

Leading Asset Investment Planning Technology Solutions

How will you know if your organization is ready?









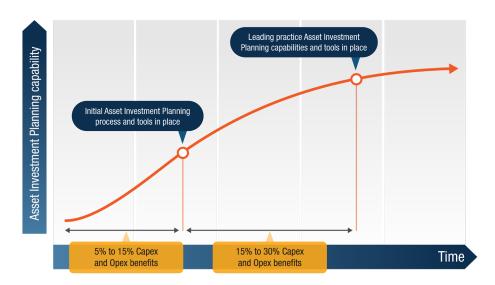
Introduction

Infrastructure owner / operator organizations are facing unprecedented demands from customers, industry regulators, Governments and other stakeholder groups to deliver better overall asset performance and service outcomes, often for less funding than was previously available. Even in markets where financial affordability is less of a constraint, organizations are now having to be much smarter and more transparent about their investment choices and the data, information and decision making that led to those investment choices.

Organizations are coming under increasing scrutiny to demonstrate that they are achieving the best possible 'bang for the buck' for the infrastructure investments they have selected over the long-term and be able to clearly explain why other investments are not being made. This is no easy task. Often the needs, priorities and influence of one set of stakeholders is competing or in direct conflict with the needs, priorities and influence of other stakeholders, so arriving at the optimal overall investment plan that will satisfy the majority at an acceptable cost over the long term with high levels of transparency is a real challenge.

The trend has been for organizations to turn to technology and data driven-approaches to help them meet these challenges by harnessing the computing power of specialist asset investment planning technology systems to crunch through the available data and identify, select, plan and justify their investment choices in a way that is best aligned to their objectives and priorities and those of their various stakeholders.

Introduction Cont.

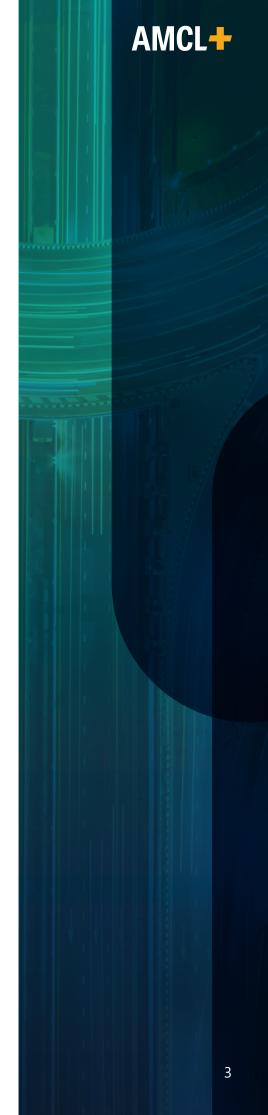


The benefit opportunity from being better at asset investment planning supported by leading asset investment planning technology and software is significant. This will be explored further in a later paper in this AMCL Perspectives on AIP series.

Given the considerable size of most asset investment portfolios and plans (in the Millions and often Billions) even the smallest capability improvement which results in better investment decision-making can have a significant impact. Developing from less mature approaches through to more mature approaches, risks are better controlled and both Capex and Opex savings in the order of up to 30% are possible. Typically, these benefits are more modest in the early part of the journey but accelerate once the initial Asset Investment Planning process and tools are in place and these can be leveraged to make more impactful decisions.

So, is it as simple as buying and implementing a leading asset investment planning solution? What other aspects need to be in place? And how do you know if your organization is really ready to make the leap?

In this second paper of the AMCL Perspectives on AIP series we will explore the key topics and offer a view on when to know if your organization is ready for an advanced asset investment planning technology solution. We will also highlight some approaches that can be taken to begin to leverage the power of technology for investment decision making irrespective of the level of investment planning maturity of the organization.





What are common challenges organizations are facing when planning their infrastructure investments?

The vast majority of asset owner/operator organizations have a strong imperative to establish an overall investment plan to meet service performance needs that will satisfy the majority of stakeholders at an acceptable cost over the long term. However, in many cases there are a number of *common challenges that these organizations are facing* in successfully achieving this objective.

Some representative examples of the challenges faced are:

1 Insufficient Data & Information

Insufficient data and information available to carry out analysis on the performance and condition of the asset portfolio so it is difficult to identify and agree future investment needs

2 Premature 'Preferred' Investment Option

The premature selection of a 'preferred' investment option to meet an investment need and not progressing other viable alternative investment options further beyond an early feasibility study or initial outline business case

3 Gaming the System

Regular overstatement of the benefits and understatement of the costs of a proposed project in order to 'game the system' and get the investment through the manual decision making and approval process overseen by an investment review committee

4 Inability to Compare All Investments Equally

Different investment types being described in different ways which makes meaningful cross comparison across a wider variety of investment types very difficult, or even impossible

5 Lack of Ownership of Data & Information

No one taking responsibility or ownership of data and information required for investment decision-making meaning that investment decisions are taken with lower levels of confidence

6 No Single View of the Investment Portfolio

Different business functions having their own views of the plan (which is different to other functions) and a general lack of visibility over the single overall enterprise-wide investment portfolio

7 Lack of Transparency & Auditability

A lack of transparency and auditability in the process for investment decision-making so that everyone can understand how budgets have been allocated and everyone agrees how, where, and when the funding will be spent to achieve the best overall outcome for the organization as a whole

8 Lengthy Planning Timescales

Taking months to prepare Investment Plans and Business Cases and an inability to revise and re-cut the investment plan in reasonable timescales when the priorities of the organization change

9 Constrained by Technology & Tools

A general recognition that the current decisionmaking tools and systems are not being used to their full potential or are not meeting the demands placed upon them by the users

10 Benefits Realization

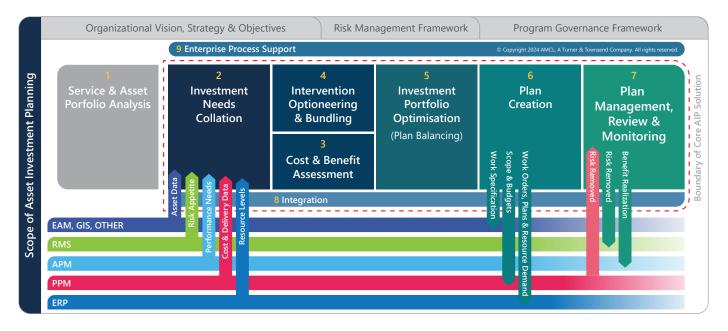
Not being able to confirm with any real degree of certainty if the investments chosen are delivering the benefits that were expected of them

How many of these challenges are present in your organization?



What are the leading asset investment planning technologies comprised of, and how can they help?

The functional capabilities and processing power of leading asset investment planning technologies have evolved rapidly over the last decade. While not exhaustive, the broad scope of general software functional capabilities (and key integration points) of a dedicated technology solution to support an organization's asset investment planning processes is illustrated below:



As well as harnessing the computing power of specialist asset investment planning systems to crunch through the necessary data efficiently to identify, select, plan for and justify investment choices the successful design and implementation of a *leading investment planning solution* can bring broader benefits:

- Improving process efficiencies through the implementation and enablement and of good practice workflows which are native and fully embedded within the technology
- Positive reinforcement and enablement of the roles and responsibilities of the various functions, teams and roles involved in investment planning activities
- Improving discipline and bringing transparency to investment decision making and governance. Moving the organization away from investment choices based on 'emotion' and 'engineering judgement' to a more agile, repeatable, consistent and fully auditable data-driven approach
- Improving the focus around investment related data and information to support more confident investment decision making
- Rapid assessment of a broader range of investment solution options (of different benefits and costs) to meet needs. Providing the ability to quickly and reliably compare a wider variety of different (previously incomparable) investment types in an unbiased way

- More agile development of investment plans with the ability to guickly revise and re-cut the investment plans as organizational priorities and constraints change
- Everyone agreeing on and working from a 'single version of the truth' on data and information, service performance targets and constraints that influence investment choices
- An improved transparency of investment plans that are demonstrably aligned to an agreed set of organizational priorities and objectives and those of its stakeholders to aid transparent discussions with regulators and other stakeholders alike
- Better visibility, control, coordination and management reporting over the entire asset investment portfolio
- The ability to measure and evaluate the benefits of investments so that decisions can be taken to do the same or something different should the same or similar decisions need to be made in the future 5

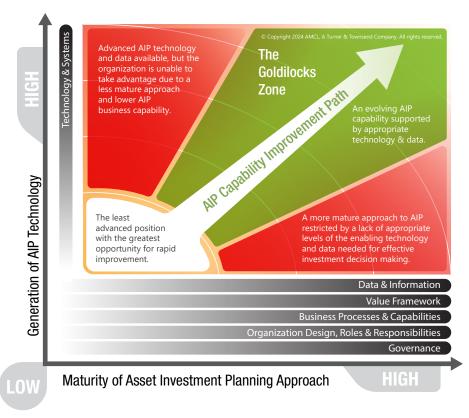
Where can my organization start?

It is clear that AIP technologies can provide *significant potential to rapidly accelerate an organizations investment decision-making capability.* However, observations on lessons learned from previous systems implementation projects is that committing to procuring and implementing the full scope of the latest, greatest asset investment planning software alone should not be seen as the 'silver bullet' that will transform investment planning fortunes overnight.

Procuring and implementing a leading asset investment planning technology solution may not be the right approach for many organizations, particularly those at a lower overall maturity levels. In many respects attempts to do this can compound underlying problems and make them even more difficult to fix as the disillusionment and the negative experiences of a distressed or failing IT project sets in.

Evidence from multiple case studies shows that taking a balanced approach where there is an incremental development of an organizations investment planning business capabilities (its processes, value framework, organization design and data) at the same pace and direction as the development of information technology is likely to provide more successful and more sustainable improvement outcomes.

This point is illustrated in the graphic below. 'The Goldilocks Zone' is where the business capabilities needed for effective asset investment planning (on the bottom axis) are developing in parallel with the development of technology (on the vertical axis) at a rate of progress which is 'just right'.





Where can my organization start? Cont.

Developing and implementing a leading asset investment planning technology solution is also not a binary topic. It is not a situation where an organization either implements the full scope of a leading investment planning solution or it does not. There are several potentially viable strategies in which technology can be developed in a way that matches the maturity level of the organization. These strategies can reduce the risk of making a significant commitment to a large scale technology solution implementation when the organization is not yet fully ready for the demands that this will place upon it.

Examples of these **strategies** are:



Start with a less advanced solution and plan to get bigger and more advanced over time

Developing and implementing a 'lite / mid-level' complexity software solution before choosing when and how to implement a 'full scale', more complex solution is often a valid strategy. A 'lite / mid-level' solution in this context means software which has many of the core functional features of the leading software, but without the advanced features which the organization may not have sufficient data for, or be organizationally mature enough in its approach to exploit yet. Developing a deploying a 'lite / mid-level' complexity software can also enable valuable lessons to be learned and help to confirm the business capability improvements required to successfully transition from a 'lite / mid-level' solution to a more advanced solution at an appropriate time in the future.



Go big with an advanced solution, but scale back the complexity initially and plan to get bigger and more advanced over time

Most asset investment planning technology solutions are, by design, reasonably scalable in terms of both their functionality and feature sets, design and configuration options. Asset owners / operators have the opportunity to work with their solution vendor(s) to select the feature sets and functionality that most suits their more modest requirements in the short-term and then plan to extend their use to more advanced features and system designs as the decision-making needs and investment planning capability of the organization matures. This type of strategy can use initial successes to build the momentum and appetite for the deployment of more advanced or extended system features and solution scope when the time is right.



Reduce the implementation scope/footprint and then deploy more widely over time

Similar to the approach above. Developing a smaller scale, 'pilot' implementation either for a specific organization function, asset type, or a specific geographic area can enable valuable lessons to be learned that can be used to inform, re-disk and improve the success of subsequent larger scale implementations.



Get external support for investment planning in the near term and gradually transition activities in-house over time

This approach involves an external service provider developing an investment plan with the assistance of, or on behalf of, the asset owner / operator using a more advanced technology solution which they are more familiar with. This can be done in parallel with the asset owner / operator continuing to use its own existing approach and tooling. The asset owner / operator can then choose the best timing for when to 'switch' to the externally developed investment plan and bring in house the capabilities (processes, roles & responsibilities, governance) needed to maintain and manage the investment plan generated from the more advanced software.



How do you know if your organization is ready for a leading *asset investment* planning technology solution?

In answering the question posed in the title of this paper one thing is clear; if an organization waits until it feels that it has everything it fully needs in place before it starts to consider exactly how and when to develop and implement an advanced asset investment planning solution then that time may never come, other priorities will emerge and the opportunity will be missed.

It is true that at a point in time some organizations will be better placed than others to adopt more advanced software, but there is no perfect time. Organizations, particularly those in a competitive or regulated markets, who choose to wait until all the stars align may find themselves waiting for a long time. In the meantime they will be losing ground to their competitors or industry peers who are pressing ahead with their investment planning system projects in a manner and at a pace that is right for them learning lessons and adapting to overcome any obstacles they encounter as they go.

A good place to start is to understand how much of the organizational pre-requisites needed for an advanced AIP technology solution (e.g. data, processes, value frameworks) are in place already and what needs to be created in preparation for or in parallel with a system implementation project. Knowing this will then help to inform the choice of approach and the timing on when to make a confident and well-informed decision to embrace an leading asset investment planning technology solution and all the benefits that this will bring.

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Kris is AMCL's Asset Investment Planning Service Line Lead and has been developing Asset Investment Planning technology solutions since 1997. His technical specialisms include business operating model design, asset information systems and organizational change and transformation.

During his 25 year career he has amassed expertise in designing process, organization and technology improvements to increase productivity, reduce costs, facilitate strategy delivery and improve decision making in the asset-intensive industries.

Get in touch with Kris to explore how AMCL can help you with your organization's Asset Investment Planning improvement journey.

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