City Garbage Management System – Budget Plan

(20 Hybrid Trucks + 2 Parking Zones)

1. PROJECT OVERVIEW

This is the budget plan for setting up a complete garbage management system for the whole city. We need to buy and install:

- **20 hybrid garbage trucks** - these run on electricity but can also use diesel or petrol if needed

- **2 parking and charging zones** - one in the north part of the city and one in the south

- **Waste bins** - we'll put these all over the city so people can throw their garbage

- **Technology stuff** - apps, GPS, sensors to track everything

- **Waste processing facilities** - where we sort, compost, and recycle the garbage

- **Yearly running costs** - salaries, fuel, maintenance, and other expenses

2. INFRASTRUCTURE – GARBAGE BINS

First, we need to buy and install garbage bins all over the city. We're getting smart bins that can tell us when they're full, plus regular bins for areas that don't need the smart ones. Here's the cost breakdown:

Item	Quantity	Cost per Unit	Total
Smart bins	1,000	€300	€300,000
Regular bins	2,000	€80	€160,000
Installation	—	—	€50,000
QR code printing	3,000	€1	€3,000
Subtotal:			**€513,000**

3. PARKING AREAS (2 LOCATIONS)

We need two parking zones - one in the north and one in the south. Each zone needs to be big enough (around 3,000 to 4,000 square meters) and will have:

- Land preparation and paving

- Parking markings and drainage system

- Security cabin and fencing around the area

- CCTV cameras for safety

- Solar lights for night time

- EV charging station with 10 chargers for the trucks

Here's how much each zone costs:

Item	Cost per Zone	Total (2 Zones)
Land development & infrastructure	€200,000	€400,000
Security & CCTV	€50,000	€100,000
Solar lighting	€30,000	€60,000
EV charging station (10 chargers)	€75,000	€150,000
Cost per parking zone	**€355,000**	**€710,000**

4. HYBRID GARBAGE TRUCKS (20 UNITS)

We need 20 hybrid trucks. Each truck costs around €180,000. These trucks run on electricity but also have diesel or petrol backup, so they won't stop working if the battery runs out. We also need to buy maintenance tools and get insurance for all trucks.

Item	Quantity	Cost per Unit	Total
Hybrid trucks	20	€180,000	€3,600,000
Maintenance tools	—	—	€50,000
Insurance	20	€1,500	€30,000
Subtotal:			**€3,680,000**

5. TECHNOLOGY COSTS

We need technology to manage everything - mobile apps for drivers and managers, GPS to track trucks, sensors for the bins, and cloud hosting to store all the data. Here's what it costs:

Technology Component	Cost
Mobile app + dashboard	€50,000
GPS tracking (20 trucks)	€20,000
Bin IoT sensors	€120,000
Cloud hosting (1 year)	€10,000
IoT network (SIM, connectivity)	€8,000
Subtotal:	**€208,000**

6. WASTE PROCESSING SYSTEM

After collecting the garbage, we need facilities to process it. This includes a sorting plant to separate different types of waste, a composting plant for organic waste, recycling machines, and storage sheds. Here are the costs:

Item	Cost
Sorting plant	€300,000
Composting plant	€120,000
Recycling machines	€200,000
Storage sheds	€80,000
Subtotal:	**€700,000**

7. YEARLY OPERATIONAL COSTS

Once everything is set up, we need to pay for running costs every year. This includes salaries for staff, electricity for charging trucks and running the parking zones, fuel for backup power, vehicle servicing, parking maintenance, and safety equipment. Here's the yearly breakdown:

Expense	Yearly Cost
Staff salary	€400,000
Electricity (charging + parking)	€60,000
Fuel (backup diesel/petrol)	€80,000
Vehicle servicing	€70,000
Parking maintenance	€30,000
Safety equipment	€20,000
Total yearly cost:	**€660,000**

8. GRAND TOTAL CALCULATION

One-time Setup Costs:

• Infrastructure (bins): **€513,000**

• Parking (2 zones): **€710,000**

- Reward Recognition: €285,000

• Technology: **€208,000**

• Waste processing: **€700,000**

Total Initial Setup Cost = €5,811,000

Yearly Running Cost = €660,000

GRAND TOTAL BUDGET = €6,756,000

So we need €6.756 million total budget (including €285,000 for Reward Recognition),
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