



# Rand Water Services Forum

The Role of Monitoring in Facilities Management  
Chilufya Lombe



SOLID INSIGHT  
DATA DRIVEN SUSTAINABILITY

# OUR EVOLUTION

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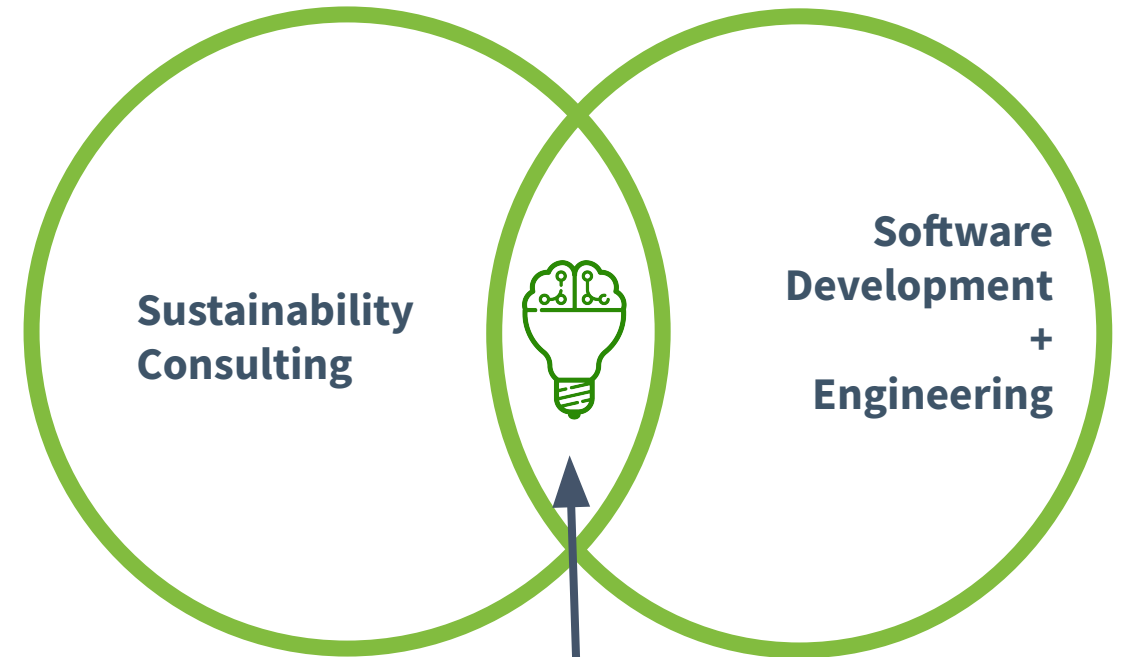


CONSULTING/POTENTIAL  
OF BUILDINGS IN DESIGN



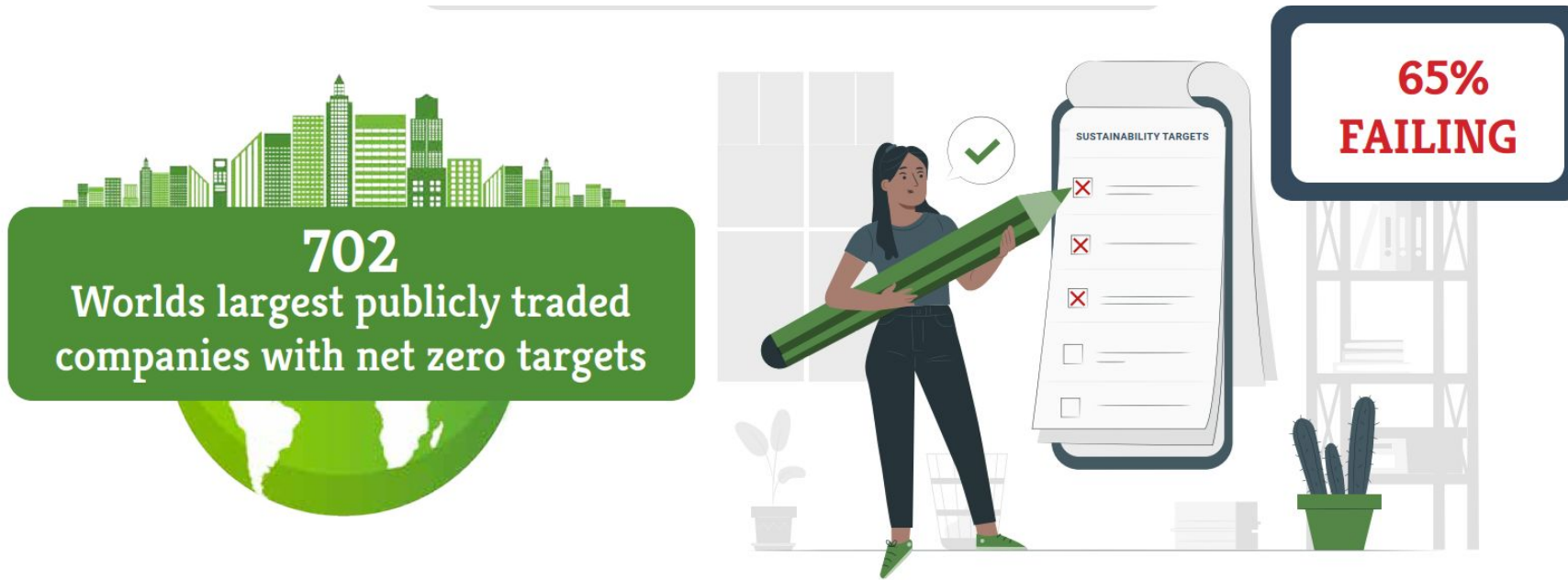
SOLID INSIGHT  
DATA DRIVEN SUSTAINABILITY

TURNKEY BUILDING  
OPTIMISATION – REALISING  
POTENTIAL



Real world performance optimisation  
(Delivery of Green Buildings)

# CONTEXT FOR FACILITIES MANAGERS



**TARGETS ARE SET AS CONCEPTS AND DELIVERY IS EXPECTED IN REALITY**

Sustainability goals and KPIs have become more stringent than ever.  
Most organisations do not understand the commitments they have made.

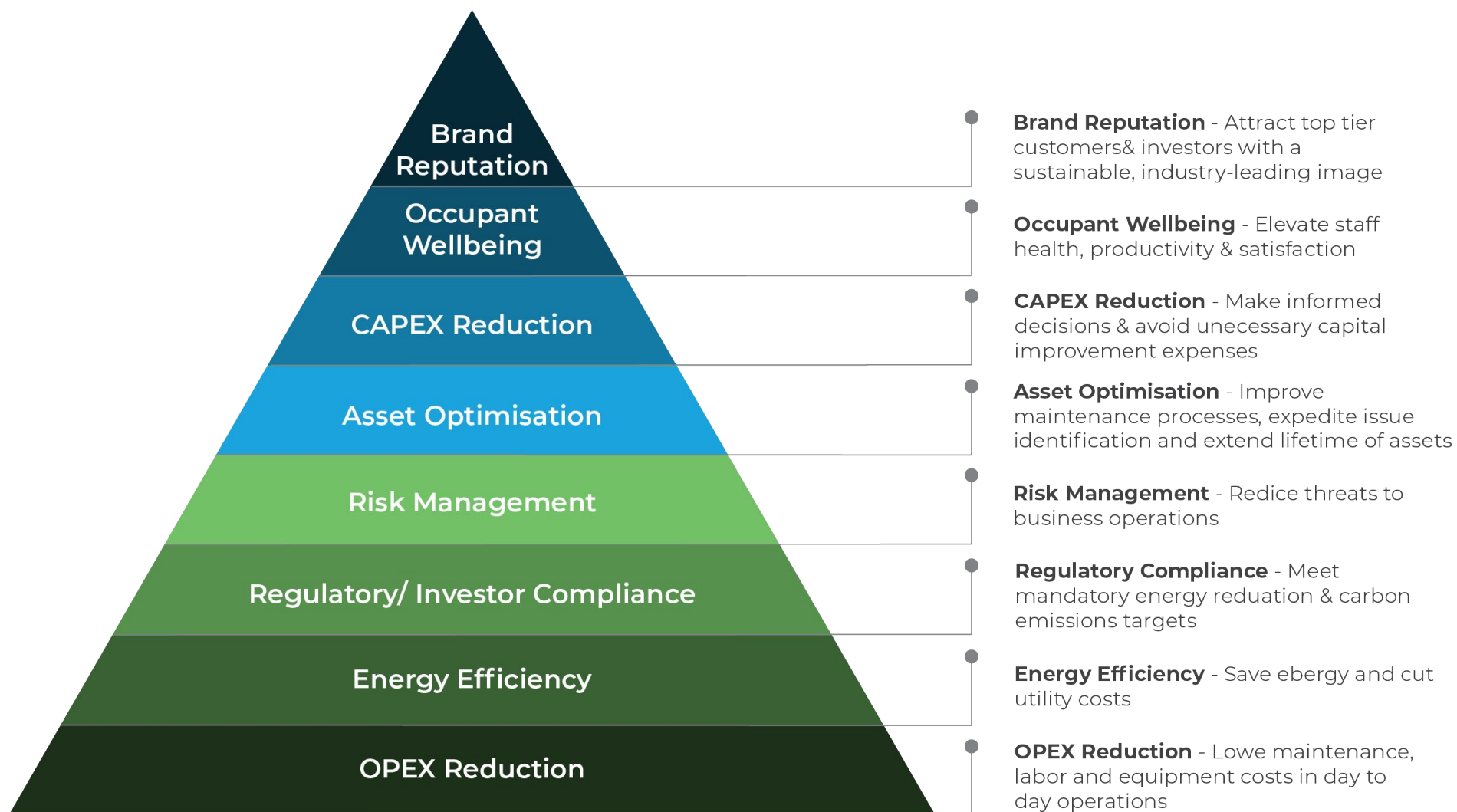


**NET-ZERO ENERGY/WATER/WASTE/ECOLOGY BY YEAR.....**

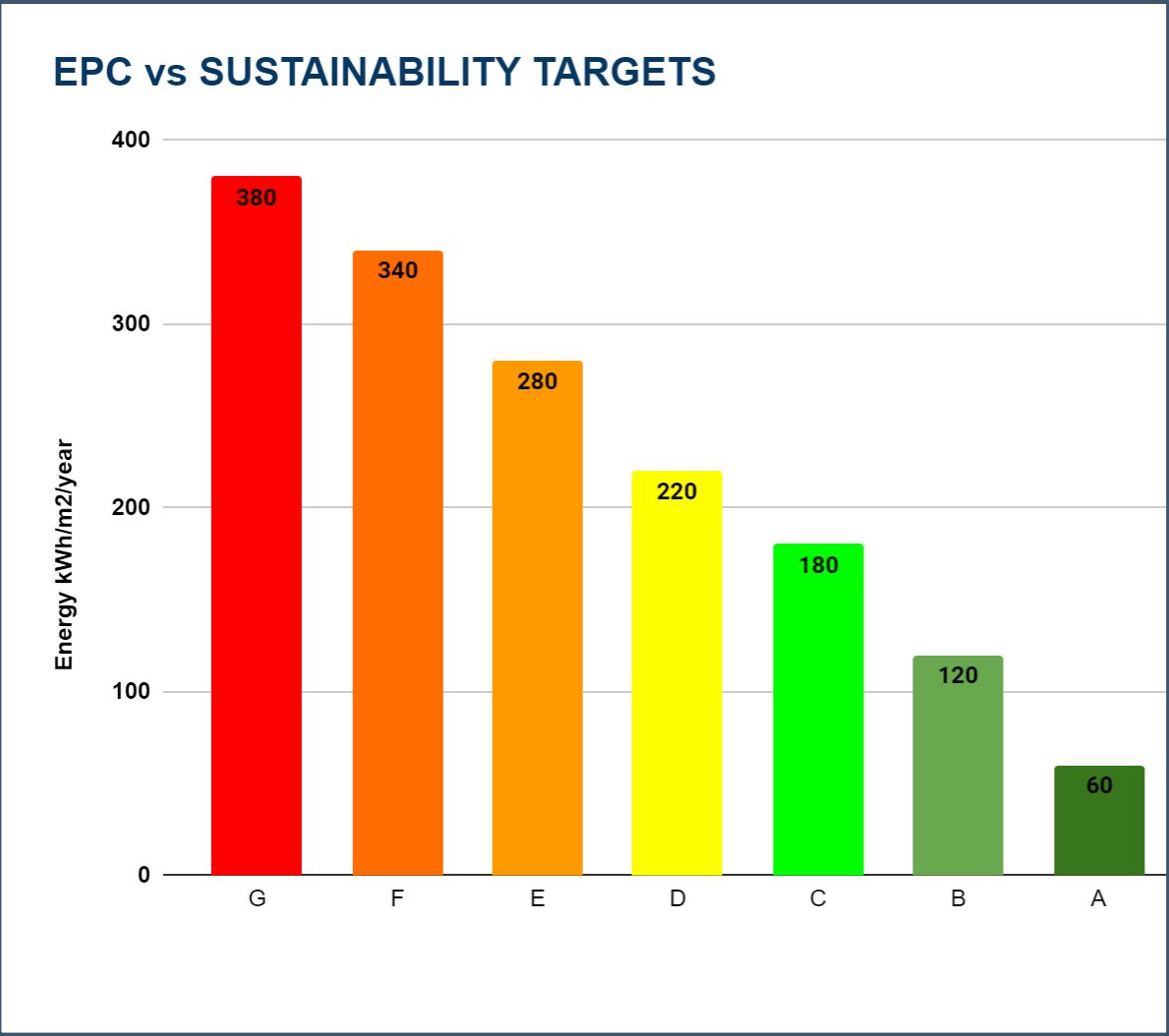
All organisations generate significant amounts of data that can be used to develop the most optimal sustainability strategy.  
Most organisations do not have easy access to their own data in order to make key decisions.



# THE BIG PICTURE- MIGRATION TO DIGITAL FACILITIES MANAGEMENT



# SETTING THE RIGHT TARGETS - BENCHMARKING

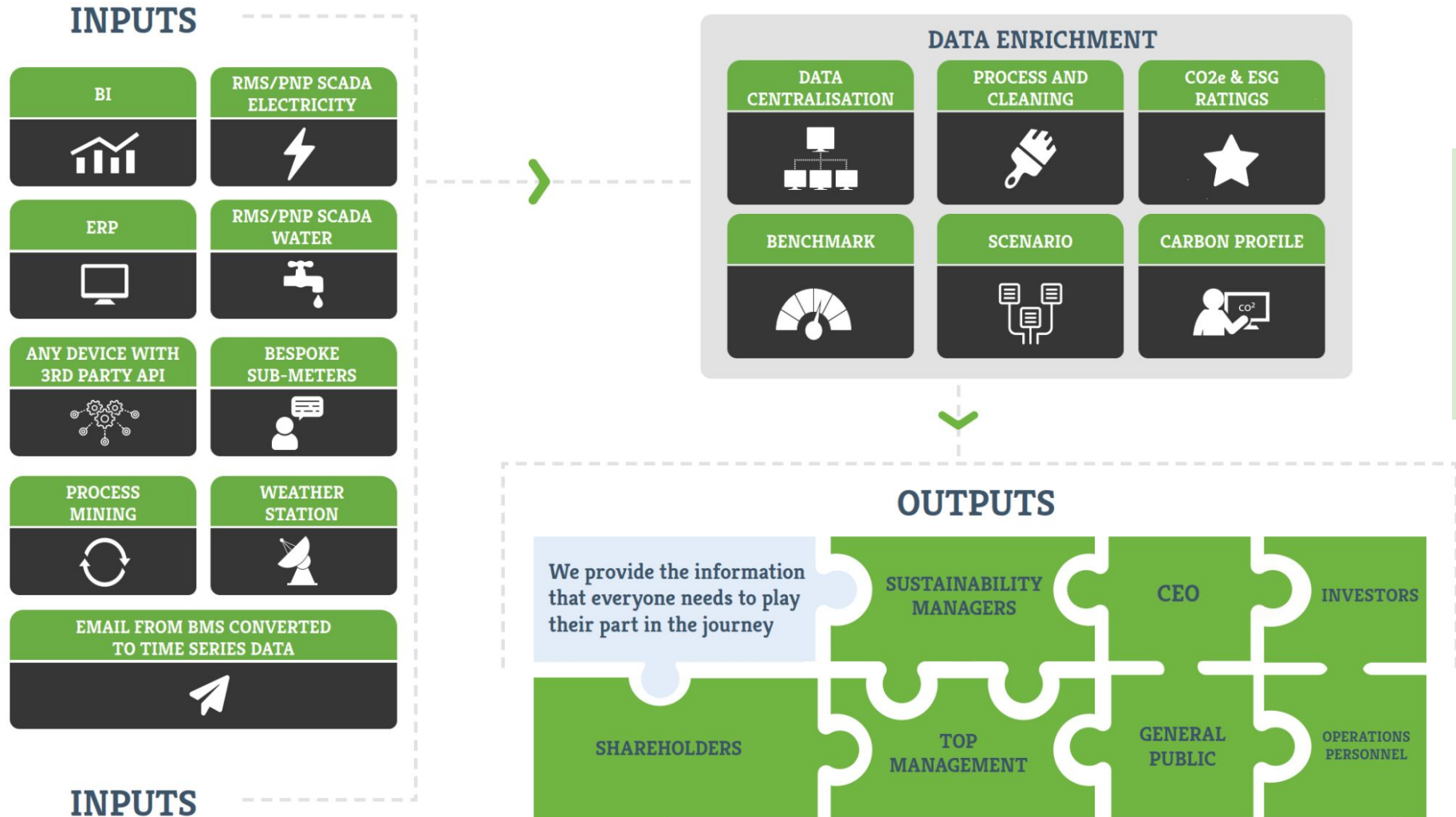


**Water Performance Targets?**

**Where do we start?**



# ESTABLISHING THE CORRECT ECOSYSTEM

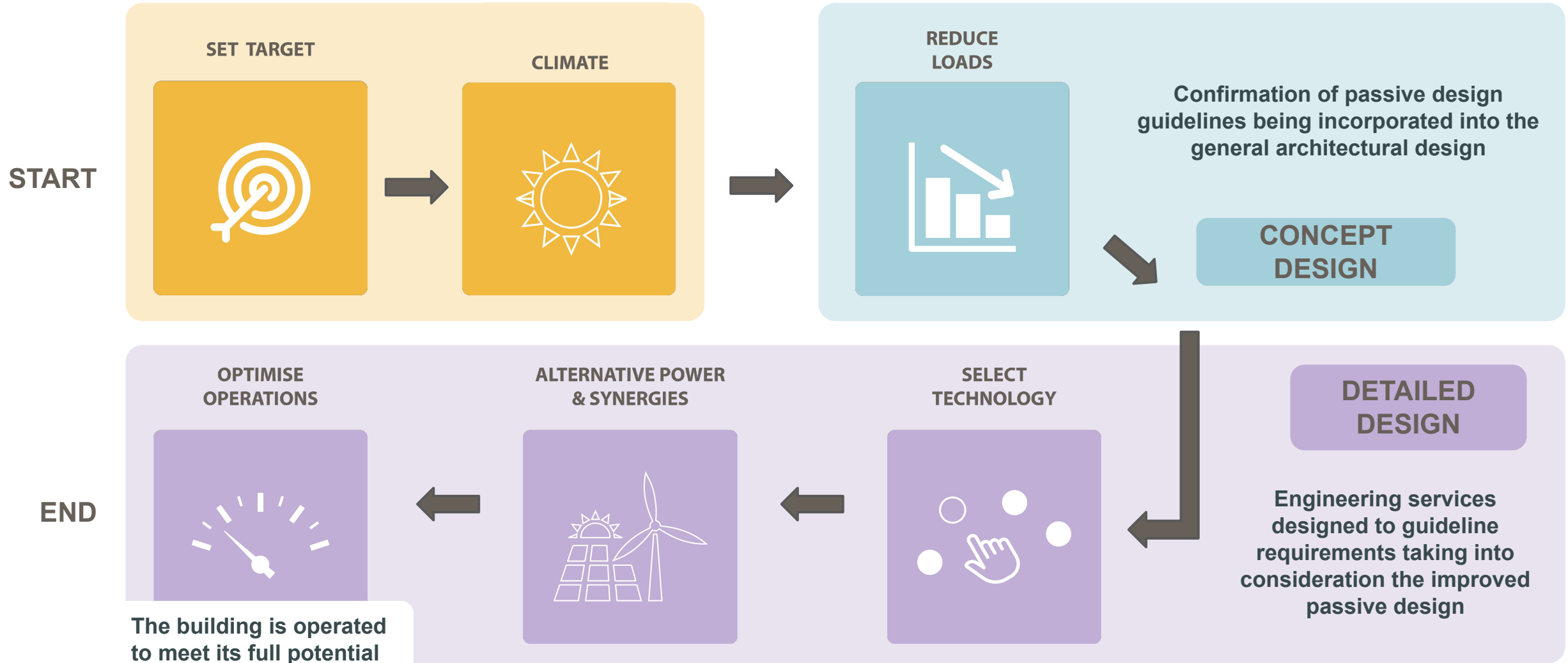


**FOCUS ON  
PROCESS NOT  
TECHNOLOGY**



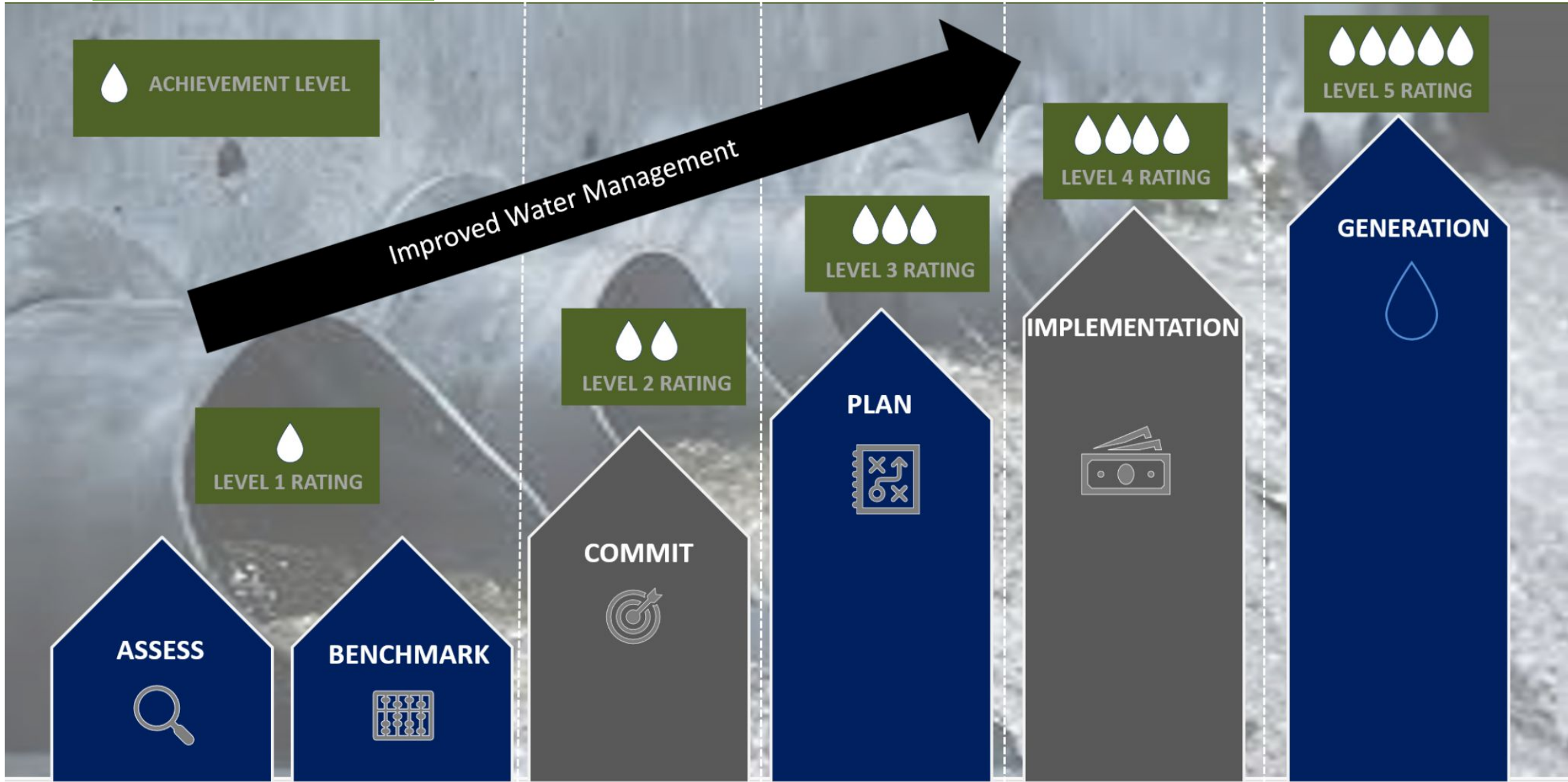
# PROCESS IN BUILDING DESIGN

Guidelines issued during project inception





# PROCESS IN OPERATIONS - TRACKING THE JOURNEY





# STRATEGIC DECISION MAKING

		Initiative Type	Targeted Goal(s)
Strategic Initiatives	Install water sub-meters with visual dashboards	Analysis	
	Institute Tenant Awareness Campaign	Awareness	
	Install aerators for hand wash basins	Load Reduction	
	Install low flow toilets	Load Reduction	
	Install waterless urinals	Load Reduction	
	Utilise Xeriscape Landscaping	Load Reduction	

# STRATEGIC DECISION MAKING

		Initiative Type	Targeted Goal(s)
Strategic Initiatives	7	Enable leak detection using water meters	Operational Efficiency
	8	Recycle fire system testing water	Operational Efficiency
	9	Institute fire system testing water recycling	Generation/Recycling
	10	Institute greywater/blackwater recycling	Generation/Recycling
	11	Institute rainwater recycling	Generation/Recycling
	12	Institute atmospheric water generation	Generation/Recycling

# WAT-2 ISSUES

## WATER SUB-METERING

GREEN STAR CREDITS

# SOLID INSIGHT SOLUTIONS



SOLID INSIGHT  
DATA DRIVEN SUSTAINABILITY

## AIM

To encourage and recognise the installation of water sub-metering to facilitate ongoing management of water consumption.

## REALITY

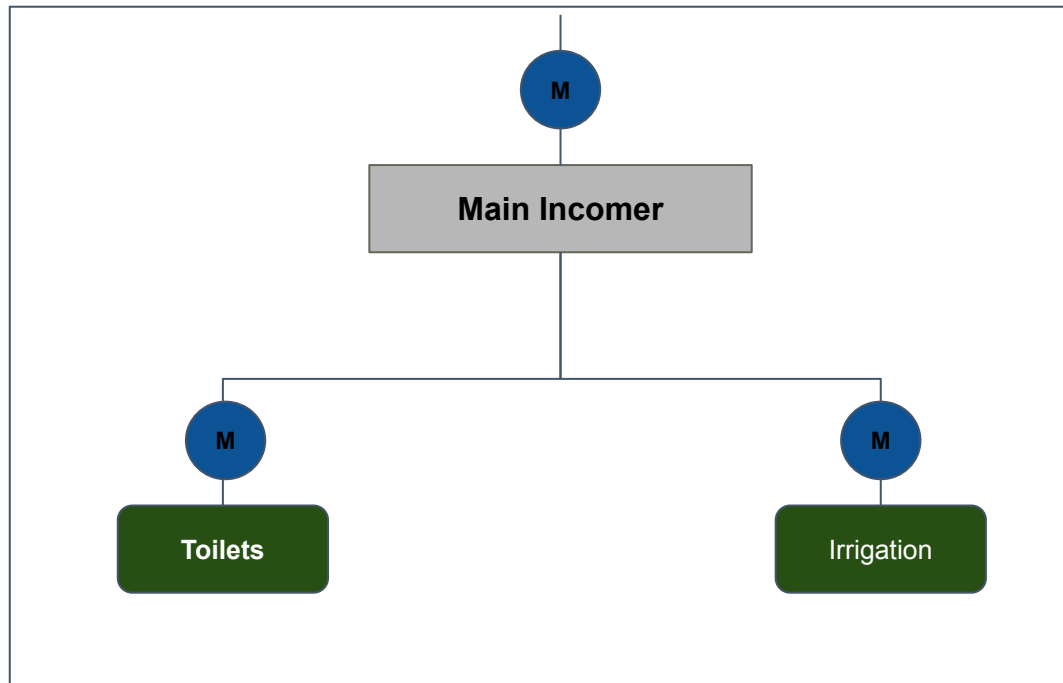
Green Star rated buildings typically have no access to information designed to assist in ongoing operations



**CHALLENGES**

# THE IDEAL SCENARIO - Data being used

Identification of all major uses	✓
Description of effective monitoring system and explanation of alert and leak functionality	✓



THE DREAM. Substantive uses are metered with leak detection . This data is monitored on an online platform with alerts set up.



# REALITY



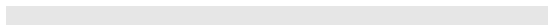
## DISCONNECT BETWEEN SERVICE PROVIDERS

- ❑ CLIENT
- ❑ WET SERVICES CONSULTANT
- ❑ GREEN STAR CONSULTANT
- ❑ CONTRACTOR
- ❑ ONLINE PLATFORM PROVIDER
- ❑ FACILITIES MANAGER

SCENARIO. There is no online platform to actually use the data. Data is locked and monitoring, performance analysis, reporting, etc is not possible.



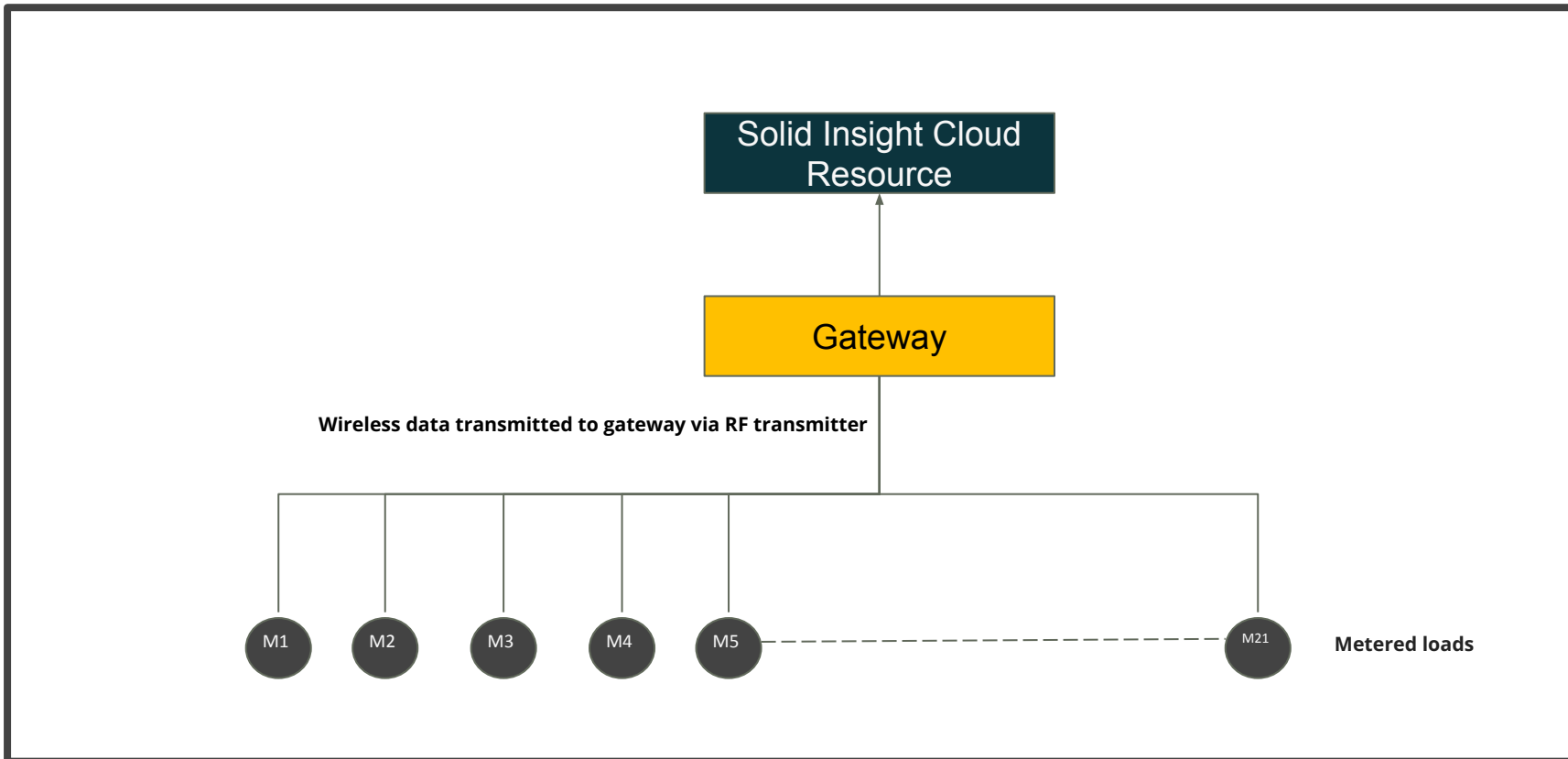
**SOLUTIONS**



## WAT-2 WATER METERS SHORT REPORT

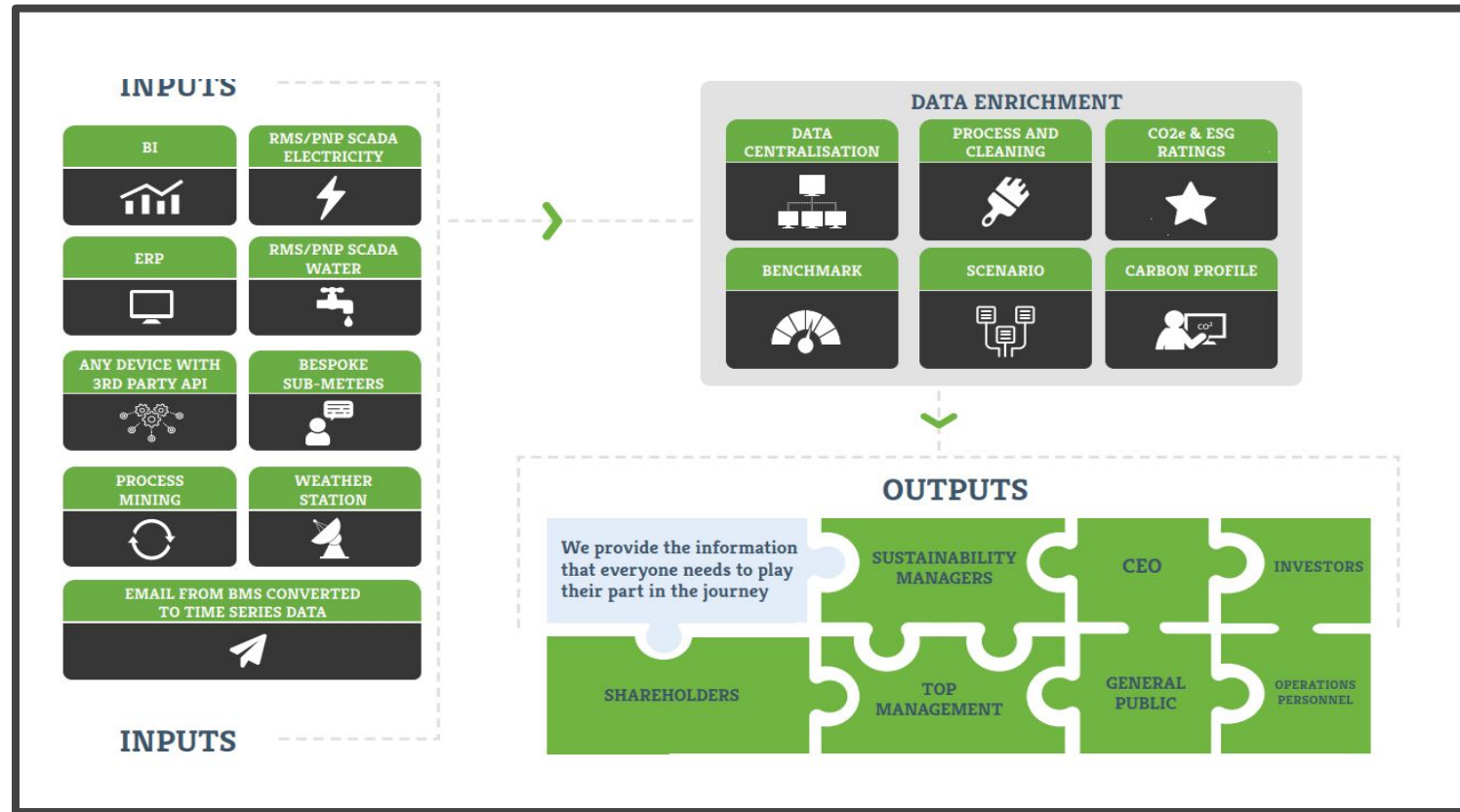
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**MONITORING:** Water consumption data from the sub-meters is monitored on the Solid Insight cloud resource; and dashboards of the water use are availed to the client via their portal.



**Meters are linked to an effective system for collecting, recording and monitoring the data from the sub-meters as well as alerting to any change in water consumption trends.**

# SOLUTION - Data Liberation



SCENARIO. Bespoke dashboards using our zero click approach. The dashboards are designed to provide the data for specific uses and users.

# DELIVERABLE OVERVIEW

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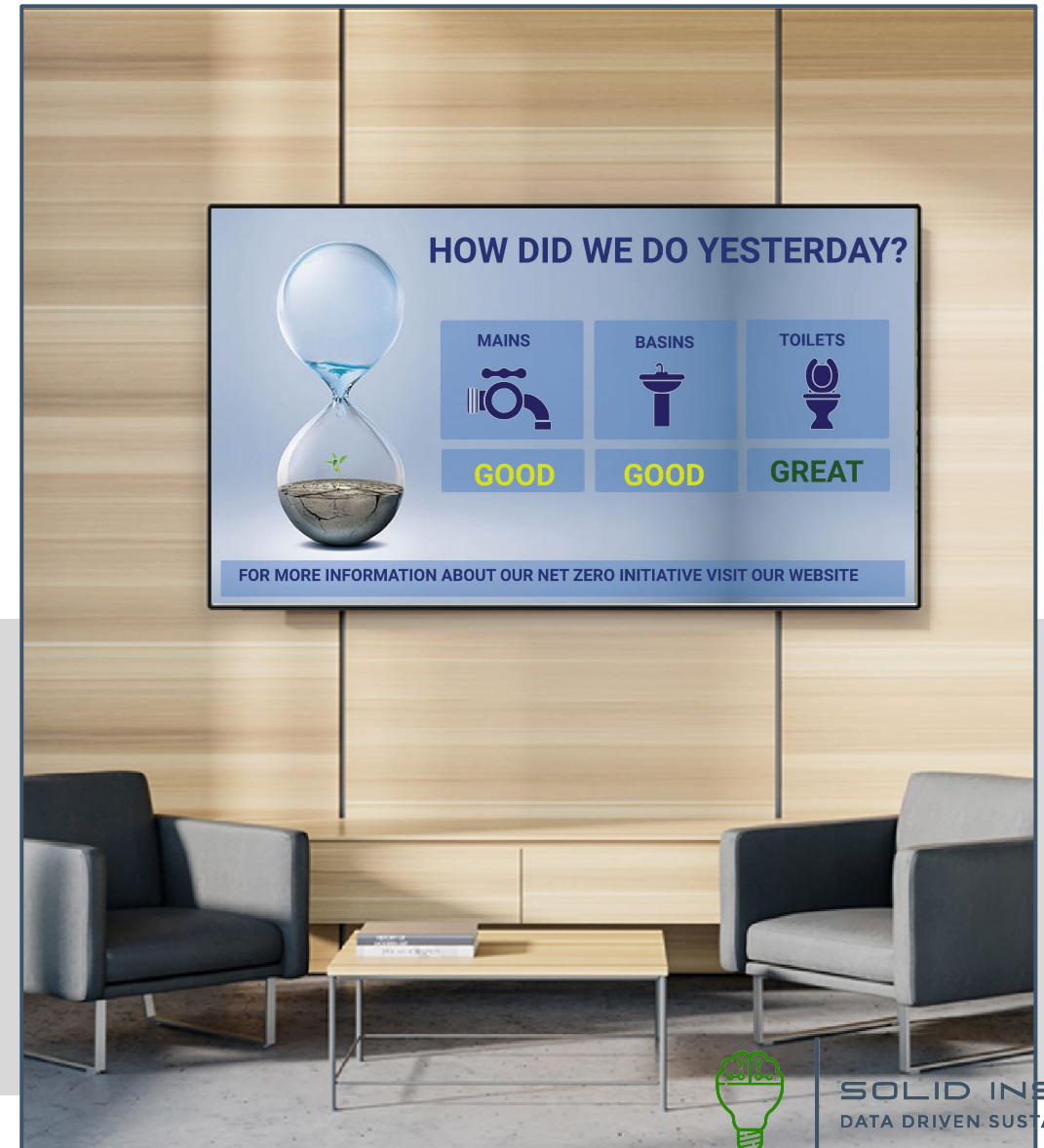
You will be able to visualize the following data:

- Energy/water usage patterns
- Energy/water Consumption by load or space
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- Carbon Emissions

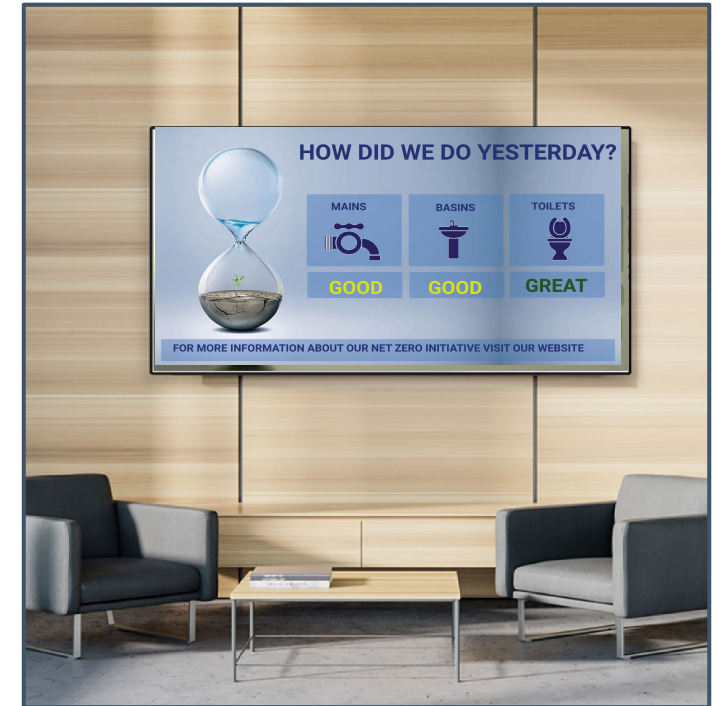
*From the views, the users are able to track expenditure on energy and water in real time.*

*The data also enables interventions to support efficiency.*

*Importantly, potential savings can be identified.*



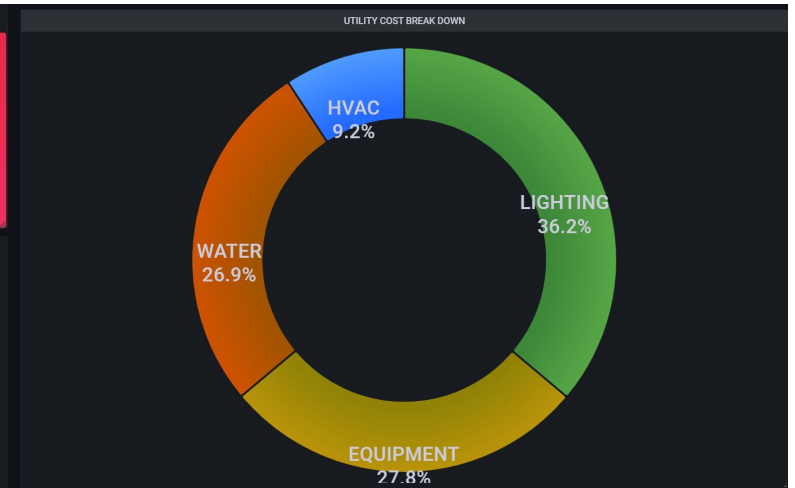
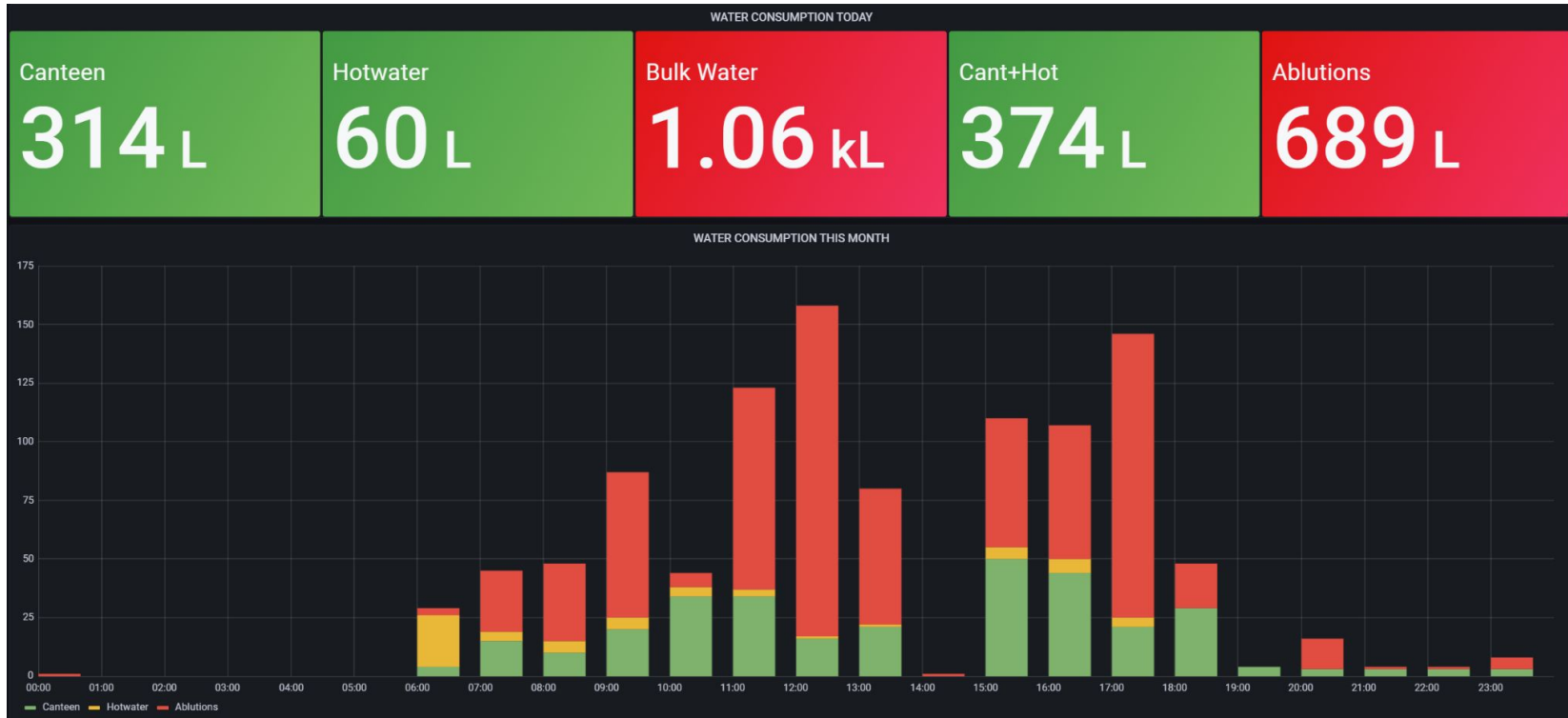
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**SCENARIO.** Bespoke dashboards using our zero click approach. The dashboards are designed to provide the data for specific uses and users.



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SCENARIO. Bespoke dashboards using our zero click approach. The dashboards are designed to provide the data for specific uses and users.

# SUMMARY

Cost effective	✓
Green Star Reporting	✓
Understand required outcomes	✓
Access to data	✓
Net-zero journey partner	✓

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