



# **Business Case Development on Public Capital Projects**



**The Power of Perspective**



# Executive Summary

This guidebook examines how business case development is carried out and, in particular, its application to public sector capital projects. The guide has a particular focus on the public sector and examines the key challenges for public bodies in developing a robust business case for a capital project where the benefits are not necessarily quantifiable in monetary terms to be able to demonstrate that best value for money is being achieved while meeting the project's objectives. It contains several insights into how public sector bodies can develop a robust business case that remains valid throughout the delivery of the project.

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# Introduction

Public capital projects are always intended to deliver a wide range of social and economic benefits from enhancing well-being and quality of life to improving and increasing effectiveness of service delivery and/or enabling more environmentally sustainable development. But for public capital investment to be truly effective and deliver good use of public funds, it is vital that all such projects are supported by a business case that is prepared and delivered to achieve optimum value for money.

To achieve this throughout the delivery of the project, a robust business case must be put in place from the inception of the project that demonstrates that all relevant matters have been considered and factored into the delivery of the project.





## CHAPTER 1

# Key Elements of a Good Business Case

Public capital projects tend to be complex projects carried out in the public realm with the potential to impact on a large number of stakeholders including statutory and non-statutory bodies, as well as local business, residents and community groups. The planning, procurement and delivery of these public projects must be fully transparent and be in the public interest and demonstrably so. Many of these public projects are required to meet legal obligations under National or EU legislation or have environmental and/or societal benefits that cannot be readily quantified into monetary values. Examples of such projects from different sectors are:

- Wastewater network and treatment plant projects to meet environmental compliance under EU Directives
- Hospitals and schools to improve public services in health and education
- Social housing projects to meet local housing needs
- Transport project such as bus corridors, light rail projects or trans-national journey improvements
- Walking/cycling trail projects (Greenways or blueways) to improve public amenities
- Public realm upgrade projects to enhance streetscapes and public spaces

As these types of projects are funded by Government and ultimately the taxpayer, achieving value for money should be paramount. The putting in place, from the outset, by the project developer of a business case that sets out the rationale for the project and the benefits it is expected to deliver is essential to achieve this.

A business case would initially set out:

- Confirmation of the strategic relevance of the proposal and the policy objective it is intended to meet
- Detailed setting out of the outputs and outcomes it is expected to achieve
- Description of the short-list of potential options to meet these requirements
- Detailed description of any assumptions made
- Detailed options appraisal, including both financial and economic appraisal
- Analysis of affordability and how the project is to be funded
- Consideration of deliverability issues
- Risk assessment and allowance for optimism bias
- Outline procurement strategy
- Analysis of implementation and operation options

At the preliminary stage, the Business Case aims to develop the strategic case for the project, consider in more detail the range of options available and decide whether there is a strong enough case for proceeding with the proposal. The Business Case should include detailed options appraisal and when finalized will also incorporate assessments of risk along with the proposed approach to implementation of the proposal.

The Business Case development process is a critical stage in the assessment of potential project proposals:

- For the project developer, it provides a framework to assess costs, benefits, affordability, deliverability, risks and sensitivities associated with potential project options
- For the funding body, it provides the information required to inform decisions on the viability and desirability of public spending proposals

The business case development process is iterative and should be updated continuously as new information becomes available. It will therefore inform key decisions for the funding body at various points of the project lifecycle. The Business Case should also lead to the clear setting out of a preferred option for the proposed project, identify risks and issues and set out a proposed implementation strategy for the investment proposal.

The business case should include the following elements:

- Confirmation that the proposal supports an approved strategy or policy and contain a detailed specification of the objective of the proposal
- Detailed usage or demand analysis to support the project with a description of the assumptions underlying the projections used.
- Description of the short-list of potential options to deliver the objectives set out
- Appraisal of the short-listed options, including:
  - Financial appraisal
  - Economic appraisal
  - Sensitivity Analysis
- Identification of the preferred option and the rationale underpinning the selection



- Assessment of affordability and sources of funding to be sought for the preferred option
- Risk assessment and full risk management strategy
- Proposed approach to procurement of the construction contract(s)
- Proposed approaches to operation and maintenance over the project's lifetime
- A list of benefits, remembering all benefits are not financial and when those benefits will be delivered over time
- Plan for monitoring & evaluation of project implementation including key performance indicators

In developing the business case, care should be taken in projecting usage and assessing risk and issues to guard against optimism bias. This is the tendency to overestimate the likelihood of usage and benefits and to underestimate the costs, risks and issues, and delivery schedule. When undertaking options appraisal, a comprehensive approach to addressing optimism bias should be included. This might include compiling outturn data for similar projects together with an evidence base to support the assumptions being made in relation to usage forecasts, cost estimates, risk and issues and delivery schedules to demonstrate that there is a sound basis for them. A sensitivity analysis to compare how robust the options being considered are to the assumptions being made should also be carried out.

In considering options to meet the strategy or policy objectives, one option that should be assessed is the 'do minimum' option, which might involve a basic level of intervention to address an issue in the short term. In many cases, the "do nothing" scenario is unrealistic as there are generally certain costs or risks associated with current arrangements which will continue to be incurred in any case.

The Business Case should be an aid to inform decision making but should not constitute a final decision in itself. Its purpose is to gather and analyze the relevant data to support better investment decisions. Proposals for public sector investment invariably exceed the resources available so choice and priority setting are crucial.

All projects – irrespective of scale or cost – must be subject to financial appraisal. While the primary focus of the economic appraisal is on value for money, taking into account the wider costs and benefits of the project, the financial appraisal should be focused on affordability and how the project is to be funded. For some proposals, the strategic assessment and the economic appraisal may make a strong case for the project on account of positive wider economic and social benefits. Such analysis must be supported by a clear assessment of the financial impacts of a project proposal. Throughout the project lifecycle, the project developer must look at all forecast costs of a proposal and take account of all risks and issues which may impact viability and deliverability.

The economic appraisal assesses the benefits of a project from the societal perspective taking a wider view and considering non-market impacts. This form of appraisal differs from financial appraisal which is generally done from the perspective of the project developer and funding body. Wherever possible, cost benefit or cost effectiveness analysis should be used in an economic appraisal.

Risks should be initially identified and assessed when developing the Business Case informed by experience with a selection of similar projects already completed. The assessment of risk should form an integral part of the project implementation as it moves through the project lifecycle.

There are a number of key steps which should be taken in the business case:

- Ensuring the data and assumptions underlying the estimation of costs and benefits are reliable and realistic
- Developing the identification of risks e.g. examining each variable to assess the likelihood of the risk materializing
- Using risk assessment techniques to assess the level of risk and the impact of risk on project performance
- Devising a risk management strategy including measures to avoid, minimize and mitigate risks, as appropriate
- Communicating the risk management strategy to the Project Team and relevant stakeholders



The appraisal must also include detailed sensitivity analysis. Sensitivity testing should show the variability of the different options based on changes in key assumptions such as costs, usage/ demand projections, risks and issues etc. Sensitivity testing assesses how vulnerable delivery options are to uncertainties and evaluates how robust the different options are to these uncertainties.

Evidence shows that early consideration of potential procurement strategies, approaches to construction and implementation management and issues relating to operation can lead to better outcomes in delivering a project. The business case should give early consideration to:

- Options for procurement
- Implementation timescales
- Capacity of the project developer and the construction industry to deliver the project
- Arrangements for governance of the project
- Arrangements for commercial management of contracts

Following evaluation of tenders, but prior to the award of the construction contract(s) a final review of the business case should be undertaken which would set out:

- Confirmation of scope
- Confirmation of underpinning assumptions
- Assessment of remaining risks and the risk management strategy to be deployed during the construction phase
- Development of a detailed delivery program
- Confirmation of costs
- Re-appraisal of project following on tendered costs (including both economic and financial appraisal)
- Confirmation of affordability and source of funding
- Detailed sensitivity testing
- Benefits realization plan

The purpose of the final review of the business case is to reassess the assumptions underpinning it and reconsider the findings emerging. At this stage in the process there will be much greater understanding of a range of critical issues including costs, benefits, risks, delivery and affordability. The final review of the business case should reassess the ongoing validity of continuing with the investment. The final business case report sets out the full body of knowledge on the project and reflects the full range of commercial and delivery issues which have emerged following the tendering process. Together these elements provide a basis on which to decide whether to proceed with a project. In many cases diligent project preparation at the earlier phases of the project lifecycle will mean that there will be little change at this point and completion of the final Business Case Report will be routine. The final business case report will then be provided to the funding body to obtain confirmation of funding.

If the funding body is satisfied that the business case meets the required standard, that there is a justification for the proposed project and that it is affordable within funding constraints, it can confirm the availability of funding and the project can proceed to construction.

Many public sector costs, in particular those that draw down from international funding sources, tend to omit the running cost of the project for the next 10 to 20 years. This is a fundamental part of the project cost and can be disruptive to BAU budgets. By factoring in this ongoing cost at the start of the project, the day-to-day running and maintenance of not just the new project, but the current assets/projects can be maintained and not impaired.





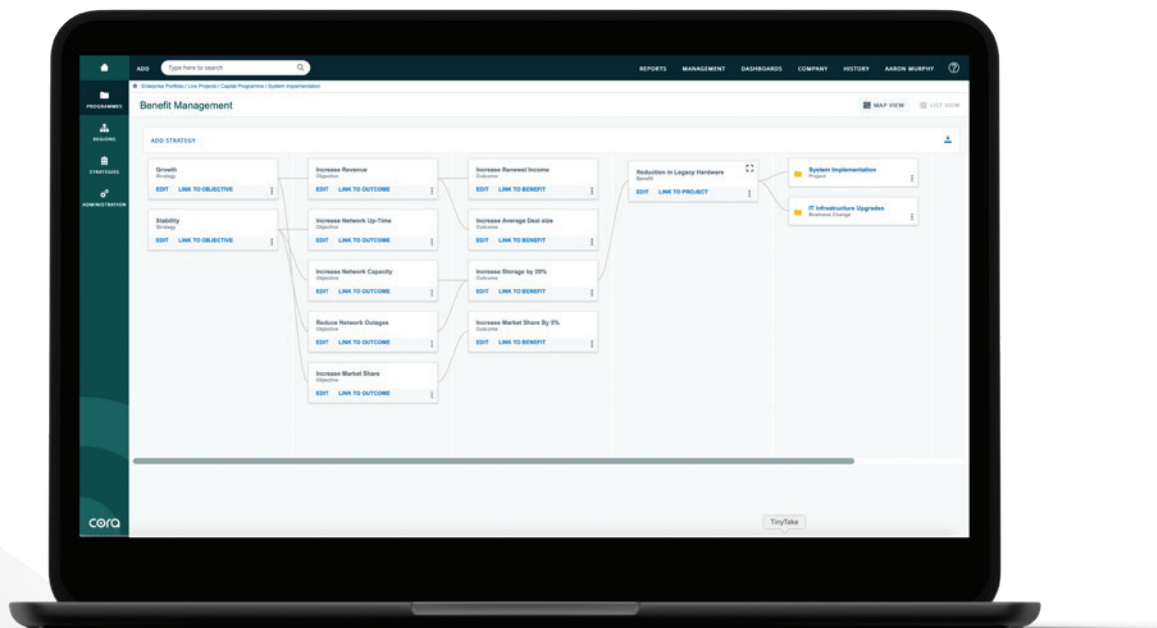
## CHAPTER 2

# How Software Can Drive the Business Case



The Cora PPM platform contains a comprehensive suite of functionality that provides the capabilities necessary to develop and manage a business case throughout the project lifecycle. It allows the project developer to analyze scenarios, track benefits, manage all stakeholder interactions and integrate across the project/enterprise. It provides for the organization to have complete project management control and is readily scalable to the size of the project and organization and can be easily tailored to suit the existing processes within the organization.

The Project Planning Tools, Dynamic Funding Source Management, Budgets, Forecasts, Risk Management, Change Management and Benefits Realization modules of Cora PPM can give the organization a centralized repository of all records of projects and an auditable trail of key documents and decisions. The system can be used to actively track progress and manage performance using customizable activity steps to track the projects' deliverables, including the business case, through the full project lifecycle from inception to completion.



**Figure:** A sample view of the Benefits Realization module in Cora PPM

Cora PPM enables centralized project management providing a full lifecycle platform with the ability to plan, prioritize, execute and evaluate projects from one central source. Its use will increase efficiency by eliminating the time and frustration around report generation, resource allocation, financial tracking and benefits management and helping timely decision making.

Dashboards show the delivery of benefits relative to costs providing funders with much needed project progress reporting and the information required to release the next tranches of funding.



# Conclusions



A robust business case must be put in place from the inception of a capital project that demonstrates that all relevant matters have been considered and factored into the delivery of the project.

The final business case report sets out the full body of knowledge on the project and reflects the full range of commercial and delivery issues which have emerged following the tendering process. This will provide the basis on which to decide whether to proceed with a project which will then be provided to the funding body to obtain confirmation of funding.

If the funding body is satisfied from the business case that there is a justification for the proposed project, that it is affordable within funding constraints, it can confirm the availability of funding and the project can proceed to construction.



## CHAPTER 3

# How Cora Systems Powers Enterprise PPM & Transformation

## Key Aspects of the Cora Solution

Cora Systems is a worldwide leader in providing enterprise PPM solutions to global organizations and government agencies, such as Honeywell, Allergan, PwC, City of London and the UK's National Health Service.

Cora is a proven foundation for the delivery of projects, digital transformation and strategic objectives. Fully digitizing program and project lifecycles, providing total transparency, empowering decision-making, and streamlining governance and reporting. Every day, across more than 50 countries, over \$20 billion worth of projects are managed on the Cora platform.

## Powering Enterprise PPM & Transformation

Cora PPM contains a comprehensive suite of functionality that provides the strategic capabilities to optimize capacity, analyze scenarios, track benefits, inform all stakeholders and integrate across the enterprise. The platform acts as the bedrock for delivering major transformation programs.



### Complete Enterprise Project & Program Management

Cora PPM provides the control, governance and insight required to identify, prioritize and authorize extensive enterprise portfolios that align to strategy and deliver ROI.



### Digitize & Streamline Business Processes

Cora PPM digitizes all your portfolio, program and project processes, surfacing information when, where and how it's needed. Transform the way you manage your program lifecycle, providing the transparency, intelligence and decision-making capability to drive change across your enterprise.

"With Cora, we're able to sit around the table at senior management level and understand where we are much better than previously."

#### Paul Moody

Director of Global Engineering Projects,  
Allergan Pharmaceuticals



"We are happily using Cora to manage the portfolio of projects that makes up our £1.7bn Superfast Program, and our £294m Local Full Fibre Networks Program. It works well at a low level for project planning, risk and issues, change logs, benefits tracking, weekly reports, etc. Then the PMO can roll up and summarize that low-level data into a full program/portfolio view."

#### Justin Leese

Program Director, Local Full Fibre Networks,  
Department for Digital, Culture, Media & Sport (UK)







## Integrate, Centralize & Consolidate

Cora PPM acts as a single point of entry for all project data and facilitates easy integration with any enterprise technology architecture. Providing you with an immediate, consolidated view of all your project portfolios and deliverables. Complete visibility and insight are acquired through instant information “roll-up”, linking top-down goals with bottom-up contributions of each and every initiative.



## Swift Enterprise Deployments

Accelerate time to market and improve return on investment by leveraging best-practice implementation supported by our team of experts.



## Mapped to Your Processes

Cora PPM is configured to each client’s specific business processes, and we are methodology agnostic – we’ll tailor the platform and the templates to fit your chosen project methodology be it Agile, PMBOK, PRINCE2 or other.

“It’s great to have that cascade of information to highlight issues and risks for the right people who can then intervene. The functionality to do that in a more controlled environment, to take it through the different authorization layers, we see as really valuable.”

**Patrick Beattie**  
Director, PwC



“Cora really allows us to drill down into information so we can give our senior management the key decision-making information to make informed decisions on all our schemes.”

**Ian Thrupp**  
Head of Planning and Project Controls, WSP



“Cora as a platform gives us that single source of truth to what’s going on in the organization and also gives us the ability to prioritize what’s really important to us. Being able to put that information in front of our board and our executive team to say, ‘Here is all of the change that’s going on. What’s the most important to you?’ and then actually allocate the resources and funding for those projects to help move us into that strategic position is invaluable.”

**Sarah Malin**  
Head of Program Management, CityFibre



# The Value

Digitize your programs and lifecycles, gain greater insights, more informed decision-making, and streamline your governance and reporting.

## 🎯 Strategic Insights

Roll out failsafe, strategically-aligned projects that utilize resources and deliver maximum value.

## 🎯 See The Full Picture

Quickly view data dashboards that visualize the health of your portfolio and drill-down to focus in on any issues.

## 🎯 Support Governance

Ensure the right people have the right oversight with multi-level access protocols.

## 🎯 Easily Scale

Small to large, local to global, all in the cloud.

## 🎯 Complete Control

Manage scope, financials, progress and quality of project delivery in one centralized system.

## 🎯 Seamless Collaboration

No matter the team – internal or contractor, desk-based or mobile – integrations make workflows seamless.



# \$20 BILLION

Worth of projects managed on Cora PPM.



# 400,000+

Projects live on Cora at any one time.



# 50+

Countries where Cora is in use.



# 1

Platform & version of the truth.



# Author Bio

Gerry Galvin has worked in the water industry for over 40 years. He spent more than 20 years in Ireland's Department of Environment, Community & Local Government, responsible for technical oversight to support the development and implementation of policies, strategies and the investment program for the water sector in the country. In his last 10 years with the department, he served as Principal Engineering Adviser in its water division where he was responsible for capital project planning, implementation and expenditure reviews, including the application of project control systems.

Gerry joined Irish Water, the national water utility, on its establishment in 2013, in the role of Chief Technical Officer on the Management Team where he served for seven years. He was responsible in this role for enterprise risk management co-ordination, technical competency development and health & safety, as well as serving on investment and contract approval committees, providing governance on the utility's capital investment plan projects. Gerry now works as a consultant water utilities expert for Cora Systems.



An aerial photograph of a dark asphalt road with yellow lane markings, winding through a dense, lush green forest. The road curves from the top right towards the bottom left. The trees are tall and coniferous, creating a textured canopy. In the bottom right corner, there is a faint, semi-transparent circular graphic element.

# Contact Us

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