

2024 Global Methane Forum

Mobilizing Methane Action

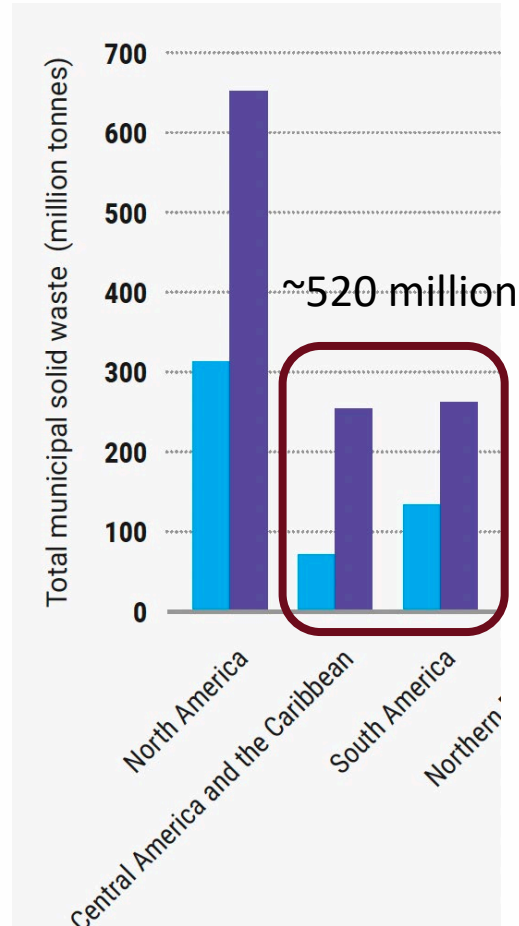
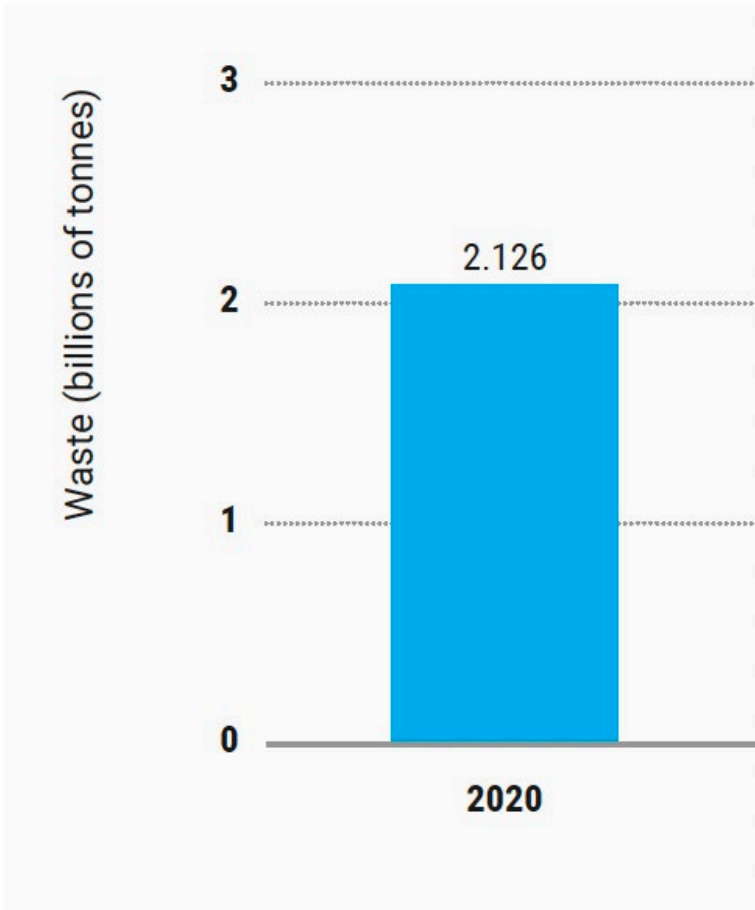
18-21 March 2024, Geneva, Switzerland

Regional Methane Action Showcase: Latin America

Carlos RV Silva Filho
ISWA President



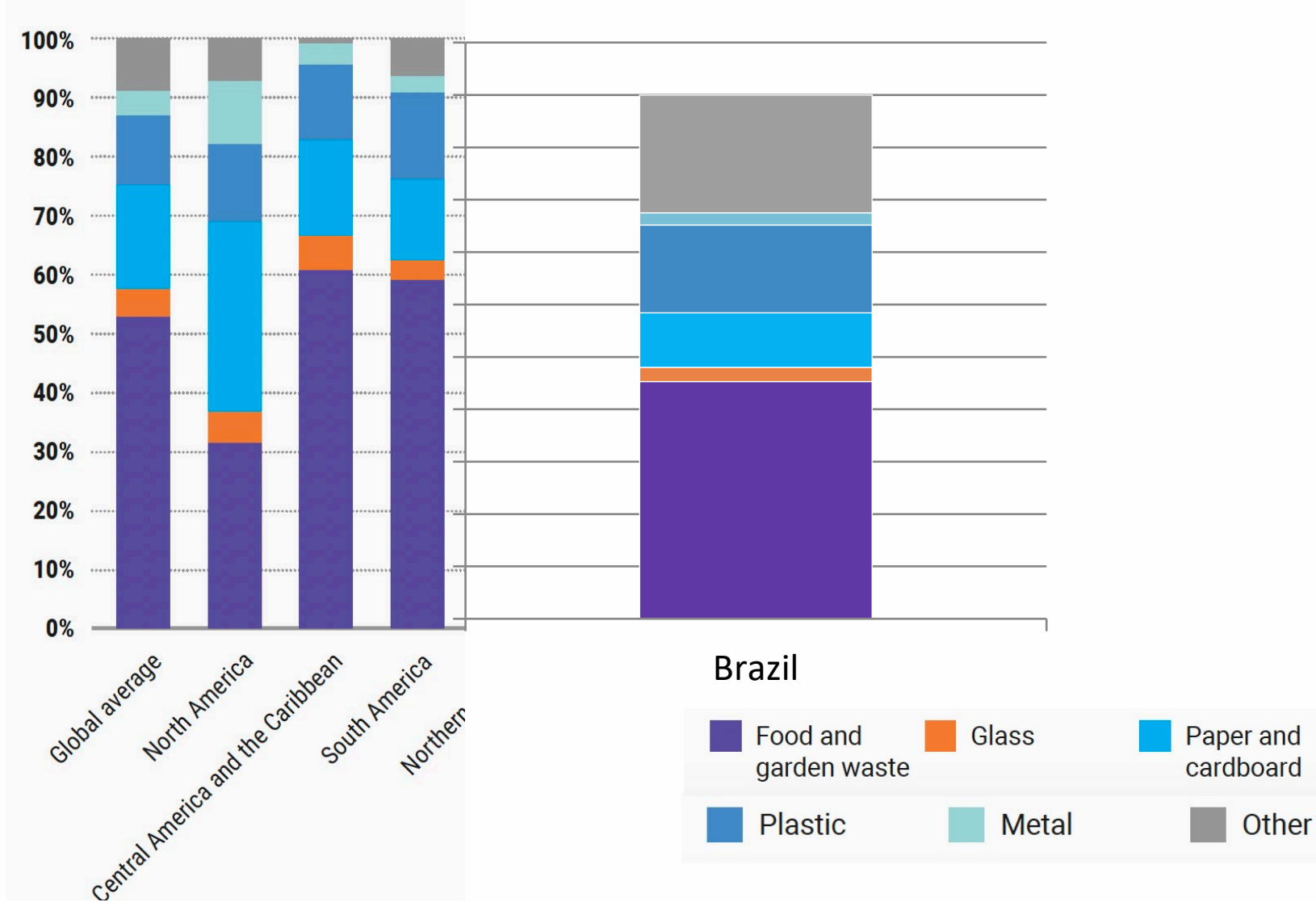
MSW Generation



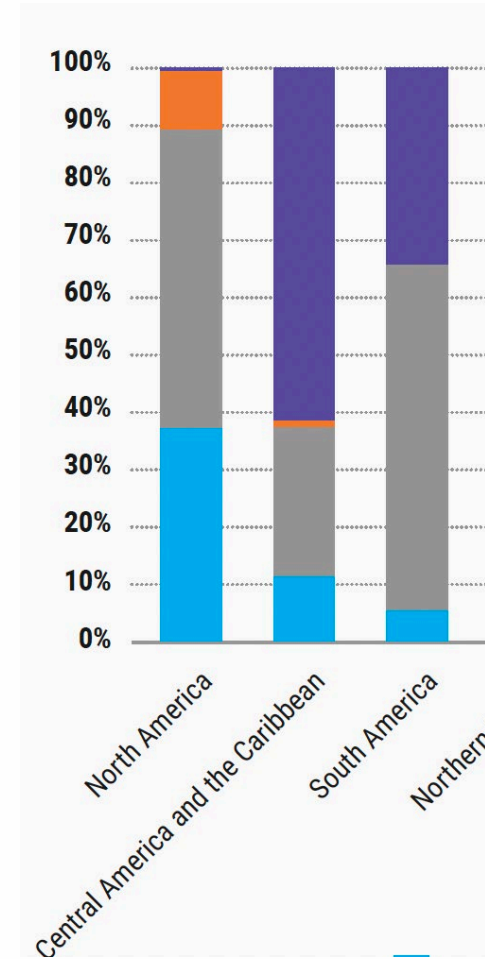
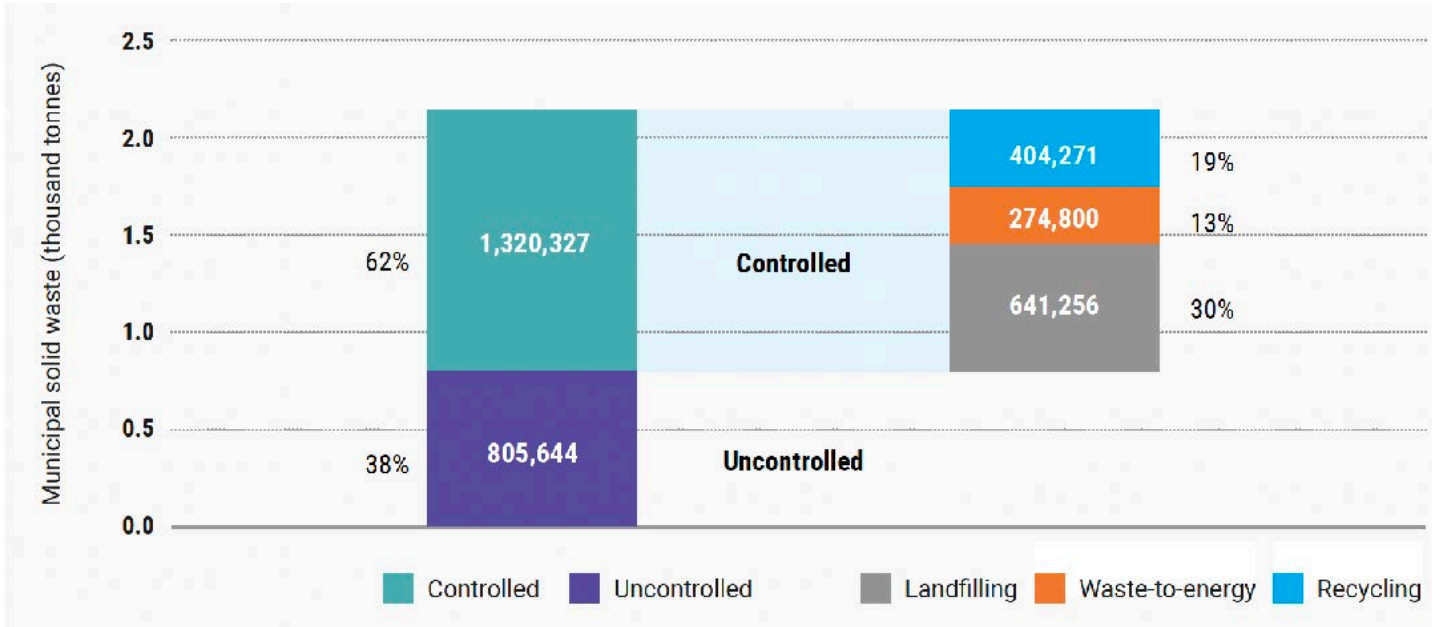
■ Total municipal solid waste (million tonnes)
■ Municipal solid waste per capita (kg/person/day)



MSW Composition

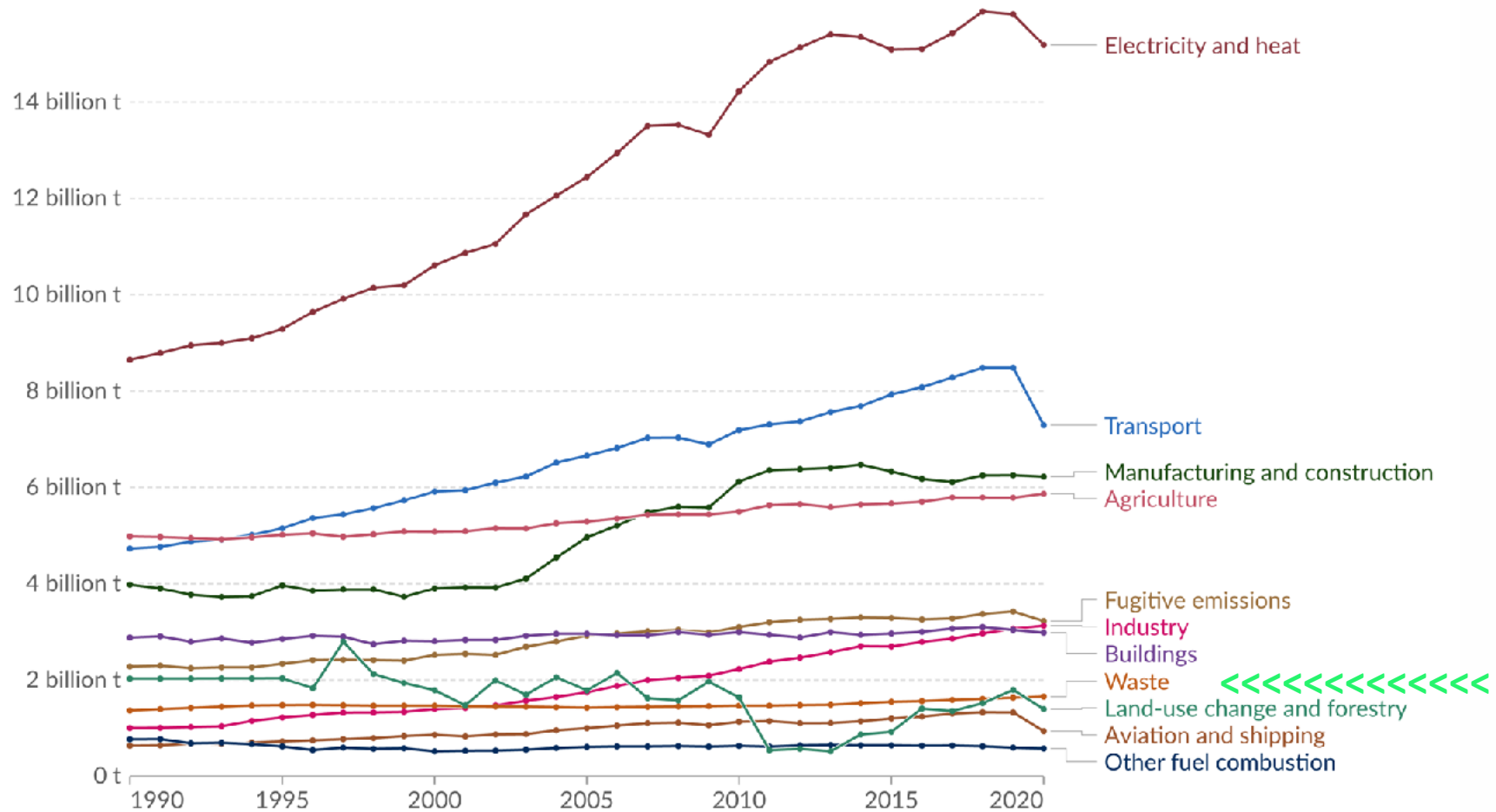


MSW Destination



Greenhouse gas emissions by sector, World

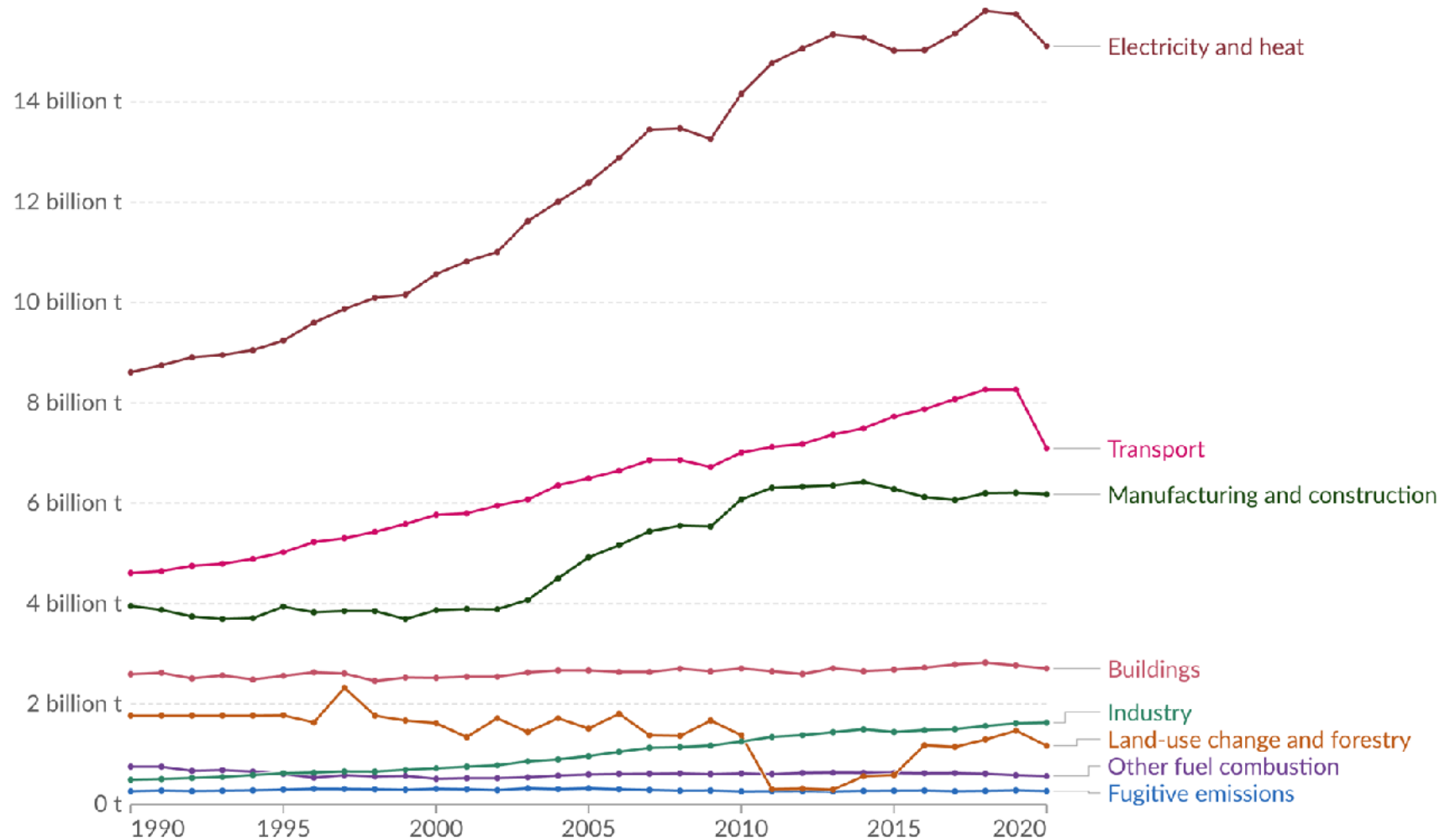
Greenhouse gas emissions¹ are measured in tonnes of carbon dioxide-equivalents² over a 100-year timescale.



Data source: Climate Watch (2023)

OurWorldInData.org/co2-and-greenhouse-gas-emissions | CC BY

CO₂ emissions by sector, World

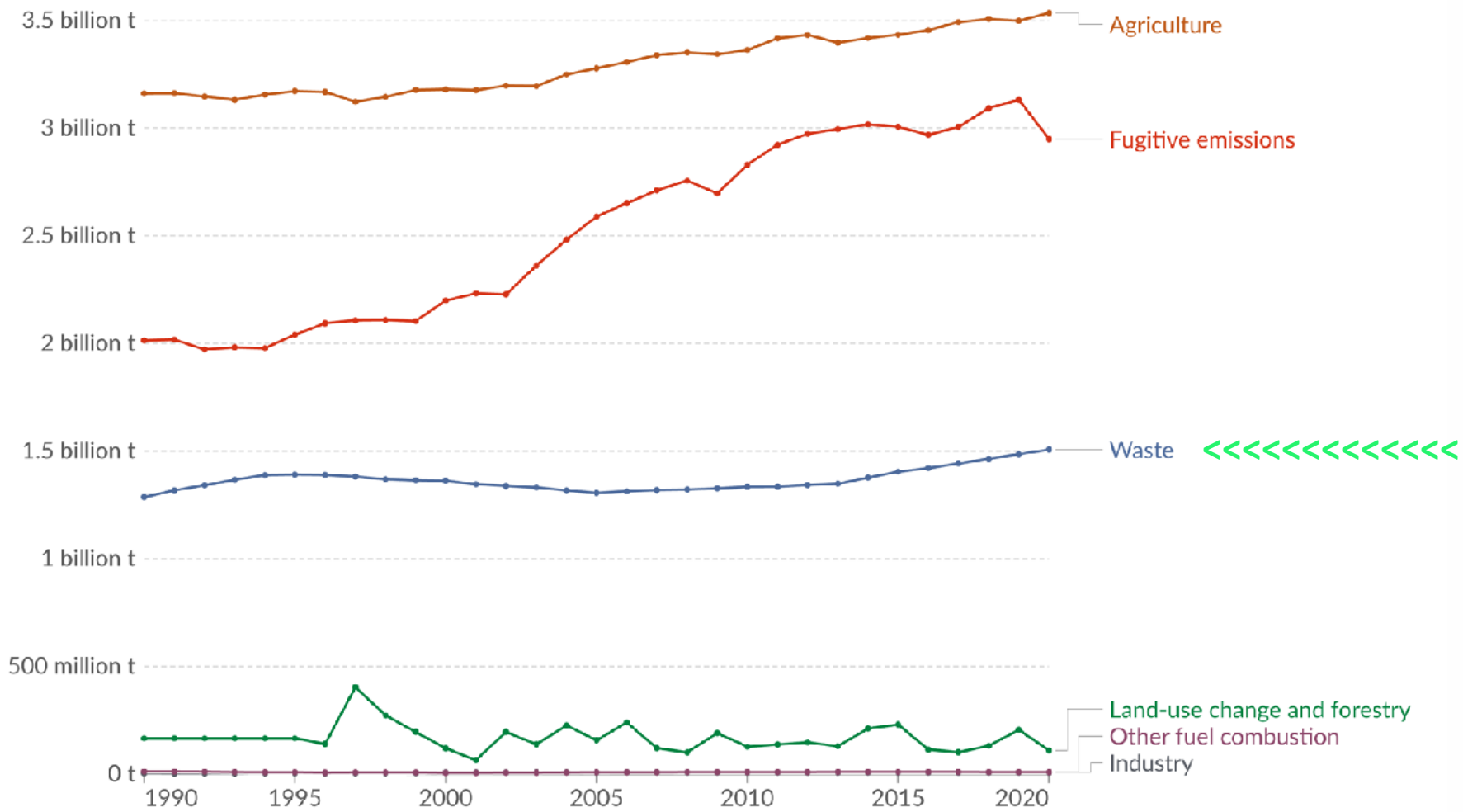


Data source: Climate Watch (2023)

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Methane emissions by sector, World

Methane (CH₄) emissions are measured in tonnes of carbon dioxide-equivalents¹.



Data source: Climate Watch (2023)

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Emissões (toneladas de CO₂ eq)	Cenário base	Cenário metas Planares
Aterro sem aproveitamento energético	45.017.261,03	23.844.107,56
Aterro com aproveitamento energético	3.424.236,07	27.958.882,91
Aterro controlado	24.614.451,86	
Lixão	13.447.234,29	
Tratamento biológico		1.143.105,03
Tratamento térmico		3.403.958,56
Total	86.503.183,25	56.350.054,06

Direct emissions from waste management

Methane from decomposition of organic wastes

Around 10% of national GHG emissions prior to control measures

- Uncontrolled disposal
- Controlled landfill without gas collection
- *Landfill with gas collection and flaring or recovery*
- *Divert biodegradable wastes from landfills*



High confidence that overall potential contribution to mitigation of global GHG emissions is **SIGNIFICANT!**

Other direct emissions

Small % of global GHG emissions

- Black carbon from open burning by the waste generator – *extend waste collection*
- Black carbon from open dumps on fire – *upgrade to controlled landfill*
- Nitrous oxide (N₂O) and CO₂ from composting or incineration



Indirect savings from the circular economy



- *Avoid food waste – reduce waste from food production, distribution and consumption*
- *Extend product life, repair, refurbish, reuse – clothes, electronic products, etc.*
- *(Excludes significant additional circular savings from the building and transport sectors)*

5-10% of global GHG emissions

Waste prevention

Makes no difference whether overall estimate is 15%, 20%, 25%

We need ACTION NOW!

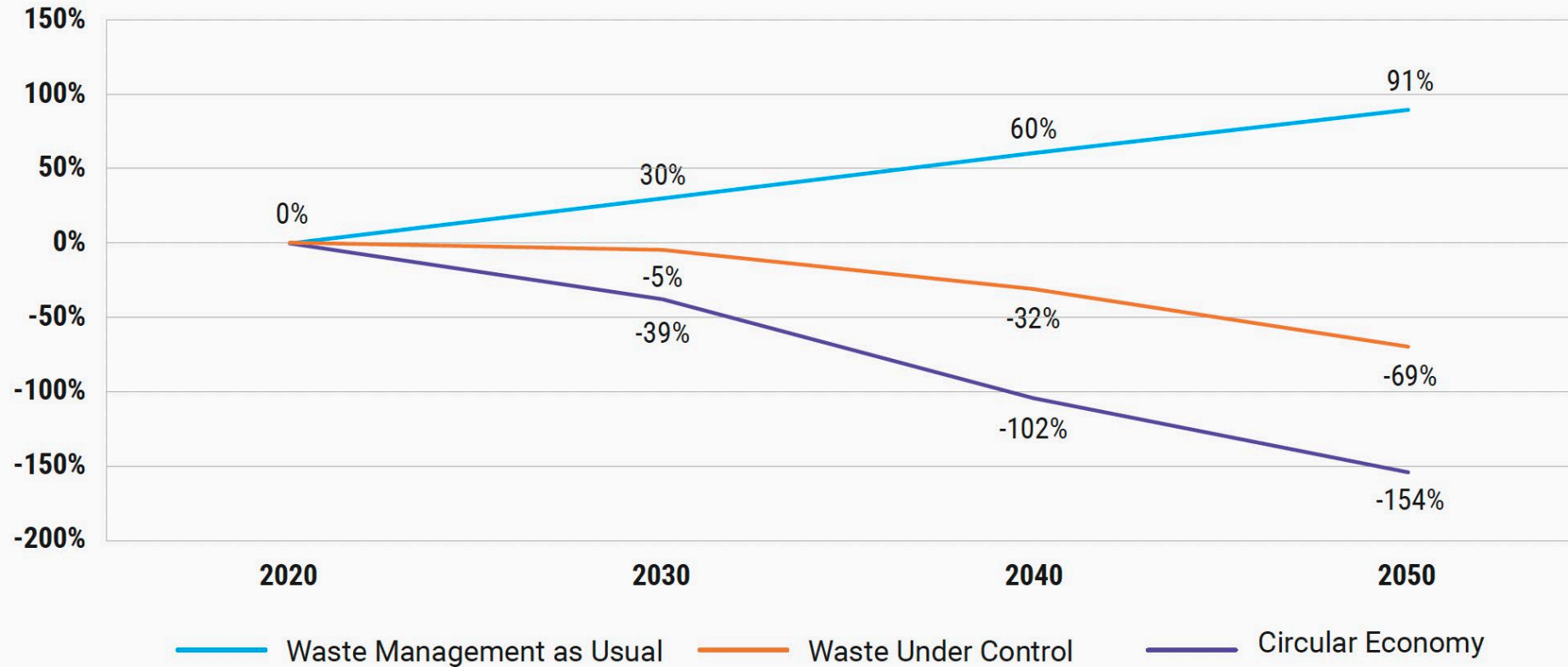


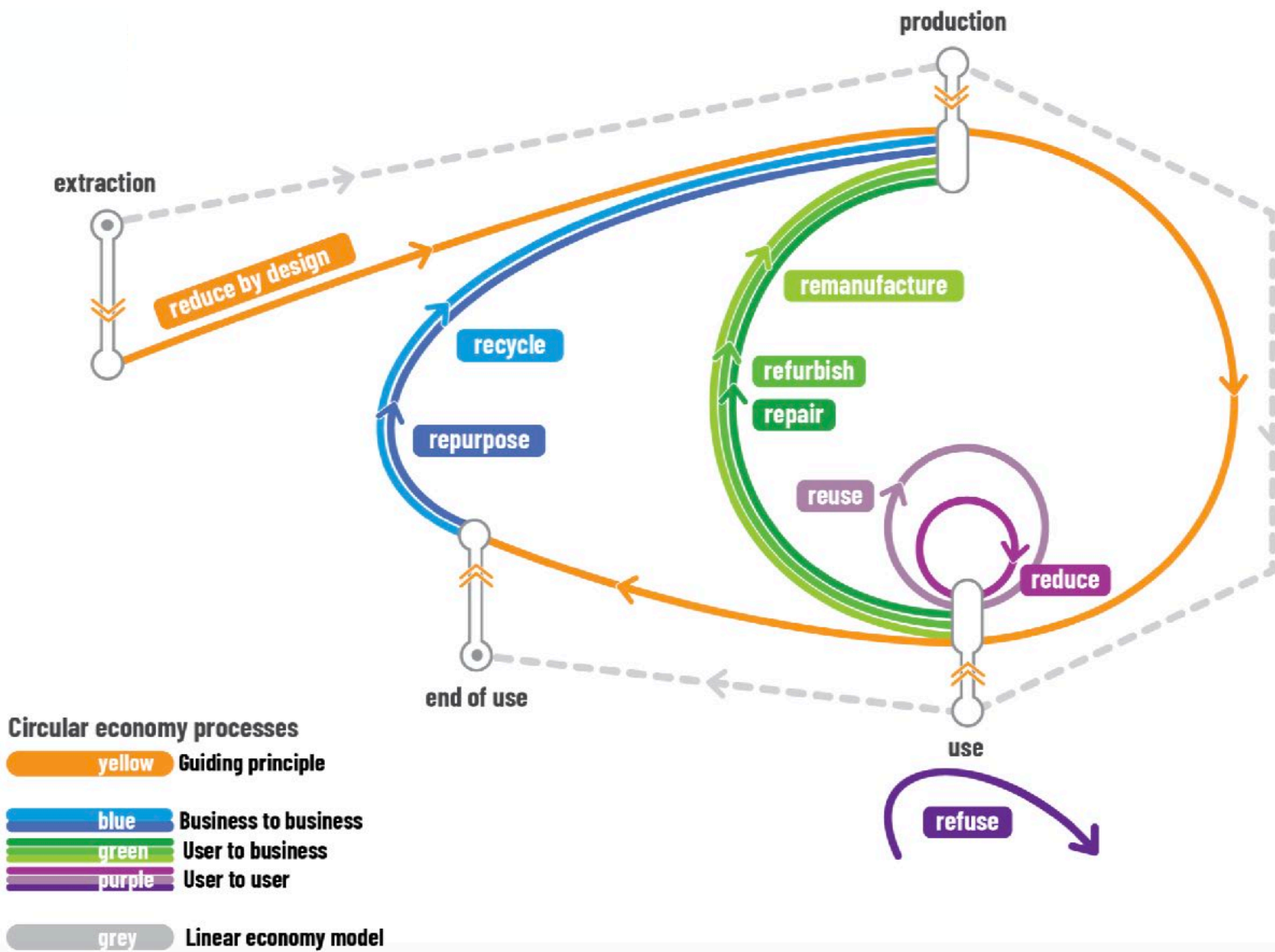
- *Substitution of virgin materials – metals, glass, paper, plastics, textiles, etc.*
- *Organics recycling displacing e.g. fertiliser*
- *Energy recovery, including landfill gas and anaerobic digestion*

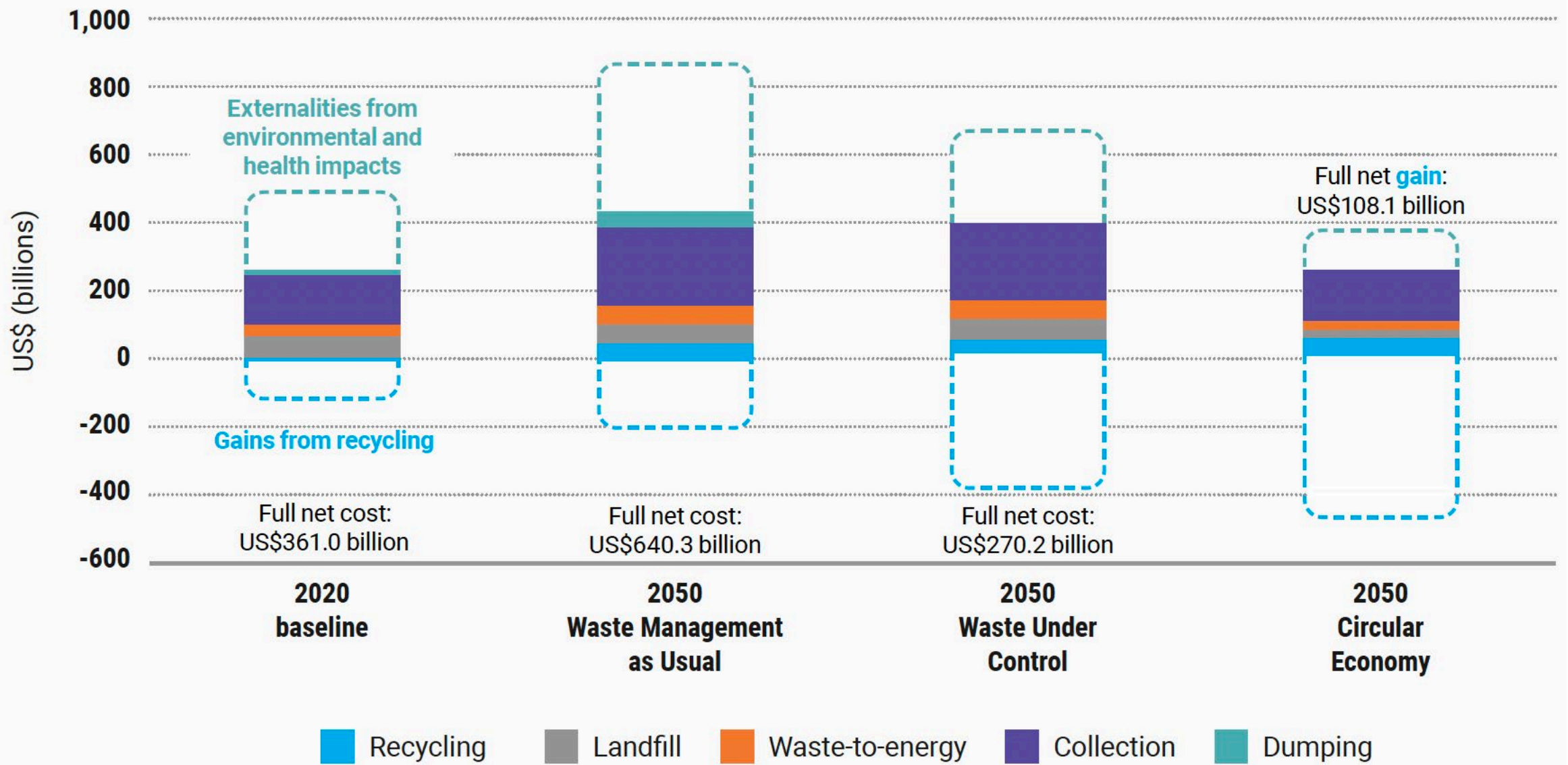
5-10% of global GHG emissions

Recycling and energy recovery

Figure 21: Estimated negative impact on greenhouse gas emissions from waste relative to 2020.







Thank you!

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To Promote and Develop
Sustainable and Professional
Waste Management Worldwide
and the transition to
a Circular Economy

- Our mission