

Composting

Current Capacity:
2.6 million tons of
organic wastes landfilled

Technical Potential:
Reduction of
1.4 Mt CO₂ in 2030

Achievable Potential:
Reduction of
0.7 Mt CO₂ in 2030

Negative Costs:
-\$17/tCO₂ in 2030

- Biological aerobic process to decompose organic wastes by microorganisms into stable organic materials - compost
- A valuable soil conditioner or fertilizer that improves plant growth, sequesters soil carbon and prevents soil erosion
- Georgia currently operates about 38 composting facilities at various scales.
- Key obstacles include lack of awareness, large initial investment and operating costs, odor issues and contaminations.

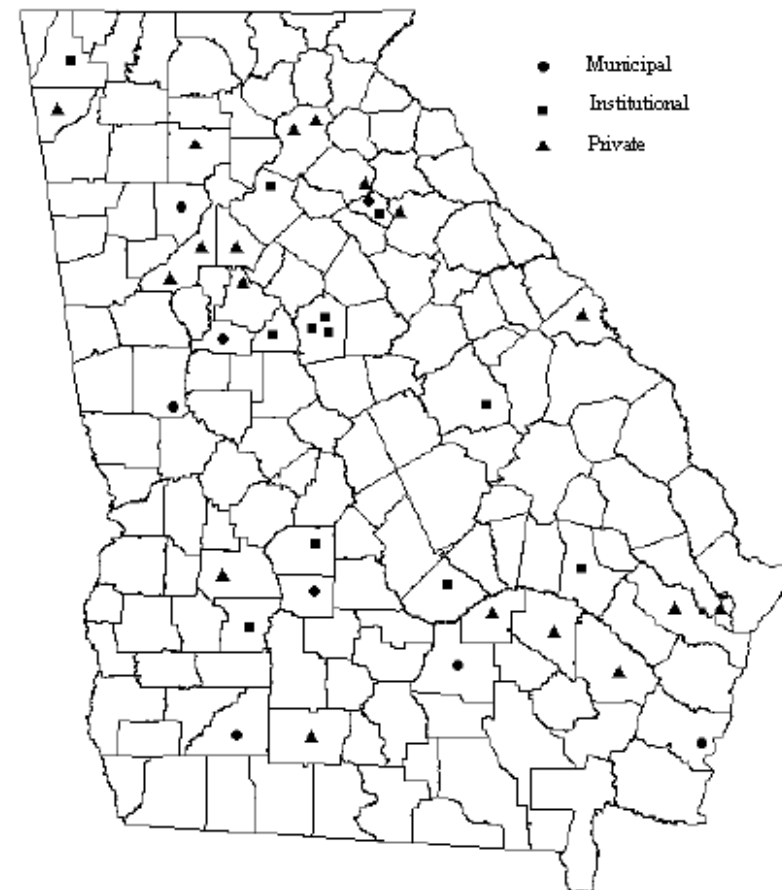
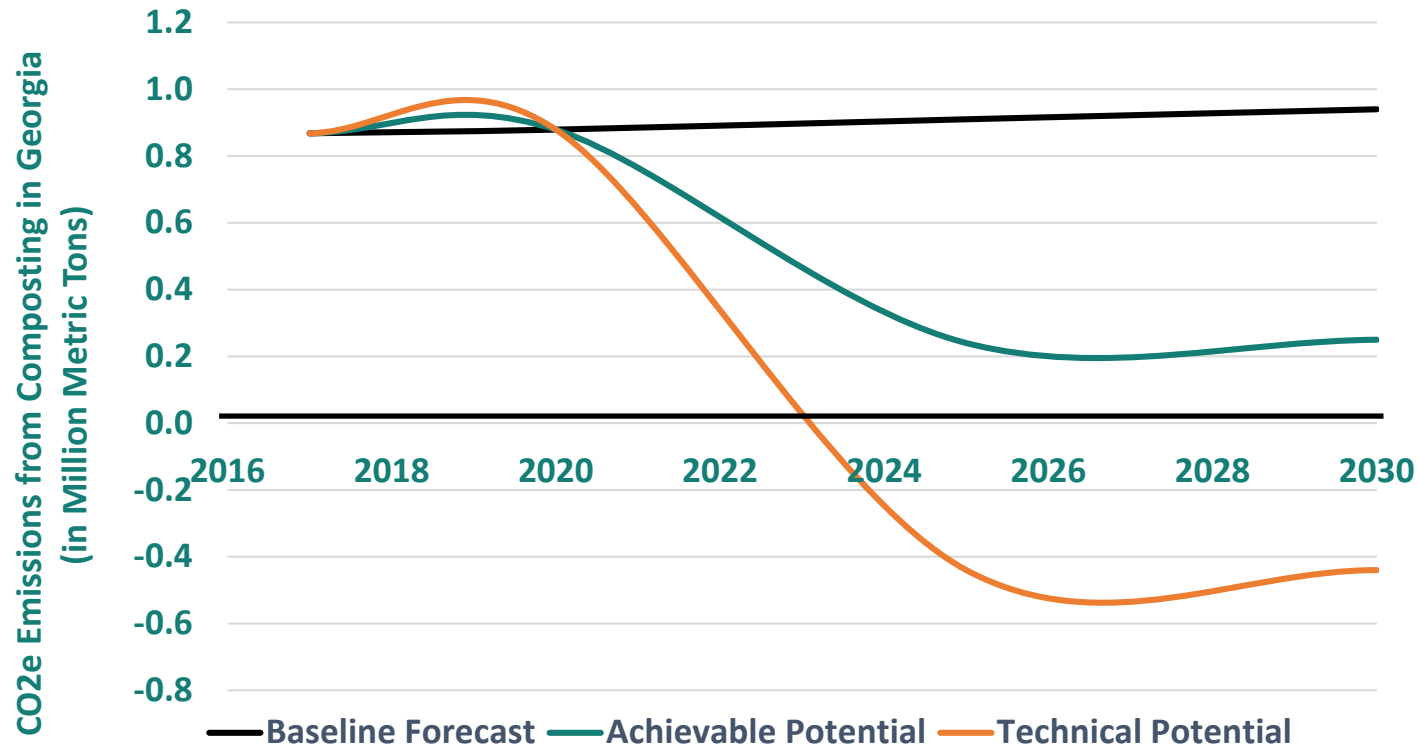


Figure 1. Location of 38 Georgia composting facilities, which participated in the survey, represented as municipal, institutional and private operations.

Source: GA EPD

Composting

A simple solution to zero landfill Georgia



Baseline = Estimate based on the emissions due to landfilling of organic wastes including food waste.

Achievable Potential = 50% diversion of organic wastes from landfill reduce **0.7 MtCO₂** in 2030,

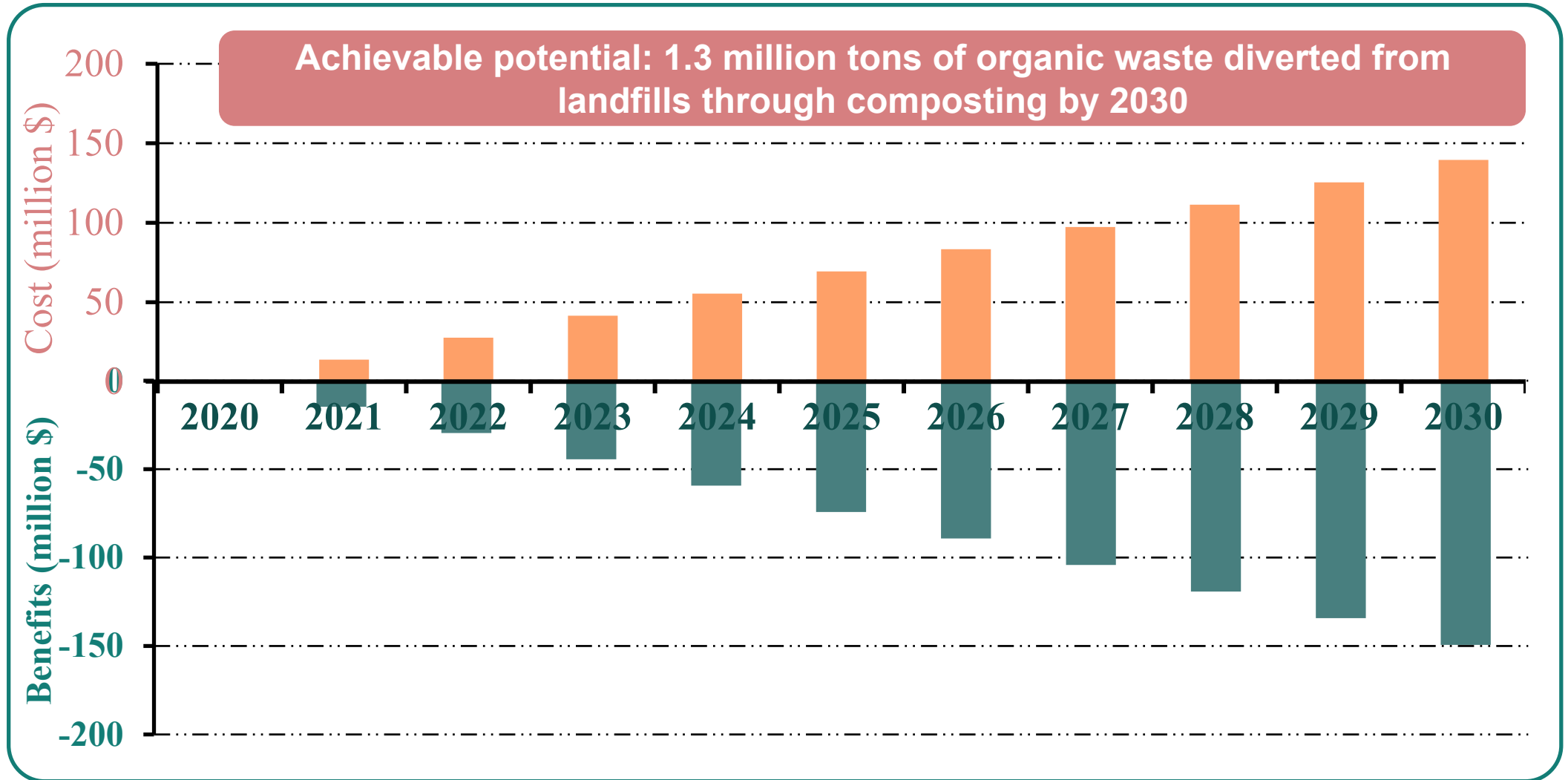
Technical Potential = Complete diversion of organic wastes from landfill reduces **1.4 MtCO₂** in Georgia

- + More job creation
- + Less air and water pollution
- High capital and operating costs
- Odor issues

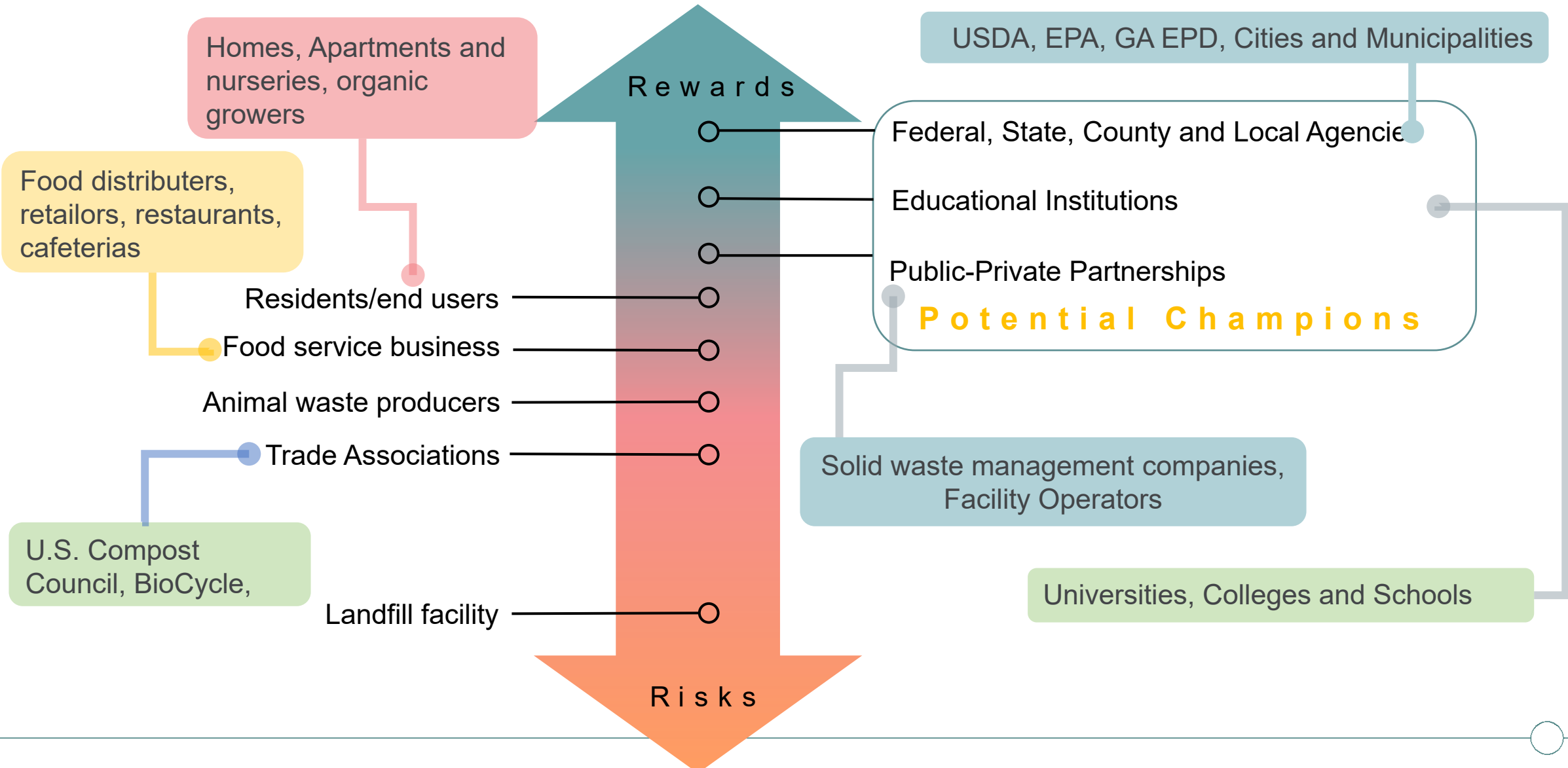
	Avoided CO ₂ (MMt) in 2030
Achievable	0.7
Technical	1.4

Annually, about 2.6 million tons of organic wastes including food waste are currently landfilled in Georgia.

Costs and Benefits of Composting



Stakeholder Analysis of Composting Solution



Composting Solution Interactions

Conservation Agriculture

- Promotes conservation agriculture principles to displace fertilizers for food production

Landfill Methane

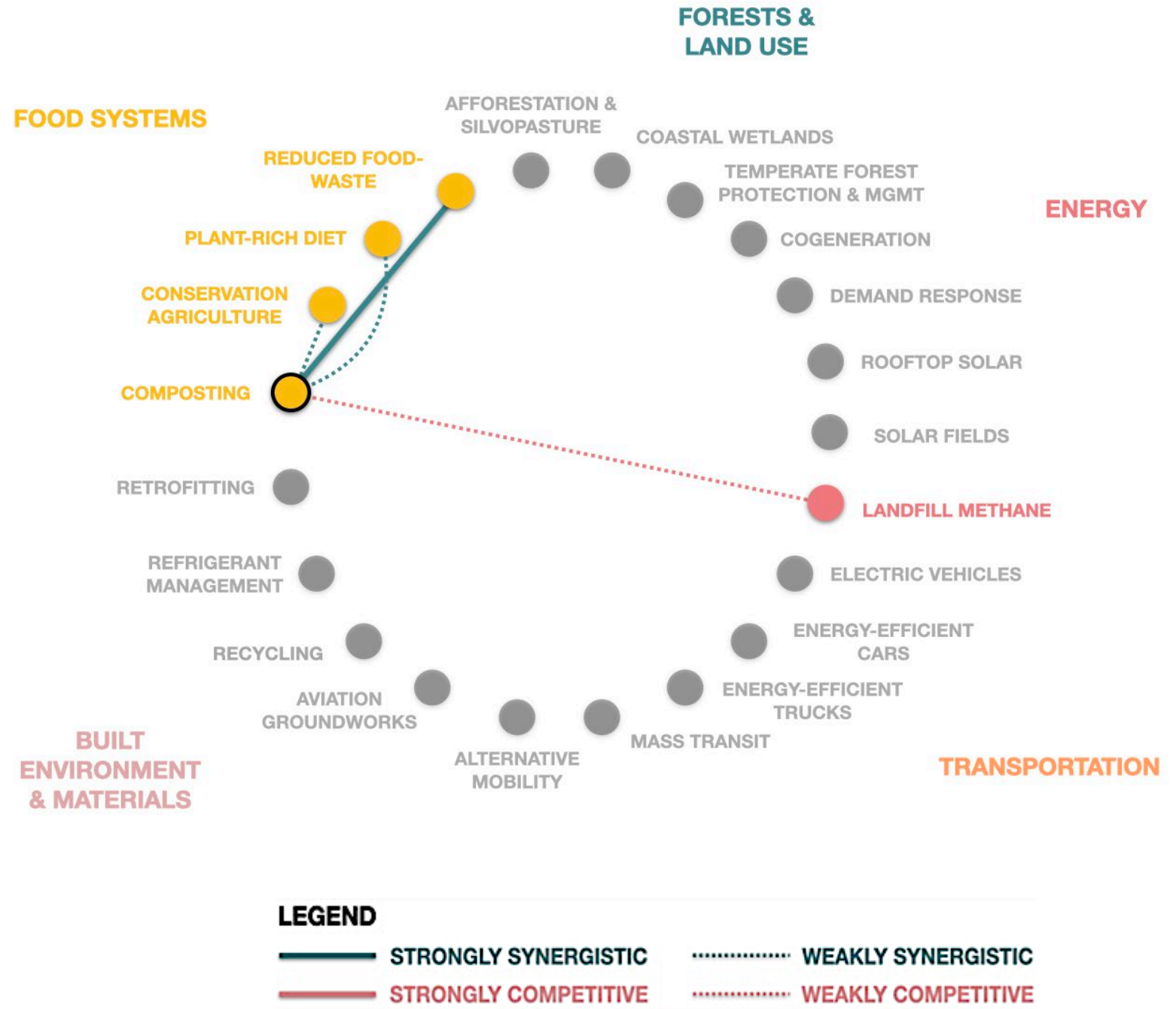
- Limits future landfill methane generation

Plant-Rich Diet

- Help promoting home composting

Reduced Food Waste

- Limits food waste available for composting in the future
- Supports recycling non-edible food wastes



Promising Solution to Circular Organic Wastes Management in Georgia



- **Centralized composting** with federal and state grants and private investments will reduce costs and promotes widespread deployment across the state. (-source-separation collection)
- **Home composting** can be cheaper to residents and can save from waste disposal costs (-packaging materials)
- **Organic fertilizer** can displace fossil derived fertilizers for crop production
- **Compost** promotes organic agriculture and urban gardening practices



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