

Leveraging Digitization to promote Responsible Energy Consumption

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Prelude

South African Revenue Protection Association

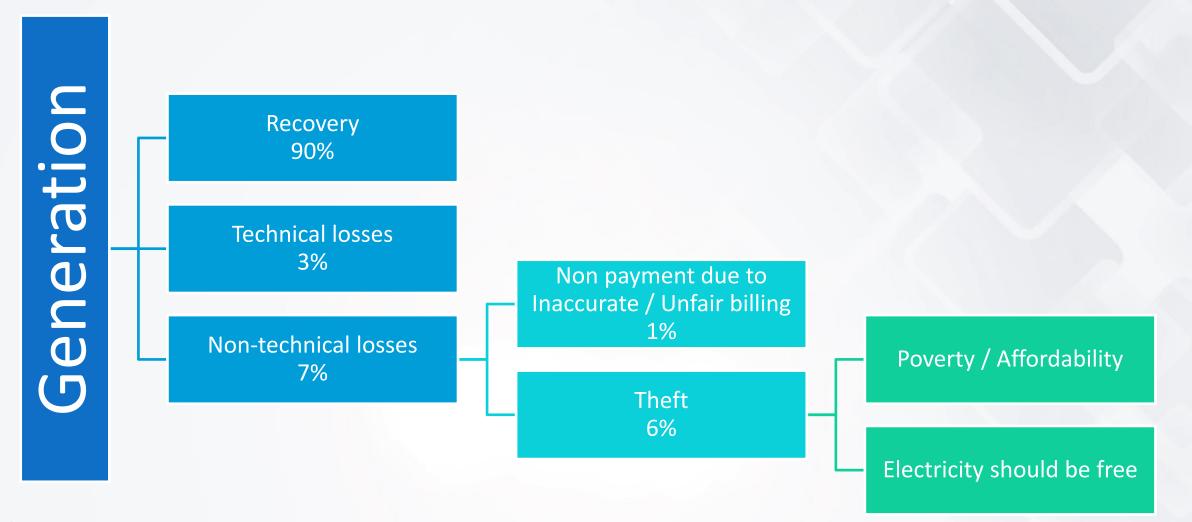
Focus on reduction of losses to protect revenue

Why do consumers not want to pay for services? How can we maintain and grow the paying customer base?





Prelude





Non-technical loss mitigation lessons for Africa from global experiences A. Beutel, Y. Toravel, N. Ruiz Onandi



Prelude

90%

- Maintain and protect revenue
- Provide value
- Maintain evolving needs

1%

- Understand the usage
- Convert to paying customers





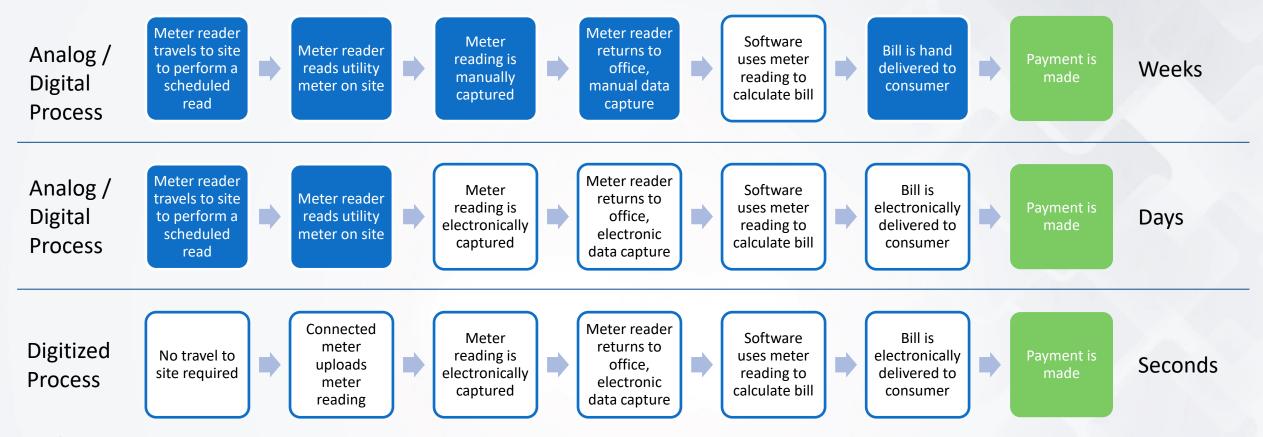
"Digitization is the process of changing from analog to digital form, also known as digital enablement. Said another way, digitization takes an analog process and changes it to a digital form without any different-in-kind changes to the process itself" Gartner.com







How does digitization impact Utilities in the Revenue Collection process?







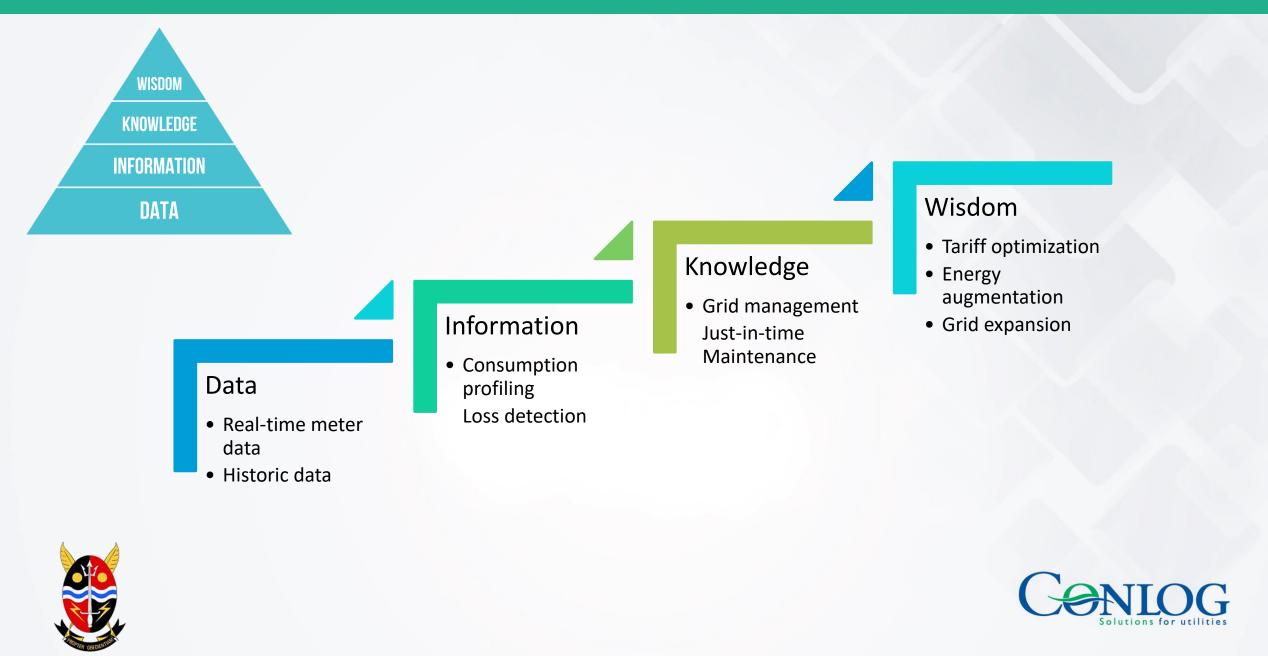
How does digitization impact Utilities for Operational Excellence?



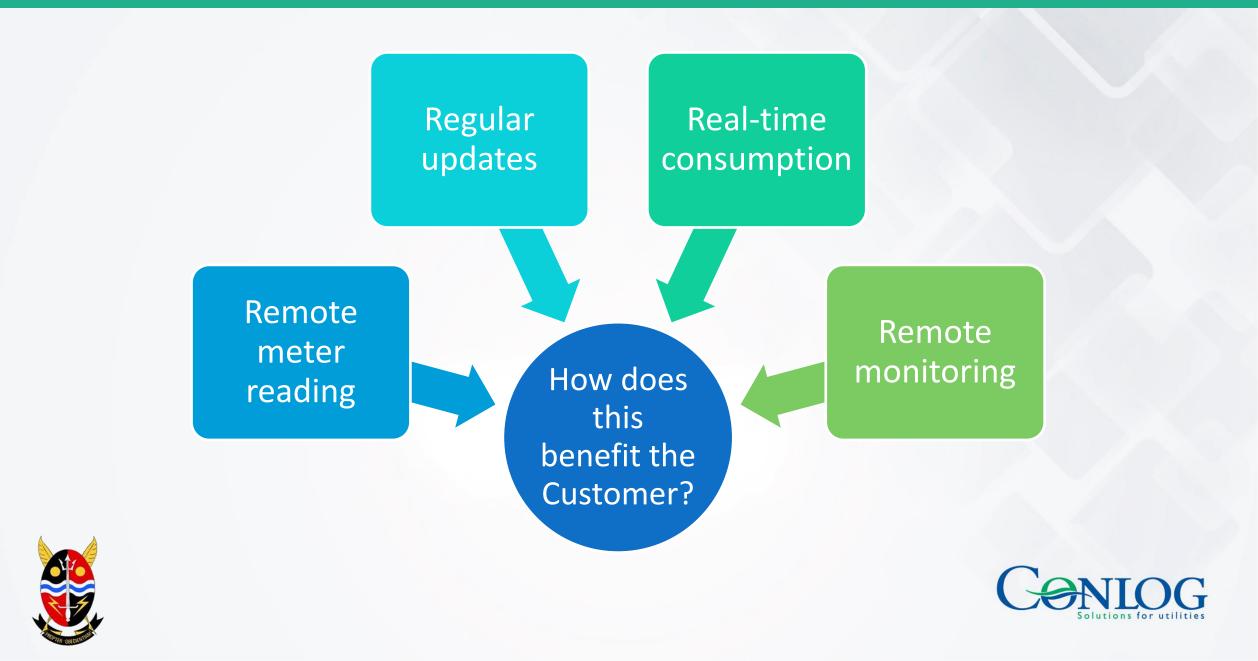




How does digitization impact Utilities for Strategic Planning?



How does digitization impact the customer?



Case Study: Fuel Economy Monitor







Boriboonsomsin, K., Vu, A., & Barth, M. (2010). Eco-Driving: Pilot Evaluation of Driving Behavior Changes Among U.S. Drivers. UC Berkeley: University of California Transportation Center. Real time consumption feedback has the potential to reduce consumption by 6-12%







Customer with smart meter and access to consumption data

Wireless communication network transmits water consumption data

Water utility with real-time customer water consumption data/trends

 Real time feedback has the potential to reduce consumption by 3-53% and detect leaks

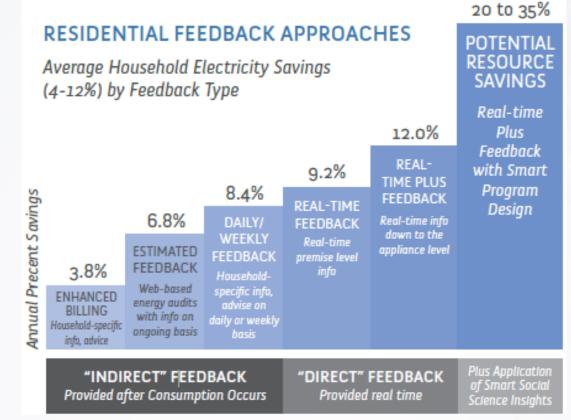


Using Smart Meters for Household Water Consumption Feedback: Knowns and Unknowns A. L. Sønderlunda , J. R. Smitha *, C. Huttonb , Z. Kapelanc, 2014



Case Study: Smart Electricity Metering





Real time feedback has the potential to reduce consumption by 9.2%



Ehrhardt-Martinez, K., Donnelly, K.A., and Laitner, J.A. 2010; Faruqui, A. and Sergici, S., 2009



How can the Consumer leverage digitization?

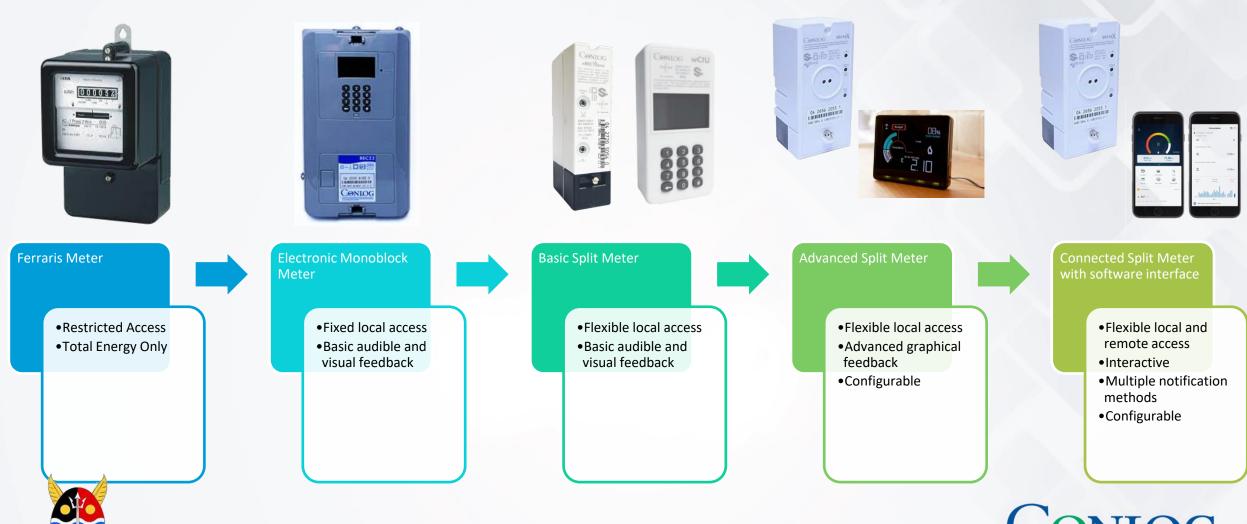
Consumption awareness benefits the consumer

Potential to reduce consumption How do we provide consumption awareness?



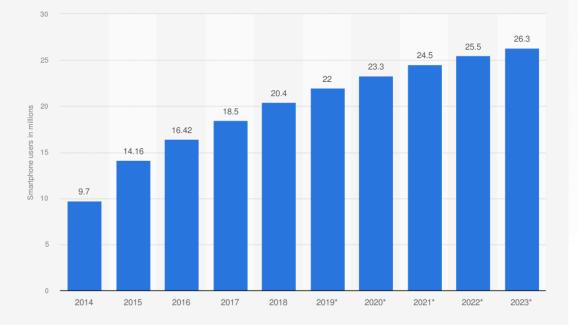


Evolution of Electricity Meter Interaction





Adoption of Smart Phones in Africa

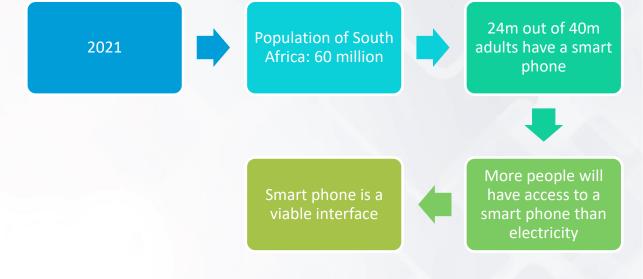


Number of smartphone users in South Africa from 2014 to 2023 (in millions)*

Source Statista Digital Market Outlook © Statista 2022

Additional Information:

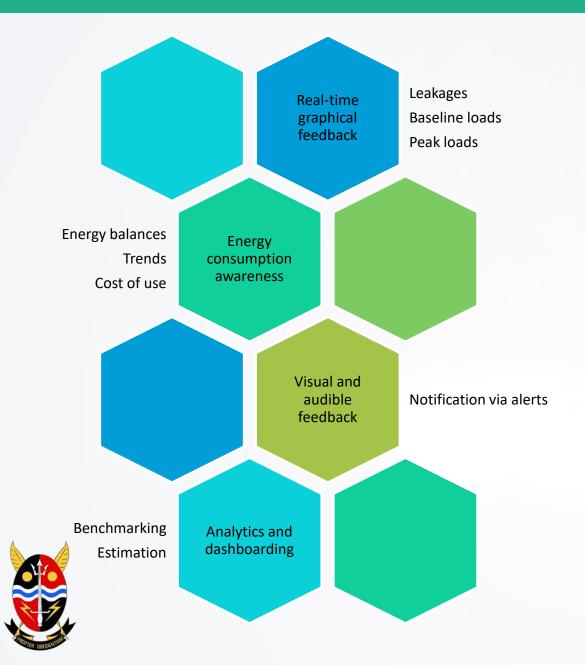
South Africa; eMarketer; Statista Digital Market Outlook; 2014 to 2018; Individuals of any age who own at least one smart at least once per month.







Advantages of an App Based Interface







What is the value proposition for the customer?

Real time consumption awareness

- Promote energy efficiency
- Promote energy reduction

Benchmarking

- Comparison of consumption with others etc.
- Comparison of current and previous timeframes

Self Management

- Set own targets and thresholds
- Set load limits

Predictive analysis

- Estimated bill based on current profile
- Advantages of adding other energy sources

Convenience

- Online token purchase and delivery
- Remote monitoring

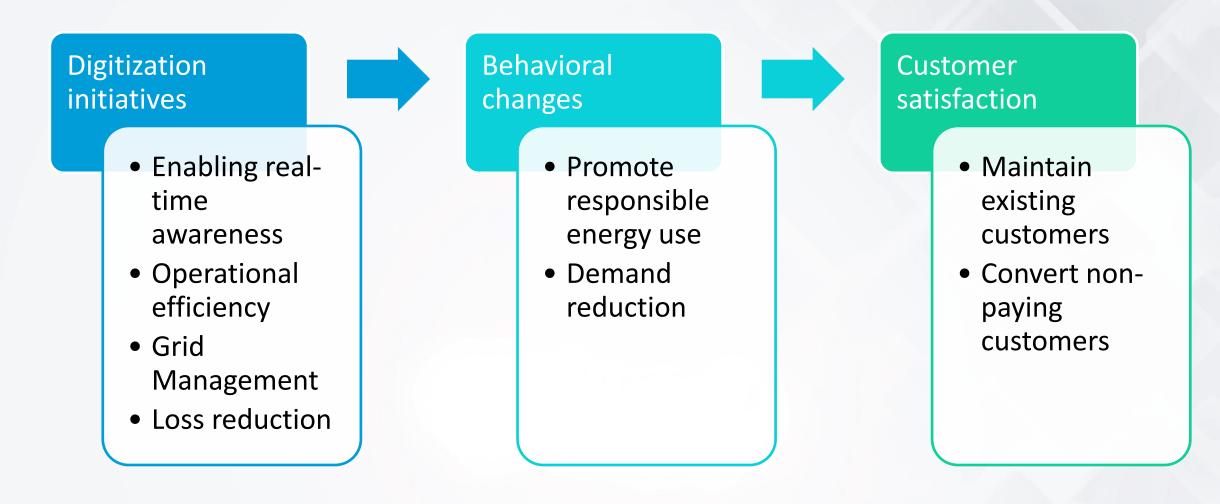
Future proof

- App available from multiple vendors
- Meter agnostic
- Customizable





Conclusion







THANK YOU

