

Circular-based waste management

Partnership under EEA and Norway Grants Fund for Regional Cooperation

MAŽEIKIAI District Municipality, Lithuania – **lead partner**

Paide Town Government, Estonia

Department of City's Infrastructure of Sumy City Council, Ukraine

Telšiai Regional Waste Management Centre, Lithuania

Green Business Norway, Norway

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Circular-based waste management

Webinar 1: An overview of the Norwegian Waste Management Sector and roadmap for becoming carbon neutral by 2030

1. During the last two years, ambitious plans have been set (influenced by EU policies) and on-going market dynamics to minimize waste, increase recycling of materials and extend lifetime of products. Increased efforts and initiatives to transform the financing system – balancing disposer financing against increased market downstream revenue and profitability.
2. Government target: Waste and recycling industry shall foremost be a competitive supplier of recycled materials for production of new materials and products. By 2030 the collection and transport of waste to become carbon neutral (biofuel/by products from material recovery processes). New extended producer responsibility initiatives under development
3. A few best practice examples/showcases related to “closing the loop”, effective sorting of recyclables for secondary raw materials, and environmental awareness campaigns

Norwegian Circular Economy roadmap 2030



Waste minimization

market and consumer behaviour/trends



Increased recycling of materials

traceability, brand recycling, new methods



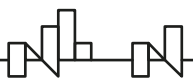
Extended lifetime of products

design maintenance

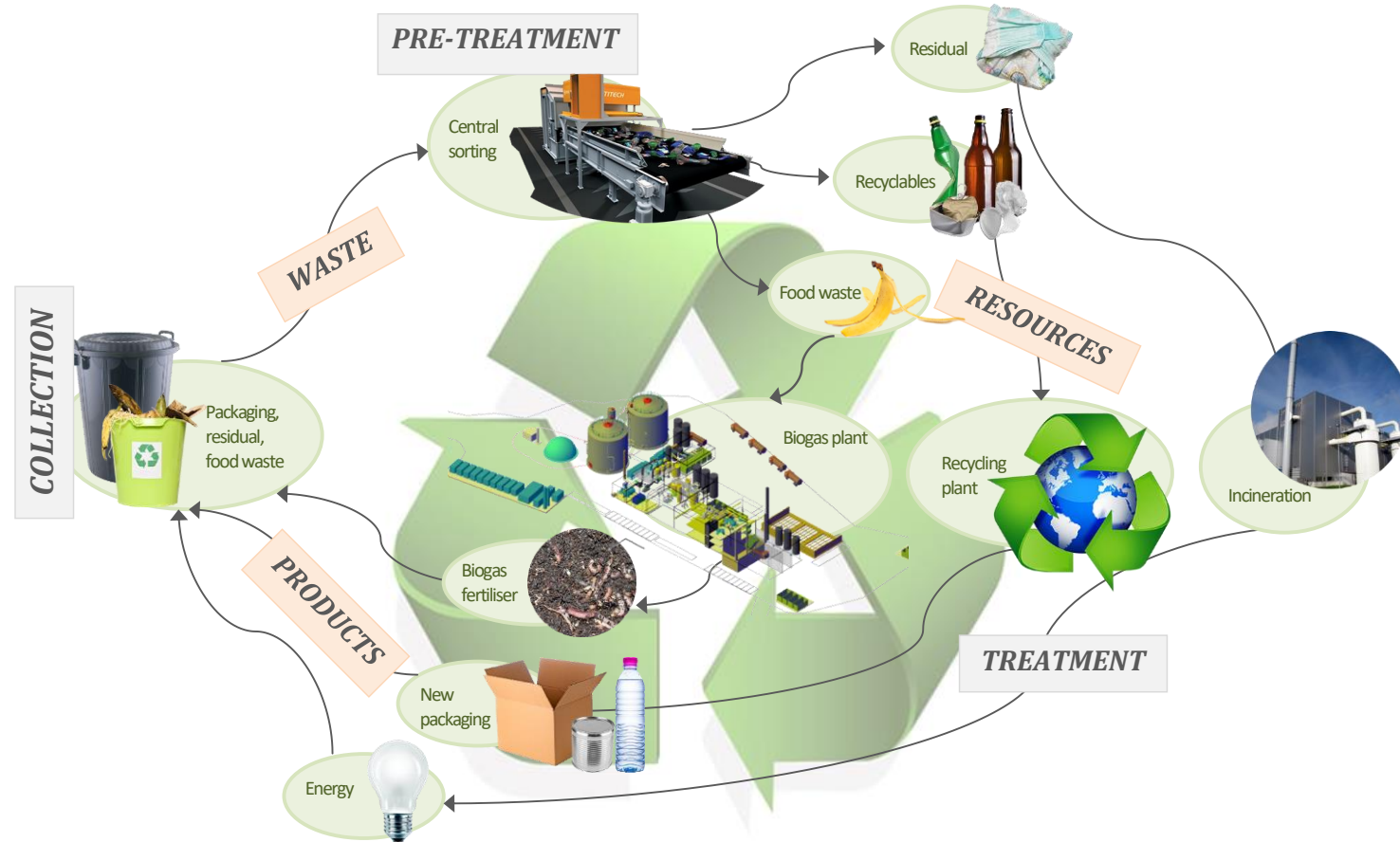


Balancing disposer financing against increased market downstream revenue

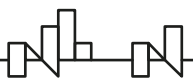
reduction of public fees, smarter collection, recycling/upcycling of materials



Norwegian Circular Economy roadmap 2030



CIRCULAR WASTE MANAGEMENT
BASED ON THE SCANDINAVIAN KNOW-HOW AND TECHNOLOGY



Norwegian system



Financing system and legal framework

fees, regulations, requirements, standards etc



Source separation/separation at source

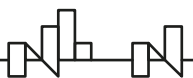


Deposit system

material recovery of PET and cans



Recycling and waste processing infrastructure



Flagship projects – GENERAL



Foodwaste – “magical factory”

biofuel, fertilizer,
CO2 recovery/greenhouse production

Deposit system

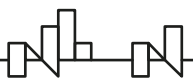
material recovery of PET
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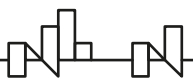
Centralised sorting of materials

ROAF advanced sorting of MSW

Brand recycling



Flagship projects – REUSE OF BIORESOURCES



Flagship projects – CENTRAL SORTING



ROAF – inter municipal company

Advanced central automated sorting facility for household waste

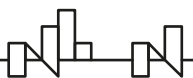
Pre-sorting of food waste

Automated sorting of plastic materials

Feed in capacity 40 tons pr hr

Increased collection and recycling of plastics pr. person (from 4.5 to 17 kg pr person)

ROAF



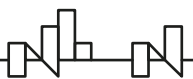
Flagship projects – DEPOSIT SYSTEM

2
PANT



3
PANT

Nationwide deposit and recycling system for non-refillable beverage packaging. The institution Infinitem administers the system.



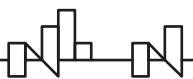
Circular economy– Innovations - trends



Digitalisation and traceability, source sorting before collection, smart collection systems

Advancements in paper recycling
(99,5% recycled high quality materials)

Local reuse of resources
(agriculture/closing the loop)



Circular economy– Innovations - trends



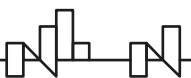
Digital platform

Digital platform with mobile applications, connecting disposers, smart collection points and collectors

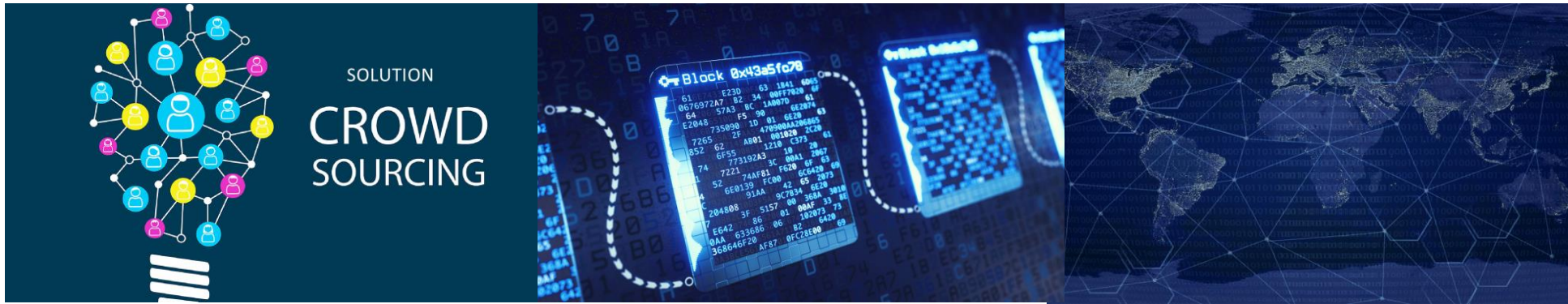


SmartBins

SmartBins are physical smart collection points. Each SmartBin have self sorting capabilities, Image recognition technology, a variety of sensors and scales. SmartBins integrates with digital platform



Circular economy– Innovations - trends



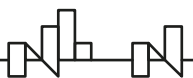
Digitalisation and smart solutions



Blockchain, traceability and new mechanisms for distribution of monetary values



Crowd sourcing and new collection and logistics solutions



Q & A

