



URBAN CIRCULAR BIOECONOMY

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Global biomass use and organic waste materials in the EU

Global biomass use

from

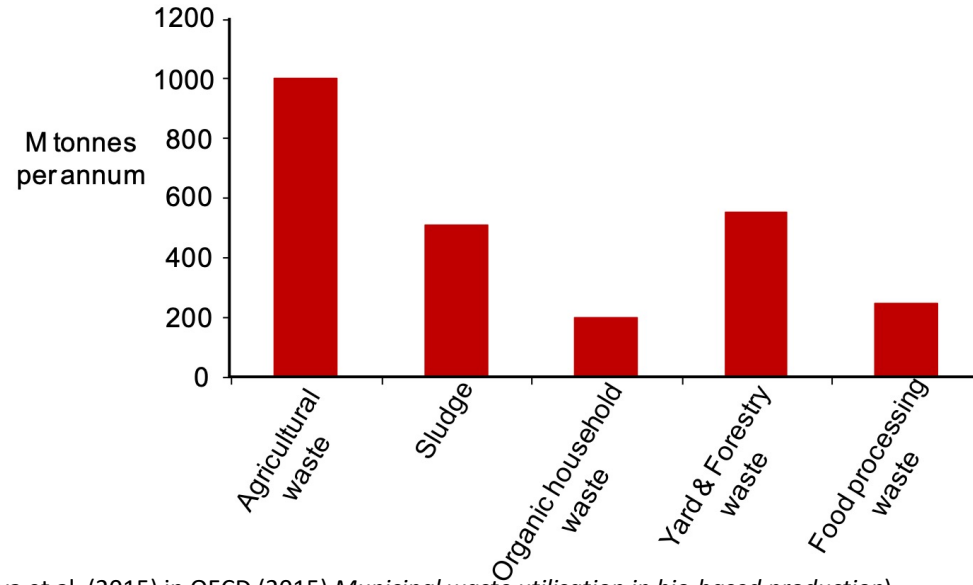
22 Gt in 2017

to

37 Gt in 2060

(OECD (2019), *Global Material Resources Outlook to 2060*)

Tonnages of organic waste materials generated annually in the EU



(Fava et al. (2015) in OECD (2015) *Municipal waste utilisation in bio-based production*)



Examples of local circular bioeconomy schemes

Kitakyushu City, Japan

Food recycling loop between rural-urban areas

- Compost in urban areas
- Fertiliser for local food production

OECD (2020), *The Circular Economy in Cities and Regions: Synthesis Report*

Edmonton, Canada

Biorefinery facility

- Converting non-recyclable, non-compostable municipal solid waste into liquid biofuels and chemicals
- Divert household waste from landfill

OECD (2018) *Realising the circular bioeconomy*

Wine by-products, Italy

Caviro Distillerie

- Producing fertiliser and polyphenols from grape marc
- Adding value to local by-products

OECD (2018) *Realising the circular bioeconomy*



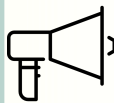
Governance gaps



Policy gaps

From silo to **system thinking** within the municipal departments

Need to improve **political leadership**



Awareness gaps

Need to improve the **understanding** across **citizens** on what the circular economy is

Need to improve **awareness** on bio-based products (especially if from waste)



Capacity gaps

Need to build technical, regulatory and financial **capacities** on the circular bioeconomy and related processes in the city

Need to collect and analyse **data** for better decision-making



Funding gaps

Need to put in place **financial incentives** to promote the adoption of a circular bioeconomy approach

Valley of death in the innovation sequence

Need to enable **access to funding** for circular bioeconomy solutions



Regulatory gaps

Need to improve **legislation** to support an urban circular bioeconomy

Adapted from the OECD (2020), *The Circular Economy in Cities and Regions: Synthesis Report*



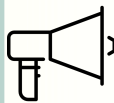
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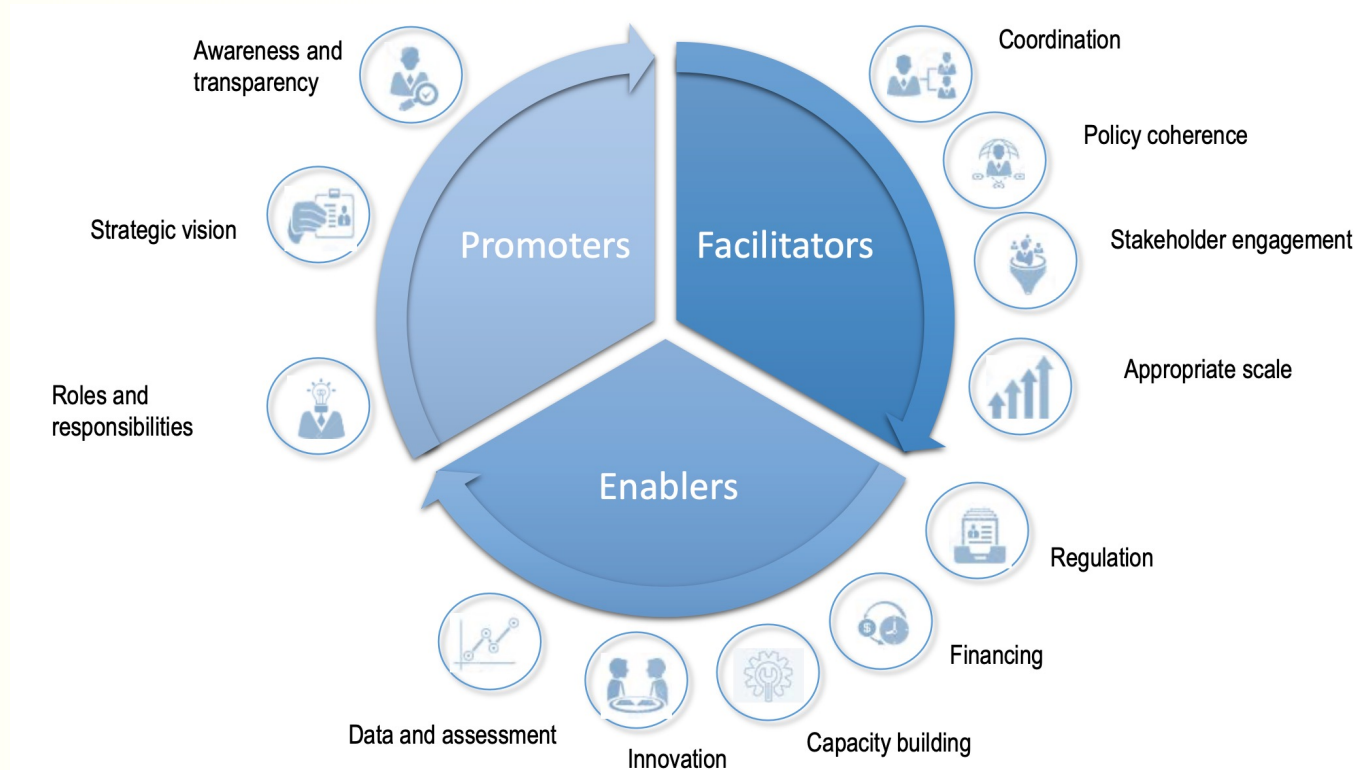
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Policy recommendations



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Thank you!



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