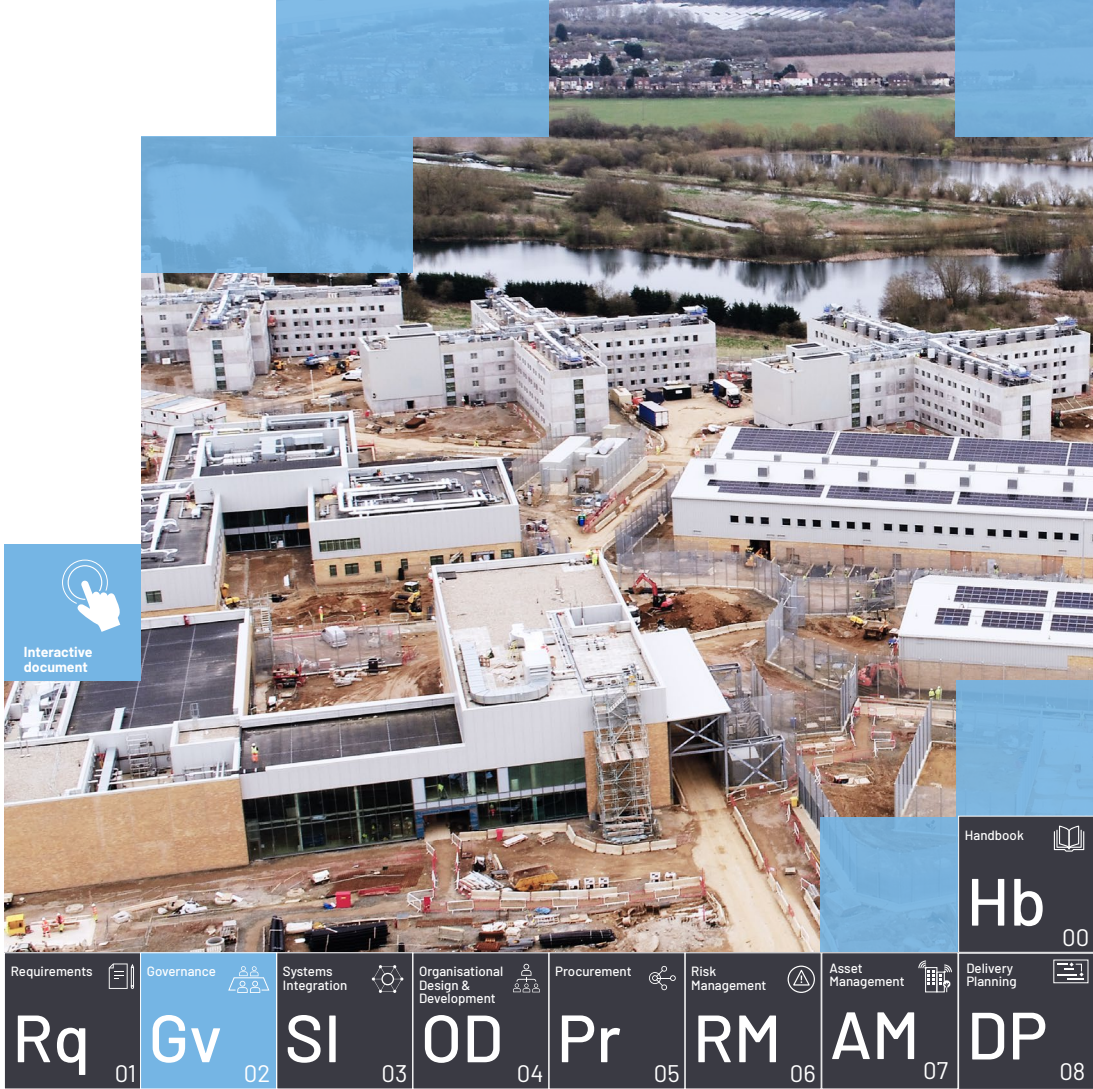
Infrastructure and Projects Authority

Project Routemap

Setting up projects for success

Governance

UK Module



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Cover image
Wellingborough Prison where the approach to offsite manufacture and digital technologies provided a blueprint for the Ministry of Justice's future 10,000 prison places programme.

Acknowledgements
Ministry of Justice Prison Infrastructure Team

Preface

Project Routemap is the Infrastructure and Projects Authority's (IPA) support tool for novel or complex major projects. It helps sponsors and clients understand the capabilities needed to set projects up for success, incorporating learning from other major projects and programmes.

The IPA is the centre of expertise for infrastructure and major projects, sitting at the heart of government and reporting to the Cabinet Office and HM Treasury in the UK.

Over the coming years there will be more investment in infrastructure and major projects than ever before, backed by both public and private sectors. This investment will be a catalyst to building back better and stronger. Infrastructure and major projects will play a critical role in fuelling economic growth and improving the lives of people right across the country.

With greater investment comes greater responsibility and we must ensure we have a strong delivery record that demonstrates real value. This means setting projects up for success from the very start, so that they come in on time and budget, and deliver on their promises - to the benefit of the citizens of the UK.

Although setting up projects for success can take more time at the start, this will be repaid many times over in the delivery phase. Projects that focus enough attention on the early stages are much more likely to achieve their intended outcomes later on and display world-class delivery standards.

That's why the IPA developed the Project Routemap ("Routemap") - a support tool that provides practical advice based on learning from other major projects and programmes.

There is no doubt that complex projects can test the limits of organisational capability, but if applied in the most crucial early stages of project development, Routemap will ensure that best practice and learning about the most common causes of project failure and principles for project success are incorporated. This will result in benefits ranging from selection of the most appropriate delivery model, to clearer governance arrangements, proper risk allocation and accelerated decision-making.

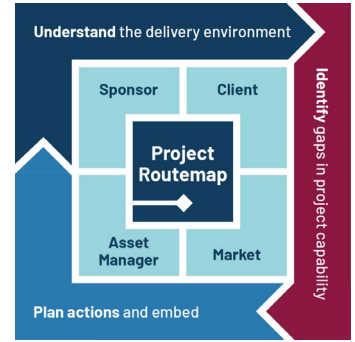
Routemap has been used by many of the UK's biggest, most complex and high-profile projects since its first publication in 2014 and more recently it has also been applied to projects internationally. However, the project delivery system and the way projects are delivered has evolved. That is why the UK Routemap handbook and accompanying modules have been updated to incorporate new and emerging best practice in project delivery and to align with standards, including the Government Functional Standard for Project Delivery and the UN Sustainable Development Goals.

Building on its success with economic infrastructure, Routemap has also been expanded to cover social and defence-related infrastructure projects and includes guidance for application to other types of projects.

Applying Routemap to more of our projects will be another step towards realising our ambition of world-class delivery standards. Whatever the project, applying Routemap will give confidence to the people delivering them, those approving them, and those investing in them.

The IPA would like to thank all those organisations and individuals who have contributed to the development, of both the original, and the updated UK Routemap handbook and accompanying modules.

Nick Smallwood
Chief Executive Officer of the Infrastructure and Projects Authority and Head of Government's Project Delivery Function

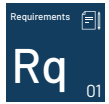


Introduction: What are the Routemap modules?

The Routemap modules provide practical advice to help set up projects for success. The modules have been developed by the UK government in collaboration with industry and academia. They capture best practice and learning from common causes of project failure and success over the past decade from £300bn of capital programmes.

These modules sit alongside the Routemap handbook. The handbook explains how Routemap can be applied to identify gaps in project capability and build an action plan to close those gaps.

There are eight modules, one covering each of the following areas:

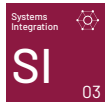


Requirements
Delivering strategic project outcomes and realising the benefits.

Procurement
Understanding how the project will buy goods and services.

Governance
Establishing clear accountability and empowering effective decision-making.

Risk Management
Managing uncertainties and opportunities.



Systems Integration
Making multiple systems work as one.

Asset Management
Balancing costs and risks to maximise whole life benefits.

Organisational Design & Development
Organising the project team to deliver successfully.

Delivery Planning
Readying the project for transition into delivery.

The best practice and learning contained in the modules reflect the collective experience of public and privately funded projects from the infrastructure and defence sectors. However, most of the principles apply to all projects, including digital and transformation projects.

These modules are aligned with the government's Project Delivery Capability Framework and help projects comply with the Government Functional Standard for Project Delivery. They also help projects to align with other recognised standards and guidance, including the United Nations Sustainable Development Goals.

They are useful whether you are using the Routemap to undertake a Full Project Review or a Modular Deep Dive, as detailed in the Routemap handbook. They can also be a useful standalone reference to identify potential risks and improvements in project capability development, and relevant good practice from other projects.

The modules are not a complete guide to project development, nor a substitute for business case development. Instead, they provide considerations to challenge your thinking and to launch your project on the path to success. The project team will need to consider their project's individual characteristics and context and identify what will be most helpful to them.

Introduction: How do you use the Routemap modules?

This table summarises how different module sections support the three key stages of the Routemap methodology.

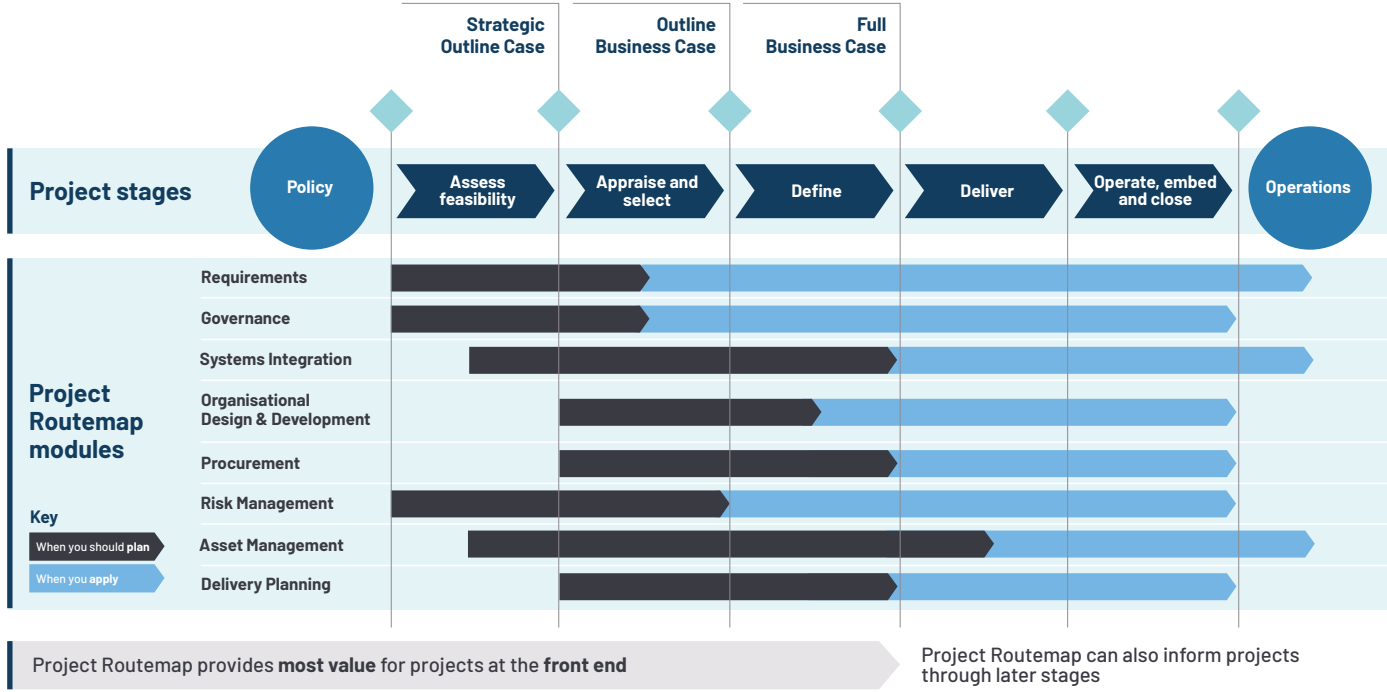
The modules are useful when applying the Full Project Review and Modular Deep Dive approaches, which are described in the Routemap handbook.

Routemap approach	Setup Determine the scope and timing of the Routemap, which can be project-wide or targeted to specific areas of capability	Diagnosis Gather information and identify where capabilities need to be enhanced	Action planning Collaborative development of practical solutions to enhance capability
Full Project Review	Determine if there is value in using Routemap to support project-wide capability development.	Determine which modules may help.	Apply best practice and learning from the modules and any other major project examples.
Modular Deep Dive	Determine if there is value in using specific Routemap modules to support development of a specific area of capability.	There is likely to be one module in particular that focusses on your selected area of capability. However, there may be value in consulting other interfacing modules too.	Apply best practice and learning from the modules and any other major project examples in the selected area of capability.
Module section			
Key project documents Documents that will help you understand the governance arrangements for your project.	You may find it helpful to review these types of project documents, to define the areas of interest in the Routemap scope.	Cross-checking this document list against existing project documents may also help you to identify capability gaps.	You may find that developing or enhancing these types of documents will help to close capability gaps.
Typical findings Indicators that issues might arise during delivery.	If these indicators are apparent even before you start applying Routemap, this should inform the areas of interest in the Routemap scope.	You may find it helpful to review these when identifying issues and articulating your findings.	If your findings contain statements like these, this module could help strengthen capability.
Pillars of effective governance Hallmarks of successful project set up.	Comparing your project with these characteristics of good practice may help you to identify areas of interest in the Routemap scope.	*Not applicable to this stage*	Comparing your project with these characteristics of good practice may help you set goals for your action plan.
Considerations Detailed list of questions to understand root causes and suggest improvements.	*Not applicable to this stage*	This section lists a series of questions that can help you to test the effectiveness of existing arrangements.	Working through these questions can help you understand the root causes of the findings and develop solutions.
Good practice examples and suggested reading Context to support your wider understanding.	*Not applicable to this stage*	*Not applicable to this stage*	You may find these good practice examples and suggested reading useful in developing actions to address capability gaps.

Introduction: How do the modules map to the project life cycle?

This diagram maps the Routemap modules to the stages of a project life cycle.

It shows when each of the modules should be used to support planning during project set up. It also suggests the stages when the modules' principles are expected to have been applied.



Project Routemap provides **most value** for projects at the **front end**

Project Routemap can also inform projects through later stages

Cross-cutting themes projects can't ignore

Six cross-cutting themes emerged from our engagement with major projects and industry, which have informed the updated Routemap modules. These place complex demands on project teams, and if overlooked during set up, can create issues during the later stages of the project life cycle.

These themes include the need for focus on behaviours and culture, consideration of wider economic, environmental, and social value and the increasing use of digital systems and tools to enable a systems-focused approach.

Planning ahead for the right skills, experience and capacity to address these themes is key to success.

To help you navigate these themes, we have developed a series of prompts. You can use these prompts to check whether your project is set up to meet the challenges ahead.

Benefits and outcomes focus

adopting a whole life perspective whilst managing the project

- Have you got a clear vision of the target outcomes, which is aligned across the sponsor, client, asset manager and market?
- Have the project outcomes been effectively communicated to key stakeholders and the supply chain?
- Has the project set realistic and transparent targets?
- Are you able to measure the realisation of benefits throughout the whole life cycle? Including any potential early releases?
- Have you considered the disbenefits and how to minimise them?

People and skills

planning ahead for the right skills, experience and capacity to deliver the project

- Have you undertaken activity-based resource planning to ensure you have the people with the right skills, knowledge, experience and behaviours at the right time to deliver the project?
- Are these plans reviewed on an ongoing basis? And do they incorporate skills development and succession planning to ensure continuity in key roles and to meet evolving needs?
- Have you considered the time commitment of your project leaders to ensure they have the right capacity to deliver the project?
- If using delivery partners or third parties, do they have the capacity and expertise to support the project as required?

Behaviour and culture

realising project success with a capable, diverse and integrated team

- Is there a plan for how desired behaviours and values will be cascaded and embedded through the sponsor, client, asset manager organisations and the supply chain?
- How are the desired behaviours and culture promoted in the project?
- Does the project have a culture that empowers constructive challenge and diversity of thought?
- How is the project planning to build relationships and invest in creating the right environment to realise project outcomes?

Economic, environmental and social value

taking in a wider view of the project's impact

- Have you considered how the project will generate economic, environmental, and social value, both through its intended outcomes and/or as a by-product of delivery? Has this been hardwired into the business case, with a clear link to the UN Sustainable Development Goals?
- Is your project aspiring to leave a "net positive" and climate resilient impact on the natural environment?
- How are you maximising benefits and minimising risk and disbenefits for project affected communities and contributing to levelling up?
- Is there clear accountability for the economic, environmental, and social benefits and outcomes?

Digital and technology

embedding systems and approaches at the front end to maximise project productivity

- Have digital and modern methods been considered at the earliest point in the life cycle to maximise their impact on benefits?
- How has the project assessed and addressed digital capability within the sponsor, client, asset manager and market?
- Has the project considered how information, data and knowledge will be shared across the project, including with the supply chain?
- What consideration has been given to potential changes in technology that may influence benefits realisation?

Transitions

planning for change and developing the required capability before progressing to the next life cycle stage

- Does the project have a clear plan for how they will transition from one life cycle stage to the next?
- Does the plan set out the changes needed to organisational and governance arrangements?
- Does the project have the necessary capability to transition to the new organisational and governance arrangements for the next life cycle stage? Including the change management capability required to embed the changes?
- Is the project clear on how the relevant documents and people will carry knowledge and learning across life cycle stage boundaries?

Governance, and why it's important

"Accurate, timely and relevant information is crucial to guide and monitor the delivery of programmes. Transparency and honesty are also the basis for constructive challenge of delivery bodies by sponsors, as well as from Parliament and wider society".

"...sponsors should remain alert to when their current governance approach may not be working and be prepared to amend arrangements to enable them to carry out their responsibilities as appropriate".

Lessons learned from major programmes - National Audit Office 2020

Why governance matters

Poorly designed governance is one of the most common reasons why major or complex projects fail to meet their time, cost and outcome delivery objectives. However, there isn't a 'one size fits all' governance design. The optimal arrangements will depend on the scale, complexity and specific requirements of your project.

To establish and enable an effective governance framework, it is important to consider two perspectives:

- Governance – the rules established for prioritising, authorising, directing, empowering and overseeing management, and assuring and reviewing performance.
- Governing – the ongoing culture, behaviours, values and relationships, which enable effective governance.

Having good governance will enable key decisions to be made with confidence throughout the project life cycle and therefore should be in place as early as possible. Governance arrangements will also probably evolve during the project, so you should revisit them at major transition points or approval points. This will make sure that there is an appropriate 'single controlling mind' for the project by establishing, at each stage, the right levels of accountability and authority. It will also ensure the expectations of key stakeholders are managed throughout. Conversely, weak governance can compromise the delivery of intended project benefits, including the intended economic, environmental and social value.

Although project governance exists only for the life of the project, it must align with the wider and long-term corporate governance of the sponsor organisation. For government projects, governance should also comply with government and departmental policies and directives and with the Government Functional Standard for Project Delivery. For privately financed projects, governance, in particular reporting, will likely be driven by the need to comply with ESG criteria which provide confidence to funders that the project is operating in a responsible way (see Good Practice Example 11).

This module can help to assess whether existing or proposed governance arrangements are suitable for the scale or the complexity of your project.

What are the key project documents?

If you are seeking to find out more or to review the existing governance arrangements on your project, the typical documents and reports set out below may contain information that will help.

- Business case, in particular the strategic and management cases
- Sponsor's requirements (Brief)
- Integrated assurance and approval plan
- Project delivery plan
- Terms of reference for decision bodies, including role descriptions
- Scheme of delegation (delegated authorities)
- RACI matrix (Responsible, Accountable, Consulted and Informed)
- Stakeholder map and engagement plan
- Corporate charters or codes of conduct
- Contracts and third-party agreements
- Funding arrangements
- Change control procedure
- Sustainability strategy
- Environmental and social management plan
- Regulatory and statutory requirements

Not all projects will have all of these documents, particularly in the earliest stages of development.

Typical findings

Primary module
Other relevant modules

Typical findings relating to Governance

This list describes situations that might arise and would indicate that the approach to developing project governance needs improvement. Other relevant modules may also help you close identified capability gaps.

Relevant modules

Typical findings relating to Governance	Requirements	Governance	Systems Integration	Organisational Design & Development	Procurement	Risk Management	Asset Management	Delivery Planning
A new delivery model (for example, setting up a new standalone delivery body) is proposed that the sponsor/client organisations have not used before, and so they may need capabilities they currently do not have.		●	◐	●				◐
Existing corporate governance frameworks are insufficient to host a project of this complexity.	◐	●				◐		
There are too many layers, or unclear decision routes. This can make it difficult and time consuming to gain approvals.		●		●				◐
The accountability for environmental and social sustainability is not clearly articulated, meaning that significant risks and opportunities could be missed.	◐	●		◐		◐		
It is not clear where accountability lies and who has authority for what type of project decision, so decisions are being revisited or overturned.		●		◐		◐		◐
There is a lack of transparency in decision-making, leading to reduced confidence and trust in the project.		●		◐		◐		◐
Key stakeholders have not been fully identified, so governance arrangements cannot be designed to ensure their expectations are managed.	◐	●						◐
Governance arrangements are not evolving to reflect the changing needs of the project. For example, as new project partners join or as the project progresses from one life cycle stage to the next.		●	◐	◐	◐			◐
Assurance activities, reporting and actions are duplicative, lack objectivity or are not focused on the areas of greatest risk.		●				●		
Outcomes from assurance activities are not followed up with appropriate rigour and discipline to ensure they have been effectively addressed and closed out.		●				●		◐
The desired project culture is not being role-modelled by the behaviours within the governance structures. For example, in programme boards.		●		●		●		◐
There is a tendency towards groupthink and optimism bias. This could cause unrealistic expectations for project design and delivery.		●		●		◐		
Project reporting arrangements are not clearly understood, and appropriate information is not reaching the right people to enable timely and effective decision-making.		●				◐		●

Pillars of effective governance

The four pillars below summarise the characteristics of effective governance.

Pillar 1: **Allocating and exercising accountability** 1

- Clearly defining and agreeing the accountability of individuals and organisations for:
  - defining the project's objectives.
  - ensuring the objectives align to corporate strategy, and to regulatory and statutory requirements.
  - successfully delivering the objectives and managing the associated risks and opportunities.

Pillar 2: **Empowering decision-making** 2

- Assigning authority to empower and facilitate effective decision-making.
- Decision makers have sufficient capability to make timely and appropriate decisions (or can seek advice to help them).
- Sufficient autonomy to allow decisions to be made at the lowest possible level to enable efficient delivery.
- A collaborative culture and effective working relationship across the organisations involved.

Pillar 3: **Maintaining alignment with strategy and stakeholder interests** 3

- Checking ongoing alignment between corporate strategy, objectives and standards and those of the project.
- Recognising and responding to any areas of misalignment, especially with key stakeholders and jointly sponsored projects.
- Ensuring that any relevant ESG criteria are met.

Pillar 4: **Reporting effectively and embedding assurance** 4

- Defining and enabling the disclosure of information to assure stakeholders that the project is set to meet its objectives and its environmental, social and economic responsibilities.
- A determined process for reporting and other communications between all organisations.
- A defined system for assurance.

These four pillars underpin an effective governance framework for projects. If one pillar is missing or out of balance, project governance will likely be ineffective or inefficient. The pillars are expanded in the considerations section of this module.

Governance arrangements will probably evolve during the project, so you should revisit the considerations at major transition points or approval points, or as plans change.

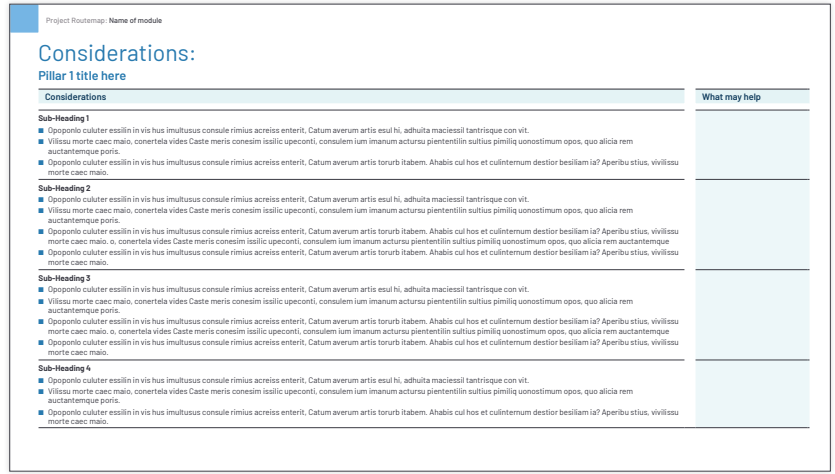
Governance arrangements should evolve as:

- more information becomes available, the sponsor increases their understanding of risk and the effectiveness of the project's risk management arrangements is demonstrated
- the project team and their processes develop and embed
- the project progresses through its life cycle, from design and planning through implementation to operation

Considerations

Module Pillars

The considerations questions help you understand the root causes of the capability gaps and suggest improvements. You may not need to review all the considerations, just use the most relevant ones for your project.


Project Routemap: Name of module

Considerations:

Pillar 1 title here

Considerations	What may help
Sub-Heading 1 ■ Opoponlo culuter essilin in vis hus imultusus consule rimius acreiss enterit, Catum averum artis esul hi, adhuita maciessil tantrisque con vit. ■ Vilissu morte caec maio, conertela vides Caste meris conesim issilic upeconti, consulem ium imanum actursu piententiiln sultius pimiliq uonostimum opos, quo alicia rem auctantemque poris. ■ Opoponlo culuter essilin in vis hus imultusus consule rimius acreiss enterit, Catum averum artis torurb itabem. Ahabis cul hos et culinternum destior besiliam ia? Aperibu stius, viviilissu morte caec maio.	
Sub-Heading 2 ■ Opoponlo culuter essilin in vis hus imultusus consule rimius acreiss enterit, Catum averum artis esul hi, adhuita maciessil tantrisque con vit. ■ Vilissu morte caec maio, conertela vides Caste meris conesim issilic upeconti, consulem ium imanum actursu piententiiln sultius pimiliq uonostimum opos, quo alicia rem auctantemque poris. ■ Opoponlo culuter essilin in vis hus imultusus consule rimius acreiss enterit, Catum averum artis torurb itabem. Ahabis cul hos et culinternum destior besiliam ia? Aperibu stius, viviilissu morte caec maio. o, conertela vides Caste meris conesim issilic upeconti, consulem ium imanum actursu piententiiln sultius pimiliq uonostimum opos, quo alicia rem auctantemque ■ Opoponlo culuter essilin in vis hus imultusus consule rimius acreiss enterit, Catum averum artis torurb itabem. Ahabis cul hos et culinternum destior besiliam ia? Aperibu stius, viviilissu morte caec maio.	
Sub-Heading 3 ■ Opoponlo culuter essilin in vis hus imultusus consule rimius acreiss enterit, Catum averum artis esul hi, adhuita maciessil tantrisque con vit. ■ Vilissu morte caec maio, conertela vides Caste meris conesim issilic upeconti, consulem ium imanum actursu piententiiln sultius pimiliq uonostimum opos, quo alicia rem auctantemque poris. ■ Opoponlo culuter essilin in vis hus imultusus consule rimius acreiss enterit, Catum averum artis torurb itabem. Ahabis cul hos et culinternum destior besiliam ia? Aperibu stius, viviilissu morte caec maio. o, conertela vides Caste meris conesim issilic upeconti, consulem ium imanum actursu piententiiln sultius pimiliq uonostimum opos, quo alicia rem auctantemque ■ Opoponlo culuter essilin in vis hus imultusus consule rimius acreiss enterit, Catum averum artis torurb itabem. Ahabis cul hos et culinternum destior besiliam ia? Aperibu stius, viviilissu morte caec maio.	
Sub-Heading 4 ■ Opoponlo culuter essilin in vis hus imultusus consule rimius acreiss enterit, Catum averum artis esul hi, adhuita maciessil tantrisque con vit. ■ Vilissu morte caec maio, conertela vides Caste meris conesim issilic upeconti, consulem ium imanum actursu piententiiln sultius pimiliq uonostimum opos, quo alicia rem auctantemque poris. ■ Opoponlo culuter essilin in vis hus imultusus consule rimius acreiss enterit, Catum averum artis torurb itabem. Ahabis cul hos et culinternum destior besiliam ia? Aperibu stius, viviilissu morte caec maio.	

Considerations

Each pillar is expanded into a number of consideration questions. These questions will help you:

- to review and validate existing governance arrangements
- to target areas for improvement
- to test the design of new governance arrangements

What may help

Signposts other related material which you might find helpful. These include other relevant modules with related content, key project documents, good practice examples and suggested further reading.

Routemap uses four primary roles to describe the key areas of responsibility in the early stages of project development. These are sponsor, client, asset manager and market. Before reading through the detailed considerations, you should familiarise yourself with these definitions in the glossary and consider which organisation is fulfilling which role for your project. Sometimes an organisation can fulfil more than one of these roles, for example both the sponsor and client roles. Also, where a project is still at an early stage, a role might not yet be filled by any organisation, for example the market role.

Considerations:

Pillar 1 Allocating and exercising accountability

Considerations	What may help

Sponsorship

- Is the sponsoring organisation (in Routemap known as the sponsor) clearly identified? Is this documented?
- Does the sponsor clearly understand their accountability for delivering the project outcomes including the economic, environmental and social aspects? Is it clear who is accountable within the sponsor organisation, for example, a nominated senior responsible owner?
- Is the role of the sponsor understood by other stakeholders involved in the project?
- Is it clear which individual has final accountability for successful delivery of the project? For example, for all government projects this accountability rests with the senior responsible owner who is accountable to the sponsoring organisation. Is this documented?
- Is it clear which organisation (or part of an organisation) is responsible for delivering the sponsor's requirements? Is it clear how they are held to account by the sponsor?
- Does the governance framework clearly show who is accountable for setting and implementing the relevant corporate policies and organisational strategies with which the project must comply?
- If any of these policies or strategies are jointly owned, is it clearly documented how the project is jointly governed? For example, is there a joint board with clear accountabilities?
- Have the economic, environmental and social policies, as well as the strategies for implementing them, been included in the governance framework and communicated to the sponsor and all members of the project team?
- Has a decision been made about the most appropriate delivery model (the structural and commercial arrangements) for the project? Does the governance framework reflect this decision?

What may help

Rq 01 OD 04

Sponsor's requirements, regulatory and statutory requirements

Examples 2, 3 and 4

Suggested reading 1 , 2 and 3

Requirements setting

- Does the governance framework clearly show who is accountable for setting requirements?
- Have the sponsor's requirements and success criteria been clearly defined and communicated to stakeholders? Including those relating to economic, environmental and social outcomes and compliance with any ESG criteria (if applicable)?
- Who is accountable for decisions about the balance between time, cost, quality and benefits, and compliance with any ESG criteria (if applicable)?
- Is there a target operating model for after completion of the project? Does it define who will own, operate, maintain and fund the asset?

Rq 01 AM 07

Business case (strategic) and sponsor's requirements, regulatory and statutory requirements, sustainability strategy

Example 5

Considerations:

Pillar 1 Allocating and exercising accountability

Considerations	What may help
Delivery strategy ■ Does the governance framework clearly show who is accountable for the delivery strategy? ■ How is the delivery strategy controlled through the project's life cycle? For instance, updates and approvals. Is this process documented? ■ Is it clear which individuals or organisations are accountable for decision-making, and who should be consulted or informed of the decision? Is this documented? For example, in a RACI matrix (Responsible, Accountable, Consulted and Informed). ■ Is there clear allocation of roles and responsibilities for every aspect of project delivery? ■ How will external (third party) advisors be engaged across the project's life cycle? Has the approach been documented?	 Project delivery plan, business case (management) and RACI matrix Example 1
Benefits realisation ■ Does the governance framework define who is accountable for benefits delivery? ■ Is it clear who is responsible for the impact and distribution of benefits to project affected communities? For example, skills development, employment opportunities or share schemes. ■ Are there metrics in place for monitoring and reporting benefits realisation? Do these metrics include environmental and social metrics?	 Business case (strategic) Example 5
Risk management strategy ■ Does the governance framework establish clearly defined roles, accountabilities, responsibilities and reporting lines for the management of risk and opportunities? ■ Is the risk allocation between the sponsor, client, market and asset manager understood and clearly documented? ■ Has the risk allocation considered the capacity, willingness (risk appetite) and authority of these organisations?	 RACI matrix Example 9 Suggested reading 4

Considerations:

Pillar 2 Empowering decision-making

Considerations	What may help
Types of authority ■ Does the governance framework include a system of delegation defining the types of authority that can be delegated? For example, business case approval, allocation/draw-down of funds or entering into contracts. ■ Are there clear lines of escalation that enable issues to be raised and dealt with at the appropriate level of authority?	RACI matrix, scheme of delegation (delegated authorities) and integrated assurance and approval plan Examples 7 and 8
Delegation ■ Does the governance framework set out the limits of delegation for decision-making, such as spending limits, or the release of cost or schedule contingency? ■ Does the delegation of authority enable timely decisions? ■ Does the governance framework evolve as the project transitions through the life cycle? For example, with review points to give authority to the appropriate parties and transfer authority, if and when required.	OD 04 Terms of reference for decision bodies, including role descriptions Examples 7 and 8
Decision-making bodies ■ Does the governance framework give the project manager the ability to make decisions or obtain approvals in time to meet the project schedule? ■ Do decision-making bodies meet at appropriate intervals to suit the project schedule and contract commitments? ■ Are decisions taken appropriately transparent to stakeholders? ■ Do the decision-making bodies have appropriate skill, experience and authority to take decisions on behalf of the project? ■ Do the decision-making bodies have agreed terms of reference? ■ Do the parties of the decision-making bodies have enough time and access to resources to fulfil their role? Including appropriate specialist skills. ■ Are those responsible for environmental and social issues members of appropriate decision-making bodies? ■ Is there sufficient training and support for all decision makers on ESG criteria and/or regulatory/statutory requirements relating to economic, environmental and social responsibility?	Business case (management), project delivery plan and terms of reference for decision bodies, including role descriptions Example 10
Decision gates ■ Are the project's life cycle stages separated by decision points? Are appropriate levels of authority required to decide whether the project is ready to progress to the next stage? ■ How are decisions about early termination or changes to participating organisations managed? Is this documented?	Integrated assurance and approval plan Examples 5, 7 and 8

Considerations:

Pillar 2 Empowering decision-making

Considerations	What may help
Decision-making routes ■ Are decision-making routes clear and efficient? Is specialist advice being sought where appropriate? ■ Is there an integrated approvals framework that shows a clear plan, across all parties involved, for planning, coordinating and making approvals throughout the project's life cycle? ■ Does the governance framework clearly identify the triggers for intervention by higher-level decision makers? For example, impacts beyond defined tolerances to the project's wider outcomes and benefits.	RM 06 Project delivery plan, integrated assurance and approval plan and change control procedure Example 9
Behaviour ■ Have the project's desired behaviours, culture and values been defined? ■ Is the project required to align with specific behavioural or cultural requirements? For example, the project requires compliance with the values of integrity, honesty, objectivity and impartiality, as set out in the Civil Service Code. ■ Does the project's governance framework support the behaviours and culture required? ■ Are there mechanisms to measure behaviours and culture? Do these mechanisms highlight behaviours and culture that are different from what's expected and address them? For example, the use of periodic surveys. ■ Does the leadership style support and incentivise the desired behaviours and culture? ■ Has the governance framework been developed in consideration of behavioural and cultural characteristics of all organisations involved, including jointly owned projects? ■ Is there training in place to reinforce the behaviours and culture expected? ■ Do project team members feel safe to challenge or to share their concerns? Are whistle blowing policies in place? ■ Is constructive challenge encouraged? For example, modifying existing processes or coming up with innovative ideas to improve efficiency and effectiveness. ■ Is there an accessible grievance mechanism to report concerns and complaints related to inappropriate behaviours and culture for all stakeholders including the project team? How is this process managed and overseen?	OD 04 Corporate charters or codes of conduct Example 6 Suggested reading 1 and 5

Considerations:

Pillar 3 Maintaining alignment with strategy and stakeholder interests

Considerations	What may help
Alignment of policy, legislation, strategy and priorities ■ Is the overall regulatory framework conducive to good governance of the project? Is there coordination between regulatory bodies and are the roles of regulators aligned with the approvals process? ■ Does the governance framework describe how to assess how well the project's outcomes and benefits align with policy, strategy, standards, legislation and other projects in the investment portfolio? Particularly where there is shared benefit or interdependencies with other organisations or projects. ■ Does the governance framework ensure that mandatory requirements or expectations are considered early to avoid potentially costly changes later in the project? For example, adoption of modern methods of construction like off-site manufacturing, and ESG reporting such as climate-related disclosures. ■ Is it clear who owns the risk from change in policy and legislation? Is this documented? ■ Does the wider investment portfolio depend on this project? Does the governance framework reflect this?	Rq 01 Sponsor's requirements, regulatory and statutory requirements Examples 2 and 3 Suggested reading 1, 6, 19, 23 and 24
Alignment and integration of organisations ■ Does the governance framework explain whether the project can be delivered within the existing corporate governance framework, including existing ownership and funding agreements? What changes or exceptions to corporate governance does the project need for it to be delivered effectively and efficiently? ■ Is there a documented process for assessing and maintaining alignment with stakeholder interests (particularly where there are significant economic, environmental and social risks or shared benefits)? For example, is there a stakeholder engagement plan for the whole life of the project and also post-completion, if appropriate? Does this include procedures for when stakeholder interests do not align? ■ Are stakeholders and industry partners considered in the governance framework? For example, engaged in joint boards. ■ Is it clear whether you are delivering a single project, a number of projects or a programme? ■ If your project is part of a programme or portfolio, or your programme is part of a portfolio, are the governance arrangements fully aligned?	Rq 01 OD 04 Terms of reference for decision bodies, including role descriptions and stakeholder map and engagement plan Examples 2 and 3
Alignment of funders' requirements ■ Are funders appropriately recognised in the governance framework, including where there are multiple funders? ■ How will compliance with the funders' ESG criteria be monitored and reported? ■ Have funders' (and other key stakeholders) internal governance arrangements been recognised within the project's governance? Have appropriate modifications been agreed to ensure efficient decision-making and approvals in order to meet the project's schedule?	Funding arrangements and integrated assurance and approval plan Examples 1 and 11 Suggested reading 21, 22, 23 and 24

Considerations:

Pillar 4 Reporting effectively and embedding assurance

Considerations

Reporting

- Does the reporting process provide appropriate information to the right governance forums to enable timely and effective decision-making? Are these reporting requirements documented?
- Does the reporting provide both leading and lagging indicators of performance?
- Is there a requirement for reporting to be punctual, factual and evidence-based?
- Is there an efficient system to collect relevant financial and non-financial data and metrics?
- Is reporting fed from master data (controlled and auditable) that is not contradicted by other sources?
- Is the accuracy of reporting information assured?
- Do reporting tools effectively minimise manual data entry and re-entry in the reporting process?
- Is the reporting hierarchy between projects, programmes and portfolios clear and documented? Does this take into account any co-ownership of the project?
- Does routine reporting include the extent, nature and any changes in risk profile? Including wider economic, environmental and social risks and opportunities.
- Are reporting requirements for any ESG criteria met?
- Are there any ongoing reporting requirements that need to continue after delivery of the project has completed? For example, for benefits realisation, environmental and social risks or risks to project affected communities.
- Are there clear and appropriate protocols to engage with and collect data from project affected communities?
- Is there a system to respond to project information requests from the public and to manage personal information?

What may help

Risk Management RM 06

Integrated assurance and approval plan and RACI matrix

Examples 7, 10 and 11

Suggested reading 1, 3 and 19

Considerations:

Pillar 4 Reporting effectively and embedding assurance

Considerations

Transparency

- Does the governance framework describe requirements for transparency of how, when and by whom decisions are made?
- Does the governance framework have procedures that identify and address personal bias and conflicts of interest? Including a requirement to declare any actual or perceived conflicts of interest.
- Does the governance framework describe assurance and record keeping requirements for information upon which decisions are made? Are there clear requirements for keeping sensitive information confidential? For example, the Data Protection Act.
- Is there an ethics and bribery policy? Has this been consulted upon and discussed with all parties? Is there evidence of effective and rigorous policing in place?
- Is there a workers' rights and non-discrimination and harassment policy? Has this been consulted upon and discussed with all parties? Is there evidence of effective and rigorous policing in place?
- Are there measures to maximise diversity and inclusion in the project?
- Are there transparent mechanisms in place for project related disclosure (for example, climate-related financial disclosure), communication and grievances, including with project affected communities? Are these mechanisms accessible to all stakeholders? For example, in all relevant languages.
- Are there grievance and redressal processes for both workers and project affected communities, which allow anonymous reporting? Are responsibilities defined to address these grievances?
- If applicable, do assurance activities provide confidence that ESG criteria are being met?

What may help

OD 04 RM 06

Project delivery plan and corporate charters or codes of conduct

Example 11

Suggested reading 5 and 6

Considerations:

Pillar 4 Reporting effectively and embedding assurance

Assurance

- Are decisions that impact the wider economy, environment and/or society transparent to stakeholders? For example, through clear structure of governance, regular reporting and minuted decisions.
- Do assurance activities balance the depth, breadth and rigour of assurance with the strategic importance and complexity of the project?
- Is there an approved integrated assurance and approvals plan?
- Is it clear how the assurance approach will be reviewed so that it remains fit for purpose during the various stages of the project's delivery? Is this documented?
- Is there a process ensuring that continual risk mitigation remains appropriate and assured?
- Does the assurance process include an appropriate mix of assurance types based upon an understanding of the level of risk? For example, health checks, deep dives, gateways and embedded assurance.
- Are there trigger conditions identified that lead to further investigation, support or intervention from the sponsor or others?
- Do planned assurance activities include effective and independent expert challenge? Do they include externally required assurance and approval requirements?
- Is the assurance process proactive, pre-emptive and does it drive the right behaviour? For example, undertaking a readiness review before commencing a major activity.
- Are the findings and recommendations of assurance activities openly discussed and considered within the appropriate governance forums?
- How are the outcomes of the assurance process being managed to ensure improvements are implemented on a timely basis?
- Is there a technical assurance process that covers the physical and digital delivery to ensure technical quality, coherence and interoperability at each delivery stage?
- If applicable, do assurance activities provide confidence that sustainability related requirements are being met?

Risk Management RM 06

Integrated assurance and approvals plan and scheme of delegation (delegated authorities) environmental and social management plan

Examples 7, 8, 9 and 11

Suggested reading 6, 7 and 20

Good practice examples

Good practice examples	Pillar 1: Allocating and exercising accountability 1	Pillar 2: Empowering decision-making 2	Pillar 3: Maintaining alignment with strategy and stakeholder interests 3	Pillar 4: Reporting effectively and embedding assurance 4
It is important to assess how applicable each example is to your specific project, and tailor it as appropriate. This table shows which of the four pillars of good practice are characterised by each example.				
Example 1 Understanding the implications of delivery decisions	●		●	
Example 2 Aligning project and existing corporate governance arrangements (Part 1)	●		●	
Example 3 Aligning project and existing corporate governance arrangements (Part 2)	●		●	
Example 4 Projects delivering through multiple organisations	●			
Example 5 Governance through a project life cycle	●	●		
Example 6 Using alliancing in delivery: An Anglian Water case study		●		
Example 7 Transitioning authority from corporate to project governance		●		●
Example 8 Transitioning from corporate to project governance: A Crossrail case study		●		●
Example 9 Three lines of defence approach to assurance	●	●		●
Example 10 Using digital data on projects		●		●
Example 11 Environmental, Social and Governance (ESG) criteria			●	●

Good practice examples

Example 1
Understanding the implications of delivery decisions

This example demonstrates the thought process required when aligning project governance arrangements with the wider corporate governance arrangements (sometimes referred to as institutional frameworks).

The example shows the iterative nature of dependencies, from one decision to the next.

It recognises the implications and constraints placed on the design of the delivery model, by the target operating model.

This includes the design of the optimal financing and legal structure.

It also shows how the design of the delivery model influences decisions on the client model, which in turn has implications for the choice of procurement model and contracting strategy.

Pillar 1: **Allocating and exercising accountability** 1
Pillar 2: Empowering decision-making 2
Pillar 3: **Maintaining alignment with strategy and stakeholder interests** 3
Pillar 4: Reporting effectively and embedding assurance 4

Good practice examples

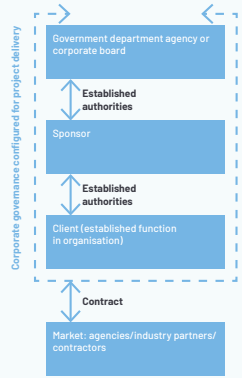
Example 2
Aligning project and existing corporate governance arrangements (Part 1)

The examples on this page show the different ways in which the project governance can be aligned to the existing corporate governance arrangements.

The module considerations list a series of questions that can be used to design or test if existing governance is likely to support the successful delivery of the project objectives.

If the answers to these questions indicate that governance needs to improve, these examples might be a useful starting point to understand the approach that will work best for your project. The examples may need to be modified to meet the specific needs of your project.

Example 1:
Corporate governance arrangements are sufficient to host the project in a way that it can be delivered within the risk appetite of the organisation.

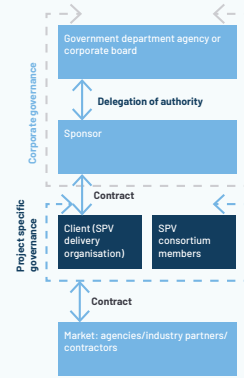


Sponsoring organisation possesses integrated delivery capability.

Example 2:
Corporate governance arrangements are insufficient to host the project in a way that it can be delivered within the powers and risk appetite of the organisation; however, it is possible to change the corporate governance arrangements.

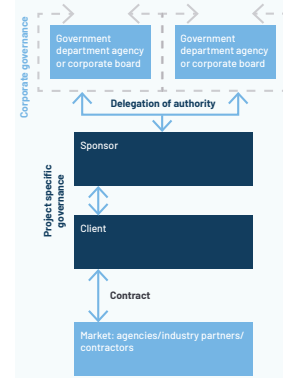
Sponsoring organisation creates internal capability for a specific project.

Example 3:
Corporate governance arrangements are insufficient to host the project in a way that it can be delivered within the risk appetite of the organisation, and it is not possible to change the corporate governance arrangements.
A special purpose vehicle will need to be established to deliver the project outside of the organisation.



Sponsoring organisation contracts for delivery.

Example 4:
There are multiple sponsoring organisations, with no single organisation having sufficient corporate governance arrangements to host the project within their risk appetite. The sponsoring organisations will need to create a collaboration or joint venture to host the project jointly on their behalf.



Multiple sponsoring organisations (collaboration/joint ventures).

Pillar 1: **Allocating and exercising accountability** 1
Pillar 2: Empowering decision-making 2
Pillar 3: **Maintaining alignment with strategy and stakeholder interests** 3
Pillar 4: Reporting effectively and embedding assurance 4

Good practice examples

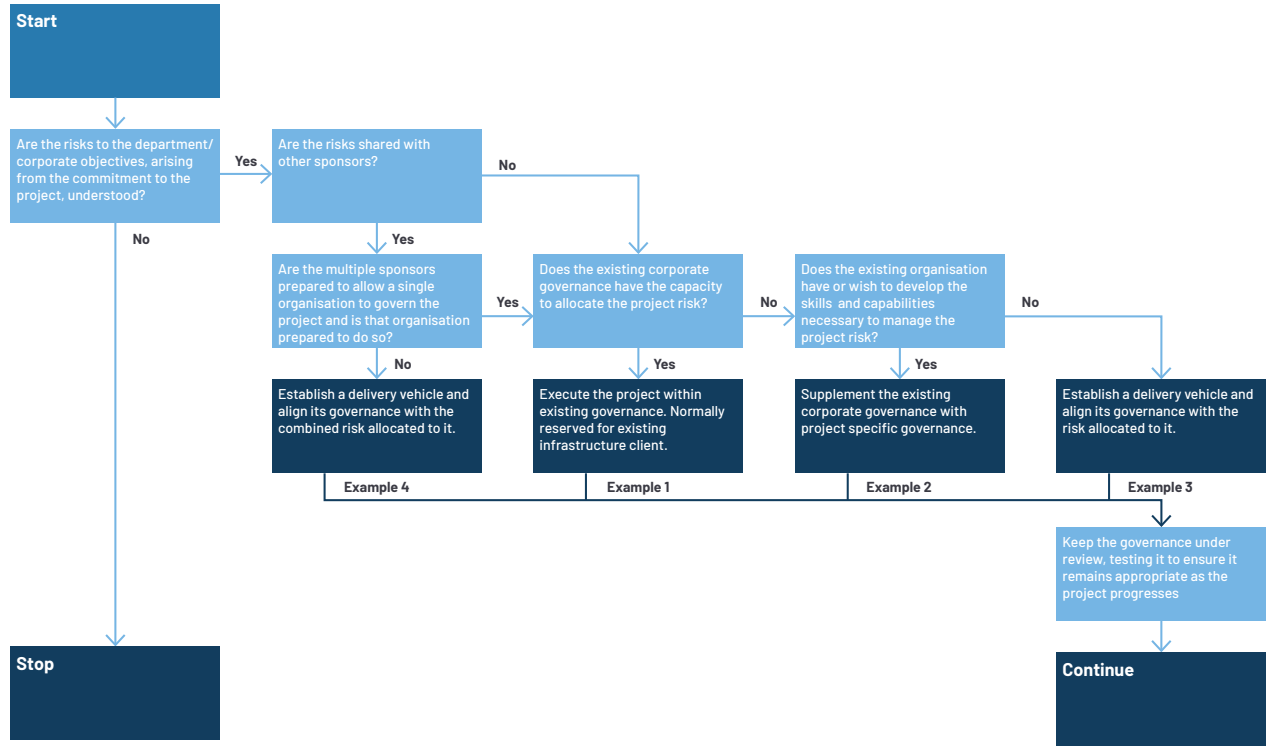
Example 3

Aligning project and existing corporate governance arrangements (Part 2)

This flow diagram is another way to assess an existing or proposed governance system. It looks at the relationship between corporate governance and risk capacity, to inform your choice of project governance arrangements.

It looks at the relationship between corporate governance and risk capacity, to inform your choice of project governance arrangements.

It is not definitive, but it does help signpost which of the four template models on the previous page might suit a particular project.



Pillar 1: **Allocating and exercising accountability** 1
Pillar 2: Empowering decision-making 2
Pillar 3: **Maintaining alignment with strategy and stakeholder interests** 3
Pillar 4: Reporting effectively and embedding assurance 4

Good practice examples

Example 4

Projects delivering through multiple organisations

The example shows the relationships between the sponsor, client, market and asset manager roles for some well-known UK projects, programmes and portfolios:

	Sponsor	Client	Market	Asset manager	Description
Crossrail	Jointly sponsored by **Department for Transport** (government department) and **Transport for London** (a local government organisation responsible for most aspects of London's transport system)	**Crossrail Ltd** (a wholly owned subsidiary of Transport for London)	**Private sector organisations**	**Network Rail** (a government owned arm's length body), **London Underground Ltd** and **Rail for London Ltd** (Transport for London subsidiaries) – for different parts of the line. The Crossrail service is operated by **Rail for London Ltd** via a concession let to MTR Corporation (Crossrail) Ltd.	The Elizabeth line (Crossrail) will stretch more than 60 miles from Reading and Heathrow in the west through central tunnels across to Shenfield and Abbey Wood in the east.
London Olympics – Venues and Infrastructure	**Department for Culture, Media and Sport** (government department) **Greater London Authority**	**Olympic Delivery Authority (ODA)** (non-departmental public body of Department for Culture, Media and Sport established in 2006 by an Act of Parliament)	**CLM,** a consortium of CH2M Hill, Laing O'Rourke and Mace appointed as delivery partner by the ODA. Many organisations in the supply chain.	**London Legacy Development Corporation** (a mayoral development corporation) is responsible for the future development of the Olympic Park.	The London 2012 Games were centred around the Olympic Park in east London, which is the site of a number of new sports venues. Up to 180,000 spectators a day entered the Park to enjoy the Games, making it the principal focus of Olympic activity.
Highways England – 5 Year Roads Investment Strategy	**Department for Transport**	**Highways England** (non-departmental public body, established by statute, in the form of a government owned company)	**Private sector organisations**	**Highways England**	5-year funding settlement which allows Highways England and its supply chain to plan their work efficiently and provided the confidence needed for them both to invest in people and equipment.
High Speed 2	**Department for Transport**	**High Speed 2 Ltd** (non-departmental public body, sponsored by the Department for Transport)	**Private sector organisations**	The High Speed 2 line will be operated by the **West Coast operator**, currently the West Coast Partnership.	High Speed 2 is a major programme to deliver a new high speed rail network across the UK. It comprises multiple phases (1, 2a and 2b), with a new railway running from London, Birmingham, Manchester and Leeds, including construction of new stations and refurbishment of existing assets.
Thames Estuary Asset Management 2100 (TEAM 2100) Programme	**Department for Environment, Food and Rural Affairs** (government department)	**Environment Agency** (non-departmental public body, sponsored by the Department for Environment, Food and Rural Affairs)	**Jacobs and Balfour Beatty** (private sector organisations) contracted partners to provide programme management, engineering and construction services. Other organisations in the wider supply chain.	**Environment Agency**	Climate change, an ageing asset base and population growth mean that tidal flood risk is increasing, the TEAM2100 programme aims to protect 1.3 million people and £275 billion worth of property and infrastructure from this increasing risk.

Pillar 1: **Allocating and exercising accountability** 1 | Pillar 2: Empowering decision-making 2 | Pillar 3: Maintaining alignment with strategy and stakeholder interests 3 | Pillar 4: Reporting effectively and embedding assurance 4

In UK public sector terms, the sponsor is nearly always the relevant government department (except for a small number of cases where a separate standalone body is set up to take on the sponsor role).

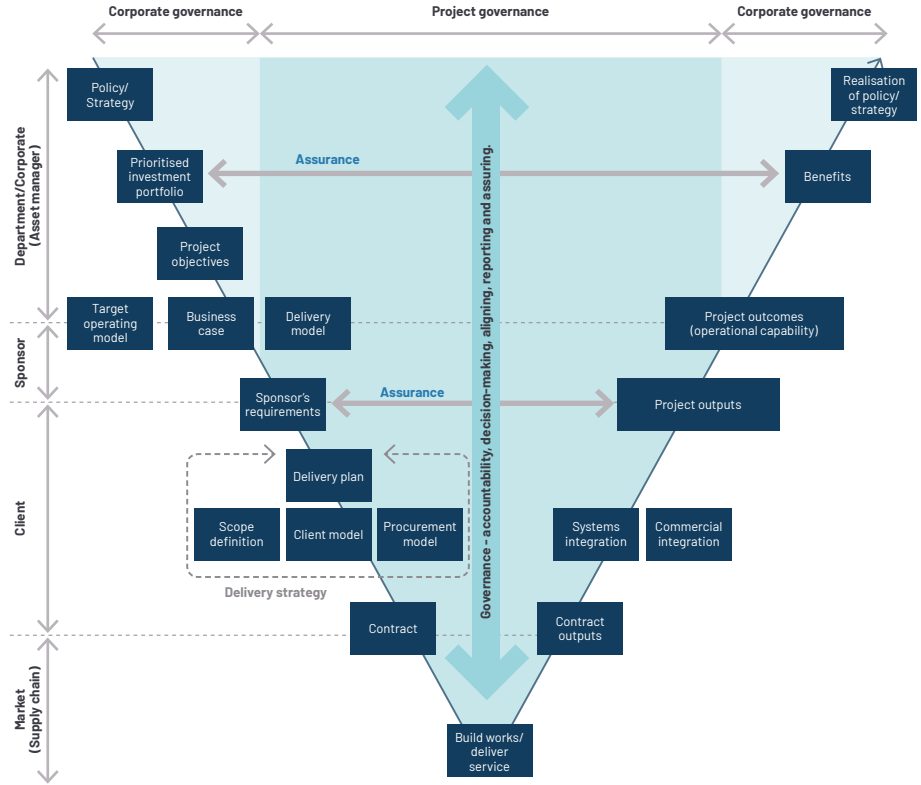
Good practice examples

Example 5
Governance through a project life cycle

This "V Diagram" shows a project in both a time dimension (left to right) and an organisational dimension (top to bottom).

It illustrates how the governance system provides the thread that runs through both dimensions, ensuring that the outcomes remain consistent with the original objectives and that benefits are not eroded through inefficient or ineffective decision-making.

The diagram is useful as it helps define the primary responsibilities of the parties involved and at which point in the decision-making they are most active. It can be used during initiation activities to facilitate discussions between the parties regarding accountabilities, authority, alignment, disclosure and management of risk.



Pillar 1: **Allocating and exercising accountability** 1
Pillar 2: **Empowering decision-making** 2
Pillar 3: Maintaining alignment with strategy and stakeholder interests 3
Pillar 4: Reporting effectively and embedding assurance 4

Good practice examples

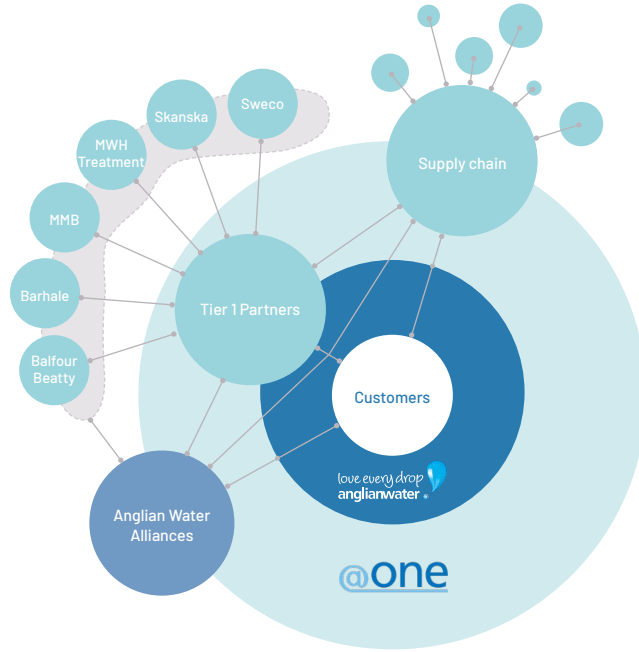
Example 6
Using alliancing in delivery: An Anglian Water case study

One of the most effective ways to deliver outcomes is to create contracting environments that promote collaboration and reduce waste (Suggested Reading 8). This example shows how an alliancing model was used to create an integrated team with aligned cultures, values and behaviours that facilitated a focus on delivery of outcomes and benefits.

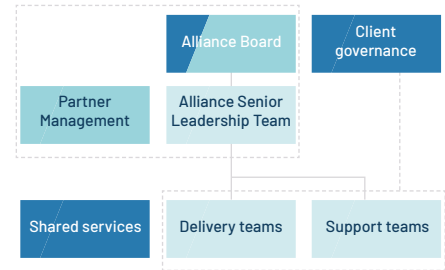
Anglian Water delivers capital investment through five-year Asset Management Periods using an alliance of partners, incentivised through outperformance and sharing best practice. In addition to harnessing the areas of specialism required (such as digital transformation, health and safety or inclusion), the alignment of partner culture, values and behaviours was an important part of the partner selection process.

This mix of common values and areas of individual specialism contributed to the alliance model where each partner was able to both offer and learn simultaneously, working to deliver a common goal with which everyone was in agreement. This model extended into the lower tiers of the supply chain through long-term frameworks, transparency of pricing and early engagement. An environment has now been created where 80% of work is completed by framework or contracted suppliers, all sharing the same values.

This streamlined way of working has enabled @one Alliance to consistently outperform against its targets since its inception in 2004, meaning greater value and less disruption for customers. There have also been industry-leading carbon reduction savings against challenging targets, which support Anglian's journey to reach net zero carbon by 2030.



Alliance collaborative leadership structure



Good practice examples

Example 7
Transitioning authority from corporate to project governance

This example describes how trust and confidence can be built to enable a transition of authority from corporate governance to project-specific governance.

Regardless of delivery model, projects are most successful when the levels of delegation mean that lasting decisions are made efficiently and effectively.

Existing corporate or departmental governance often direct the first stages of a project. When considering the delivery model options, you may decide that project-specific governance is appropriate. This decision creates a transition point from corporate to project governance.

There are a number of levers for optimising the degree of delegation, to improve confidence and build trust. You can apply these together, in part or mix and match those relevant to your project.

Lever to increase authority	Implications
Demonstrate increased capability of the project team ■ identify the capabilities required by the project ■ build capabilities ■ assess and provide evidence of the increased capability, for example through key performance indicators or assurance	■ How long will it take to build the required capabilities? ■ What evidence or assurance does the corporate body require of the increased capability levels?
Increase the degree of assurance ■ thoroughness of assurance ■ frequency of assurance ■ choice of assurers ■ type of assurance (non-evidence based, evidence based, verified)	■ Will increased assurance place an increased load on project leaders and slow down the project? ■ Will there be sufficient time to close out actions between assurance reviews? ■ Will expert assurers simply add another expert 'opinion' to cloud judgements? ■ How will the degree of assurance vary depending on risk and performance?
Introduce more decision 'gates' for formal approval through corporate governance ■ budget fix ■ procurement decisions ■ scope fix ■ design fix ■ drawdown of risk/contingency	■ Is the approval process efficient enough to increase the number of approval points without slowing down the project? ■ What's the cost and time commitment required to prepare for each approval point?
Increase degree of reporting ■ coverage/transparency, reporting on decisions that have been taken using delegated authority ■ frequency of reporting progress on deliverables and milestones ■ increase the number of stakeholders who receive reporting deliverables	■ What's the increased cost of reporting? ■ Can reporting content be sufficiently contextual to avoid misinterpretation? ■ Will increased reporting slow down the project? ■ Will a wider pool of reviewers cloud judgements?
Seek conditional authority ■ timescale to close out issues/concerns ■ setting tolerance (for time, cost, risk, quality, scope, benefits) within which the project must remain to have continued authority ■ draw-down of contingency is distinct from draw-down of approved budget	■ With whom and how to check the conditions are being met?
Seek increased authority stage by stage ■ propose that authority limits are increased on a stage-by-stage basis, subject to passing each gate on time	■ Are there clear expectations on what is needed for the project to proceed? ■ What will inspire confidence?

Good practice examples

Example 8
Transitioning from corporate to project governance: A Crossrail case study

Example 7 describes various levers which can be applied to build confidence and trust. This example describes how Crossrail Ltd applied them in practise.

For Crossrail, the transition to project governance required the sponsors (Department for Transport and Transport for London) to yield a degree of control to the project delivery company, Crossrail Ltd. From the sponsors' perspective, this required trusting an unproven team, unproven client model and a new governance framework. While not described as such at the time, the sponsors agreed with Crossrail Ltd an enhancement plan in which Crossrail Ltd entered into an incremental process to give the sponsors confidence that the governance transition could take place.

That process was designed to:

- provide evidence of organisational capability
- demonstrate increased confidence in the forecast project outcomes
- agree the basis for intervention should Crossrail Ltd fail
- establish appropriate sponsor oversight

	Step 1 →	Step 2 →	Step 3 →	Step 4 ◆
Timing	**Jul 2008**	**2008**	**Sep 2009 – Mar 2010**	**Apr 2010**
Step	Royal assent for the Crossrail Bill.	Signing of the core project documents (Project delivery agreement, Sponsors' agreement and Network Rail protocol).	Various assurance activities to provide confidence in detailed cost estimates, programme schedule and the development of Crossrail Ltd's programme management processes.	Final withdrawal point for the sponsors. Crossrail Ltd granted full operational powers including tendering contracts and managing contingency.
Governance evolution	Parliament grants the powers required by government to build Crossrail.	These documents established the roles and responsibilities of the sponsors and delivery bodies.	The sponsors concluded that planning was well advanced, and provided Crossrail Ltd with clear direction on how to improve its programme management processes to meet the requirements for Step 4.	Authorities granted with conditions for Crossrail Ltd to fulfil to strengthen programme controls. These conditions were all met in 2011.

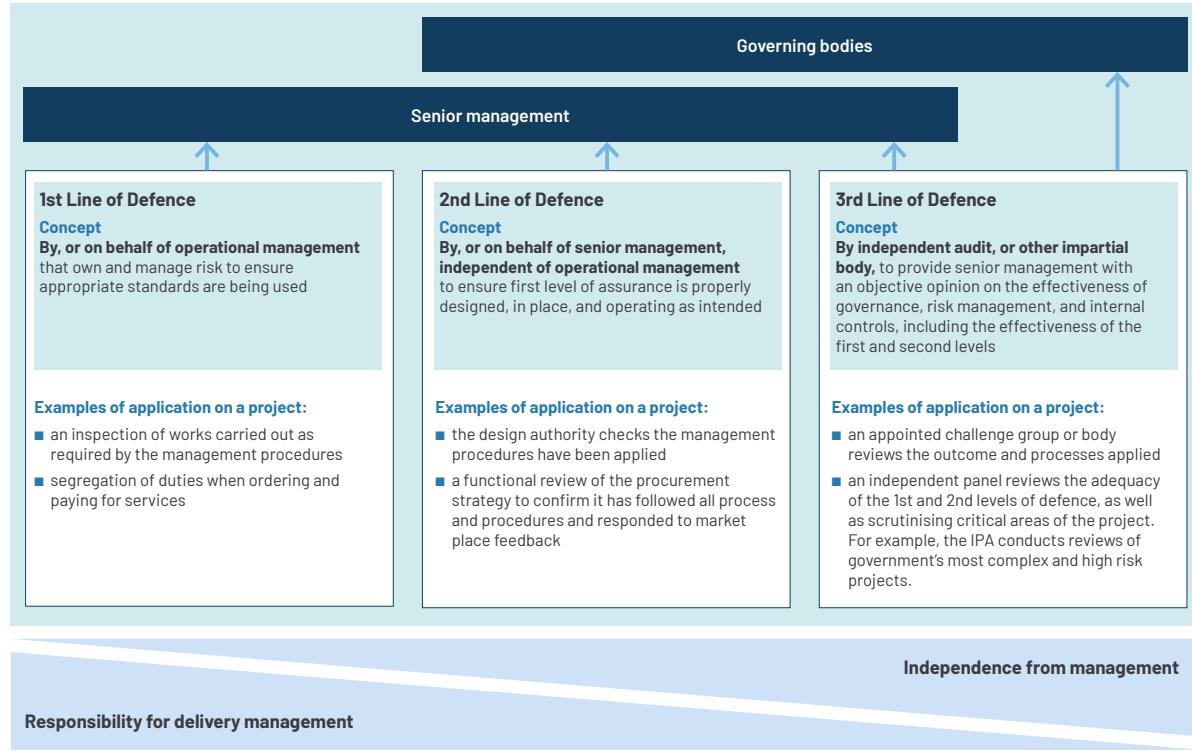
Good practice examples

Example 9
Three lines of defence approach to assurance

The purpose of assurance is to provide, through a systematic set of actions, confidence to senior leaders and stakeholders that work is controlled and supports safe and successful delivery of policy, strategy and objectives.

Organisations should have a defined and established approach to project delivery assurance, which should be applied proportionately to the risk and value of the activity, and which is integrated with the organisation's overall assurance framework.

Typically, assurance should be on at least three separate and defined levels, as shown in this example. These levels are often referred to as the three lines of defence (Suggested Reading 6).



Pillar 1: **Allocating and exercising accountability** 1
Pillar 2: **Empowering decision-making** 2
Pillar 3: Maintaining alignment with strategy and stakeholder interests 3
Pillar 4: **Reporting effectively and embedding assurance** 4

Good practice examples

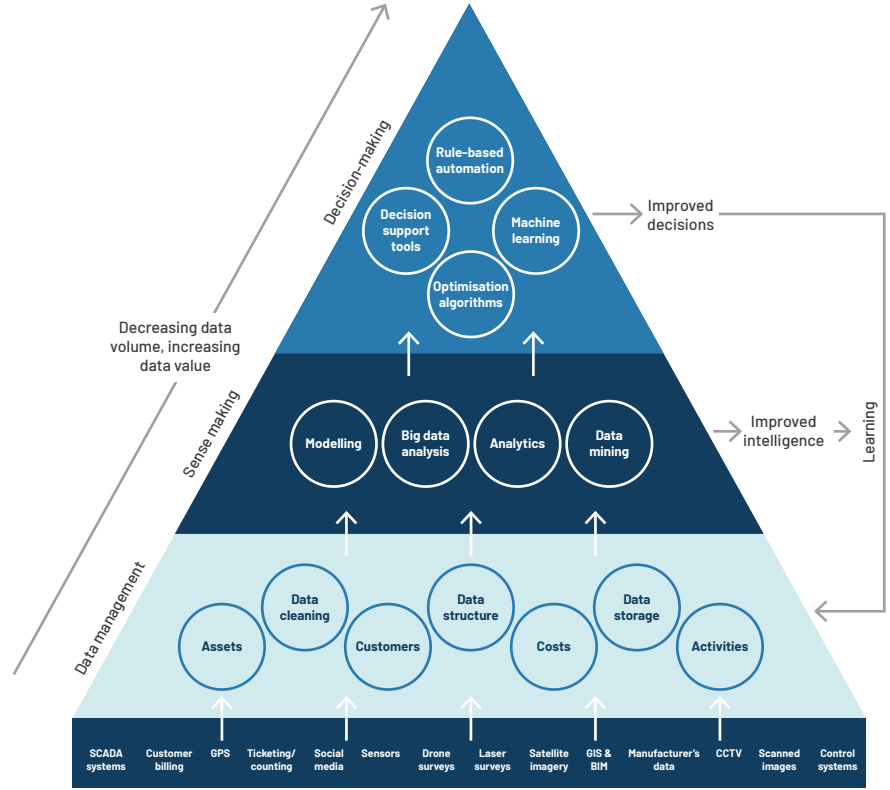
Example 10
Using digital data on projects

Digital delivery throughout the project life cycle needs robust governance to ensure that there is appropriate use of data, information and knowledge. This model adapted from the Cambridge Centre for Smart Infrastructure (Suggested Reading 10) shows the flow of data through system interfaces to enable interventions and timely decision-making.

At the base of the model, various sources create large volumes of raw data, such as hardware, enterprise software, social media and unstructured documents. As data flows through the value chain, refinement occurs as this data is fed into systems and tools, creating information that facilitates interpretation. At each stage assurance is required to ensure the data remains accurate. Finally, only the most valuable data remains, converted into information about the present state of project delivery, facilitating effective decision-making.

Project setup is a good opportunity to reflect on whether existing behaviours and working practices will enable high quality data collection, storage and processing, to support proactive management and control of project delivery. This should involve the asset manager from the outset to ensure that data requirements are effectively defined, and information is properly handed over upon completion of the project.

Digital capability extends beyond IT proficiency and data literacy. You should think about the capabilities and understanding of the project team, as well as the accessibility needs of key stakeholders and project affected communities. The most effective organisations will reuse data, capturing cost, time, benefits and risk benchmarking information to inform future investments.



Good practice examples

Example 11
Environmental, Social and Governance criteria

Environmental, Social and Governance (ESG) factors are important considerations for responsible investors. ESG criteria are used by investors to ensure project requirements are prioritised throughout the project lifecycle, to evaluate investments opportunities and also to influence corporate decisions as shareholders.

ESG criteria not only cover how a project will deliver economic, environmental and social value, but also include requirements relating to robust governance and transparent reporting on these topics. This is intended to give investors confidence that value is maximised and risk/harm minimised. ESG may be defined as:

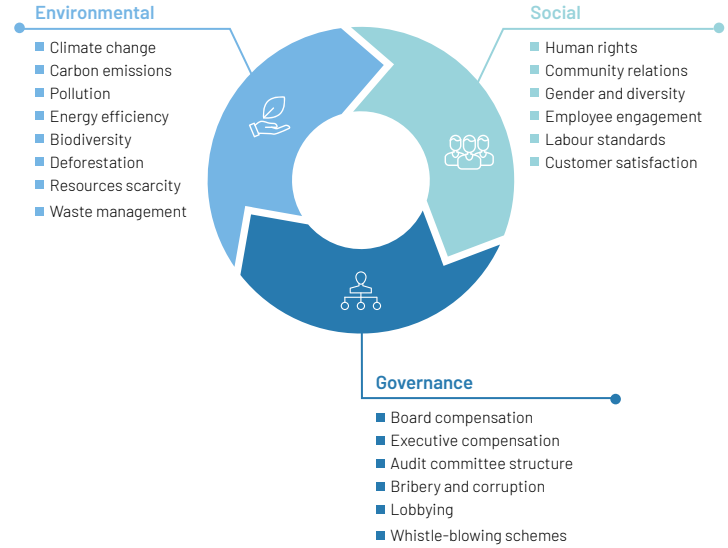
Environment:
This covers how organisations impact, and are impacted by, climate change and broader environmental issues like biodiversity. Reporting on climate change is rapidly becoming mainstream. Global reporting standards are emerging that are underpinned by international agreements on underlying climate policy. Beyond climate, the data needed to drive wider environmental objectives is less developed – although this is changing through initiatives like the Task Force on Nature-related Financial Disclosures (TNFD).

Social:
This includes factors ranging from modern slavery to international development. Investors have long considered these matters in their investment decisions and many engage actively with investee companies on these topics. Globally agreed reporting standards may take longer to emerge, but there are existing frameworks which may provide a basis for future global standard setting.

Governance:
This covers the means by which a company is controlled and directed, most usually through a board of directors. It is the longest established area for investor engagement and extensive disclosure is already provided by companies through existing company law and other requirements.

Note, although there is an overlap, ESG requirements are different from economic, environmental and social value. This refers to the value (positive or negative) that all projects deliver, whereas ESG requirements refer to the specific criteria that investors place on a project, and may not apply to all projects.

(Adapted from: Government Actuary's Department Investment Bulletin, September 2019)



Suggested further reading

	Reference	Use
1	**Report** Lessons from transport for the sponsorship of major projects – Department for Transport 2019	Identifies 24 lessons learned from transport to improve controlled delivery of major projects by government departments.
2	**Report** Lessons learned from major programmes - National Audit Office 2020	An insight to the most recent National Audit Office reports on major programmes, including Crossrail, Carrier Strike and Universal Credit.
3	**Guidance** Co-directing change: a guide to governance of multi-owned projects - Association for Project Management 2017	A guide for defining governance arrangements for co-owned/jointly owned projects.
4	**Standard** The orange book: management of risk – HM Treasury and Government Finance Function 2020	This guidance establishes the concept of risk management and provides a basic introduction to its concepts, development and implementation of risk management processes in government organisations.
5	**Guidance** Principles for project success – Infrastructure and Projects Authority 2020	A quick guide for practitioners on things to get right for any project to succeed.
6	**Standard** Government functional standard GovS 002: project delivery - Infrastructure and Projects Authority and Cabinet Office 2021	A standard setting out expectations for the direction and management of portfolios, programmes, and projects in government.
7	**Report** Assurance of major projects: what is assurance and why do we need it? - Major Projects Association 2019	Notes from a Major Projects Association seminar on the purpose and design of assurance and the key measures for success.
8	**Policy** The construction playbook – Cabinet Office 2020	Sets out key policies and guidance for how public works projects and programmes are assessed, procured and delivered.
9	**Research** Global client models: a study of trends and lessons learned from international major projects - Major Projects Association 2017	A research paper into global client models capturing the experiences of clients of major projects from a range of sectors and countries throughout the world.
10	**Report** The gemini principles - Centre for Digital Built Britain 2018	This report was published to enable alignment on the approach to information management across the built environment, including definitions and principles to make it easier to share data in the future.

Suggested further reading

	Reference	Use
11	**Guidance** Guide to developing the project business case – HM Treasury 2018	A practical step by step guide to the development of business cases, using the five case model.
12	**Report** Project initiation: an insights study into major project initiation in defence – Ministry of Defence and Infrastructure and Projects Authority 2021	This report presents an impact assessed list of success criteria for project initiation, with validated lessons.
13	**Guidance** Sponsoring change - Association for Project Management 2018	A guide aimed at the sponsors of projects to help them to deliver project outcomes more successfully.
14	**Guidance** The role of the senior responsible owner - Infrastructure and Projects Authority 2019	Guidance that sets expectations for the direction and management of portfolios, programmes, and projects within government.
15	**Guidance** Project 13 framework – Infrastructure Client Group and Institution of Civil Engineers 2020	The principles of a commercial approach that defines the roles, capabilities, and responsibilities of the key stakeholders in Project 13's new enterprise model.
16	**Research** Reinventing megaproject delivery models: the rise of the capable client -the supply chain architect - Project Management Institute 2020	A research paper exploring the interface between delivery models and client models, emphasising the importance of the formation and evolution of client organisations.
17	**Research** What are the causes and cures of poor megaproject performance? A systematic literature review and research agenda - Project Management Journal 2020	A research paper that systematically reviews the academic literature, exploring more than 6000 academic summaries and 86 papers in full. It identifies six themes, which reveal 18 causes of poor performance and 54 solutions.
18	**Guidance** UK government arm's length bodies: the case for them in specialised delivery and how to optimise their use - UK Government Investments 2020	This guidance provides expert practitioners' views from across government on the use of arm's length bodies (ALB) in specialised delivery. It highlights key features to consider when looking at ALBs as a means of delivering government services or projects, and is a practical guide on how to optimise new and existing ALBs.
19	**Website** Taskforce of climate-related financial disclosures	Website of the Taskforce on Climate-related disclosures, set up to improve and increase reporting on climate matters.

Suggested further reading

	Reference	Use
20	**Guidance** Assurance review toolkit - Infrastructure Projects Authority 2021	Collection of guidance documents to inform carrying out assurance reviews at key stages of a project.
21	**Website** Global Real Estate Sustainability Board	Information on the Global Real Estate Sustainability Board (GRESB) who provide ESG performance data and peer benchmarks for investors. This provides context for ESG criteria to which projects may be subject.
22	**Website** Principles for Responsible Investment	Principles developed by and for investors to in order to drive economic, environmental and social value into their investments. This provides context for ESG criteria to which projects may be subject.
23	**Policy** Green finance strategy- HM Treasury and Department for Business, Energy & Industrial Strategy 2019	A comprehensive approach to greening financial systems, mobilising finance for clean and resilient growth, and capturing the resulting opportunities for UK firms.
24	**Policy** Greening finance – a roadmap to sustainable financing - HM Treasury 2021	This document sets out the government's ambition to make the UK the best place in the world for green and sustainable investment. It focuses on the first step to deliver this: ensuring that the information exists to enable every financial decision to factor in climate change and the environment.

Glossary

Accountability
The accountable person is the individual who is ultimately answerable for an activity or decision. This includes 'yes' or 'no' authority and veto power. Only one accountable person can be held to account. An accountable person has to be accountable to someone for something. Accountability cannot be delegated or shared.

The responsible person is the individual who actually undertakes the task: in other words, they manage the action/implementation. Responsibility can be shared. The degree of responsibility is determined by the individual with the accountability.

Asset
Anything tangible or intangible that is owned or controlled with the expectation of present or future benefit.

Asset manager
In the context of Routemap, the asset manager is the organisation (or parts of) responsible for day-to-day operations and maintenance of the asset. The asset manager may be a part of the sponsor or client organisations, or a separate entity. Similarly, the operator and maintainer of the assets may be separate entities.

Assurance
A general term for the confidence that can be derived from objective information over the successful conduct of activities, the efficient and effective design and operation of internal control, compliance with internal and external requirements, and the production of insightful and credible information to support decision-making.

Benefits
In the context of project delivery, benefit is the measurable value or other positive impact resulting from an outcome perceived as an advantage by one or more stakeholders, and which contributes towards one or more objectives.

Capability
In the context of Routemap, capability describes the ability of the sponsor, client, asset manager and market to organise for effective and efficient delivery. It refers to the capability of all or part of an organisation, and not that of the individual.

Client
In the context of Routemap, the client is the organisation that is responsible for undertaking the work to fulfil the sponsor's requirements. The client translates the requirements from the sponsor and manages the delivery. The client selects the most appropriate suppliers. In some contexts, the sponsor and client could be from the same organisation.

Client model
The client model refers to how the client structures and resources the project. The model will set out how delivery, transition and operational activities will be split between the client, advisors/partners and supply chain (in-house versus external) to ensure a successful outcome and realisation of the sponsor's goals.

Complexity
In the context of Routemap, project complexity is a measure of the inherent difficulty of delivering a project. This is assessed on factors such as the stability of the wider delivery environment, the level of innovation required, and the number of stakeholders involved.

Contracting model
The contracting model refers to how risk is allocated between the client and suppliers. It should align with each parties' risk appetite, their ability to manage risks and the delivery model.

Delivery model
The delivery model is the form of structural and commercial arrangements to be deployed to meet the sponsor's requirements. The selected model should be the best option from those available, taking into account the capabilities and constraints of the project. For example, the creation of an arm's-length body like High Speed 2 or the formation of a special purpose vehicle as has been used to deliver Thames Tideway Tunnel.

Delivery strategy
The delivery strategy describes how the selected delivery model will be implemented and how it will need to change over time.

Glossary

Environmental, economic and social value
The impact a project has on the environment, economy, and society. This may be global or localised, and may result both from meeting the project's objectives (for example, improved transport links) and from by-products of delivery (for example, job creation). It relates to reducing negative impacts as well as increasing positive impacts, and it is important that value delivered against one category is not at the expense of another (for example, delivering economic development but at significant cost to local biodiversity).

Environmental, social and governance (ESG) criteria
These are key criteria for sustainability reporting, in response to widespread investor and consumer demand. They are also increasingly used to inform investment decision making.

Governance
Governance defines relationships and the distribution of rights and responsibilities among those who work with and in the organisation. It determines the rules and procedures through which the organisation's objectives are set and provides the means of attaining those objectives and monitoring performance.

Market
In the context of Routemap, the market comprises organisations which integrate and compete to deliver goods or services to one or more clients. This includes

- the players, for example, sellers/buyers/partner
- the rules, for example, regulation, legislation
- processes, for example, procurement, delivery
- structure, for example, relationships between buyers, sellers, partners

Optimism bias
The demonstrated and systematic tendency to overemphasise positive benefits and opportunities and undervalue the costs and negative risks of projects. This bias should be quantified when developing cost plans and schedules.

Outcomes
The result of change, normally affecting real-world behaviour or circumstances. Outcomes are desired when a change is conceived. Outcomes are achieved as a result of the activities undertaken to effect the change; they are the manifestation of part or all of the new state conceived in the target operating model.

Outputs
A specialist product (the tangible or intangible artefact) that is produced, constructed or created as a result of a planned activity and handed over to users.

Requirements
Requirements are the project stakeholders' wants and needs, clearly defined and with acceptance criteria.

Risk
The effect of uncertainty on objectives. Risk is usually expressed in terms of causes, potential events, and their consequences.

- a cause is an element which alone or in combination has the potential to give rise to risk
- an event is an occurrence or change of a set of circumstances and can be something that is expected which does not happen or something that is not expected which does happen.
- the consequences are the outcomes of an event affecting objectives, which can be certain or uncertain, can have positive or negative direct or indirect effects on objectives, can be expressed qualitatively or quantitatively.

Risk appetite
The nature and extent of risks that an organisation is willing to take.

Risk tolerance
The threshold levels of risk exposure that, with appropriate approvals, can be exceeded, but which when exceeded will trigger some form of response

Senior Responsible Owner (SRO)
All UK government projects will have a senior responsible owner. They are accountable to the sponsor organisation for a programme or project meeting its objectives, delivering the projected outcomes and realising the required benefits. The senior responsible owner is the owner of the business case and accountable for all aspects of governance. The senior responsible owner of a government major project is ultimately accountable to Parliament.

Sponsor
In the context of Routemap, the sponsor is an organisation that secures the funding, oversees the business case and is responsible for specifying the requirements to the client. In some contexts, the sponsor and client could be the same organisations.

Glossary

Stakeholders
Any individual, group or organisation that can affect or be affected by, or perceive itself to be affected by an initiative (programme, project, activity or risk).

Sustainability
This means making the necessary decisions now to stimulate economic growth, maximise wellbeing and protect the environment, without affecting the ability of future generations to do the same.

Target operating model
The target operating model refers to how the asset or change will be funded, owned, operated and maintained once the project has closed.

Transition points
Points at which a project moves from one stage to another. For example, delivery to operations.

UN Sustainable Development Goals (SDGs):
Adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. The 17 SDGs are integrated and recognise that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability.

Acknowledgements

The IPA would like to thank the following organisations and individuals that contributed time and expertise to the development of the Project Routemap.

Anglian Water
Arup
Arnab Banerjee
Asset Management Consulting Ltd (AMCL)
Association of Project Management
BAE Systems
Babcock
Becky Ivers
Crossrail
Crossrail 2
Crossrail International
Department for Transport
Heathrow Airport Ltd
High Speed 2
Mott MacDonald
Highways England
Office of Government Property
Imperial College
International Council on Systems Engineering (INCOSE, UK)
International Project Management Association
Major Projects Association
Martin Buck
Martin Samphire
Ministry of Defence
Philip Wilbraham
PricewaterhouseCoopers (PwC)
Routemap Ltd
Sellafield Ltd
Systra Group
Thames Water
Transport for London
Turner & Townsend
University College London
University of Sussex
Wendy Cartwright

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Produced by the Infrastructure and Projects Authority