

IN-PERSON EVENTS | Involving. Informing. Inspiring

# CIWEM Urban Drainage Group Annual Conference 2022

8 – 10 November 2022

Hilton Birmingham Metropole

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# Artificial Intelligence of Things

Artificial Intelligence...

Machine Learning...

Digital Twin...

Where did these things come from?

What is the role of data?

What is the future?



## James Ballard

Innovation Architect, Severn Trent

### Session

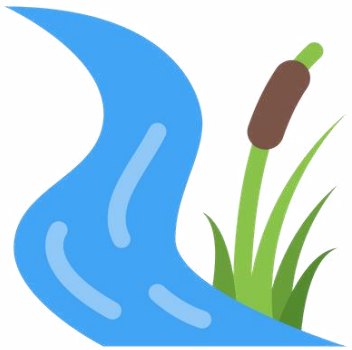
Artificial Intelligence of Things Transforming  
Waste Networks

Wednesday, 9th Nov at 16:00

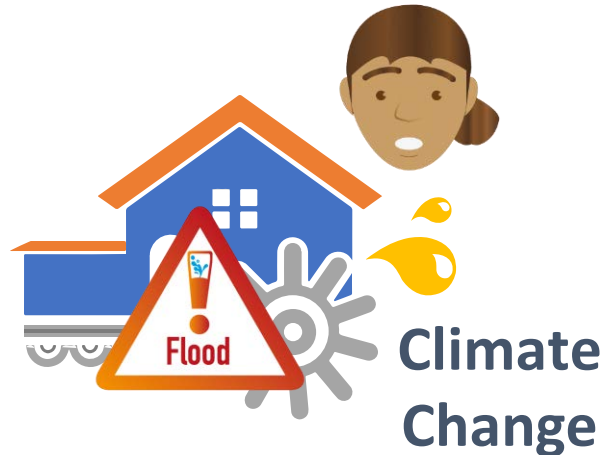


# Sector Wide Challenge

Business as usual is not enough



Environment &  
Sustainability



Climate  
Change

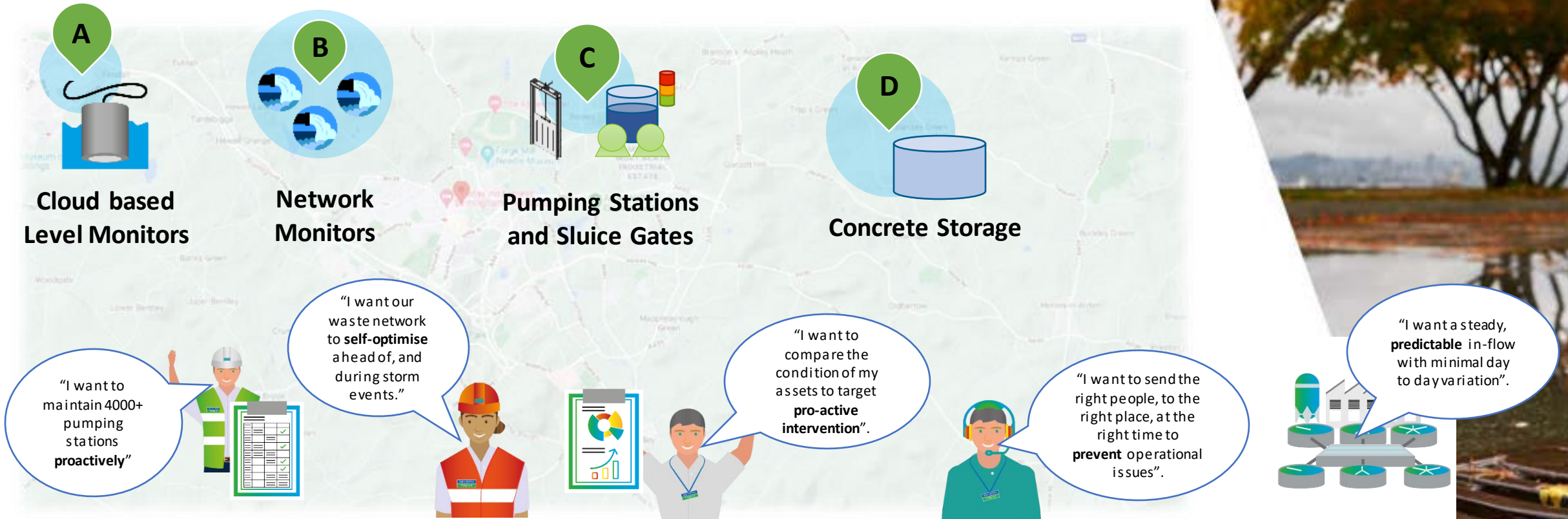
By 2050



30%  
Wetter

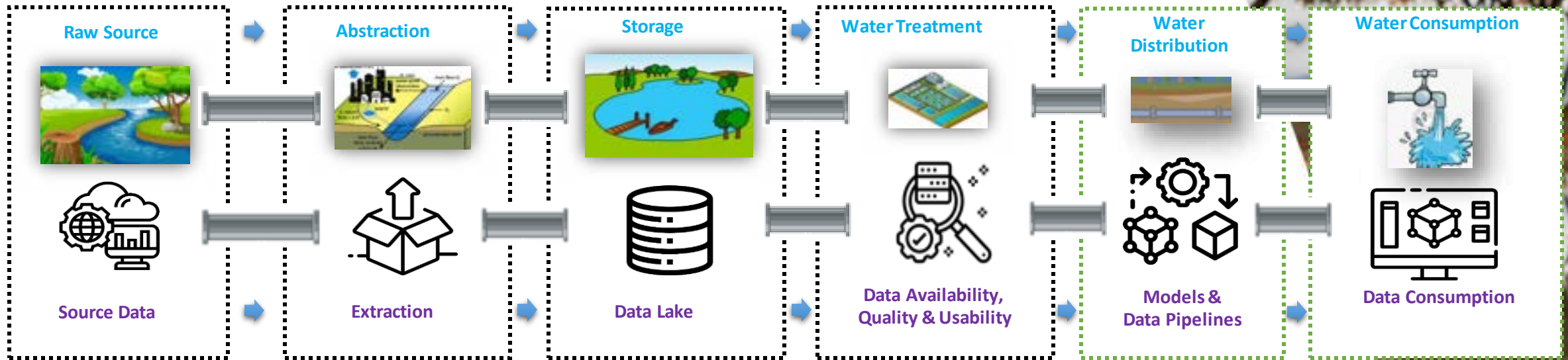


# People, Process, Technology, Data



# Understanding our Data

The journey of data can be considered in a similar way to that of water...



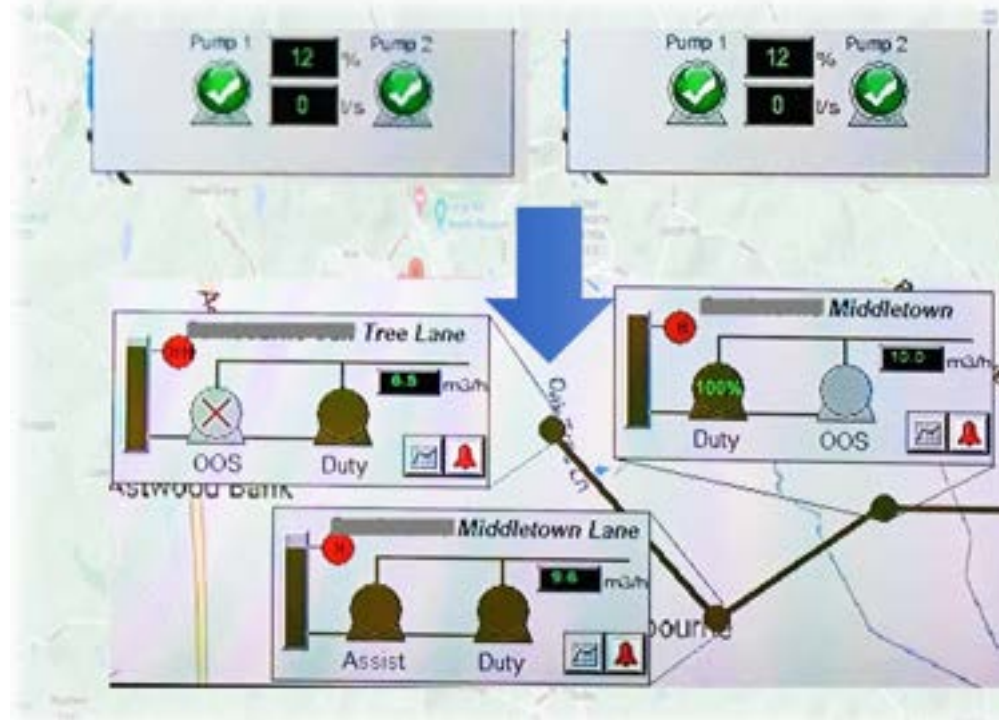
Insights are only useful if the right data is made available, to the right people, at the right time.

# 2014 - Intelligent Point Solutions

Pumping Station  
Point Solution

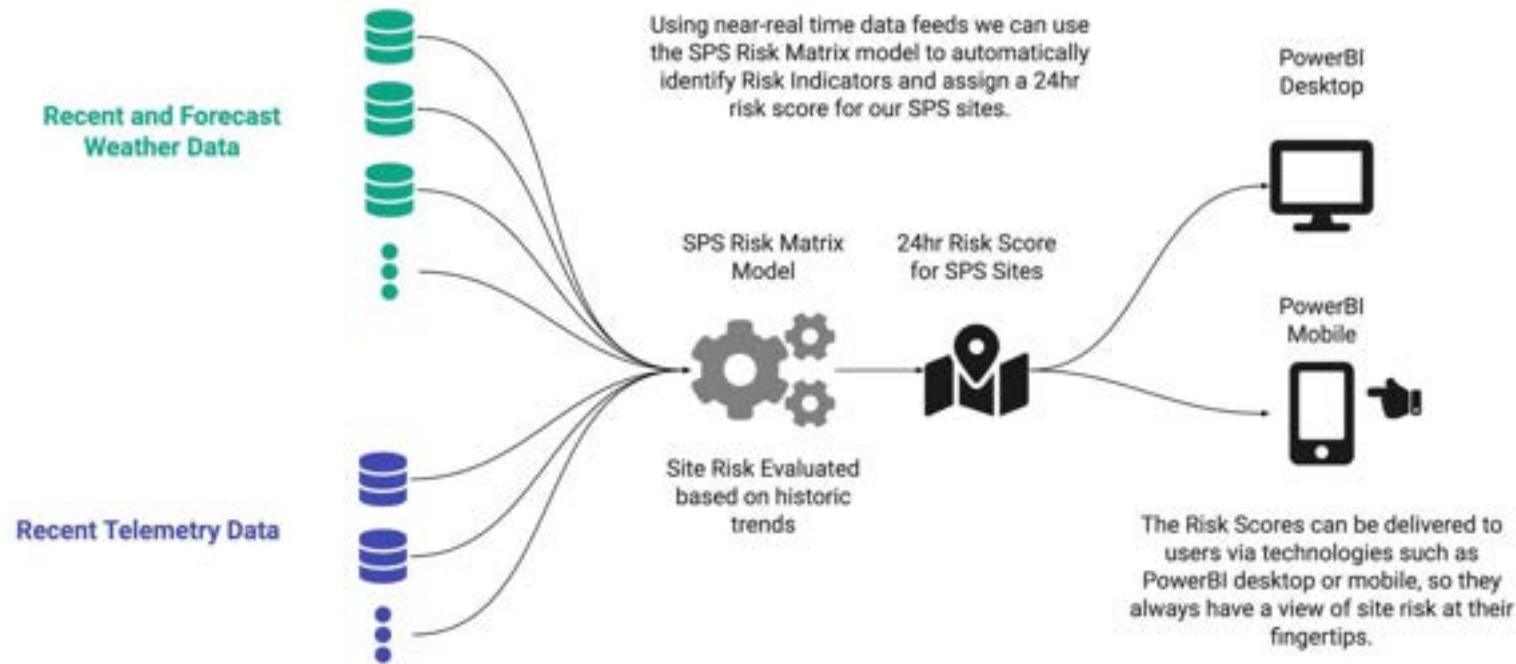


Intelligent Catchment  
Optimisation  
Auto-Configuration  
Self-Diagnostics

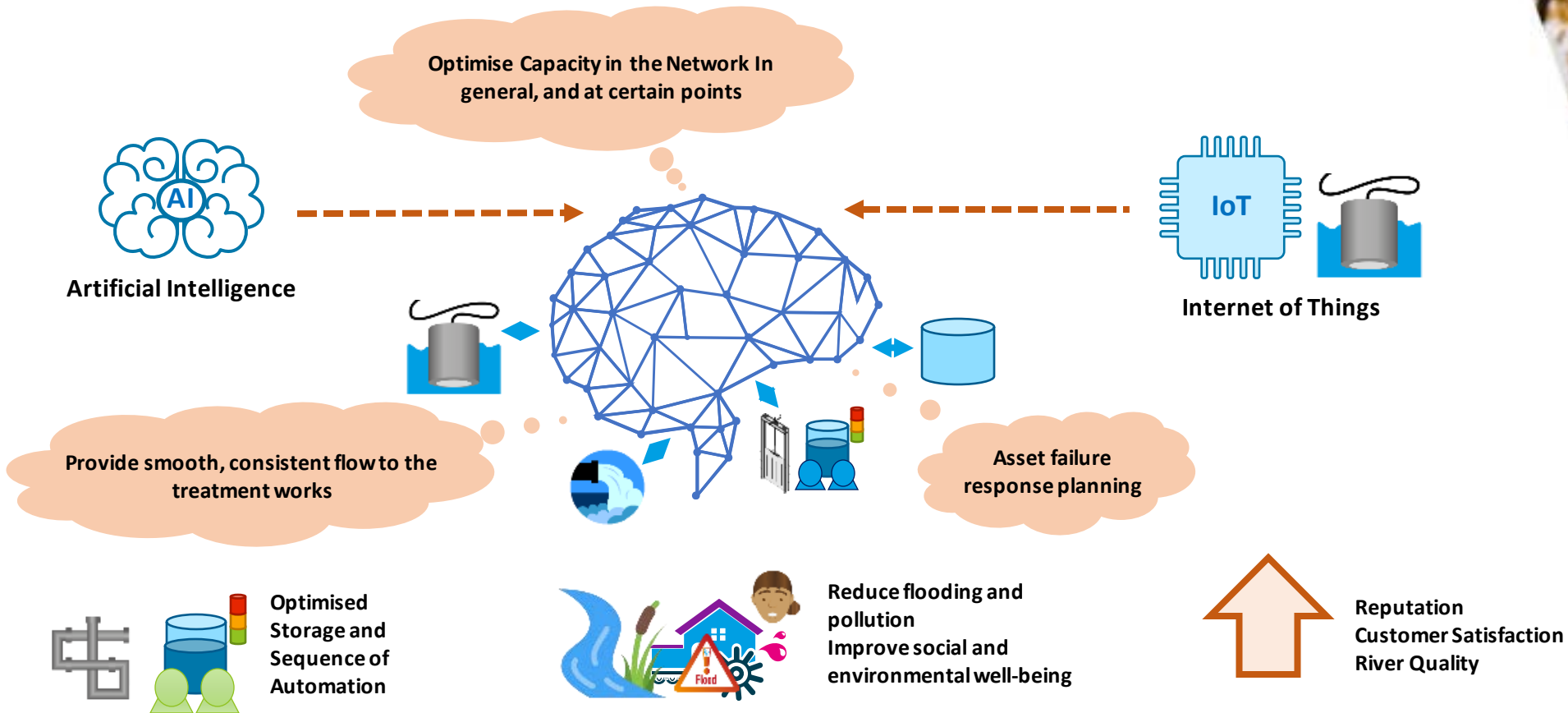


# 2020 – Predictive Model Development

**The challenge:** To reduce our annual pollutions by initially reducing the risks at our sewage pumping stations



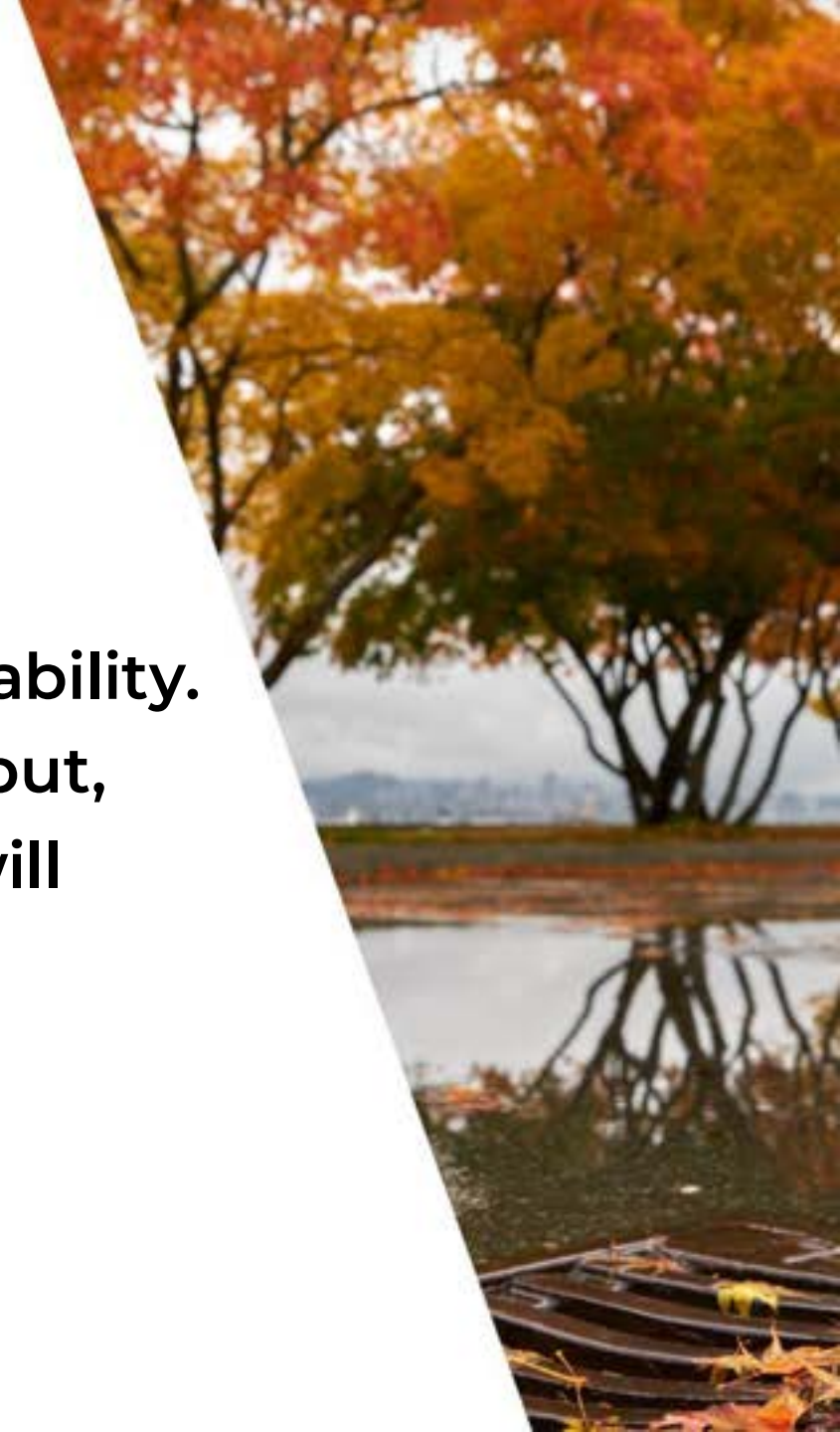
# 2022 – AIoT Waste Catchments





# Summary

- Data is key to generating insights.
- Data needs to have availability, quality and usability.
- Intelligent point solutions improve capability but,
- Cloud analytics, AI/ML and interconnectivity will allow AIoT to build the future.



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# Q&A Session

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