

# The Importance of Sustainable Waste Management as a Response to Climate Change

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## **AGENDA**

**BAYERN – FIT FOR PARTNERSHIP digital**

13. und 14. September 2022

**Bulgarien: Nachhaltiges und innovatives Abfallmanagement**



# Current State of Waste Management in Germany...

Let`s take a brief look at the waste management value chain



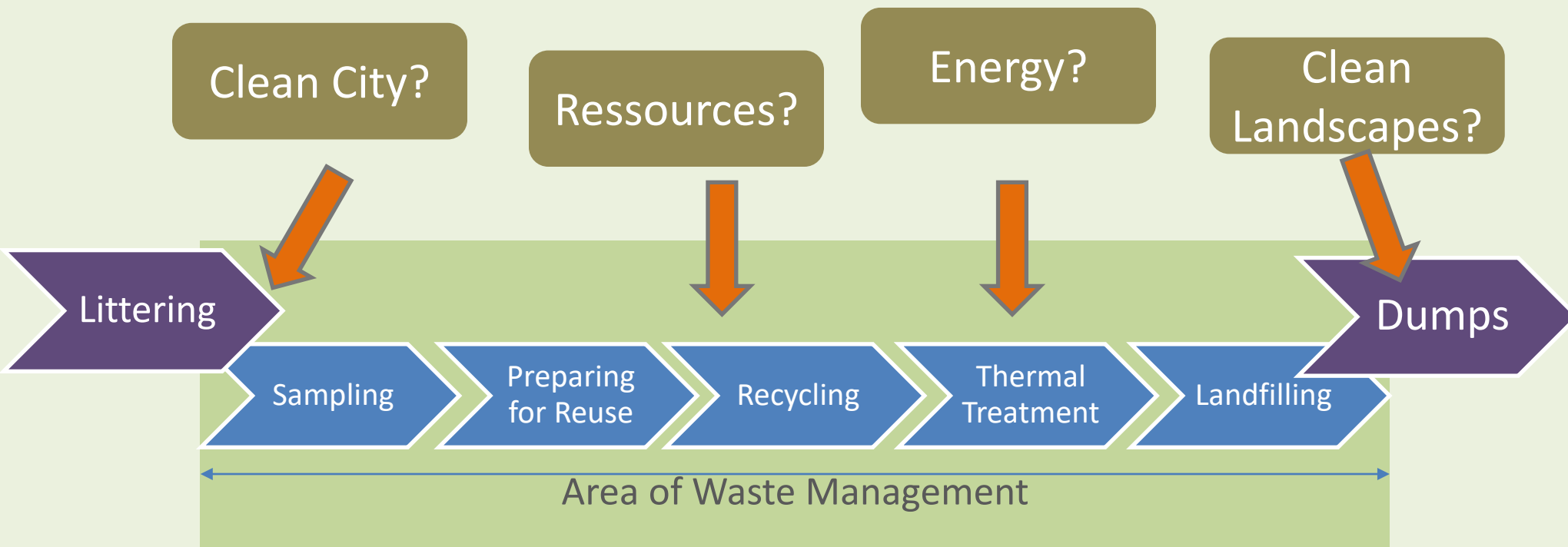
Turnover of Waste Management in Germany is about 70 Billion Euro

There is not enough time to try an overview here.

The companies that will then give presentations, will give a good insight into the capabilities of the German service industry.

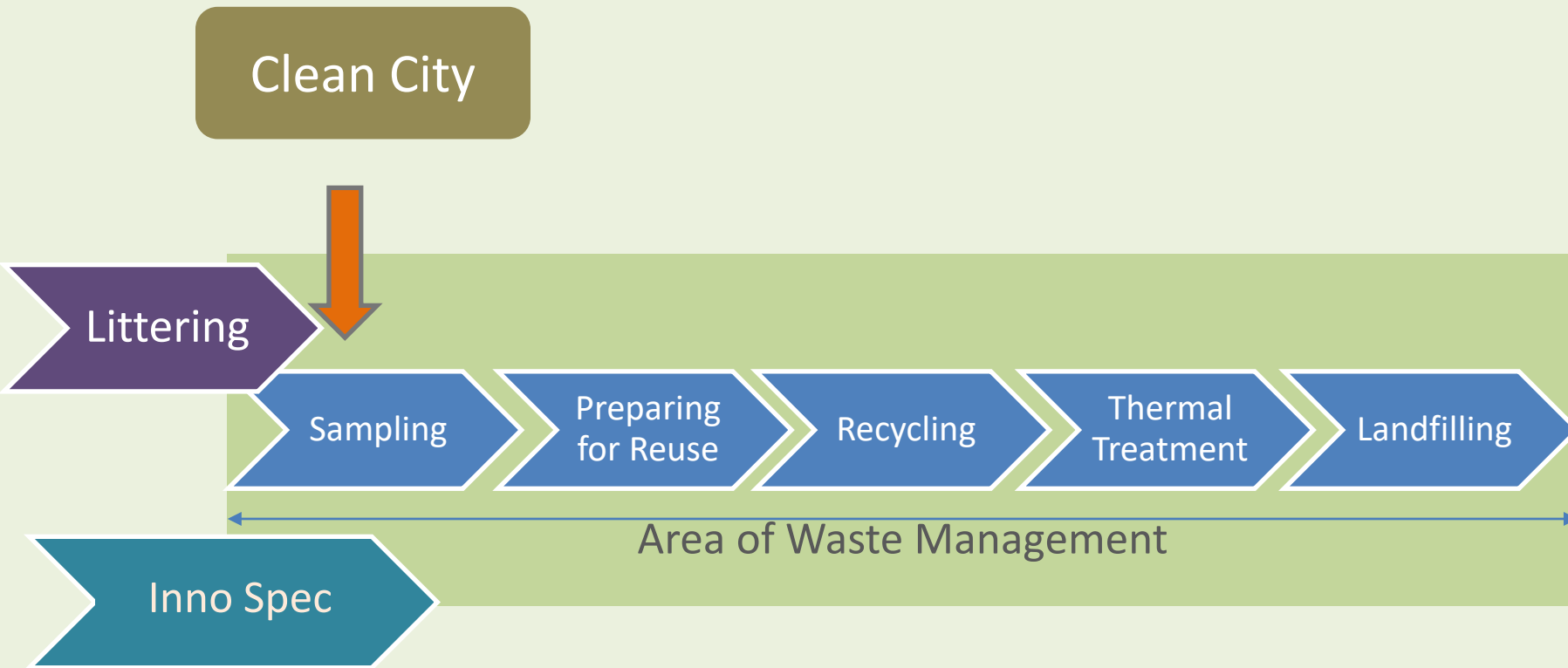
## ... Starting Position for SWM-Strategy Development

But what is your AIM where the strategy should lead you to?



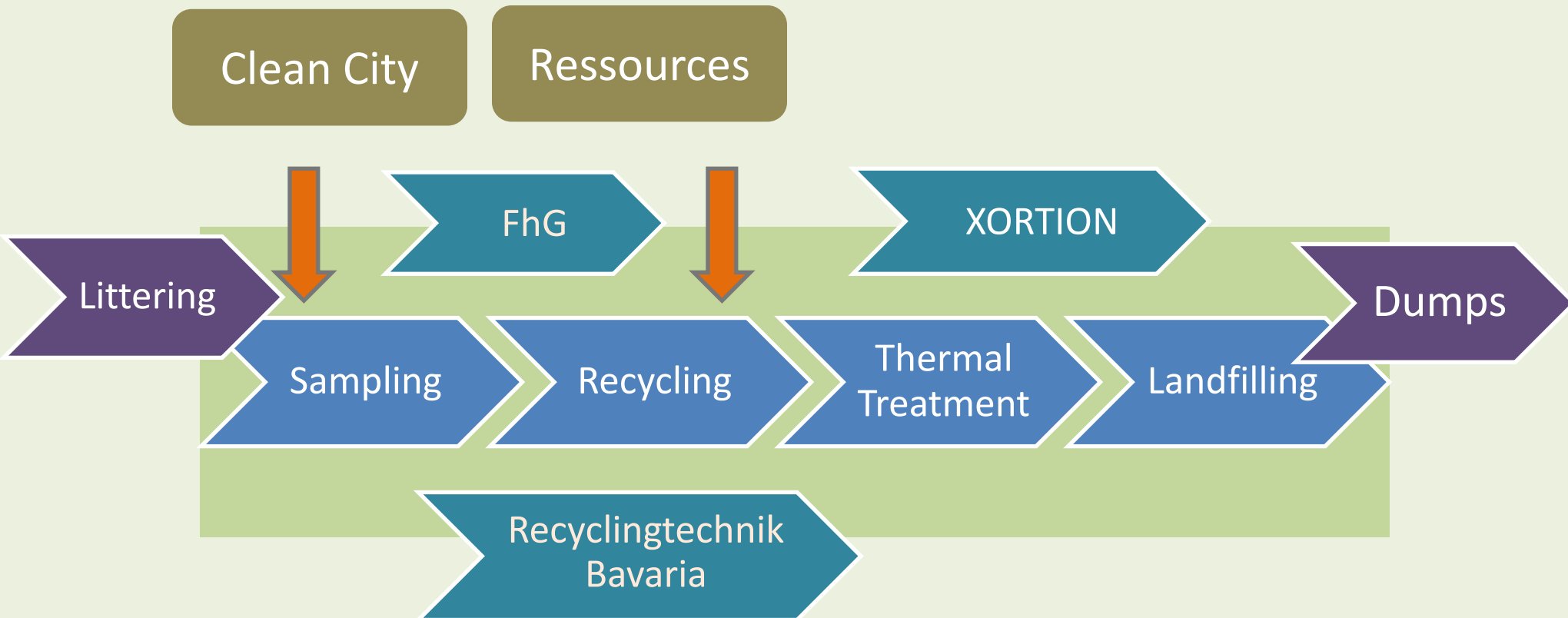
# ... Starting Position for SWM-Strategy Development

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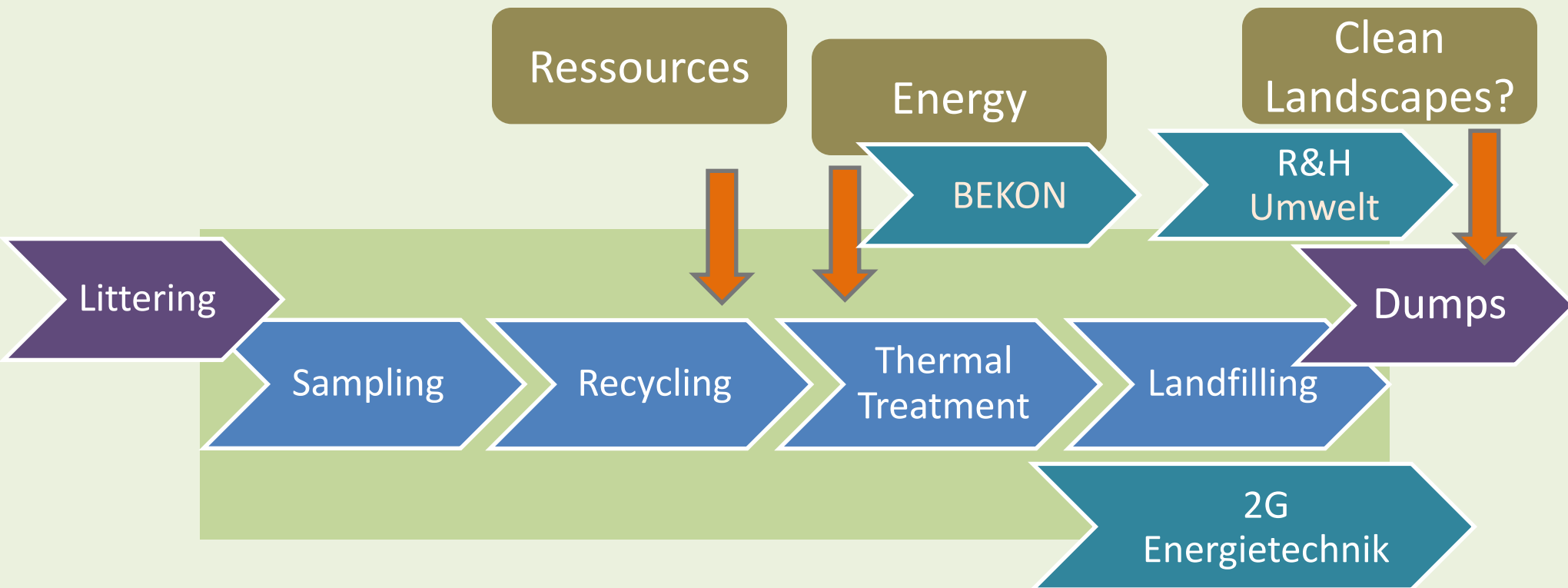
## ... Starting Position for SWM-Strategy Development

Let us come back to the AIMs and all the companies here in Bavaria



## ... Starting Position for SWM-Strategy Development

... and all the companies here in Bavaria...





**... Europe starts to become aware, that a Sustainable Waste Management has good answers to Climate Change**

*Close dumps and  
landfills!*

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landfills!*

## FACTS FROM LANDFILLING:

“Using a material flow model for approximately 23 million tons of Bavarian urban and industrial waste – beginning with waste collection, disposal and recycling through to the treatment of residual materials – the impact of these material flows on greenhouse gas emissions was determined.

The entire greenhouse gas reduction achieved by the MSW system results from the assumption that all waste taken into consideration had been landfilled. This scenario would have led to an environmental pollution of 9,58 million tons of CO<sub>2</sub> equivalents. When comparing the landfilling of all waste to the scenario without landfilling, the Bavarian waste management would achieve a reduction in CO<sub>2</sub> equivalents of 13,2 million tons. The largest individual contributions result from energy recovery in waste incineration plants as well as from the recovery of scrap metal.”<sup>1)</sup>

**As shown in the above example, Bavaria, having 12,5 million residents, before 2005 has already mitigated over one ton of CO<sub>2</sub>-equivalents per inhabitant and year.**

References: 1) bifa umweltinstitut, bifa Texte 34, 2005; [www.bifa.de](http://www.bifa.de)



**A successful waste management asks...**

**... what tools do we need for**

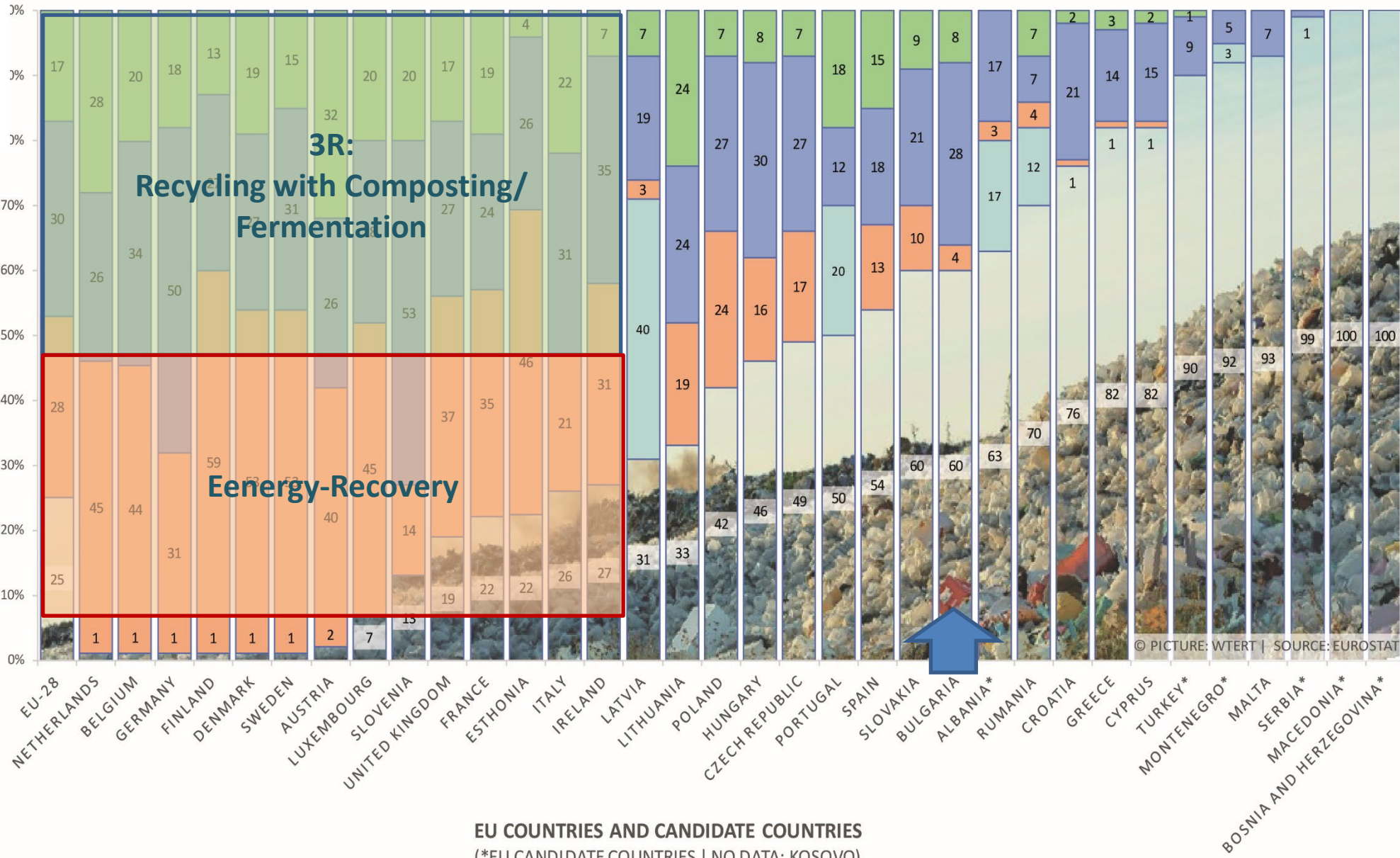
**GHG**

**Mitigation ?**

# MUNICIPAL SOLID WASTE OF THE EU AND CANDIDATE COUNTRIES IN 2017

landfilling missing data to fulfill 100% incineration mechanical recycling composting | fermentation

DISPOSAL OF MUNICIPAL SOLID WASTE IN PERCENT | ROUN

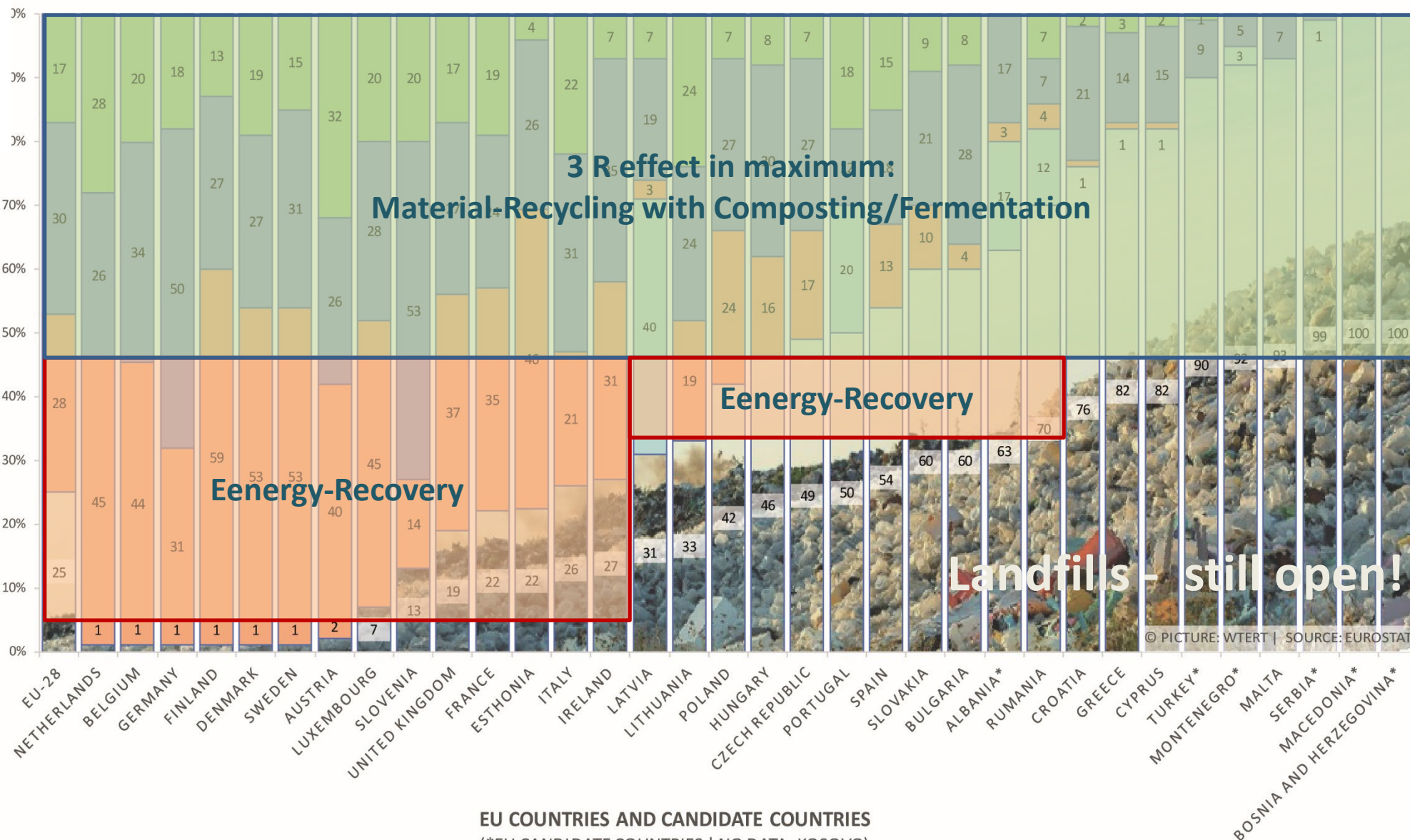


EU COUNTRIES AND CANDIDATE COUNTRIES  
(\*EU CANDIDATE COUNTRIES | NO DATA: KOSOVO)

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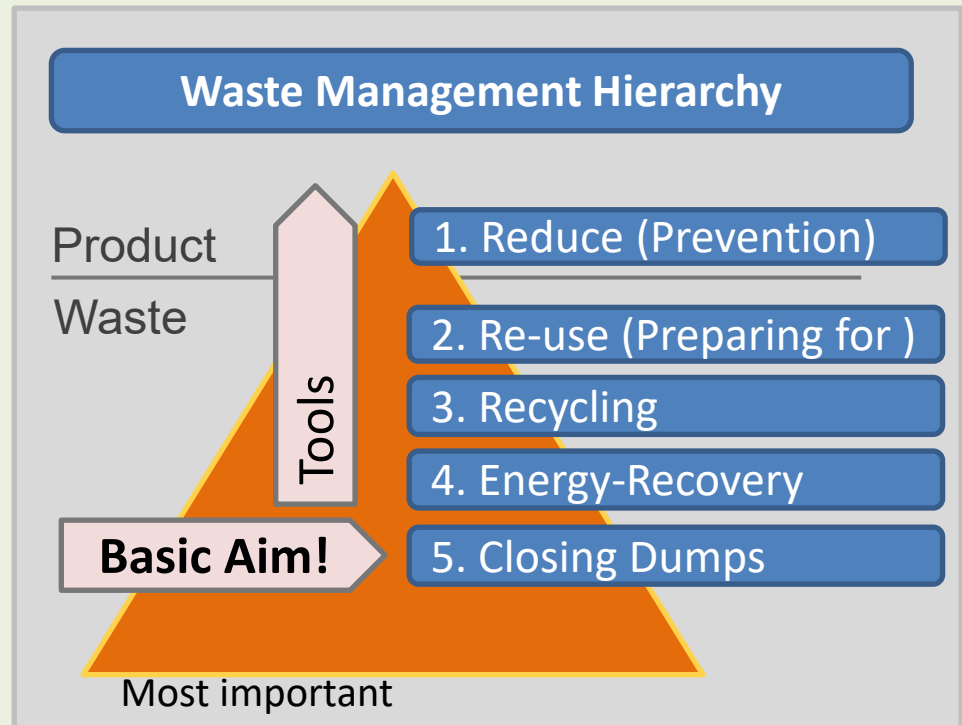
EU COUNTRIES AND CANDIDATE COUNTRIES  
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# What tools do we need for GHG mitigation?



EU`s well known hierarchy is very helpful

# What tools do we need for GHG mitigation?



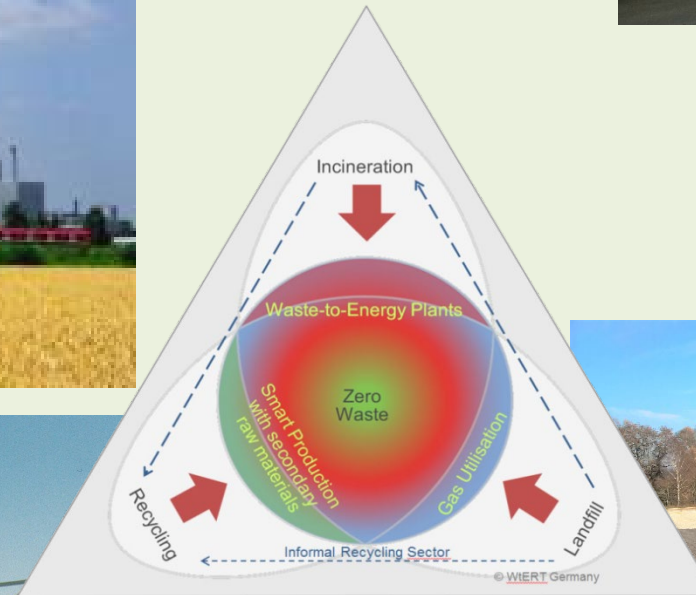


We promote:

energy  
recovery...



... the benefit of recycling, e.g. fermentation.....



... reduce and reuse strategies...



... and the need for  
good landfill operation.





**Vision:**  
**We all live in a circular society**  
**where nothing is wasted**





# WtERT aims to merge the essence of SWM with Case Studies



ANGED - Agence Nationale de Gestion des Déchets

## Transfer Center of Kram, Tunisia

Transfer stations are of particular importance for the development towards sustainable waste management, as they are a...



PadMad Kenya (Seren Associates Ltd)

## Padmad, Initiative on reusable sanitary pad in Kenya

PadMad, co-founded by Madhvi Dalal, is a social enterprise that has worked in Kenya and Somaliland on addressing period poverty. PadMad introduced biodegradable, reusable...



Case Study

## Composting of MSW in Salaj, Romania

The plant in Salaj, Romania uses the GORE® Cover Process Technology in order to compost the organic fraction from MSW whilst reducing odors and emissions. 6 GORE® Cover system...



Case Study

## The Waste Reloading Station of the District Miesbach, Germany

Up to 22,000 tonnes of waste by weight are pressed and reloaded...



Entsorgungstechnik BAVARIA GmbH

## RFD from Industrial- and Household Waste in Allgaeu, Germany

The Leutkircher Wertstoffhof GmbH & Co. KG operates a sorting station for industrial- and household waste next to the collection point for recyclable...



University Stuttgart - ISWA

## Ensuring clarity about the amount of biowaste helps to reduce it

Research project carried out by ISWA, University Stuttgart



AVA Abfallverwertung Augsburg GmbH

## AVA (Waste Treatment Augsburg), Germany - Energetic and Material Recycling Under One Roof Leads to Considerable Synergies

The waste management companies...



W. L. Gore & Associates GmbH

## Composting of Sewage Sludge in Kirchbichl, Austria

The ARAB Kirchbichl plant in Tyrol, Austria uses the GORE® Cover Process Technology in order to compost sewage sludge whilst reducing odors and emissions. 6...



STADLER Anlagenbau GmbH

## Mechanical-biological treatment plant (MBT) in Granada, Spain

The plant Ecocentral Granada was a renovation and an expansion of the old sorting and composting plant Loma de Manzanares. It is a hybrid...



Coliba Ghana Ltd.

## The Dansoman-Glefe community plastic buyback center in Ghana

The Dansoman-Glefe community plastic buyback center initiated by Coliba Ghana offers the avenue for community members to bring their...



Markt Markt Schwaben

## Traffic routing at the recycling center Markt Schwaben, Germany

Visitor traffic and recycling yard logistics are completely separated here.



Abfallwirtschaftsbetrieb Böblingen

## El Guettar, Tunisia: Project Partnership of the Waste Management Company Böblingen, Germany

The project "Municipal Knowledge Transfer Maghreb-Germany" between the waste management company of...



AWB Abfallwirtschaftsbetrieb des Landkreises Neu-Ulm

## The disposal and recycling center EWW of the District Neu-Ulm - Perfect Combination of Material and Energy Recycling, Germany...



Kolika Company Ltd. (KoliKo Wear)

## Kolika Converts Waste Textiles into Shoes and Bags, Ghana

Kolika Company Ltd. (KoliKo wear) is a social enterprise that seeks to support skilled and opportunity seeking youth to produce innovative products which are environmentally friendly.



## Pollution Prevention in a Tunisian Hotel

Hotel Caravane Serail is a 50-employee, 399-bed hotel located at an oasis at the gate to the Sahara Desert. The area in which the hotel is located is faced by a serious problem of water...



WEEE Centre

## The WEEE Centre in Nairobi, Kenya and 15 Other Countries in Africa

The WEEE Centre, Nairobi Kenya offers recycling services for ICT waste to the general public, business,



ZMS Zweckverband Müllverwertung Schwandorf

## Conversion of a lignite-fired power plant into a waste-to-energy plant using the example of the ZMS Schwandorf, Germany...



AWG Abfallwirtschaft Landkreis Calw GmbH

## Composting of Organic Waste at the Simmozheim Waste Disposal Plant, Germany

With the introduction of the GORE® Cover technology in 2014, the composting plant could be



## Silla 2 Waste-to-Energy Plant, Milano, Italy

The Silla 2 waste-to-energy plant is located in the north-west area of Milan near the Figino district. The plant is able to treat over 500,000 tons of waste and produces electricity and



Technische Betriebsdienste Reutlingen

## Anti-Littering-Campaign in Reutlingen, Germany

In Reutlingen, 300 citizens have been showing their full commitment to their city for 15 years: They own a sponsorship for a "piece of



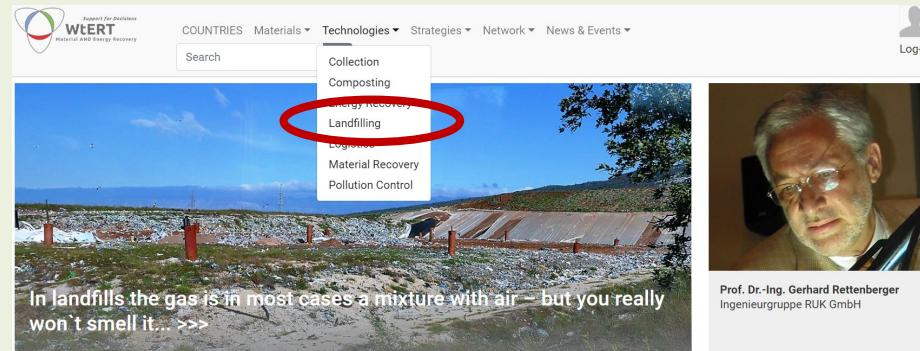
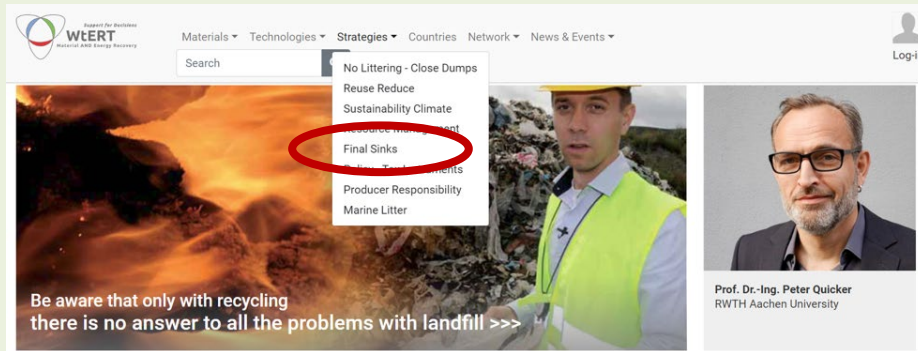
BSA GmbH

## Business with Construction Waste in Gmund, Germany

BSA GmbH in D-83703 Gmund, a specialist waste management company according to the German §52 KrW-/AbfG, takes construction waste and processes it into



# WtERT aims to merge the essence of SWM also with Recommendations



Many thanks for your kind attention  
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