

# Engineering Transformation & Procurement

**Civil Engineering Contractors Association  
(South West)**

**Richard Price  
Chief Engineering Director  
& COO Bristol Water**

**29<sup>th</sup> March 2023**



# Engineering Transformance & Procurement - Agenda

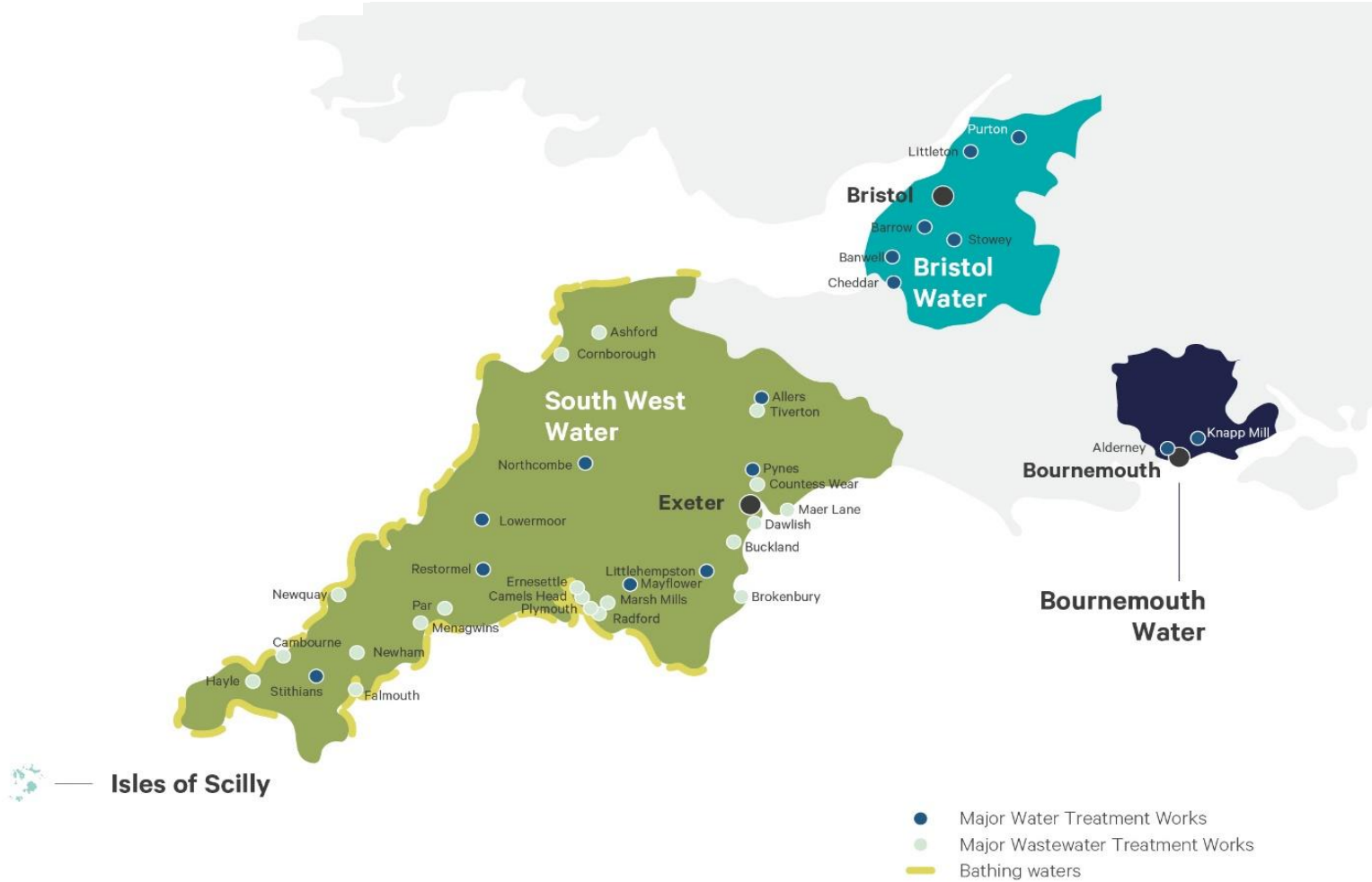
- **The Pennon Group** **Richard Price**
- **Principles for Delivery** **Richard Price**
- **The Integrated Delivery Model** **Graham Murphy**
- **Procurement Process** **Les Metcalfe**
- **Question & Answers** **All**
- **Summary & Close** **Richard Price**





# Welcome to: The Pennon Group





### Living our values



Trusted



Responsible



Collaborative



Progressive



# Pennon

# Principles for Delivery



# Main components of Capital Programme include:

## Waste Water Programme

- Wastewater chemical improvements.
- Nutrient improvements
- Bio-resources
- Coastal Flooding
- Storm Overflows
- **Net Zero Carbon - Whole Life Carbon consideration**

## Clean Water Programme

- Natural Resources to include habitat improvements
- Eel screens/passages
- Bio security schemes
- Water Resource improvements to include Drought resilience projects.





# Safety first....

*We want everyone to come to work and go home safe...*

**And we want to be the best in the water industry on safety.**

These are our goals.  
They're ambitious, yet achievable.

Together, we can make them a reality.  
And HomeSafe provides the framework that will enable us to do exactly that.



# Customer Excellence....

*We want to ensure that our customers are at the heart of every decision...*



- We want to ensure that our Supply Chain works collaboratively with us to improve the Customer Experience.
- We will stay connected to our Customers through regular engagement to help gather insights.



# Transforming Engineering Delivery a Holistic Approach....

Delivering Customer Excellence by setting in place a consistent, coherent approach to delivery focusing on right first time.

## One Version of the Truth

- Ensure consistency of reporting.
- One overarching programme providing clarity to wider business.
- Visible pipelines of work.

## Engineering Concept / Solutions Team

- 'Concept Development' Stage, within the End-to-End (E2E) delivery model
- Centre of Excellence for Technical Leadership
- Accelerating delivery, developing the optimal solutions.

## End to End Asset Lifecycle

- Better information on asset performance and health monitoring
- Clearer understanding of our assets and their sub-components.
- Better targeting of asset improvements

## Organisational Design

- Increased capability and capacity.
- Ensure the best people are in the right roles.
- Ensure consistency, focus and accountability.
- Enable fast paced, agile delivery.

## Delivery Partners / Supply Chain

- Long term sustainable partners.
- Collaborative common goals.
- Ensure best value lean solutions
- Programme approach with visible pipelines of works

Engineering Delivery Pillars of Transformation

# Drive value at the appropriate stage....

## Common & Complementary Focus:

- Costs
- Carbon
- Deliverability

Figure 4 – Conceptual diagram to showing ability to influence carbon reduction across the different work stages of infrastructure delivery

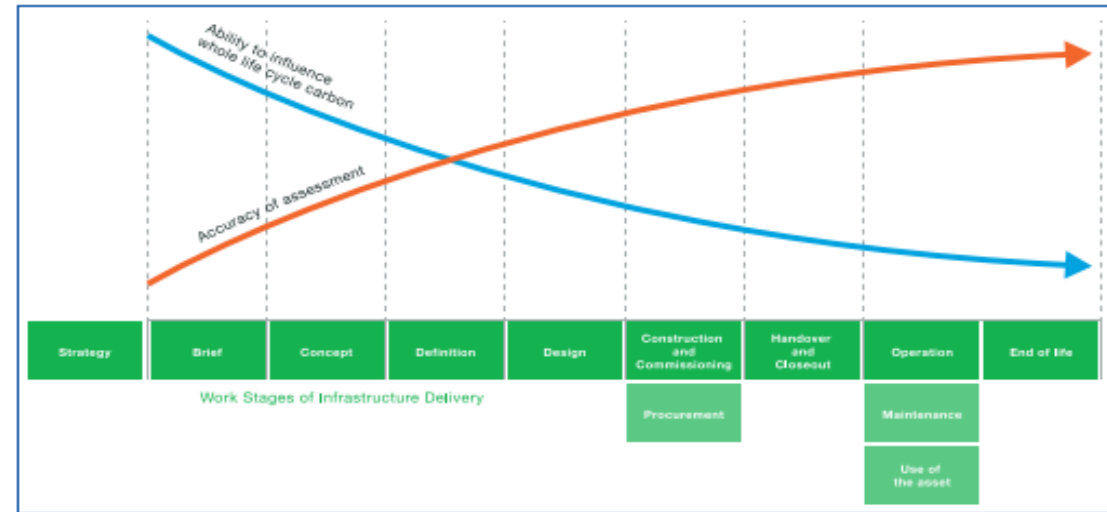
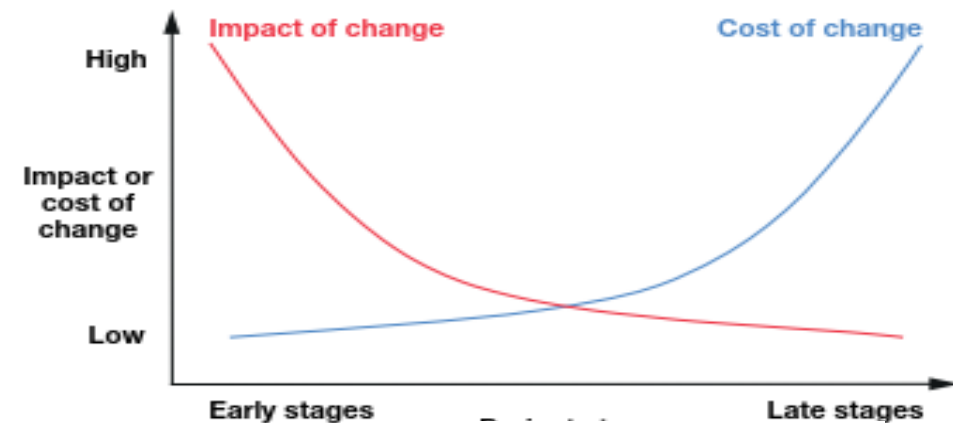


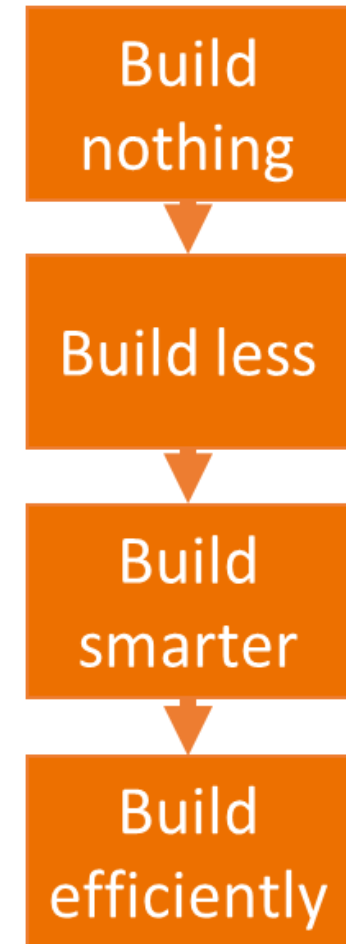
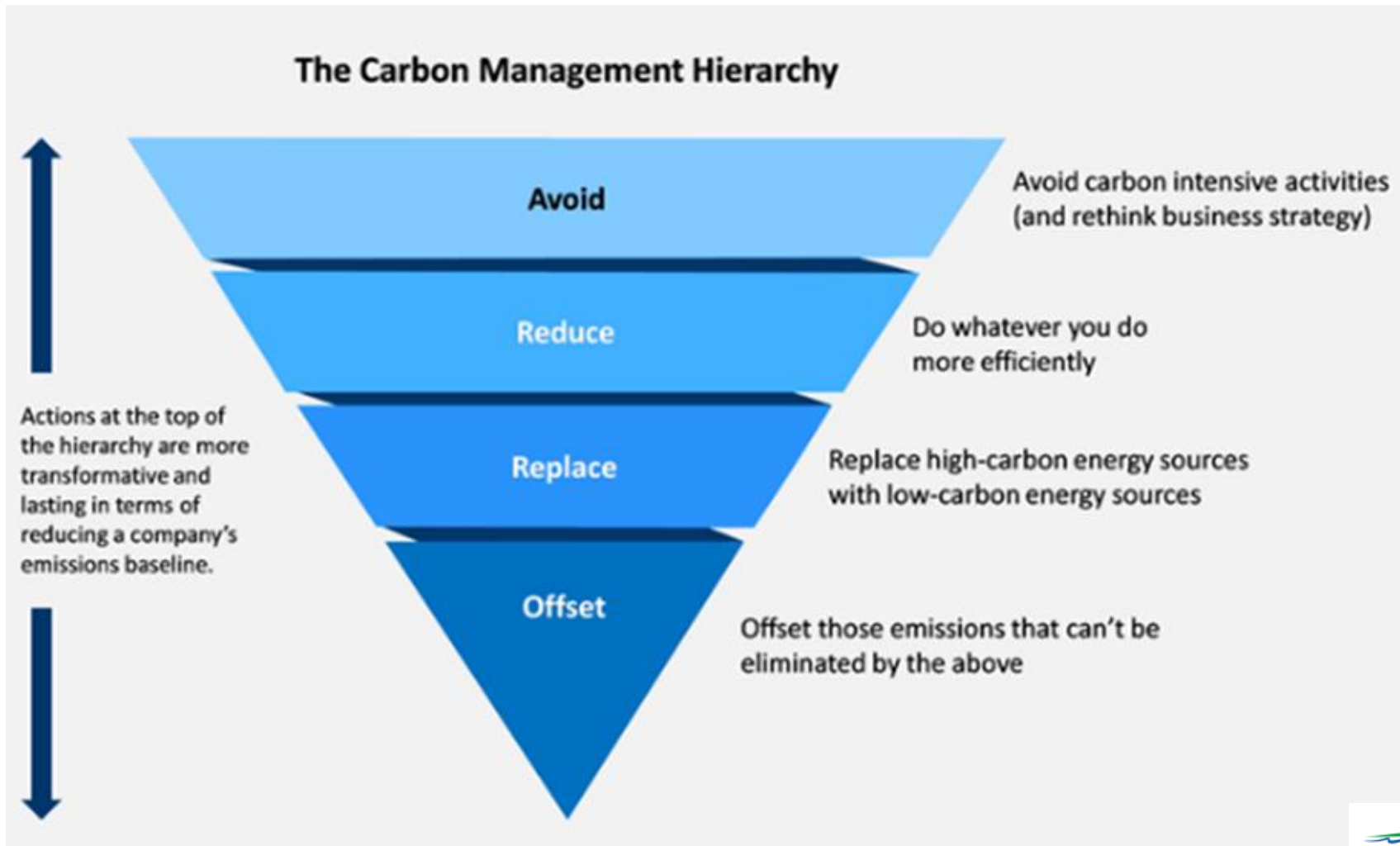
Table 5: Project cost compared with cost influence

Party	Project cost spent	Cost influence
Client and specialist consultants	5%	65%
Design team	10%	25%
Contractors and suppliers	85%	10%

Figure 1: Cost of change increases as impact of change decreases

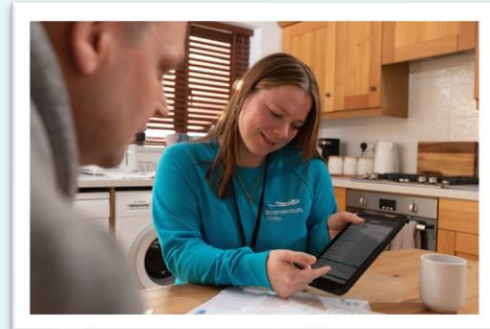
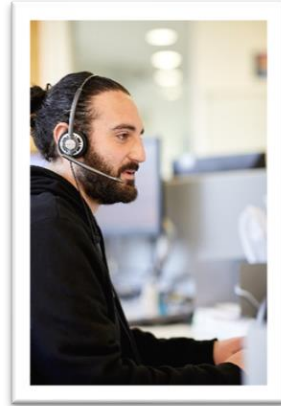
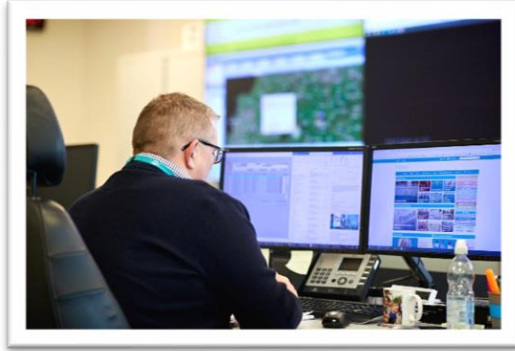


# The Solution Development Hierarchy – Carbon Focus....





# Summary:





# The Integrated Delivery Model

Graham Murphy  
Major Projects & Transformation Director



# Planning the future together

## *The SWW Capital Delivery Challenge ...*

- Following privatisation, we have developed evolved and transformed our approach to the delivery of our capital programme to ensure that our delivery models are efficient and appropriate given the changing nature of our programme
- The next few slides provide a brief summary of the delivery strategies that SWW have developed following privatisation





# Planning the future together

## *The Evolution of SWW's Delivery Strategies...*

- K1 1990 – 1995 Traditional approach (Competitive Tender)
- K2 1995- 2000 Partnering approach (Open Book)
- K3 2000-2005 Partnering approach future development
- K4 2005-2010 Transition from Q To Capital Maintenance
- K5/6 2010-2020 Delivery Alliance Model



**Pennon**

# Planning the future together

## *K5/6 Model – Key aspects/Achievements...*

- Integrated and co-located delivery office
- Efficient delivery of the capital programme
- Delivered all regulatory outputs on time and within the capital plan allowances
- Delivers work packages rather than single project approach
- H&S Performance of “entire” Supply chain & upper quartile
- Workload split between Tier 1 and Tier 2 split circa 50/50
- Delivery of the first ceramic membrane plant “Mayflower works” in the UK

# Planning the future together

## *K7 Capital delivery – A Time of Change*

### Macro Economic Events

- Brexit
- Global pandemic
- War in Ukraine
- Inflation
- Internal Changes (SWW)
- Migration away from the Alliance Model
- Reduction in Tier 1 capacity
- Migration to project delivery rather than programme
- Loss of Internal Capability



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# Planning the future together

*For K8 we need to build on past success's and create a model that will...*

- Create an internal/external capability to deliver circa £1.6bn
- Engage partners in a 'open book' environment
- Provide forward visibility of workload
- Align our incentivisation methodologies to drive the right behaviour, share in our success
- Pain gain 50/50 > cap & collar
- Move away from individual "project to programme" based approach
- Agree who is best placed to manage risk. E.g. inflation
- Create integrated and co-located teams

# Planning the future together

*For K8 we need to build on past success's and create a model that will...*

- We need to give the new delivery model a fresh new identity
- Develop “best person / organisation” for the Job
- Need to adopt carbon and whole life costs in our investment decision making
- Model must be appropriate for SWW and fit within the context of the supply chain in the greater South West
- Need to ensure that we achieve optimal engagement of Tier 2 supplies

# Planning the future together

## *Contractual Arrangement*

NEC4

- Option 'C' - Target cost pain/gain 50/50
- Option 'A'
- Option 'E'
- Long term strategic contracts (5 + 5 Years)

# Planning the future together

## *The Runway Approach*

Runways

3 - Major Projects

2 - Complex Works/Programmes

1 - Other Capital Maintenance >£1M

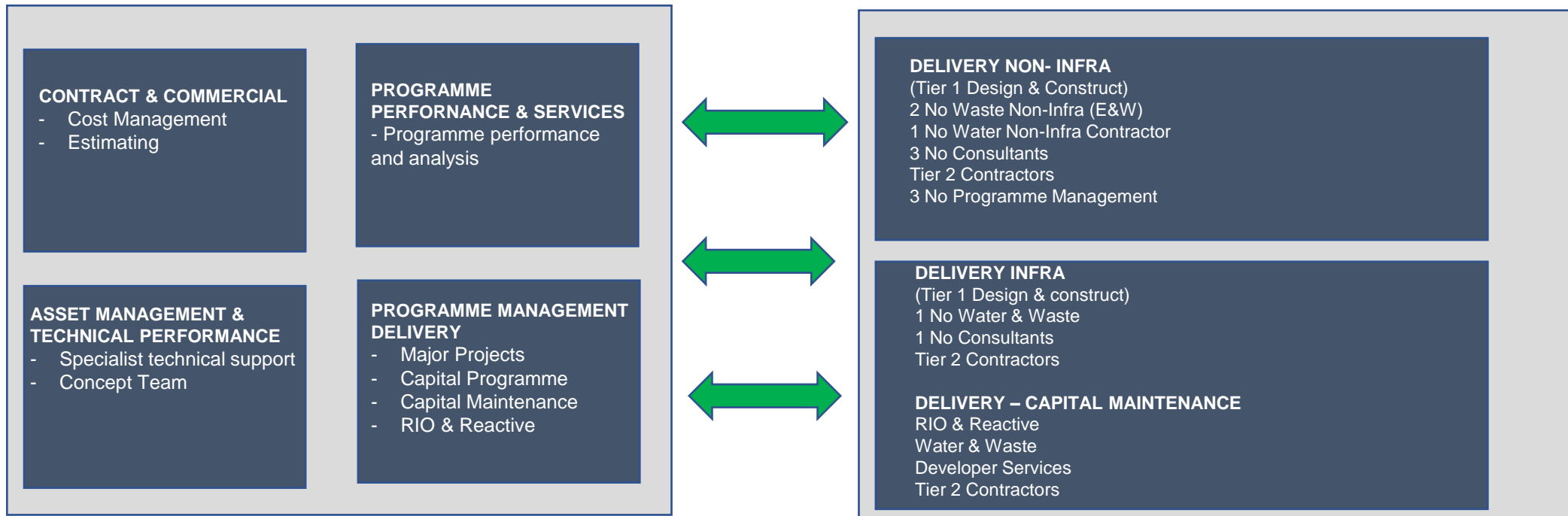
0 - RIO/Reactive works <£1M



# SWW K8 Integrated Delivery Model

**Chief Engineering Officer**

**Integrated Delivery Board**



# Planning the future together

## *K8 Capital Delivery Strategy*

- Professional Services (PS) tender process has commenced with contract award due July 2023
- The framework consists of three lots:
  - Lot 1 - Project/ Programme Management x 3no.
  - Lot 2 - Cost Consultants x 2/3 no.
  - Lot 3 - Multi disciplinary design x4 no.

# *K8 Capital Delivery Strategy*

### Runway Work Packages

- Contractor - Non Infra Waste (EAST) £500M
- Contractor – Non infra Waste (WEST) £500M
- Contractor - Non Infra Water £250M
- Contractor – Infra water/Waste £200M
- AAD & Destruction - £200M
- Typically <50% of programme delivered by Tier 2

# Planning the future together





# Procurement Process

Les Metcalfe  
Head of Contracts, Commercial & Estates

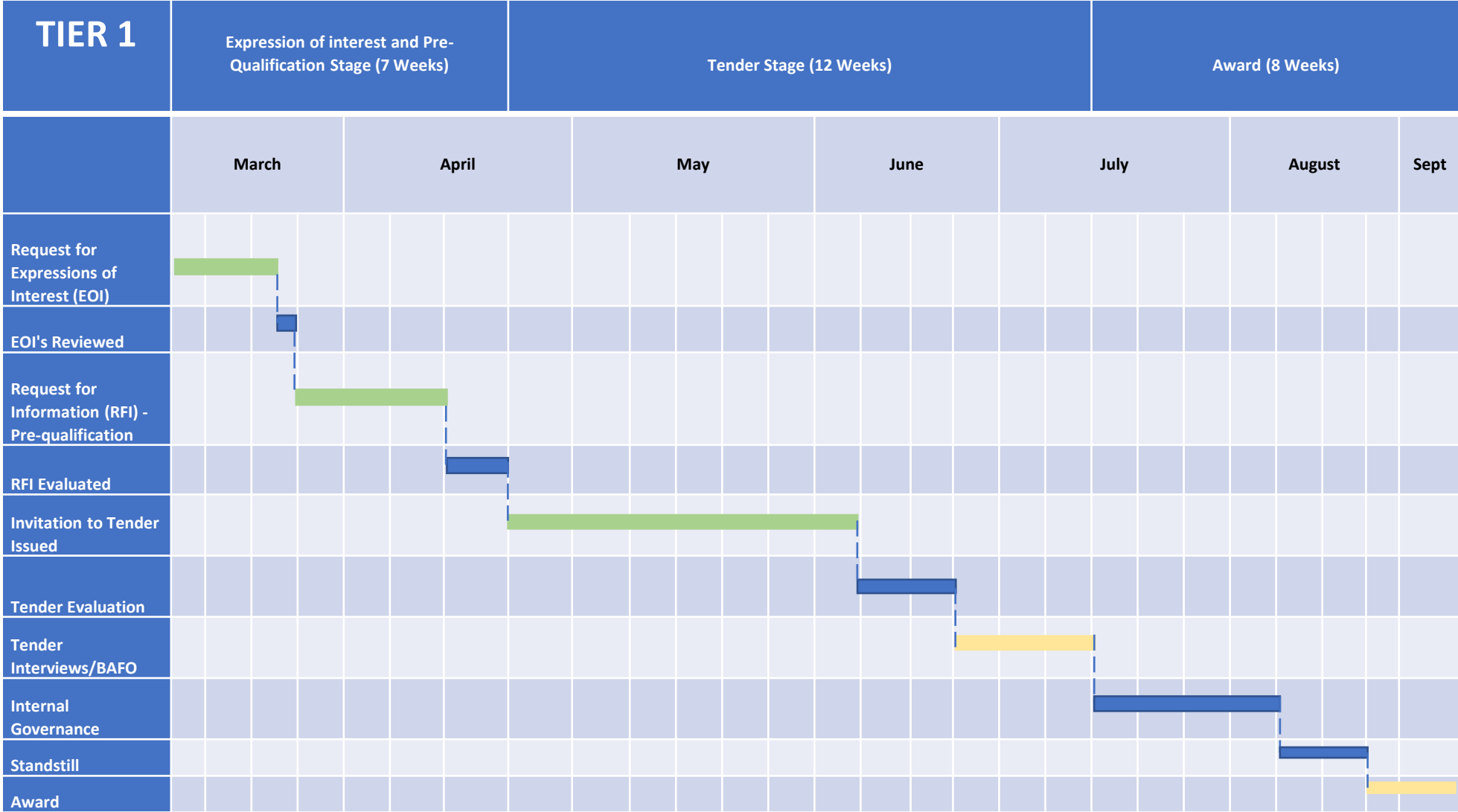


## Planning the future together

*The South West Water procurement approach is changing; today demonstrates a new approach for the next AMP.*

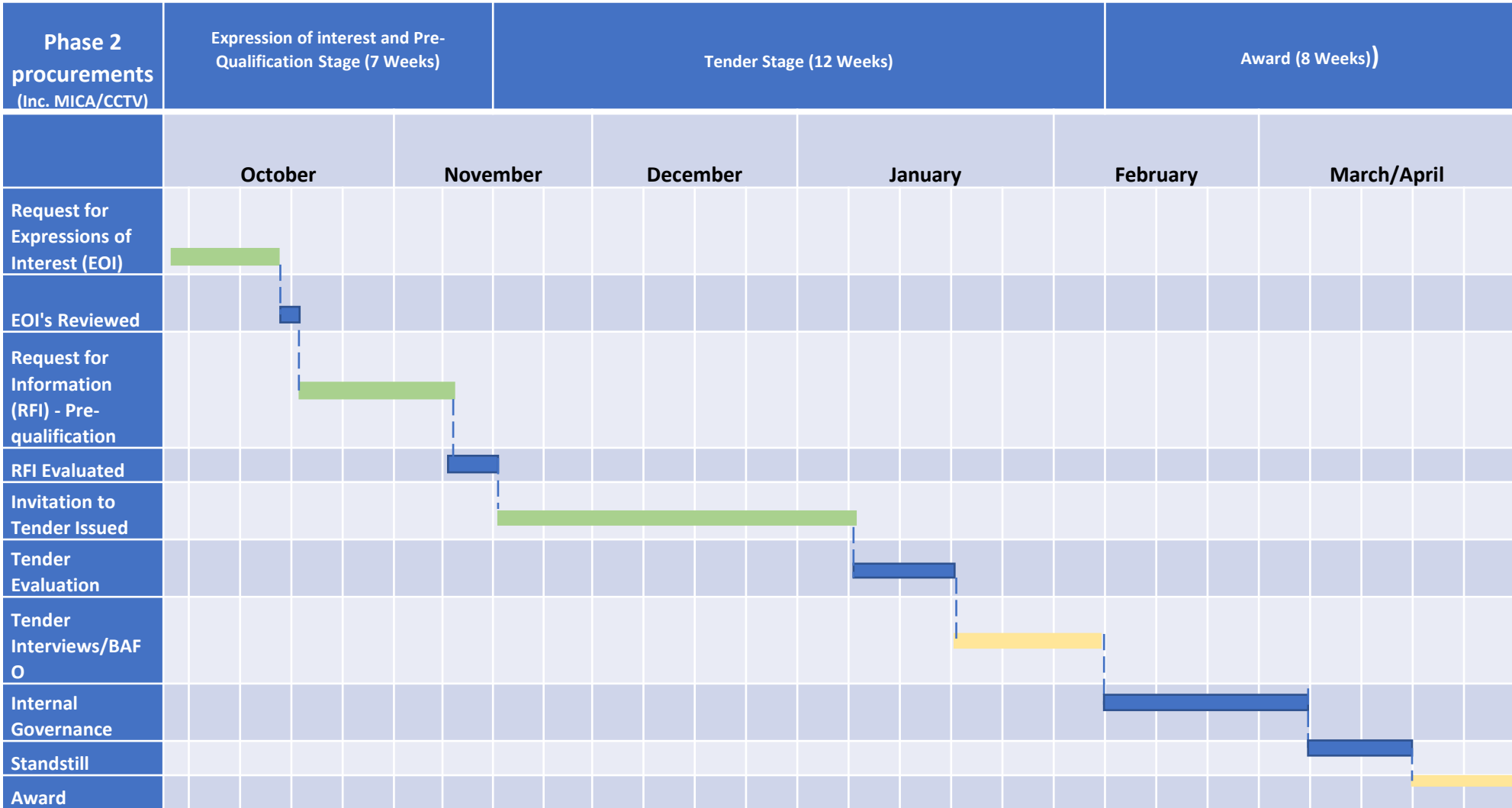
- Previous tenders have restricted opportunity for new suppliers.
- Supply market is being more selective.
- This is the right time for SWW to run a tender.
- Our Procurement team is adapting to become fit for purpose.

# Planning the future together



■ Supplier Tasks
 ■ SWW Activities
 ■ Joint Activities

# Planning the future together



■ Supplier Tasks
 ■ SWW Activities
 ■ Joint Activities



# Question & Answer Session



# Summary & Close

**Richard Price**  
**Chief Engineering Director**  
**& COO Bristol Water**

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