



**TAKA TAKA  
SOLUTIONS**

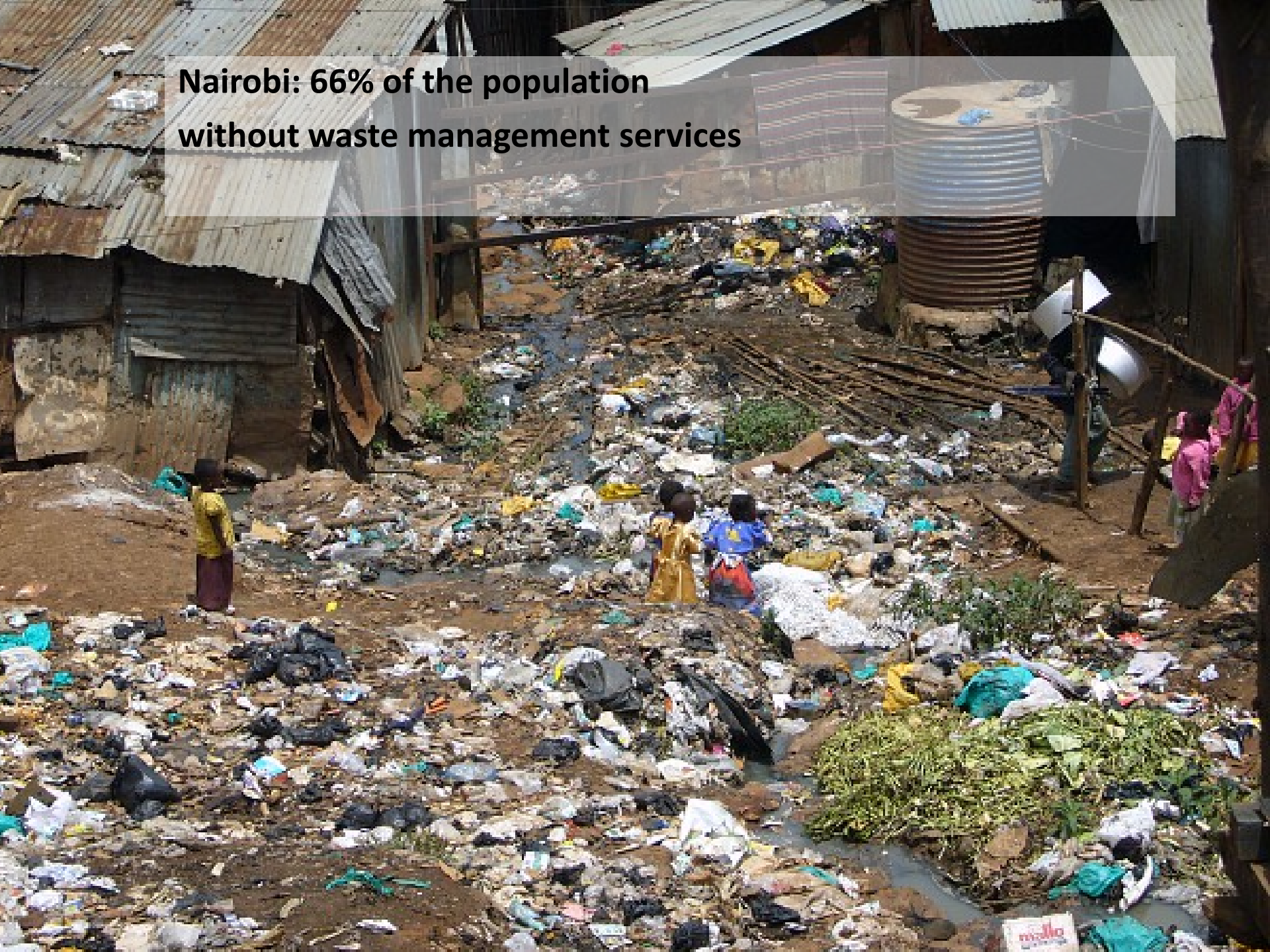
Repic Project

**30 October 2019, Solothurn**

# Problem Analysis – Waste Sector

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**Nairobi: 66% of the population  
without waste management services**



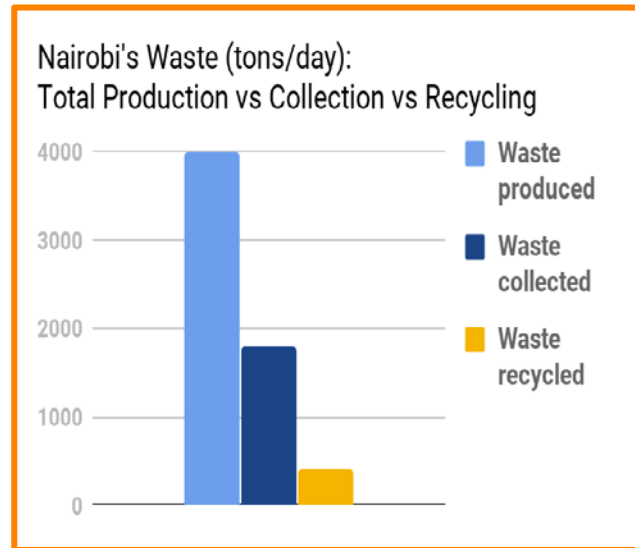
## **Problems:**

- Lack of waste disposal space**
- No market for organic waste**
- Low recycling rate**



# Africa's urban population will double by 2030, and its poorly-managed waste problem is only going to get worse

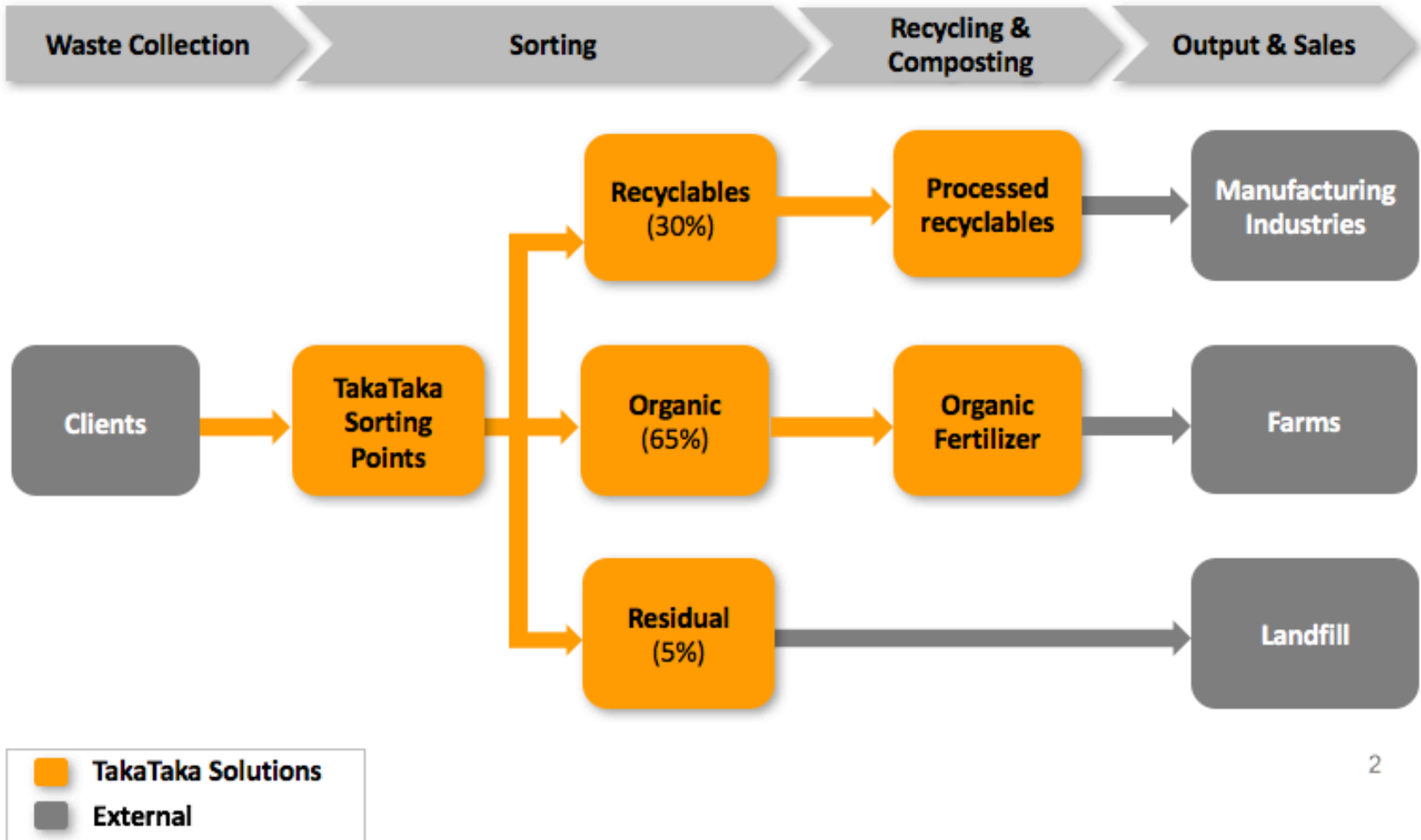
- Only 45% of people living in African cities have access to any form of waste collection. This is the lowest globally (in Nairobi, Kenya, 2,200 daily tons remain uncollected)
- As urban populations double by 2030 and incomes rise, **waste quantities will triple to 200 millions tons per year**
- Nearly all of the waste collected is dumped openly
- **Recycling rates** around the continent are **below 10%**
- Badly managed waste causes **80 million tons of GHG emissions per year**



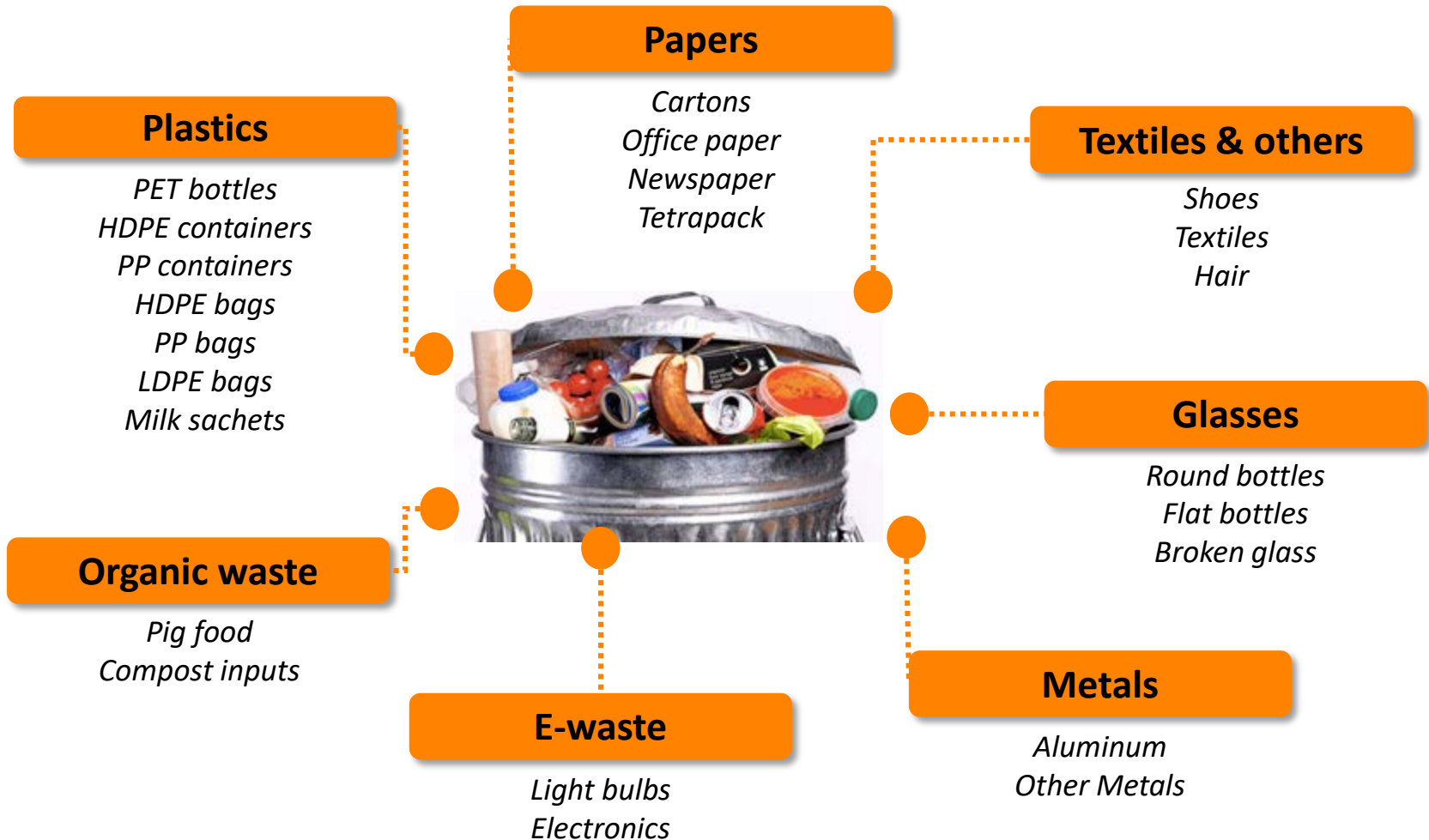
# TakaTaka Solutions – Business Model

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# We recycle 95% of our collected waste



# This is how we sort our waste





# TakaTaka Solutions – Repic Project (November 2016 – April 2018)

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# What was the REPIC project about

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- Improving operational efficiency
  - Sorting sites → improve process flow & efficiency
  - Composting → technology assessment
  - → Support through Swiss Senior Experts
- Building capacity for sustainability analyses
  - Recycling & sustainability reports for customers
  - → Support through MyClimate Foundation
- Indirect goals: Company growth & sustainability
  - Growth in waste handled & employees
  - Reaching financial sustainability

# What was achieved (April 2018)

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- Improving operational efficiency
  - Composting: Change from membrane to windrow composting
  - Sorting sites: Sorting site built with new design
- Building capacity for sustainability analyses
  - 21 commercial customers using recycling reports
  - Full-time data team of three people
- Indirect goals: Company growth & sustainability
  - Increase of waste collected from 10 to 40 tons
  - Staff increase from 100 to 185
  - Profitability by April 2018

# Lessons learnt (1): Working with Swiss experts

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- Worked well for the project
- Success factors:
  - Define scope narrowly
  - Limit consultancy to a short time period (1-4 weeks)
    - Time in-country should be limited
    - →Concern with Senior expert services
  - Work with technical specialists rather than generalists



# Lessons learnt (2): Medium-tech solutions work

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- Recommendations by Swiss experts & TakaTaka Solutions' own experience point to the relevance of medium-tech solutions:
  - Not high-tech → many Swiss products/technology not applicable or too expensive
  - Not low-tech → efficiency gains are not sufficient
- Example composting plant:
  - Switch from Goretex (high-tech) to windrow composting (medium-tech)



# Lessons learnt (3): Necessity of vertical integration

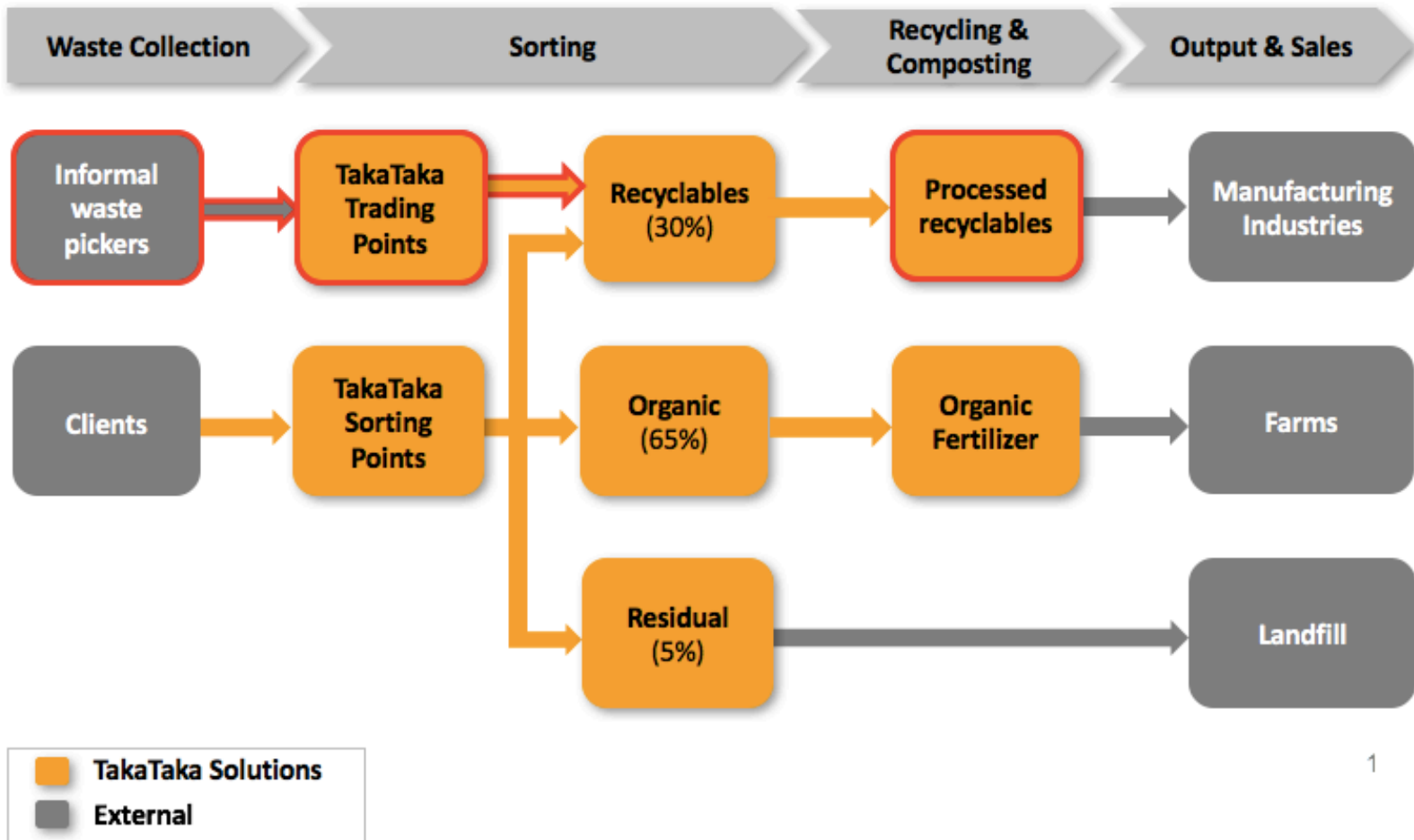
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- Many sectors in developing countries have multiple value chain gaps
- Example: Waste management gaps
  - No composting
  - Not enough recyclers
  - No landfills
- → Necessity for vertical integration
- Question of timing on when to take which steps

# TakaTaka Solutions – Outlook

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# Vertical integration: Trading Points, Recycling + Mechanization





# Continued Growth

Repic project



	November 2016	April 2018	October 2019	December 2020
Waste managed / day	15	40	60	120
Employees (FTE)	100	180	270	320
Waste picker jobs			50	400
No recycling businesses			1	3

# TakaTaka Solutions – Photos

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# Collection

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# On-site separation and sorting at clients



# Sorting sites - Sorting

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# At sorting sites - storage

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# Composting

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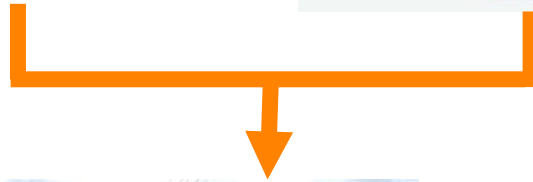
# Ready compost

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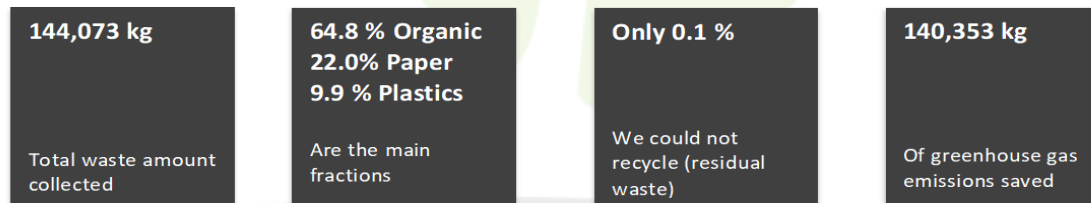
# New recycling plant: Single-use plastics



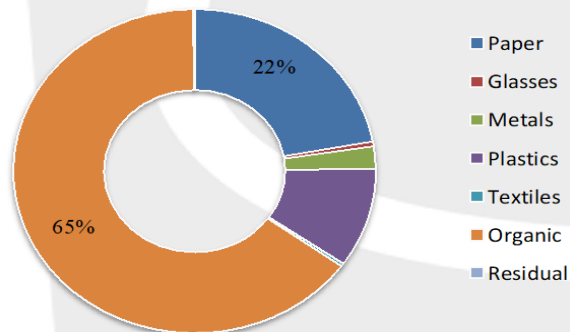
# Sample recycling report for customers

## Report summary on waste collection for Safaricom October, November, December (2017), January and February (2018)

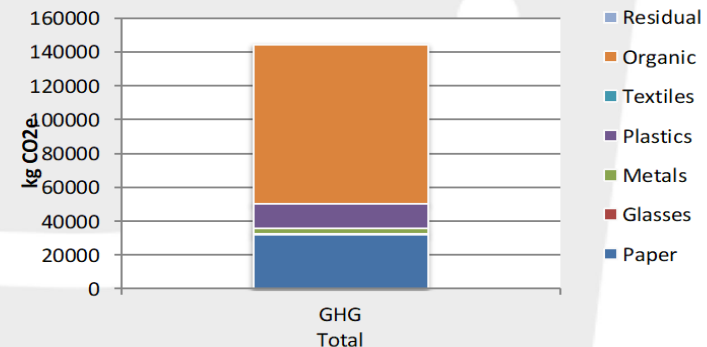
Please find a summary of an analysis of our collection services for Safaricom for October, November, December, January and February below.



**Waste Fractions by Weight (%)**



**Total GHG Emission Reduction with TakaTaka Recycling Program**



# Thank you

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