Bielenstein, Reuse Working Group (Arbeitskreis Mehrweg)

Governance - Managed Pools have

▸ An institutionalized governance structure

▸ A legal framework for all bottlers (i.a. ownership, type of cooperation, inclusivity)

▸ Internal standards (e.g., balanced input and ejects, clearing activities, transparent reporting, conditions to ensure free movement, etc.)

▸ Fair distribution of costs and benefits

▸ Joint market activities/easier access for new types of packaging

→ Resulting in system immanent advantages of pool packaging

Advantages of Managed Pools Systems

▸ Improved efficiency (e. g. market reach, transport)

▸ Lower costs and lower risks

▸ Better access for SMEs to reuse and markets

▸ Open access for different producers of containers

▸ Scalability

Comparative Study on Costs per 1.000 l filled

Gesamtkosten je 1.000 l

Legend:
- Bearbeitungs mittel
- Personal
- Flächen / Räume
- Bestände / Material

X-axis categories:
- Referenz 1 — 0,7 l Glas BEK
- VP-System 2 — 0,5 l PET-MW Halb-Modul
- VP-System 3 — 1,0 l PET-MW Euro-Modul
- VP-System 4 — 1,5 l PET-MW Halb-Modul
- VP-System 5 — 0,5 l PET-RL Euro-Modul
- VP-System 6 — 1,0 l PET-RL Euro-Modul
- VP-System 7 — 1,5 l PET-RL Euro-Modul
- VP-System 8 — 0,5 l PET-EW Euro-Modul
- VP-System 9 — 1,0 l PET-EW Euro-Modul
- VP-System 10 — 1,5 l PET-EW Euro-Modul

0,7 Glass-rf | 0,5 PETrf | 1,0 PETrf | 1,5 PET rf | 0,5 PETrv | 1,0 PETrv | 1,5 PET rv | 0,5 PETsu | 1,0 PETsu | 1,5 PET su |
Rf= refill | rv = reverse | su = single use

▸ Standard reuse bottle has best cost structure

▸ Smaller bottles – higher costs

▸ Average of 6 companies of different size - Individual cost structures of companies will vary

Standardizing ≠ Uniformity: GDB Refillable Pool Containers

Variations of

Glass & PET

Refillables

from 0,5 – 1,5 L

(… and this is the mineral water and parts of the CSD market only)

And one more most important ingredient...

Simplicity*

* For consumers

Refillable bottle systems in Germany – a Model for Well-Designed Pool Systems in Europe?

▸ Refillable systems need to be adapted to local/regional needs and consumer habits –

▸ Therefore copy & paste of the German system will not work, but many learnings from the German systems can be transferred to other European countries (and to Europe-wide systems)

▸ Upcoming: A policy briefing on the need to set essential criteria for setting up managed pool systems

Thank you!

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