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A MODEL FOR CITIES: HOW BUENOS AIRES IS REDUCING METHANE THROUGH SMARTER ORGANIC WASTE MANAGEMENT

Amid growing pressure on cities to act on GHG emissions, Argentina's capital is proving that acting smarter, not bigger, can drive rapid progress on organic waste and emissions

November 2025

PROJECT SUMMARY

In Buenos Aires, less than 3% of organic waste is currently separated and recovered, with most ending up in the CEAMSE Norte III landfill – one of the largest landfills in Latin America. In a project co-funded by **the Climate and Clean Air Coalition (CCAC)** and **the Global Methane Hub (GMH)**, Deltterra worked with the city to show how optimizing existing systems can deliver outsized results.

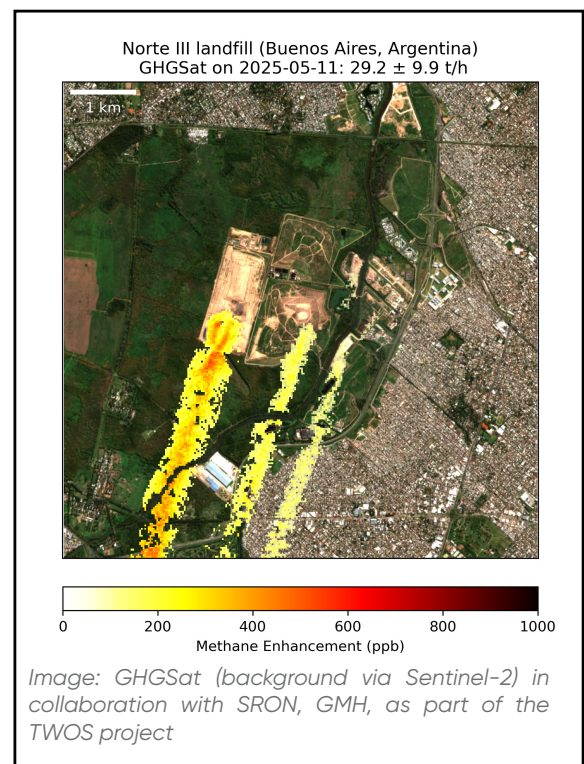
By redesigning a single collection route serving large food businesses – and combining it with a targeted behavior change campaign and digital tracking tools – the city **boosted organics recovery by 45%** and **improved sorting quality from 68% to nearly 100%** in just 12 weeks.

Encouraged by these results, Buenos Aires now plans to expand the model to 10 routes by 2027, with the potential to recover more than 6,000 tons of organic waste each year. Expanded further through a hotspot strategy, this can prevent an estimated **159,771 tons of carbon dioxide equivalent (CO₂e) emissions by 2030** – proof that local action can deliver climate impact at scale.

PROJECT CONTEXT

Buenos Aires, Argentina's bustling capital, generates more than 1.1 million tons of waste each year, with roughly 30% of it organic (food waste, yard trimmings, etc.). Yet **less than 3% of this fraction is source separated and recovered**, with the rest sent as mixed waste to the CEAMSE Norte III landfill.¹

When organics are buried instead of treated, they decompose without oxygen and release methane – a greenhouse gas 86x more potent than carbon dioxide in the short term. The CEAMSE Norte III landfill has methane capture systems in place to reduce GHG emissions, incorporating a Mechanical Biological Treatment facility designed to recover recyclable materials and minimize the volume of waste destined for final disposal. But due to the large volumes of waste managed at this site, satellite data still identified the landfill as a global super-emitter,² underscoring the urgency of diverting organics from disposal.



Despite these worrying trends, the city is well positioned to act. It already operates a collection service for food scraps from large businesses and manages a composting facility with capacity for 50 tons per day, though both remain underused. With only about 3% of organics currently treated, targeted improvements to waste collection, including an adjusted pickup schedule and better training, could have an outsized impact. And with Buenos Aires set to renew its waste management contracts in 2027 – a once a decade opportunity – decisions made today will define the city's environmental trajectory for decades.

PILOT IMPLEMENTATION

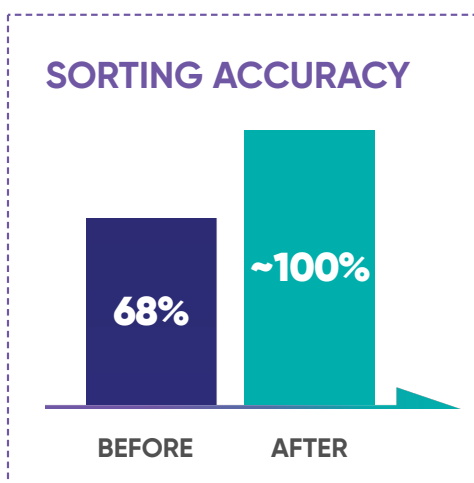
Delterra partnered with the City of Buenos Aires to answer a simple question: **how much more organic waste could be recovered by improving what already exists?**

After analyzing seven waste collection routes serving large generators of food waste such as green grocers and restaurants, data showed that on average only 66% of scheduled stops were completed, with completion per route ranging from 41% to 96%.

In the Caballito neighborhood, Delterra and the city redesigned one collection route to make it more efficient and easier for both municipal crews and local businesses to participate. The changes led to a **45% increase in average tons collected** between August 2024 and June 2025.



The team first focused the route on businesses that consistently participated and adjusted pickup schedules to match waste generation. By removing unnecessary stops and reducing pickup frequency to meet actual needs, the city shortened the route and freed up capacity to include new participants. The results were immediate: completion rates rose, trucks ran fuller and total organics collected increased.



To build on these gains, Delterra launched a behavior change campaign to help businesses understand why separating food scraps matters and how to do it correctly. This was key to improving sorting accuracy, a measure of how well mixed waste is separated into different streams such as organics. Higher accuracy enables more efficient processing and better quality compost.

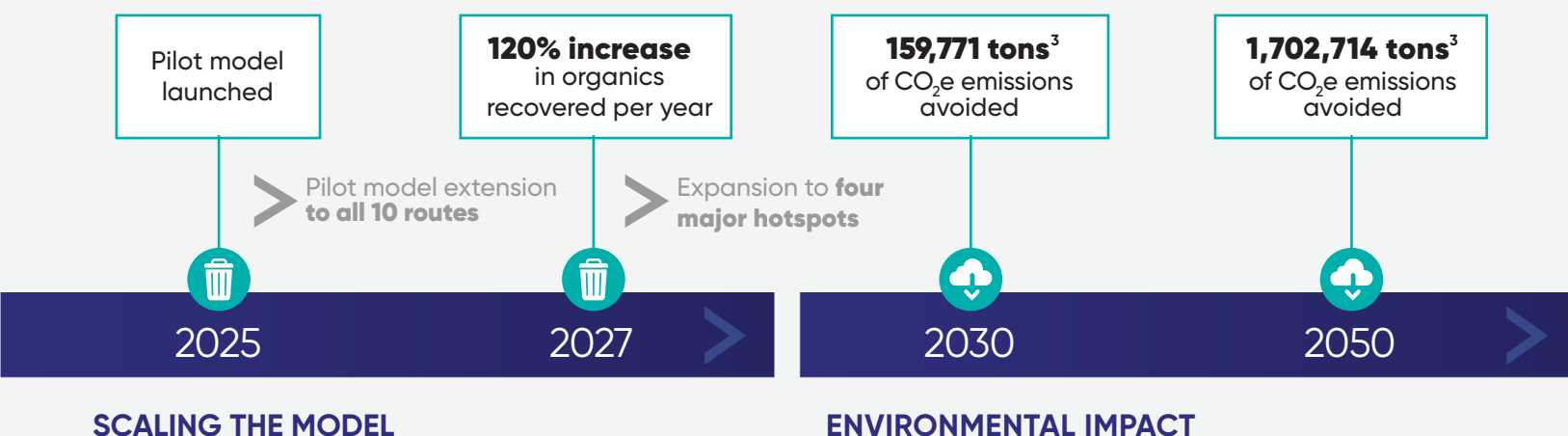
A new digital tracking tool also gave drivers an easier way to record each pickup and automatically share a receipt with participating businesses. This transparency allowed the city to identify issues in real time and strengthened communication between collection crews, businesses and municipal teams.

Over the course of the pilot, the route collected 75 additional tons of organics, equivalent to 225 tons per year if maintained. **Sorting accuracy improved from 68% to nearly 100%**, with 48 large food businesses participating through tailored training, on-site visits and digital engagement. City officials were also trained to track performance and make data-driven adjustments independently, laying the groundwork for long-term impact.

SCALING THE MODEL

The pilot revealed a clear pathway to growth: start with diagnosing and optimizing existing routes, reinforce with behavior change and digital tools, then move into expansion.

The city plans to extend the pilot model across all 10 routes by early to mid-2027, adding one new route every two months. Scaling to nine additional routes could help Buenos Aires recover about 6,240 tons of organics per year – **a 120% increase from 2025 levels** (around 2,800 tons).



Expanding further to four major “hotspots” – or areas with high numbers of large food waste generators – through a privatized system could raise recovery to 32,700 tons annually, **avoiding more than 159,771 tons of CO₂e emissions by 2030 and 1,702,714 tons by 2050³**, which is equivalent to removing about 370,000 cars from the road for one year.⁴

This approach prioritizes improving what is already in place before adding new investments – proving that major environmental benefits can be achieved without costly infrastructure expansion.

ECONOMIC IMPLICATIONS

The model is designed to be economically viable from the start. In its early phase, it **requires low public spending** on the digital tool and behavior change mechanisms and no spending on new infrastructure – only smarter use of existing assets such as trucks, staff and treatment facilities. Once capacity is reached, private operators can step in to expand collection services profitably, creating a market-driven system.

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For investments in additional collection capacity, financial analysis showed the model could recover investment costs within two years and remain profitable even if operating costs rise. For the city, this means lower landfill dependence, reduced transport costs and stronger compliance with the Zero Waste Law. For operators, it opens a new, low-risk business opportunity aligned with climate goals.

FINAL REFLECTION AND LESSONS FOR OTHER CITIES

The Buenos Aires pilot demonstrates that real climate progress doesn't always require massive new infrastructure or funding. By rethinking existing systems – routes, data and behavior – the city nearly doubled organics recovery while strengthening its financial and operational foundation. As Buenos Aires prepares to renew its waste management contracts, it has an opportunity to embed this model citywide and inspire others to follow. **The result is a replicable, cost-effective blueprint for cities worldwide to cut methane emissions quickly and affordably.**





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