## Climate Target, Circular Economy: Implementation of

#### EU WASTE LEGISLATION

## MARCH

19:00 - 22:00











## **Implementation of waste legislation** (Early Warning Reports on Waste Recycling and landfilling targets)



## **Key findings**

- > Majority of EU **MS at risk of missing 2025 targets**
- **Biowaste** is the key waste stream (34% of municipal waste).
- > The most critical packaging stream is **plastics packaging**
- Data quality issues (unreported waste in some MS)
- Recycling performances lowered by new calculation rules and potentially by Covid and energy crisis

## **Municipal Waste Europe**

We represent the municipalities of 19 Countries in their waste management obligations Municipalities are the Bridge between the RU producer, the consumer EUROPE and the recovered materials UA FR A key enabler of the transition from Linear to ES **Circular Economy** 

more on interactive map: www.municipalwasteeurope.eu/members

- 203.4 million Tons municipal waste generated in the EU (2020)
  - That is 212-318kg per capita biowaste (average 530kg total/capita 2021)
- In landfilling countries up to 60% of municipal solid waste is biowaste
  - That can be 60% of the 2030 65% recycling target for some municipalities
- Tons biowaste generated in the EU today: 118 138 million Tons per annum (not including 41 million Tons from food processing industry)
- Today, only 47.5 million Tons are separately collected and treated to form high quality compost and digestate
- These landfilling countries have little to no Anaerobic Digestion treatment capacity



- The Waste Framework Directive mandates Separate Collection of Biowaste from every household in every EU municipality 10 months from now
- From obtaining a permit to build an AD plant, it can be up and running in 6 months
- Sadly governance is lacking in landfilling countries, e.g. Croatia, Greece, Cyprus – where permits for sorting and AD plants are blocked in favour of mixed waste treatment
- Hence any talk of mixed waste sorting is a huge risk in these countries



- First separate collection and enough capacity to treat each waste stream must be in place to ensure recycling
- To ensure the supply of materials to a European Circular Economy
- To ensure reduction of our GHG emissions through prevention, reuse, recycling, recovery
- The European Green Deal demands coherence between all EU legislation to achieve those two goals
- Great care must be taken with any further emergency legislation to come from the Green Deal Industrial Plan also on permitting



- The RED\* and Accelerated permitting for RES\*\* do not achieve such coherence, the latter entirely ignoring biowaste
- WFD sets targets which aim not only for reduction and control of waste but for recovery of materials to feed the CE.
- Today, 60% of all infringements are on environmental legislation and 60% of those on waste requirements not met
- This is the size of our implementation gap.
- Do we actually want to fix that? Or are we here just biding our time? (Using up time)



### **Green House Gas Emissions Savings Potential**

- Anaerobic Digestion of Biowaste is a Local Source of Renewable Energy
  - Methane Emissions put to good use
- Anaerobic Digestion of Biowaste is a Local Source of Soil Improver
  - 30kg Carbon per Ton Compost stored
  - 50-200\* Tons atmospheric Carbon absorbed per hectare agricultural land with biodiverse soil





## Mycorrhizal network



Mycorrhizal fungi are in a symbiotic relationship with plants. The fungus provide the plant with water and minerals from the soil and the plants provide the fungus with photosynthesis products

- Due to upcoming legal mandates and climate pressures our current priority is implementation of separate collection of biowaste and treatment capacity for this waste stream with a priority for AD which responds both to the energy crisis and to the climate crisis
- It is not all we are working on however. I will let my colleagues expand on separate collection of dry waste, its sorting, treatment and shipment
- However to link in with another point of coherence, a simple mention of extended producer responsibility for textiles within the Waste Framework Directive as currently proposed does not suffice. For a complex material stream such as textiles, a dedicated piece of legislation is needed covering the whole value chain



\*RED = Renewable Energy Directive \*\*RES = Renewable Energy Sources

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# How EU waste management addresses the climate, energy and resources challenges

• 1 March 2023

A presentation by Claudia Mensi

President of the European Waste Management Association (FEAD)



## EU's Circular Economy Action Plan (CEAP)

An ambition.

A challenge.

An opportunity.



European



## FEAD The voice of Europe's Private resource and waste management industry

We represent 18 national associations from the EU,
 EFTA and the UK, steering Europe towards a circular economy for over 40 years today.

 Our members represent the entire waste management value chain, which allows us to offer a holistic overview on the industry that provides a second life to waste and resource.





#### Introduction What our industry does for Europe

- Local, innovative, sustainable jobs: up to 400 000 jobs in the waste management sector (European Commission)
- 5 Bn EUR/year investments in collection and waste management facilities
- Secondary raw materials provided to the manufacturing sector, energy recovered from residual waste to produce heat and electricity
- A key role in climate protection through prevention of GHG emissions

## 18 3.000





National Waste Management federations

Private waste management companies 320.000 Employees In total





1.100

Composting

sites

2.400Recycling and Sorting centres

900 Controlled landfills



260 Waste-to-energy Plants



**5** billion Euros in Investments per year



We need a coherent practical fundamentally understandable and easy to implement

regulatory framework



#### Waste shipments

European Parliament decision in January Tightens waste shipment rules by:

 imposing further restrictions on exports of green-listed waste, along with

a ban on plastic waste shipments to third countries.

contradicts the objectives of the circular economy action plan,

hampering the recycling industry.

Practically closing markets for waste as a resource, prevents the closing of cycles.

## we need clear and efficient waste shipment rules

- in alignment with environmentally sound practices
- that will enable the re-incorporation of valuable secondary raw materials back into value chains

- that will incentivise circular economy models in Europe ... and beyond



• The total amount of municipal waste landfilled dropped from 61% in 1995 to less than 23 % in 2021.

## Landfilling



on average

with some Member-States still being far above that, with shares between 80% and 50%.



# Can we offer an alternative to landfilling?

## Waste-to-Energy

• For the non-recyclable waste, the positive contribution of waste to energy plants to the circular economy must be recognised and reflected in the EU Taxonomy.







**12%** of raw materials used by the European industry come from recycling.

- To have a competitive and innovation-driven recycling industry,
- a strong and stable market
- for secondary raw materials





# Thank you for your attention

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Social media





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#### **Climate Target, Circular Economy: Implementation of EU Waste Legislation** CEWEP – EuRIC – FEAD – MWE, 1<sup>st</sup> March 2023

Turning waste into resources!

Emmanuel KATRAKIS, Secretary General



#### Who are we?

EuRIC is the Confederation representing the interests of the European recycling industries at EU level



The European Recycling Industries' Confederation brings together recycling federations from EU and EFTA Member States



6,000+ companies including small and medium-sized entreprises



300,000 local jobs Annual turnover of ± €95 billion



Millions of tons of waste recycling every year (metals, paper, plastics, glass, tyres, textiles, batteries, etc.)

> Realising the circular economy





Circular material use rate

Source of data: Eurostat (online data code: SDG\_12\_41) Last update 24/01/2023 23:00

This graph has been created automatically by ESTAT/EC software according to external user specifications for which ESTAT/EC is not responsible. Graphic included. General disclaimer of the EC website: https://ec.europa.eu/info/legal-notice\_en.html



#### Recycling – Turning waste into resources



#### Waste = a resource (if recycled)

#### Recycling

(Set of innovative industrial processes to recover materials)



## **Recycled materials** (substituting extracted raw materials)



#### Boosting raw materials from recycling markets

- 1. Binding recycled content targets & incentives to internalise in prices positive externalities and level the playing field with extracted raw materials
- 2. Eco-design for recycling linked to proper consumer labelling
- 3. Setting targets that leave operators the choice of innovative solutions
- 4. Clear end-of-waste status to reward quality and unlock market access
- 5. Well-functioning and unhampered market access within and outside the EU for raw materials from recycling
- 6. Proper enforcement of existing legislation & revision of existing waste legislation taking stock of the proposed Battery Regulation (linking the various phases of the value chain)
- 7. Competition rules at the heart of the transition towards a circular economy (EPR/Interplay btw players)



#### Driving (circular) market demand!



**EPRB** 





## Thank you for your attention!

## **Registration open**

Boosting recycling through future-fit policies



30 March 2023 BluePoint, Brussels

The European recycling Industries

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#### Why don't we recycle 100%?

- Some waste streams are dirty, composed of contaminated or infectious materials
- Materials contain substances of concern (POPs, flame retardants...)
- Materials degrade after multiple times of recycling





## Measures to reduce the amount of non-recyclable residual waste:

- Source separation is key to enable quality recycling
- Consumer behaviour and producer responsibility
- Eco design: use recycled content; make products reusable and recyclable

#### Why don't we recycle 100%?



TUBO

**C/PAP 85** 

RACCOLTA

Valido solo in Italia

SIGILLO







# What to do with waste not good enough for recycling?

## Landfills: the easy way out?

Europe landfills 100 Mt/yr And > 50% is Municipal Waste

Municipal Waste alone could fill the volume of Wembley Stadium every week





## Landfills: the easy way out?

Can we afford to

- burry the materials and the energy embedded in the waste?
- waste soil space?
- emit methane?

#### Methane Global Warming Potential is 86x (20 years) higher than CO2.

The largest potential to act on methane in Europe is the waste sector (Global Methane Assessment, UNEP Report, 2021).

## The EU must take action to landfill only waste that cannot be recycled or recovered!

## Back to the question:

# What to do with the waste not good enough for recycling?

Waste-to-Energy turns non-recyclable waste into energy and materials

## ✓ hygienic service

- ✓ material recovery from bottom ash
- ✓ energy recovery
- ✓ substitutes fossil fuels and reduces dependence on imports

In some regions WtE covers more than 50% of population's heat demand



Gren WtE plant in Klaipėda, Lithuania

## **Brussels Waste-to-Energy plant**



500,000 t/yr residual waste from Brussels households + companies

#### **District heating**

- Docks shopping centre
- Royal greenhouse and King's palace in Laeken
- Local industry

#### Electricity

- can supply 65,000 households (240,000 MWh), 58% renewable
- Materials recovered
  - Aggregates (75,390 t)
  - Metals (638 t)
  - Salt (3,195 t)

#### And what about the CO2 emissions?

Reduce fossil input (mainly plastics) in WtE: Source separation to enable quality recycling

WtE offsets its fossil CO2 emissions:

- Energy recovery replaces fossil fuels
- Metal recycling from bottom ash
  -> makes WtE climate neutral



The path to carbon negative



#### From carbon neutral to carbon negative

### Carbon Capture Use/Storage projects kick-off across Europe -> make WtE carbon negative

.... needs policy support!



AVR's Carbon Capture facility, Duiven

#### **Call to policymakers**

#### **Enabling conditions for sustainable waste management:**

Follow the waste hierarchy

- ✓ Restricting landfills to waste not suitable for material and energy recovery
- ✓ Recognition of the role of WtE for residual waste (incl. taxonomy)
- ✓ Enable quality recycling: waste separation at source is key!!
- Eco design: make products reusable and recyclable; use recycled content
  -> producer responsibility and consumer behaviour

IMPLEMENTATION of the EU law is key!!

## **CEWEP – Confederation of European WtE Plants**

CEWEP is the umbrella association of the operators and owners of Waste-to-Energy (WtE) Plants across Europe.

They thermally treat household and similar commercial & industrial waste that remains after waste prevention, reuse and recycling and generate energy and materials out of it.

#### **CEWEP Members: 81 M tonnes/year; 410 plants**

Contact: Ella Stengler, CEWEP Managing Directorella.stengler@cewep.euwww.cewep.eu



Krakow WtE plant, Poland



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## Titeltext

- <u>Recent study by Prognos and CE Delft</u> examined the CO2eq reduction potential of the European waste management sector for EU27+UK.
- Saving of 150 Mt CO2eq annually: applying current EU waste laws and the same recycling and landfill targets as set for Municipal waste to Industrial and Commercial waste by 2035.
- Saving of 296 Mt CO2eq annually: With more ambitious recycling targets and diverting waste that can be used for material or energy recovery from landfills.



