

Assess  
Complexity

Assess  
Capability

Align  
for Success

*Oxford Flood Alleviation  
Scheme  
Final Report  
March 2016*



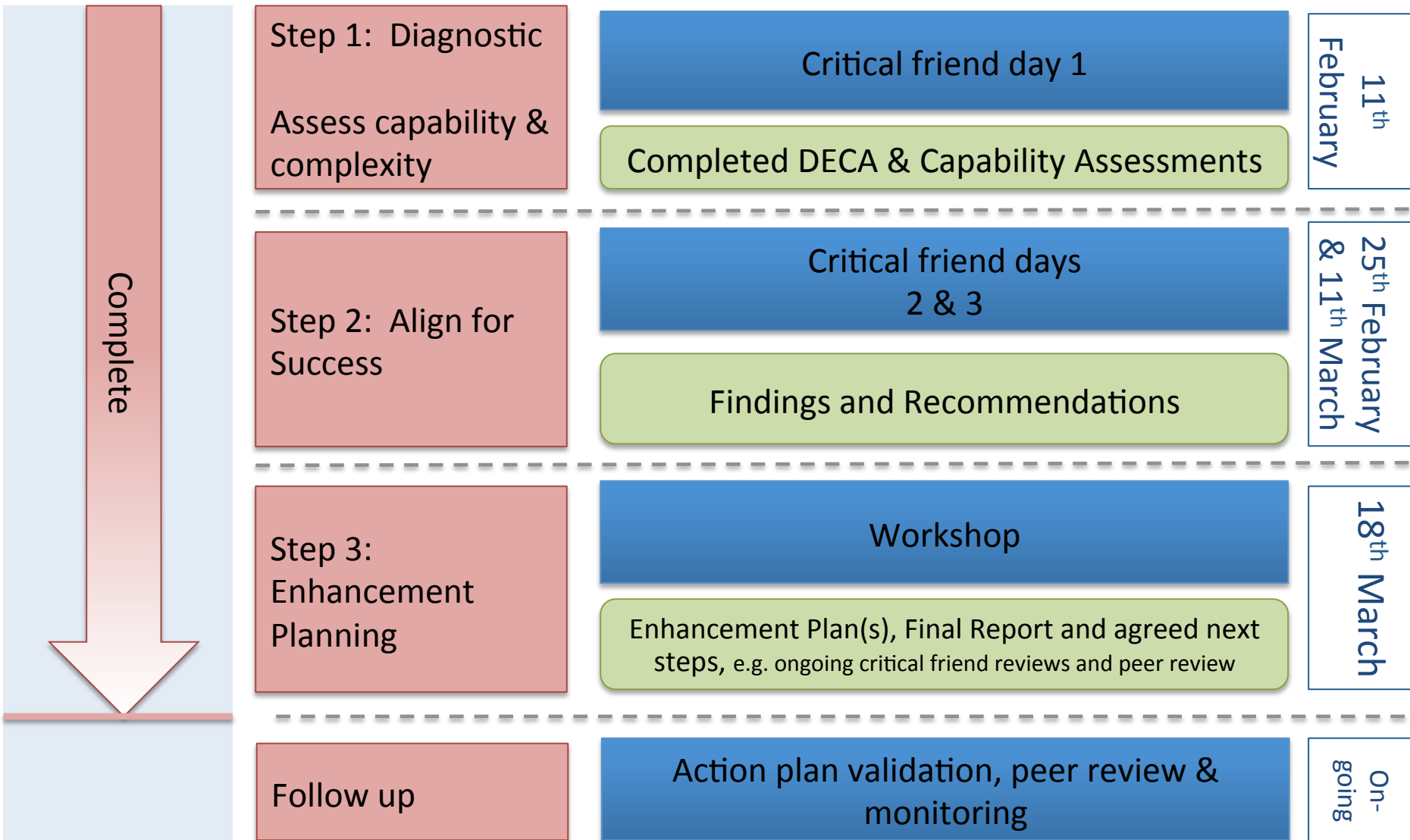
HM Treasury

Oxford Flood Alleviation Scheme Final Report, March 2016: Official - Sensitive  
Commercial



UNIVERSITY OF LEEDS

# Routemap process and progress



For further information on the Project Initiation Routemap please visit [www.gov.uk/government/publications/improving-infrastructure-delivery-project-initiation-routemap](http://www.gov.uk/government/publications/improving-infrastructure-delivery-project-initiation-routemap)

# Executive summary

This final report summarises the the outputs and Routemap process undertaken between February and March 2016

The EA Oxford Flood Alleviation scheme is overall of moderate complexity, however there are high levels of complexity with regard to strategic importance, which varies across partners, and financial impact/value for money brought about because of the partnership funding arrangements and potential funding gap

In addition, whilst the technical aspects of the project are considered to be 'business as usual', it is the scale of this particular scheme that makes it more complicated

The overall capability assessments resulted in 'green' ratings for all parties, i.e. sponsor, asset manager, client and market

There were very few anchoring, 'red', characteristics identified by a third of the group or more, however there were a number of 'red' characteristics that 2-3 people (not the 5 required to make a third of the group) identified with

Across all parties a number of 'green' and 'blue' characteristics were deemed as being needed

## Areas of good practice

- Partner organisation governance is not inhibiting the project
- It is positive that partners with specialist skills are taking a lead in partnership funding negotiations
- Internal lessons learned have been investigated and incorporated; this needs to extend to external sources also
- There has been significant stakeholder engagement carried out to date

## Opportunities for improvement (key findings)

- The governance structures, both corporate and project, are complex. The project team is making these work but they could be clarified to enhance timely decision making.
- The vision and high level objectives are clear, but the benefits are not fully defined at this stage in the development of the scheme. Once the preferred option is selected and the associated benefits are agreed with our partners, the impacts of any changes of scope on the team need to be managed.
- The project is 'pathfinding' and the programme is ambitious. Existing Environment Agency work practices may need to be reviewed to meet the challenges of this major project. There is a significant amount of effort expended on stakeholder engagement, that is deemed necessary, to support the delivery of this ambitious partnership project.
- Organisational design and development plans exist for the current stage but will need to be developed in detail for future stages of the project. Enhancing these before submission of OBC will maximise the opportunities for using the full capabilities across the partnership.
- The ambitious programme may restrict the number of commercial approaches to deliver the scheme. Stronger coordination during the next stages of the scheme development to focus on efficiency and innovation could enable the optimal commercial approach to be identified. This would contribute to overall affordability.
- Partnership funding on this scale is new to the Environment Agency and partners, and it is going to be a challenge to close the gap
- The maintenance approach is being developed. It should be defined to enable opportunities to develop an innovative approach, secure funding and reduce overall costs.

# Introduction and background

**The Project Initiation Routemap (Routemap)** is a product of government working collaboratively with industry and the University of Leeds, through the Infrastructure Client Group to support infrastructure providers optimise the delivery environment for projects and programmes.

It does this by providing a structured approach to assessing and improving sponsor, client and market capability and integration. It brings together a set of assessment tools in an integrated process aimed at improving the capability of sponsors and clients to plan, execute and operate major infrastructure projects.

## Introduction

In December 2015 the Environment Agency (EA) commissioned the Infrastructure and Projects Authority (IPA) and the University of Leeds to undertake a Routemap Review of the Oxford Flood Alleviation Scheme.

Three critical friend workshops were undertaken between 11<sup>th</sup> February and 11<sup>th</sup> March followed by an enhancement planning workshop on the 18<sup>th</sup> March where the team addressed the findings generated from the diagnostic stage of the Routemap process and developed these into an action plan. A document review was also undertaken.

## Background

The Oxford Flood Alleviation scheme is a major construction project being developed by the Environment Agency and its partners, to reduce flood risks and deliver wider social, economic and environmental benefits for communities in and around Oxford.

The estimated whole life cash cost, including inflation over the 100 year appraisal period is c. £120 million for construction plus c. £96 million for the future maintenance.

The objectives of the Oxford Flood Alleviation Scheme to be delivered by 2021 are as follows:

- Reduce flood damages to at least 1000 homes and businesses currently at risk in Oxford;
- Reduce flood impacts on transport infrastructure and utilities in Oxford, particularly to Botley and Abingdon Roads, the railway line and the sewerage system;
- Safeguard Oxford's reputation as a thriving centre of commerce that is open for business;
- Create and maintain new recreational amenities, wildlife habitat and naturalised watercourses accessible from the centre of Oxford.

The Environment Agency has recently completed Routemap reviews of the FCRM 6 year programme and the River Thames Scheme. There is therefore an opportunity to bring the learning from these reviews to this Scheme, along with using the Routemap to ensure the Oxford team are in the best possible position to manage the challenges and maximise the opportunities associated with this particular scheme, which are listed on the following page.

# Objectives, challenges and limitations

## Objectives

The key purpose of the Routemap Review was to investigate the key challenges that the project team face, present our findings and subsequently co-create an enhancement plan. This final report presents the enhancement and action plans produced along with summarising the outputs and steps of the Routemap process.

## Limitations

Our Review has been limited to a review of the documentation provided to us by the EA, some of which might have been updated since, and information gathered from the participants.

The following challenges, listed below, were outline in the proposal document and were used during the workshops to check progress:

- **Delivering a significant project in partnership with many other risk management authorities.**
  - Is the Environment Agency, as lead authority, best placed to engage the market rather than any of the other partners?
  - Is a new commercial arrangement required (internally within the Sponsoring Group or externally with the market) to develop and deliver the scheme, especially to manage the funding?
  - What can the Oxford Flood Alleviation Scheme learn from the River Thames Scheme or other projects?
- **Funding the scheme: construction and long term maintenance.**
  - As with River Thames Scheme, does this scheme present an opportunity to widen the scope and get additional funding streams for wider benefit?
  - There is partner appetite to consider a management organisation to take on the leadership for future maintenance and involve the local community as much as possible.
  - What other options / approaches can we take secure additional funding?
- **Programme and risk management.**
  - Can we accelerate delivery, provide early benefits whilst ensuring efficient delivery and effective management of key project risks (including materials management, heritage and critical infrastructure continuity)?
- **Expectation management.**
  - How does the project aim to manage expectations with project partners and relevant stakeholders should significant change occur?
- **Planning, consents and authorisations.**
  - What are the most efficient approval routes?
  - How does the project approach these issues to mitigate delays?
- **Stakeholder engagement.**
  - How will the project approach this to ensure stakeholders are fully engaged and feel valued?
  - How will the project manage opposition to the scheme?
- **Materials Management.**
  - How can we reduce material disposal? What innovative ideas will support this?
  - How can we re-use material on site?
  - How can we use innovative approaches to gain public support?

Assess  
Complexity

Assess  
Capability

Align  
for Success

## *Action and Enhancement Plan*



HM Treasury

Oxford Flood Alleviation Scheme Final Report, March 2016: Official - Sensitive  
Commercial



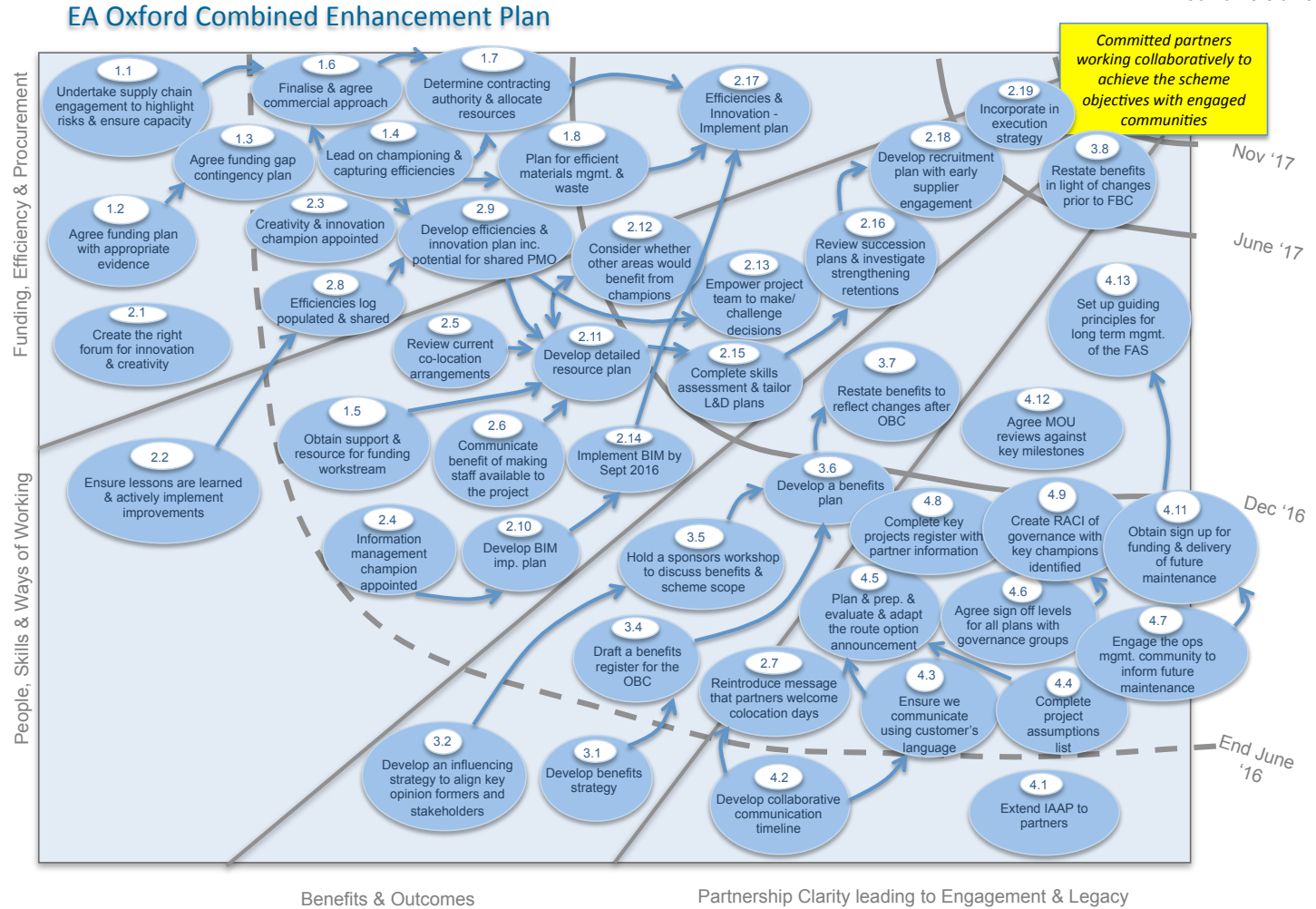
UNIVERSITY OF LEEDS

# Combined Enhancement Plan

27/06/16 Version 5

The enhancement plan opposite was developed during the enhancement planning workshop.

Since the enhancement planning workshop the team have commenced work on these actions.



# Enhancement Planning Workstreams

The table opposite shows how the combined enhancement plan workstreams, and therefore the actions therein, were developed from the individual enhancement plan workstreams.

Group	Individual Enhancement Plan Workstreams	Combined Enhancement Plan Workstreams
Accountability, better transparency, clarity (Governance)	Clarity (A) Better transparency (B) Accountability [C]	People, skills & ways of working  Benefits and outcomes
Core Benefits & Wider Opportunities (Requirements)	Identification & classification of core (D) outcomes & wider opportunities (E) Communication of core outcomes (G) Monitoring delivery against outcomes (H)	Partnership clarity leading to engagement & legacy  Funding, Efficiency and Procurement
Engagement & Legacy (Execution Strategy & Asset Management)	Engagement (I) Ways of Working (J) Lessons Learnt (K) Legacy (L)	
People, Skills, Ways of Working (Organisational Design & Development)	People and skills (M) Ways of working (N)	
Funding, Efficiency and Procurement	Funding (O) Benefits (P) Efficiency (Q) Procurement [R]	



# Action Plan – Page 1

UNCLASSIFIED

The action list opposite is a tabular version of the enhancement plan from the previous slide.

This table describes the actions in more detail, drawing on the detailed actions from the individual module enhancement plans created during the enhancement planning workshop

Combined Enhancement Plan Work stream	Work stream owner	Action number on combined plan	Action Key: Green = 30 days, Blue = 30days to July 16	Related action number(s) from individual plans	Status comments	Status (Red/Amber/Green)
1. Funding, efficiency and procurement	John and Scott	1.1	Undertake supply chain engagement to highlight risks and ensure capacity	R5: Supply chain engagement to determine / highlight key risks		
				R6: 2nd and 3rd tier supply chain engagement to determine appetite, capability and capacity		
				R8: Raise strategic importance of OFAS with ESE		
		1.2	Agree funding plan with appropriate evidence	O3: Funding strategy written		
				O4: Produce individual investor plans		
				O9: Develop funding team programme to inform project / programme team		
				O10: Prioritise engagement with investors		
		1.3	Agree funding gap contingency plan	O12: Agree timetable for data and evidence requirements to support funding engagement		
				O7: Write funding gap contingency plan		
				O6: OFAS leadership meeting to discuss potential funding gap contingency plan		
		1.4	Lead on championing and capturing efficiencies	O8: Gain approval for funding gap contingency plan from programme board and sponsoring group		
				Q1: Allocate team lead for efficiency to champion and monitor efficiency and performance		
1.5	Obtain support and resource for	Q3: Formally document material management opportunities and risks				
		O5: Funding team negotiation training support - 5 steps of negotiation				

UNCLASSIFIED

# Action Plan – Page 2

The action list opposite is a tabular version of the enhancement plan from the previous slide.

This table describes the actions in more detail, drawing on the detailed actions from the individual module enhancement plans created during the enhancement planning workshop

UNCLASSIFIED

			funding workstream	O11: Agree leads across EA and partners to take ownership of securing funding from individual investors		
		1.6	Finalise and agree commercial approach	R1: Team determine commercial approach and recommend option sufficient for OBC stage R2: Complete procurement strategy for design and construction R3: Sponsor group agree commercial approach R7: Inform WEM framework manager of legacy issues as contract will extend past the end of the framework		
		1.7	Determine contracting authority and	R9: Sponsor group determine client / contracting authority R4: Allocate additional resource to procurement		
		1.8	Plan for efficient materials management and waste	Q2: Re assess opportunities across whole project to identify and capture efficiencies Q4: Formalise material management plan to drive efficient delivery of the preferred option Q5: Organise market engagement re landfill and waste management approaches		
2. People Skills & Ways of Working	Chris and Jo	2.1	Create the right forum for innovation and creativity	J3: Key project officers meet to agree what specific aspects of the project will be scrutinised to identify innovation potential J4: Review the next two months' highlight reports to see where innovation could have benefitted the project. Use this to enhance the next month's work		
		2.2	Ensure lessons are learned and actively implement improvement	K1: Take on lessons learnt following each monthly highlight report K2: For every major decision demonstrate how relevant lessons were adopted. This could be through the understanding of the success or failure of similar actions taken by other, not FAS related, staff K3: Use Working with Others mentors to help network our project staff to useful information / products or people to actively explore lessons learnt		

UNCLASSIFIED

# Action Plan – Page 3

The action list opposite is a tabular version of the enhancement plan from the previous slide.

This table describes the actions in more detail, drawing on the detailed actions from the individual module enhancement plans created during the enhancement planning workshop

UNCLASSIFIED

2.3	Creativity and innovation champion appointed following review of efficiency approach and scope agreed	N1: Creativity and innovation champion appointed following review of efficiencies approach and scope of role agreed. As a minimum focusing on efficiencies and lessons learned.		
2.4	Information management champion appointed following review of current approach and scope of role agreed	N5A: Information management champion appointed following review of current approach and scope of role agreed		
2.5	Review current colocation arrangements	M1: Review current co-location arrangements and consider whether any changes are required for the current phase		
2.6	Communicate benefit of making staff available to the project	M6: Communicate to wider business (across partnership) the longer term benefit of making staff available to the project		
2.7	Re introduce message that partners welcome colocation days	M9: Re-inforce message that partners are welcome at co-location days		
2.8	Efficiencies log populated and shared across the partnership	N2: Efficiencies and lessons learned log populated and shared across the partnership		

UNCLASSIFIED

# Action Plan – Page 4

The action list opposite is a tabular version of the enhancement plan from the previous slide.

This table describes the actions in more detail, drawing on the detailed actions from the individual module enhancement plans created during the enhancement planning workshop

UNCLASSIFIED

2.9	Develop efficiencies and innovation plan inc potential shared PMO. Needs steer from governance on level of sign off	N3: Develop efficiencies and innovaton plan including potential for a shared PMO. Could the resource management activities be shared across major projects.		
2.10	Develop BIM imp plan and review reports against receiving groups TOR	N6: Report content reviewed against receiving groups ToR. Ensure the right information, at the right time, to the right people. No over or under reporting		
		N7: Develop BIM implimentation plan including resource requirements for training and implementation		
2.11	Develop detailed resource plan inc partner contributions and considering future colocation needs	M2: Develop a detailed resource plan (FTE) for future stages that meets the programme requirements including stage transition arrangements		
		M3: Identify where partner resource involvement is required and agree the quantified ask with them		
		M4: Consider future co-location needs and incorporate in resource plan		
2.12	Consider whether other areas would benefit from having a champion appointed	N5: Consider whether any of areas would benefit from having a champion appointed		
2.13	Empower project team to make / challenge decisions (culture and ways of working)	J1: Each project officer reviews their project accountability against their perceived empowerment. Results to be submitted to project director		
		J2: Project director to undertake a gap analysis on empowerment survey		

UNCLASSIFIED

# Action Plan – Page 5

The action list opposite is a tabular version of the enhancement plan from the previous slide.

This table describes the actions in more detail, drawing on the detailed actions from the individual module enhancement plans created during the enhancement planning workshop

UNCLASSIFIED

		2.14	Implement BIM by Sept 2016	N8: Implement BIM by September 2016		
		2.15	Complete skills assessment and tailor L&D plans across project, partnership and governance	M11: Complete skills assessment and tailor learning and development plans across project, partnership and governance groups. Enable upskilling before stage transitions to maintain continuity of staff.		
		2.16	Review succession plans and investigate strengthening	M10: Review succession plans to ensure they remain current M12: Investigate options for strengthening retention		
		2.17	Efficiencies and Innovation - Implement plan	N4: Implement Efficiencies and Innovation plan by September 2016		
		2.18	Develop recruitment plan with early supplier engagement (partnerships, universities, 3 <sup>rd</sup> sector, suppliers)	M7: Develop recruitment plan that considers a wider range of recruitment options. Including use of secondments, rotations, local groups (eg. Oxford Brooks) M8: Early supplier engagement (in the wider sense of supplier) on draft recruitment plan to capture there sector specific knowledge		
		2.19	Incorporate in execution strategy (people aspect)	M5: Incorporate all people and skills outputs into a time based programme and consider where key milestones should be incorporated in master programme.		
3. Benefits and outcomes	Emma	3.1	Develop a benefits strategy	D/E4: Challenge the laid down current economic / business case methodology - which does not adequately quantify the various economic D/E15: Plan for whole project life including maintenance from the outset to avoid building in failure from the start D/E6: Use consultants to do full economic assessment with no constraints D/E17: Develop SMART objectives to deliver the benefits		

UNCLASSIFIED

# Action Plan – Page 6

The action list opposite is a tabular version of the enhancement plan from the previous slide.

This table describes the actions in more detail, drawing on the detailed actions from the individual module enhancement plans created during the enhancement planning workshop

UNCLASSIFIED

		D/E18: Check and challenge benefits workshop to identify wider benefits		
		D/E21: Plot graph showing degree of effort vs benefits split by Core / Follow on / Facilitated / Wider		
		H8: Agree milestones at which to review benefits and changes		
		G5: Produce a single, succinct, powerful “business case” at high level which communicates the overarching pitch/justification for the scheme.		
3.2	Develop an influencing strategy to align key opinion formers and stakeholders	G7: Influencing Strategy – key opinion formers need this to know why we do the scheme. To support the scheme options and funding strategy, economic / Business Cases		
		G19: Identify partner’s “red lines” / “must-haves” to support issue resolution and decision making		
3.4	Draft a benefits register for the OBC	D/E6: Use consultants to do full economic assessment with no constraints		
		H10: Review benefits and changes at completion of modelling work		
		D/E1: Complete the modelling exercise to identify the precise flood risk benefits		
		D/E2: Use the modelling output which shows flood risk benefits to identify actual beneficiaries. Use this to tap them for funding/contributions		
		D/E3: Identify consequential benefits which will be delivered beyond core flood risk reduction (e.g. healthier local economy due to fewer road closures). Include in business case and identify potential funders.		
		D/E16: Produce a Benefits Register		
3.5	Hold a sponsor workshop to discuss benefits and scheme	D/E 14: Tough decisions needed to approve the final solution and route, scope, guaranteed benefits, rejected wishes etc. Decide what “it” is (ability to challenge, tweak iterations)		

UNCLASSIFIED

# Action Plan – Page 7

The action list opposite is a tabular version of the enhancement plan from the previous slide.

This table describes the actions in more detail, drawing on the detailed actions from the individual module enhancement plans created during the enhancement planning workshop

UNCLASSIFIED

		scope	G19: Identify partner's "red lines" / "must-haves" to support issue resolution and decision making		
			D/E18: Check and challenge benefits workshop to identify wider benefits		
			G20: Review objectives / CSFs with parties and confirm which really are critical		
	3.6	Develop a benefits plan	H9: Identify Critical success factors, SMART deliverables and guaranteed benefits – list them in "deliverables list". Create monitoring report regime which regularly tracks success/failure of them		
			D/E13: Refinement of detailed design to maximise the benefits that can be delivered		
			D/E3: Identify consequential benefits which will be delivered beyond core flood risk reduction (e.g. healthier local economy due to fewer road closures). Include in business case and identify potential funders.		
			D/E22: For all the potential spin off opportunities, we identify them, get the credit for them but we do not guarantee to deliver them. They will succeed or not depending on whether organisations take them up and own them		
			D/E15: Plan for whole project life including maintenance from the outset to avoid building in failure from the start		
			H11: Review benefits and changes for Outline Business Case		
	3.7	Restate benefits to reflect changes after OBC	D/E13: Refinement of detailed design to maximise the benefits that can be delivered		
	3.8	Restate benefits in light of changes prior to FBC	H12: Review benefits and changes after Detailed Design		

UNCLASSIFIED

# Action Plan – Page 8

The action list opposite is a tabular version of the enhancement plan from the previous slide.

This table describes the actions in more detail, drawing on the detailed actions from the individual module enhancement plans created during the enhancement planning workshop

UNCLASSIFIED

4. Partnership clarity leading to engagement & legacy	Helen and Peter	4.1	Extend IAAP to partners	A2: Update IAAP in accordance with IAAs – EA		
		4.2	Develop collaborative communication timeline	I1: Communication partners' meeting to take place (EA to lead) I2: Ensure partners sign up to evolving / sharing the following products: Stakeholder analysis Communication channels availability (website, newsletters, etc) Events I3: Produce a combined communications timeline		
		4.3	Ensure we communicate using customers language – Engage with RFCC how they would like (customer language)	I6: Ensure all public-facing project officers take part in 'Effective Communications Training' I7: Producing event material in the customers' language I8: Produce update papers for each RFCC committee meeting. I9: Ask RFCC how they would like to be updated		
		4.4	Complete project assumptions list	B6: Extend KAL into wider project team to support new OBC for sign off by sponsors		
		4.5	Plan and prepare and evaluate and adapt the route option announcement	I4: Planning and preparation for announcement of route option in June 2016 I5: Expand our collective social media presence in order to enable increased effective 2-way dialogue I10: Review communications timeline / messaging following the public announcement of the preferred route option		

UNCLASSIFIED



# Action Plan – Page 9

The action list opposite is a tabular version of the enhancement plan from the previous slide.

This table describes the actions in more detail, drawing on the detailed actions from the individual module enhancement plans created during the enhancement planning workshop

UNCLASSIFIED

4.6	Agree sign off level for all plans with governance groups (following EA assurance and approvals approach)	N9: Ageed sign off level for all plans with governance groups and confirm we are following EA IAAS route		
4.7	Engage the ops management community to inform future maintenance	L1: Operations Management monthly team leader meetings to include a standing agenda item focusing on Oxford FAS. Guest speakers to be invited accordingly		
		L2: Senior user to be tasked with reviewing maintenance schedule / standards for existing structures and channels. Use this to inform the needs of the FAS.		
4.8	Complete key projects registers with partners information	A1: Update current project risk register		
		A8: PE / PD to review existing tolerance paper		
		B3: Repeat declaration of interests exercise annually		
4.9	Create RACI and agree who has final decision with key	C5: Develop project governance into RACI chart and share with partners. C7: Agree where final decision sits within governance		
4.11	Obtain sign up for funding and delivery of future maintenance	L4: Assess each partner organisation's capability to undertake future maintenance		
		L5: Assess each riparian land owner's capability to undertake future maintenance		
		L6: Prepare a maintenance affordability plan relating to each riparian land owner / organisation with permissive powers		

UNCLASSIFIED

# Action Plan – Page 10

The action list opposite is a tabular version of the enhancement plan from the previous slide.

This table describes the actions in more detail, drawing on the detailed actions from the individual module enhancement plans created during the enhancement planning workshop

UNCLASSIFIED

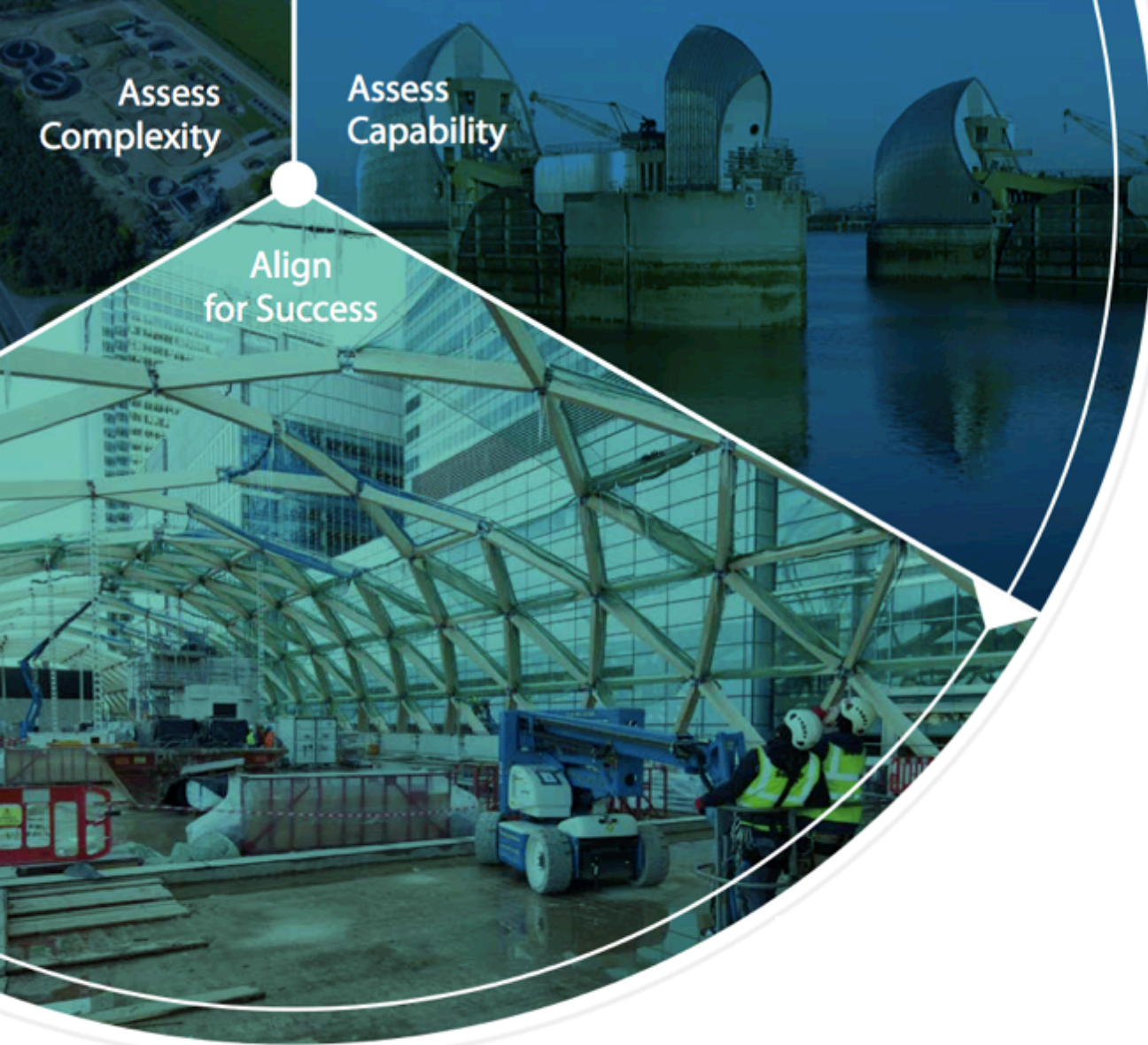
		4.12	Agree MOU reviews against key milestones			
		4.13	Set up guiding principles for the long term management of the flood alleviation scheme	A4: EA technical standards need to be compared with partners to identify and manage expectations L3: Set up the guiding principles for the long term (20 years) management of the FAS		

UNCLASSIFIED

Assess Complexity

Assess Capability

Align for Success



*Next Steps*



HM Treasury

Oxford Flood Alleviation Scheme Final Report, March 2016: Official - Sensitive Commercial



UNIVERSITY OF LEEDS

# Action Plan Validation, Peer Review & Monitoring

## Action Plan Validation, Peer Review & Monitoring

*Ensure that the action plan is signed off and that the team have assigned individuals responsibility for completion of actions.*

*To support completion of actions peer review meetings can be arranged; individuals from other organisations who have relevant experience are matched with the team to provide challenge, support and share lessons learned.*

*A plan for monitoring progress can also be agreed.*

- Since the workshop the team have collated and typed up all the actions from each of the individual enhancement plans
- All these actions have been mapped to the actions on the combined enhancement plan (page 7) and collated into the combined enhancement plan workstreams and actions document (shown from page 9 of this report)
- The team now need to take ownership of the enhancement plan and actions, developing them into a format they are happy to use and which is aligned with other project documents
- It is suggested that someone in the team is appointed as a champion to drive the Routemap actions and ensure their continued alignment with other activities
- It is also recommended that the Programme Board take ownership of the resulting enhancement plan and take accountability for its implementation, reporting progress through the project governance arrangements
- This should include how to resource the enhancement plan and associated actions to ensure they are implemented within the agreed timescales
- The next steps with regard to peer review and monitoring need to be agreed
  - It is possible to set up peer review sessions to share best practices from other projects
  - On-going monitoring would ensure actions arising from this Routemap are being implemented
  - It is then possible to schedule a follow up Routemap for later next year, prior to the next key phase of the project, to identify any further areas for enhancement needed to support that next phase

# Routemap process



Assess  
Complexity

Assess  
Capability

Align  
for Success



## *Appendices*



HM Treasury

Oxford Flood Alleviation Scheme Final Report, March 2016: Official - Sensitive  
Commercial



UNIVERSITY OF LEEDS

# Participants

<b>Name</b>	<b>Organisation</b>
Julia Simpson	Environment Agency
Joanna Larmour	Environment Agency
Peter Collins	Environment Agency
Emma Formoy	Environment Agency
Jon Mansbridge	Environment Agency
Scott Lawrence	Environment Agency
Chris Savage	Environment Agency
Helen Cukier	Environment Agency
Ian Hodge	Environment Agency
Richard Harding	Environment Agency
Laura Collison-McLean	Environment Agency (RTS)
Steve Bishop	Vale of White Horse District Council
Tim Sadler	Oxford City Council
Chris Brown	Oxfordshire County Council
Mark Kemp	Oxfordshire County Council
Kyle Robins	Thames Water
Amanda Nobbs	Thames Regional Flood and Coastal Committee

# Documentation reviewed

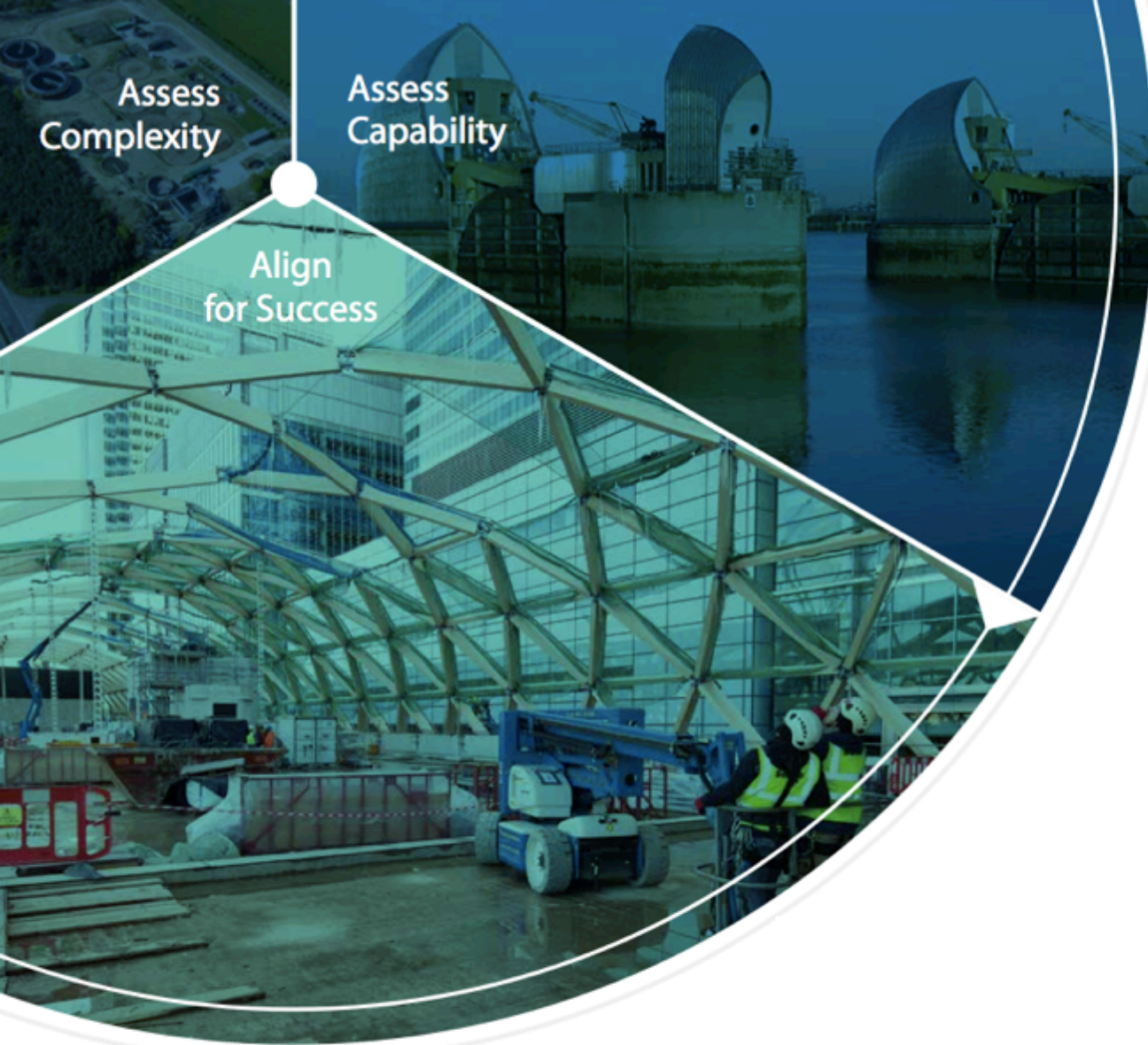
- 16\_02\_08\_Governance Structure v2-.pptx
- Item 1 Oxford 210125 – Highlight Report Jan 16.pdf
- Oxford 150629 – Oxford SOC v17 – no highlighting.docx
- Oxford FAS Information Sheet Jan 2016.pdf



Assess  
Complexity

Assess  
Capability

Align  
for Success



## *Diagnostics*



HM Treasury

Oxford Flood Alleviation Scheme Final Report, March 2016: Official - Sensitive Commercial



UNIVERSITY OF LEEDS

# Diagnostic

Pre-diagnostic

Step 1:  
Diagnostic

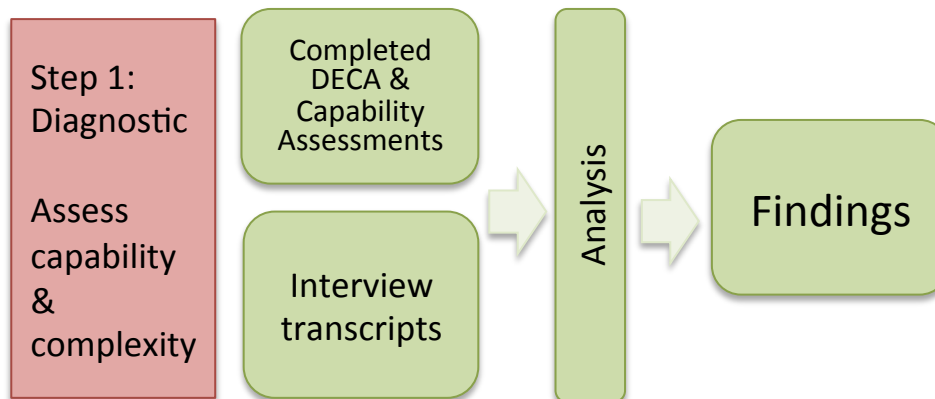
Assess  
capability &  
complexity

Step 2: Align  
for Success

Step 3:  
Enhancement  
Planning

Follow up

- Step 1 of the Routemap is the diagnostic activity; the DECA and capability assessments are used to understand the complexity of the project and the capabilities of the parties involved
- During the first Critical Friend session on the 11<sup>th</sup> February the participants undertook the diagnostic exercises as a group activity
- The following pages show the completed diagnostics



## Delivery Environment Complexity Assessment (DECA)

*The DECA is an assessment tool used to gain an understanding of the level of complexity of a project. The DECA contains 12 factors that are scored as Low, Medium or High.*

## Capability Assessments

*Four capability assessments are used to assess the characteristics that are required and in evidence in the sponsor, asset manager, client and market.*

*Capability can then be compared to complexity; do the organisations involved in the project have the capabilities that are required for successful delivery of a project of that complexity?*

# Delivery environment complexity

Factor	Assessment Data			Profile	Profile %
	Low	Medium	High		
Strategic importance	1	5	8	H	57%
Stakeholders/ Influencers	0	8	6	M	57%
Requirements and Benefit Articulation	4	9	1	M	64%
Stability of overall context	3	8	3	M	57%
Financial impact and value for money	0	6	8	H	57%
Execution Complexity (including Technology)	4	6	4	M	43%
Interfaces/ Relationships	0	9	5	M	64%
Range of disciplines and skills	2	8	4	M	57%
Dependencies	10	3	1	L	71%
Extent of change	4	8	2	M	57%
Organisational capability: performance to date	4	10	0	M	71%
Interconnectedness	6	7	1	M	50%

## Delivery Environment Complexity Assessment (DECA)

*The DECA is an assessment tool used to gain an understanding of the level of complexity of a project. The DECA contains 12 factors that are scored as Low, Medium or High.*

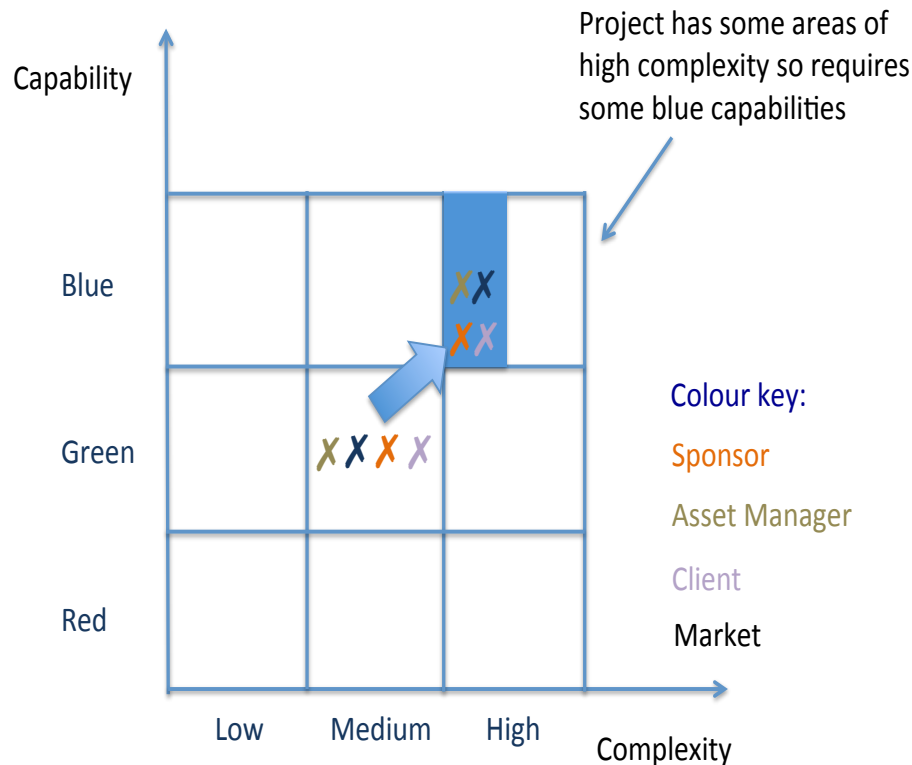
- Overall the complexity assessment indicates a medium level of complexity
- Strategic importance and financial impact and value for money scored 'high' due to the number of stakeholders, the partnership funding arrangements and the scale of partnership funding
- Despite the overall 'medium' complexity rating, the scores do vary across the scale as indicated by the overall profile %, i.e. there is not an overwhelming, majority opinion

# Capability assessment summary

## Capability Assessments

Four capability assessments are used to assess the characteristics that are required and in evidence in the sponsor, asset manager, client and market.

Capability can then be compared to complexity; do the organisations involved in the project have the capabilities that are required for successful delivery of a project of that complexity?



- Each of the thumbnail capability assessments resulted in a 'green' rating
  - Everyone rated sponsor and asset management capability as green
  - 86% of people scored client as green
  - 64% of people scored market green, with 21% rating blue
- Very few 'red' characteristics, i.e. anchors that if left unresolved will prevent successful delivery, were identified
- However, during the scoring exercise there were many cases where some people did identify an anchor, but they did not make up a third of the total group
- However there were many 'green' and 'blue' needed characteristics identified across all parties, i.e. sponsor, asset management, client and market

# Capability assessment thumbnails

## Overall Sponsor Capability Assessment

Red	Green	Blue
Provides insufficient direction and strategic guidance. Ownership of asset is fragmented and subject to conflicting sponsor/client priorities. Processes and systems immature.	Provides direction and policy guidance. Responsible for asset. Demonstrates active stakeholder management. Informs and works with client to manage strategic risks.	Invests in strategic planning. Assured governance structures and processes. Undertakes structured evaluation of asset performance and sets demanding but realistic efficiency targets. Actively seeks out best practice and incorporates into policy/strategy.
0%	100%	0%
0	14	0

## Overall Asset Manager Capability Assessment

Red	Green	Blue
Ownership of assets is fragmented and subject to conflicting sponsor/client priorities. Immature processes and systems. No link to strategic goals.	Clear line of sight to strategic goals and policy. Clear responsibility for assets. Management of strategic risks.	Invests in strategic planning. Assured governance structures and processes. Undertakes structured evaluation of asset performance and sets demanding but realistic efficiency targets. Actively seeks out best practice and incorporates into policy/strategy.
0%	100%	0%
0	14	0

# Capability assessment thumbnails

## Overall Client Capability Assessment

Red	Green	Blue
The delivery environment is not stable with an unrealistic or no formal plan. Processes and systems are immature. No evaluation of impact or performance.	Organised and coherent. Provides direction and policy guidance. Repeatable control methodology and evaluation but focused on objectives rather than outcomes. Processes are evaluated but not improved.	Capable of specifying the requirements to external participants and managing the delivery outcomes. Obtain value from the supply chain through relationship management. Adaptive and sustained system focused on learning and continuous improvement.
7%	86%	7%
1	12	1

## Overall Market Capability Assessment

Red	Green	Blue
The market has insufficient capacity or capability to meet the project's needs or has instabilities that are likely to be detrimental to the project's success.	The market has sufficient capacity and capability to support the project's needs, or has viable plans to enhance any shortfall.	The market is mature yet innovative and is likely to deliver efficiencies in addition to meeting the project's needs.
7%	64%	21%
1	9	3

# Capability assessments – ‘red’ blockers

## Detailed Sponsor Capability Assessment

Current	No.	What sponsor characteristics do you recognise?
<input type="checkbox"/>		Lack of future thinking
<input checked="" type="checkbox"/>	7	Stop/start investment and inflexible funding cycles
<input type="checkbox"/>	2	Political imperatives compromise good practice
<input checked="" type="checkbox"/>	6	Reactive approach
<input type="checkbox"/>		Insufficient planning
<input type="checkbox"/>	1	Alternative solutions are not sufficiently considered
<input type="checkbox"/>		Assessing project in isolation without reference to overall business strategy
<input type="checkbox"/>		The stated business need does not articulate realistic and justified objectives
<input type="checkbox"/>	2	Projects handled as discrete entities
<input type="checkbox"/>	1	Focused on processes to the detriment of outcomes
<input type="checkbox"/>		Inappropriate transfer of risks
<input type="checkbox"/>	1	Lack of clear accountability for key decisions
<input type="checkbox"/>	1	Suspicious culture
<input type="checkbox"/>		Technology viewed as a panacea
<input type="checkbox"/>	2	Work practices compromise delivery
<input type="checkbox"/>	4	Poor strategic awareness of market capacity and capability
<input type="checkbox"/>		Poor development and retention of sponsor capability

## Detailed Client Capability Assessment

Current	No.	What client characteristics do you recognise?
<input type="checkbox"/>		Lack of clarity and direction causing incomplete or unclear requirements
<input type="checkbox"/>	3	Blurred governance structures
<input type="checkbox"/>		Poor risk and contingency management
<input type="checkbox"/>	1	Application of unnecessary standards
<input type="checkbox"/>		Unnecessarily bespoke solutions
<input type="checkbox"/>	2	Competitive processes do not result in desired outcomes
<input type="checkbox"/>	1	Highly risk averse approach regardless of market capability
<input type="checkbox"/>		Does not adapt or change behaviour to the circumstances
<input type="checkbox"/>	2	Does not incentivise investment within the supply chain
<input type="checkbox"/>	1	No investment in the development of client organisation capability

## Detailed Asset Manager Capability Assessment

Current	No.	What asset manager characteristics do you recognise?
<input checked="" type="checkbox"/>	7	Inadequate whole life asset management approach
<input type="checkbox"/>		The investment asset strategy is not aligned to the organisations strategic objectives
<input type="checkbox"/>		Poor decision making, governance structures and processes undermine asset strategy
<input type="checkbox"/>	1	Reactive management and/or ill-defined roles and responsibilities
<input type="checkbox"/>	2	Lack of resilience
<input type="checkbox"/>	1	Unnecessary use of bespoke solutions
<input type="checkbox"/>		Not based on a whole life value for money proposition
<input type="checkbox"/>	1	No strategic engagement with the operators and/or supply chain
<input type="checkbox"/>		Inappropriate, changing or no data
<input type="checkbox"/>		No investment in capability development
<input type="checkbox"/>		Inappropriate transfer of risks
<input type="checkbox"/>	1	Lack of clear accountability for key decisions
<input type="checkbox"/>	2	Suspicious culture
<input type="checkbox"/>		Technology viewed as a panacea
<input type="checkbox"/>		Work practices compromise delivery
<input type="checkbox"/>	1	Poor strategic awareness of market capacity and capability
<input type="checkbox"/>	2	Poor development and retention of sponsor capability

## Detailed Market Capability Assessment

Current	No.	What market characteristics do you recognise?
<input type="checkbox"/>	2	The market comprises many small individual organisations working for multiple clients
<input type="checkbox"/>		One party tends to dictate the relationship (e.g. client or supplier dominates)
<input type="checkbox"/>	3	Work is normally awarded based on lowest price
<input type="checkbox"/>	2	Little interaction between suppliers prior to contract awards
<input type="checkbox"/>	3	No collective understanding of market's capacity to deliver
<input type="checkbox"/>		Suppliers do not understand the client business and therefore cannot offer business oriented solutions
<input type="checkbox"/>	4	Roles and responsibilities across the supply chain are hierarchical with each sub-let being dictated by the letting supplier's tender
<input type="checkbox"/>	2	Design tends to be a discrete activity completed before implementation suppliers are invited to tender
<input type="checkbox"/>		Inconsistent performance resulting in unfulfilled outcomes

‘Red’ characteristics are indicative of a failing system and if left unaddressed will hold the project back. Red characteristics are considered to be blockers to successful programme delivery.

Note: characteristics have been ticked where 5 or more people (a third of the group) recognised it as being present. The number in the next column shows the exact number of people who identified a characteristic

# Capability assessments – ‘green’ & ‘blue’

## Detailed Sponsor Capability Assessment

Current	Needed	What sponsor characteristics do you recognise?
✓	✓	An accurate and frequently validated baseline of benefit measures is maintained
✓	✓	Requirements and issues are identified
☐	✓	Scenario planning
✓	☐	Recognition of the need for investment in initiation/front end loading
✓	✓	Robust business case
✓	✓	The investment case is reviewed before progressing to implementation
✓	✓	Clarity of accountability and authority
✓	✓	The ‘right’ programme of projects is identified
✓	☐	Smart management of the sponsor/client interface
✓	☐	Active stakeholder engagement
✓	✓	Lessons learned are fed back into the decision-making process
Current	Needed	What sponsor characteristics do you recognise?
✓	☐	Visible and consistent support and ownership of the vision
✓	✓	Continuity of investment
☐	✓	Achievability of business objectives is validated
☐	✓	Clear requirement definition with measurable benefits
☐	✓	Effective and clear decision-making processes that challenge assumptions
✓	✓	Active risk management focused on benefits delivery
✓	☐	Adaptive culture established
✓	☐	Investment aligned with business needs
☐	✓	Leverages/optimises value-adding interdependencies
✓	☐	Managed stakeholder support
✓	☐	Sufficient autonomy and capability to enable delivery and manage resources
☐	✓	Lessons learned and performance data are systemically captured and built into decision making

## Detailed Asset Manager Capability Assessment

Current	Needed	What asset manager characteristics do you recognise?
✓	✓	Whole life asset strategy
☐	☐	Optimised asset grouping
☐	✓	Asset performance measurement
☐	✓	Planned asset resilience
☐	✓	Formalised whole life asset management processes, functions and roles
☐	✓	Plan for operational readiness
✓	☐	Active stakeholder engagement
✓	☐	Competency assessment and development framework is utilised
✓	✓	Data usage and information management
Current	Needed	What asset manager characteristics do you recognise?
☐	☐	Intelligent use of assets aligned to organisational goals
☐	✓	Continuity of performance through asset life
✓	☐	Effective governance, leadership and change management
☐	✓	Investment efficiency and performance measurement
☐	☐	Systemic organisational view of assets
☐	✓	Effective operational readiness strategy in place
☐	☐	Assured capability
☐	☐	Intelligent data usage and knowledge management

‘Green’ characteristics are seen in systems that are performing acceptably but may not be fully optimised.

‘Blue’ characteristics are indicative of an effective and efficient system that has been optimised. Not all projects will require ‘blue’ in order to succeed.

Note: characteristics have been ticked where 5 or more people (a third of the group) recognised it as being present.



# Capability assessments – ‘green’ & ‘blue’

## Detailed Client Capability Assessment

Current	Needed	What client characteristics do you recognise?
✓	☐	Knows what is needed and prioritises accordingly
✓	☐	Establishes project purpose, principles, roles and tasks before the detail
✓	☐	Translates sponsor requirements into clear functional/technical requirements
✓	☐	Constructively challenges changes from sponsor
✓	☐	Challenges ‘specialist’ requirements
✓	✓	Establishes appropriate measurements, metrics and targets for success
✓	✓	Benchmarks cost and performance and applies industry comparators as appropriate
✓	☐	Implements appropriate business processes and understands their benefits
✓	✓	Invests in information management
☐	✓	Balances risk and reward appropriately with the supply chain
✓	☐	Consistent behaviours towards others
✓	☐	Makes timely decisions
✓	☐	Governance arrangements provide clear accountability to sponsoring organisation
Current	Needed	What client characteristics do you recognise?
✓	☐	Considers long term efficiency before short term commercial gain
✓	✓	Objectively challenges the requirements and cost estimates
✓	✓	Understands and applies whole life cost and carbon reduction principles
✓	☐	Effectively bridges interfaces between organisations
✓	☐	Ensures project needs supersede individual stakeholder demands
☐	✓	Risk and reward deliver optimum outcome
☐	☐	Makes informed use of competition
✓	☐	Advocates on behalf of the team – a no blame culture
☐	☐	Adopts lean principles and concepts
☐	☐	Continuous capability and capacity enhancement
☐	✓	Strategic awareness of market appetite, capacity and capability

## Detailed Market Capability Assessment

Current	Needed	What market characteristics do you recognise?
☐	✓	The market works closely together up and down the tiers of the supply chain
✓	☐	Clients manage suppliers strategically but encourage interaction and contribution
✓	✓	Agreements between suppliers and/or customers enable long-term investment in performance improvement
✓	☐	The main players involved in projects focus on delivering project goals
✓	☐	Suppliers understand the client business and offer business oriented solutions to mutual benefit enabling more effective incentivisation
✓	☐	Client team work on an integrated basis with some key suppliers
✓	☐	Design is iterative and involves parties concerning installation, operations and maintenance (whole life approaches)
☐	✓	The market collaborates to find ways of getting more benefit for the same cost, thus adding value
✓	✓	Suppliers form multi-skilled joint ventures and consortia for specific projects
✓	☐	Generally time, cost and quality requirements are met
✓	☐	Performance across the supply chain is measured, understood, communicated and acted upon
Current	Needed	What market characteristics do you recognise?
☐	✓	The whole industry is interconnected and those interconnections are understood and maximised
☐	☐	Suppliers bring forward supply chain partners they feel will add the most value to successful delivery
✓	☐	Organisations regularly participate in repeat activity where many partners at all levels move from project to project and/or customer to customer
✓	☐	Organisations understand the importance of ensuring that all parts of the chain understand the goals of the project and the philosophy being adopted
☐	☐	Structure and organisation on projects is agreed by the collaborative integrated project team
☐	✓	There is a market focus on removing unnecessary duplication and wastage, thus adding value
☐	✓	There is long term investment to building market capability (e.g. research, development, facilities)
☐	✓	Established and long-term joint ventures and new companies formed to offer integrated solutions

Assess Complexity

Assess Capability

Align for Success

## *Critical Friend Workshops*



HM Treasury



# Critical Friend Workshops

Pre-diagnostic

Step 1:  
Diagnostic

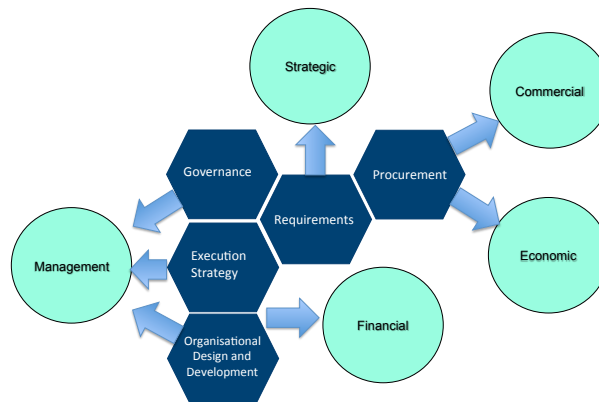
Assess  
capability &  
complexity

Step 2: Align  
for Success

Step 3:  
Enhancement  
Planning

Follow up

- Three 'critical friend' workshops plus an enhancement planning workshop were undertaken with the Oxford team to facilitate them through the Routemap process
- The first critical friend session was held on the 11<sup>th</sup> February. The purpose of this session was to undertake step 1 of the Routemap process – the diagnostic and to develop a set of initial findings/issues that needed to be addressed
- Following this, two further critical friend sessions were held on the 25<sup>th</sup> February and 11<sup>th</sup> March to undertake step 2 of the process – align for success
- During the 2<sup>nd</sup> and 3<sup>rd</sup> sessions, informed by the DECA and capability assessments results from the first session, relevant Align for Success modules were identified and the team worked through the modules, in groups, to turn the findings into a set of recommendations



The Align for Success modules can also be mapped to the elements of the Outline Business Case model

## Align for Success Modules

*The Routemap contains five Align for Success Modules that provide advice on enhancing capability in the following areas: Governance, Requirements, Execution Strategy, Organisational Design and Development, Procurement.*

*Whilst this list is not exhaustive, and other areas of capability might need to be examined and addressed as part of the process of improving delivery, these areas address many of the capability characteristics and provide a proven starting point for enabling the enhancement of capability.*

*Each of the characteristics on the capability assessments can be mapped to a relevant module(s), allowing the modules that will support enhancement of capability to be identified.*

# Critical Friend Workshops – Using the Align for Success Modules

- Each of the characteristics on the capability assessments can be mapped to a relevant module(s), allowing the modules that will support enhancement of capability to be identified
- Each module contains a number of considerations that support identification of gaps in existing practices and prompt best practices that should be considered
- Working through the considerations and best practices in the modules, taking into account the characteristics identified as being ‘red’ blockers and ‘needed’ from the capability assessments, enables identification of gaps and development of recommendations to address them

Example: The characteristic “lack of future thinking” maps to the Requirements module

Characteristic	Current	Needed
Lack of future thinking	3	5
Long start investment and inflexible funding cycles	5	5
Political imperatives compromise good practice	12	5
Reactive approach	6	5
Insufficient planning	4	5
Alternative solutions are not sufficiently considered	3	5
Assessing project in isolation without reference to overall business strategy	0	5
The stated business need does not articulate realistic and justified objectives	0	5
Projects handled as discrete entities	8	5
Focused on processes to the detriment of outcomes	4	5
Inappropriate transfer of risk	4	5
Lack of clear accountability for key decisions	5	5
Suspicious culture	6	5
Technology viewed as a panacea	2	5
Weak practice programme delivery	9	5
Poor strategic awareness of supply chain capacity and capability	6	5
Poor development and retention of sponsor capability	2	5
<b>Areas</b>		
An accurate and frequently validated baseline of benefit measures is maintained	11	3
Requirements and issues are identified	13	5
Scenario planning	10	5
Recognition of the need for investment in initiation/float end loading	11	7
Robust business case	15	3
The investment case is reviewed before progressing to implementation	13	3
Clarity of accountability and authority	8	10
The 'right' programme of projects is identified	9	5
Smart management of the sponsor/client interface	10	6
Active stakeholder engagement	9	8
Lessons learned are fed back into the decision-making process	5	11
<b>Enablers</b>		
Visible and consistent support and ownership of the vision	8	9
Continuity of investment	7	9
Availability of business objectives is validated	10	4
Clear requirement definition with measurable benefits	10	4
Effective and clear decision-making processes that challenge assumptions	2	12
Active risk management focused on benefits delivery	3	10
Adaptive culture established	4	6
Investment aligned with business needs	10	4
Leverages/optimises value-adding interdependencies	3	6
Managed stakeholder support	6	7
Sufficient autonomy and capability to enable delivery and manage resources	3	9
Lessons learned and performance data are systematically captured and built into decision-making	6	9



Current	Needed	What sponsor characteristics do you recognise?	Module
<input type="checkbox"/>		Lack of future thinking	R
<input type="checkbox"/>		Stop / start investment and inflexible funding cycles	G
<input type="checkbox"/>		Political imperatives compromise good practice	R
<input type="checkbox"/>		Reactive approach	R / G
<input type="checkbox"/>		Insufficient planning	E
<input type="checkbox"/>		Alternative solutions are not sufficiently considered	E / R
<input type="checkbox"/>		Assessing project in isolation without reference to overall business strategy	G
<input type="checkbox"/>		The stated business need does not articulate realistic and justified objectives	R



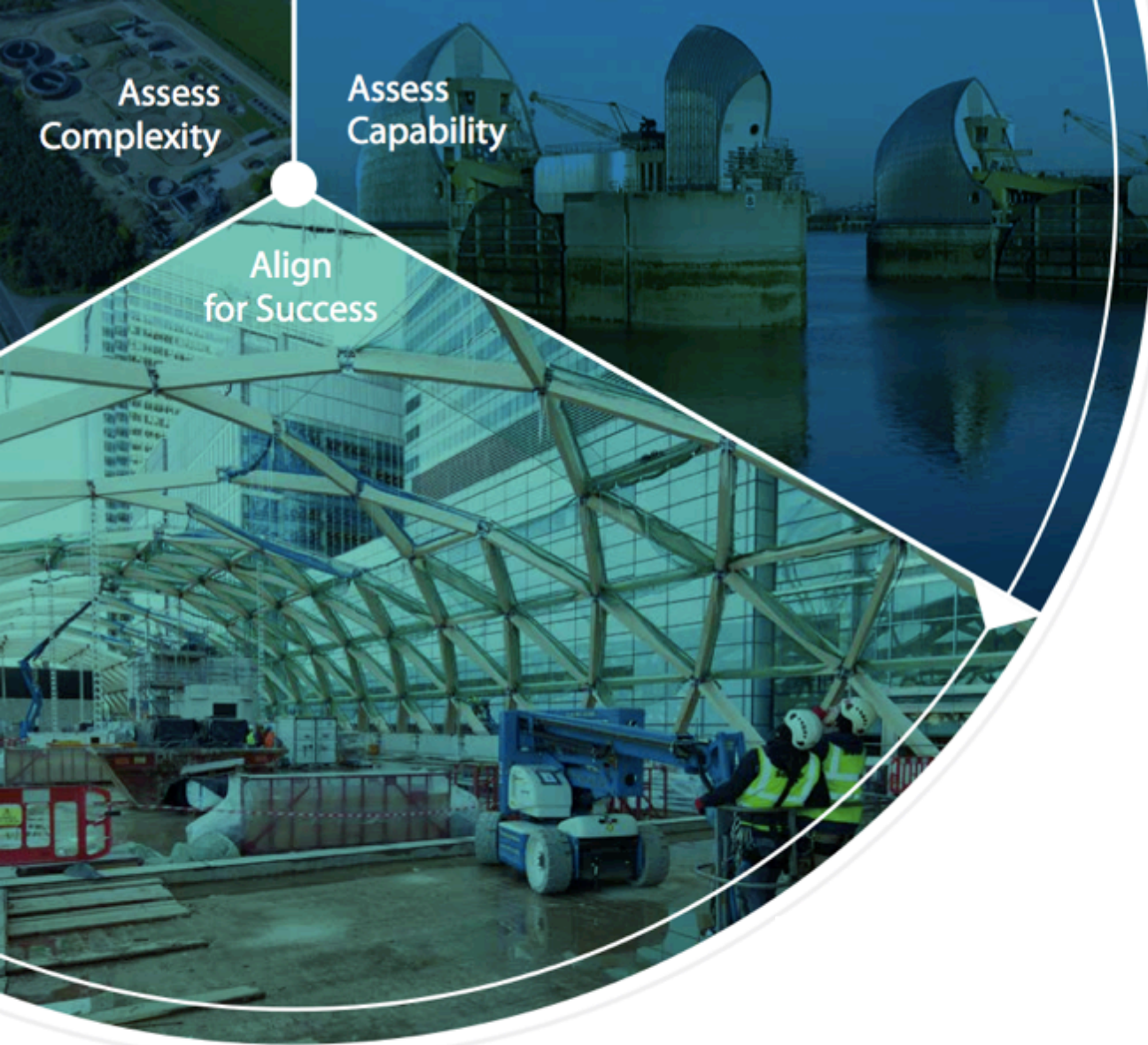
The requirements module can then be used to inform thinking

Considerations: Shared vision of success		
Key prompts	Considerations	What may help
<b>Articulation of success</b>	<ul style="list-style-type: none"> <li>Has success been clearly articulated, for example in a vision statement? (Where is it documented?)</li> <li>Has the process to identify the vision been collaborative and inclusive?</li> <li>How have conflicts been managed and recorded?</li> <li>How has this been discussed with relevant stakeholders?</li> <li>Has the vision been mutually accepted by the relevant stakeholders?</li> <li>Is the vision really understood and does it provide unified direction?</li> <li>Does the vision align with the organisation's long-term objectives?</li> <li>How has the shared vision been tested?</li> </ul>	Supporting Material pg 13 Ref 11, 12, 17

Assess  
Complexity

Assess  
Capability

Align  
for Success



# *Critical Friend Workshop Day 1 - Diagnostic*



HM Treasury

Oxford Flood Alleviation Scheme Final Report, March 2016: Official - Sensitive  
Commercial



UNIVERSITY OF LEEDS

# Critical Friend Day 1

## Critical Friend Day 1

### Agenda

*Introduction and overview of agenda*

*Oxford Scheme overview*

*Introduction to the Routemap*

*DECA review*

*Capability Assessment review*

*Overview of Align for Success module*

*Split into groups and develop findings based on the diagnostic outputs*

*Group feedback*

- The first critical friend session was held on 11<sup>th</sup> February
- The purpose of the session was to undertake the Routemap complexity and capability assessments in order to identify the issues and challenges being faced by the team so that a series of initial findings that needed tackling could be agreed
- Following individual introductions, an overview of the Oxford scheme and an introduction to the Routemap, the complexity (DECA) and capability assessments were undertaken as a group exercise
- The outputs of the diagnostics have been shown previously
- On completion of the assessments, the team were given an overview of the Routemap Align for Success modules
- Following this they were split into three groups and asked to develop a list of issues/findings, and to note the relevant Routemap Align for Success module that the finding related to
- The session closed with the groups sharing their findings with the whole team
- This initial set of findings was captured and is shown on the next page

### **Delivery Environment Complexity Assessment (DECA)**

*The DECA is an assessment tool used to gain an understanding of the level of complexity of a project. The DECA contains 12 factors that are scored as Low, Medium or High.*

### **Capability Assessments**

*Four capability assessments are used to assess the characteristics that are required and in evidence in the sponsor, asset manager, client and market.*

*Capability can then be compared to complexity; do the organisations involved in the project have the capabilities that are required for successful delivery of a project of that complexity?*

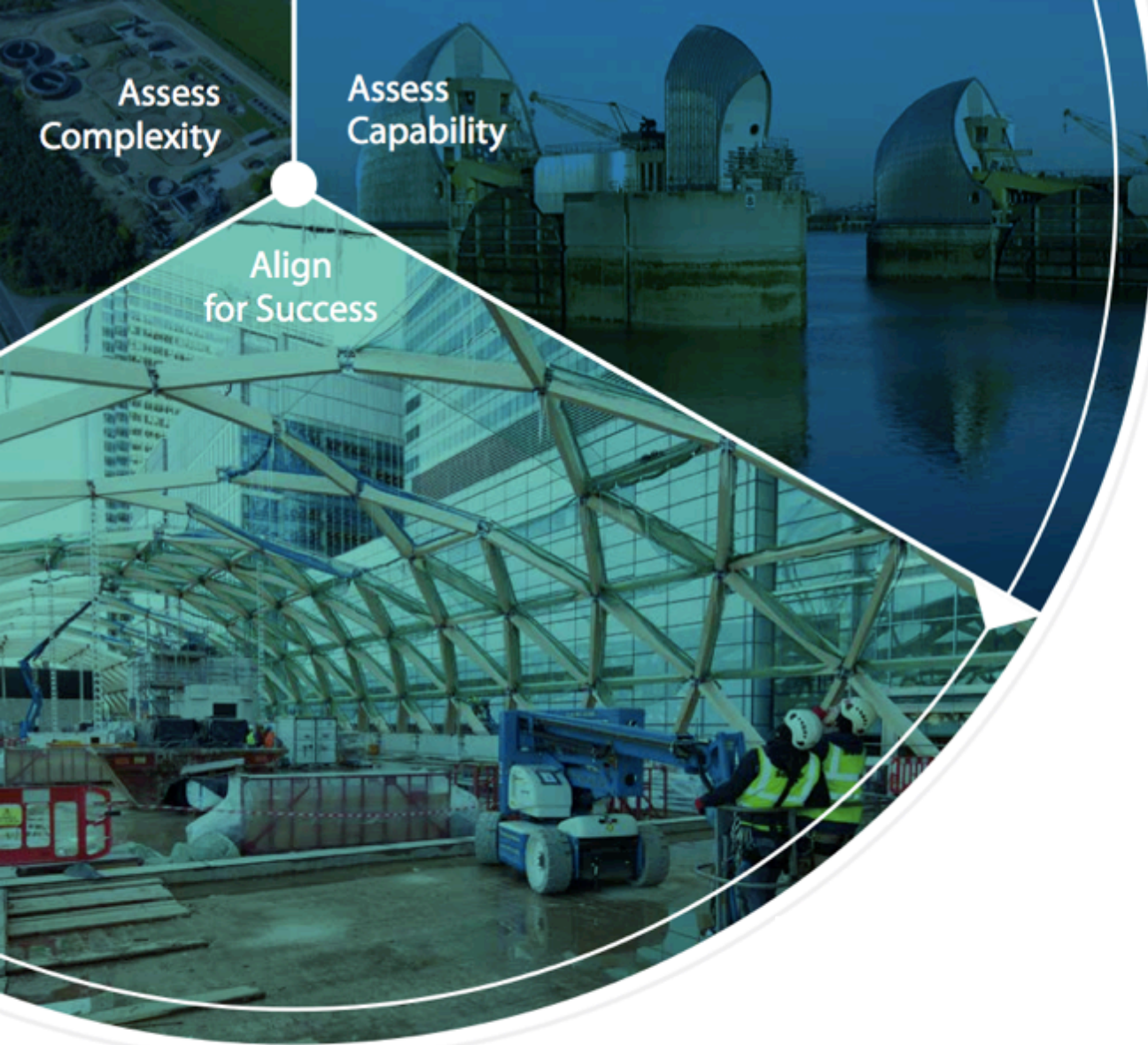
# Critical Friend Day 1 - Initial Findings

- The programme is unrealistic; policy flexes might make it more achievable
- Stakeholders and decision making; maintaining momentum and confidence, timely decision making
- Winning hearts and minds of stakeholders to ensure the project is not deflected
- Material management; need to develop strategy for cost efficient materials movement
- Procurement – need appropriate procurement strategy to drive best value
- Culture change; major projects are different
- Constantly vulnerable to the changing political landscape
- High risk and high return – ramifications beyond immediate project
- Succession planning, future resourcing and major projects being seen as ‘elite’
- There needs to be a continual balance of challenges to the programme by the sponsor versus stakeholder requirements; level of scope change impacting programme delivery and stakeholder benefits – corporate versus project governance
- Asset management: Maximising the team role interdependencies needs to happen to ensure efficiencies – future maintenance
- Internal processes make decision making slow; need clear decision making and no-revisiting of decisions
- Market: the sooner competitive suppliers are brought in the sooner they can contribute and take ownership of efficiencies
- Partnership funding, and impact of the 6 year programme and programme changes

Assess  
Complexity

Assess  
Capability

Align  
for Success



## *Critical Friend Workshop Day 2 – Align for Success*



HM Treasury

Oxford Flood Alleviation Scheme Final Report, March 2016: Official - Sensitive  
Commercial



UNIVERSITY OF LEEDS



# Critical Friend Day 2

## Critical Friend Day 2

### Agenda

*Recap of analytics and findings from the previous session*

*Align for Success recap*

*Allocate people to Align for Success module groups*

*Split into module groups & commence development of recommendations using the module considerations*

*Agree action plan to complete module review between now and next session*

- The second critical friend session was held on the 25<sup>th</sup> February
- The purpose of the session was to commence working through the Align for Success modules to develop a series of recommendations that would address the agreed findings (see below)
- Since the first session, the University of Leeds and IPA team had collated the diagnostic data and initial findings and so these were presented back to the team for discussion and agreement
- The team were then reminded of the Routemap Align for Success modules which they would be using to help them develop the agreed findings into a set of recommendations
- The team were then split into 5 groups, with each group responsible for addressing one or more of the findings

### Findings

1. The governance structures, both corporate and project, are complex. The project team is making these work but they could be clarified to enhance timely decision making.
2. The vision and high level objectives are clear, but the benefits are not fully defined at this stage in the development of the scheme. Once the preferred option is selected and the associated benefits are agreed with our partners, the impacts of any changes of scope on the team need to be managed.
3. The project is 'pathfinding' and the programme is ambitious. Existing Environment Agency work practices may need to be reviewed to meet the challenges of this major project. There is a significant amount of effort expended on stakeholder engagement, that is deemed necessary, to support the delivery of this ambitious partnership project.
4. Organisational design and development plans exist for the current stage but will need to be developed in detail for future stages of the project. Enhancing these before submission of OBC will maximise the opportunities for using the full capabilities across the partnership.
5. The ambitious programme may restrict the number of commercial approaches to deliver the scheme. Stronger coordination during the next stages of the scheme development to focus on efficiency and innovation could enable the optimal commercial approach to be identified. This would contribute to overall affordability.
6. Partnership funding on this scale is new to the Environment Agency and partners, and it is going to be a challenge to close the gap
7. The maintenance approach is being developed. It should be defined to enable opportunities to develop an innovative approach, secure funding and reduce overall costs.

# Critical Friend Day 2

## Critical Friend Day 2

### Agenda

*Recap of analytics and findings from the previous session*

*Align for Success recap*

*Allocate people to Align for Success module groups*

*Split into module groups & commence development of recommendations using the module considerations*

***Agree action plan to complete module review between now and next session***

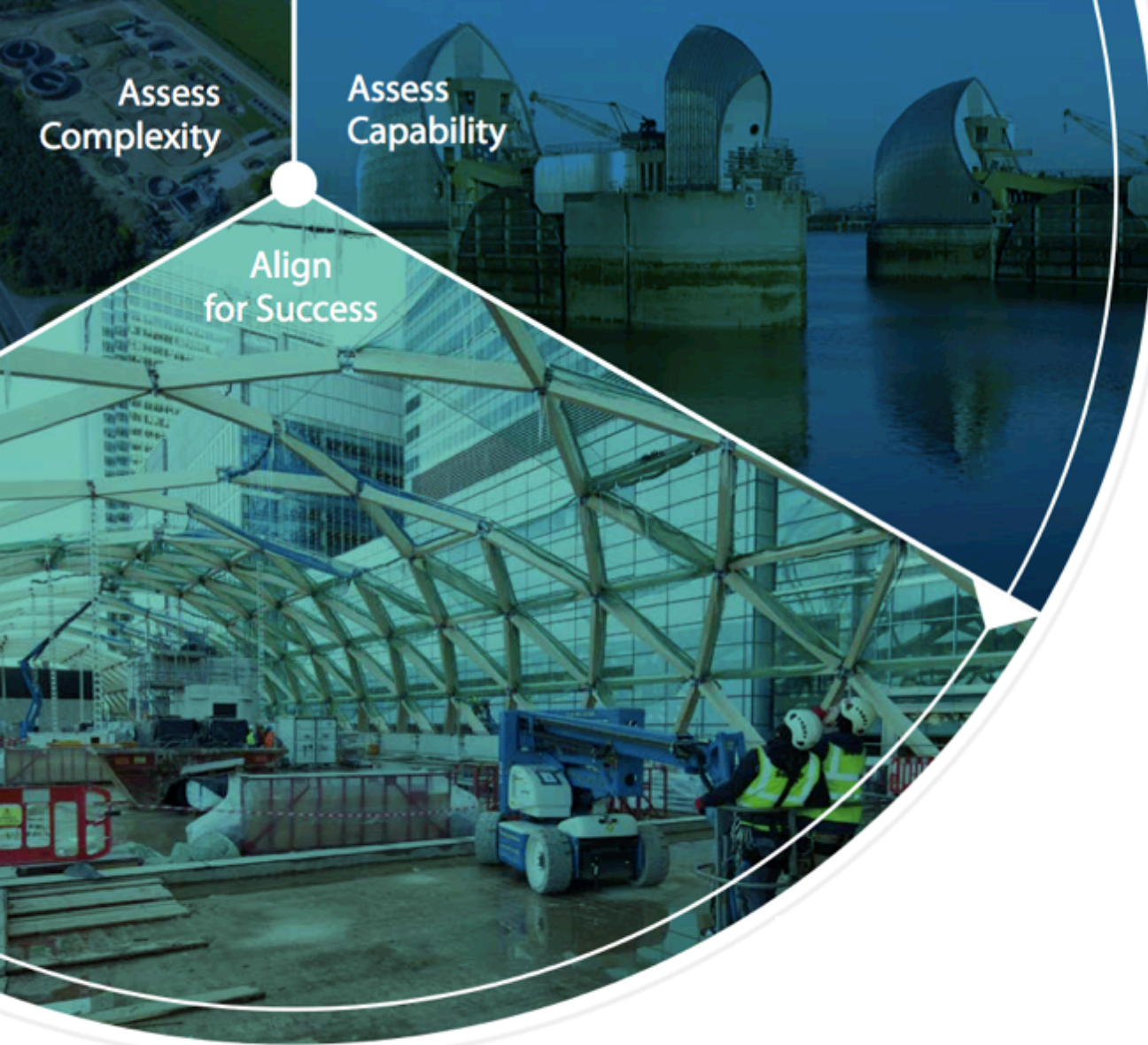
- By the end of the session each of the groups had developed an initial list of recommendations
- It was agreed that the groups would finalise these prior to the next session and then present an update to the team at the start of the next session

Group	Findings to be addressed	Relevant modules/ reference material	Who
Governance	Finding 1	Governance module	Richard, Paul, Ian, Jo
Requirements	Finding 2	Requirements module	Emma, Steve
Execution Strategy & Asset Management	Finding 3 Finding 7	Execution strategy module	Peter, Helen
Organisational Design & Development	Finding 4	OD&D module	Chris, Mark
Procurement & Funding	Finding 5 Finding 6	Procurement module	Tim, Jon, Laura, Scott

Assess  
Complexity

Assess  
Capability

Align  
for Success



## *Critical Friend Workshop Day 3 – Align for Success*



HM Treasury

Oxford Flood Alleviation Scheme Final Report, March 2016: Official - Sensitive  
Commercial



UNIVERSITY OF LEEDS

# Critical Friend Day 3

## Critical Friend Day 3

### Agenda

*Check against objectives and review of progress*

*Another perspective – the Hexagon*

*Preparing for Enhancement Planning – vision & timescales*

*Group work preparing for enhancement planning*

*Session review*

- The third critical friend session was held on the 11<sup>th</sup> March
- The aim of this session was to share each of the group's recommendations and then prepare for the enhancement planning workshop planned for the following week
- Another perspective of the project was also provided using The Hexagon to identify key challenges and opportunities that would help inform priorities when enhancement planning
- In preparation for enhancement planning, the project vision was reviewed with a view to defining a vision for the enhancement planning workshop, and the milestone dates for the enhancement plan were agreed
- The team then split back into their groups to finalise their recommendations, identify the workstreams for their enhancement plans, and then write statements of what good would look like for each of these workstreams
- The session closed with the team being given an number of activities to complete in preparation for the next session

## Align for Success Modules

*The Routemap contains five Align for Success Modules that provide advice on enhancing capability in the following areas: Governance, Requirements, Execution Strategy, Organisational Design and Development, Procurement.*

*Whilst this list is not exhaustive, and other areas of capability might need to be examined and addressed as part of the process of improving delivery, these areas address many of the capability characteristics and provide a proven starting point for enabling the enhancement of capability.*

*Each of the characteristics on the capability assessments can be mapped to a relevant module(s), allowing the modules that will support enhancement of capability to be identified.*

# Critical Friend Day 3 – Recap of objectives & group feedback

## Critical Friend Day 3

### Agenda

*Check against objectives and review of progress*

*Another perspective – the Hexagon*

*Preparing for Enhancement Planning – vision & timescales*

*Group work preparing for enhancement planning*

*Session review*

- At the start of the session there was a check back against the challenges/objectives that had been captured as part of the Routemap activity proposal document to ensure that the team's recommendations took these issues into account (see box below)
  - Each of the groups then gave an update to the team on their recommendations – these are included on the following pages
- **Delivering a significant project in partnership with many other risk management authorities.**
    - Is the Environment Agency, as lead authority, best placed to engage the market rather than any of the other partners?
    - Is a new commercial arrangement required (internally within the Sponsoring Group or externally with the market) to develop and deliver the scheme, especially to manage the funding?
    - What can the Oxford Flood Alleviation Scheme learn from the River Thames Scheme or other projects?
  - **Funding the scheme: construction and long term maintenance.**
    - As with River Thames Scheme, does this scheme present an opportunity to widen the scope and get additional funding streams for wider benefit?
    - There is partner appetite to consider a management organisation to take on the leadership for future maintenance and involve the local community as much as possible.
    - What other options / approaches can we take secure additional funding?
  - **Programme and risk management.**
    - Can we accelerate delivery, provide early benefits whilst ensuring efficient delivery and effective management of key project risks (including materials management, heritage and critical infrastructure continuity)?
  - **Expectation management.**
    - How does the project aim to manage expectations with project partners and relevant stakeholders should significant change occur?
  - **Planning, consents and authorisations.**
    - What are the most efficient approval routes?
    - How does the project approach these issues to mitigate delays?
  - **Stakeholder engagement.**
    - How will the project approach this to ensure stakeholders are fully engaged and feel valued?
    - How will the project manage opposition to the scheme?
  - **Materials Management.**
    - How can we reduce material disposal? What innovative ideas will support this?
    - How can we re-use material on site?
    - How can we use innovative approaches to gain public support?

# Governance Group

The governance structures, both corporate and project, are complex. The project team is making these work but they could be clarified to enhance timely decision making.

- Further develop risk strategy to incorporate Partners' risks
- Extend IAAP to understand and include partners
- Extend declaration of interest to partners
- Hold periodic reviews at key milestones or project transition points to ensure the MoU and governance framework remain fit for purpose
- Create a matrix to show who owns critical decisions
- Produce a master assumptions list to underpin the Project's current ambitious programme,
- Develop a benefits realisation matrix and allocate champions at Sponsor
- Finalise tolerances paper to outline the limits of delegation for decision making and the triggers for intervention
- Identify and include in governance documentation the Partners' respective 'Red Lines' or 'Must Haves'

# Requirements Group

The vision and high level objectives are clear, but the benefits are not fully defined at this stage in the development of the scheme. Once the preferred option is selected and the associated benefits are agreed with our partners, the impacts of any changes of scope on the team need to be managed.

- Accountability and solidarity from every project partner
- Benefits need to be prioritised or ranked (supported by partners)
- Evidence of clear decision from all partners about (i) what will be delivered by project i.e. guaranteed critical success factor, (ii) what we will aspire to achieve but not guaranteed, (iii) what we have rejected and will definitely not be delivered
- Clear process for challenges to this (e.g. consideration of public consultation results and, where necessary, justified rejection by the project team)
- Agreed process for monitoring success (over lifetime) – achievement or failure of critical success factors

# Execution Strategy & Asset Management Group

The project is 'pathfinding' and the programme is ambitious. Existing Environment Agency work practices may need to be reviewed to meet the challenges of this major project. There is a significant amount of effort expended on stakeholder engagement, that is deemed necessary, to support the delivery of this ambitious partnership project.

The maintenance approach is being developed. It should be defined to enable opportunities to develop an innovative approach, secure funding and reduce overall costs.

- Environment Agency communications team to act as impartial communication lead with collaboration from all partners at officer level on a regular basis.
- Senior staff from all partner organisations to act as spokespeople.
- Partners to actively suggest and actively contribute towards opportunities for media engagement.
- Adopt basic communication principals: very regular two way dialogue with as many diverse groups as possible.
- Speak to customers in a manner in which they would like to be communicated with. One size doesn't fit all.
- Seek out where there is suspicion, focus efforts on managing this and check whether our efforts are being effective. Adjust as necessary.
- Regular updates from project team to RFCC.



# Execution Strategy & Asset Management Group cont.

- Occasional presentations / sites visits prior to critical milestones. Highlight at an early stage where Oxford FAS programme may affect the 6 year programme.
- Check that colleague in pivotal roles (Director, Project Executive, Project Manager etc.) feel empowered to make challenges where they feel the project is straying from its core requirements.
- Find ways in which the team can explore creative and innovative ways of finding solutions to the challenging programme.
- Increase project officer awareness of who is able to liaise with other organisations and influential stakeholders to explore bespoke ways of working.
- Project procurement lead to advise on better ways of working to increase external innovation.
- Look more widely internally to involve non Oxford FAS staff / evaluation documents across the country to learn from.
- Evaluate similarities from large projects such as HS2 etc.

## Finding

Organisational design and development plans exist for the current stage but will need to be developed in detail for future stages of the project. Enhancing these before submission of OBC will maximise the opportunities for using the full capabilities across the partnership.

## Recommendations

### Resourcing

- Requirements
- Recruitment
- Resilience

### Champions

- Strengthening
- Supportive
- Successes

### Information

- Accessible
- Appropriate
- Assured

# Efficiency, Value, Procurement & Funding Group

The ambitious programme may restrict the number of commercial approaches to deliver the scheme. Stronger coordination during the next stages of the scheme development to focus on efficiency and innovation could enable the optimal commercial approach to be identified. This would contribute to overall affordability.

Partnership funding on this scale is new to the Environment Agency and partners, and it is going to be a challenge to close the gap

- P - Finalise commercial options and communicate to Sponsor Group
- P - Informed decision making required by the Sponsoring Group on commercial options
- P - Work with supply chain: appetite, capability, sub-contractors, other infrastructure projects
- Greater link between commercial options and funding
- F – Improved clarity on programme dependencies relating to funding
- F - Evidence current work undertaken to close the gap
- F - Contingency plan should funding gap remain

# Critical Friend Day 3 - Another Perspective

## Critical Friend Day 3

### Agenda

*Check against objectives and review of progress*

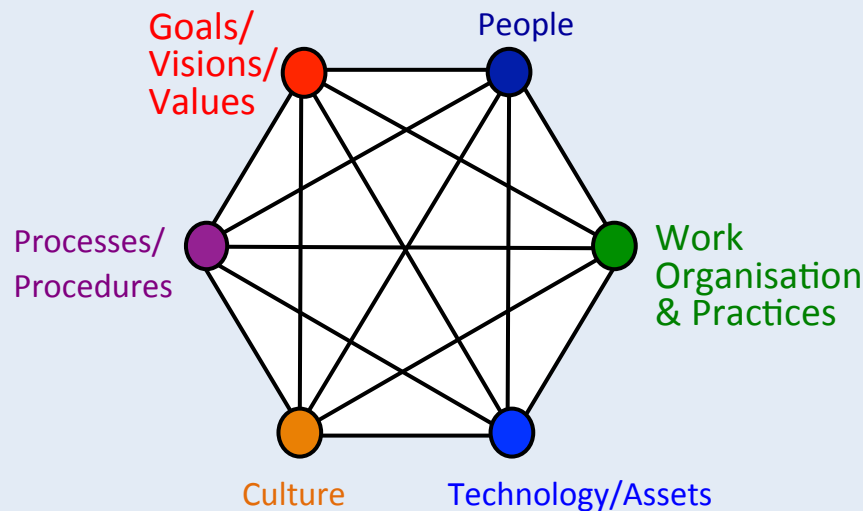
***Another perspective – the Hexagon***

*Preparing for Enhancement Planning – vision & timescales*

*Group work preparing for enhancement planning*

*Session review*

- In order to provide another perspective, aside from the Routemap modules, on the challenges and opportunities associated with the programme, an activity was carried out using The Hexagon
- As individuals the team firstly captured challenges and opportunities on post its
- The team then split into groups and stuck their post its onto A0 posters of the hexagon.
- Each group then agreed the top opportunities and challenges which were then fed back to the whole team

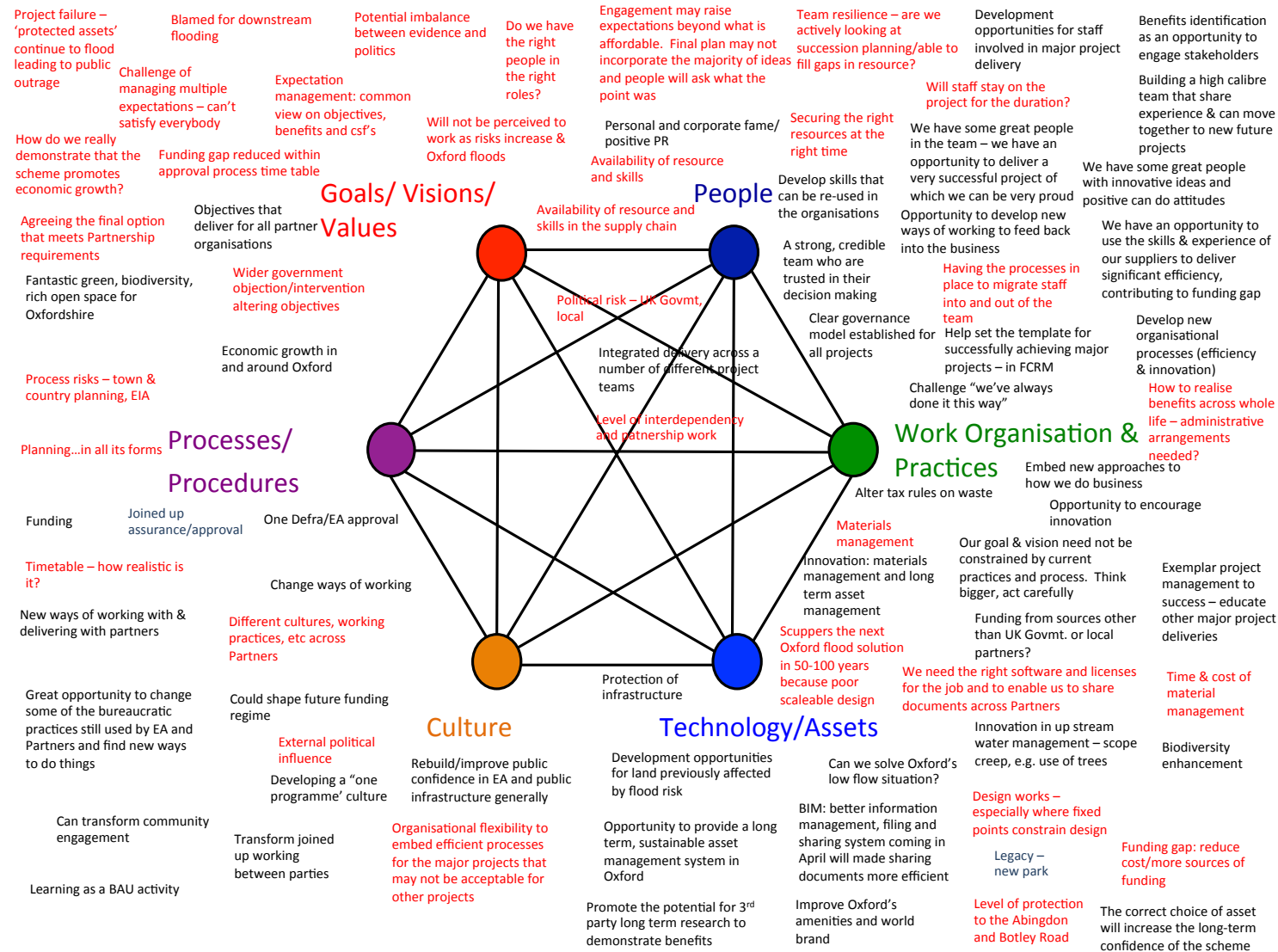


### Another Perspective - The Hexagon

*The Hexagon provides a means of visualising the interconnectedness between aspects of an organization so that challenges and opportunities can be viewed from a holistic, organizational perspective, not just from a departmental/discipline perspective.*

# Critical Friend Day 3 - Another Perspective

Below is the combined hexagon showing all the challenges and opportunities identified. Challenges are written in black, opportunities in red.



## Opportunities Summary:

- Building a high calibre team that share experiences and can move together to new future projects
- Building a high calibre team that share experience and can move together to new future projects

## Challenges Summary:

- Challenge of managing multiple expectations – can’t satisfy everyone
- Team resilience – are we actively looking at succession planning / able to fill gaps in resource
- How to realise benefits across whole life?

# Critical Friend Day 3 - Another Perspective

## Critical Friend Day 3

### Agenda

*Check against objectives and review of progress*

***Another perspective – the Hexagon***

*Preparing for Enhancement Planning – vision & timescales*

*Group work preparing for enhancement planning*

*Session review*

Each group then listed their top 2/3 opportunities and challenges. Having an awareness of these would allow the team to incorporate and account for them in their recommendations and enhancement planning.

## Key opportunities

- Development of skills for benefit of organisations and individuals
- Develop innovative approaches that can help develop existing processes and policy, and improve future delivery (reputation, credibility)
- Shape the approach for how the organisation will deliver in the future
- Joined up assurance and approvals
- Create strong partnership culture that breaks down (bureaucratic) barriers
- Embedding strong leadership across functions
- Green legacy – how will the scheme be seen in the future?
- Unlock developable land (funding link)

## Challenges to achievement

- Availability of staff and skills
- Agreed objectives, csf's
- Programme timescales not yet developed in detail – is delivery achievable in the 6 year programme?
- Explaining standards of service and managing expectations; how will the scheme be perceived if there is flooding
- Politics alter focus for delivery
- Delivering wider benefits is difficult when this is a flood focused scheme
- Funding gap/affordability

# Critical Friend Day 3 – Preparing for Enhancement Planning

## Critical Friend Day 3

### Agenda

*Check against objectives and review of progress*

*Another perspective – the Hexagon*

***Preparing for Enhancement Planning – vision & timescales***

*Group work preparing for enhancement planning*

*Session review*

- Following the Hexagon, a session was held to review and discuss the vision, with a view to agreeing the vision that would be used for the enhancement planning .
- The project vision was reviewed and the team then brainstormed a number of statements/words that they felt expressed their vision for how the team would work together to achieve the project vision (see box on the right)
- The agreed vision for enhancement planning is shown below.

*Project Vision*  
*“reducing flood risk; enabling a thriving economy; connecting people and the environment”*

*Vision for enhancement planning:*  
*“Committed partners working collaboratively to achieve the scheme objectives with engaged communities.”*

## Enhancement Planning Vision brainstorm

- Collectiveness
- Inclusiveness
- Evolving
- Realising the opportunities
- Shared commitment to achieve the outcomes
- Continuous investment of all parties throughout the project
- Strengthen the shared partnership
- Adopt a pioneering partnership approach
- Unlocking opportunities to realise the scheme benefits

# Critical Friend Day 3 – Preparing for Enhancement Planning

## Critical Friend Day 3

### Agenda

*Check against objectives and review of progress*

*Another perspective – the Hexagon*

***Preparing for Enhancement Planning – vision & timescales***

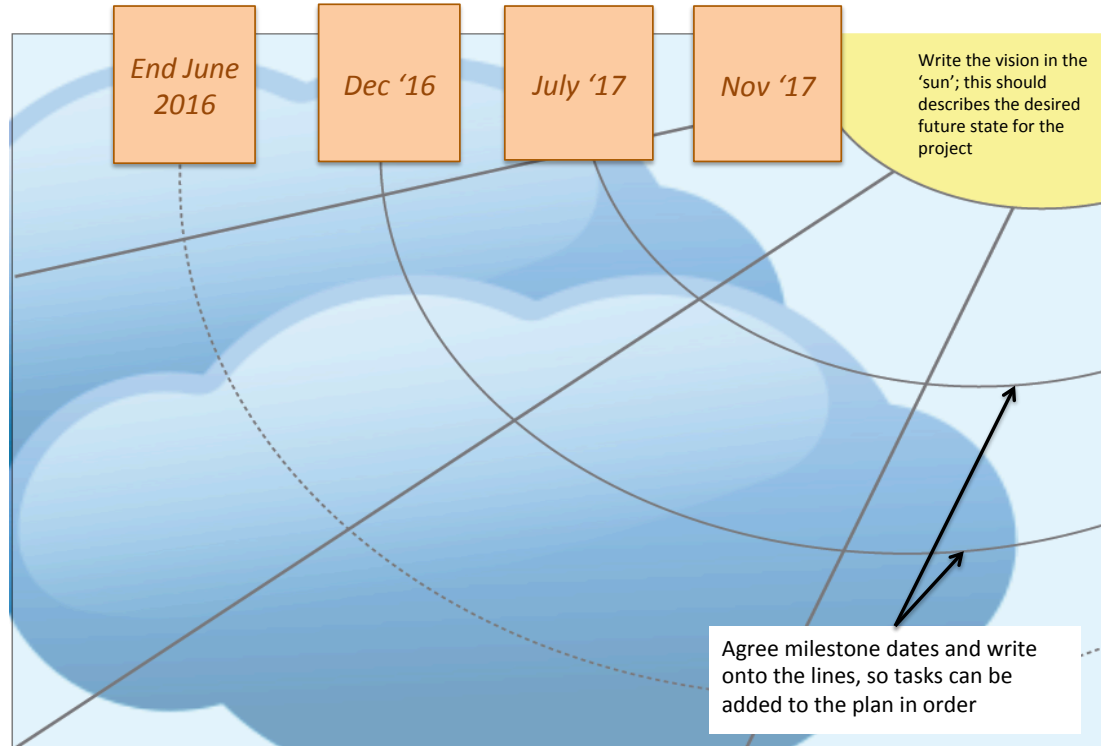
*Group work preparing for enhancement planning*

*Session review*

Having agreed the vision for the enhancement planning, the team then agreed the key dates for the enhancement plans (see the orange boxes below)

The dates were agreed based on when enhancement activities would need to be completed by in order to support successful delivery of the project milestones.

Key dates, transition points and expectations





# Critical Friend Day 3 – Preparing for Enhancement Planning

## Critical Friend Day 3

### Agenda

*Check against objectives and review of progress*

*Another perspective – the Hexagon*

*Preparing for Enhancement Planning – vision & timescales*

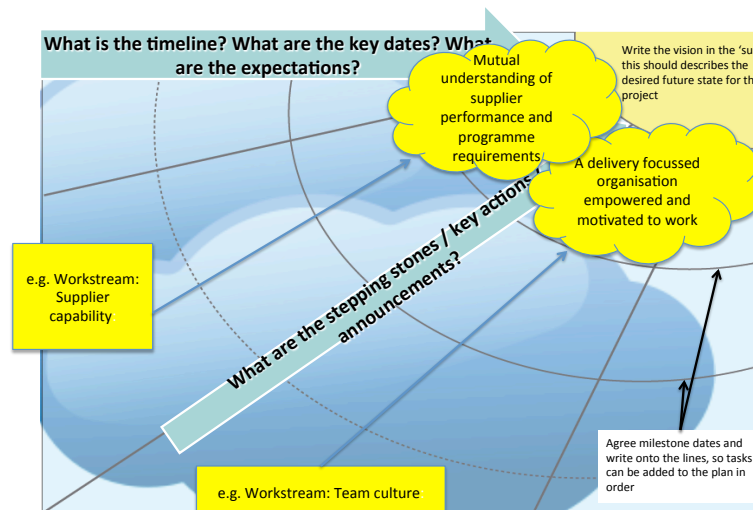
*Group work preparing for enhancement planning*

*Session review*

The team were then split back into their groups to:

- Finalise their recommendations
- Rename their group (if they wanted to)
- Identify the workstreams for their module enhancement plan, i.e. group their recommendations into workstreams
- Write a “goodness” statement for each workstream that explains what good looks like
- Share their progress with the other groups, identifying interdependencies and overlaps (ensuring these were reflected in their workstreams and goodness statements)

The session closed with the team being given a number of actions to ensure they would be ready for the enhancement planning session, namely finalising their recommendations and “goodness” statements.



Assess  
Complexity

Assess  
Capability

Align  
for Success

## *Enhancement Planning*



HM Treasury

Oxford Flood Alleviation Scheme Final Report, March 2016: Official - Sensitive  
Commercial



UNIVERSITY OF LEEDS

# Step 3: Enhancement Planning

Pre-diagnostic

Step 1:  
Diagnostic

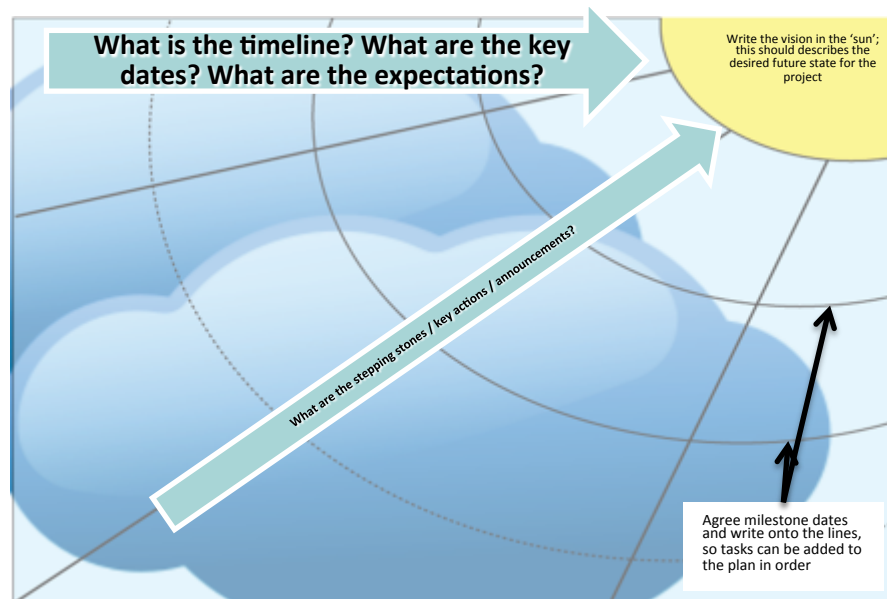
Assess  
capability &  
complexity

Step 2: Align  
for Success

Step 3:  
Enhancement  
Planning

Follow up

- The Enhancement Planning workshop is the third step of the Routemap process and was held on the 18<sup>th</sup> March
- The Enhancement Planning workshop involves turning the recommendations developed during the critical friend sessions into step by step activities and plans so that they can be realised
- Enhancement Planning includes aligning these 'close the gap' activities with other project milestones to achieve a single plan



## Enhancement Planning

*Enhancement Planning involves identifying the activities that are required to reach the desired future state for the project, with focus on the actions that will address the recommendations arising from the complexity and capability assessments.*

*The Enhancement plans are created using the 'cloud to sunshine' diagram, shown on the left, and post it notes*

# Step 3: Enhancement Planning

## Enhancement Planning

### Agenda

***Observations from major project challenges and learning from other Routemaps***

*Agree workstreams for combined enhancement planning*

*Module/theme enhancement a planning*

*Combined enhancement planning*

- The final session of the Routemap process was the Enhancement Planning workshop held on the 18<sup>th</sup> March
- The session was attended by Martin Buck of Crossrail who was in attendance as a ‘peer reviewer’, i.e. someone with experience of other major projects who can help challenge the enhancement plans and facilitate lessons learned
- Following an introduction by Martin, and an overview of major project observations, learnings from other Routemaps were also presented to provide the team with a frame of reference for the types of enhancement activities that others have implemented (the examples discussed are included on the following pages.)

# Learning From Crossrail

“

*Understand the delivery environment you HAVE, then CREATE the one you need.”*

Andy Mitchell,  
Programme Director, Crossrail

## Understanding how to Improve Sponsor and Client Capability



The benefits achieved at Crossrail were reflective of the application of the Routemap principles and illustrate the potential of the Routemap for application on other major projects and programmes

A mature sponsor-client relationship and the awareness of the need to transition capability, led to a savings of approximately 7% against the original budget.

- Joint Sponsor Board between the Department for Transport and Transport for London
- Project Development Agreement
- Thin Client – Programme and Delivery Partner
- Transitioning Plans



## Achieving Alignment and Integration for AMP6

Anglian Water used the Routemap to test the strategy for the re-procurement of their Alliance for AMP6.

- The importance of strategic alignment with the supply chain
- The need for market making
- Removing cultural blockers to new ways of working
- An integrated enhancement plan

“*Too often projects are started on an unrealistic basis, so it is no surprise there are problems in delivery. MPA has been delighted to support the development and evolution of the Routemap as a way of providing a more structured approach to understanding the challenges facing infrastructure projects and their deliverability.*”

**Tim Banfield**, Director, Strategy, Major Projects Authority



## Considerations for Getting Governance Right

- Clarifying the Purpose, Power and Role of HS2 Ltd.
- Shape of the organisation moving from development to procurement
- Learning from other projects – lead times, development agreement

“*The issues that lead to poor execution of major projects are not usually rooted in individual shortcomings, they are systemic failures that should have been addressed during initiation. This means that aligning for success has to start as early as possible and be planned holistically.*”

**Prof. Denise Bower**, Exec Director, Major Projects Association

# Step 3: Enhancement Planning

## Enhancement Planning

### Agenda

*Observations from major project challenges and learning from other Routemaps*

**Agree workstreams for combined enhancement planning**

*Module/theme enhancement a planning*

*Combined enhancement planning*

Prior to commencing the enhancement planning there was a re-cap of the newly named groups, the workstreams that they had identified for creating their individual module enhancement plans, and agreement of the workstreams that would be used for the combined enhancement plan (this is shown in the table below)

Group	Individual Enhancement Plan Workstreams	Combined Enhancement Plan Workstreams
Accountability, better transparency, clarity (Governance)	Clarity (A) Better transparency (B) Accountability [C]	People, skills & ways of working  Benefits and outcomes  Partnership clarity leading to engagement & legacy  Funding, Efficiency and Procurement
Core Benefits & Wider Opportunities (Requirements)	Identification & classification of core (D) outcomes & wider opportunities (E) Communication of core outcomes {G} Monitoring delivery against outcomes (H)	
Engagement & Legacy (Execution Strategy & Asset Management)	Engagement (I) Ways of Working (J) Lessons Learnt (K) Legacy (L)	
People, Skills, Ways of Working (Organisational Design & Development)	People and skills (M) Ways of working (N)	
Funding, Efficiency and Procurement	Funding (O) Benefits (P) Efficiency (Q) Procurement [R]	



# Step 3: Enhancement Planning

## Enhancement Planning

### Agenda

*Observations from major project challenges and learning from other Routemaps*

***Agree workstreams for combined enhancement planning***

*Module/theme enhancement a planning*

*Combined enhancement planning*

The team also reviewed the “goodness statements” for each of their individual enhancement plan workstreams:

Accountability, better transparency, clarity (formerly Governance)

- Accountability – Partners are equally well engaged and actively owning delivery of the scheme
- Better transparency – Buy in from all because we are clear and open about what we will deliver
- Clarity – Timely and well evidenced decision making underpins collective responsibility

# Step 3: Enhancement Planning

## Enhancement Planning

### Agenda

*Observations from major project challenges and learning from other Routemaps*

***Agree workstreams for combined enhancement planning***

*Module/theme enhancement a planning*

*Combined enhancement planning*

The team also reviewed the “goodness statements” for each of their individual enhancement plan workstreams:

### Core Benefits & Wider Opportunities (formerly Requirements)

- Identification & classification of core outcomes & wider opportunities – Deliverable and affordable core outcomes of the project are agreed
- Communication of core outcomes – There is widespread community understanding that the scheme delivers good results and forms part of wider and longer term flood risk management
- Monitoring delivery against outcomes – Positive view of outcomes continues beyond project delivery due to core outcomes, an exemplary approach and wider opportunities taken forward by others

### Engagement & Legacy (formerly Execution Strategy & Asset Management)

- Engagement - Proactive communications and engagement is always on message and is done collaboratively with all partners.
- Ways of Working - The project team feel empowered to explore innovative ways of working and to challenge when necessary.
- Lessons Learnt - The project team continue to explore and embed lessons learnt from other parts of the business and large national projects and make improvements throughout the project.
- Legacy - The scheme will continue to be perceived as a valuable asset, after it's completed and is well maintained to continue to provide a flood risk and recreation benefits.

# Step 3: Enhancement Planning

## Enhancement Planning

### Agenda

*Observations from major project challenges and learning from other Routemaps*

***Agree workstreams for combined enhancement planning***

*Module/theme enhancement a planning*

*Combined enhancement planning*

The team also reviewed the “goodness statements” for each of their individual enhancement plan workstreams:

People, skills, ways of working – Maintaining a well resourced, inclusive and capable team

- People and skills
  - Requirements
  - Recruitment
  - Resilience
- Ways of working
  - Efficiencies and innovation
  - Information management

Funding, efficiency and procurement

- Funding – A clear plan and commitment on funding for construction & maintenance for the lifetime of the scheme
- Benefits – We have a benefits register that is directly connected to SMART objectives that are agreed with partners and understood by our community
- Efficiency – A clear plan and focus that results in scheme affordability and lean design/construction
- Procurement – An engaged market with capacity and capability, with a procurement strategy that manages key commercial risks and offer suppliers the opportunity for efficient delivery

# Step 3: Enhancement Planning

## Enhancement Planning

### Agenda

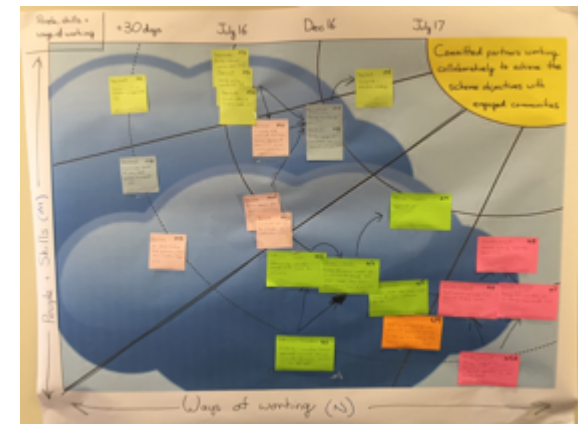
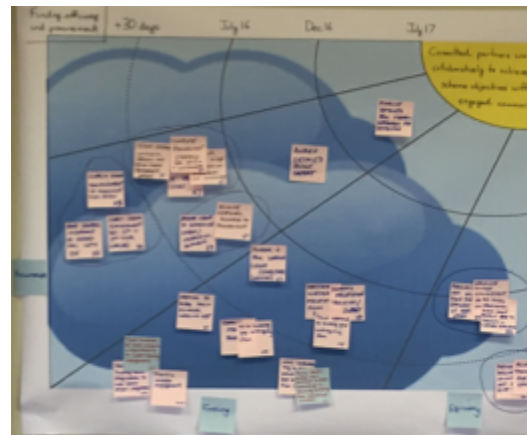
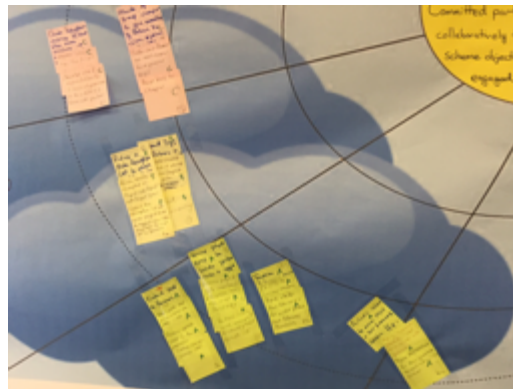
*Observations from major project challenges and learning from other Routemaps*

*Agree workstreams for combined enhancement planning*

**Module/theme enhancement a planning**

*Combined enhancement planning*

- The groups then carried out their individual module/theme enhancement planning
- The photos below show the enhancement plans that each group created
- Having completed their plan, each group captured their workstreams and actions on the enhancement plan in tabular form (these have since been typed up in full)



# Step 3: Enhancement Planning

## Enhancement Planning

### Agenda

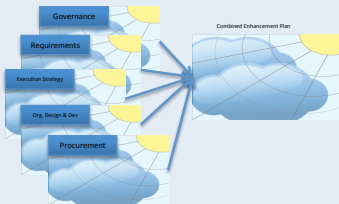
*Observations from major project challenges and learning from other Routemaps*

*Agree workstreams for combined enhancement planning*

*Module/theme enhancement a planning*

**Combined enhancement planning**

- Having completed the individual enhancement plans, the team set about creating a combined enhancement plan for the programme
- Each group grouped the actions on their individual enhancement plans into top level actions that could then be added to the combined plan
- In turn, each group transferred their key actions onto the combined map, with Joanna co-ordinating and challenging timescales and interactions between actions
- The combined enhancement plan has since been re-produced in powerpoint and a tabular action plan created.
- Whilst the combined plan was being created, IPA facilitated a discussion around wider lessons and messages for the business that the team wanted to capture despite being outside of their immediate control – these can be found on the following page.



# Lessons and requests for the wider business

- Benefits capture (tools, skills, processes)
- Raising awareness of beneficiaries (widest)
- High level of communication/articulation of the business case
- OFAS (and other major projects) are only achievable in the 6 year programme with a change of approach (timing constraint not about being in a programme)
- Standardisation is going on, but it is important to learn from across other projects and share, so some retained flexibility essential
- Real examples of business cases, particularly good bits from IPA, would be helpful
- Building a high calibre team from day 1 - personal certainty/resource, security, business risk. Can we move PTs onto re-deployment to other major projects

# Contact details

## Infrastructure UK

Hannah Vickers

[Hannah.Vickers@hmtreasury.gsi.gov.uk](mailto:Hannah.Vickers@hmtreasury.gsi.gov.uk)

Paul Illingworth

[Paul.Illingworth@hmtreasury.gsi.gov.uk](mailto:Paul.Illingworth@hmtreasury.gsi.gov.uk)

## University of Leeds

Denise Bower

[D.A.Bower@leeds.ac.uk](mailto:D.A.Bower@leeds.ac.uk)

Nicola Bates

[nicola@batesbusinessimprovement.co.uk](mailto:nicola@batesbusinessimprovement.co.uk)