



# Circular Economy and Food Waste/Loss

*How Swiss cantonal authorities work on  
measurement and solutions*

*Hans Musch*

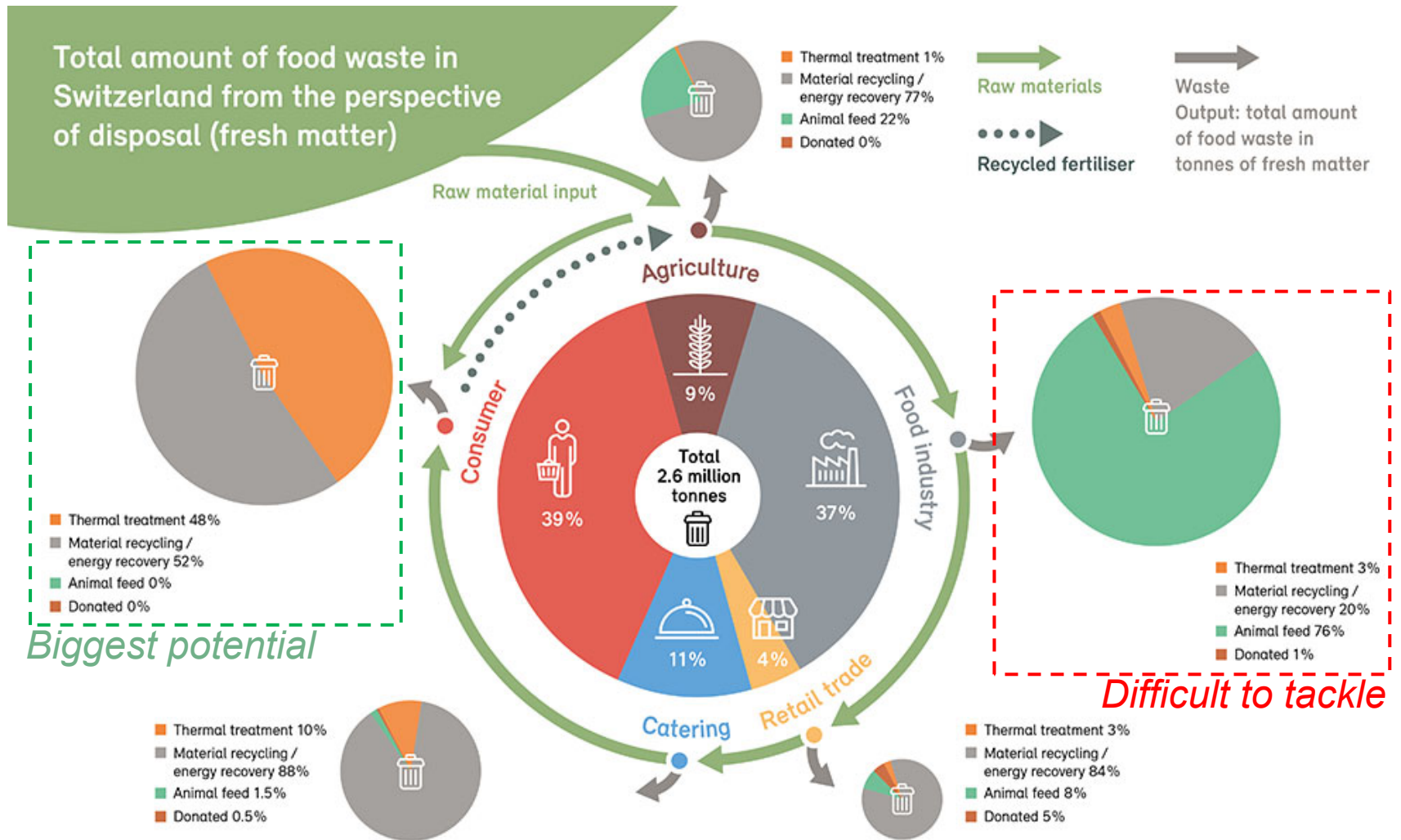
20 November 2019

Umwelt und Energie | [uwe.lu.ch](https://uwe.lu.ch)

## Topics

- Food waste in Switzerland
- Swiss Waste Ordinance
- The waste disposal perspective
- The waste avoidance perspective
- Our approach

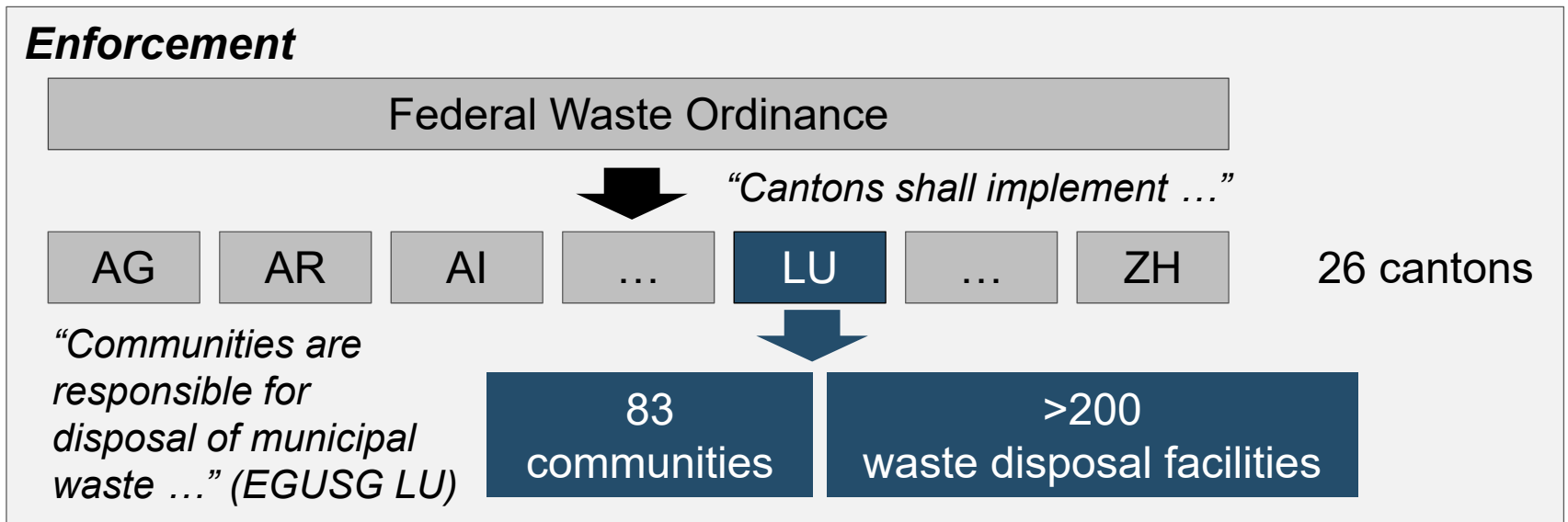
# Food Waste in Switzerland



**Avoidable food waste per head: 500 kg CO<sub>2</sub>-eq / 600 CHF**

# Federal Waste Ordinance (SR 814.600)

- > In force since 01 January 2016.
- > Applies to the **avoidance** and **disposal** of waste and to the construction and operation of waste disposal facilities.



# Waste Ordinance (ADWO)

## Some Key Elements (1)

- Waste management plans (Art. 4)

Draw up every 5 years.

- Measures to avoid waste
- Measures to recover waste

▶ Strategy

- Annual reporting (Art. 6, from 1<sup>st</sup> Jan 2021)

- Quantities of types of waste disposed
- Waste disposal facilities

▶ Indicators

# Waste Ordinance (ADWO): Some Key Elements (2)

- Avoidance of Waste (Art. 11).
  - The FOEN and the cantons shall encourage the avoidance of waste:
    - **raising the awareness** of and providing information to the public and businesses.
    - Shall work with the private sector organisations concerned.
  - Production processes must be organised according to the **state of the art** so that as little waste as possible is produced.

▶ Target “less waste”

# Waste Ordinance (ADWO): Some Key Elements (3)

- General recovery obligations (Art. 12).
  - Waste must be recycled or recovered for **energy**
  - Recovery must be carried out according to the **state of the art**.

▶ Target “best technology”

- Biogenic waste (Art. 14)
  - must be recovered solely by **recycling** or by **fermentation**  
(some provision must be taken into account)

▶ Target “recycling/fermentation”



# Disposal of Biogenic Waste at Canton Luzern (2018)

Households, gastronomy,  
gardening (406'000 pop.)

Municipal waste collection



32% biogenic  
waste

Total: 84'880 t  
Bio: 27'200 t

Green waste collection



Total: 91'744 t

*No figures for food waste avl.*

Target

Incineration plant



Production of electricity,  
steam, district heating  
**Conversion efficiency 90%**

26 compost and  
fermentation plants



Production of biogas,  
electricity and compost

Substitution of fossile fuels

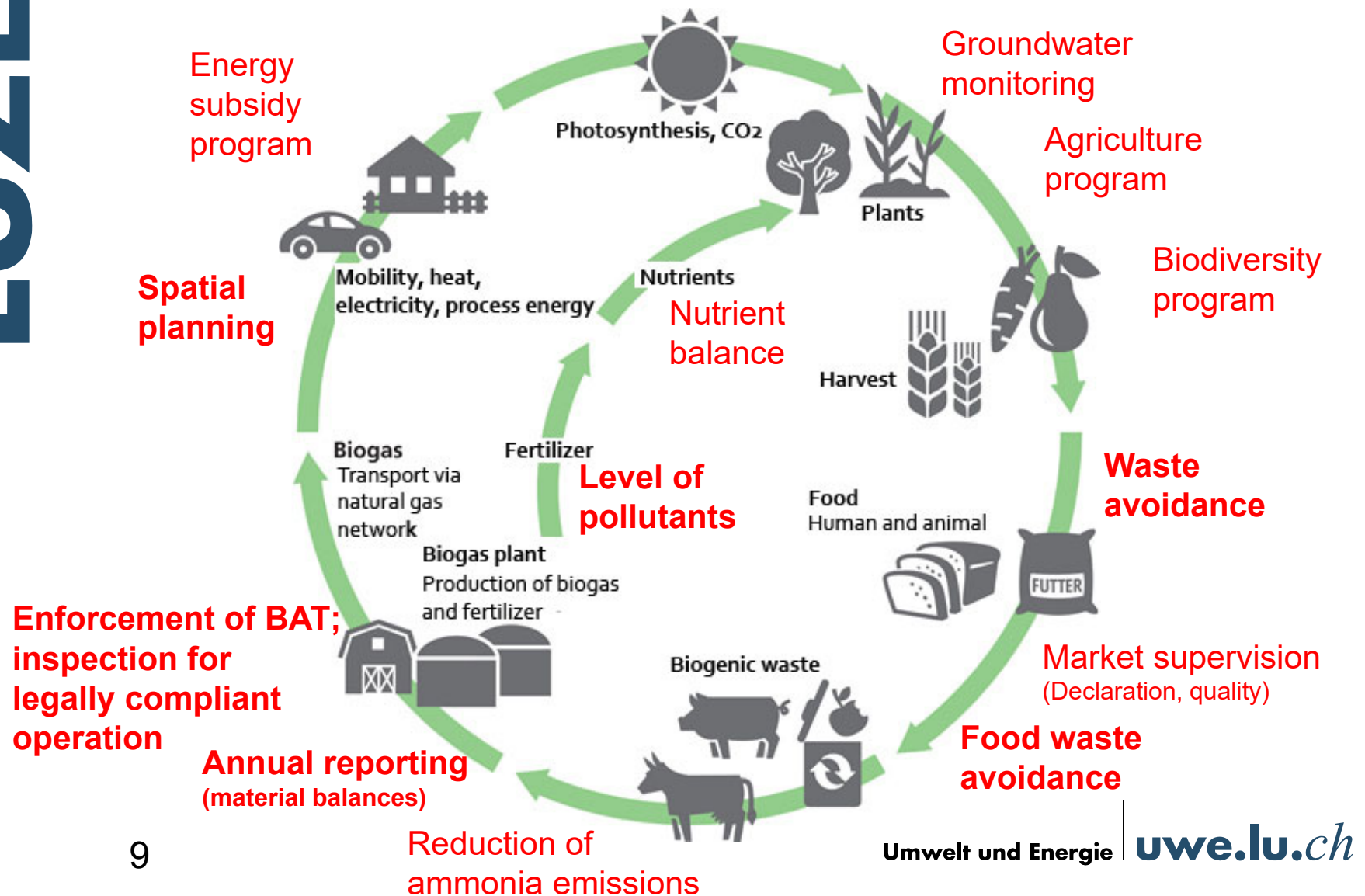
Fertilizer (Compost)



# Cantonal tasks in the circular economy

Red: (Some) tasks of the cantons

**Bold:** Waste Ordinance



# Food waste avoidance: Building awareness (1)

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Start Aktuell Kampagne Wettbewerb Medien Partner Kontakt

→ FLICKE → TEILE → SORG HA


← Kampagne

## «Food Waste»


**Ausstellung mit Tipps zur Vermeidung von Food Waste im Haushalt**

Die Roadshow «Food Waste» ist eine kompakte Kleinausstellung, die das Thema Food Waste für eine breite Bevölkerung zur Darstellung bringt. Vier Poster zeigen den persönlichen Handlungsbedarf auf:

1. **«Clever einkaufen»:** Auf Klapptafeln werden konkrete Handlungstipps zum Einkaufen gegeben
2. **«Richtig lagern»:** Ein Einkaufskorb mit imitierten Lebensmitteln muss in einer Küche richtig verstaut werden. Was kommt wohin im Kühlschrank, welche Lebensmittel halten besser ausserhalb des Kühlschranks und was kann man am besten im Keller lagern?
3. **«Haltbarkeit kennen»:** An ausgewählten Lebensmitteln erfahren die Besuchenden den Unterschied zwischen Verbrauchs- und



Die Fakten sprechen für sich! Und jede/r kann einen Beitrag zur Reduktion von «Food Waste» leisten.




*What we promote*


- Regional campaigns
- Roadshow

# Food waste avoidance: Building awareness (2)


Meinten Sie  
[foto erste](#)




**Speiseresten**  
Es gibt verschiedene Strategien, um Speiseresten zu vermeiden. Falls doch solche anfallen, gehören diese in der Regel in den Kehrriech und nicht auf den Kompost.  
[mehr →](#)



**In der Küche**  
Fein, günstig, einfach! Tipps und Tricks für mehr Nachhaltigkeit in der Küche, welche auch den Geldbeutel schonen.  
[mehr →](#)



**Altes Brot**  
Vögel nicht mit altem Brot füttern. Altes Brot kann immer noch vielfältig in der Küche verwendet werden.  
[mehr →](#)



**Food Waste**  
Seit einiger Zeit gewinnt die Verschwendung von Lebensmitteln in unserer Gesellschaft immer mehr an Aufmerksamkeit. Dieses Dossier widmet sich dem Thema „Food Waste“, wie die Verschwendung von Esswaren heute oft genannt wird. Hier finden Sie Hintergrundinformationen, hilfreiche Tipps und weiterführende Links.  
[mehr →](#)

*Our partner*



*What we promote*

- Program for schools
- Tipps and tricks for shopping, storage, size of servings...

# Food waste avoidance: Media attention is growing

**SWI** swissinfo.ch | #20yearsSWI

USING COMMON SENSES

## Fighting food waste with your eyes, nose and tongue

By *Susan Misicka*

NOV 8, 2019 - 16:19



Dealing with the  
best before date

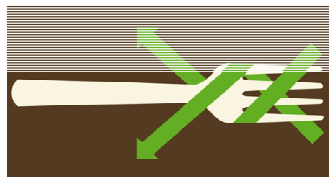
# Food waste avoidance: Information sharing concepts



Left-over foods from bakeries, restaurants, or supermarkets; 1'818 partner companies in CH; (APP)



Recipes that adapt to suit your preferences and what's in the fridge (APP)



Food-shelf

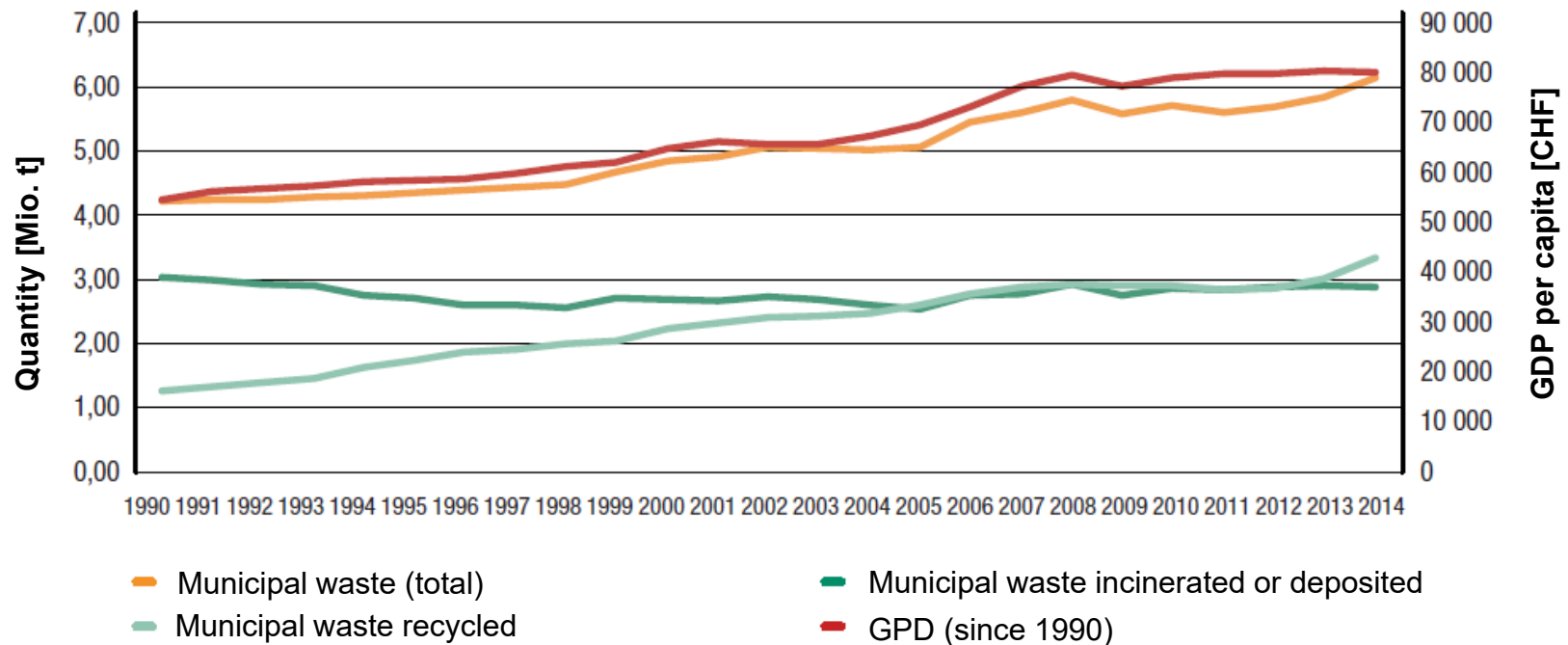
Members can offer surplus food, called food baskets, to the community or collect food from other members (APP).



Pre-ordering of menu at canteens, suggests new meals based on user's food or lifestyle preferences (APP).



# Why do we focus so much on recycling?



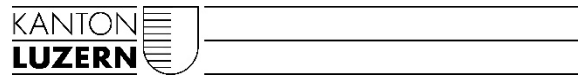
Waste generation is closely correlated with income.  
Our understanding of waste prevention is not well developed yet.



# Our approach for the next couple of years

Annual reporting	Annual data collection according to Federal Waste Ordinance will provide much more insight.
Separate collection	We promote fermentation of food waste instead of incineration
Best available technology	We enforce best available technology (BAT) for processing of biogenic waste
Food waste avoidance	We run campaigns to avoid food waste in households and gastronomy
Corrective actions	We take actions when recovery (and avoidance) targets are not achieved.

# Thank you very much for your attention



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