

13/07/2021

Scottish Water International Recommendations

Implementation Plan Report

Q2 2021



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Executive Summary

Irish Water (IW) is a publicly owned, regulated, commercial State utility with responsibility for the operation and maintenance of the national water and wastewater assets. It was established in 2014 to provide safe, clean, affordable and environmentally compliant water and wastewater services to households and businesses connected to the public networks.

IW supplies drinking water to approximately 80% of the general public (3.3m people), with the remainder supplied by group water schemes and private wells. This is delivered through some 1,000 separate water supply areas and involves the abstraction, treatment and delivery of c.1,700 million litres of drinking water each day. IW also collects wastewater from over 1,000 separate communities connected to the wastewater network (wastewater zones known as “agglomerations”). We treat c.1,200 million litres of wastewater daily, before we discharge it back into our rivers, harbours and coastal areas.

IW’s operations include several thousand water extraction points, treatment plants, pumping stations and wastewater discharge points, c.63,000km of mapped water pipelines and an estimated c.25,000km of wastewater pipelines. In the period 2014 to 2019 (covering the regulated revenue controls of IRC1 and IRC2), IW invested c. €3.8bn in Ireland’s water and wastewater asset base, delivering substantial benefits to our customers, the environment and to the national economy. In addition to prioritising investment in the performance our assets, we are also developing national data management systems to improve the accuracy of our regulatory reporting capability.

This is IW’s first Scottish Water International (SWI) Recommendations Implementation Report. As agreed with the Commission for Regulation of Utilities (CRU), in this report we provide the following updates:

- Performance against Metrics agreed with the CRU; and
- Project Risks and mitigations.

IW has developed a Red / Amber / Green (RAG) status for each of the performance assessment metrics. Each of the metrics have been reviewed and the RAG categorisation is based on its current progress status against the overall programme targets outlined in Appendix B.

There are a total of 14 metrics in place, which are classified into the following subsections:

- **3.1: Governance and Change Management**
- **3.2: Estimating, Uncertainty & Contingency**

- **3.3: Visibility, (Data and Reporting)**

IW has made progress on a number of these metrics in Q2 2021. Key highlights in this period include:

- **Governance and Change Management:**
 - Project Clarity Training
 - We have successfully trained over 500 people across IW teams involved in the end to end Invest to Outcome process, as well as LA and Engineering Service Provider teams.
- **Estimating, Uncertainty & Contingency:**
 - Cost Estimation
 - Reviews are now in place for adherence to revised estimation processes with 90% and increasing compliance noted. Lessons learned have been taken on board.
 - Next enhancement of cost estimation tools and processes commenced.
 - Risk & Contingency
 - Early project lifecycle risk register and approach developed and trained out to Asset Planners in May and June 2021.
- **Visibility, (Data & Reporting):**
 - Six dials metrics built into Technical, Project/Programme & Portfolio Governance processes and approvals to facilitate streamlined reporting
 - Capture and updating of Six Dials recorded centrally to ensure accuracy of information and single source of truth.

RAG Summary: Q2021 Report

RAG Status	Q2 2021 Report
Green	14
Amber	0
Red	0

Table 1: RAG Status Summary

Table 2 outlines the percentage completion for each metric in Q2 2021.

Key Initiatives Summary: Q2 2021 Report

Workstream	Deliverable	Q1 2021 complete	Q2 2021 complete
Governance and Change Management:	Invest to Outcome Manual	35%	40%
	Governance and Change Management Framework	90%	98%
	Project Manager's Handbook	25%	35%
	Escalation and Approvals Process	80%	98%
	Project Lifecycle Workshops	85%	98%
	Value Management	30%	60%
	Enhancement of Asset Planning & Asset Operations Teams: Resource Pilot	25%	55%
	Enhancement of Asset Planning & Asset Operations Teams: Resource Roadmap & Implementation Plan	20%	35%
	Expenditure and Contract Governance	60%	73%
Estimating, Uncertainty & Contingency:	Cost Estimating Approach (Standardise)	85%	98%
	Cost Estimating Approach (Enhanced Systems, Processes & Assurance)	15%	25%
	Cost Intelligence Team	55%	70%
	P3 Risk Management Methodology	75%	80%
	P3 Risk Management Methodology (Enhanced Systems, Processes & Assurance)	25%	35%
Visibility, (Data & Reporting):	Streamlined and Standardised Reporting	25%	35%
	Asset Data Improvement Plan	50%	65%
	Asset Data Improvement Plan Implementation	10%	35%

Table 2: Key Initiatives Summary

The report also identifies two continuous improvement areas:

- Communications, Learning, Assurance and Rollout
- Systems

Updates on these initiatives are provided in section 4 of this report.

IW has identified two risks to the implementation of the SWI recommendations:

- Headcount Availability
- Resource Availability

Mitigations for each of these risks are outlined in section 5 of this report.

2. Introduction

In its *Update to Irish Water's Revenue Control 3 (RC3.5) – Irish Water's Updated Capital Investment Plan (CRU20085)*¹ paper, the CRU requested that IW prepare an implementation plan for recommendations made by Scottish Water International (SWI) as part of an independent review of IW's investment and delivery capabilities. The CRU paper also required IW to provide progress reports and updates to the CRU. It has been agreed with the CRU that IW will provide quarterly progress reports.

Through the RC3 preparation and submission process, IW identified a number of areas for improvement in its overall investment planning and delivery capabilities including:

- The need for an allowance for emerging needs;
- Improvements to scheduling and refreshing of timescales for early gate projects;
- The need to ensure sufficient provision for Capital Maintenance requirements;
- Standardisation of scope development and definition approaches;
- Adoption of a best practice approach to estimate uncertainty, and;
- Implementation of a standard methodology for updating of estimates across the plan.

IW assessed the root causes of the identified issues in the above areas as well as the impacts on the RC3 submission. An internal cross functional change project ('Project Clarity') was commenced by IW to address the deficiencies in processes. The CRU also required that an independent review be undertaken in order to review the issues and identify actions that IW would need to undertake to prevent a recurrence in the submission of future investment plans. This review was conducted by SWI as per the terms of reference agreed with the CRU in January 2020, including some additional requests from the CRU made during February 2020. IW engaged fully with SWI throughout the very thorough review process and, following receipt of the report from SWI in April 2020, the findings of the review have been considered in detail by IW.

Project Clarity had commenced in late 2019 and was already addressing a number of the improvement areas identified by SWI. A number of additional recommendations have subsequently been reviewed and adopted into IW's Project Clarity and their implementation

¹ Available [here](#)

will further support IW's development as a utility. IW is not proposing an absolute rejection of any recommendations, but it should be noted that there are a number which involve external stakeholders and a process of engagement and agreement will first be required in order to determine the feasibility of implementation in these cases.

IW submitted an Implementation Plan for the SWI Recommendations to the CRU in December 2020. This implementation plan outlined how the SWI recommendations have been considered and are being managed by IW through Project Clarity and set out a programme for delivery by the end of 2022 as required by the CRU.

This is IW's first Scottish Water International (SWI) Recommendations Implementation Report. As agreed with the Commission for Regulation of Utilities (CRU), in this report we provide the following updates:

- Performance against Metrics agreed with the CRU; and
- Project Risks and mitigations.

IW has developed a Red / Amber / Green (RAG) status for each of the performance assessment metrics. Each of the metrics have been reviewed and the RAG categorisation is based on its current progress status against the overall programme targets outlined in Appendix B.

There are a total of 14 metrics in place, which are classified into the following subsections:

- **3.1: Governance and Change Management**
- **3.2: Estimating, Uncertainty & Contingency**
- **3.3: Visibility, (Data and Reporting)**

This report provides a status update on each of these metrics in terms of a percentage of completeness. Progress made since the previous quarter is outlined and key achievements are highlighted.

3. Performance Assessment Summary

3.1 Governance and Change Management

Metric	Metric Definition	Current Status	Q2 2021 % complete
Governance & Change Management	Invest to Outcome Manual		40%
	Governance and Change Management Framework		98%
	Project Manager's Handbook		35%
	Escalation and Approvals Process		98%
	Project Lifecycle Workshops		98%
	Value Management		60%
	Enhancement of Asset Planning & Asset Operations Teams: Resource Pilot		55%
	Enhancement of Asset Planning & Asset Operations Teams: Resource Roadmap & Implementation Plan		35%
	Expenditure and Contract Governance		73%

Table 3: SWI Governance and Change Management Metrics

The IW SWI Recommendations Implementation Plan lists a total of nine Governance and Change Management metrics that will be monitored on a regular basis and reported quarterly to the CRU.

3.1.1 Invest to Outcome Manual
<p>Metric Definition: Creation of an overarching manual setting out the end to end investment process, roles and responsibilities and with links to related procedures, processes, guidance and tools.</p>
<p>Current Status: Individual process information architecture mapped (for interactive online I20 Manual). Compilation and addition of process information on system is ongoing.</p>

3.1.2 Governance and Change Management Framework

Metric Definition: Updating and enhancing IW's overall Governance and Change Management Framework across the following areas: Portfolio, Project and Programme, Technical, Expenditure and Contract.

Current Status: Framework documentation finalised and approved. Training delivered to IW Staff.

3.1.3 Project Manager's Handbook

Metric Definition: Project Manager's Handbook to be updated in line with Project Clarity working groups' outputs.

Current Status: Updating of relevant sections ongoing based on change driven by Project Clarity.

3.1.4 Escalation and Approvals Process

Metric Definition: Definition of the key capital project metrics (Six dials²) and escalation criteria, thresholds and approval processes for same.

Current Status: Escalation guidance and Six Dials definition documentation finalised and approved. Training delivered to IW Staff and relevant 3rd party Engineering Service Providers (ESP) & Local Authorities (LA).

² Use of six dials as key metrics for the managing the performance of projects is one of the deliverables of Project Clarity. The six dials are Outcome, Output, Cost Estimate, Schedule, Priority and Delta Opex.

3.1.5 Project Lifecycle Workshops

Metric Definition: Update of Project and Programme Lifecycle workshops, definition of early risk assessment workshops, definition of key roles and responsibilities and appropriate guidance and training.

Current Status: Standard workshop procedure updated and approved to align with Public Spending Code requirements. Training delivered to IW Staff and relevant 3rd party ESP & LA

3.1.6 Value Management

Metric Definition: Development of value management stage(s) to be incorporated across all end to end invest to outcome processes as required.

Current Status: Relevant processes updated to include value management steps including design and estimate review through project lifecycle.

3.1.7 Enhancement of Asset Planning Team

Metric Definition: Development of Asset Planning Team to ensure greater involvement in investment processes, including retaining ownership and accountability throughout as key project sponsors.

Current Status: Role requirements defined across updated processes. Recruitment process at onboarding of resource stage for pilot stage with further recruitment subject to headcount approvals process.

3.1.8 Enhancement of Asset Operations Team

Metric Definition: Increased input from Asset Operations Team in early risk assessment and scope definition, as well as overall investment planning process.

Current Status: Role requirements defined across updated processes. Recruitment process at onboarding of resource stage for pilot team with further recruitment subject to headcount approvals process.

3.1.9 Expenditure and Contract Governance

Metric Definition: Revision of existing expenditure and contract governance documents and processes to align with new end to end processes including revised Public Spending Code requirements.

Current Status: Expenditure Approval Committee in place and associated governance documents finalised and approved.

3.2 Estimating, Uncertainty & Contingency

Metric	Metric Definition	Current Status	Q2 2021 % complete
Estimating, Uncertainty & Contingency	Cost Estimating Approach (Standardise)		98%
	Cost Estimating Approach (Enhanced Systems, Processes & Assurance)		25%
	Cost Intelligence Team		70%
	P3 Risk Management Methodology		80%
	P3 Risk Management Methodology (Enhanced Systems, Processes & Assurance)		35%

Table 4: SWI Estimating, Uncertainty & Contingency Metrics

The IW SWI Recommendations Implementation Plan lists a total of three Estimating, Uncertainty & Contingency metrics that will be monitored on a regular basis and reported quarterly to the CRU.

3.2.1 Cost Estimating Approach

Metric Definition:

Phase 1: Standardisation of cost estimating approach across all portfolios.

Phase 2: Industry best practice review, adoption of appropriate best practices and enhancement of supporting tools.

Current Status: Standard Operating Procedure (SOP) covering standard approach (version 2) finalised and approved. End of Q2 review show 90% and increasing compliance to approach. Training delivered to IW Staff and relevant 3rd party ESP & LA

Work commenced on enhancements SOP (version 3) and systemisation.

3.2.2 Cost Intelligence Team

Metric Definition: Development of a centralised Cost Intelligence Team.

Current Status: Team Org Chart defined and communicated. Recruitment process at onboarding of resource stage.

3.2.3 P3 Risk Management Methodology

Metric Definition:

Phase 1: Establishing, piloting and rollout of a robust and pragmatic risk management methodology.

Phase 2: Enhancement of risk management supporting tools, guidance and assurance programme.

Current Status: Risk & Uncertainty SOP covering methodology finalised and approved. Training delivered to IW Staff and relevant 3rd party ESP & LA

Business readiness testing of risk data underway to lead enhancement of supporting tools.

3.3 Visibility, (Data and Reporting)

Metric	Metric Definition	Current Status	Q2 2021 % complete
Visibility, (Data and Reporting)	Streamlined and Standardised Reporting		35%
	Asset Data Improvement Plan Asset Data Improvement Plan Implementation		65% 35%

Table 5: SWI Visibility Metrics

The IW SWI Recommendations Implementation Plan lists two Visibility metrics that will be monitored on a regular basis and reported quarterly to the CRU.

3.3.1 Streamlined and Standardised Reporting

Metric Definition: Enhancing IW data management practices to ensure a single source of truth while standardising IW reporting across the project lifecycle using Six dials as key metrics.

Current Status: Six dials metrics built into Technical, Project/Programme & Portfolio Governance processes and approvals.

3.3.2 Asset Data Improvement Plan

Metric Definition: Revise asset data requirements and capture processes to inform invest to outcome decision making with implementation of prioritised data capture initiatives.

Current Status: Updated processes include capture of required asset data where relevant. Assessment and analysis of asset data for reporting requirements and prioritisation is ongoing.

4. Continuous Improvement Areas

4.1 Communications, Learning, Assurance & Rollout

Training around all key deliverables under Project Clarity were rolled out over a 3-month period (April -June 21).

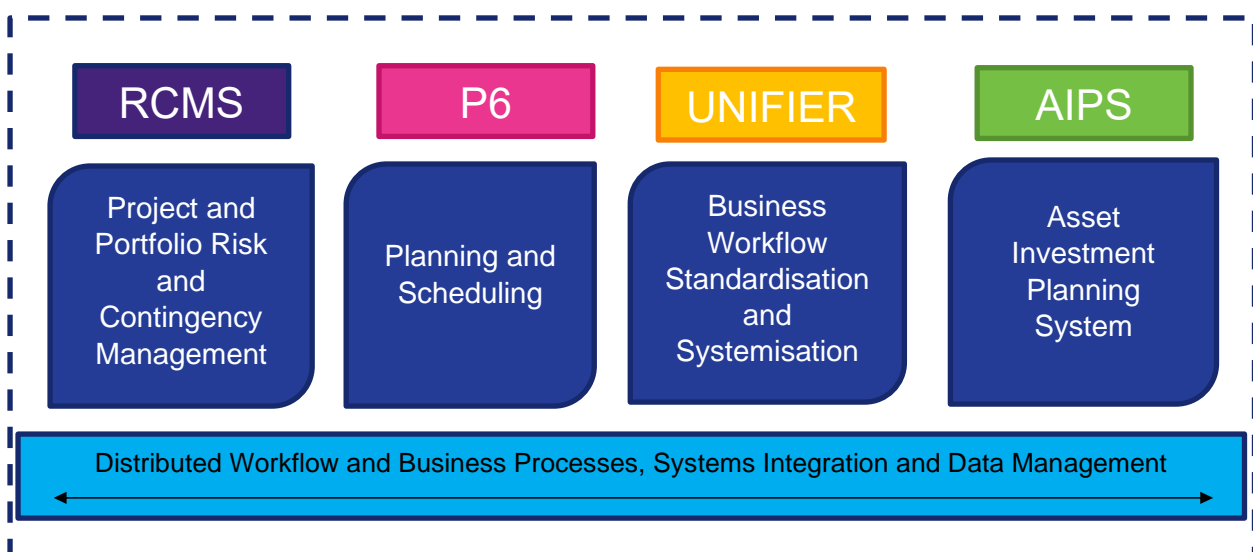
- Successfully trained over 500 people across IW teams involved in the end to end Invest to Outcome process, as well as LA and ESP teams.
- 33 hrs of training modules available for new starters or role change.
- 16 new SOP's and guidance notes delivered and trained.
- 7 enhanced processes in place.

Initial review and update (if required) will take place at the end of Q3 2021.

4.2 Invest to Outcome Systems

Implementation plan developed for of a suite of integrated IT systems, tools and approach to data for end to end Invest to Outcome (I2O) process.

- **Improved visibility, management and reporting of our Investment Plan** giving us the ability to balance across regulatory period and better adapt to emerging needs.
- **Enhanced control** of capital delivery – avoidance of change shocks as project and portfolio governance will be managed by way of systemised processes.
- **Streamlined governance and compliance with Public Spending Code** – i.e. systemised workflows for capital budget and contract approval processes.
- **Better availability of cost and risk data** for enhanced analytics, reporting, decision making with alignment between key datasets across finance, schedule, planning, scheduling and project systems.

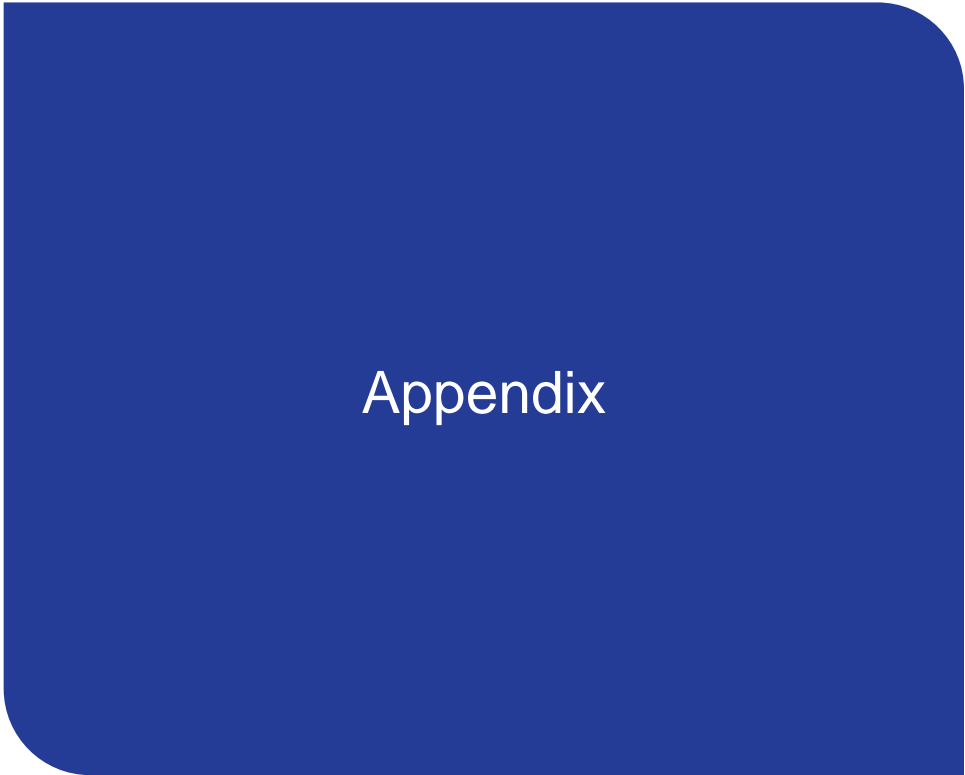


5. Implementation Risks

IW has detailed below two risks which have the potential to impact the delivery of the actions as identified in the SWI Recommendations Implementation Plan. By understanding the potential risks and identifying clear mitigation measures, IW and the Project Clarity team can enhance plan delivery capability. This section outlines the identified risks and mitigations that IW has put in place.

Risk	Mitigation
<p>Headcount Availability</p> <ul style="list-style-type: none"> - Availability of headcount for enhanced team structures, e.g. Asset Planning and Asset Operations. 	<ul style="list-style-type: none"> - Ongoing engagement with HR Function to assess impacts and review of requirements with the IW Senior Management Team in conjunction with ongoing transformation projects.
<p>Resource Availability</p> <ul style="list-style-type: none"> - Ongoing BAU draw on internal resources as other key IW change plans are delivered. 	<ul style="list-style-type: none"> - Sufficient resources currently allocated with reviews ongoing across IW in consideration of other transformation projects.

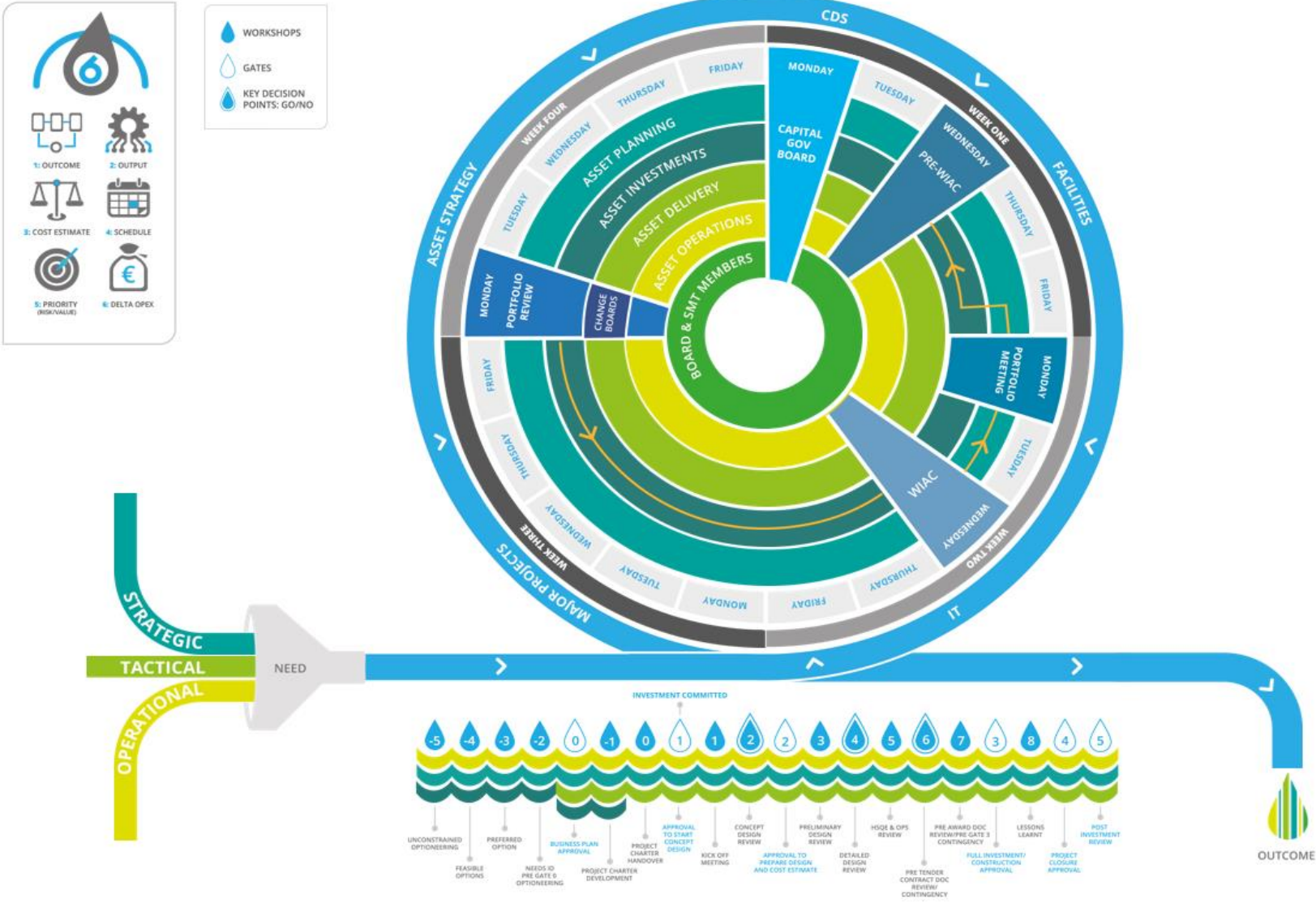
Table 6: Key Project Risks



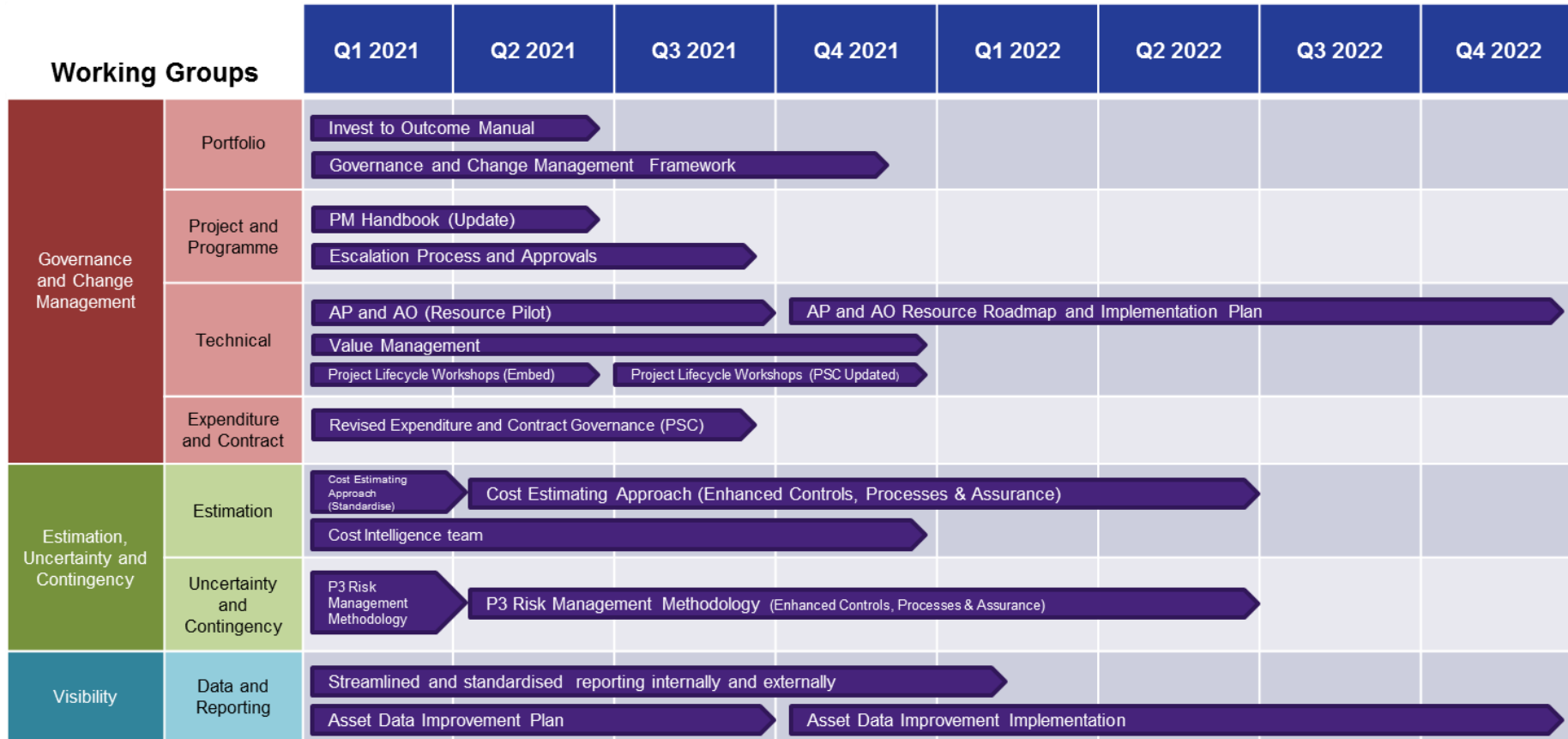
Appendix



Appendix A Investment to Outcome Process



Appendix B Overall Programme



IW Continuous Improvement Areas

