

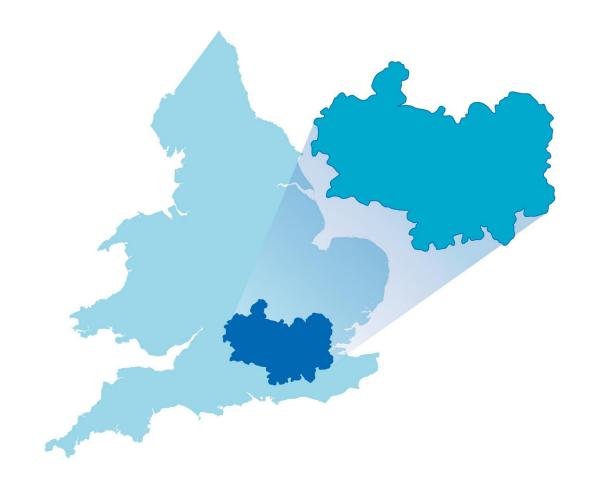
Smart Water Networks

Aqua City

Lille, 15 June 2016

Catalina Pedraza

The Thames Water region





Did you know...?

- ✓ We serve 15 million customers that's 24% of the UK population
- ✓ We maintain 85,000 miles of water mains and sewers – enough to wrap around the world 3.5 times!
- ✓ We supply enough tap water every day to fill more than 1,000 Olympic swimming pools – that's 2.6 billion litres
- ✓ We treat nearly twice as much sewage daily –
 that's 4.2 billion litres









Our challenges

An aging network

Increasing Population

Extreme weather conditions



Less water available

This is manifesting as a deficit in supply versus demand

2020133 Ml/day

2040

414 MI/day

2 million

customers without the water they need



What can we do?

- Bulk water supply
- Reservoir storage
- Indirect Potable Water Reuse

- Metering
- Leakage reduction
- Water efficiency
- Non-Potable Water Reuse



Smart Water Networks

Big change



Small scale

Smart Water

Networks

Real time leak / burst detection

React before disturbing customer

Demand reduction



Smart Water Networks



Small scale

- Metering
- Leakage reduction
- Water efficiency
- Non-Potable Water Reuse



Leakage management





- √ Smart meters
- ✓ Trunkminders
- √ Burstminders
- ✓ Incertameters
- **✓ Algorithms**



Data challenges















Concluding remarks

Smart Water Networks



Small scale







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