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**Asia Water Forum 2022**

8–11 August 2022 • Online

Focus Area: Productive water in agriculture and the economy

## **Session Title: Circular Economy- Asset Management and the Water Sector**

Schedule: [10 August 2022 | 11:00 am (GMT+8)]

**Neslihan Sönmez**

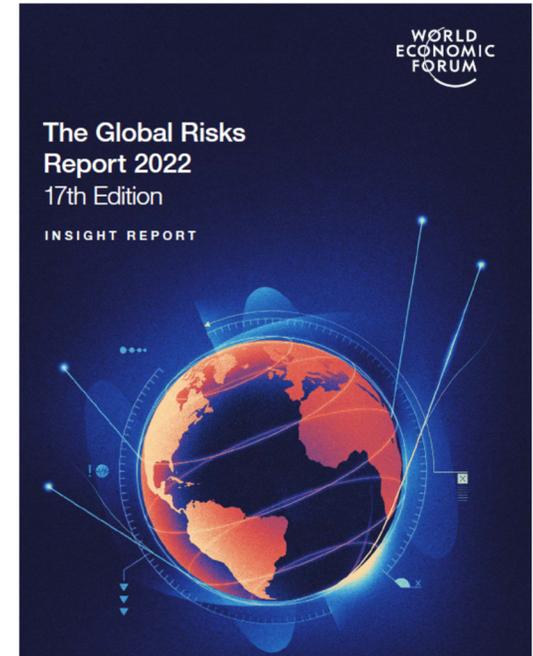
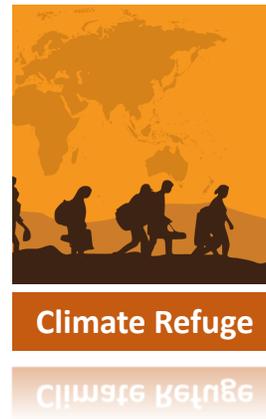
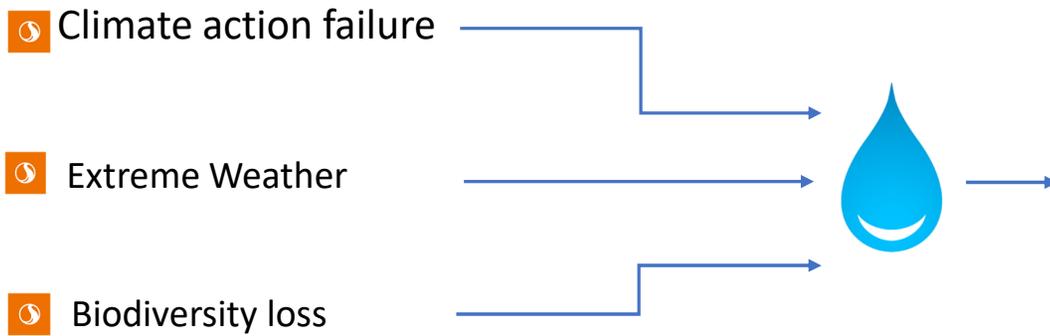
Regional Business Development Manager- Stantec UK



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## What Is The Problem?



**WATER CONNECTS, IT DOESN'T SEPARATE.**



**WHAT MANIFESTS ITSELF AS A REGIONAL OR LOCAL CRISIS QUICKLY BECOMES A GLOBAL PROBLEM.**





# What is the problem?



Current State
CAPEX
New Build
Designed to Build
Develop Projects to Deliver Outputs
Separate Client and Supply Chain
Own Industry Best Practice
Asset Centric
Linear Delivery Model
Fragmented Data
Multi Stakeholder Relationships



Future State
TOTEX
New Build vs. No Build
Designed to Operate
Develop Solutions to Deliver Outcomes
Integrated and co-located Client and Supply Chain
Other Industry Best Practice
Customer Centric
Circular Model
Consolidated Data Management
Multi Stakeholder Partnerships





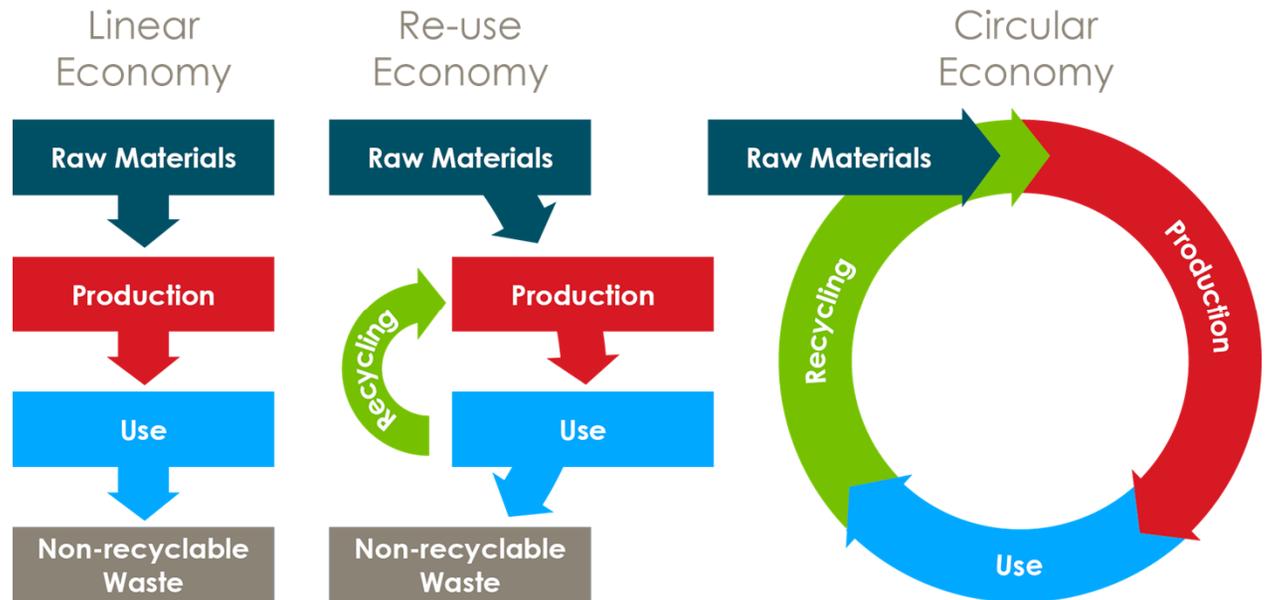
## Linear Water Economy





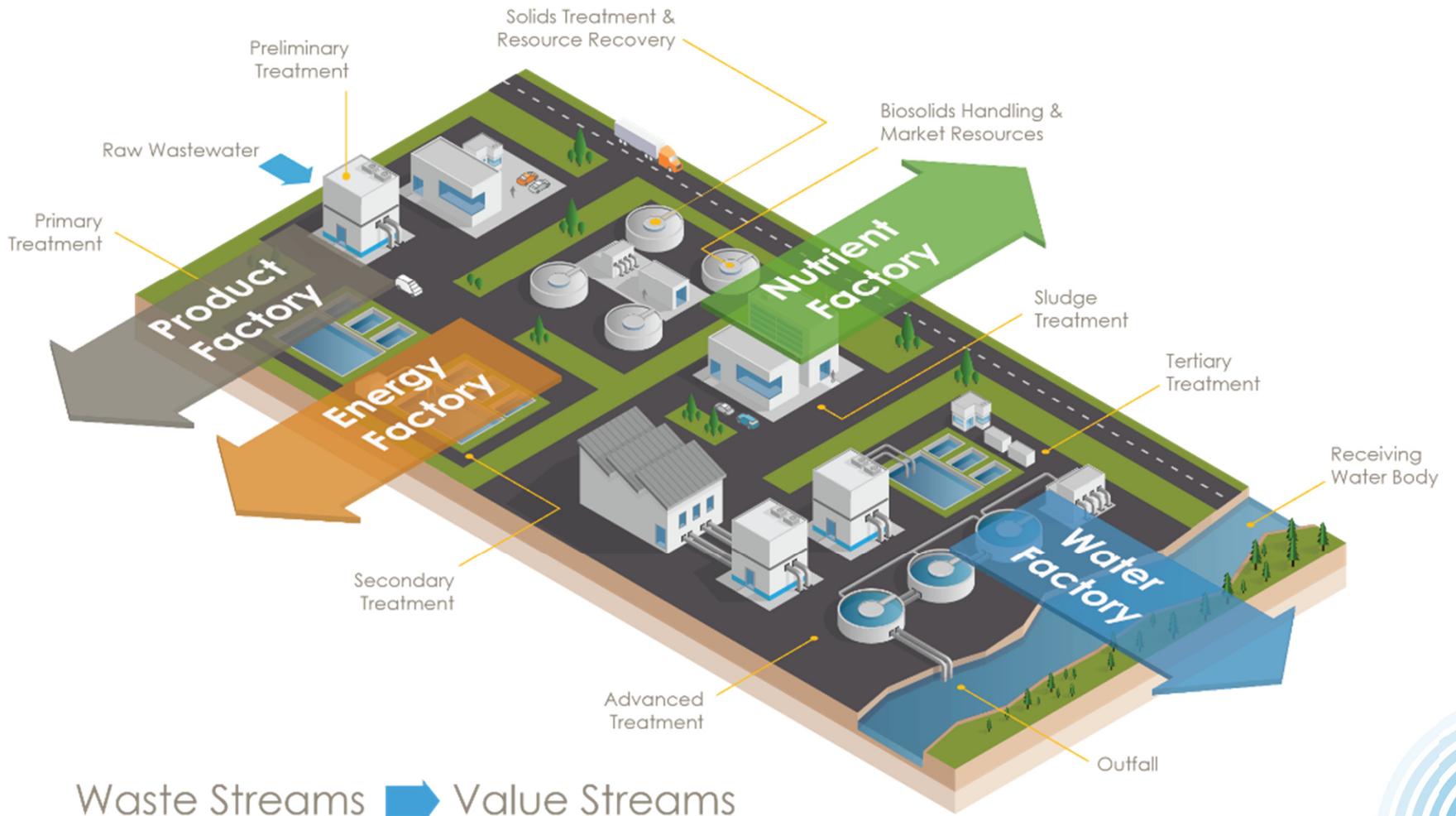
## Circular Economy Model

1. Circular supplies
2. Resource recovery
3. Product life extension
4. Secondary markets
5. Product as service





# Circular Economy Water Utility





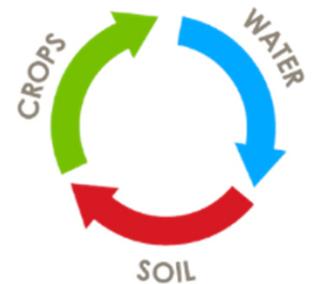
## Example: Reuse - Seychelles

### ☑ Treated sewage effluent (TSE):

- Direct use
- Agricultural irrigation
- Urban landscaping

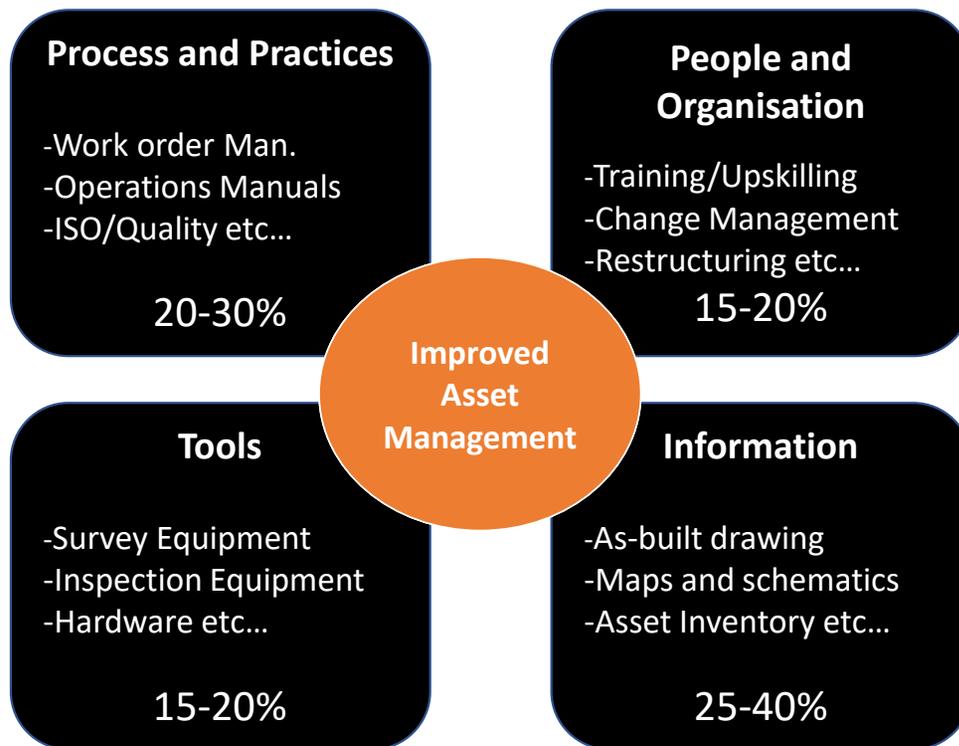
### ☑ Sewage sludge (biosolids):

- Agricultural or restorative land improvement product
- Recover energy
- Produce biofuels
- Reclaim nutrients





## Asset Management Improvements don't come from Software Alone!

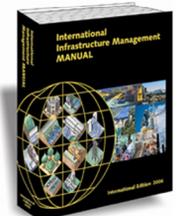


*“Systematic and coordinated activities and practices through which an organization optimally and sustainably manages its assets and asset systems, their associated performance, risks and expenditures over their life cycles ...”*



PAS55  
ISO55000

*“... strategic approach to the process of maintaining, upgrading and operating physical assets with the objective of providing the required Level of Service in the most cost-effective manner.”*

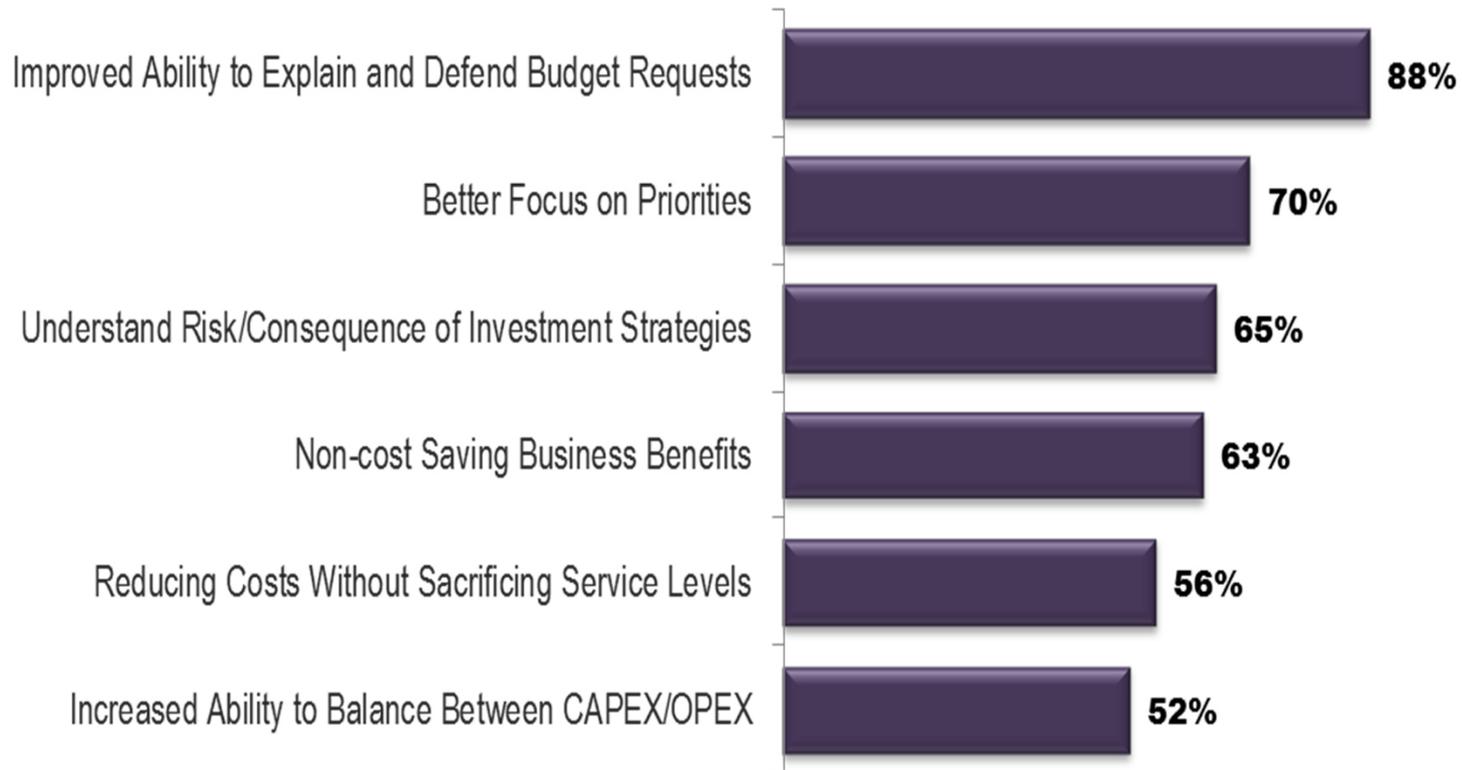


International  
Infrastructure  
Management  
Manual





## Where are Utilities finding Value from Asset Management?

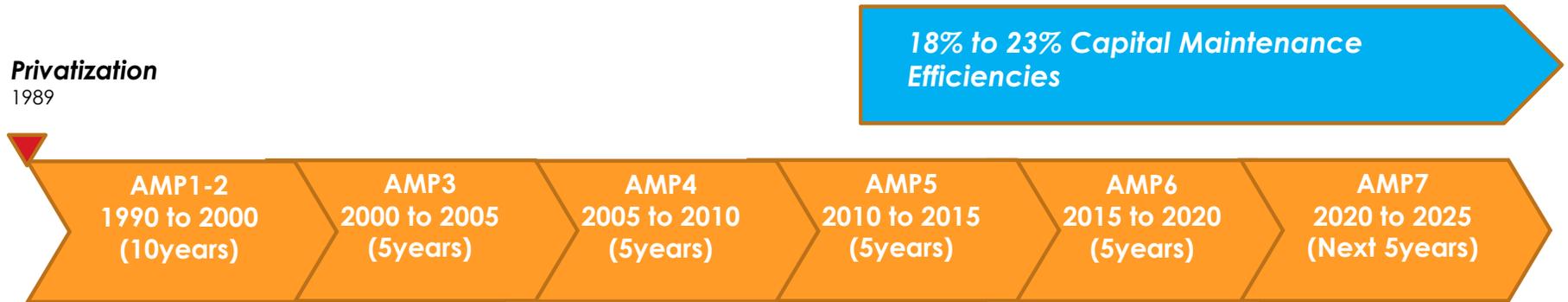


Source: Water Infrastructure Asset Management Study (2012)





## The Journey so far for UK Water Companies...



### The evolution steps along the Journey

Common  
Framework for  
Capital  
Maintenance  
Planning

Asset  
Management  
Assessment  
(AMA)

Many companies  
chose to adopt  
PAS55 and/or  
ISO55001



**YOU CAN'T ACHIEVE VALUE IN A SINGLE STEP**





## Where to start?



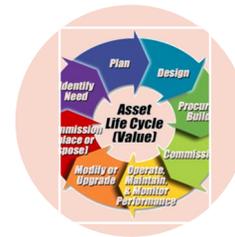
**“Introduction to Asset Management”** scope can be included to consulting services under water/ wastewater infrastructure projects.



**Pilot project** can be implemented.



**Capacity building and awareness raising** activities can be delivered.



**Asset Management Programme** can be developed.

