Sustainable Investment in the Water Industry

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Anglian Water Services

25th November 2010

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Anglian Water

Anglian Water – A Unique Region

- Driest Region
- Impact of Climate Change
- Fastest Growing Region
- Flat, low lying land
- Largest Area

- Anglian Water's planned Investment for AMP5 (2010/15) period around £2b over 5 years

Key Investment areas for next 5 years

- Bio-solids
- Domestic Water Meters
- Water & Wastewater Quality
- Resilience
- Flooding
- Water and Wastewater Networks

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Drivers

Leading

- The Frontier Performer in our industry
- No Incidents
- No accidents
- 50% Embedded carbon
- 20% Operational Carbon

Vital

- 100% of our customers are very satisfied with our service
- Effective Management of impact of growth and climate change in our region

Pride & Professionalism

- Regarded as the leading employer in our region
- Get it right first time every time – no rework
- Zero waste

INNOVATION → OUT PERFORMANCE

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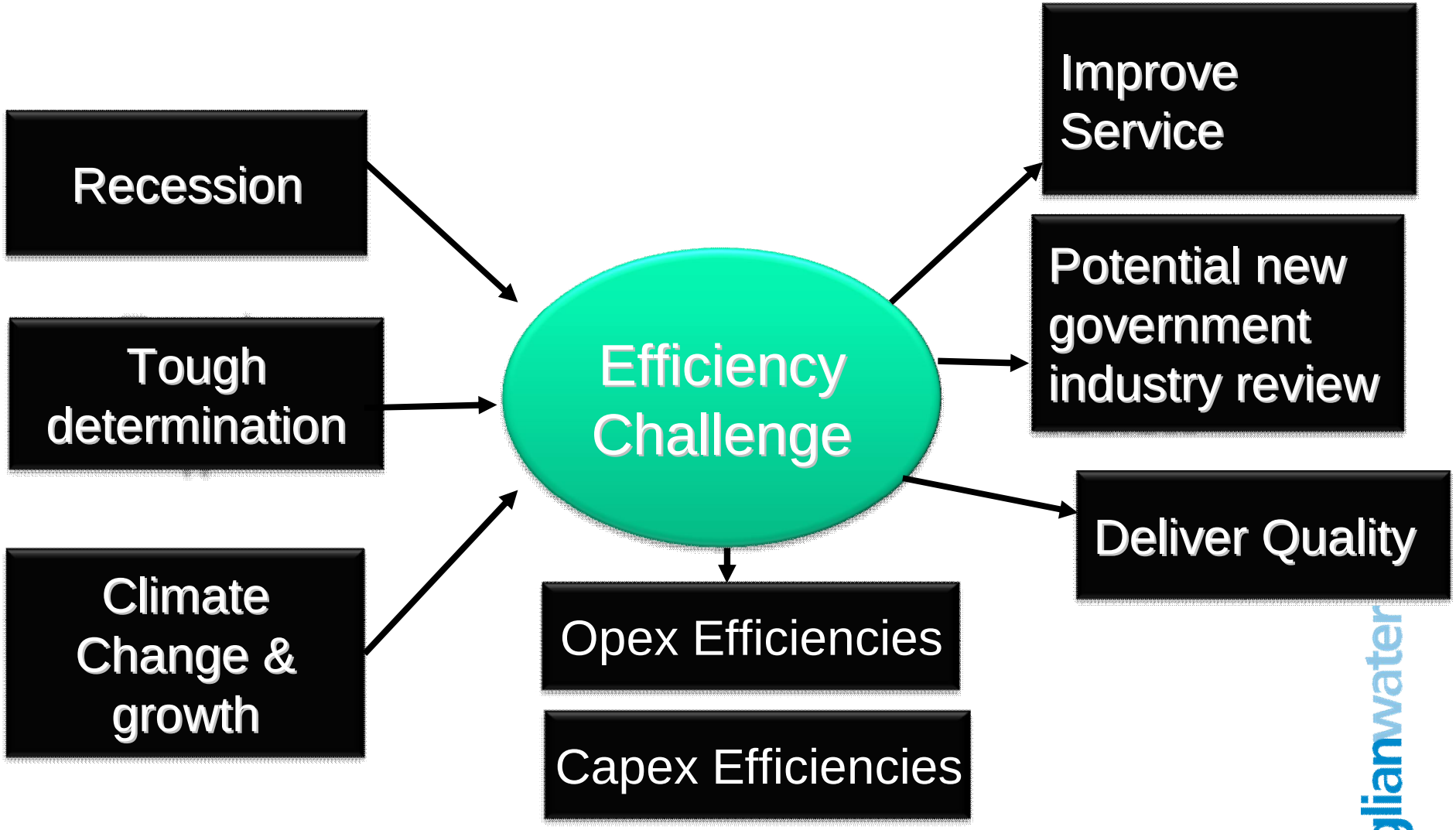
Drivers for Innovation in AMP5



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Key Areas

- Anglian Water strategy and achievements
- Water innovation opportunities in the Water Industry
- Benefits
- Next Steps

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The Opportunity

- Deliver efficiencies in key investment areas through innovation.
- Develop specific themes and projects for short, medium and long term innovation.
- Collaborate with organisations, SMEs, Universities, Research Companies etc…
- Secure funding and deliver collaborative research projects
- Create wealth through exploitation of innovation
- Influence and help drive the TSB Water Innovation Platform, building on key themes.

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Key Achievements in Anglian Water

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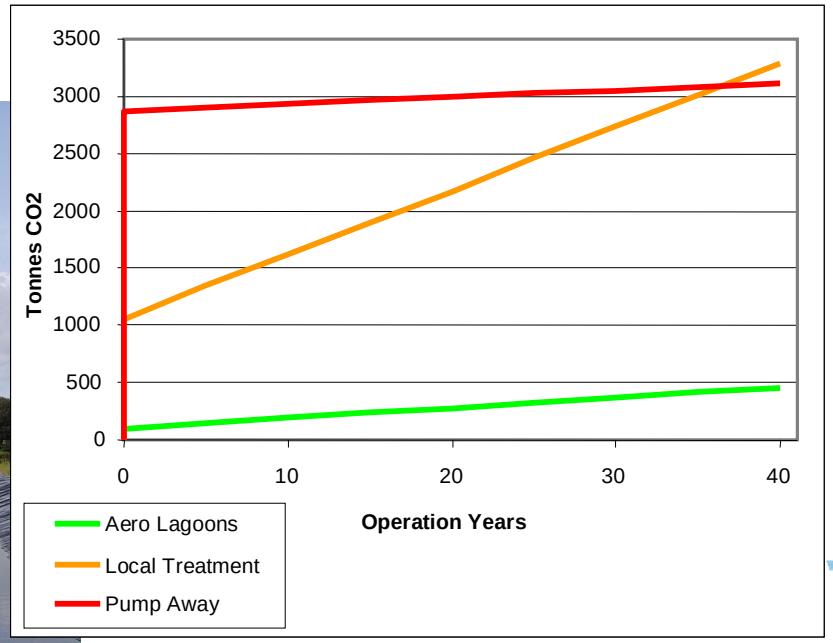
Reducing our Carbon Footprint

- Use of low energy solutions to meet environmental requirements
- Working in partnership with equipment suppliers, process engineers and local community



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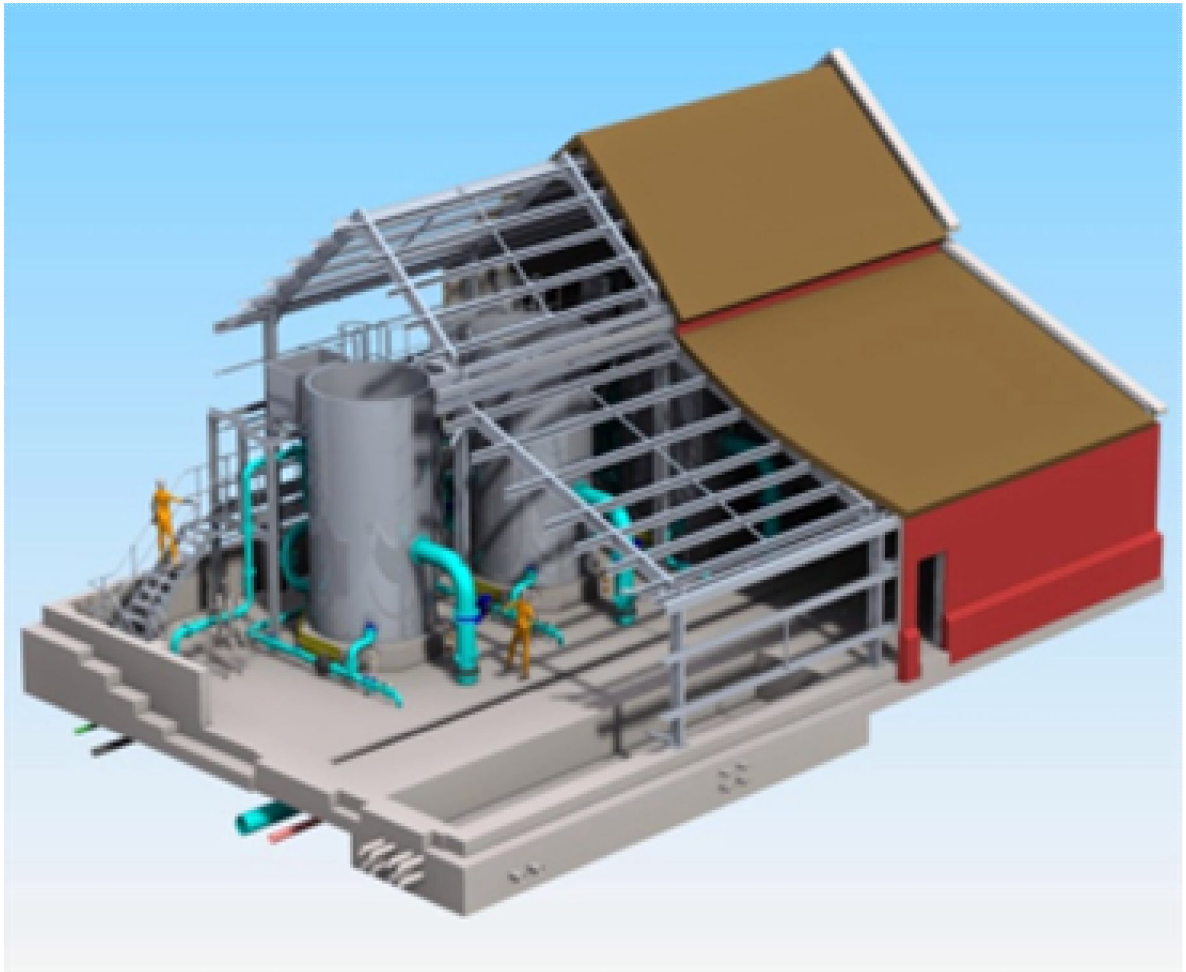
3D Design Innovation



Working with Software specialists, Design Engineers, Equipment Suppliers.

Allowing us to virtually design, build, commission and operate new assets

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What Next ?

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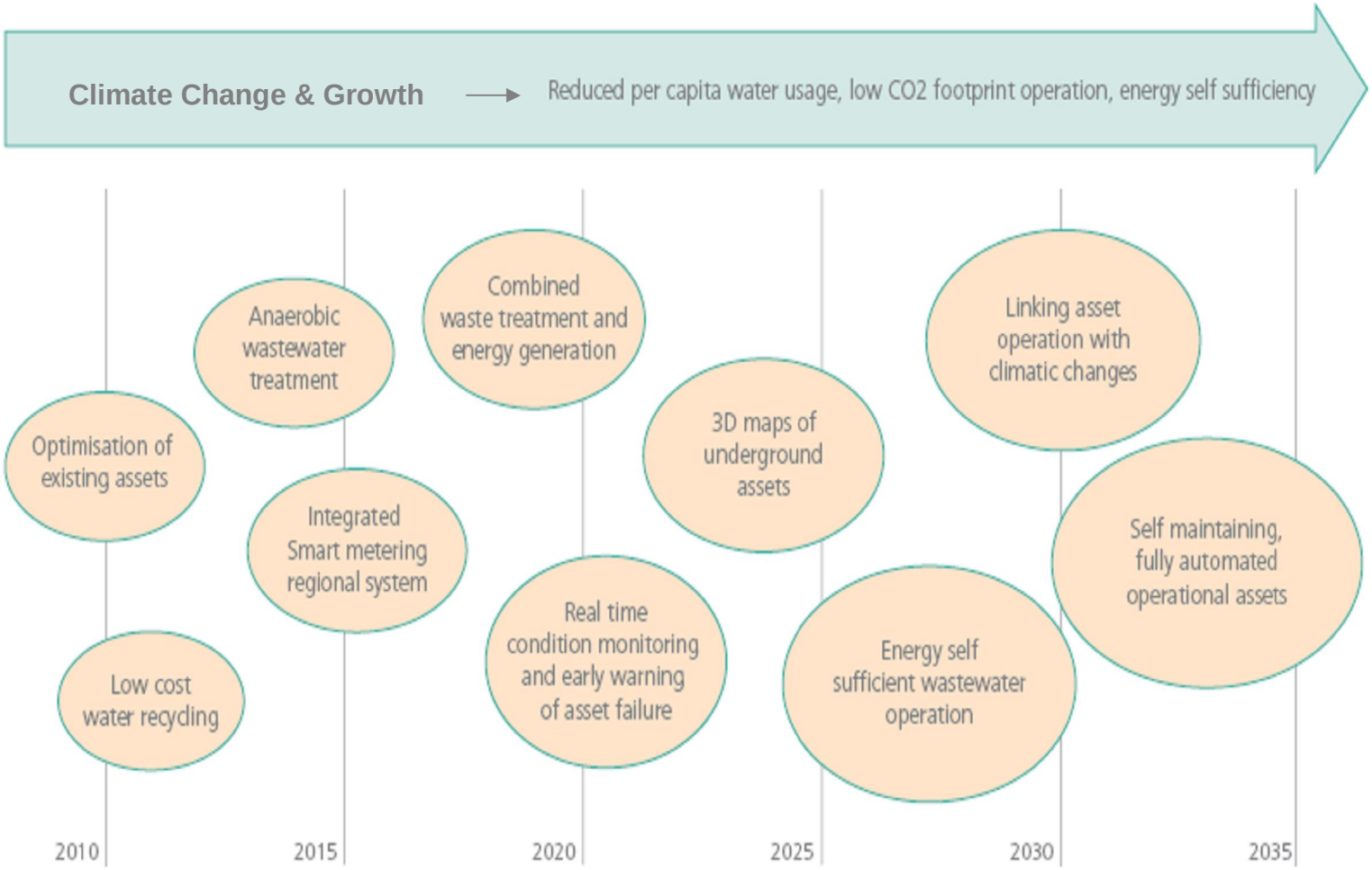
Short and Long Term Innovation – Real Opportunities

Our Strategic Direction Statement has already identified opportunities to invest in innovation.



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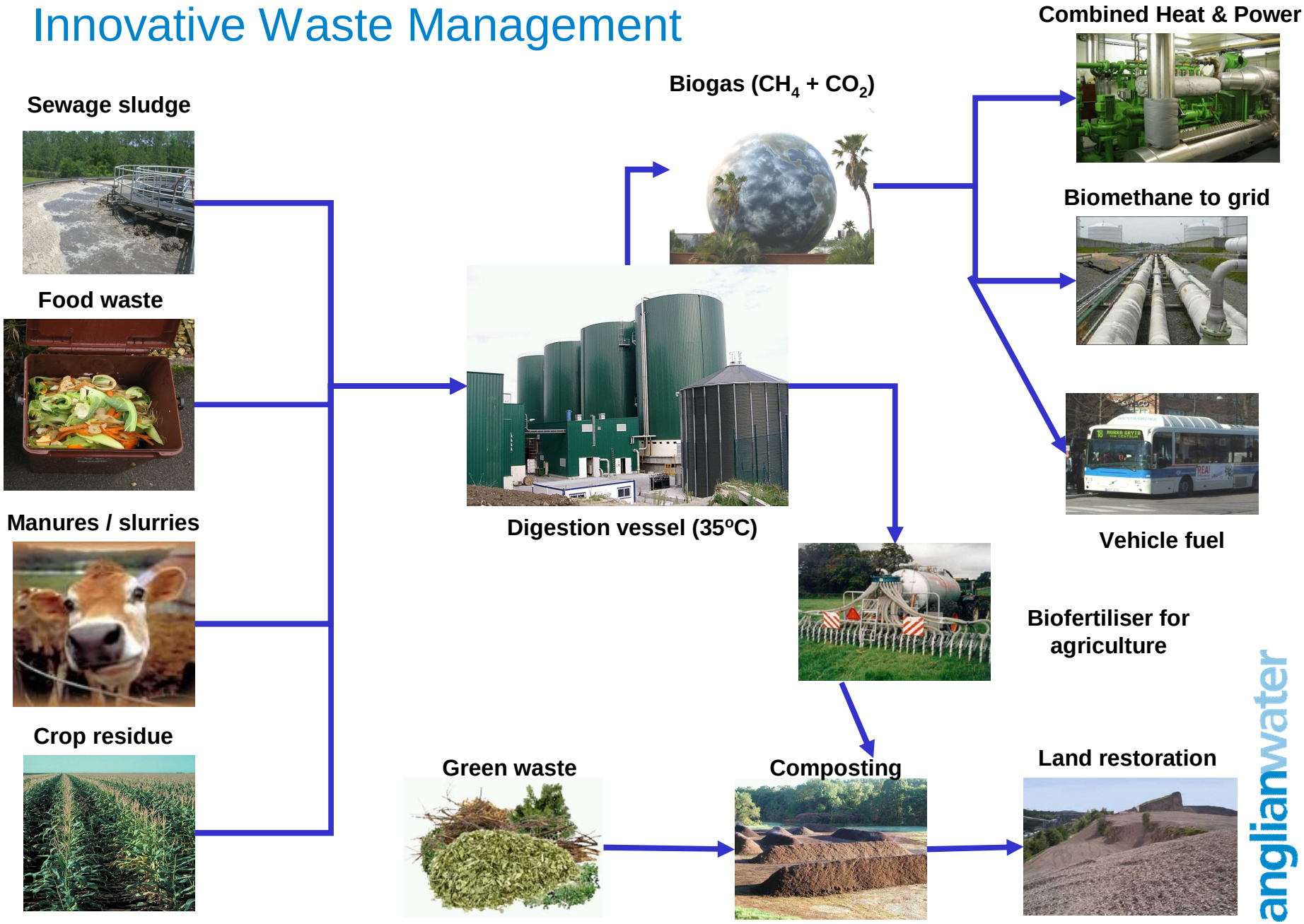
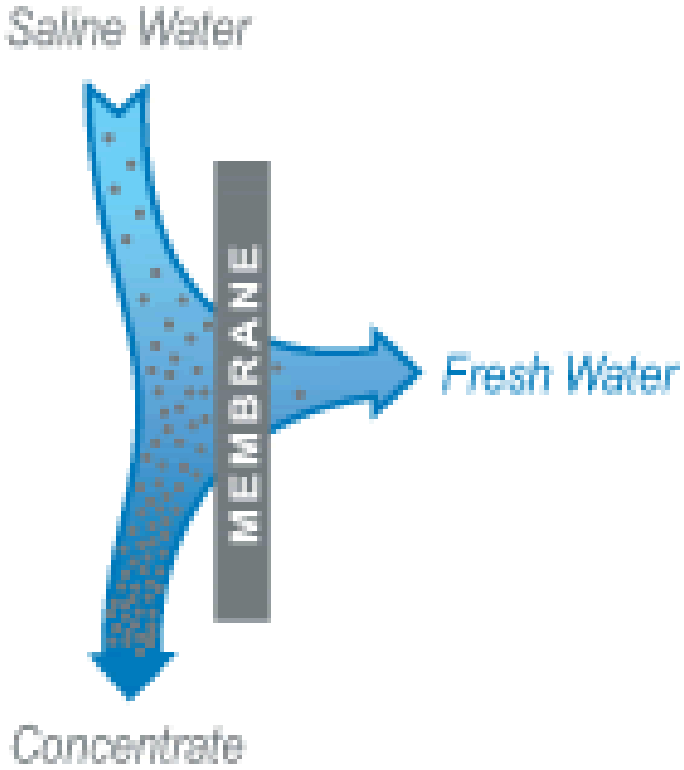
Innovative Waste Management



Innovation in Water Treatment

Removal of pesticides

Desalination



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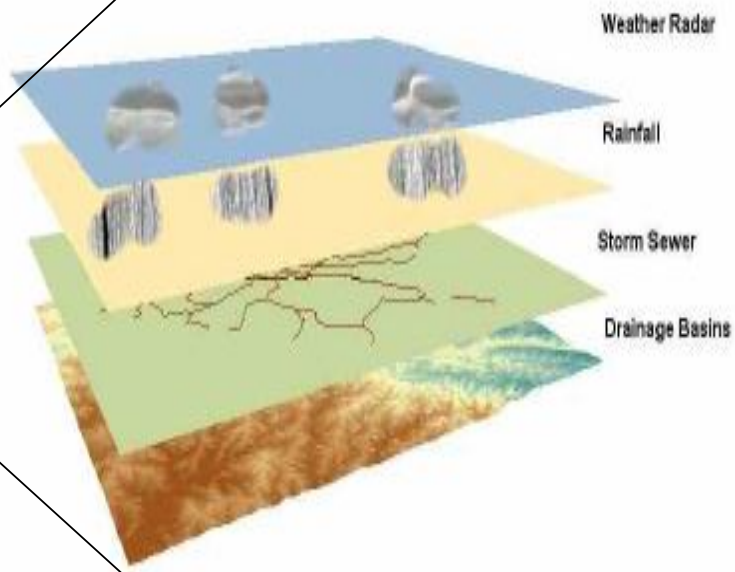
Intelligent Sewers – Future Opportunities

Pump station Optimisation

Real time Modelling

Energy Optimisation



INNOVATION

Pollution prevention

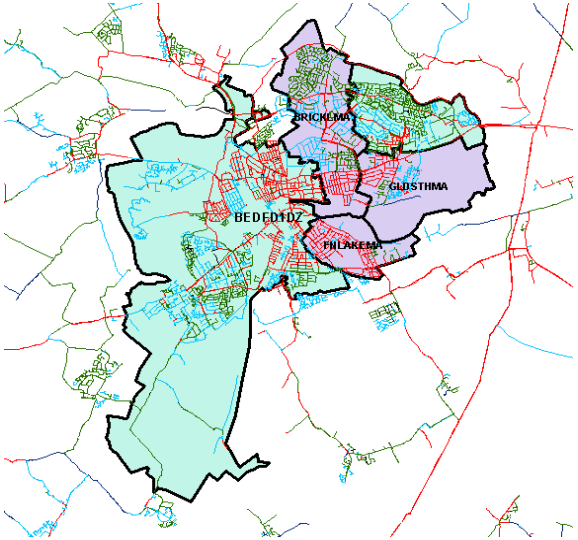
Real time Control

Flow Management

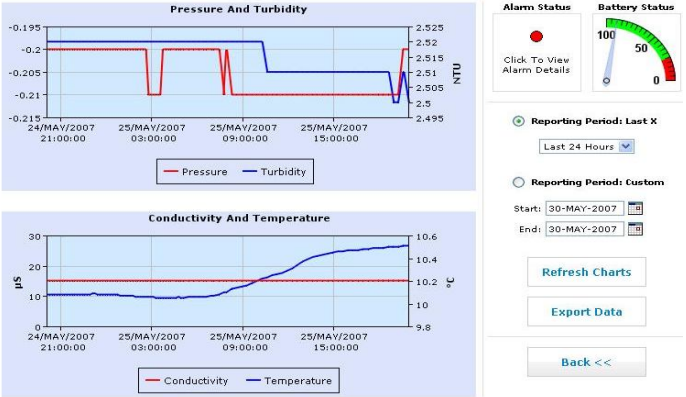
Intelligent Water Networks – Future Opportunities

Burst prevention,
Leakage reduction

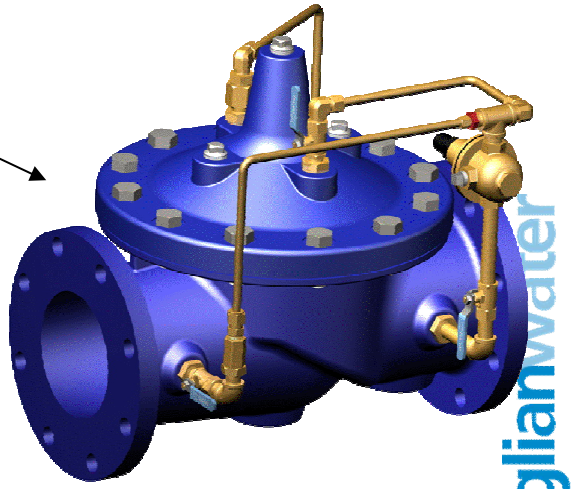
Demand prediction



Real time Control



Pumping Optimisation



Pressure and Flow
Management

Potential Innovation Areas include: -

- Increasing biogas production, connecting to gas grid and producing vehicle fuels
- Developing cost effective, low carbon footprint water and wastewater treatment processes
- Developing real time sensors (e.g. water quality) for real time management of water networks
- Adapting our infrastructure to increased flooding events, including management of surface water
- Low cost desalination

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Benefits and Opportunities

- Underpins the competitive advantage, growing regional economy – R&D, Inward investment,
- Establishes the industry a leader in driving innovation – delivering ‘best practice’.
- Pro-actively tackling climate change – our unique region is on the frontline
- Customer benefits – opportunity to reduce bills and deliver a better service to over 5m customers
- Reduce our cost base (capex & opex)
- Meet the carbon challenge
- Reduce pollution

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Next Steps

- Establish the Water Industry as delivering ‘best practice’ in innovation

  - WIN (Water Innovation Network established with UKCEED) – Capturing ideas from the supply chain

  - prioritise projects to drive innovation through the supply chain

  - prepare compelling business case including funding opportunities

  - Target funding

  - Involve and mobilise business partners

  - Pro-active partnership with TSB to help develop a successful Water Innovation Platform

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