



Economies of scope and the value chain: a company's perspective

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The scope economies as revealed through an empirical study of a WASC's organisational structure....or put more simply *“how do companies organise themselves in practice?”*

- Before we look at the question of economies of scope from a company practitioner's perspective there are a number of key points to make:
- There is a clear need to better understand the value chain:
 - For economists – what is the relationship between marginal and average costs?
 - For regulators and policy makers – if water is valuable why is it not more readily traded across water company boundaries?
- But this may (or may not) require changes to industry structure
 - And much might be achievable with current structures

We have looked at the question of economies of scope from a company practitioner's perspective

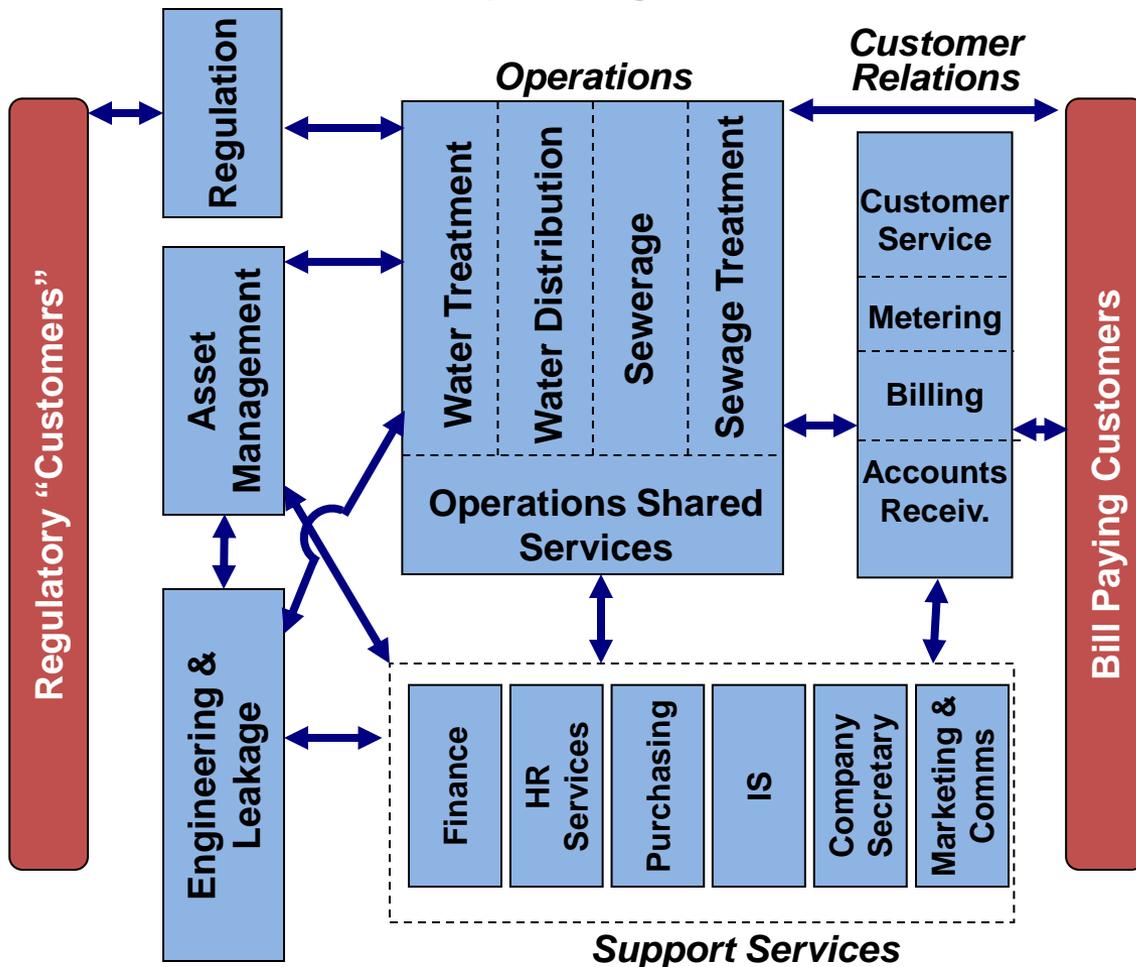
- **How have we organised the company to deliver best service?**
- **How has this evolved over time?**
- **What structure is likely to be robust to the future challenges which the industry faces?**

This should add a practitioner's perspective of how companies think about the practicalities of 'scope economies' - to the theory

- **And start to address whether vertical separation is worth doing, rather than focussing on how it could be done**

In 2006, Severn Trent was structured in a functional manner, but the organisation structure wasn't delivering what the business needed

STW operating model in 2006



Issues with the organisational design

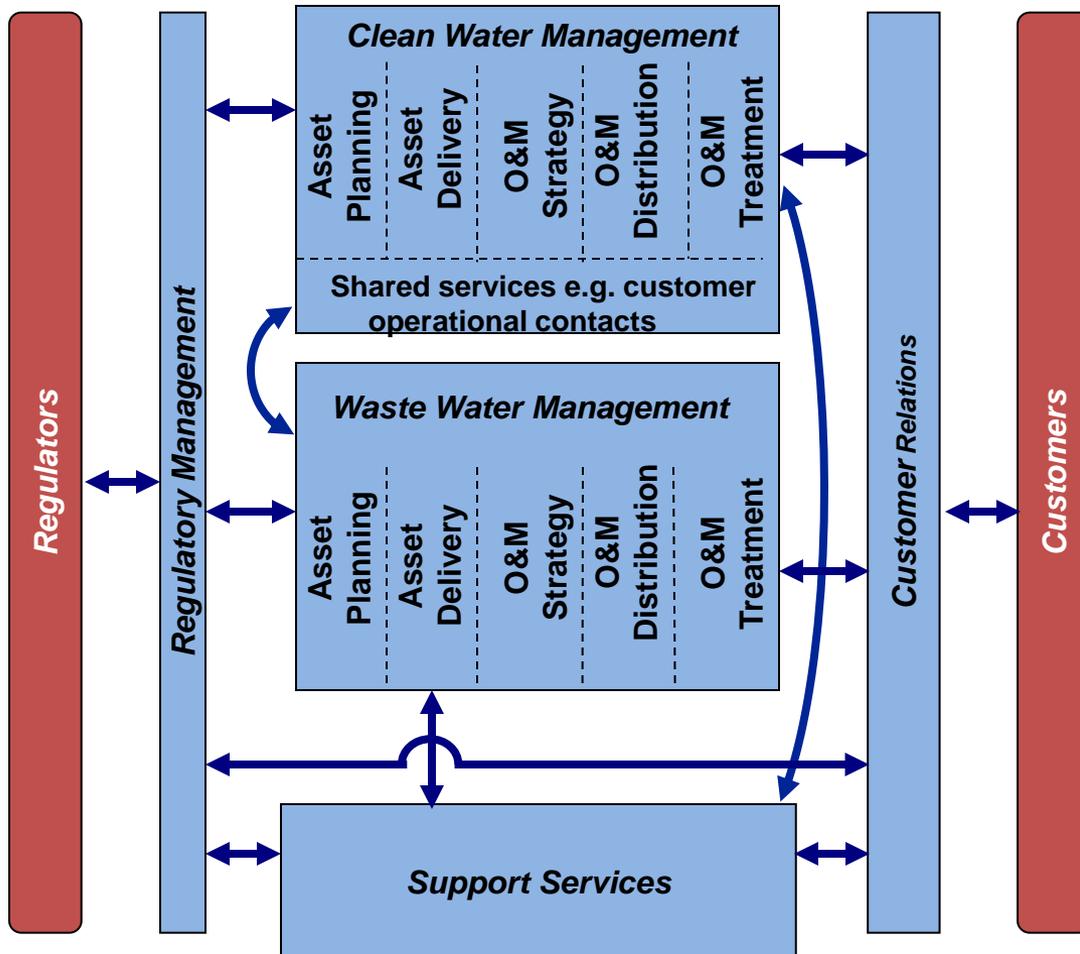
- Split of technical / operational processes across three functions (Asset Management ; Engineering & Leakage; and Operations)
 - Lack of clear accountability for delivery
- Overly complex with too many levels
- Lack of alignment with key core processes

We undertook a detailed mapping of business processes to diagnose the problems in the way we operated

- **The key tenet of organisational design was (and is) to align the organisation around its core processes and to cut across them in the least damaging way:**
 - **Design the organisation around the processes - not the other way round**
 - **There are real choices to be made**

- **There were a number of fundamental questions / issues to address:**
 - **Separation of the value chain**
 - **The split between Asset Management and Engineering**
 - **The split between Asset Management / Engineering and Operations**
 - **A split between Water and Waste Water**

The new organisation design resulted in us moving to an end-to-end process model (i.e. vertically integrated within water and waste)

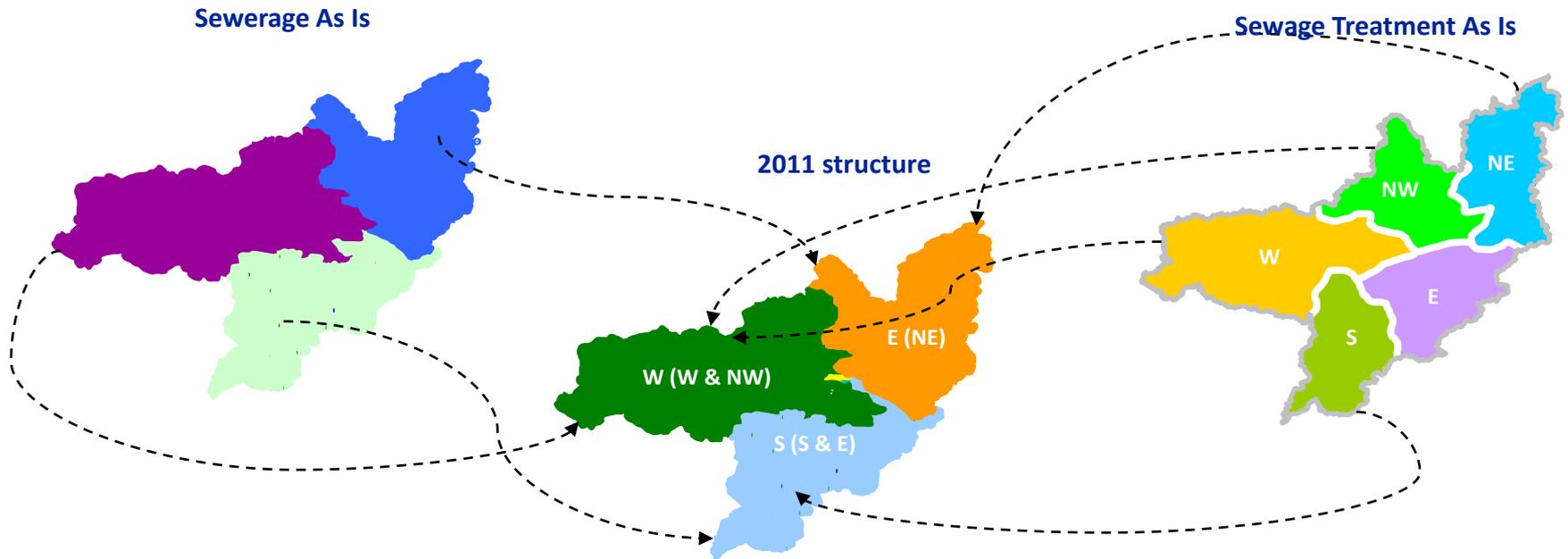


Main characteristics of new operating model

- Product / functional hybrid operating model
- Technical processes:
 - Water / waste water split
 - End-to end process responsibility for:
 - Asset Planning (1 year, 5 years, 25 years)
 - O&M Strategy
 - Asset Delivery
 - O&M
 - Ensures the link between asset strategy and delivery
- Close alignment of asset delivery for water and waste water (“One supply chain”)

In 2010, we reviewed our organisation model for waste water. The end-to-end process structure remains, but split into 3 regional delivery areas with end-to-end responsibility

Each of the 3 regions provides an end to end service from home to river to better manage the catchment



Asset strategy and planning remains centralised in the business unit across the regions to retain and develop expertise

What is the right structure for dealing with the industry's future challenges?

Challenge	What is the “right” structure and why?	Role for competition
Supply / demand balance	Vertically integrated – to balance resource, network, leakage and demand management solutions	Water trading could balance supply and demand at lower cost to customers and the environment
Network resilience	Vertically integrated – to balance resource and network solutions	Water trading could be a vehicle for strengthening resilience across company boundaries
Flooding	Vertically integrated – to deliver sustainable solutions such as SUDS and catchment management	
Public health (drinking water quality)	Vertically integrated – to give clear accountability and a coordinated approach to water quality	Water trading could be implemented in a way that minimised concerns around accountability for quality

Summary lessons learnt

End-to-end processes (i.e. vertically integrated structures) create:

- Clear accountability for major KPIs given end-to-end responsibility, e.g. Leakage
- Less complexity
- Improvement of whole lifecycle costs (total cost of ownership perspective) via integration of asset planning, O&M strategy and asset delivery
- Splitting into regional delivery structures allows the business to manage the day-to-day operations at a more efficient scale
- Better ability to deal with the industry's future challenges