

Using Asset Investment Planning to Optimize Business Performance

What is Asset Investment Planning?

There are many competing factors that make it difficult for organizations to set targets and optimize the allocation of funding. Without a clear and stated vision, managers and employees may make decisions that are not aligned with long range objectives and effectively balance financial performance, operating constraints, and risk.

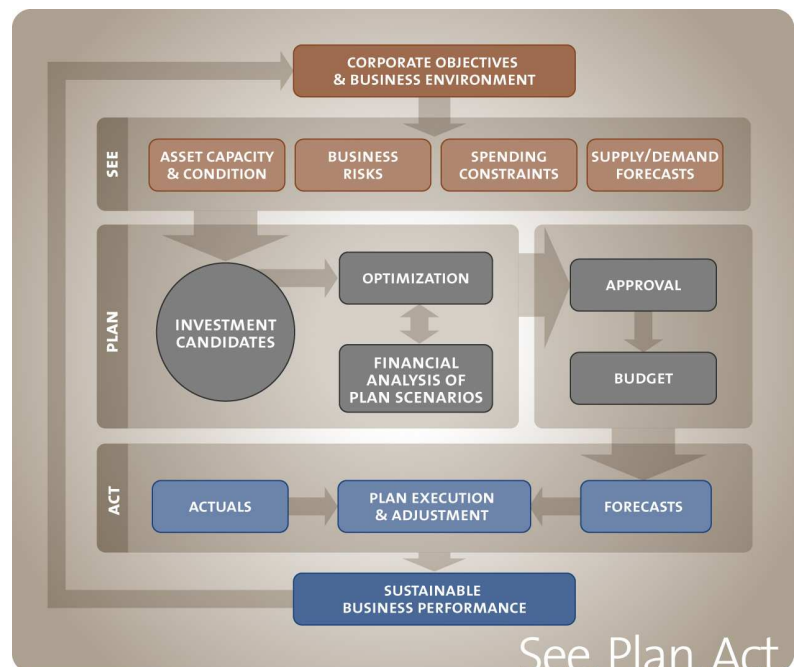
Asset Investment Planning is the approach used to align the use, care, investment, and disposal of physical assets with business objectives and the business environment, to achieve an effective balance of profitability (or least cost), performance, and risk, over time. Overall, Asset Investment Planning improves alignment of resources against diverse forms of value, and is an essential ingredient to sustaining a high level of business performance.

The notion of performance means different things to different stakeholder groups. Profitability, for example, is a key factor for shareholders. Customers, governments and regulators, on the other hand, expect a high degree of reliability at affordable rates. Employees expect a safe working environment. Governing bodies expect compliance with the principals of environmental stewardship. Asset Managers expect to operate efficient and reliable facilities over the long term. For utilities and government agencies, communities expect utilities to provide sustainable economic development. And each stakeholder has its own perception of the types and acceptable levels of risks, as well as the methods used to mitigate them.

Asset Investment Planning considers all aspects of performance and helps ensure that plans and expenditures are:

1. Aligned with corporate objectives and reflect the needs and constraints of the external business environment (e.g., customer requirements, competitive position, legislative and agency influences);
2. Considered within the context of other expenditures; and
3. Reviewed for impacts on performance using multiple attributes, consistently, and over time.

The starting point for long-term business performance is understanding the productive capability and health of existing assets relative to business objectives, asset intent and market conditions. Other factors such as staffing levels and competencies also have a significant impact on what approaches are feasible.



Asset Investment Planning is an aspect of the overall Asset Management responsibilities of an organization. In his landmark book Uptime: Strategies for Excellence in Maintenance Management¹, John D. Campbell identified that achieving ‘maintenance excellence’ requires:

- ❖ A strategic approach in which the organization’s strategies and business plans provide the foundation for its asset management programs;
- ❖ Effective methods, processes, systems, and performance metrics that allow a firm to gain control over its assets and activities; and
- ❖ Techniques such as process redesign, sophisticated reliability analysis, autonomous maintenance, and advanced technology, to create a high performance, continuous improvement culture.

Importantly, this is also the order in which companies should approach their asset management programs, starting by determining the vision and strategy for operations first, then moving to control and improve them.² In practice, however, many organizations develop plans and allocate spending without providing a common framework or level of understanding. Asset Investment Planning addresses this deficiency by providing an approach to establish the framework from which decisions can be made on specific assets.

Asset Investment Planning explicitly articulates the intent and value as specific Assets and groupings of Assets within the context of the overall organization. The actions and expenditure plans that are identified during the planning processes have been vetted considering the organization’s needs and priorities, non-financial commitments, and constraints on its financial resources. Further, the performance measures and associated targets defined through the process provide a quantifiable method of tracking progress towards the vision.

Why is Asset Investment Planning important?

Asset Investment Planning is important because it:

- ❖ Develops a common understanding of planning and performance;
- ❖ Provides a comprehensive picture of the future;
- ❖ Supports executive decision-making; and
- ❖ Develops a transparent decision process and means of communication.

Common Understanding of Targets and Performance

Integrating asset management decisions into strategic planning processes requires that asset managers (facility managers, reliability engineers, etc.) understand the long-term financial goals and affordability issues faced by the organization, as well as its non-financial objectives and needs to manage risks. Increasing the familiarity of asset managers with broader organizational requirements empowers them to make strong contributions towards sustainable performance. Similarly, increasing the familiarity of finance and accounting staff with operational issues provides greater understanding of the opportunities and constraints facing the organization.

¹ John D. Campbell. Uptime, Strategies for Excellence in Maintenance Management. Productivity Press, 1995.

² Also see, for example, Financial Control and Administration Audit on Asset Management. Australian National Audit Office, Audit Report No. 27 of 1995-96.

Asset Investment Planning explicitly involves all parties involved in establishing target levels of performance. This raises mutual awareness of the issues and constraints related to targets, and begins a healthy discussion of the dependencies and trade-offs between them.

Comprehensive Picture of the Future

Even with a solid framework, informed decision making requires the availability of meaningful and accurate information. The Asset Investment Planning approach avoids the risk of departmental ‘silos’ that inhibit the effective flow of information and impair the decision making process. The approach provides a common forum to establish a vision for expenditures on existing assets relative to growth opportunities, system planning considerations, local social and environmental concerns, and other interests. A better result will be achieved, and with greater accountability, when all participants share the same rulebook and share the same view of the future.

Asset Investment Planning also addresses problems with bottom-up budgeting, which can be inefficient and misaligned with corporate objectives. The comprehensive approach provides a forum to collectively develop the plan for an asset, and ensures that all budget submissions are made in the context of objectives. Asset Investment Planning also facilitates the evaluation of top-down targets by allowing more accurate modeling of long-term impacts on both revenue and expenses.

Supports Executive Decision-making

Executives in utilities and government operate in a complex business environment with many ‘levers’ that can influence performance. As such, they are responsible for making capital investment and operations funding decisions aimed at satisfying a wide variety of stakeholders that include shareholders, ratepayers, regulators, environmental groups, and employees. This challenge is made even greater by the need to maintain the long-term health of infrastructure systems which, in many organizations, have received insufficient reinvestment relative to the percentage of assets that are nearing the end of their expected lives. Given spending constraints and rate payer impacts, reliability concerns can never be entirely alleviated, leaving the organization with latent risks in many areas such as cost, revenue, safety, operating performance, and customer satisfaction.

Asset Investment Planning supports the objective of sustainable business performance by providing executives with comprehensive and consistent information from multiple perspectives. In the absence of this information, executives are forced to make trade-offs without completely understanding the issues or implications. Executives can be confident that their prospective decisions regarding expenditure are not only consistent with corporate objectives, but incorporate planning, measurement and control requirements from the various constituencies who will ultimately execute the plan.

Transparent Decisions

Transparent decision-making is critical to support the requirements of external stakeholders such as customers, rate-payers, other government agencies and regulators. The influence of legislation such as Sarbanes-Oxley has also increased the level of rigor that must be followed for financial processes, including planning. Asset Investment Planning creates a transparent decision process through:

- a clear and explicit decision framework that considers both external and internal factors;
- a comprehensive evaluation process that looks long-term and considers alternatives; and
- rationale for decisions based on the trade-offs that were deemed necessary.

Asset Investment Planning also improves the communication within the organization. The “Asset Plan” document, a typical outcome of an asset planning cycle, provides a succinct explanation of the drivers and constraints affecting the operation, maintenance, and investment in a group of assets. As such, this document helps develop a shared understanding of targets, strategies, and constraints, which in turn promotes alignment of priorities.

What is required to implement Asset Investment Planning?

There are no ‘quick fixes’ to problems with an organization’s planning and resource allocation decisions. While Asset Investment Planning is a powerful approach, organizations must be willing to address factor such as:

- ❖ Integration of processes;
- ❖ Budgeting and Performance Management;
- ❖ Asset Investment Planning and Reporting technology; and
- ❖ Executive commitment.

Integrated Processes

The success of Asset Investment Planning depends on the ability to effectively and efficiently share planning information throughout the organization. This includes improving the flow of information between processes that are not normally tightly integrated.

The following examples describe the process pre-requisites for successful Asset Investment Planning:

- ❖ Corporate strategic planning processes that communicate sufficient detail regarding the organization’s issues, objectives, and constraints such that departments clearly understand how their decisions impact the ‘big picture’;
- ❖ Common economic, operations, and market assumptions, with processes in place to keep this information current and consistent across functions;
- ❖ Market analysis and operations planning information that clearly identifies growth and large scale investment requirements and opportunities, and is available to other departments;
- ❖ Work and Asset Management processes that identify and share asset health and long-term expenditure information, and that consider factors such as revenue impacts in decisions; and
- ❖ Considering risk and non-financial performance in all decision processes.

By linking these processes and taking a long-term view, organizations ensure decisions are consistent with corporate objectives and are made with a full understanding of alternatives and impacts on the organization.

Budgeting and Performance Management

Budgeting and Performance Management are directly affected by Asset Investment Planning. Budgets should be activity-based and linked to the long-term plan for the asset. Non-financial and risk factors are explicitly considered when prioritizing expenditures and allocating funds. Corporate targets for O&M and capital should be considered ‘soft’, with limits not formalized until the prioritized budget is evaluated for its short and long-term impacts on corporate financial performance.

Long-term financial performance is best forecast using pro forma financial statements. This allows the asset manager to clearly identify the collective impacts of expenditure plans on all aspects of the income statement (i.e., revenues, cost of goods, depreciation, taxes) and over time. It also provides an essential communication vehicle for discussions with executives.

Finally, performance targets and their corresponding incentive contracts must recognize that different assets can have different targets based on their role and how the organization has chosen to fund it.

Asset Investment Planning Technology

Asset Investment Planning requires a high degree of data management and analysis. Technology packages required to support the approach include:

- ❖ Enterprise Resource Planning (ERP) software, to track current year budgets and actual costs, and to provide historical financial information;
- ❖ Enterprise Asset Management (EAM) software, to manage work such as projects and maintenance programs, as well as the reliability data of specific assets; and
- ❖ Asset Investment Planning (AIP) software, to provide a repository for future expenditures and facilitate modeling and sensitivity analysis and produce pro-forma financial statements.

These systems should be integrated such that common financial, HR, and asset data is shared to allow consistency and data integrity.

Asset Investment Planning software provides important functionality not provided in ERP and EAM systems, including:

- Provides a single, multi-year repository of planned, and proposed asset expenditures without needing to create projects and work orders in the transactional systems;
- Enables long-term forecasting of both revenues and expenses, and creation of pro-forma income statements;
- Provides a single modeling framework using common assumptions that can be used for both discounted cash flow analysis and presentation of pro forma financial statements;
- Facilitates analysis of expenditure alternatives ranging from individual projects to entire investment portfolios;
- Provides visibility into the impacts of expenditure scenarios on revenue requirements, customer rates, and non-financial outcomes; and
- Strengthens the end-to-end linkage between business strategy, budgets, and the work plans used to execute them.

Executive Commitment

Like any initiative, Asset Investment Planning requires resources to establish the business processes and decision frameworks that will be used. This will include the need for executive direction regarding objectives, priorities, and risks, with additional resources, to develop the framework, processes and technology infrastructure.

Equally important is the commitment of executives to establish and champion the ongoing process once the initial implementation has been completed. Asset Investment Planning isn't a quick fix that immediately embeds itself in the organization. Demonstrated, long-term commitment is required to overcome barriers and continuously improve asset planning processes.

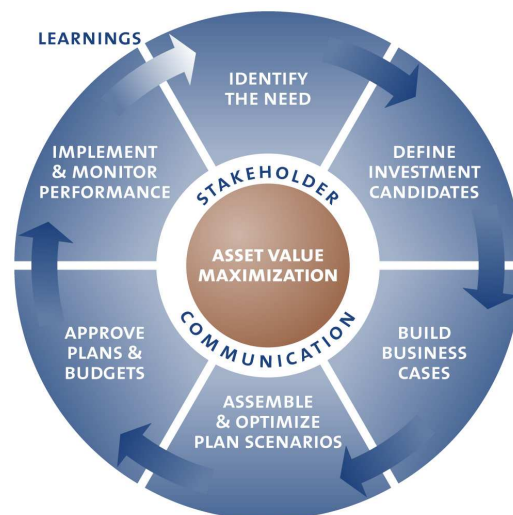
Conclusion

Asset Investment Planning is a proven approach for organizations that require increased integration of asset investment plans with corporate objectives and the external business environment. With appropriate processes and purpose built technology, organizations can use Asset Investment Planning to develop optimized plans that balance profitability, non-financial performance, and risk.

CopperLeaf Technologies

CopperLeaf Technologies provides software and services that improve the performance of energy companies and utilities. CopperLeaf's **ESP** is a leading Asset Investment Planning and Reporting software package that improves your ability to:

- ❖ See
 - Improve the visibility of your long-term spending requirements; and
 - Identify the impacts on profitability, operating performance, and risk.
- ❖ Plan
 - Increase the effectiveness of your resource allocation and asset investment decisions; and
 - Increase the efficiency of your planning process.
- ❖ Act
 - Strengthen the execution of your plan and tracking of performance; and
 - Enhance your ability to communicate decisions, both internally and to external stakeholders.



For more information or a product demonstration, contact:

CopperLeaf Technologies Inc.
 450 – 4170 Still Creek Drive
 Burnaby, BC, Canada V5C 6C6

Phone: +1.604.639.9700
 1.888.465.5323 (North America Toll Free)
 Email: See contact information on company website
 URL: www.copperleafgroup.com