

Size Does Matter!



Size Matters

- o For water and sewage the size of the problem is of **gargantuan** proportions.
- o Johannesburg, the business capital of Africa's most advanced economy, is facing Day Zero.
- o 66% of the municipal wastewater systems in South Africa are in poor or critical condition.
- According to the World Bank, the country risks running out of surface water resources in the near term.



Big Solutions for Big Problems?

- South Africa's water and wastewater treatment network built on large bulk centralised systems, are both collapsing and not covering huge sections of society.
- o Capital costs of repair let alone installing new centralised systems across the country is mind boggling.
- o **IF** it is done, unlikely to keep up with population growth and urbanisation.
- o Serious impact on general economic growth, which in turn will make financing even more challenging.



Comfort Zones are Dangerous

Clinging to known solutions may provide comfort - for a short while.

- IBM dismissed the impact of the agile PC, clinging to its behemoth systems.... it is only now recovering
 after a painful acceptance of a New World.
- o Xerox clung to the copier.... need I say more?
- Mainline phone providers completely missed out on the impact of the mobile phone.



Trailing the Solar Revolution

- We only have to look at the decentralization of the energy grid globally to meet energy demand.
- Big power plants and long power lines are being replaced by solar and batteries providing "local" solutions that can circumvent costly long-haul wiring and placed directly onsite to support significant load growth over the coming decades.
- Currently approximately 140,000 jobs have been created in SA through the Solar Revolution, this is expected to become +/- 550,000 jobs by 2030.
- o This has unleashed a diverse offering of financing solutions to fund these onsite facilities.
- o The 21st century will mark a shift towards decentralized energy AND water sources.



KaacKai

KaacKai's dynamic and flexible world of water treatment harnesses the **proven** technological advances that have been made and packages this into decentralised modular systems – Danish technology used successfully for nearly 20 years with almost two decades of incremental improvements.

- Does not use chemicals, mimics nature
- Uses minimal power can work with solar power
- o Easy to maintain, very economical to run and install
- Treats sewage with no smell
- o Is flexible, produces water to the highest Danish / EU standards
- Massive job creation (550 000 by 2030)
- Saves water and money
- Has an attractive IRR



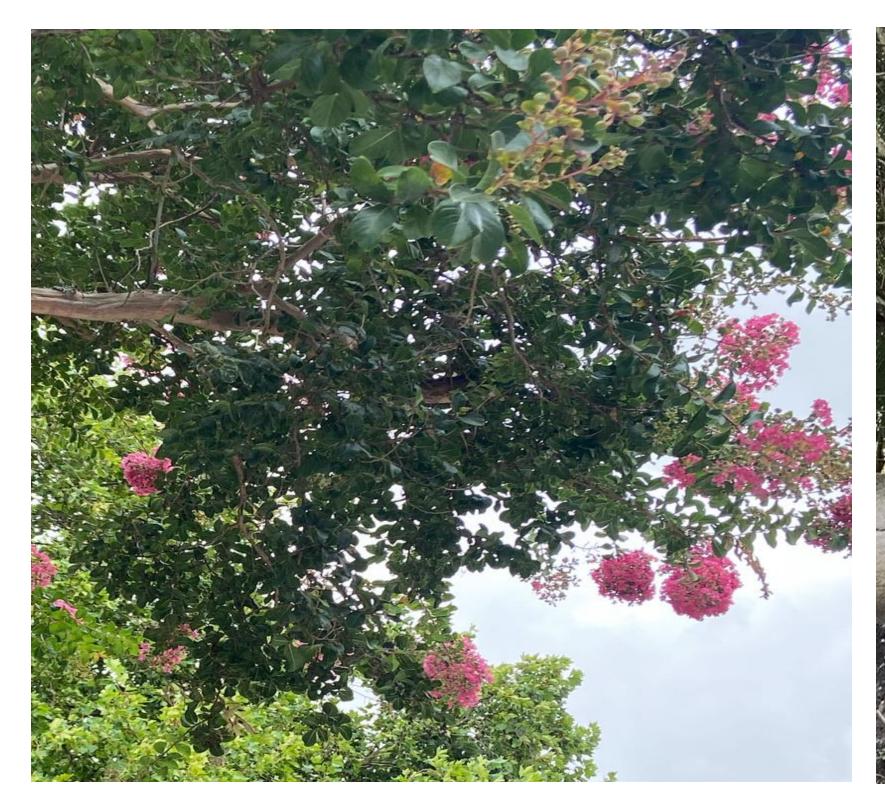
Decentralised Systems on the Rise

- Decentralised wastewater treatment using modular set ups directly onsite eliminates the cost and time for extensive piping and increases efficiencies by generating water at source.
- Decentralised systems can expand with a project.
- In South Africa, the policies and regulatory framework for wastewater treatment are still geared towards centralised solutions. Elsewhere in the world there is a rapid move to decentralised systems.
- One example is San Francisco, which triggered the initiation of the National Blue Ribbon Commission for Onsite Non-potable Water Reuse Systems.

Changing the Game

- Since launching KaacKai in 2021, a primary focus has on improving Standard Operating Procedures
 and the regulatory framework for onsite wastewater reuse through real time case studies, with the City
 of Cape Town, Johannesburg and other municipalities.
- KaacKai was the first to receive approval from the City of Cape Town for a system in the City since the Day Zero crisis.
- At the same time, we have demonstrated through our installations the significant water and cost savings to residential and commercial property developers.
- o Size does matter, and to solve our water problems, I would suggest biggest is not necessarily the best.

Residential Compounds





Mining





Upmarket Guesthouses

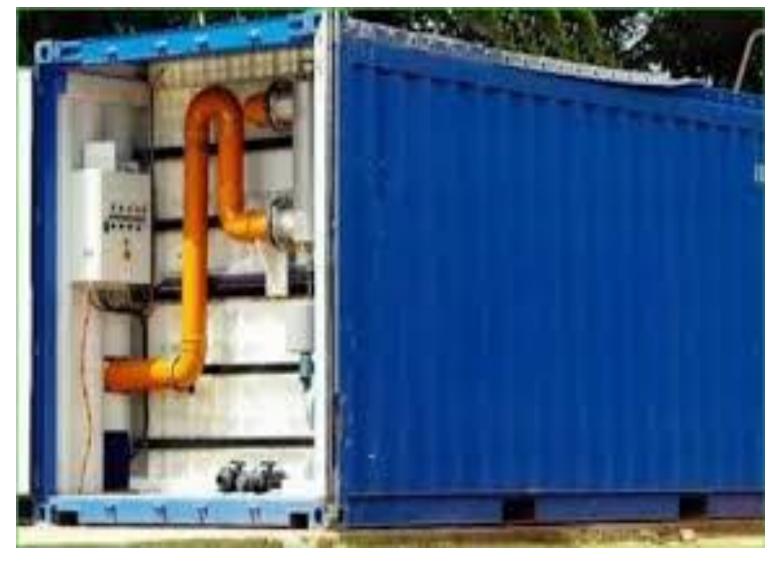




In the Basement

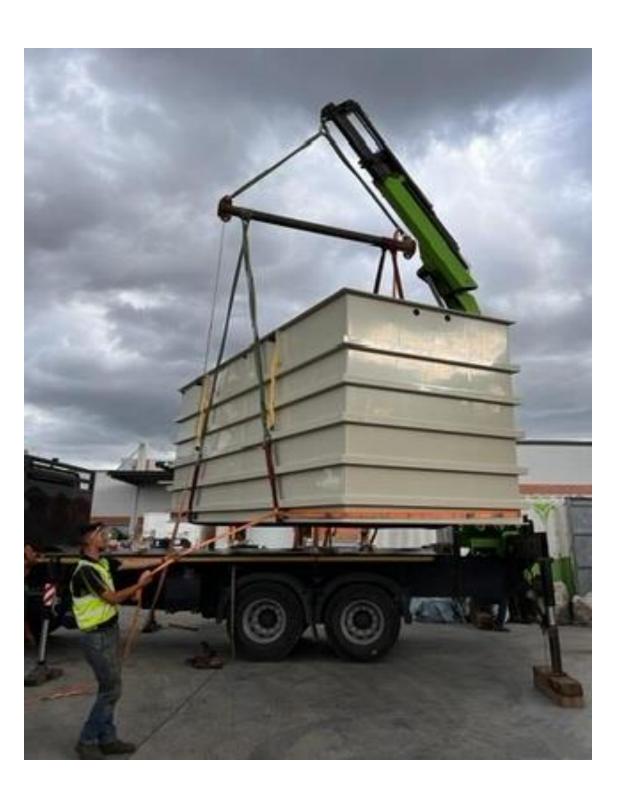


Mobile Container





Shopping Centres

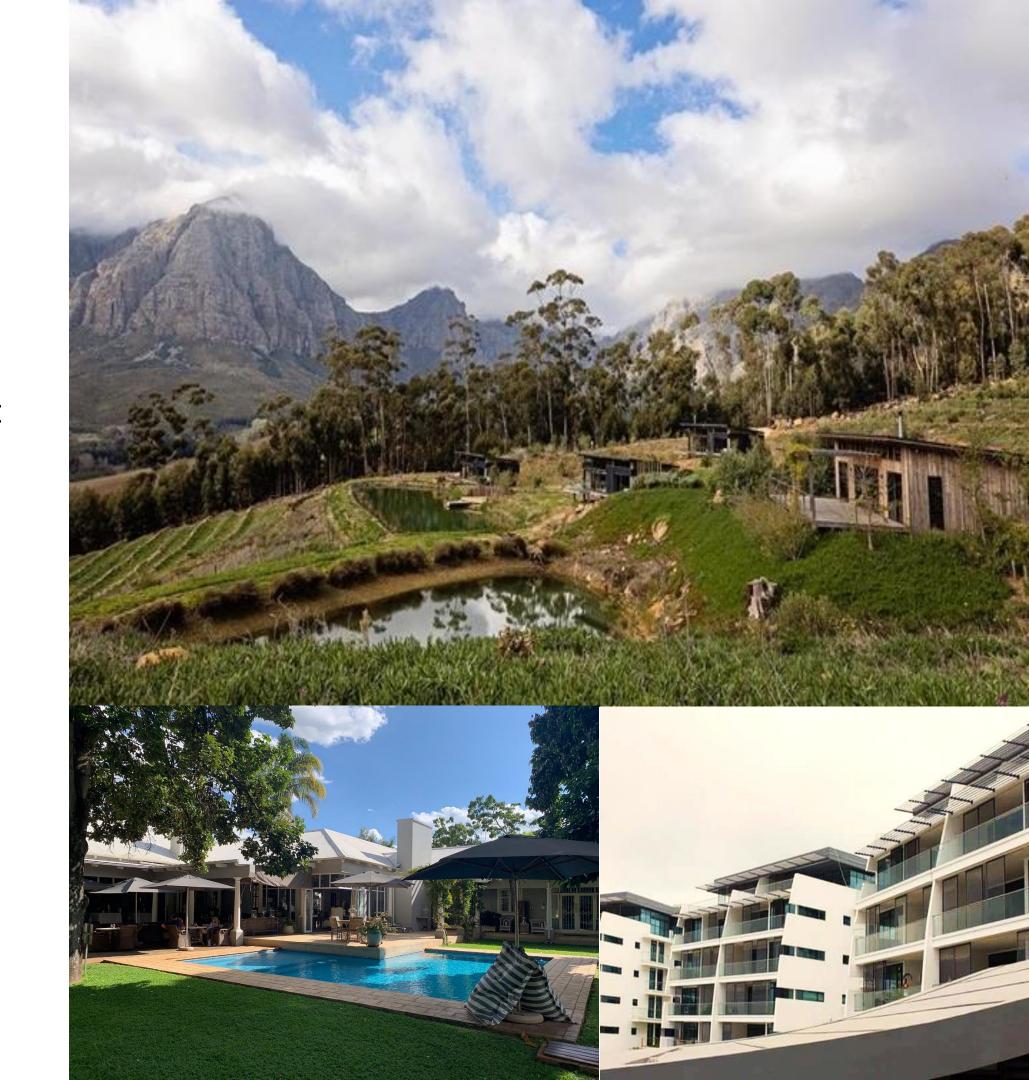




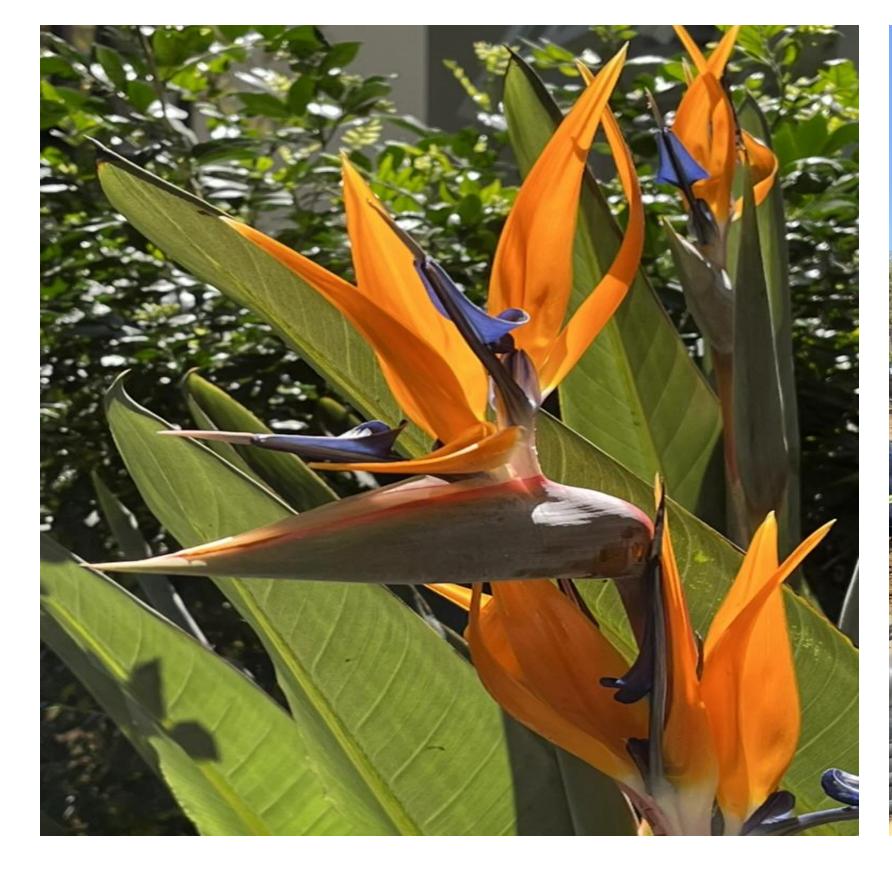


Multiple Sites

- Camissa Farm was looking for an innovative wastewater treatment solution to supplement its modern-styled eco-off grid chalets.
- Princess Marina Hotel uses all its treated water for irrigation.
- Highlands House Boutique Guest Lodge for irrigation.



At Home





All-in-One Modular Pods



Larger Set Ups





Even Larger Set Ups





Think Smart



Thank You

