



SAFHE 2026

SOUTHERN AFRICAN
HEALTHCARE CONFERENCE

**SYNERGY
IN ACTION:** SHAPING THE FUTURE OF
HEALTHCARE TOGETHER



9 – 10 JUNE 2026



CTICC 2 CAPE TOWN

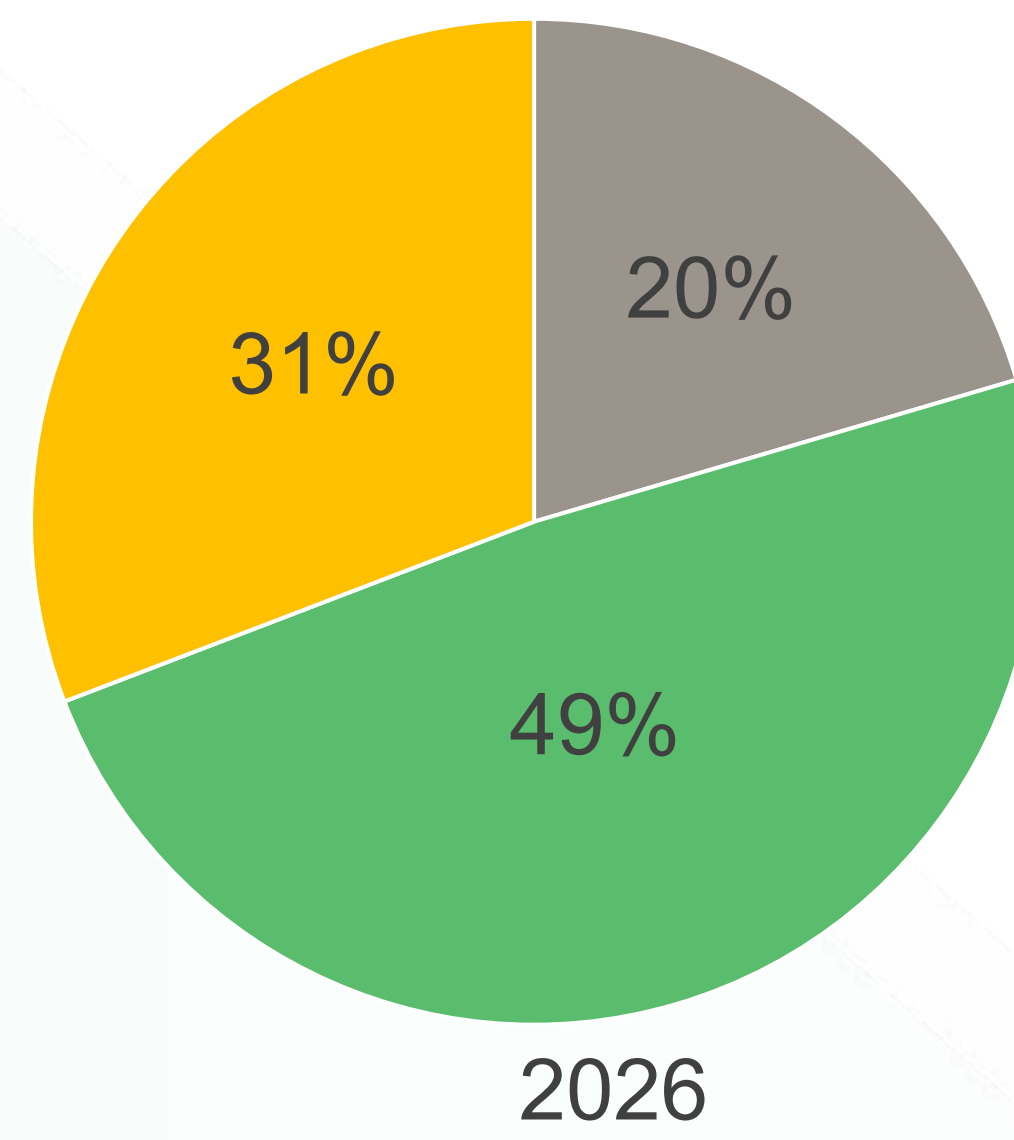
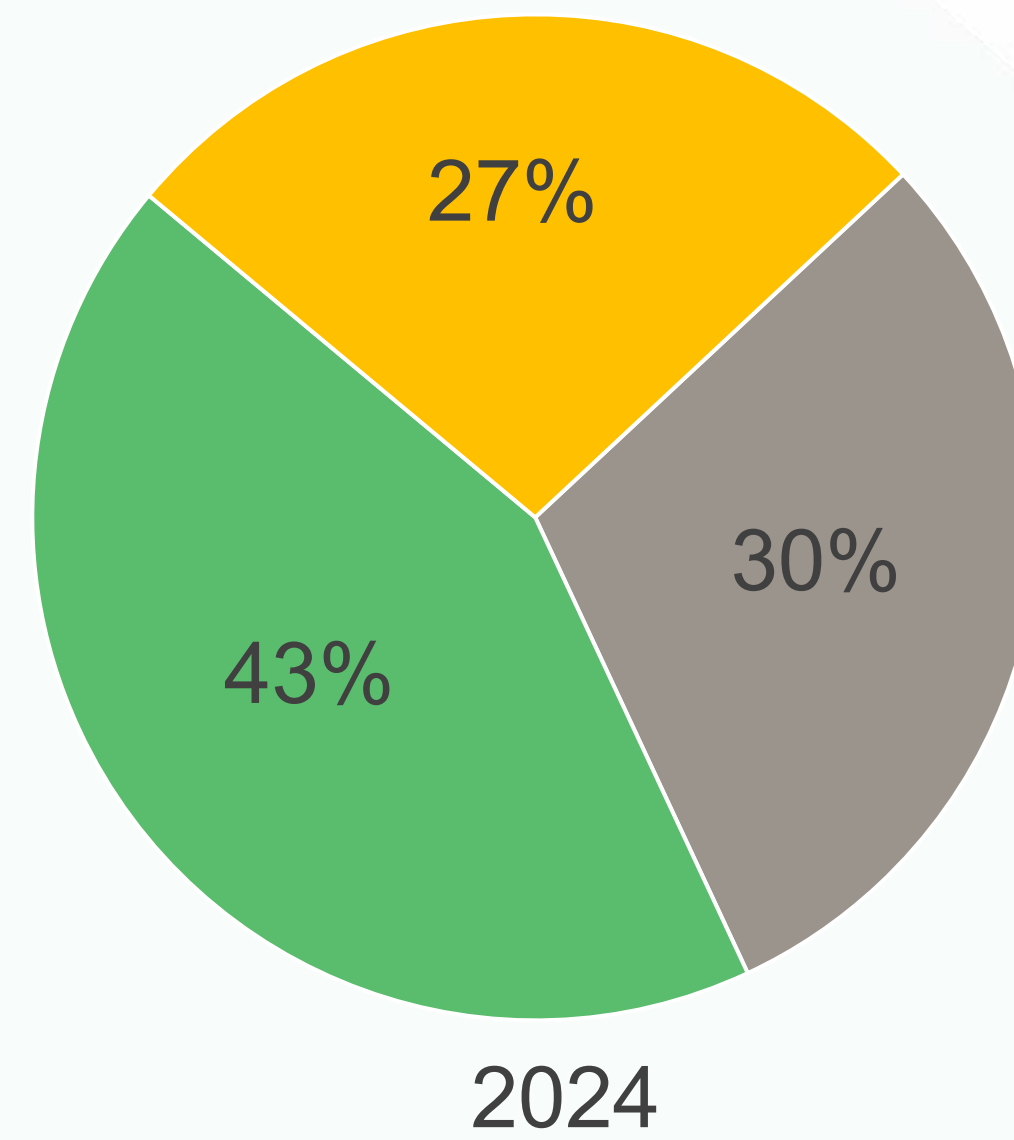
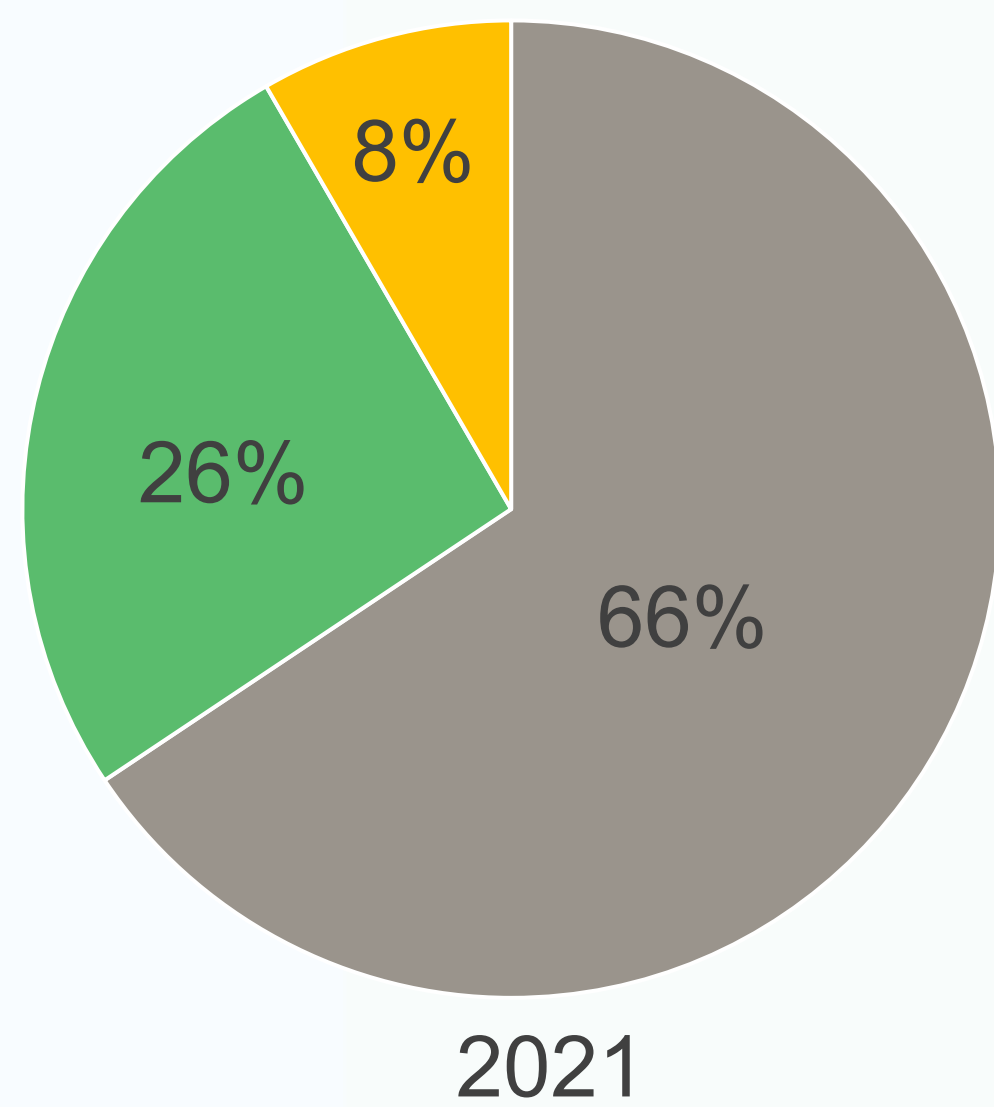
Beyond Recycling: Overcoming Barriers to Zero Waste in Healthcare

Liezl Myburgh



CONTINUAL IMPROVEMENT

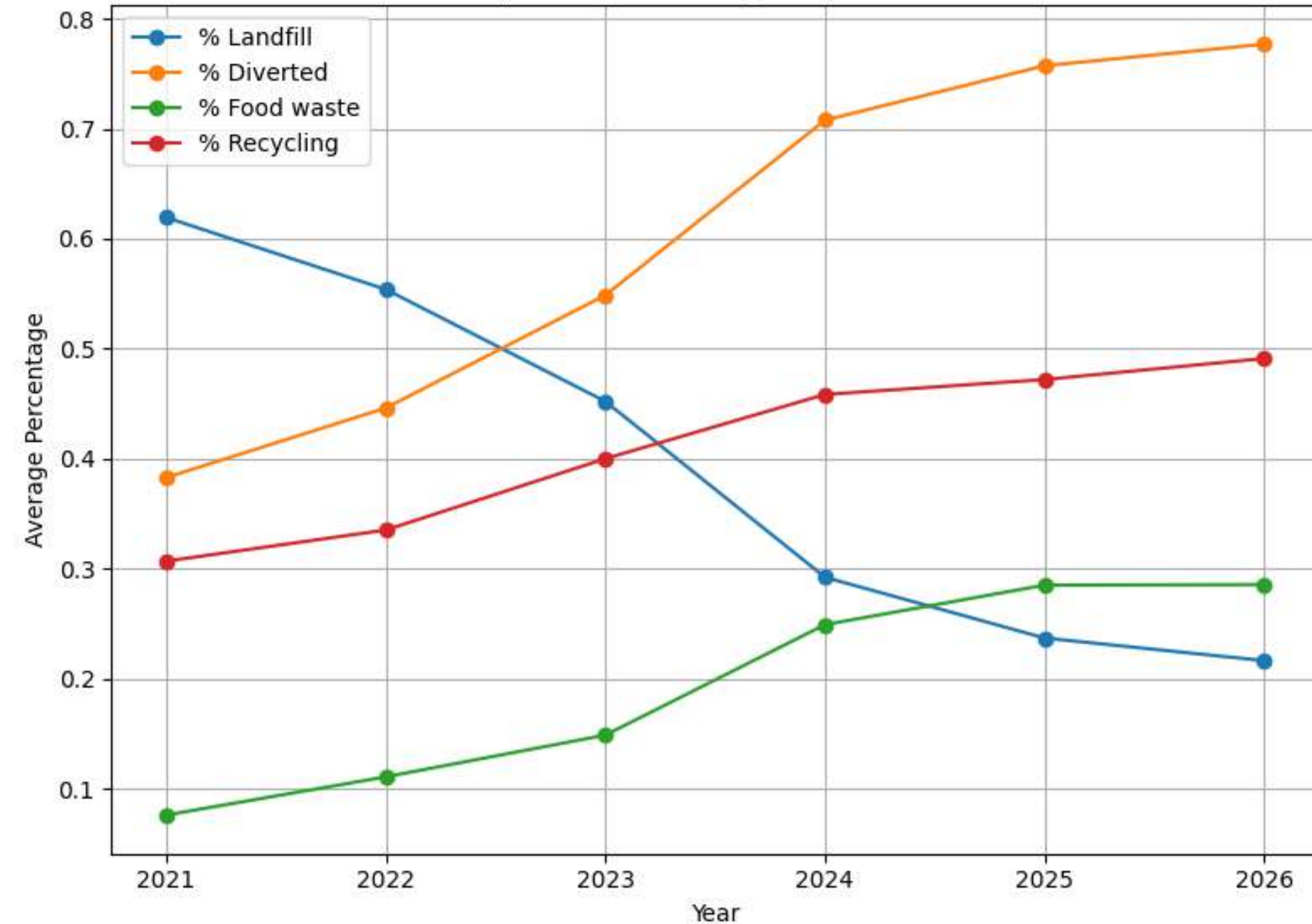
2021-2026



■ Waste to landfill ■ Waste recycled ■ Food waste recovered

CONTINUAL IMPROVEMENT

Waste Composition Percentages by Year (2021-2026)



- Significant reduction in total waste: from ~4 600 tonnes in 2021 to ~3 874 tonnes in 2025
- Landfill volumes fell from ~3 017 to ~860 tonnes
- Diversion volumes rose from ~1 580 to ~3 014 tonnes
- Diversion rate improved from 38% to 76%
- Waste composition shifted: recycling up ~31%→47%, food waste up ~8%→29%

SO HOW DID WE GET HERE

The recipe behind our 79% diversion rate



People & Culture

- Dedicated on-site waste sorters
- Green champions in every unit
- Incentive programmes
- Segregating food waste
- Awareness campaigns



Infrastructure

- Strategic bin placement & clear signage
- Adequate bin availability
- Clear communication channels

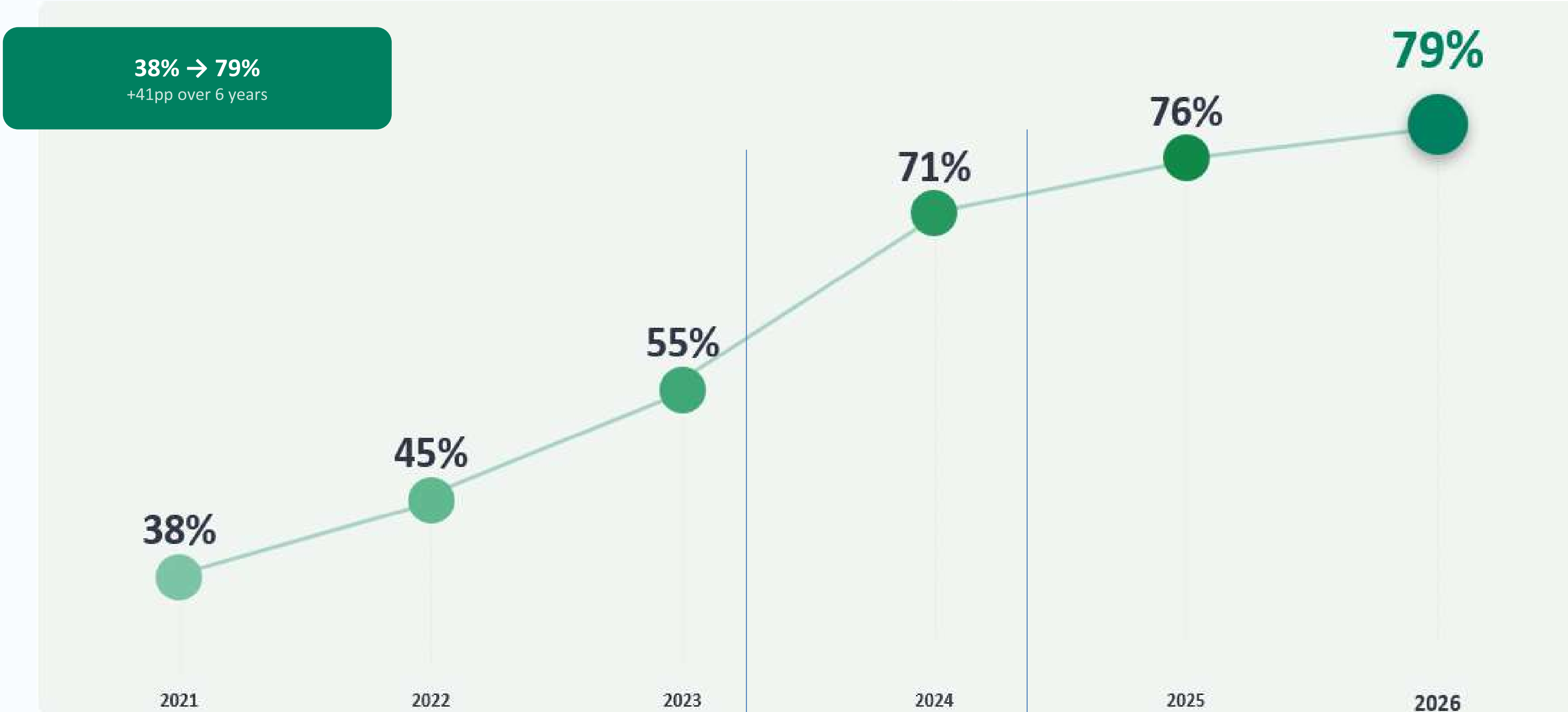


Governance

- ISO 14001 EMS audits
- Standardised waste management process

CONTINUAL IMPROVEMENT

Waste Diversion Rate



On-site sorting by waste management contractor implemented

Separate bin for food waste implemented

THE ELEPHANT IN THE ROOM



49 HOSPITALS

Total waste generated: 3959.77t = 720 x
(136 less than in 2021)



Waste to landfill: 809.58t = 147 x



Recycled: 1929.74t = 351 x



Organic (food) waste diverted: 1220.39t = 222 x



SA LEGISLATION IN THE SPOTLIGHT

Extended Producer Responsibility (EPR)

Mandated by the EPR Regulations, 2020 (GN 1184) under s.18 of the NEM: Waste Act. Producers, importers and brand owners are legally responsible for the end-of-life management of their products.



Sectors in Scope

Paper & packaging, single-use products, electrical & electronic equipment (EEE), lighting, portable batteries, pesticides and lubricant oils.



Producer Obligations

Register with the DFFE, join or establish a Producer Responsibility Organisation (PRO), pay EPR fees, and meet collection, reuse, recycling and recovery targets.



Funding

EPR fees cover collection service fees to waste pickers and reclaimers, cleaner-production interventions, awareness raising and PRO administration.



Reporting & Enforcement

Annual reporting into SAWIS.

Non-Compliance Penalties: fines up to R10 million and/or 10 years' imprisonment under s.68 NEMWA.

SA LEGISLATION IN THE SPOTLIGHT

Landfill Diversion Targets

Set by the National Waste Management Strategy 2020 (NWMS), issued under s.6 of the NEM: Waste Act and aligned with SDG 12 and the National Development Plan: Vision 2030.



Headline Targets

From a 2020 baseline:

- 40% diversion within 5 years
- 55% within 10 years
- At least 70% within 15 years — with zero waste to landfill as the long-term aspiration



Starting Point

SA generated ~55 million tonnes of general waste in 2017, with **only ~11% diverted from landfill** (2018 State of Waste Report).



Delivery Mechanisms

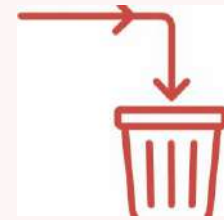
Separation at source, Industry Waste Management Plans (IndWMPs), EPR schemes, organic-waste diversion bans, the National Pricing Strategy and licensing of recovery facilities.



Long-Term Aspiration

Zero waste to landfill, aligned with SDG 12 and the National Development Plan: Vision 2030.

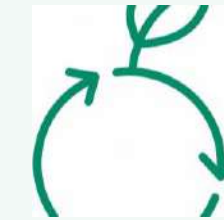
LINEAR VS CIRCULAR ECONOMY



Linear Economy

Take → Make → Dispose

- Raw materials extracted, used once, then sent to landfill or incineration
- High waste volumes with no recovery of value from discarded materials
- Rising disposal costs as landfill capacity shrinks and regulations tighten
- Environmental burden from resource depletion and greenhouse gas emissions



Circular Economy

Reduce → Reuse → Recycle → Recover

- Materials kept in use as long as possible through sorting, recycling, and reprocessing
- Organic waste diverted to composting, generating value instead of landfill burden
- Lower disposal costs and reduced environmental impact through waste minimisation
- Supports the 79% diversion rate achieved through on-site sorting and recycling programmes

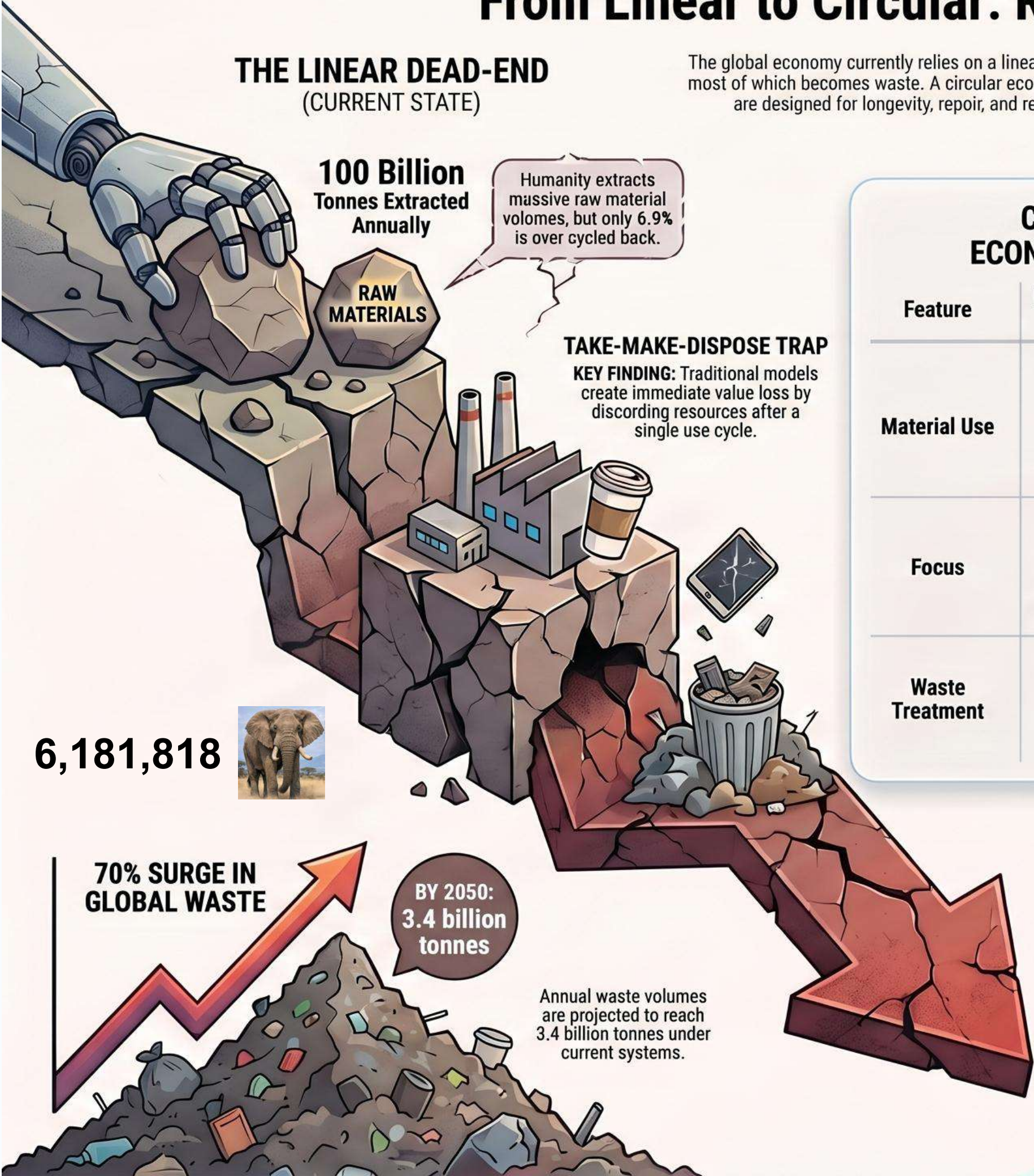
- ***Product design now matters***
- ***Packaging choices become compliance risks***

From Linear to Circular: Redesigning Our Global Economy

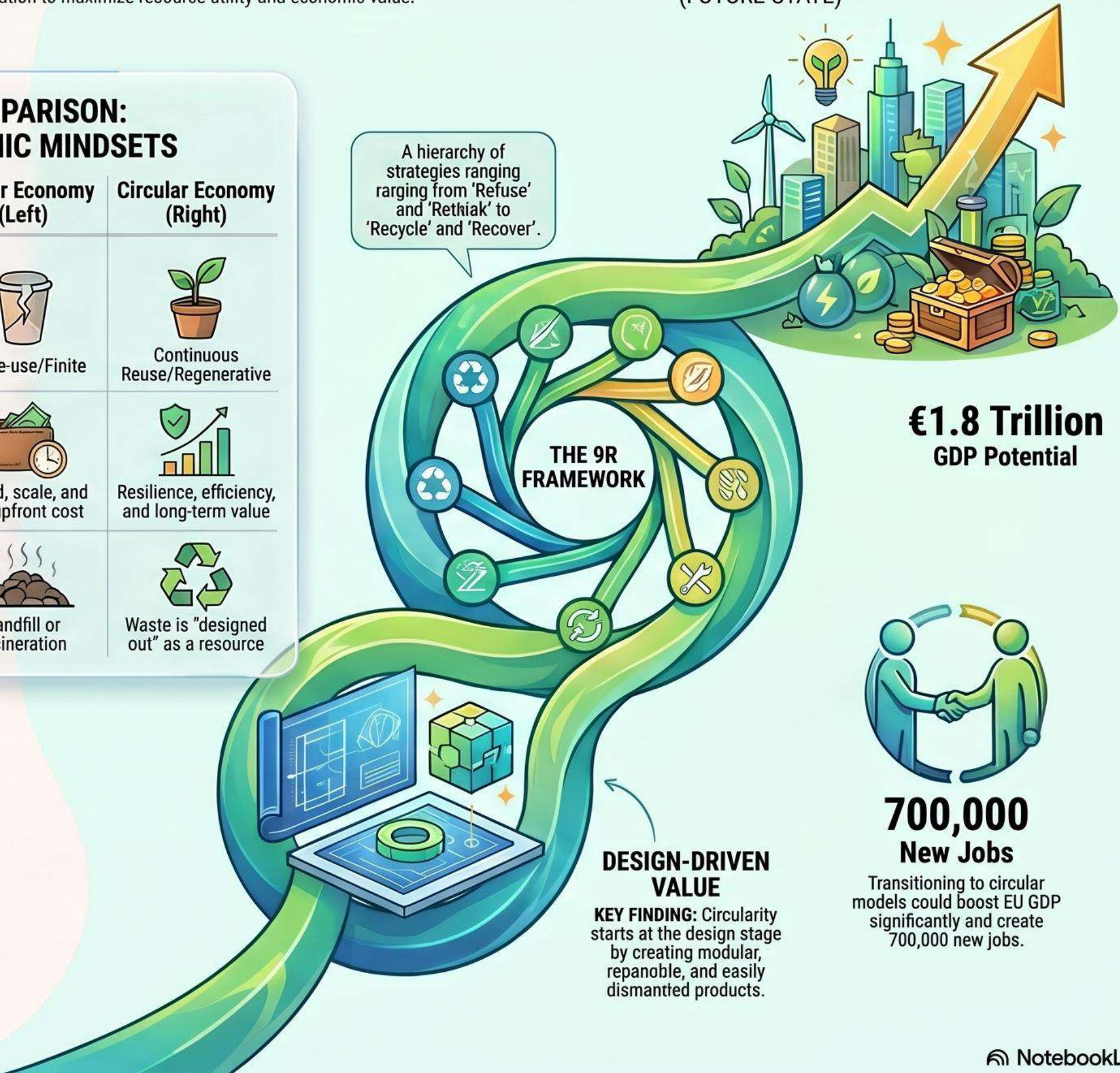
THE LINEAR DEAD-END (CURRENT STATE)

The global economy currently relies on a linear model that extracts over 100 billion tonnes of materials annually, most of which becomes waste. A circular economy (CE) replaces this with a closed loop system where products are designed for longevity, repair, and regeneration to maximize resource utility and economic value.

THE CIRCULAR ADVANTAGE (FUTURE STATE)



COMPARISON: ECONOMIC MINDSETS		
Feature	Linear Economy (Left)	Circular Economy (Right)
Material Use	 Single-use/Finite	 Continuous Reuse/Regenerative
Focus	 Speed, scale, and low upfront cost	 Resilience, efficiency, and long-term value
Waste Treatment	 Landfill or incineration	 Waste is "designed out" as a resource



CIRCULAR ECONOMIES – CRDC Resin8

REGENERATIVE IMPACT IN ACTION: MEDICLINIC

THIS IS ONLY THE BEGINNING. OUR REGENERATIVE IMPACT SO FAR.

RESIN 8



CLIENT: MEDICLINIC
LOCATION: VERGELEGEN MEDICLINIC, CAPE TOWN
TIME PERIOD: 6 MONTHS

Concrete products made with a percentage of RESIN8 test within the technical requirements of the relevant SABS specification.



TOTAL RESIN8™
5700kg



TOTAL MIXED
PLASTIC WASTE
SEQUESTERED:
4700kg



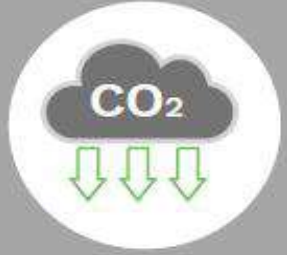
TOTAL PLASTIC
SEQUESTERED
EQUAL TO:
188 000
PET BOTTLES*
*calculated @ 25g per empty bottle



TOTAL PLASTIC
SEQUESTERED
EQUAL TO:
2 350 000
CHIP PACKETS*
*calculated @ 2g per empty packet
2000 chip packets per m² of paving

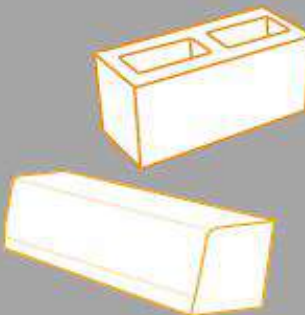


MINED AGGREGATE
SAVED:
13 160kg



CO₂ SEQUESTERED:
9Tons or
5005.8m³

1590 Kg CO2 per ton of RESIN8
Plastic Disposal = 960kg CO2 per ton
extra, with African Journal of Science & Tech Data via ICA
Mined Aggregate/Sand = 210kg CO2 per ton
X 3.3 (RESIN8 replacement volume)
extra (this is the total CO2 footprint)
One ton of CO2 occupies 556.2m³ of volume
Source: <https://www.epa.gov/ghg-calculator/converter>



EQUAL TO:
M140 BLOCKS: 31 623
RESIN8™ 5% BY VOLUME
RESIN8™ PER BLOCK: 181grams
TOTAL RESIN8™: 5700Kg

BK2 KERBS: 5458
RESIN8™: 10% BY VOLUME
RESIN8™ PER KERB: 1050grams
TOTAL RESIN8™: 5700Kg

MEDICLINIC



CIRCULAR ECONOMIES – CRDC Resin8

BUILDING HOMES & PROSPERITY FOR ALL

“At UTTE, Resin8 is exciting because it proves that the future of affordable housing and the future of sustainability can, and must be the same conversation. We are taking one of the world’s biggest environmental challenges and quite literally embedding it into safer and more dignified homes in creating resilient urban communities.”
Benjamin Kollenberg
Architect @ UTT South Africa



WELCOME TO THE CONCRETE SOLUTION TO PLASTIC WASTE



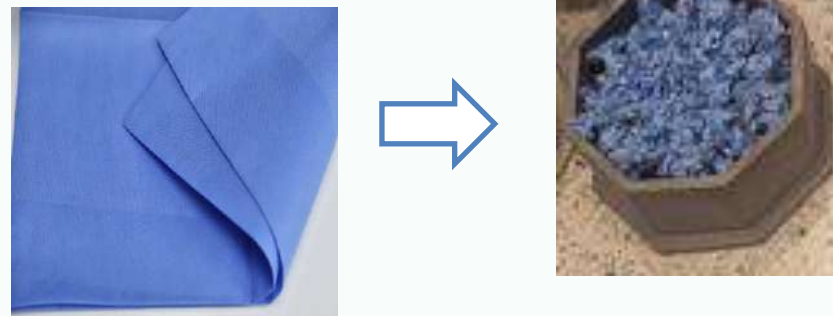
BUILDING BLOCKS FOR A GREENER FUTURE



- UTT City of Cape Town housing projects in Khayelitsha
- Kerbside for the My City Bus lanes in the City of Cape Town

CIRCULAR ECONOMIES – ZEROCRETE TRIAL

- Waste diversion from landfill
- Up to 70% reduction in cement-related CO₂
- Tangible circular economy implementation
- Internal waste transformed into permanent assets





THE WAY FORWARD

Legislation

Engage proactively with regulators to co-develop healthcare-specific waste frameworks that balance infection control with circular economy goals.

Investigate Opportunities

Keep on investigating new opportunities to further reduce waste with a focus on procurement, new technology, difficult waste streams and circular economies.

Behaviour Change

Ongoing targeted training, awareness and gamified incentive programmes for staff.

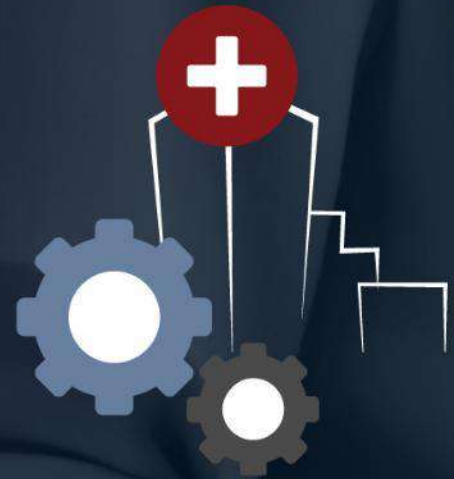
CONCLUSION

- Not chasing a percentage but **a future that heals without harming**; every bin, boardroom, and procurement decision counts.
- **Proven model:** governance + people + infrastructure delivered a **diversion jump from 38% to 79%** across 49 hospitals.
- **Regulatory tailwind:** EPR and NWMS targets make circular practice a compliance imperative, not a choice.
- **Next frontier:** upstream procurement and circular partnerships are the route from recycling to true zero waste.
- Today's systems decide tomorrow's waste – **choose one thing you can change...**



Repair

Dove



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Thank you / Q&A

Let's build a sector together worth leaving to the next generation!

Liezl Myburgh

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