

CAP SEA Dialogue Series:

Return System Concept and lesson learned from existing system

Clara Löw | Freiburg, Germany | 29.09.2022



What is return system concept?

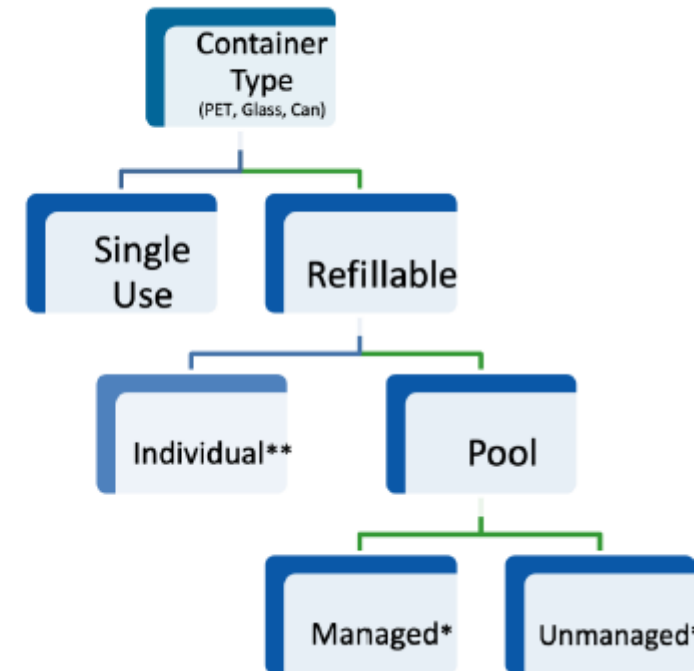


- Synonyms: Managed pool systems | DRS | deposit- and app-based pool systems | container refund scheme
- Scope: Single-use | Multiple Use DRS
- Systems: Direct DRS | DRS organised through a bottler | DRS with clearing

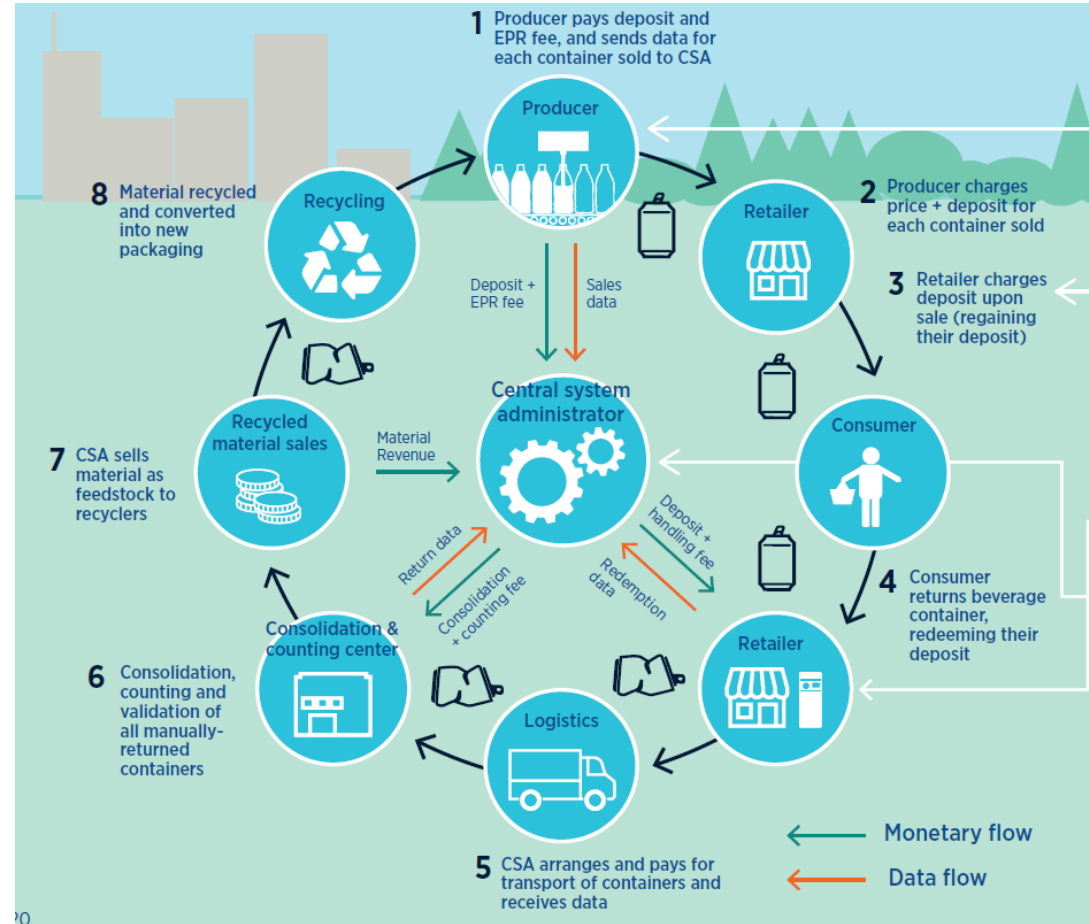
“Taxonomy of Reuse (Beverage) Containers”

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



How is it working? Who is involved?



- Consumers
- Retailers
- Packaging / bottle filler („bottler“)
- System administrator (different constellations)
- Logistics
- Counting center
- ...

Options for return system concept design

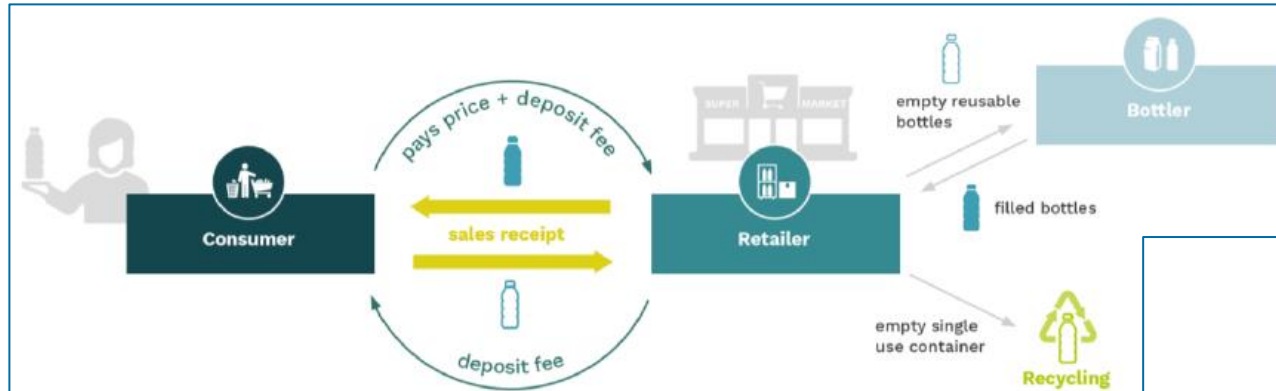


Figure 1: A direct DRS

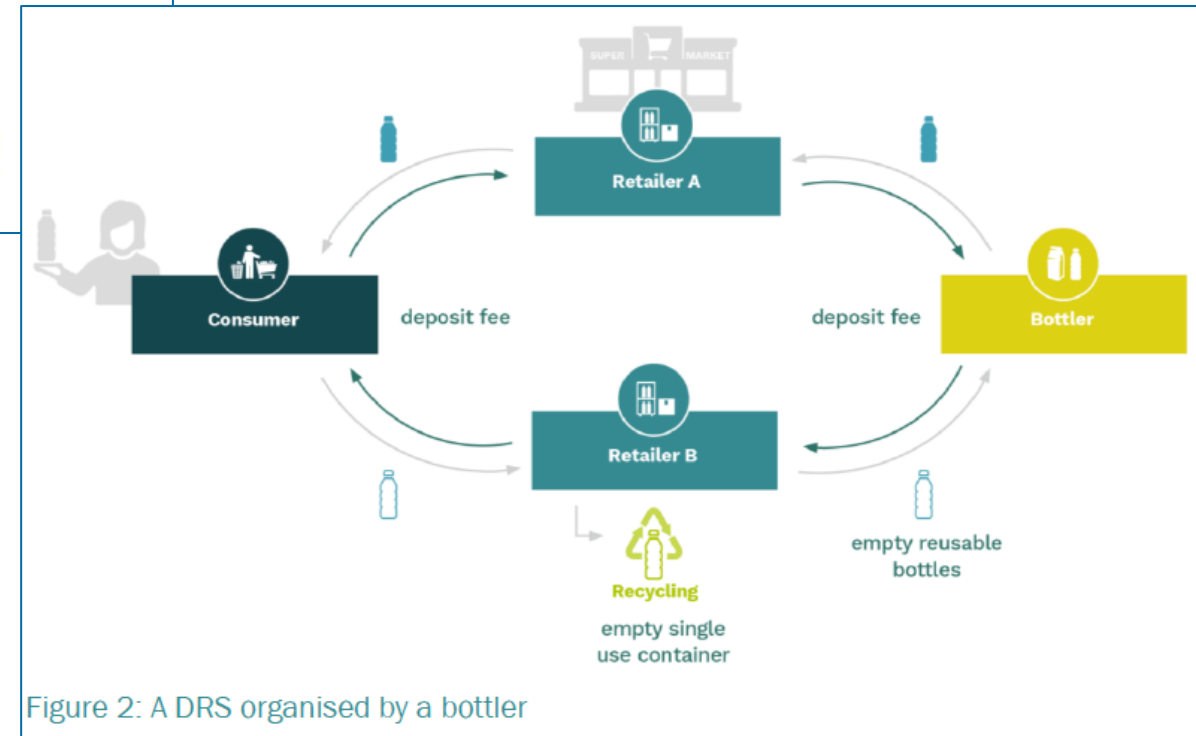


Figure 2: A DRS organised by a bottler

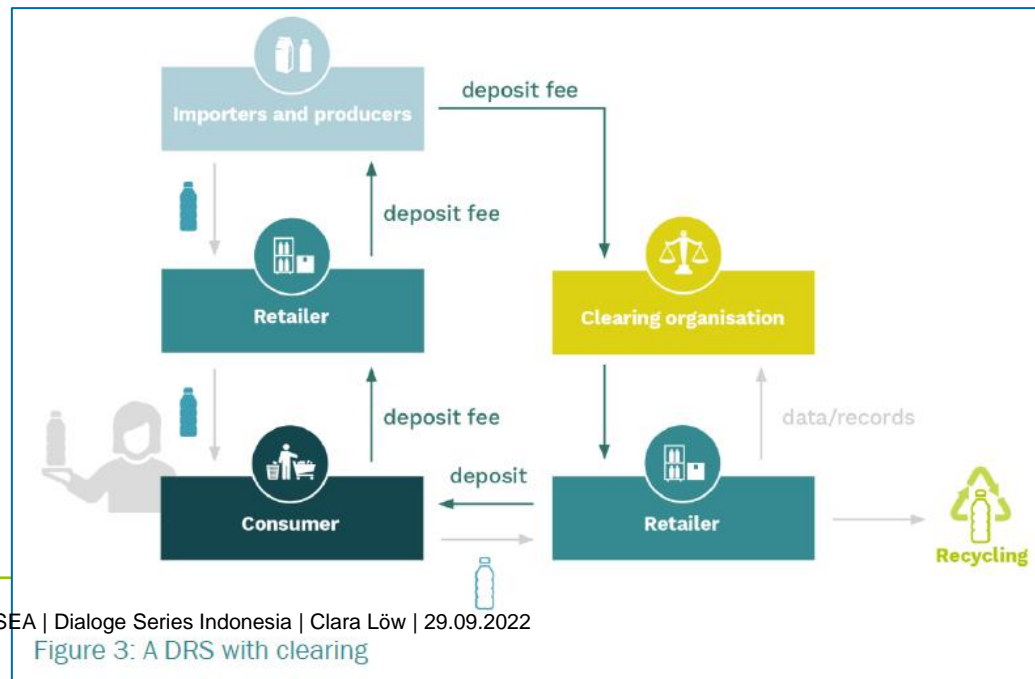
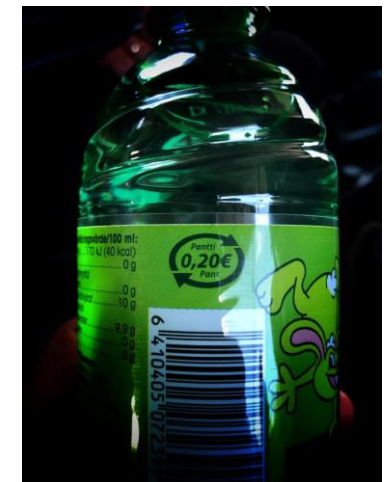


Figure 3: A DRS with clearing

Redemption system & role of the consumer

- Make redemption easy for the original consumer by making it as accessible as it was to purchase the product in the first place.
- Either “return to retail” or to an independent network operator
- consumers may return deposit containers to any retailer in the network
- Automated redemptions provides advantages
- Create labels for information of consumers:



What are the benefits?

General

- In a long term, DRS can finance themselves,
- create local jobs
- supported by many Fast Moving Consumer Goods companies.
- an effective tool for helping citizens visualise the impact of their actions.

Single-use DRS

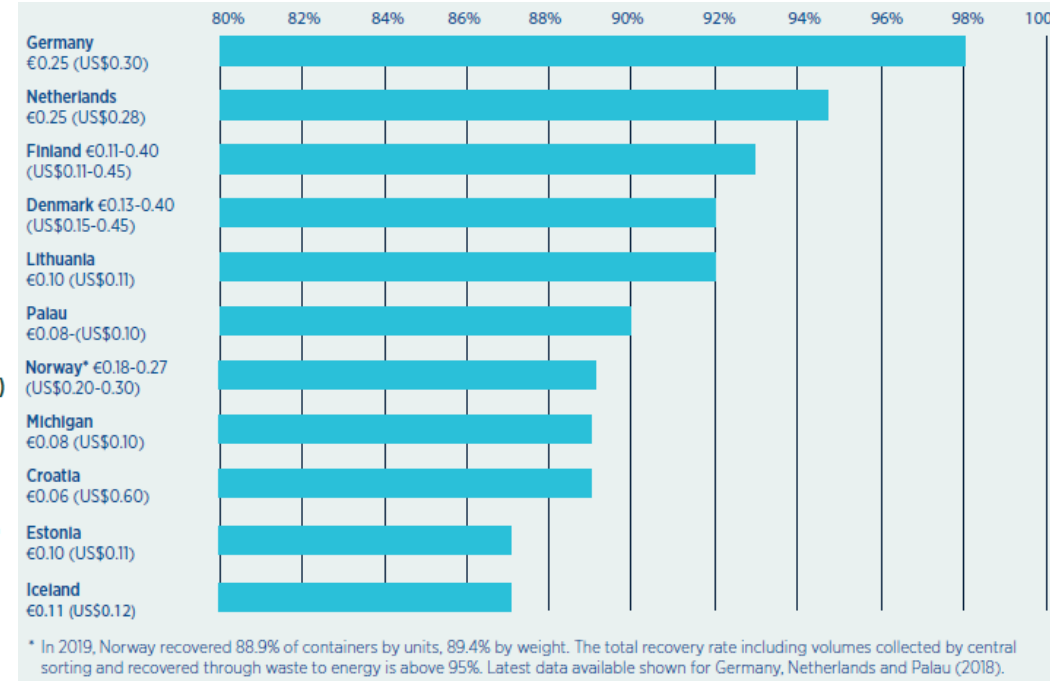
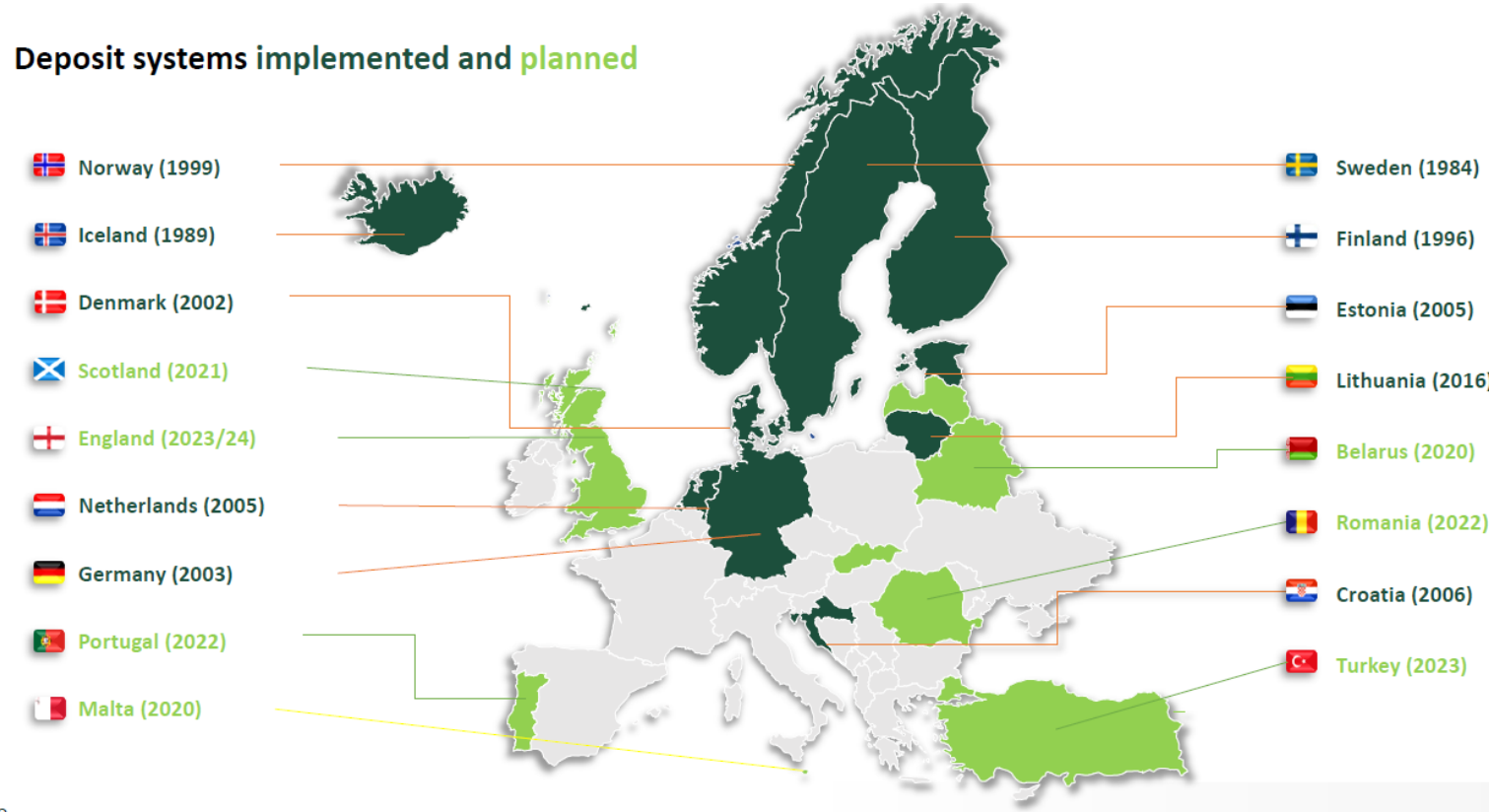
- efficient for meeting the collection and recycled content targets
- an opportunity for a closed-loop recycling system
- promotes design for recycling because the quantities of materials collected in separated streams rise
- providing high-quality food-grade recycled material in a clean single stream

Multiple-use DRS

- the collection infrastructure is often the same
- when properly implemented, DRS for reusables generate 50% less CO2 emissions than DRS for single-use items.
- Centralization in one DRS avoids inefficiencies

State of implementation of DRS across Europe

Deposit systems implemented and planned



$$\text{Return rate} = \frac{\text{deposit containers redeemed}}{\text{deposit containers sold}}$$

What are the common challenges in creating and implementing DRS system?

- Lack of support from producers, e.g., willingness of producers to be part of a PRO*-like producer organization / centralized system administration, esp., if implemented without actual legislation
- Loss of political support / loss of momentum due to long-term character of implementation
- Financial restraints
- In case of a lack of import, export and production data, it is challenging establishing the baseline, establishing target collection and recycling rates & monitoring



Questions to start with

A number of decisions have to be made before a DR system can be established. It is particularly important to clarify the following points in advance:

- **Scope:** Which items made of which materials should be collected as part of the DRS, and how big should the individual items be?
- **Collection:** Where should the items covered by the scheme be collected?
- **Labelling:** How should products to be covered by the DRS be labelled and identified?
- **Administration:** What organisational and administrative arrangements need to be made?
- **Finances:**
 - How should the DRS be financed?
 - How big should the deposit be to provide a sufficient incentive to consumers?

Recommendation for DRS adoption & enabling condition(s)

PERFORMANCE



1. Broad scope of beverages and containers
2. Minimum deposit value
3. Return-rate target

CONVENIENCE



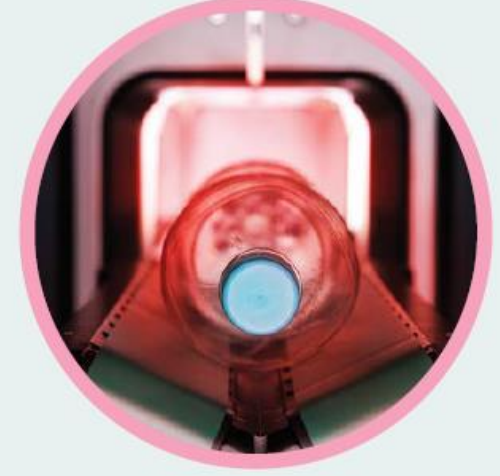
4. Convenient redemption system for consumers
5. Separately charged and fully refundable deposits
6. Container deposit markings for consumers and manual returns, barcodes for accurate accounting

PRODUCER RESPONSIBILITY



7. Extended producer responsibility financing
8. Reinvestment of unredeemed deposits and material revenue within the system
9. Recycled content requirements

SYSTEM INTEGRITY



10. Centralized, non-profit administration and operations
11. Government reporting and consumer communication
12. Government enforcement

Further Reading

- **PREVENT Waste Alliance | Video series: EPR Explained! (10.1) Deposit refund systems** https://www.youtube.com/watch?v=ETFUrc7xldM&list=PLEtESd2NqmjqOMFQ4npu9Gt_QBK6AJCFP&index=12
- **PREVENT Waste Alliance | Video series: EPR Explained! (10.2) Deposit refund system in Germany** <https://www.youtube.com/watch?v=WXot9II9dMY>
- **Zero Waste Europe (ZWE): DRS Manifesto** https://zerowasteurope.eu/wp-content/uploads/2019/12/2019_12_10_zwe_drs_manifesto.pdf
- **Prevent Alliance: EPR Toolbox Factsheet 10 | How can deposit refund systems be set up?** https://prevent-waste.net/wp-content/uploads/2021/07/FS10_Deposit-refund-systems.pdf
- **Reloop: GLOBAL DEPOSIT BOOK An overview of deposit systems for one-way beverage containers** <https://www.reloopplatform.org/wp-content/uploads/2020/12/2020-Global-Deposit-Book-WEB-version-1DEC2020.pdf>
- **Reloop: Factsheets** <https://www.reloopplatform.org/resources/factsheets/>
- **ACR+: DEPOSIT-REFUND SYSTEMS IN EUROPE for one-way beverage PACKAGING** https://circulareconomy.europa.eu/platform/sites/default/files/2019_acr_deposit-refund_systems_in_europe_report.pdf
- **UNDP: Container Deposit Scheme Pilot Project for UNDP Smart Cities Urban Innovation Challenge** <https://zerowastemaldives.com/wp-content/uploads/2020/08/UNDP-UIC-Rahdhu-Report-Final.pdf>
- **ZWE: Role of Deposit Refund Systems (DRS) in achieving a Circular Economy for beverage packaging in the EU** <https://zerowasteurope.eu/press-release/its-time-to-acknowledge-the-role-of-deposit-refund-systems-drs-in-achieving-a-circular-economy-for-beverage-packaging-in-the-eu/>
- **ZWE: The need to set essential criteria for setting up managed pool systems** https://zerowasteurope.eu/wp-content/uploads/2022/05/ZWE_Pool-Systems-Policy-Briefing.docx.pdf
- **TOMRA: Learnings from the World's Highest-Performing Deposit Return Systems (2021)**, <https://circular-economy.tomra.com/resources/drs-white-paper>, 27.09.22

Do you have any questions?

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