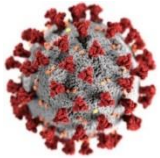


Water as a flux



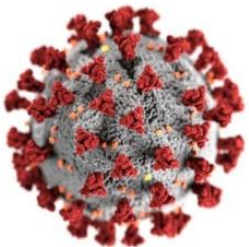
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safma
People. Infrastructure. The bottom line.

Contents

1. Vision - where we want to be
2. Current Challenges
3. Change Focus
4. The model
5. Implementation steps



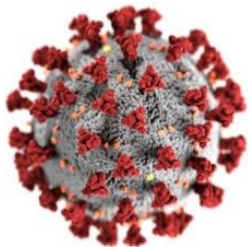
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The Vision

“Water as a flux means water is an infinitely renewable resource. It has a different value and price, and different qualities are used for different purposes.”*

-Prof Anthony Turton-

*<https://www.news24.com/citypress/Business/water-solutions-exist-but-we-are-hamstrung-by-the-lack-of-political-will-20180309>



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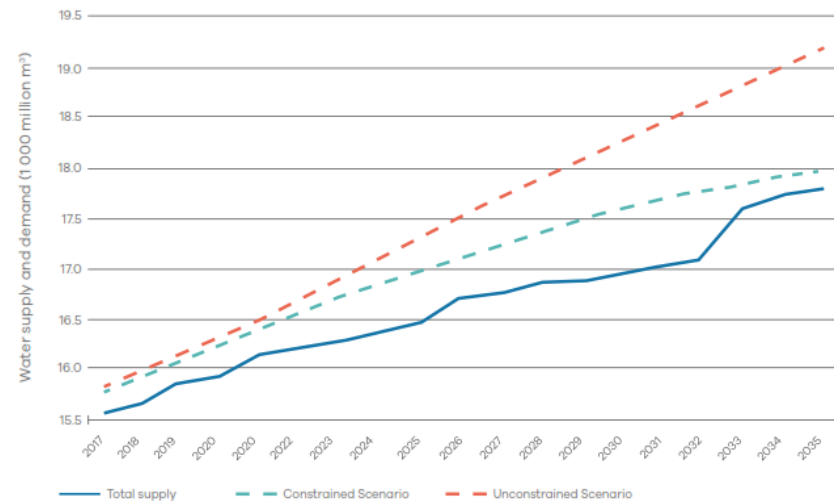
Current Challenges

PROBLEMS & RISKS

Water availability and quality is in question and associated costs are rising at an alarming rate

Fiscus unable to support required Investment

Deficit between water supply & demand could reach between **2.7 & 3.8** billion m³ by 2030 in South Africa



The gap between water supply and projected water demand under two scenarios by 2035 in South Africa (Donnenfeld et al. 2018)

Overcome the Challenges

Change the way we look at water



Economics

Understand the water value chain and embrace disruptive business models



Regulation

Work within the current regulatory environment and be catalysts for necessary changes



Reuse Process

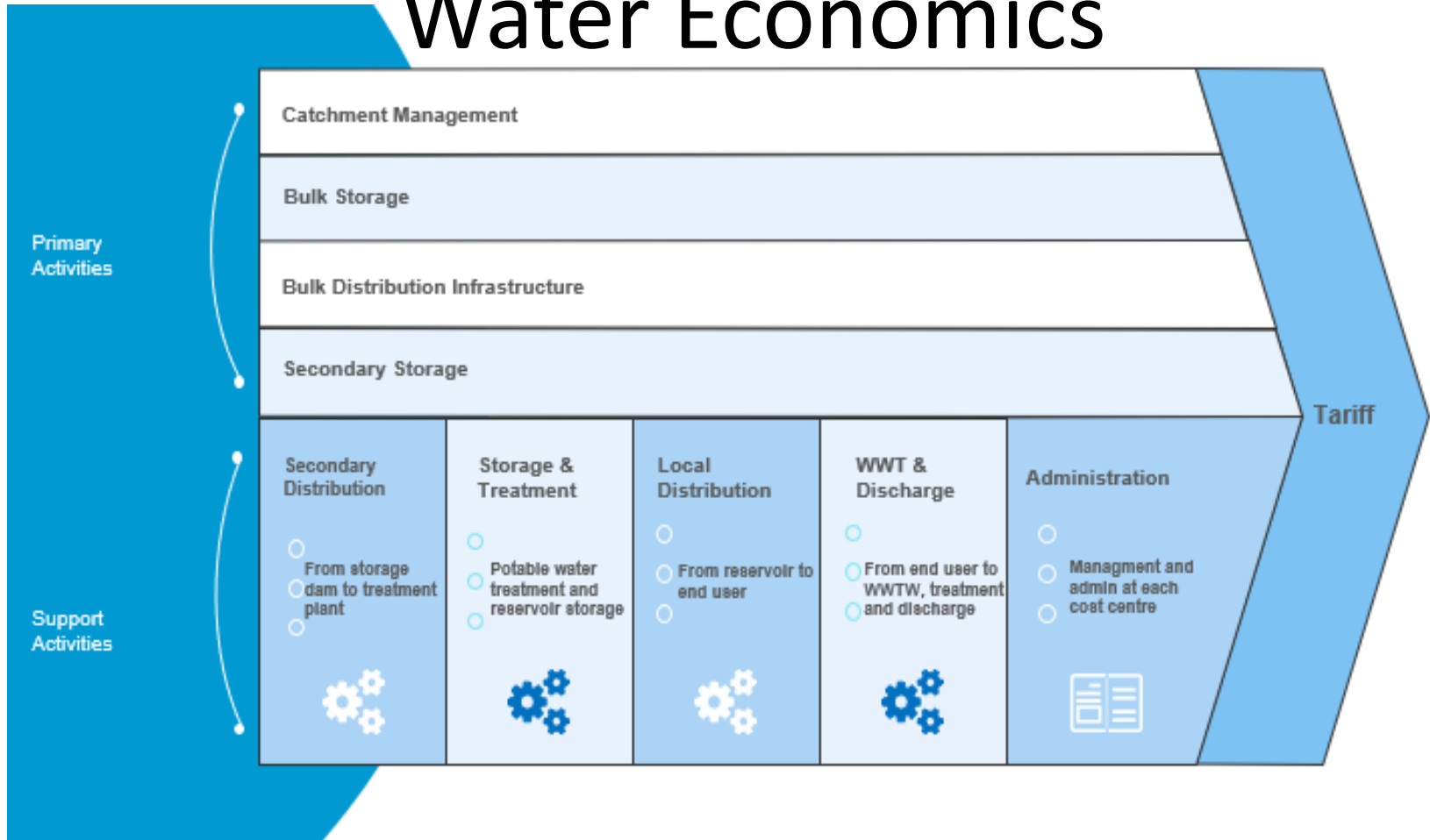
Embrace new and innovative technology that disrupts the way water is used and treated



Management

Consider decentralized, circular systems that make the water supply chain manageable and cost effective

Water Economics



Water Economics

From

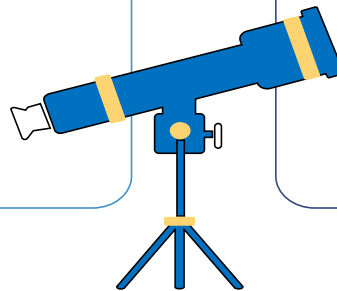
...it is extremely unlikely that the end charges bear any systematic relationship either to costs or to the achievement of wider social objectives that are of key importance in setting water charges.

- Dr Rolf Eberhard

To

Take control of water cost per kl:

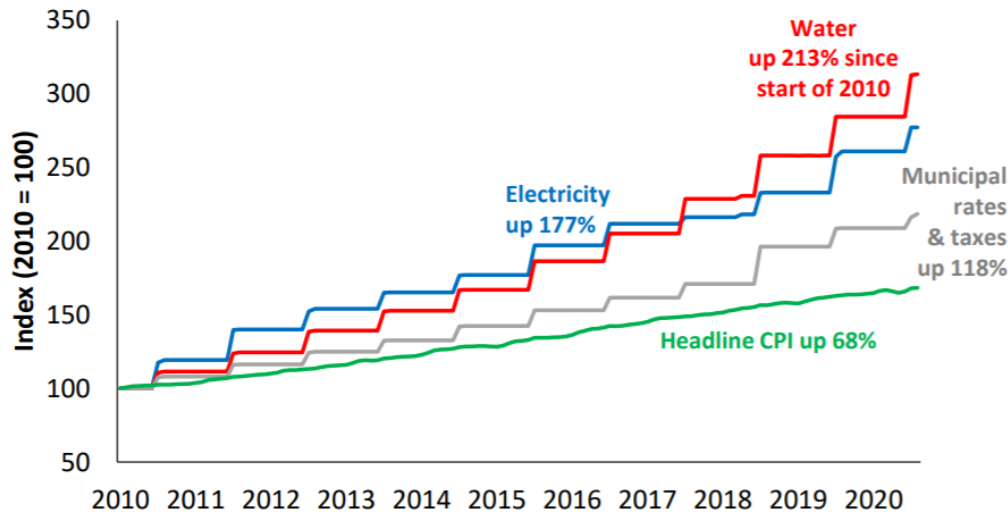
- Reuse water
- Recycle water to the appropriate standard for end use
- Make use of water as a service financial model and innovative technology



Water Economics

Admin prices continue to be higher than rest of CPI basket

Municipal adjustments



Adjustments are surveyed in July and Aug of each year. Source: Stats SA and SARB



	<u>Electricity</u>	<u>Water</u>	<u>Rates and taxes</u>	<u>Headline</u>
Latest (Aug-20)	6.2%	10.1%	4.6%	3.1%

Water Regulations



Water Services Act

- Water Service Intermediary
- Awareness and formal engagement through formal forums
- South African Water Chamber



National Water Act

- Water Use License
- Water Quality Assurance

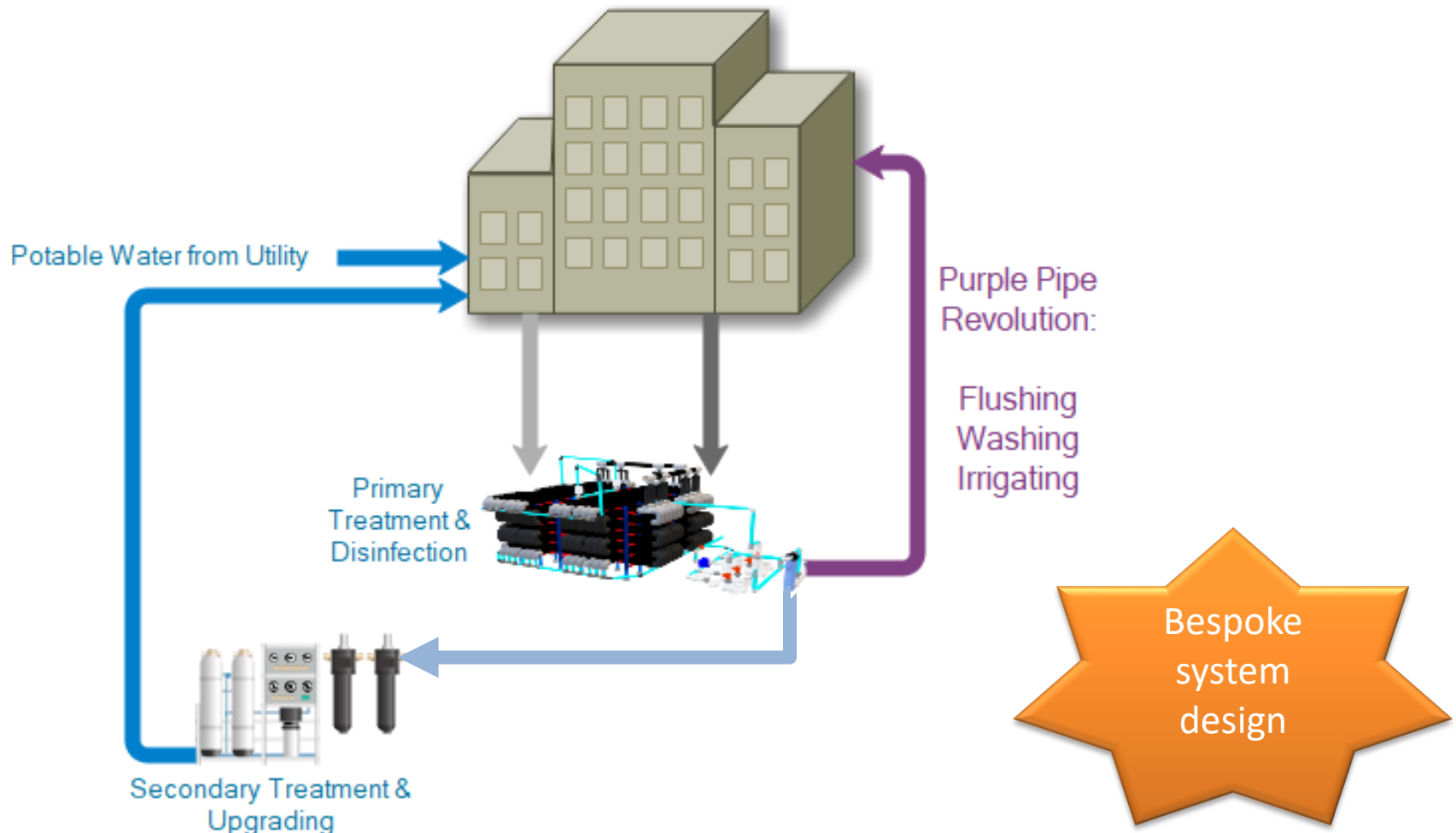


Water Quality Management

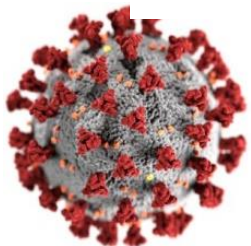
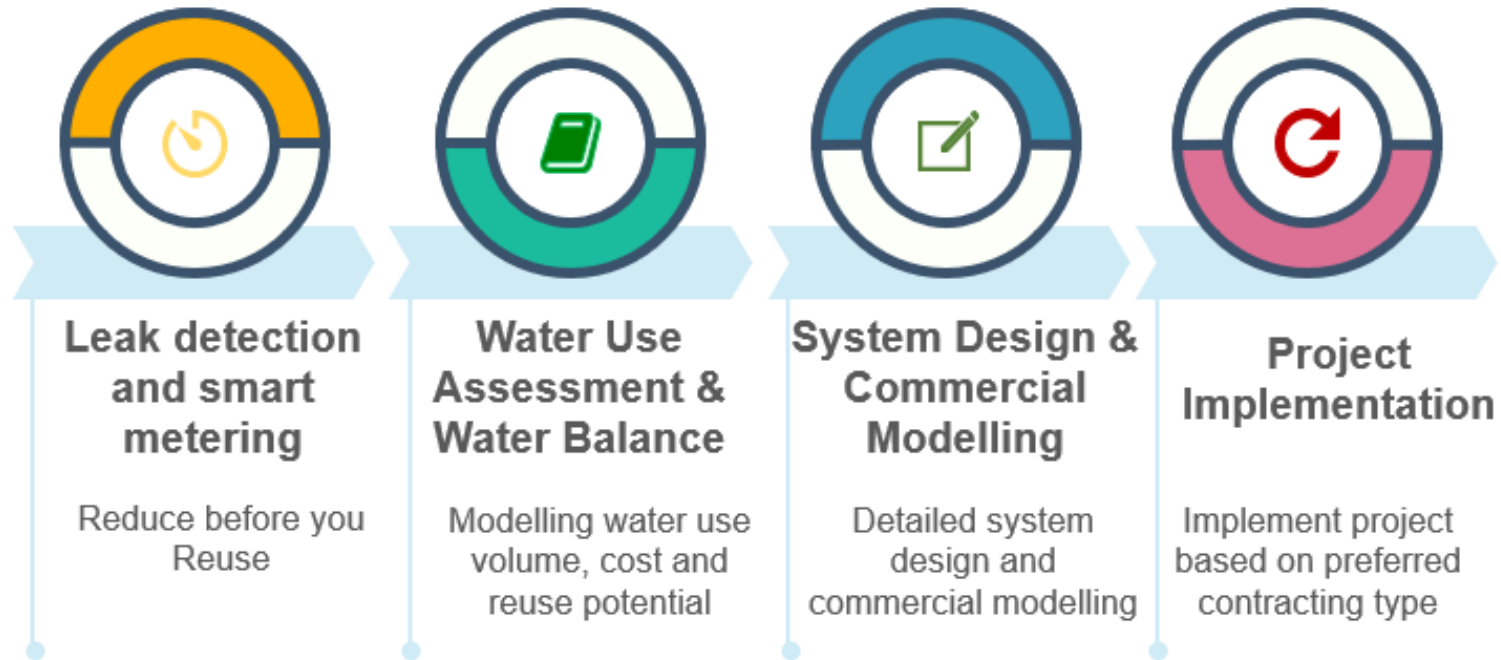
- Comply with water quality standards



Water Reuse Process



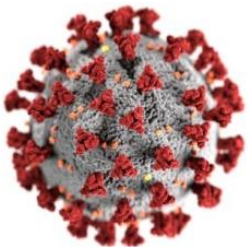
Water Reuse Process



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Conclusion

1. We must and can take control of our water destiny
2. Follow a phased approach by reducing leaks/waste
3. Do a proper due diligence on ways to reuse water
4. Create awareness – especially with local authorities



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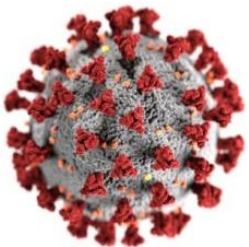
Thank You

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