



# How to Achieve Best-practice SPM in Delivery of Public Projects

Guidebook



The Power of Perspective

# Executive Summary

This guidebook examines how strategic portfolio management (SPM) is carried out, focusing on its application to the work programs of utilities and public bodies. It examines the key challenges for these bodies in providing robust governance throughout the work program portfolio lifecycle, so they can demonstrate that the right works are being carried out and best value for money is being achieved in meeting the portfolio's objectives. It contains several insights into how utilities and public sector bodies can put portfolio governance processes in place for work programs.

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# Introduction

Utilities and public bodies deliver large capital investment programs involving a mix of large projects and portfolios of smaller projects, and work programs targeted at improving service provision, reliability, risk reduction and/or improving safety.

Portfolio governance is the management framework within which decisions are made on these programs and it's a critical element of the successful delivery of any portfolio of projects and work programs.

Portfolio management provides a decision-making framework in order to have a structured approach to the selection of projects/works to be included in each program and to managing the many risks and issues that arise in the delivery of a portfolio from selection to completion.

In order to achieve this effectively, the embedding of robust governance and change control processes increases the likelihood of achieving the cost, schedule, and quality goals and ultimately the outputs and outcomes of the program. Meeting the demands of the capital investment program delivery process is also essential.

“Portfolio management practices support organizations in prioritizing and selecting the right projects to meet strategic objectives and improve project success rates.”

**Hadjinicolaou & Dumrak, 7th  
International Conference  
on Engineering, Project and Production  
Management**



A photograph of two men in a warehouse setting. They are both wearing yellow hard hats and light blue button-down shirts. The man on the left is holding a yellow folder, and the man on the right is holding a tablet. They are standing in an aisle between tall metal shelving units filled with cardboard boxes. A large, semi-transparent purple circle is overlaid on the image, framing the two men. The background shows the industrial structure of the warehouse with metal beams and lights.

CHAPTER 1

# Key Elements of Strategic Portfolio Management and Governance

Multi-annual investment plans by utilities and public bodies are a dynamic portfolio of projects and work programs which are monitored and reviewed over the duration of the investment plan period. This will ensure that the investment plan:

- Continues to reflect the most urgent investment needs
- Captures any required scope changes to projects or work programs
- Responds to any emerging policy requirements
- Takes account of any scheduling changes and revised scope and costings, as each work program and project move from conceptual design to detailed planning and construction

Any multi-annual investment plan must provide an appropriate combination of projects and work programs identified based on legislative, business, operational, safety and financial constraints. It should also allow the utility or public body to:

1. Deliver on policy priorities
2. Deliver on business plan objectives in the most efficient manner
3. Monitor and report to stakeholders on the progress made against achieving these targets and objectives

Almost inevitably, even in a multi-annual investment plan, the extent of work required to address identified needs will exceed available budgets. So it is important to be able to prioritize the list of works to be included and to be able to assess the contribution to achieving the outputs and outcomes to the program against each other. Often there will be competing priorities within limited budgets to be considered.



“The practice of portfolio management is integral to the implementation of your organization’s overall strategic plan.”

**Project Management Institute, The  
Standard for Portfolio Management  
– Fourth Edition**

Each element of work required to address the needs should be examined against the outcomes, i.e., the impact it would have on service provision or risk reduction as against “do nothing” and “do minimum” scenarios. This should allow extensive challenges at all levels of the organization to ensure the right works have been brought forward at the lowest possible costs. This approach prioritizes investment based on risk reduction per euro invested and will allow decisions affecting different types of works to be made based on consistent criteria.

Changing priorities can arise from unforeseeable events, which can impact on the assets of many utilities and public bodies and highlight weaknesses in infrastructure which demand mitigation measures. Therefore, it is important that the utility or public body have a level of flexibility in the investment portfolio to ensure that it can accommodate changing priorities driven by:

- External events that are outside their control
- Additional risks which were not known when the investment plan for the period was being developed

Consideration may also need to be given as to how work programs will be delivered, whether by in-house crews (with additional recruitment if required) or by outsourcing to contractors. This is very much a decision for each organization to make based on the resources and skills available in-house as against those required to deliver each work program in the most cost-effective manner.

A key element in the investment planning approach is to have meaningful consultation and engagement with customers and stakeholders so that a shared understanding is reached of the prioritization criteria employed. Sometimes customers and stakeholders will have conflicting priorities and a structured transparent portfolio selection process will drive alignment on priorities.

“Strategic portfolio management:  
a smart, realistic and relatively fast  
way to gain sustainable competitive  
advantage.”

**Garfein, S. J., Founder, RPM Systems**



While all the expectations of all customers and stakeholders are unlikely to be met, it is important that customers and stakeholders understand why this is the case, and why the investment plan will be regularly reviewed to be able to address any changes in priorities or budget allocation that may arise over the period of the plan. Equally, the utility or public body needs to understand customer and stakeholder expectations and consider their views in order to ensure that available funding is appropriately balanced across competing areas and work programs.

Periodic review will be required to mitigate the risks to delivery and to re-balance the work programs and funding allocation with the most up to date information on the delivery of each work program and the inclusion of works to address emerging needs.

This requires a comprehensive centralized portfolio management system where all relevant information is inputted from the outset for each element of each work program to enable progress and expenditure to be tracked, and reported on, against outputs and outcomes to the governance group and management.



## CHAPTER 2

# How Software Can Help Strategic Portfolio Management

The Cora SPM platform comprises a comprehensive suite of functionality providing the capabilities necessary to create an inventory to make data-driven decisions about the portfolio, optimize capacity, analyze scenarios, track benefits, manage all stakeholder interactions and integrate across the project/enterprise. Cora SPM ensures the organization has complete project management control for its entire portfolio of projects and work programs, to manage scope, financials, progress and quality of delivery in one centralized system with GIS mapping.

Of particular relevance to portfolio management is the functionality to firstly carry out the selection of the work to be included in any work program, and then track the program through to completion. Cora SPM facilitates shrewder portfolio selection by auto-selecting the preferred portfolio content based on your criteria using the evidence captured in the Asset Data Register, eliminating ad-hoc or subjective selection.

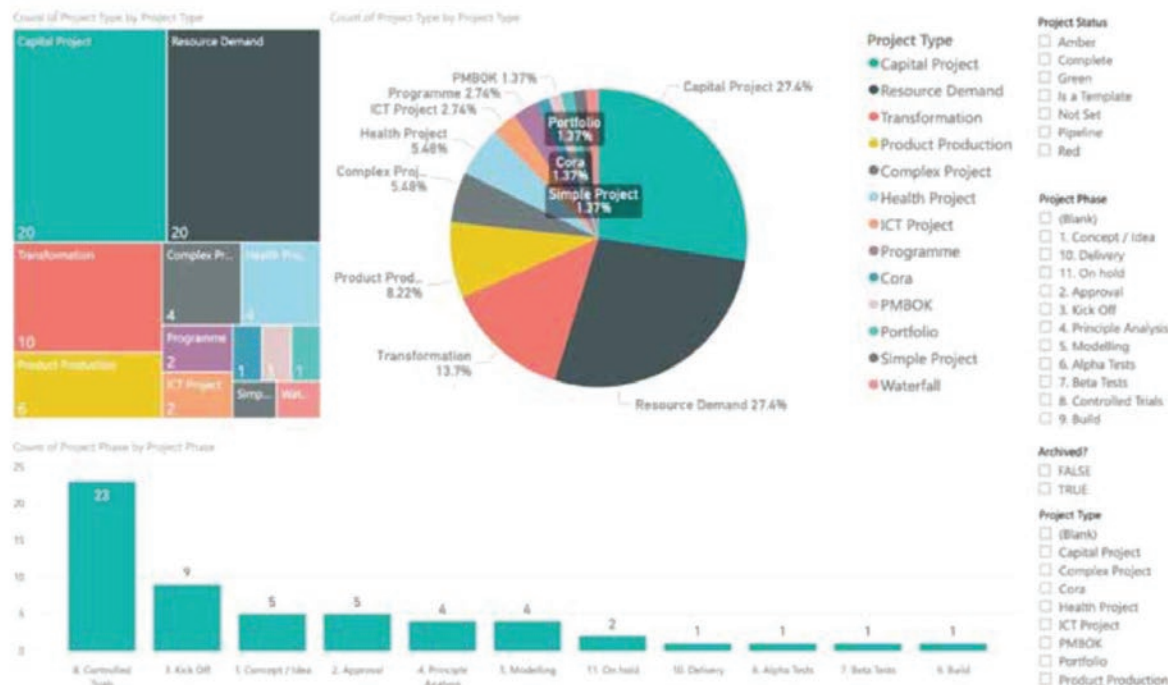
Cora SPM makes investment scenario analysis and optioneering easy while comparing scenario options at a portfolio, program or project level allowing the selection of the appropriate mix of projects to meet objectives while factoring in budget allocations, ensuring your portfolio is optimized to deliver the maximum return.

This is in line with best-practice within the industry. For example, according to research conducted by the University of Southampton, at a recent Asset Management Conference: “Results show that optimization consistently delivers a significant improvement over prioritization when constructing investment plans. Organizations can have increased confidence that implementing advanced optimization techniques will deliver significant benefit. In particular, our analysis supports the conclusion that organizations that optimize (in contrast to prioritize) their asset investment portfolios can deliver 7-20% more value from their portfolios when faced with the same financial constraints.”



“Our analysis supports the conclusion that organizations that optimize (in contrast to prioritize) their asset investment portfolios can deliver 7-20% more value from their portfolios when faced with the same financial constraints.”

**University of Southampton**



**Figure 1:** Portfolio graphical views to visualize where the large spends are going to be and if they should be more balanced on plants/sites. Also use this view to see if spend is happening on the right type of projects and if those type of projects are strategically aligned to your corporate vision.

Cora SPM makes portfolio balancing straightforward, while ensuring strategic alignment, capacity planning and global efficiencies across the organization. Using criteria to score and weight projects based on the organization's requirements, it allows the selection of works/projects for inclusion based on a reliable and robust portfolio scoring mechanism. The impact of the addition of projects to or removal of projects from the investment plan can be readily evaluated against benefits, budgets and delivery schedules using the Gantt and Financial functionality in Cora SPM.

Cora SPM allows the utility or public body to logically split their investment budget across the projects/work programs in the portfolio. The Resource Management module provides real-time resource/skills visibility to plan and execute project scheduling, manage productivity more effectively and balance workloads between in-house resources while giving the organization the ability to plan ahead to map available skills and resources against work program schedules giving the flexibility to respond to resource issues faster and more effectively.

Cora SPM provides the capability to easily track forecasting against portfolio budgets to measure performance. It also allows the utility or public body to plan and track benefits alongside project delivery and gain visibility over benefits being delivered by projects/work programs including through GIS mapping and how they could be prioritized to support corporate business plan objectives. The embedded “BI” capability provides powerful data and insights that can be made accessible to management teams at every level selected via shared dashboards and interactive reports and that enables timely, informed decisions to be made.

Cora SPM facilitates the embedding of governance and change control processes, critical elements in the successful delivery of any portfolio of projects or work programs. The putting in place of robust governance processes, to manage the work program delivery process, increases the likelihood of achieving the cost, schedule and quality goals and ultimately the outputs and outcomes of the program.

Cora SPM enables the prioritizing of the list of works to be included and the selection of those that will be most cost effective in meeting the outputs and outcomes of each program. The availability of the necessary resource and skills capacity to deliver the portfolio to the required schedule either from in-house resources or by outsourcing can also be factored in through using Cora SPM.

A centralized work program management system is essential to provide an auditable trail, that remains accessible and readily retrievable of all records, in particular outputs and outcomes. The Cora SPM platform provides the comprehensive suite of functionality necessary to have complete project and program management control throughout the portfolio lifecycle.





# Conclusions

Portfolio governance is a critical element of the successful delivery of any portfolio of projects or work programs by utilities and public bodies. The putting in place of a strategic portfolio management system:

1. Ensures robust governance processes and management of the work program delivery process
2. Increases the likelihood of achieving the cost, schedule, and quality goals and ultimately the outputs and outcomes of these programs

The list of works and projects to be included should be prioritized and those that will be most cost effective in meeting the objectives of each program selected for inclusion. The availability of the necessary resources and skills to deliver the portfolio to the required schedule, either from in-house resources or by outsourcing, should also be factored in.

A centralized work program management system provides an auditable trail and ensures records remain accessible and readily retrievable throughout. The Cora SPM platform provides the comprehensive suite of functionality necessary to have complete control throughout the portfolio lifecycle.



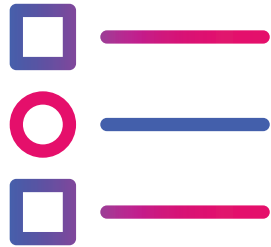
## CHAPTER 3

# How Cora Systems Powers SPM



The Cora SPM platform – which is Gartner-approved – will provide you with the visibility for advanced portfolio management and decision-making. It will give you the confidence to select the right portfolio, and the digital know-how to execute them successfully, as well as ensuring the governance, monitoring and execution of your change initiatives.

The Cora SPM platform is built on four fundamental pillars:



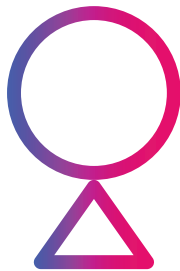
### **Inventory**

Translate your business strategy into an actionable portfolio.



### **Analyze**

Based on strategic criteria; analyze and select the best initiatives.



### **Balance**

Implement the best aligned projects by allocating budget and resources that provide maximum business impact.



### **Execute**

Manage approved projects to completion with full visibility over deliverables, timescales, scheduling and progress



## Strategic Functionality

The strategic functionality required to optimize capacity, prioritize and track the benefits of your business plan, inform all stakeholders and integrate across the business technologies to achieve maximum performance from your portfolios of work.



### Portfolio Selection

Auto-select the preferred portfolio based on your criteria and compare alternatives, ensuring your portfolio delivers the maximum return.



### Scenario Planning

Make Portfolio balancing easy, while ensuring strategic alignment, capacity planning and global efficiencies across the enterprise.



### Top-Down Budgeting

Logically split budget across your portfolios. Easily track forecasting from execution against portfolio budgets to measure performance.



### Prioritization

Using criteria, based on your requirements to score and weight projects, slice-and-dice data to come up with a repeatable, reliable and robust portfolio scoring mechanism.



### Better Decision-Making

Increase return on investment, eliminate "CEO-specials" or "good-hunch" and enable decisions on the portfolio to be made with clarity and without guesswork.



### Business Intelligence

Embedded "BI" provides powerful data and insights that enable fast, informed decisions accessible to everyone via shared dashboard and interactive reports.



### Strategic Capacity Management

Easily understand requirements for the year ahead and maximize usage of global resource pools.



### Benefits Realization

Plan and track benefit realization across the organization.



## Execution Functionality

The essential functionality required to automate your PMO, providing you with the ability to plan, prioritize, execute and evaluate your project portfolios.



### Engine

A full set of tools needed to create, plan and manage your entire portfolio of projects.



### Finance

Manage your project finances from initial estimate through to actual spend.



### Document Management

Attach or link documents to projects, risks, tasks & registers. Annotate documents with mark tools directly within the application.



### Forms

Turn free-format text into structured, reportable data.



### Registers

Completely customizable logs for managing actions, lessons learned, decisions & more.



### GIS Mapping

Plot projects on a map, visualizing activity location and identifying synergies.



### Dashboards

Project and program level, visualizing the health of your portfolio; personal dashboards provide a digital "to-do" list.



### Reporting

Suite of reports that are used by various roles to extract and publish information in just a few clicks.



### Mobile

Mobile apps for Android and iOS. Access and update key project activity from anywhere.



### Resources

Plan resource requirements for your project; track variation between planned and actual resources



### Workflow

Design and manage the approval of data in Cora Forms and Cora Registers.



### Portal

A flexible framework that provides access to data contained in Cora PPM to a wider audience.



### API

Facilitates easy integration with any enterprise technology architecture, allowing for a central, enterprise PMO platform, providing one version of the truth.



### Scheduling

Solid, sophisticated scheduling throughout project lifecycle, including inter-project and inter-program dependencies.



### Progress Management

Ensures automatic digitization and tracking of corporate goals.



# Satisfied Clients

"Cora PPM gives us a single version of the truth. We've got 50+ countries in which we work, with 12,000 people in our part. We have in the region of 40,000 live projects every day. Cora PPM provides us with insight into all of those projects."

**Phil Howe**

**Project Management Excellence Lead,  
Honeywell**

"We have specific timelines, deliverables, stakeholder communications, risks and mitigations, all of these tasks need to be delivered and managed, Cora has helped us and supported us to be successful."

**Alejandro Gutierrez**

**Senior Engineer,  
Boston Scientific**

"We save time and money and deliver quality information and Cora's solution enables us to do this."

**Mark Cain**

**Program Manager,  
NHS Digital**

“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**

“It has an extremely customizable PPM solution, which is what we needed – a solution that would fit to the way our business processes operate.”

**Mark Ruettiger**

**North America Operations Manager,  
Automated Logic**

“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,  
Allergan**

“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 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, allocate 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 dashed lines, winding through a dense, lush green forest of tall evergreen trees. The road curves from the top center towards the bottom left. In the bottom right corner, there is a faint, semi-transparent circular graphic element.

# Contact Us

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