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16·17·18

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April

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2024

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6th Edition

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# Carbon Calculator: How to account for the climate impacts of waste prevention

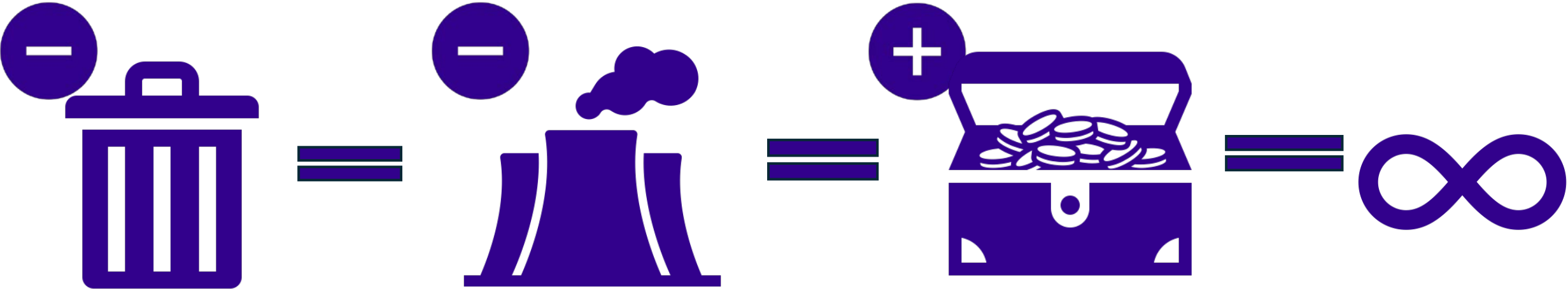
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**Kaisa Karjalainen**

Director

Mission Zero Academy

# The formula



# Why are we talking about waste prevention and climate?

Figure 4.2: Reduction in Cumulative Emissions by Intervention Category – Expected Deployment Scenario

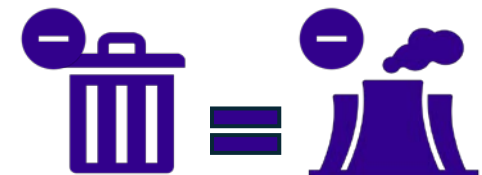
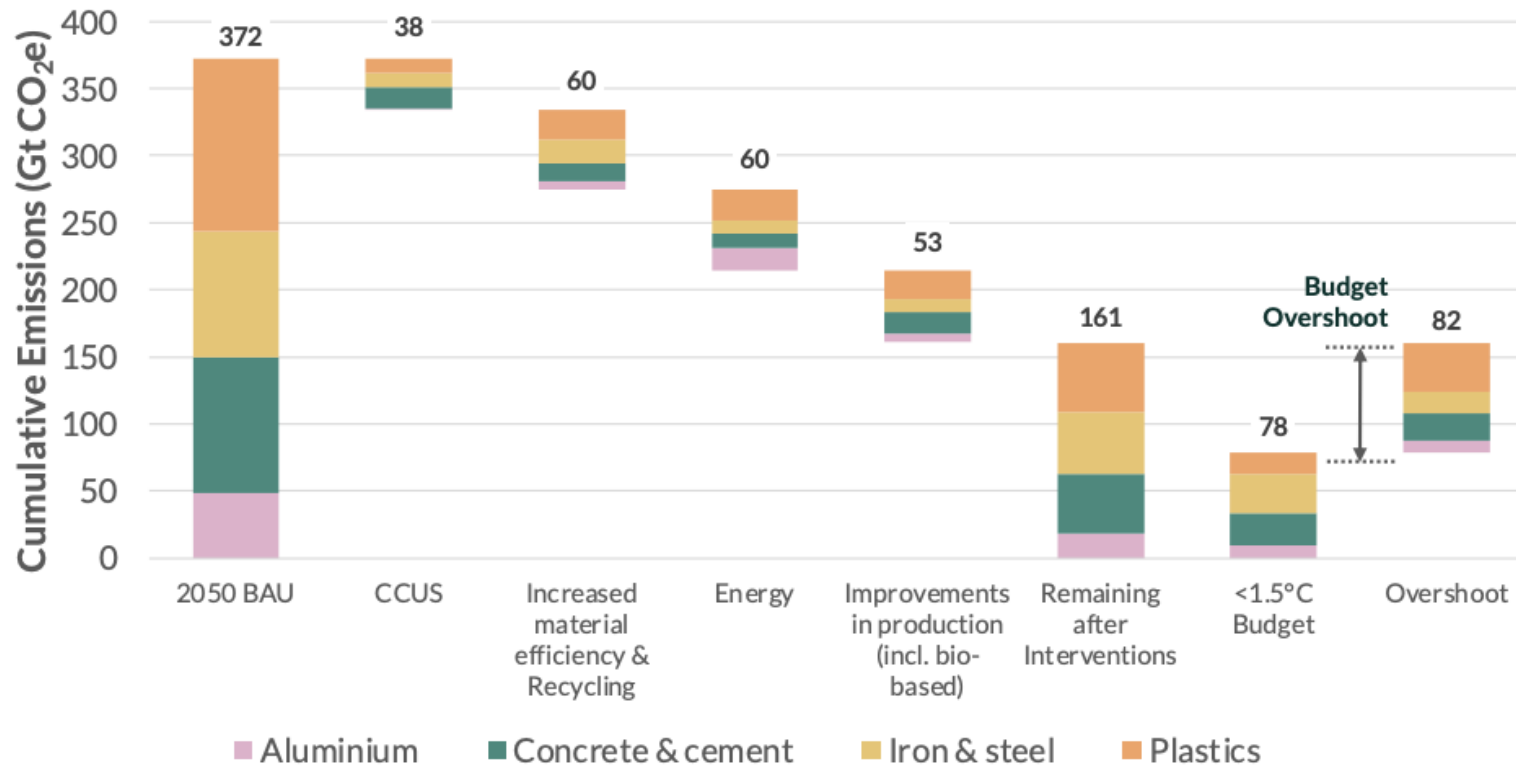
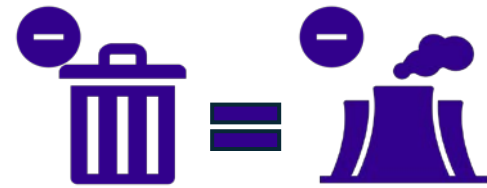
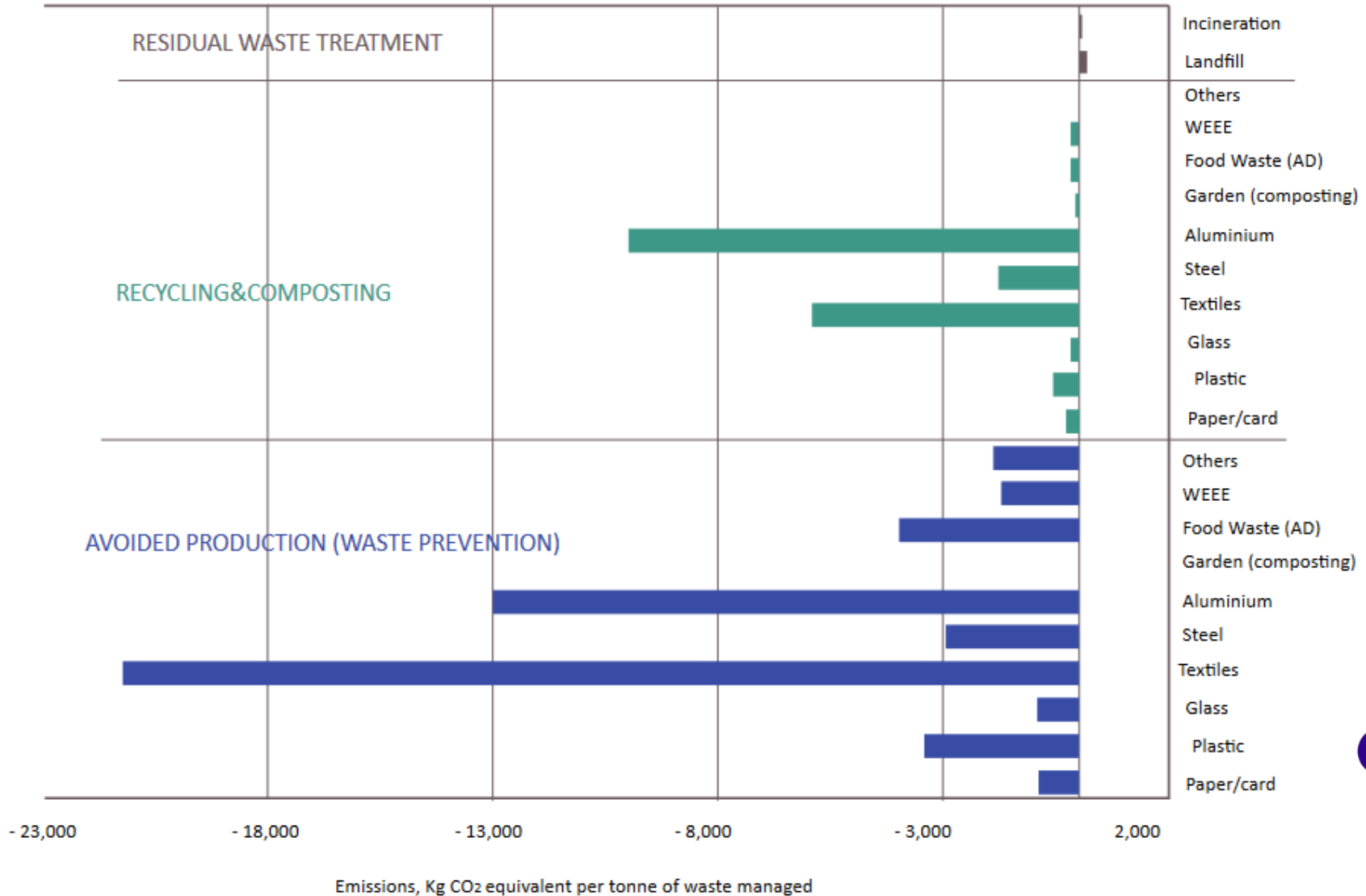
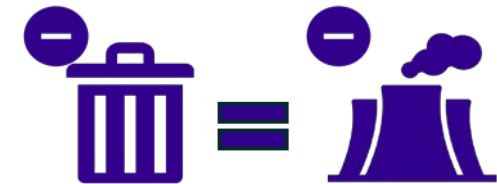
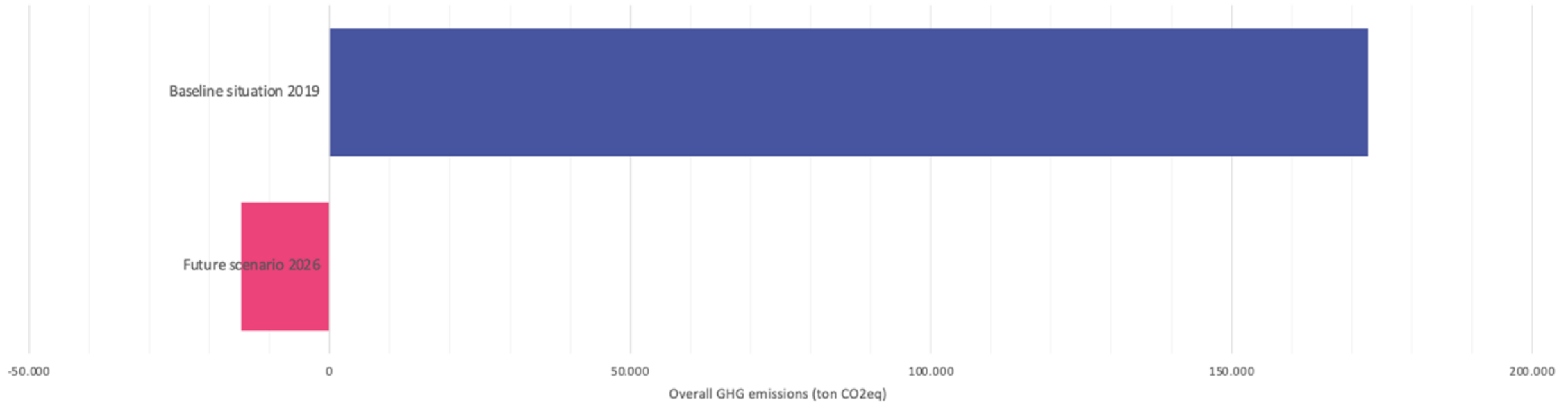


Figure E- 2: Indicative Climate Change Impacts of Key Waste Management Activities (excl. CO<sub>2</sub> from biogenic sources)

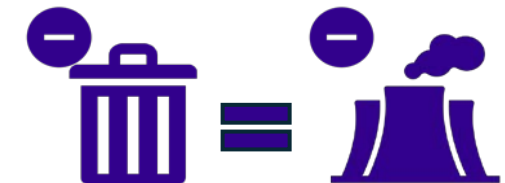
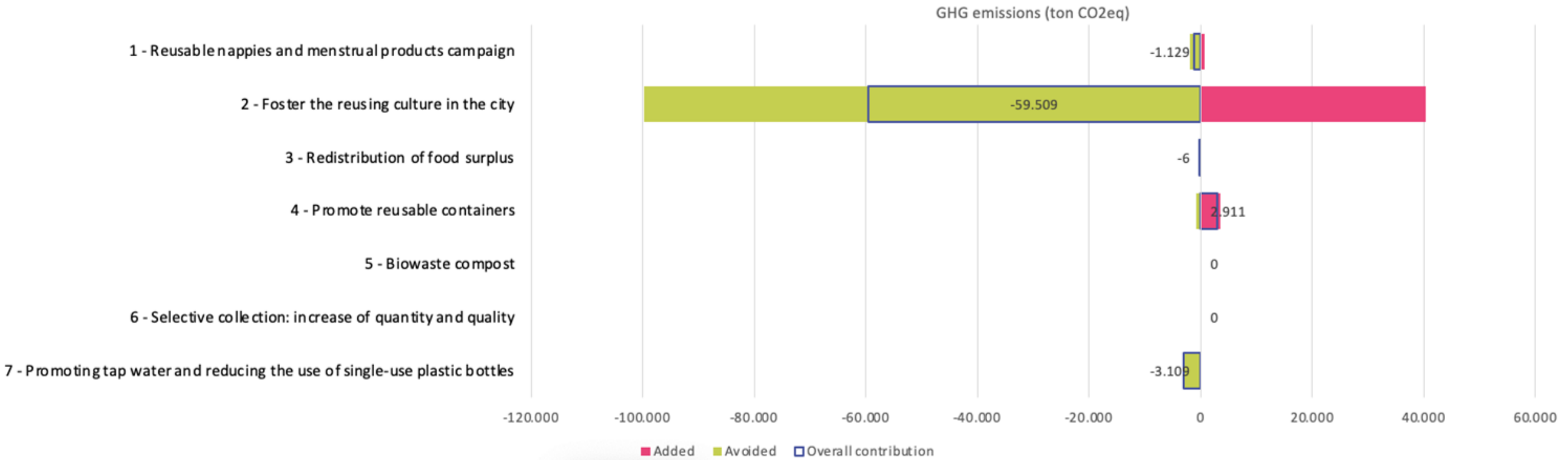


# Case study: Barcelona

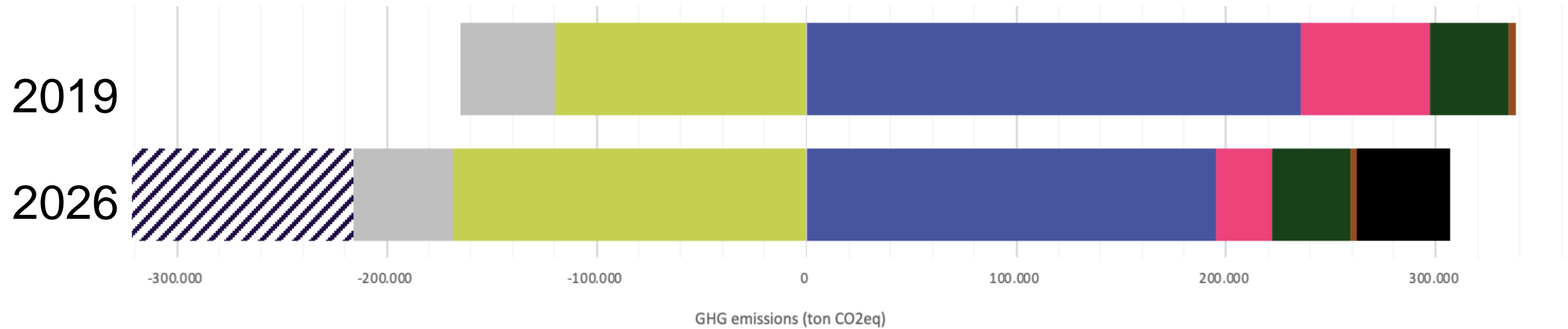
Scenario	Waste management <b>generated</b> emissions	Waste management <b>avoided</b> emissions	Emissions due to the zero waste strategies		TOTAL	Unit
			Added	Avoided		
Baseline situation 2019	337.912	-165.143			172.770	ton CO2eq
Future scenario 2026	262.142	-215.940	44.677	-105.520	-14.641	ton CO2eq



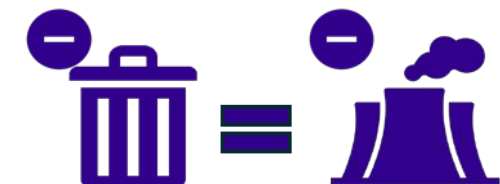
# Strategies analysed



# Results per waste stream



- Landfills
- Incineration
- Other waste treatments
- Waste collection and transport
- Material Recycling
- Energy recovery
- ZW strategies - Added
- ▨ ZW strategies - Avoided



# Calculation method

1. Assess Baseline
2. Set priorities and objectives + choose future year
3. Define action plan and zero waste strategies
4. Estimate future situation
5. Convert into emissions and compare
6. Put into context and communicate



# From waste reduction to income

Different methods to turn waste reduction into income

- Catalan Canon on waste disposal - **In use**
- Potential inclusion of waste incineration into the EU Emission Trading Scheme **in 2028**
- Outcome based financial mechanisms for waste prevention and emission reduction - **in development and discussions**

187000 ton CO<sub>2</sub>eq



=

1,34 Million €



80€/ton CO<sub>2</sub>eq

116 kgCO<sub>2</sub>eq/capita

83 cents/capita

# Thank you!

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