



Procurement Strategy Market Engagement Background Briefing

**Civil Engineering Design Consultants
Civil Engineering Contractors
Process Engineering Contractors**

**Tuesday 15th, Wednesday 16th, Friday 18th September 2020
14:00 – 15:30**





Welcome and Overview

Paddy Brow



Purpose of This Engagement



- 1) NI Water and DfI are developing a procurement Strategy for:
 - Whole of LWWP Belfast Strategic Drainage Infrastructure Plan
 - PC21 Large Projects (and first few years of PC27)

- 2) Explain PC21 and LWWP objectives

- 3) Explain emerging procurement strategy to use NI Water frameworks for LWWP and establish a Major Projects Partnering Framework (MPPF)

- 4) Respond to questions asked today

- 5) Seek your views



Panel Presenters



| Panel Member | Role |
|------------------|--|
| Paddy Brow | Head of LWWP (NI Water) |
| Mark Mitchell | Head of Performance Management (NI Water) |
| Dermott McCurdy | Head of Integrated Capital Delivery (NI Water) |
| Simon Richardson | Director of LWWP (DfI) |
| John Gavigan | Partner (ChandlerKBS) |
| Eamon Scullion | Partner (ChandlerKBS) |
| Simon Lander | Procurement Specialist (ChandlerKBS) |



Agenda

| Time | Topic | Panel |
|---------------|--|---------------------------------|
| 14:00 – 14:10 | Welcome and overview | Paddy Brow |
| 14:10 – 14:25 | PC21 and LWWP Programme Capital Delivery (Funding, Overlap with existing NI Water Frameworks, MPPF Projects) | Mark Mitchell & Dermott McCurdy |
| 14:25 – 14:35 | LWWP Belfast Strategic Drainage Infrastructure Plan (An introductory overview) | Simon Richardson |
| 14:35 – 14:55 | Preliminary MPPF Procurement Approach | John Gavigan |
| 14:55 – 15:00 | Summary and close presentation | Paddy Brow |
| 15:00 – 15:30 | Question & Answers | Chaired by Paddy Brow |



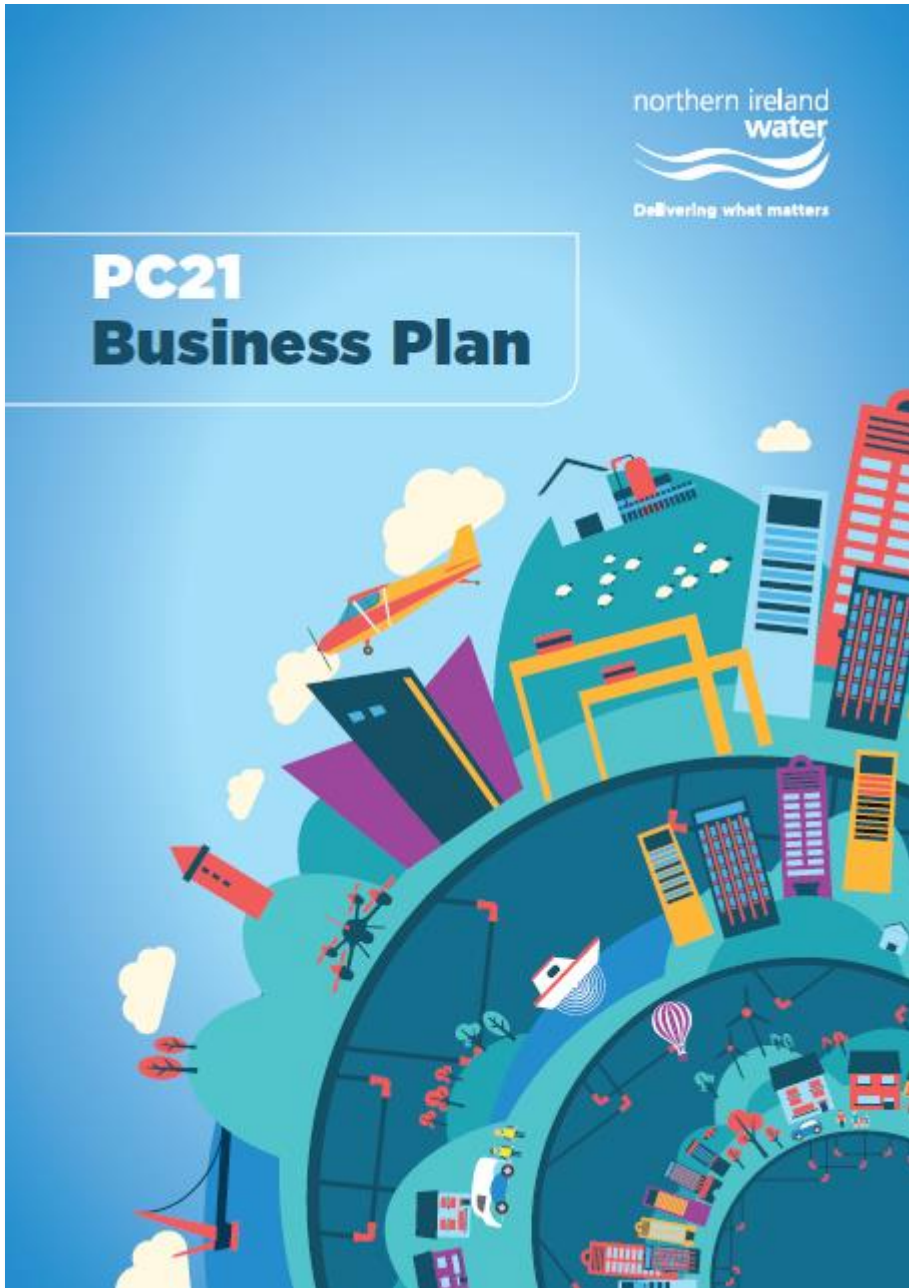
Event Protocols

- 1) We will keep to the 1½ hour timeline
- 2) We will address as many questions as possible within the Q&A session of the presentation
- 3) Please use the Slido function to ask any questions. You can access the event by going to:

<https://www.sli.do/> **Event code: #1033**

- 4) The questions will be moderated before being passed to the panel
- 5) Please turn off your cameras and be on mute for the duration of the session

These slides plus a short questionnaire will be issued 5pm on Friday 18th
for response by 5pm Wednesday 23rd Sept.



PC21 Plans In Summary

- Covers 6 years from April 2021 to March 2027
- A strong, ambitious plan which continues to improve services for our customers while keeping average bills stable in real terms.
- A step change in capital investment is required to reverse the impact of under-investment in our wastewater assets in particular which is impacting the economy and environment.
- We have aspirations to deliver an efficient Capital Plan that benefits NI Water and our Northern Ireland customers as a whole

Our PC21 Business Plan will begin to deliver against:



- Unwanted Contacts
- First Point of Contact
- Resolution
- Net Promoter Score

- Water Quality
- Interruptions to Supply (DG3)
- Leakage

- Economic Development Constraints
- Change in Tariff
- Bathing Water Quality

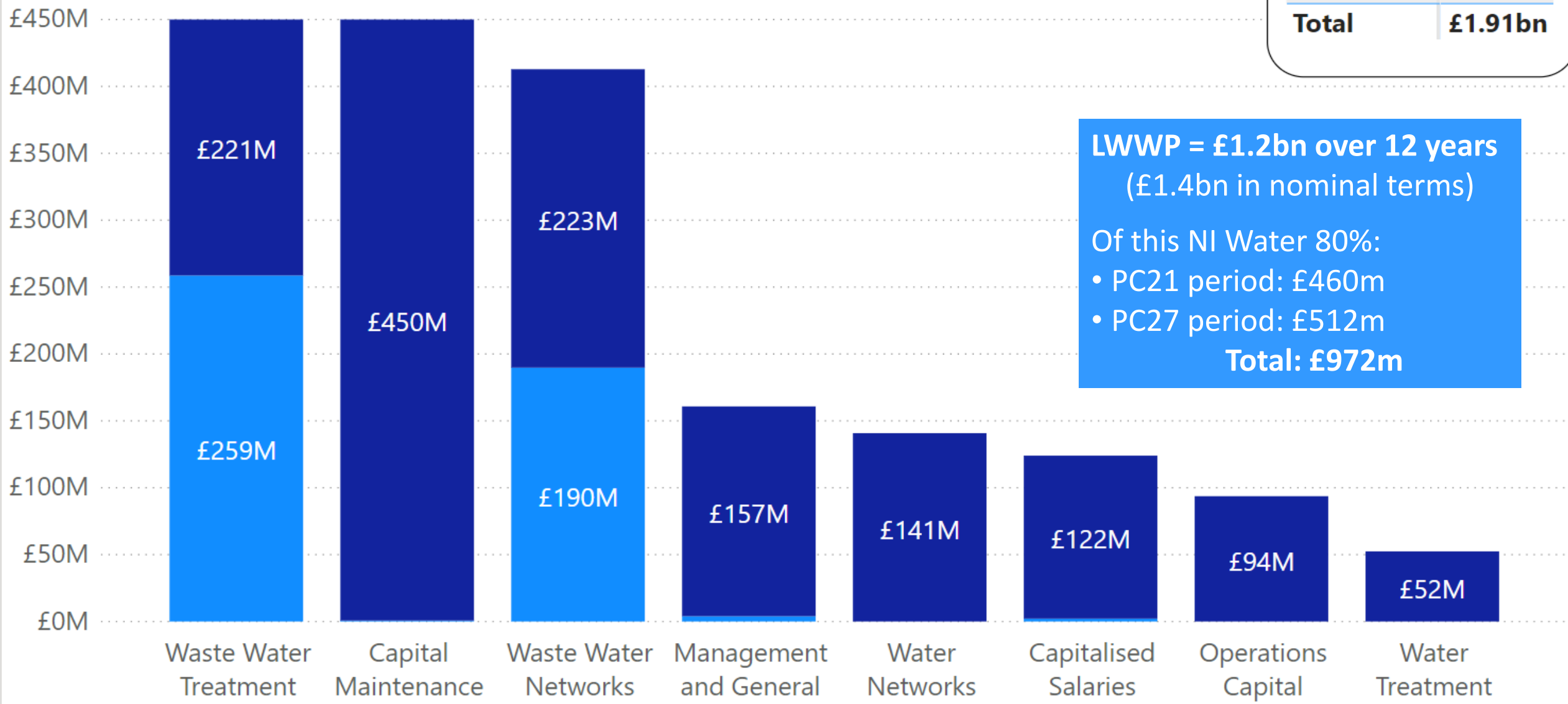
- Pollution Incidents
- Wastewater Compliance
- Out of Sewer Flooding (DG5)
- Carbon Footprint

- Employee Engagement
- Health & Safety
- Developing our People
- Work with our Communities

Our Capital Plan by Sub-Programme

● LWWP ● NIAMP5

| Programme | CAPEX |
|--------------|----------------|
| LWWP | £0.46bn |
| NIAMP5 | £1.46bn |
| Total | £1.91bn |



LWWP = £1.2bn over 12 years
 (£1.4bn in nominal terms)

Of this NI Water 80%:

- PC21 period: £460m
- PC27 period: £512m

Total: £972m

Prices in regulatory docs are in 18/19 terms, for most public facing documents we use nominal terms

PC21 Water Provision Nominated Outputs

- 668km of water mains rehabilitation
- 14 trunk main schemes to improve resilience and security of supply
- 22 water treatment works upgrades
- 4 service reservoirs / clear water tanks upgraded
- 846 properties removed from low pressure register
- Serviceability maintained



Carland to Cookstown trunk main



Lough Fea CWT

Ballintoy WwTW



PC21 Sewerage Provision Nominated Outputs

- 61km of renovated and replaced sewers
- 136 unsatisfactory sewer overflows resolved
- 45 large WwTW upgrades
- 36 rural WwTWs upgrades
- 60 properties at risk of internal sewer flooding resolved
- Serviceability maintained

Ormeau Avenue
Sewer Upgrade





PC21 and LWWP Programme Capital Delivery (Funding, Overlap with existing NI Water Frameworks, MPPF Projects)

Mark Mitchell & Dermott McCurdy



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Delivering Efficient Capital Investment

Our PC21 Capital Plan requires £2.03bn of critical capital investment over the 6 year Period

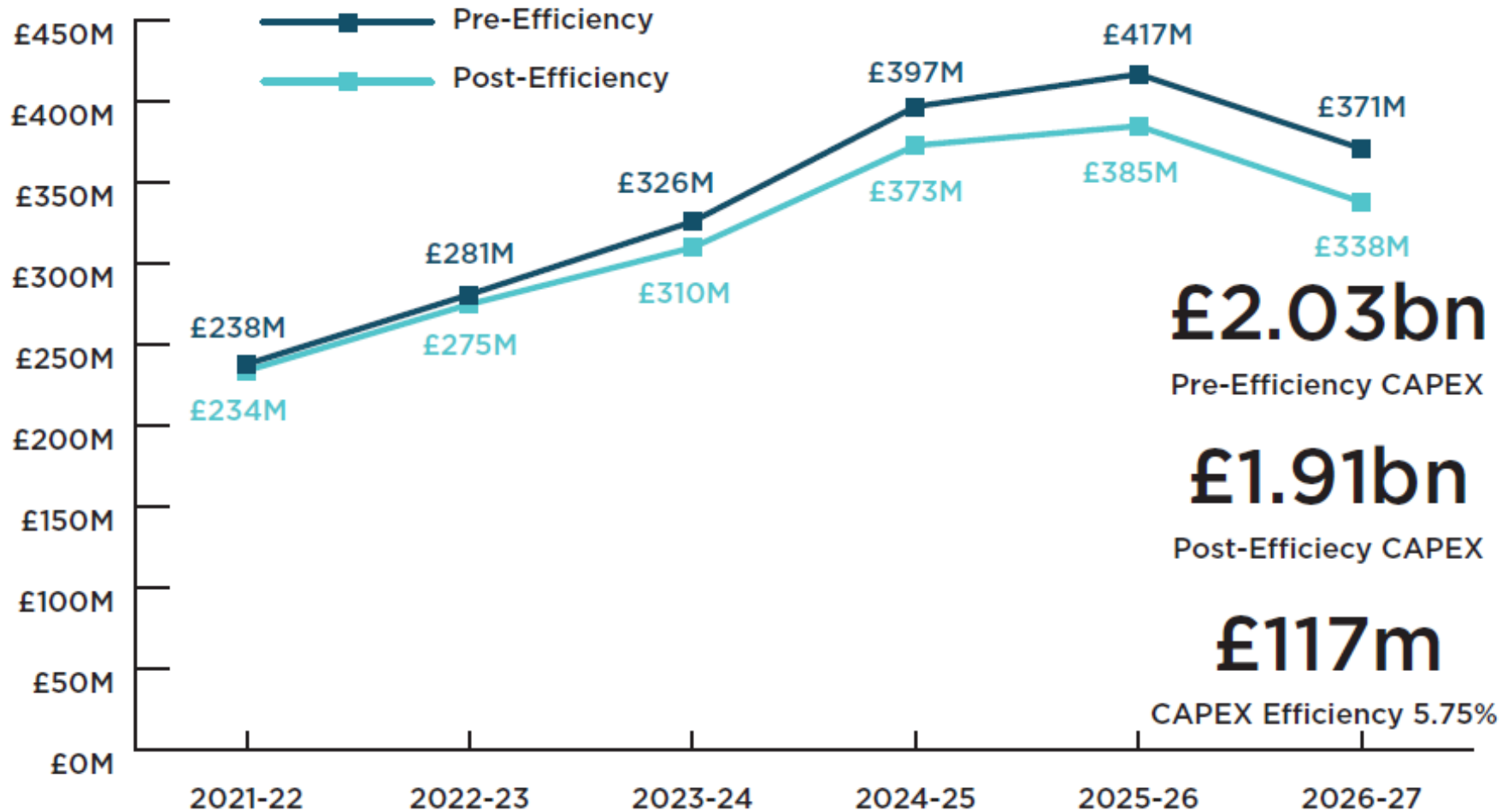
This includes £0.46bn of investment in Living with Water Programme (Phase1) which specifically addresses the backlog of wastewater and environmental needs of the Greater Belfast Lough area.



Delivering Efficient Capital Investment

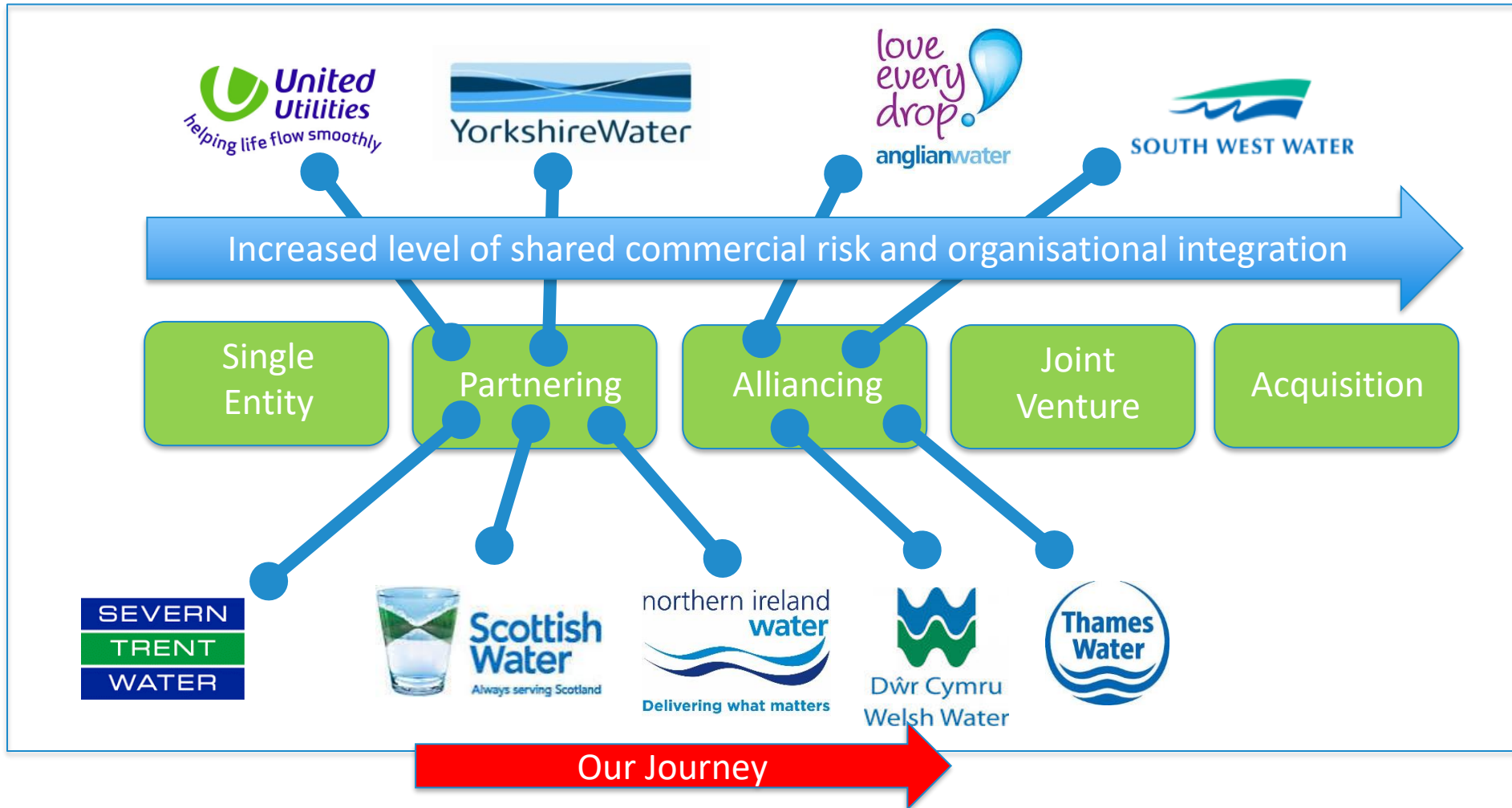
Capital Efficiency

Capital Efficiency Target



Procurement Strategy Background

All major Water companies in GB are working in a collaborative manner with their capital delivery partners



Partnering

A commitment by client and contractor(s) to collaborate for mutual benefit (underpinned by formal contractual arrangements)

Alliancing

A contractual agreement between client and contractor(s) to share resources, cost and risk for mutual reward

Procurement Strategy – NI Water Integrated Frameworks

| Route | Approach | No. of Partners | Risk ownership |
|--|---|----------------------------------|---|
| Integrated Partnership 1 Small (up to £1m) | IF105 Lots 1&2 - Framework Partnerships (design and construct) mainly lump sum pricing | 4 contactors each | Contractor completing all design activities and retaining design risk |
| Integrated Partnership 2 Medium (up to £10m) High complexity | IF105 Lot 3 Partnering (design & construct) client set target with incentives | 6 Contractors | Contractor completing all design activities and retaining design risk |
| Integrated Partnership 3 Large, high complexity (typically over £10m) | Major Project Partnering Framework (MPPF) Partnering (design & construct) with client selected teams working under combined target prices | TBA | TBA – Current proposed model based on a risk sharing model |
| Integrated Partnership 4 Water Mains Rehab | IF101 Partnering (design & construct) client set target with incentives | 2 contractors 1-2 consultants | Partner undertaking all design and retaining design risk |



Integrated Partnerships 1 to 3 (IF105 and MPPF) available for use by DfI



LWWP Belfast Strategic Drainage Infrastructure Plan

An Introductory Overview

Simon Richardson
and
Paddy Brow



Living With Water Programme

Strategic Drainage Infrastructure Plan



Initiated in 2015 following NI Executive Approval

Output 1: a Strategic Drainage Infrastructure Plan (SDIP) for Greater Belfast to **protect** against flood risk, **enhance** the environment and provide the increased drainage and wastewater treatment capacity necessary to enable the economy to **grow**

Output 2: Prepare a Northern Ireland Integrated Drainage Investment Planning Guide

The programme is focused on developing integrated, catchment based solutions and where possible avoid traditional hard engineered drainage and wastewater solutions involving long-term operating and maintenance costs.

Protect

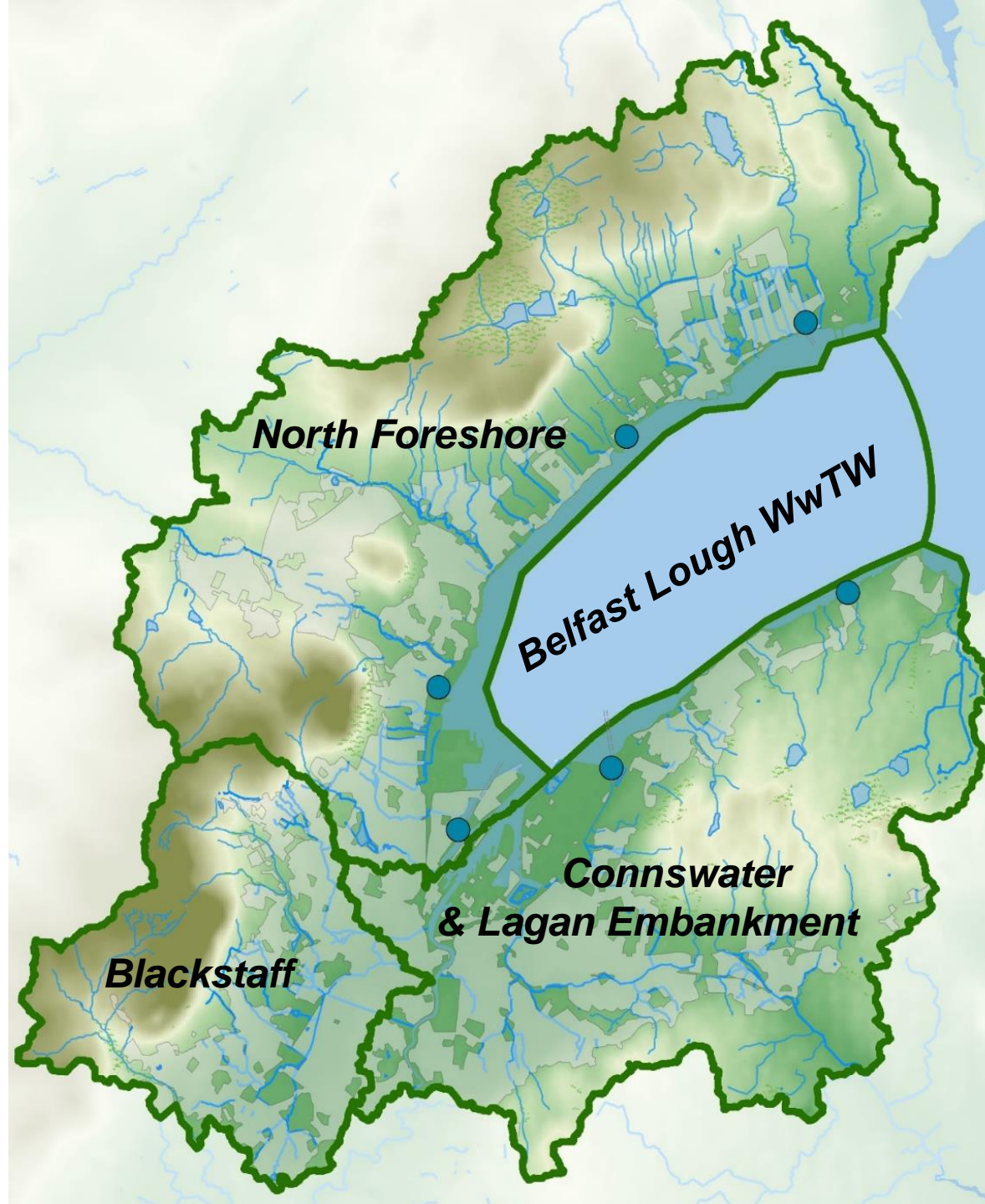
Enhance

Grow



Belfast Strategic Drainage Infrastructure Plan

Plan Area





Flood Risk Management

Protect

Surface Water Flooding - Belfast 2012



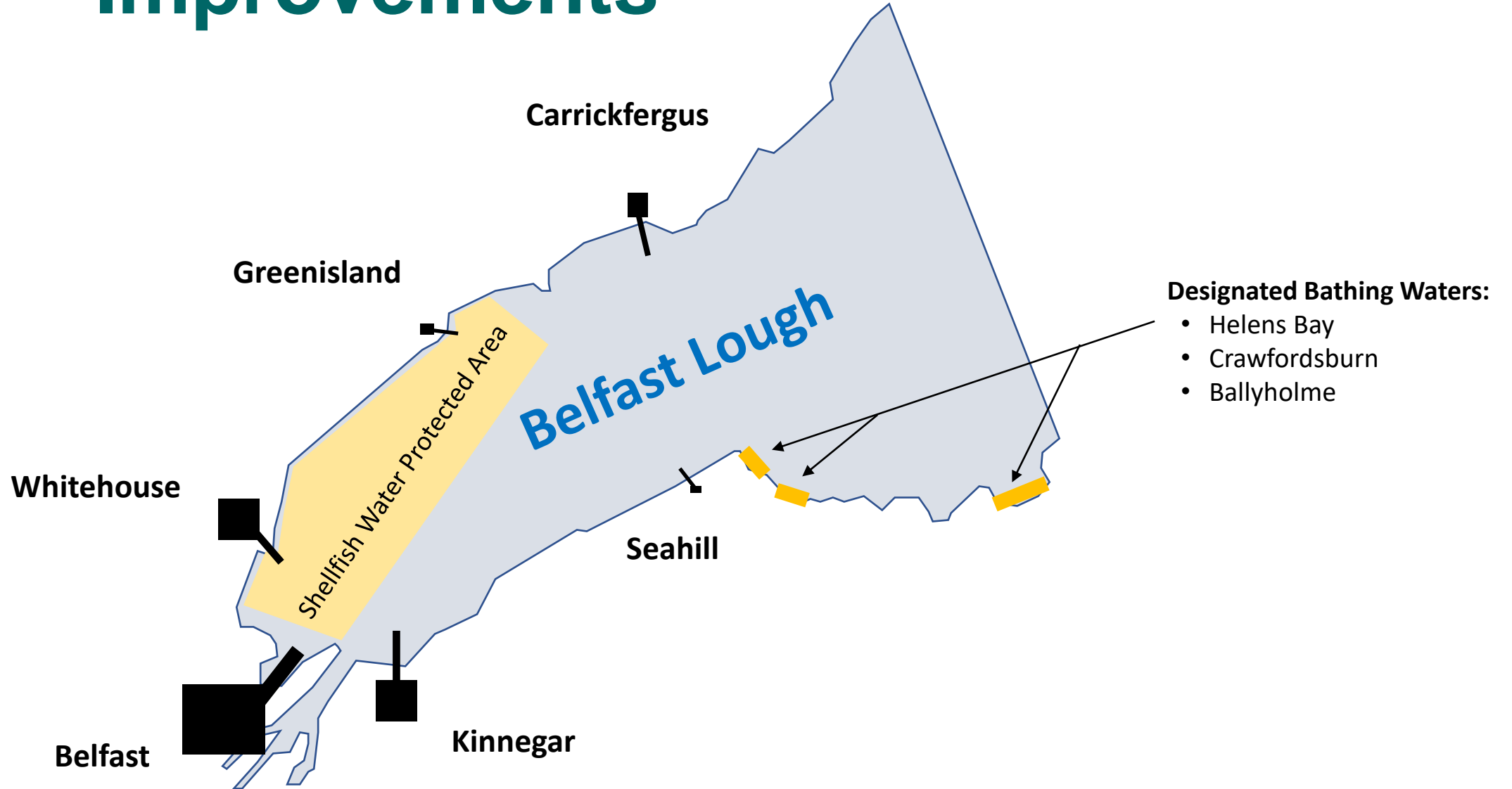
Need Identified:

- 1) 2008 - Rivers Agency Report 'Living With Rivers & Sea'
- 2) 2012 - PEDU Report 'Review of Response to June 2012 Flooding'
- 3) 2015 - Rivers Agency 'Flood Risk Management Plans'



Environmental Improvements

Enhance





Facilitate Economic Development & Growth

Grow

Every development and new connection increases foul flow & storm water discharges, resulting in:

- Increased risk of flooding, impacting on businesses, impeding economy
- Strain on sewerage network
- Overloading of Belfast WwTW

If WwTW moves into non-compliance with existing consent:

- **risk of no new connections**
- **constraint to economic development**
- **impact on construction industry**
- **loss of revenue**
- **damage to reputation of NI**



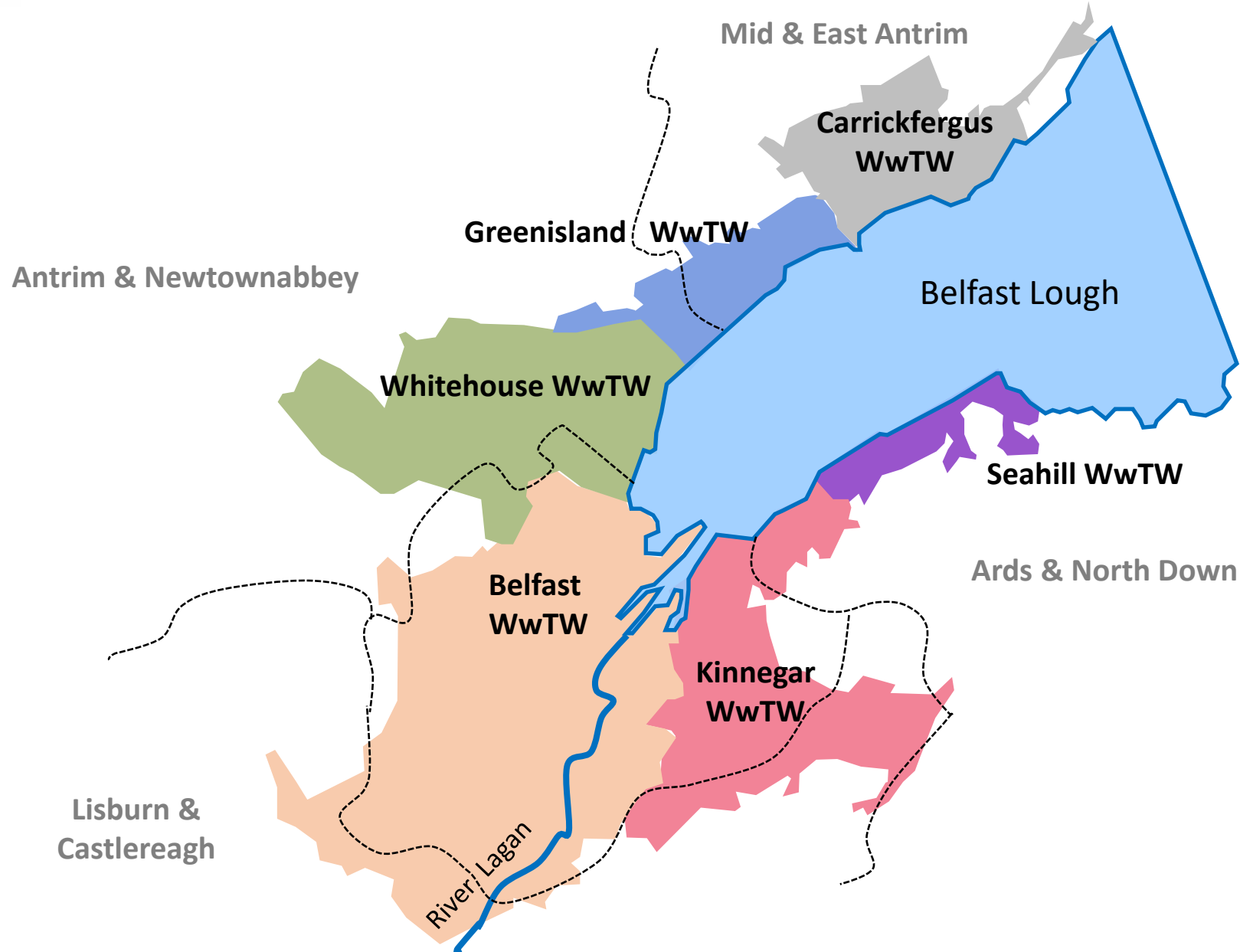


LWWP Integrated Drainage Investment Planning Solution Cycle





LWWP Belfast Strategic Drainage Infrastructure Plan Area



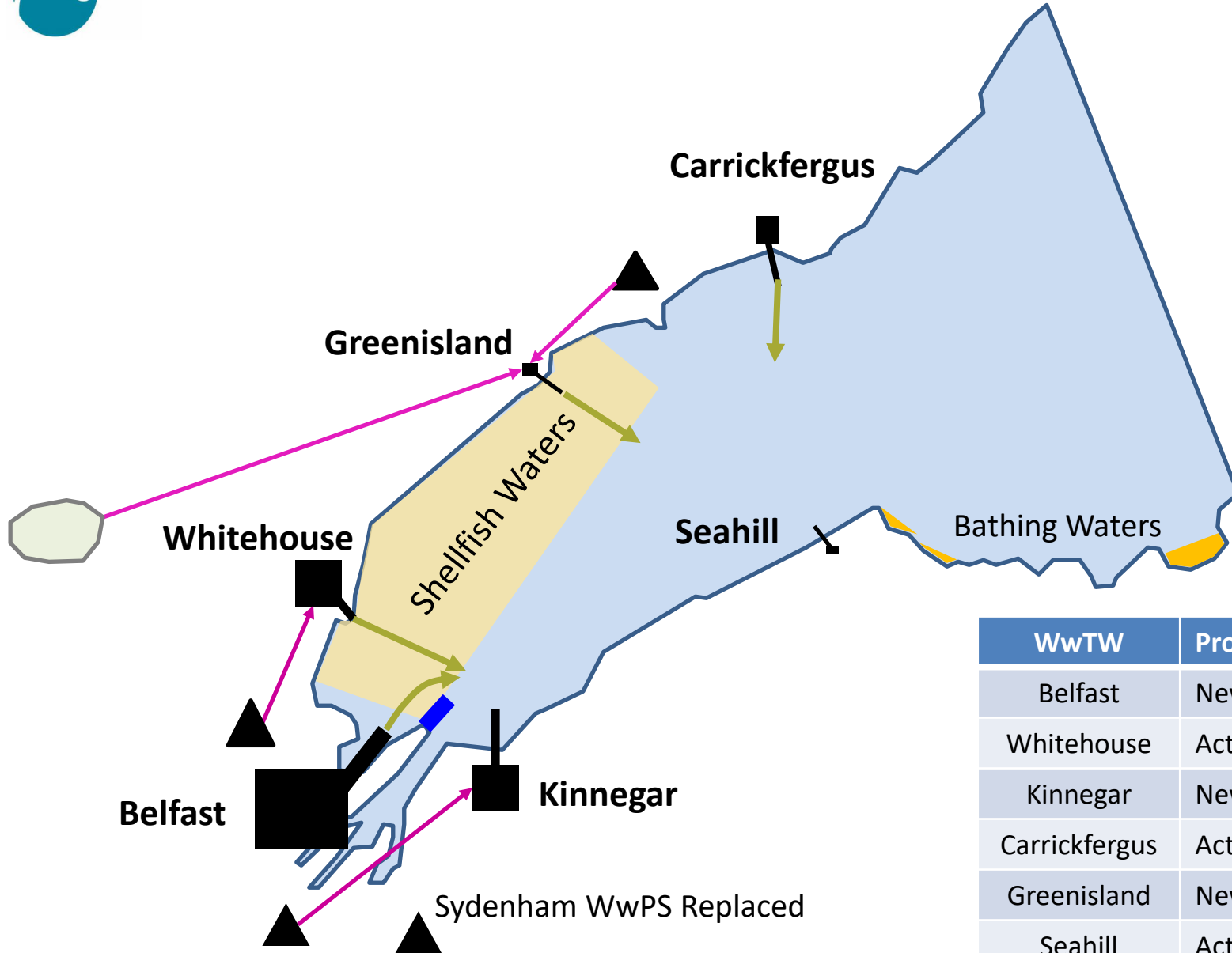
Belfast WwTW

An aerial photograph of the Belfast Wastewater Treatment Works (WwTW). The facility is a large industrial complex situated along a river. It features numerous circular clarifiers and rectangular aeration tanks. The site is surrounded by various industrial buildings, parking lots, and infrastructure. A white outline highlights the main treatment area.

Operating at >140% Design Capacity



LWWP Outline NI Water Solution Overview



LWWP = £1.2bn over 12 years
 (£1.4bn in nominal terms)

Of this NI Water 80%:

- PC21 period: £460m
- PC27 period: £512m

Total: £972m

| WwTW | Process | Tertiary | Outfall |
|---------------|----------------------------|----------|--------------|
| Belfast | New small footprint BNR* | Yes | New & refurb |
| Whitehouse | Activated Sludge (Upgrade) | Yes | 2 new |
| Kinnegar | New small footprint BNR* | Yes | Refurb |
| Carrickfergus | Activated Sludge (Upgrade) | Yes | 2 new |
| Greenisland | New small footprint BNR* | Yes | 2 new |
| Seahill | Activated Sludge (Upgrade) | No | No change |

*BNR = Biological Nutrient Removal (Chemical Free)



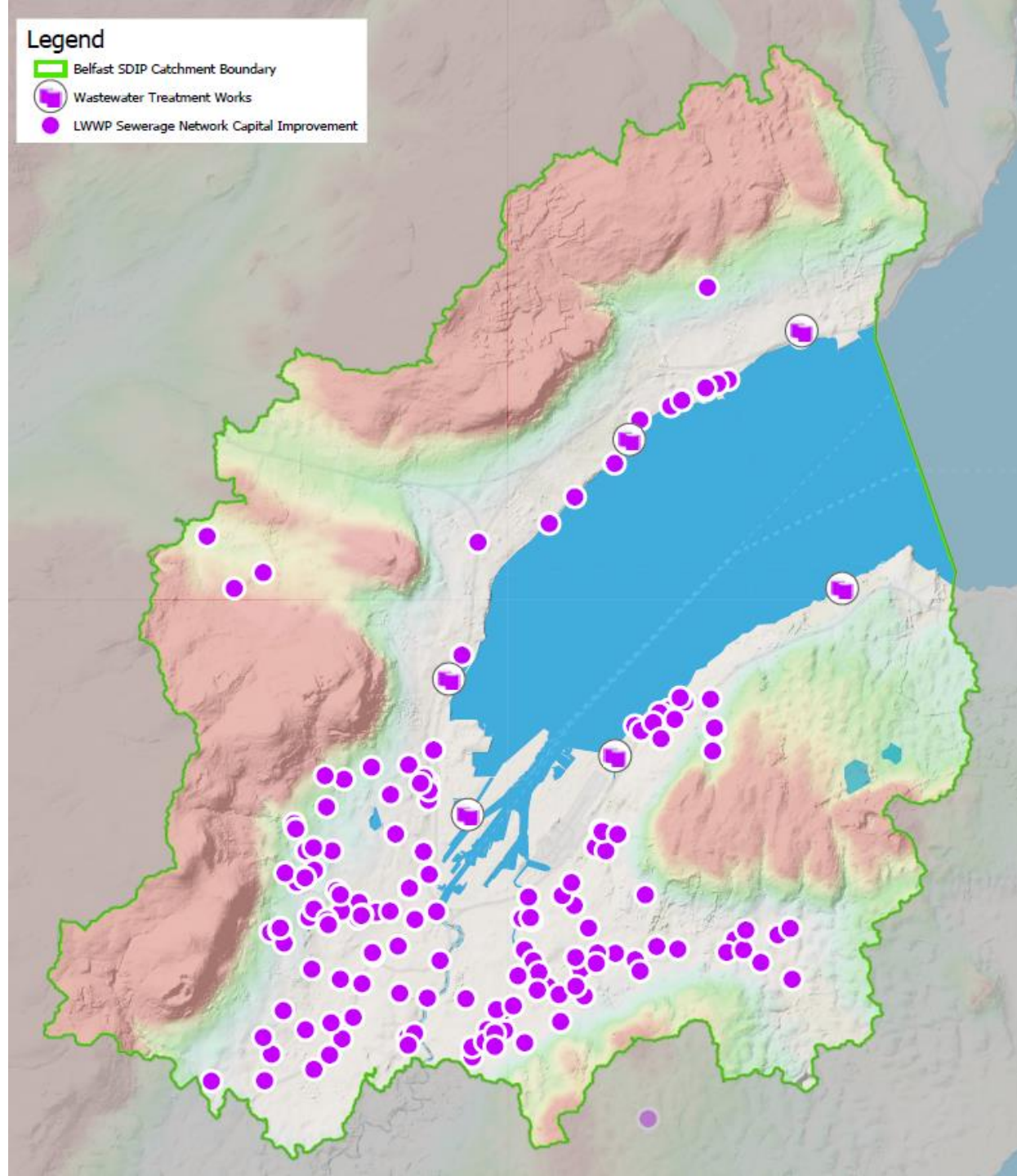
LWWP Belfast SDIP

Locations of Sewerage Network Improvement Projects

Will include all types of work to sewerage networks.

Key projects include:

- Replacement of Sydenham WwPS
- Extension of Belfast Sewers Tunnel by 2.5km to Musgrave Park





Preliminary MPPF Procurement Approach

John Gavigan



Projects Likely to be Delivered Through MPPF

The LWWP and PC21 Large Projects programme comprises large projects with estimated investment (18/19 prices) of circa £817m - £949m. A range of bundling options are viable based upon work type and geography, anticipated range £10m - £127m.

| Potential Treatment Works Projects | Spend £m (Est investment) * |
|------------------------------------|-----------------------------|
| Belfast WwTW - Odour Control | 10-12 |
| Belfast WwTW - Phase 1 upgrade | 120-130 |
| Carrickfergus WwTW | 14-17 |
| Greenisland WwTW | 28 -33 |
| Whitehouse WwTW | 14 -17 |
| Kinnegar WwTW | 100-110 |
| Dungannon WwTW | 31-33 |
| Newry WwTW | 28-33 |
| Larne WwTW | 23-27 |
| Dromore WwTW | 13 -15 |
| Caugh Hill Water Improvements | 13 -15 |

| Potential Networks Projects | Spend £m (Est Investment) * |
|---|-----------------------------|
| Belfast Sewers Tunnel Extension | 26-30 |
| Belfast DA Upper Falls Boucher CSO | 17-20 |
| Sydenham WwPS | 26-30 |
| Belfast - Distillery Street CSO WwPS | 21-25 |
| Belfast North Queen Street Cultra CSO | 19—23 |
| Belfast DA River Terrace CSO DO51 | 16-20 |
| Belfast Queens Bridge to Kinnegar Transfer WwPS | 10-13 |
| Caugh Hill, Carmoney to Stabane Watermain | 21-25 |
| Dungannon DAP - Coolhill North WwPS | 17-21 |

| Dfl Large Projects | Spend £m (Est Investment) |
|------------------------|---------------------------|
| Miscellaneous Projects | 50 |

| NI Water PC27 Large Projects | Spend £m (Est Investment) |
|------------------------------|---------------------------|
| Miscellaneous Projects | 200-250 |

| Sea Outfalls | Spend £m (Est Investment) |
|--|---------------------------|
| Serving 5 WwTW's | 250 - 300 |
| <i>Note: may be delivered via a separate procurement</i> | |

* All figures are inclusive of all on-costs i.e. client project management, supervision, land, compensation etc. They are all subject to change at any stage.

Total spend over 12-year term is circa £817 - 949m (excl. Sea Outfalls)



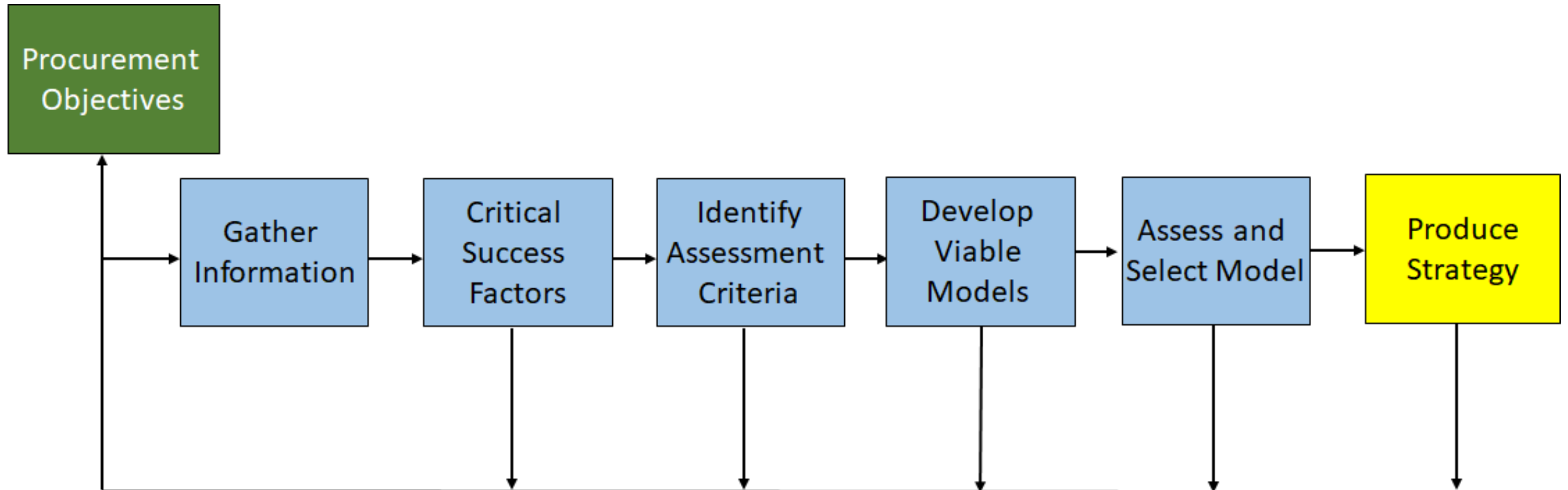
NI Water Procurement Strategy - Vision

A progressive Procurement Strategy for the LWWP and NI Water's Large Projects that enables efficient delivery of outcomes to underpin sustainable growth whilst leaving a lasting legacy that exceeds stakeholder expectations



Procurement Strategy – Progress

NI Water has taken a structured approach to develop a procurement strategy which will address the future procurements for the LWWP and PC21 large projects. The diagram below details the steps taken in developing the strategy.





Procurement Strategy – Critical Success Factors

NI Water has identified the following Critical Success Factors for this Procurement Strategy. The Critical Success Factors are the desired outcomes and final position against which success is measured.

- a) Safe, resilient, compliant and sustainable.
- b) Flexibility that allows for scaling up and down economically and efficiently.
- c) Long term relationships founded on effective collaboration.
- d) A fully engaged, motivated and aligned supply chain, recognised for its contribution.
- e) Best in class performance and great value for money through integration, innovation and continuous improvement.
- f) An economic boost for Northern Ireland through long term employment, training and development of local people and businesses.
- g) Integrated / shared solutions to deliver long term benefits and reduce disruption to communities.
- h) Key stakeholder confidence and endorsement throughout its life.
- i) High quality assets that are efficient to operate (TOTEX).



MPPF Model Development

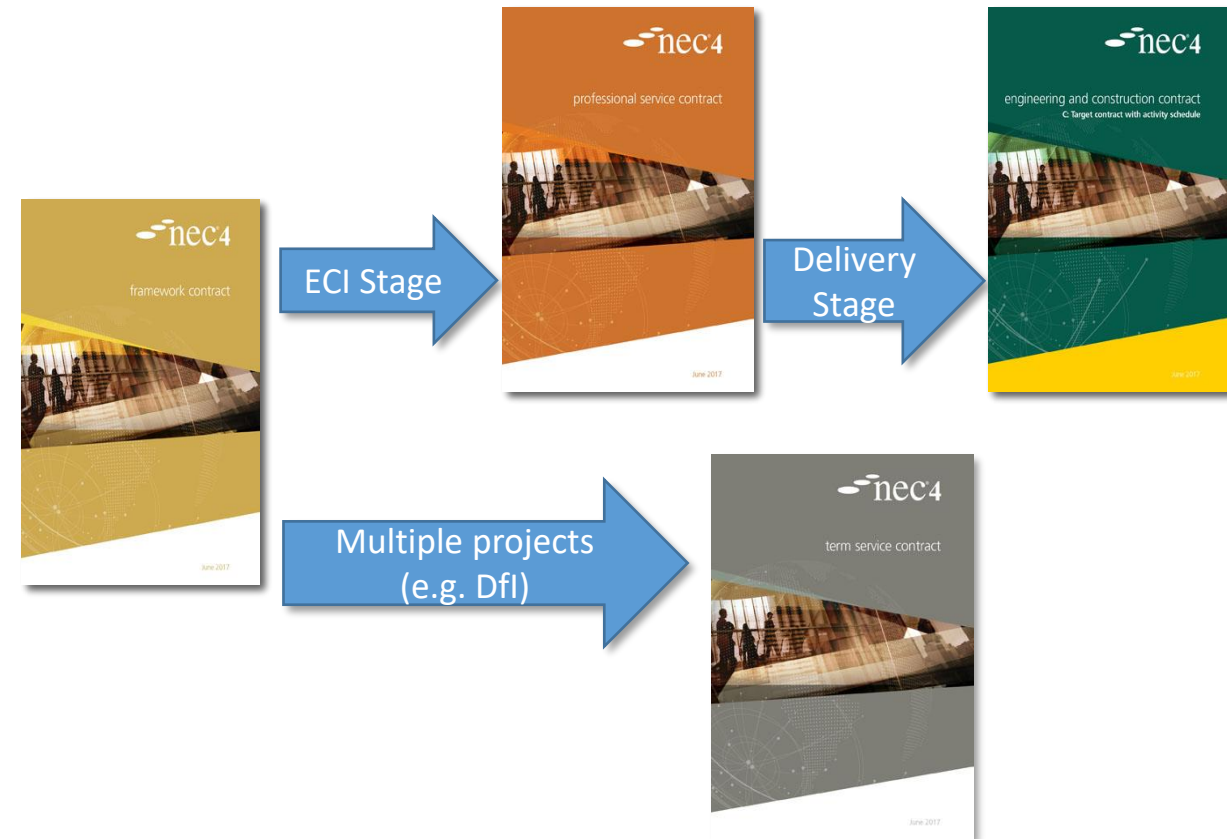
Through the process a number of models were considered and assessed. The MPPF was deemed to be the best fit for all parties involved.

- We identified several different delivery models that varied between standalone contracts to alliancing.
- We tested suitability against the CSF's but also alignment to other NI Water Frameworks.
- The MPPF model identified was the best fit to CSF's.
- The MPPF supports the NI Water journey.
- Suitability for DfI to access the Framework.



MPPF Preferred Model

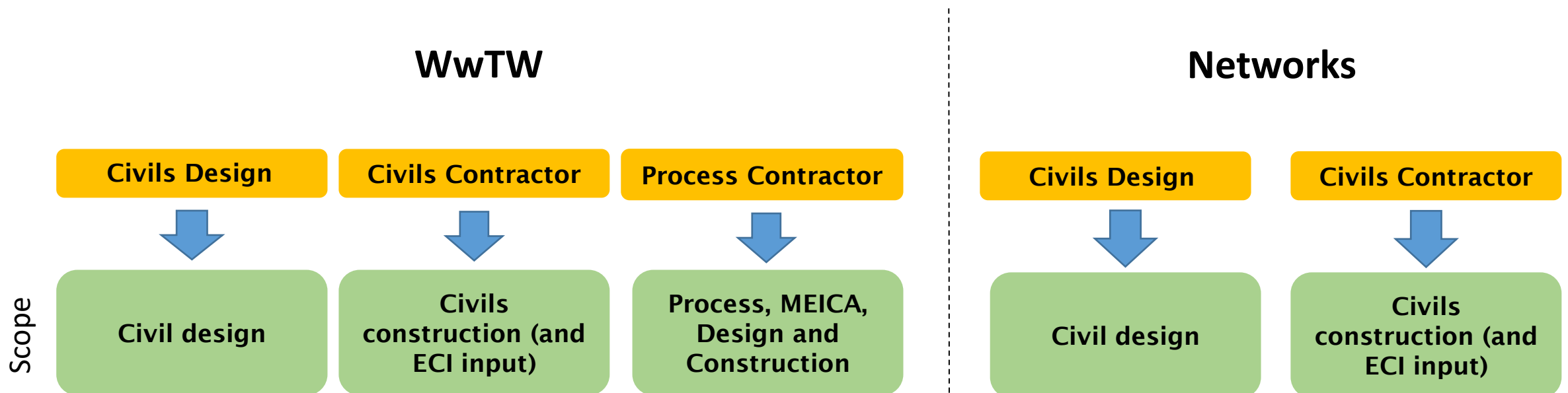
- Preferred model will follow a 2-stage process under NEC4 Framework Contract.
- Stage 1 - Framework competition to appoint circa 8 - 12 discipline specific suppliers (process, civils, civils engineering design).
- Stage 2 - Secondary competition to select suppliers for bundles of work. NI Water selects the integrated teams for each contract bundle
- Risk sharing model with incentivisation.
- The default contract option will be Option C - Target Price.
- Combined target price model whereby team members are jointly incentivised to work together creating win-win or lose-lose outcomes.
- The Framework will be up to 8 years procured under the Utilities Regulations.





MPPF Discipline Requirements

The below demonstrates the requirements for each of the disciplines under the types of works which will be needed under the MPPF.





MPPF Procurement Stages

Stage 1: Framework Competition (the Primary Competition) 3 x Discipline Specific Lots

9-15 Months to establish Framework

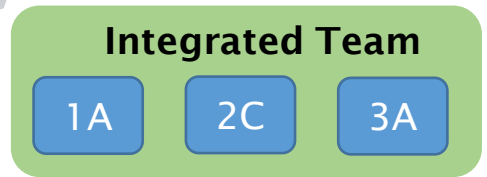


Stage 2: Mini Competition (the Secondary Competition)
All framework suppliers invited to tender, offers in each Lot separately assessed. Highest scoring identified in each Lot.

Typically 2-5 contracts per year



Stage 3: ECI Stage and development of Combined Target Price for delivery stage



Stage 4: Capital Works Delivery

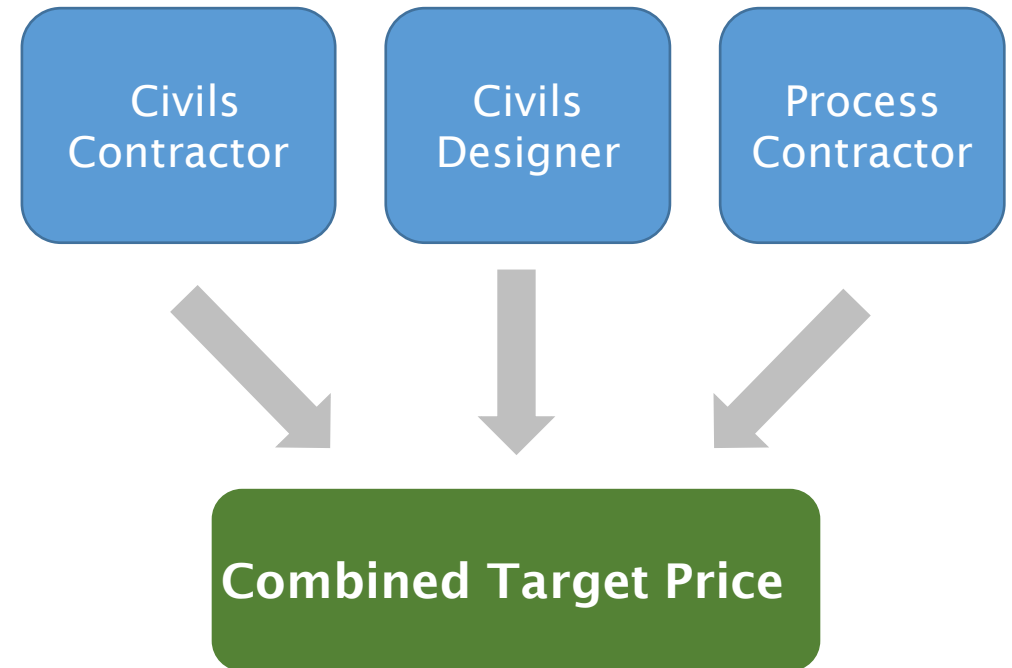


Note:
Lot 3 Process Contractors may not be required for a contract bundle if networks only



Combined Target Pricing

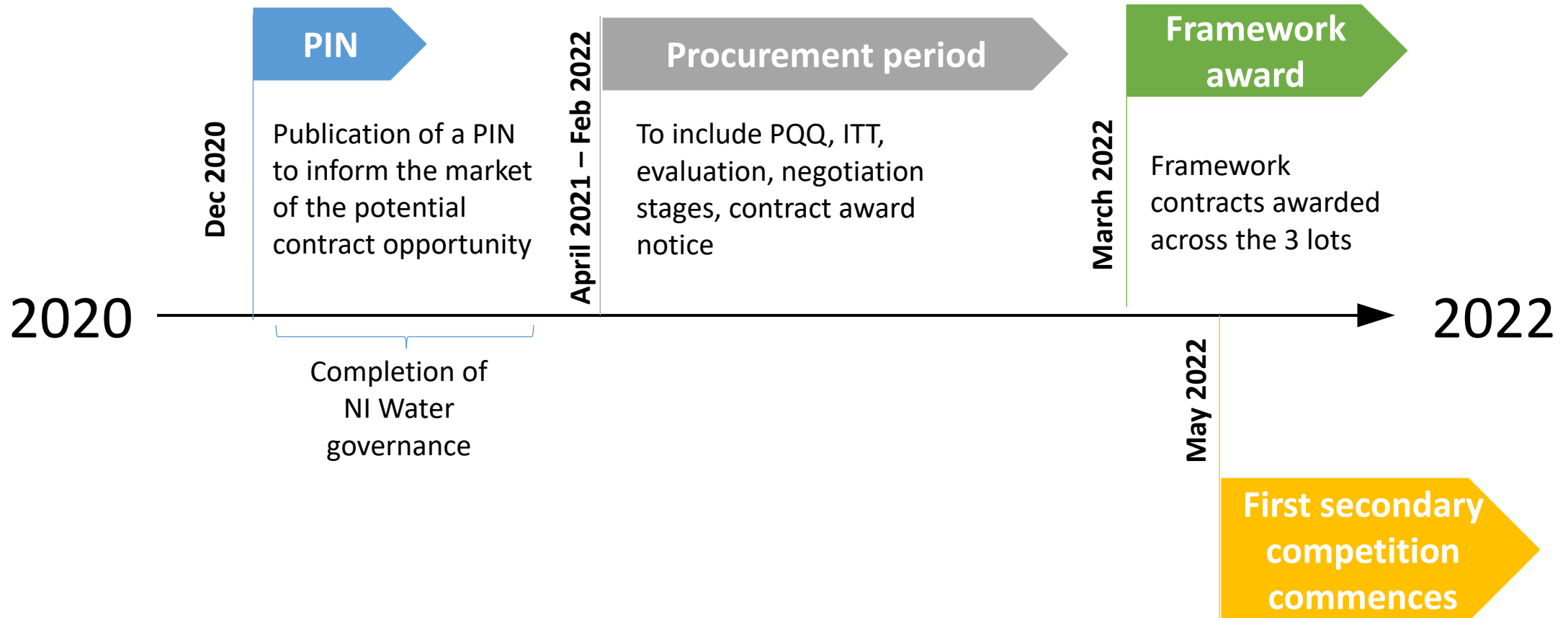
- Entire Client Scope is agreed by all involved.
- Partners agree with the Client who is best placed to deliver each element (process, civils, civils design). Each partner prices their element.
- Share percentages finalised (based on pre-agreed parameters) in line with level of risk carried by each partner/Client.
- Each partner's contract includes full Scope and combined target price. This allows the integrated team to swap who does what during delivery to gain efficiencies, and provides risk protection to Client if one partner underperforms or fails.





Procurement Timescales

The below provides guidance on the timelines for the primary procurement exercise. These are for guidance only and may be subject to change.





Question & Answers

Chaired by Paddy Brow



Summary and Close Presentation

Paddy Brow