

Deutsche Gesellschaft für Abfallwirtschaft e. V.

Future topics and trends in waste management in Germany



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Online – delegation - India

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German Association for Waste Management

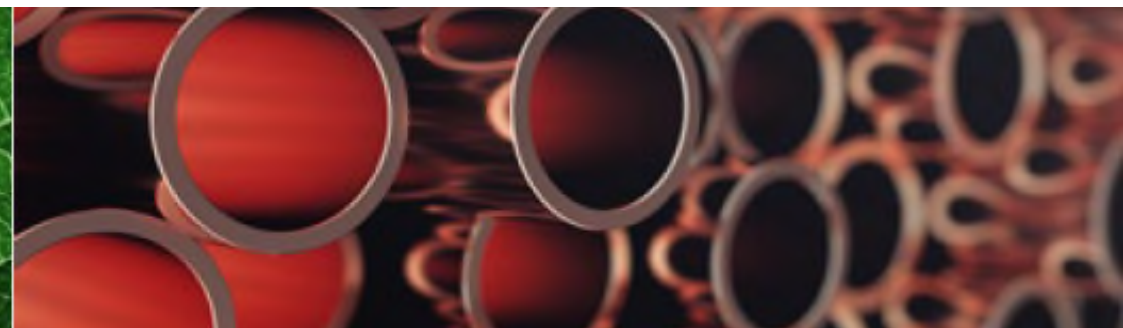


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resources

Our Mission...

- For circular economy we are the NGO with the most experts of various aspects
- We establish new relations and are an independent partner for producers, waste disposal companies, politics & administrations, science and society
- We are masterminds and a driving force for the development of our future circular economy
- We are an important independent contact for industry and politics due to our strength of opinion formation in a consensual and factual way concerning all aspects of the economy and society
- We work responsible for the future of the waste management sector and stakeholders trust us as the „Voice of Prudence and Common Sense“. **Germany is successful due to a strong civil society.**



The future of the waste management sector in Germany – topics and trends (1)

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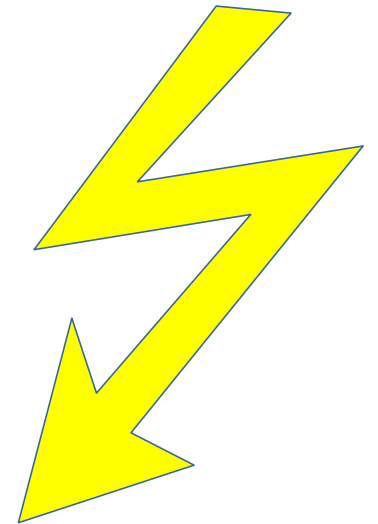
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Disruptive business models:

- „traditional business models“ were based on the division of business, that waste would be handled just by either public or private waste management companies
- This division of work guaranteed somehow the financing of the waste management companies – originally through waste disposal, then also through reusable fractions

Now: new players enter the waste management sector whose core business is not waste management

- these players optimize their waste costs by collecting and treating the waste of their own branches: e.g. Lidl, Werner & Merz or
- They use their capacities and know-how of their core business to enter waste management markets like „take-back-systems“. Possible players are e.g. logistics providers like Amazon, DHL, UPS.



The future of the waste management sector in Germany – topics and trends (2)



The rising of online-platforms and intermediaries:

- Platforms between recyclers and customers
- Online traders of secondary raw materials e.g. the start-up „Remetal“ buying scrap metal directly from consumers and pick it at their private doors
- Apps – service apps to order online containers, picking up of bulky waste e.g. „Resourcify-App“ (Waste management app for industry), the app: "Zero Waste Map" of Stadtreinigung Hamburg in order map offers producing less waste compared to competitors



The future of the waste management sector in Germany – topics and trends (3)

Implementation of the newest legislation:

- After-treatment is duty for collected waste

Municipal waste, some kind of industrial and commercial waste and waste from institutions including separately collected waste fractions must be treated and sorted in order to give priority to material recovery instead of burning (energetic use)

- Investments of waste management companies in newest technologies e.g. AVG of the city of Cologne invests into a new sorting plant to separate plastics out of residual waste: aim is to reach higher recycling rates and as a side effect, to reach a more stable temperature in their incineration plant (efficiency).



The future of the waste management sector in Germany – topics and trends (4)

Avoiding waste incineration by finding alternatives

Chemical recycling might be an alternative: e.g. treatment by pyrolysis, gasification, „plasma process“...

Target: instead of incineration and use as an energy source the materials which become waste should be reprocessed as completely as possible in order to reuse these materials and to remove harmful substances at the same time.



Source: BKV-GmbH.de, photo made on K-Messe 2019 by Dr. Ludwig

It should be noted that waste incineration represents the state of the art for the treatment of residual waste. None of the so-called alternative procedures could prove under comparable framework conditions so far a similar efficiency and flexibility.

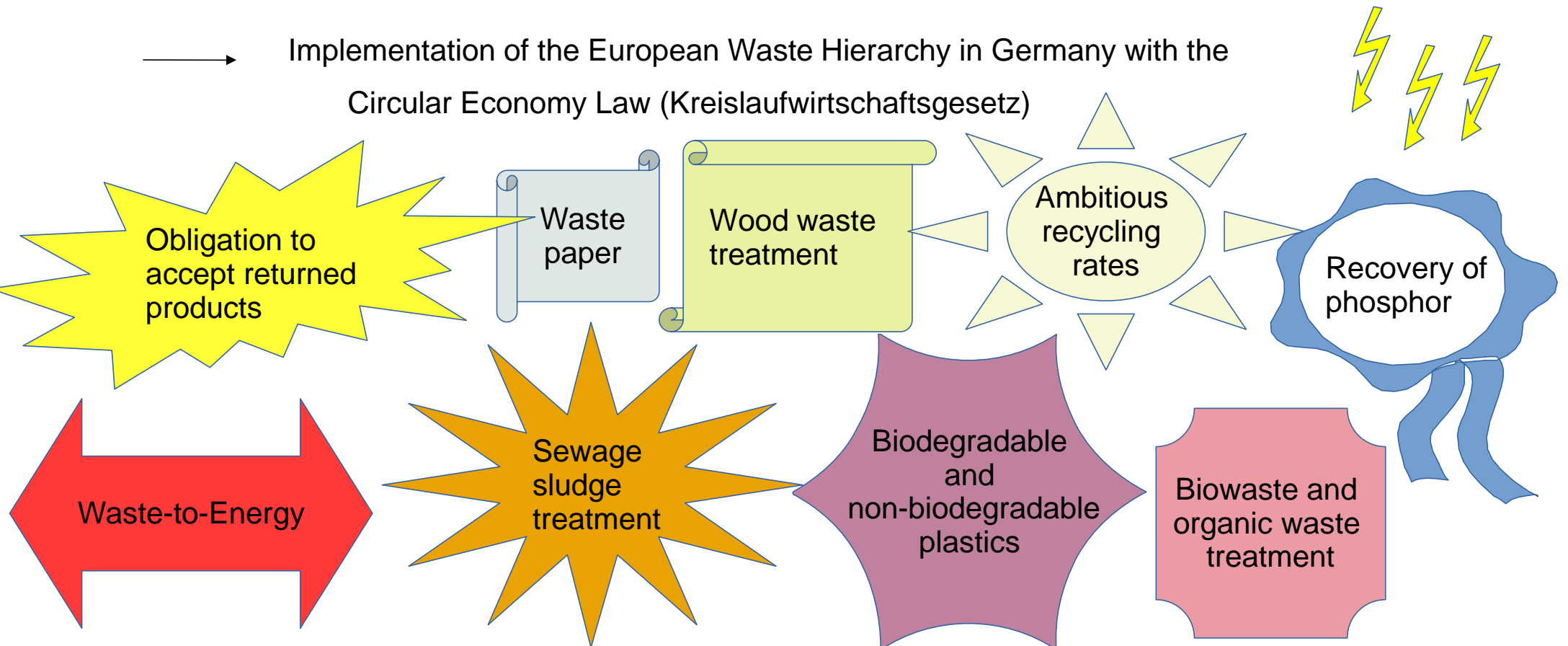
Beware of promised „miracles“.

Complexity of the Waste Management Sector

Obstacles

Waste Framework Directive of the European Union

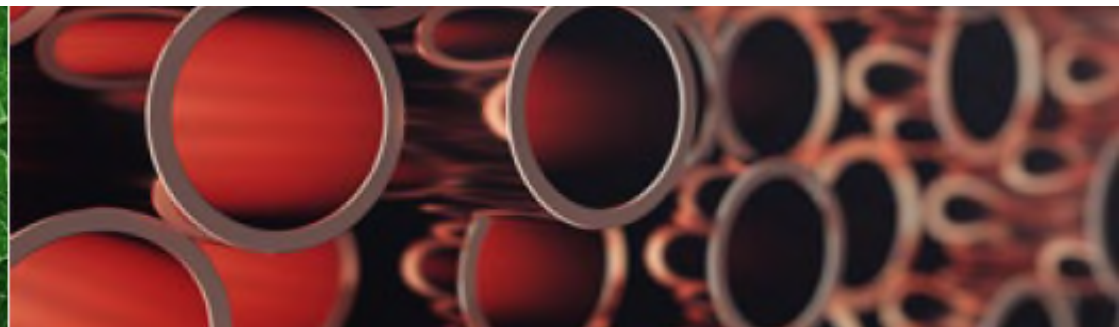
→ Implementation of the European Waste Hierarchy in Germany with the Circular Economy Law (Kreislaufwirtschaftsgesetz)



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Bio Waste and Garden Waste



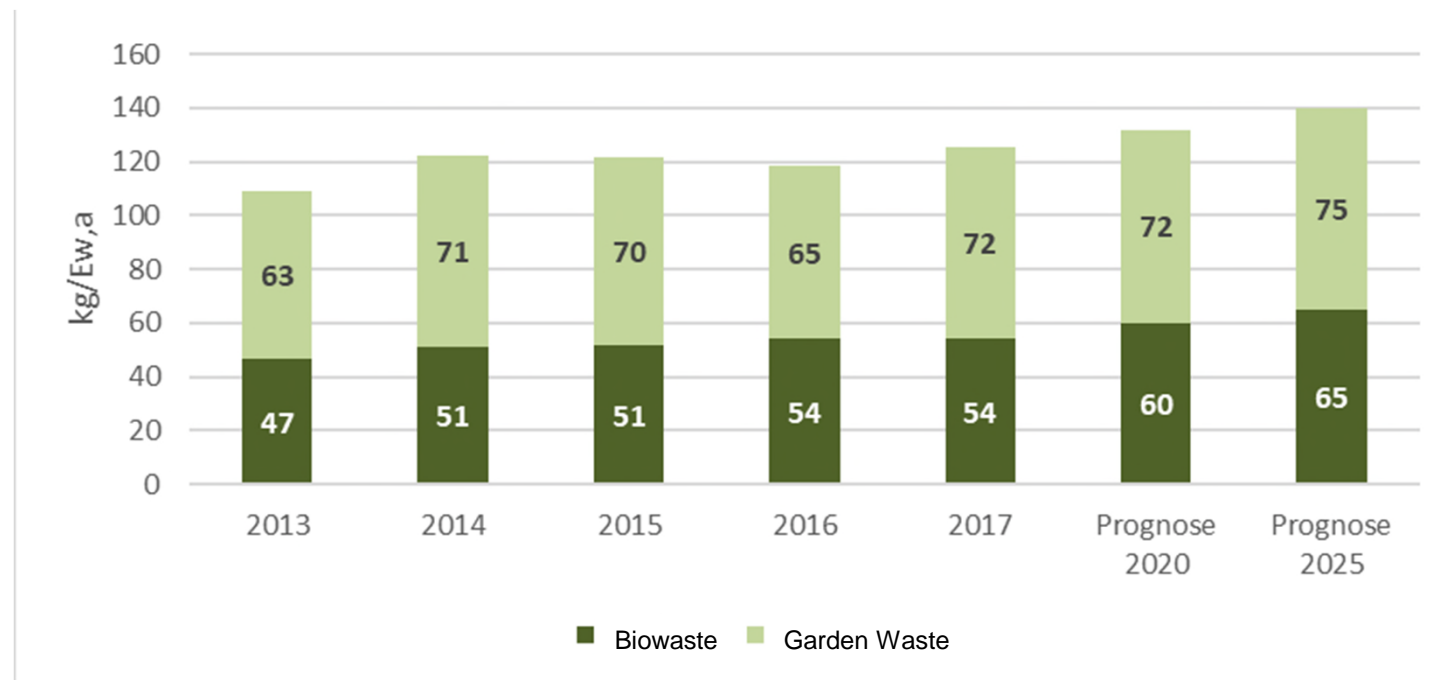
Status and development of the bio waste and garden waste volume

In Germany currently about 50 kg/capita*year organic waste is collected separately

The area-wide separate collection is not yet fully implemented

A current residual waste analysis of the Federal Environment Agency came to the conclusion that the residual waste still contains about 40 kg/ capita*year of biowaste

It is not easy to raise the potential



Quality of Compost: Limit values for impurities

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Quality marks guarantee quality through independent quality monitoring and create confidence in the market

In Germany the RAL quality assurance system of the Bundesgütegemeinschaft Kompost e.V. (BGK) are voluntary product certifications for manufacturers of fertilizers and soil improvers from the recycling industry

Limit values for the content of foreign matter > 2 mm are regulated in Germany by various regulations

Limit values of the fertilizer ordinance :

- non-degraded plastics (foils): 0.1 wt.% DM
- sum of all other foreign substances: 0.4 wt.% DM

Limit values BioAbfV: Total foreign substances: 0.5 weight % TM



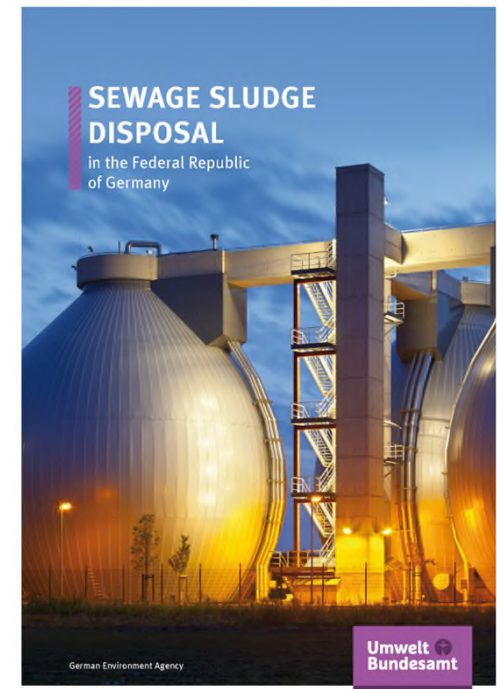
Future challenges of sewage sludge utilization

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- Soil-related recycling after the transition periods only possible for small plants
- Currently, about 625 kt are still used in agriculture/landscaping
- The current treatment capacity of combustion is around 860,000 kt, but about a third of this is in lignite and hard coal-fired power plants, which will be eliminated due to the coal phase-out
- → Demand for disposal capacities: Mono Incineration
- Phosphorus recovery is mandatory for sludge with minimum 20 g phosphorus/ kg as well as for sewage sludge ashes
- P-recovery processes must be implemented on an industrial scale

The situation is further aggravated by the amendment of the fertilizer ordinance, which makes the use of sewage sludge as fertilizer in agriculture more difficult



An English version of the publication “sludge treatment in Germany” can be downloaded:
https://www.umweltbundesamt.de/sites/default/files/medien/1410/publikationen/190116_uba_fb_klaerschlamm_engl_bf.pdf

Obstacles „New Laws“: DGAW takes position e.g. organisation of return systems

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Position: Certain products may only be sold:
if an return system for these products would be effective and
if an environmental friendly treatment would be available when it becomes waste.



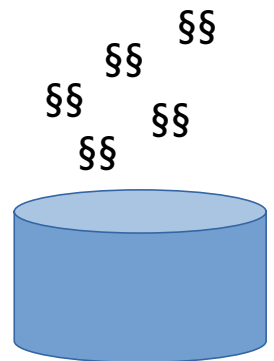
Take back systems,
Deposits (e.g. bottle deposit),
Return of used product to its destination point



Contribution to the cost of cleaning the environment from
waste that has arisen after use of the products and that
has been disposed of in the environment



Appointment of an authorized representative for
products
of foreign manufacturers (cross-border aspect),
Support for a system to promote reuse and repair,
Introduction of verification management



Thank you very much – open for dialogue

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