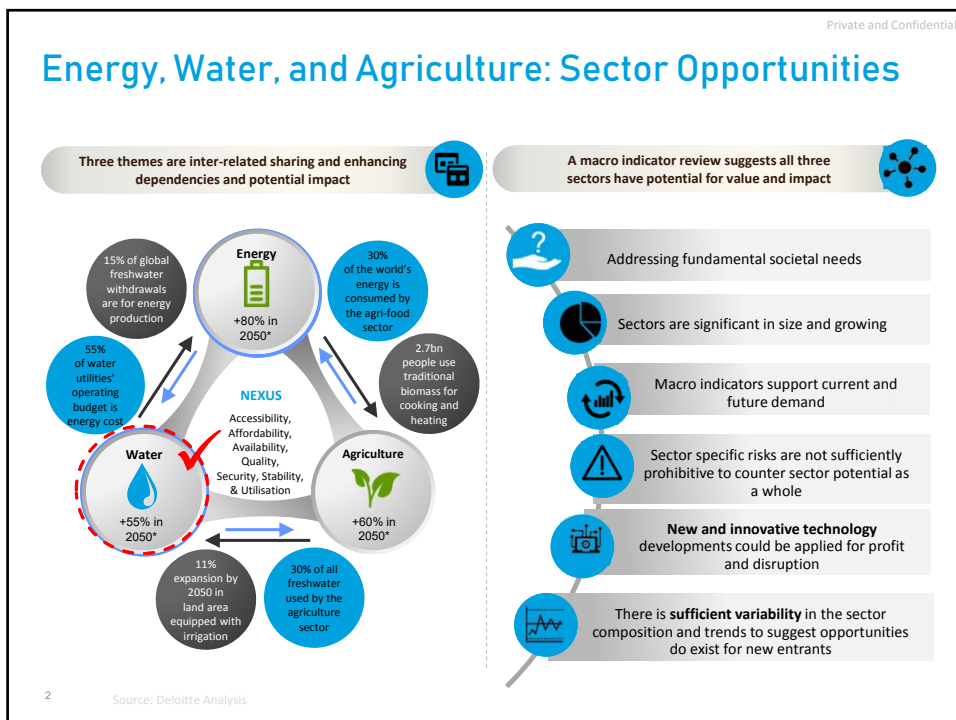
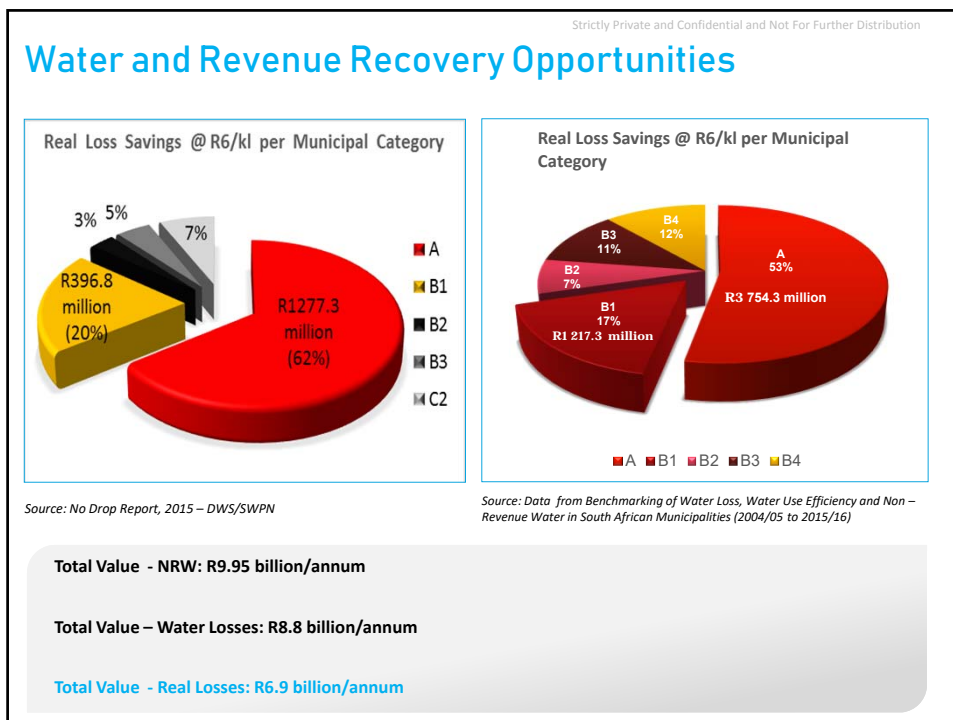




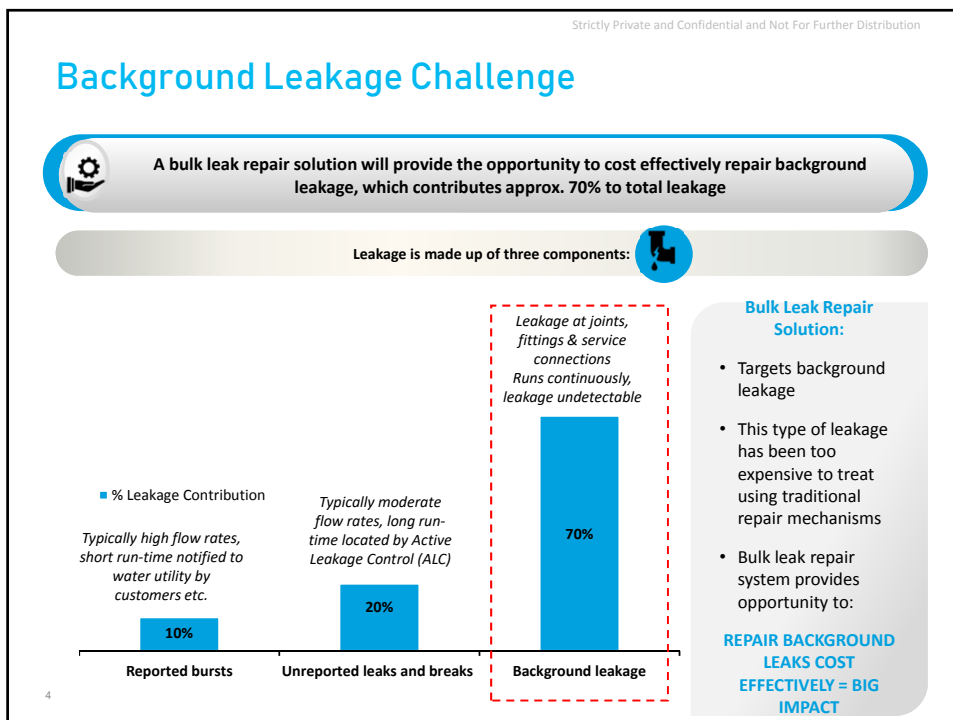
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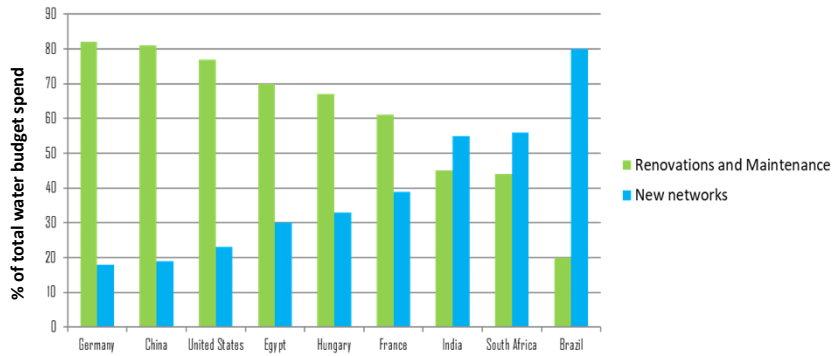


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## Investment in New Infrastructure vs Maintenance



\*Source: PwC Water Challenges Drivers and Solutions (2016)

5

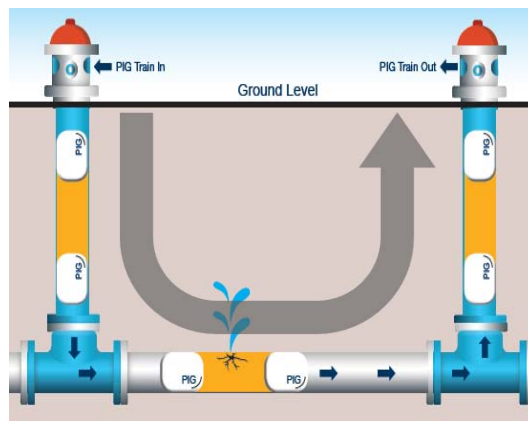
## Aquicure TALR Technology - How it Works

Private and Confidential

This solution involves multiple, creative and innovative enabling elements (system, epoxy curing material, and the train launching and recovery processes)

### How TALR Works

- 1 PIG train is launched into an isolated section of pipe via an upstream fire hydrant, air valves or hot taps
- 2 Epoxy curing substance automatically seals and permanently cures leaks
- 3 PIG train exits the pipe downstream fire hydrant, air valves or hot taps
- 4 Dispose of chemical inactive pig train
- 5 Flush Pipe, test water turbidity, and reinstate service

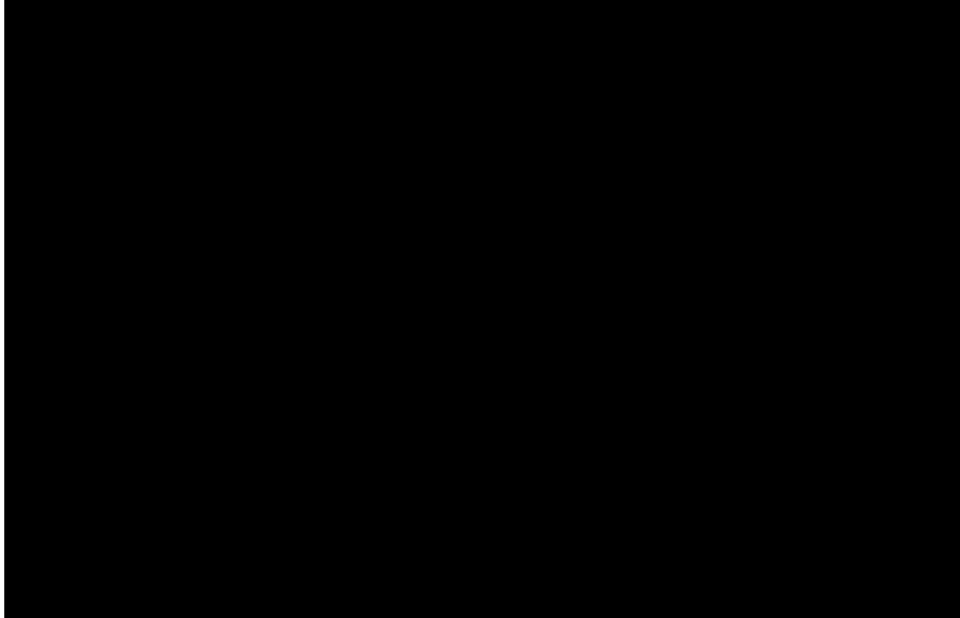


Leakage measurement is done before PIG train is launched and after treatment

6

6

## How It Works



7

Strictly Private and Confidential and Not For Further Distribution

## New Innovative Bulk Leak Repair Service

*Aquicure provides a new innovative, differentiated bulk leak repair service for South African and African municipalities*

***Superior, new, non-invasive, low cost trenchless bulk leak repair solution that automatically cures water leaks and remediates buried municipal water pipe infrastructure***

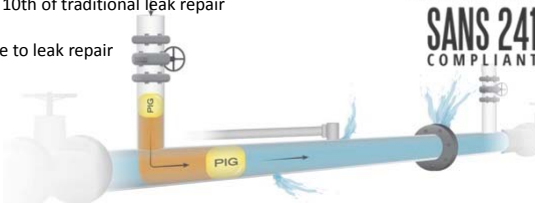
This is a meaningful opportunity as relative to competitor solution it reduces :

- 1 Repair Cost - targeted cost at a 10th of traditional leak repair
- 2 Repair time and disruptions due to leak repair
- 3 Capital replacement cost

**SABS**

South African Bureau of Standards

**SANS 241  
COMPLIANT**



**Designed to:**

- 1 Address multiple leaks within a treated pipe section in a single intervention
- 2 Seal differing types of leaks on different types of pipe material, found in mains as well as in laterals
- 3 Systematically address Leakage in known leaky areas with no detection requirement and no, or minimal disruption

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## Case Studies

Successful pilot completed by Aquicure

### Technical Validation of TALR Technology at Emalaheni Municipality

**2**

Week project duration

**5**

Sections of pipe treated

**1 582**

Meters of pipe length treated

**8 643**

litres per hour water loss measured

**75 713**

kilolitres saved annually

**2 119 954**

Financial savings annually



9

## Case Studies

Successful pilot completed by Aquicure

### Technical Validation of TALR Technology at Sibanye Gold/BBE Energy

**2**

Months project duration

**2**

Sections of pipe treated

**337**

Meters of pipe length treated

**8 600**

litres per hour water loss measured

**75 336**

kilolitres saved annually

**866 364**

Financial savings annually



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## Case Studies

Successful pilot completed by Aquicure

### Technical Validation of TALR Technology at Mangaung Metro

**1**

Week project duration

**3**

Sections of pipe treated

**810**

Meters of pipe length treated

**1 060**

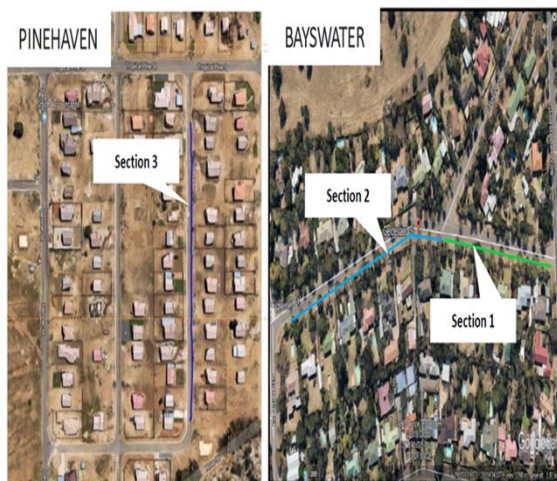
litres per hour water loss measured

**9 290**

kilolitres saved annually

**133 126**

Financial savings annually

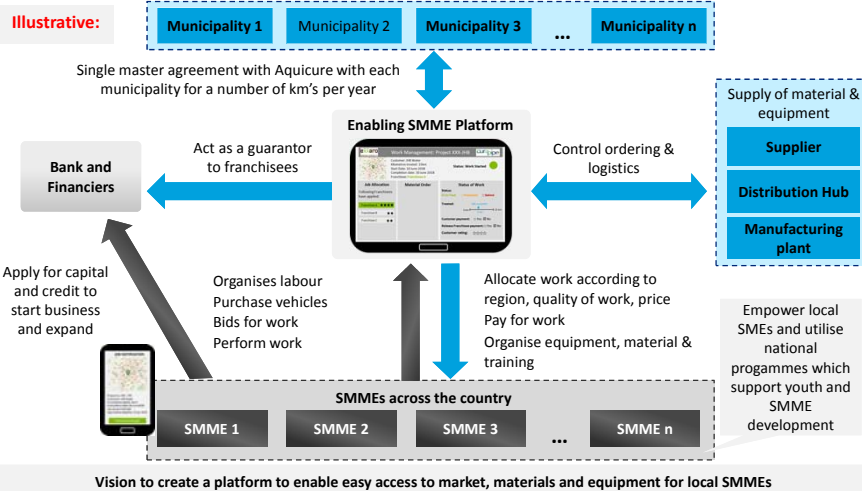


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## Future State Local SMME Empowerment Model

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The envisioned future state of the local licensee business is to empower local SMMEs via an enabling platform to create sustainable jobs and allow for national expansion



12

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## Observations and Recommendations

- South Africa is an innovation rich country – e.g WRC Wader programme, DST incubation programme
- Key impediment – high risk aversion resulting in stifled innovation leadership
- Innovation is advocated but the business as usual approach is preferred – coherent exploration of new water innovations is fragmented and there is a significant discrepancy between “public sentiment” and channels for market penetration and uptake
- Market penetration of new innovations takes +2 years in the South African Municipal environment and even in parts of the private sector and SOE’s
- Evaluation of unsolicited bids and call for new innovations is required across both the public and private sector to aid fair and transparent market penetration i.e MISA, COGTA, SWPN (Advocacy and cross sectoral partnerships)
- Uptake of new innovations has the potential to contribute significantly to sustainable job creation to bolster expertise an skills development in the sector

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