

Strategy and Planning

Strategic Planning

Asset Management Decision-Making

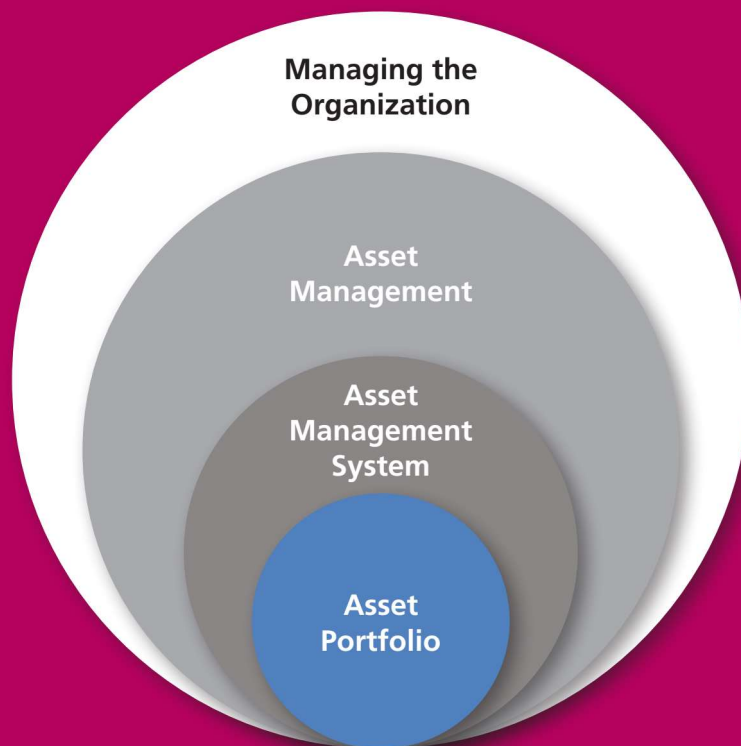
Life Cycle Delivery

Asset Information

Organization and People

Risk and Review

Version 1 January 2024



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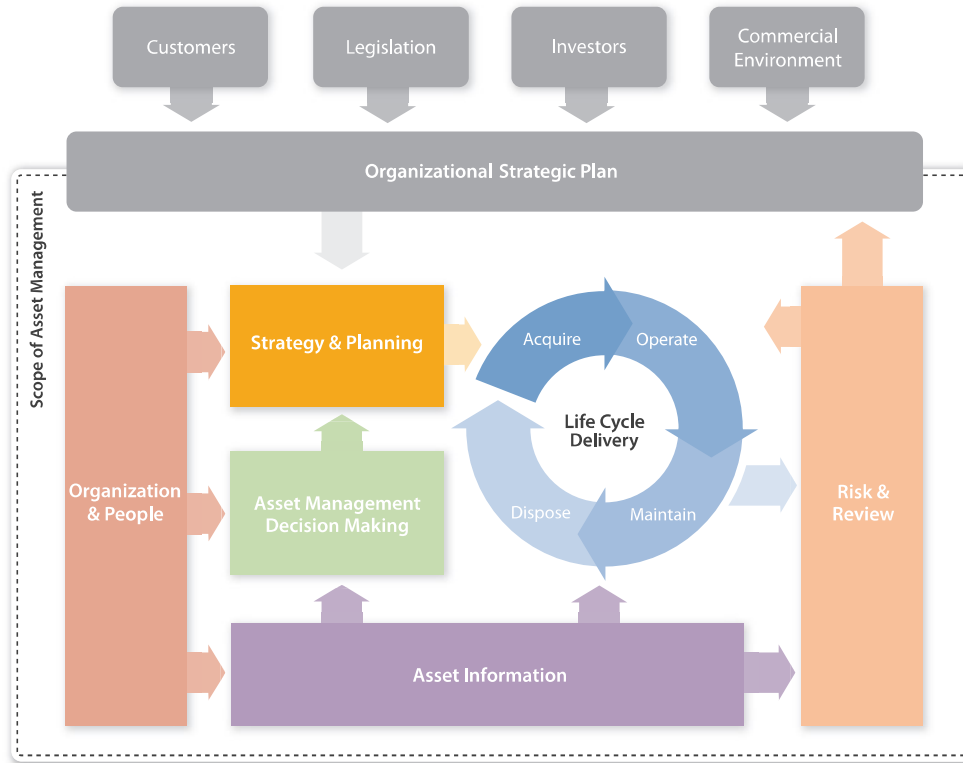
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Acknowledgments

This Subject Specific Guidance has been produced by the Institute of Asset Management (IAM) through the significant efforts of many individuals and organizations. The Institute would like to thank the following, in particular, for their contributions.

- Dr. Vicky Vassou - Arup
- Adrian Rees - Adrian Rees Consulting
- Bernard Lavoie - Direxyon Technologies
- Keri Bunnell - Business Modelling Associates
- Peter Whittlestone - Arup

The Scope of Asset Management



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Group 1

1. Asset Management Policy
2. Asset Management Strategy & Objectives
3. Demand Analysis
- 4. Strategic Planning**
5. Asset Management Planning

Group 2

6. Capital Investment Decision-Making
7. Operations & Maintenance Decision-Making
8. Life Cycle Value Realization
9. Resourcing Strategy
10. Shutdowns & Outage Strategy

Group 3

11. Technical Standards & Legislation
12. Asset Creation & Acquisition
13. Systems Engineering
14. Configuration Management
15. Maintenance Delivery
16. Reliability Engineering
17. Asset Operations
18. Resource Management
19. Shutdown & Outage Management
20. Fault & Incident Response
21. Asset Decommissioning & Disposal

Group 4

22. Asset Information Strategy
23. Asset Information Standards
24. Asset Information Systems
25. Data & Information Management

Group 5

26. Procurement & Supply Chain Management
27. Asset Management Leadership
28. Organizational Structure
29. Organizational Culture
30. Competence Management

Group 6

31. Risk Assessment & Management
32. Contingency Planning & Resilience Analysis
33. Sustainable Development
34. Management of Change
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1 Introduction

1.1 Introduction to Subject Specific Guidance

This Subject Specific Guidance (SSG) is part of a suite of documents designed to expand and enrich the description of the asset management discipline as summarised in the IAM's document 'Asset Management – an anatomy' (referred to throughout this document as 'The Anatomy'). The SSGs cover the 39 Subjects in The Anatomy directly as a 'one-to-one' (where a subject is very broad) or grouped (where subjects are very closely related). These subject areas are also acknowledged by the Global Forum for Maintenance and Asset Management as the "Asset Management Landscape".

1.2 Purpose of the SSGs

ISO 55001 sets out the requirements which describe what needs to be done to be competent in asset management, however, they do not offer advice on how it should be done. The SSGs are intended to develop the next level of detail for each subject in The Anatomy. They should therefore be read as guidance; they are not prescriptive but rather intended to help organizations by providing a consolidated view of good practice drawn from experienced practitioners across many sectors.

The SSGs include simple as well as complex solutions, together with real examples from different industries, to support the explanatory text because it is understood that industries and organizations differ in scale and sophistication. In addition, they are at different stages of asset management maturity; some may be relatively mature, while others are at the beginning of the journey.

Accordingly, there is flexibility for each organization to adopt their own 'fit for purpose' alternative practical approaches and solutions that are economic, viable, understandable, and usable. The underlying requirement for continual improvement should drive progress.

1.3 The SSGs in Context

The SSGs are a core element within the IAM Body of Knowledge, and they have been peer reviewed

and assessed by the IAM Expert Panel. They align fully with the IAM's values and beliefs that relate to both the development of excellence in the asset management discipline and provision of support to those who seek to achieve that level of excellence.

1.4 SSGs and the Issue of Complexity Versus Maturity

It is important to understand and contrast these terms. Put simply:

- The complexity of the business will drive the complexity of the solution required; and
- The maturity of the organization will determine its ability to recognize and implement an appropriate solution.

A very mature organization may choose a simple solution, where a naive organization may think that a complex solution will solve all its problems. In truth, there is no universal best practice in asset management – only good practice that is appropriate for the operating context of any particular organization. What is good practice for one organization may not be good practice for another.

For example, an organization that is responsible for managing 100 assets, all in the same location, could use a spreadsheet-based solution for an asset register and work management system. This is arguably good practice for that organization. However, for a utility business with thousands of distributed assets, this is unlikely to represent a good practice solution. When reading the SSGs, the reader should have a view of the complexity and maturity of the organization and interpret the guidance that is offered in that context.

1.5 Further Reading

The Anatomy provides a starting point for development and understanding of an asset management capability, and the SSGs follow on to support that further. However, the opportunity does not end there; the IAM provides a range of expert and general opinion and knowledge which is easily accessed by members through the IAM website.

2 Scope of this SSG

This document provides guidance on the Strategic Planning process. Strategic Planning is the process an organization uses to undertake strategic asset management planning, to establish asset management objectives, and develop the asset management strategy. It includes how the organization is to address the outputs from demand analysis; the processes for determining enhancement, long-term renewal, and maintenance work volumes; and the associated risks and costs to meet the asset management objectives. Both asset portfolio planning and asset management system planning are usually undertaken as part of the overall organizational strategic planning. This is further explained in Section 5.

Asset Management Planning refers to the activities which develop the asset management plan(s)

that specify the detailed activities, resources, responsibilities, timescales, and risks ensuring alignment with the asset management strategy and achievement of the asset management objectives. Asset management planning follows on from the strategic planning process.

In the ISO 55000 standards series, the term '(asset management) strategy' is not used. Instead, it is replaced by the term 'Strategic Asset Management Plan' (SAMP). This SSG uses the term 'Strategic Asset Management Plan' (SAMP) to be consistent with ISO 55001.

Within The Anatomy, the Strategic Planning Process is part of the Strategy & Planning subject group, Group 1. 4: Strategic Planning



Asset Management - an Anatomy - six subject groups, 39 subjects

Figure 1 provides a simplified illustration of the relationships between the Strategic Planning process and the other four subjects within the subject group. As indicated in The Anatomy, the Strategy & Planning

subject group has key relationships with other subjects outside of this group, and these primary relationships are also shown (Figure 5 of The Anatomy).

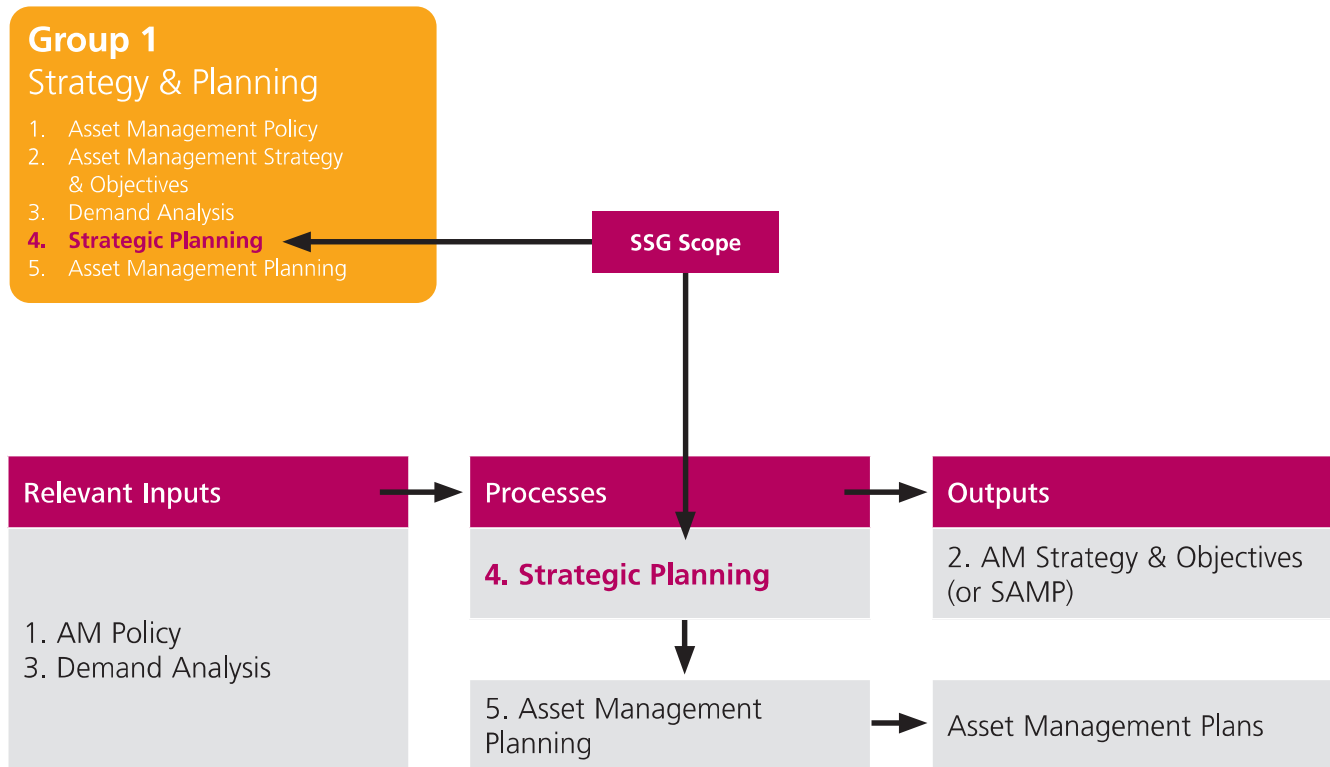


Figure 1: Scope of Strategic Planning SSG and Relationships of the Subjects within the Strategy and Planning Group

The main focus of this SSG is to describe the strategic planning process itself, its key considerations, and key steps. Recognizing, of course, that in practice, this will come with many variations depending on organizational size and/or sector. There are various documents that describe the Strategic Planning Process that exist or are in the process of being published; for example, The Anatomy, SSG 1|2|5

Asset Management Policy, Strategy and Plans, SSG 3 Demand Analysis, Developing and Maintaining a SAMP, ISO 55002: 2018, that collectively sufficiently describe a SAMP and outline its anticipated contents. As such, while this SSG refers to the aforementioned and other relevant existing documents, it also provides a brief overview of a 'typical' SAMP (i.e., the output of the Strategic Planning process).

3 Strategic Planning – Its Importance and Benefits

3.1 What is Strategic Planning?

Strategic Planning is the process for establishing asset management objectives and developing the Strategic Asset Management Plan (SAMP). This provides the platform for more detailed asset management plan(s) to be developed.

Strategic planning is usually undertaken as part of the overall organizational strategic planning process.

- The organizational objectives are first translated into asset management objectives, considering stakeholder requirements, applicable legal, regulatory, and standards requirements, the projected demand for the organization's products and services, and the requirements this demand will place on the asset portfolio. As described in SSG 3 Demand Analysis, understanding demand forms an important part of any organization's strategic planning process; without this, it is difficult to effectively plan for the existing assets portfolio or determine future requirements to either expand or modify the portfolio and to ensure the changes in demand or levels of service can be met. The change in demand also introduces the opportunity for an organization to take its asset portfolio in another direction.
- The SAMP is then developed to provide the long-term approach to achieve the organizational asset management objectives.

The development of the SAMP considers the:

- current condition, performance, risk, utilization, and capability of the asset portfolio and how this is likely to change with time and usage based on projected demand as well as technological advancement
- organizational objectives and strategic plan for meeting the forecast future demand
- constraints on the organization's resources, including capability and capacity of the supply chain and availability of funding, key skills, plant, and equipment
- accessibility of the assets and/or planned

- outages required to undertake works
- need to acquire new assets or enhance existing assets to meet increased demand, or alternatively consider non-asset solutions to regulate demand through restrictions, pricing, or measures to change behaviors of those consuming the product or service
- trends and disruptors such as the need for climate change adaptation, greenhouse gasses reduction, disaster resilience, digital transformation, etc.
- current and future opportunities that new technology may provide to enhance utilization of existing assets or undertake works more quickly and /or efficiently; and
- the business case for any investment required, considering whole life value and whole life cost in line with the organization's decision criteria and asset management decision-making methods.

The SAMP provides the basis and framework for developing a detailed asset management plan(s). These can be at different levels and functions within the organization (such as different business units, asset portfolios, and asset classes) and for different activity types (such as capital projects for procuring, creating, renewing, or enhancing assets and the operation, maintenance, or disposal of existing assets). It is essential that asset management plans are fully aligned with the SAMP. Strategic planning and asset management planning require an iterative approach, combining top-down strategic direction with bottom-up requirements for assets and the capabilities of the Asset Management System.

3.2 Why is Strategic Planning Important?

Strategic planning encourages the consideration and adoption of long-term and consistent methods for decision making while taking a life cycle view and systematically considering risks and opportunities. Depending on the organization, assets will have varying effective lives, and, where required, improvements in the asset management system

typically involve changes to business processes, competencies, behavior, and culture, all of which may require significant time to establish.

Although many organizations undertake their planning in 5-year cycles, strategic planning is often done as part of much longer time frames, e.g., 15-75 years, to ensure robust, sustainable, and resilient plans, especially in the face of trends, disruptors, and other constraints, such as climate change adaptation, long-term economic growth, greenhouse gasses reduction, disaster recovery, skills availability, community expectations, change and uncertainty, delivering more (social value) for less (cost and affordability).

The advent of digital technologies and data analytics can be a useful enabler in the consideration and interrogation of long-term scenarios and 'what-if' studies to effectively support an organization's strategic planning process. The methodologies and tools deployed will depend on the type and complexity of the organization itself.

Strategic planning results in the development of the Strategic Asset Management Plan (SAMP). This contains the organization's asset management objectives (their rationale and importance), describes the approach the organization will take to develop its plans to achieve its objectives, and includes the strategic work volumes for the assets. The SAMP provides an overall view of what is intended to be done, when and why, from which all subsequent layers of more detailed planning and delivery are to be derived. The SAMP is a core element of the asset management system and a specific requirement of ISO 55001.

3.3 Benefits of Strategic Planning

Some of the benefits of Strategic Planning to the organization and its internal and external stakeholders are:

- Establishing a clear link between stakeholder objectives and the requirements of the organization to deliver those objectives. It is a key step in balancing and cascading those objectives through the organization, e.g., short-term considerations and long-term interests and objectives of stakeholders.
- Encouraging an integrated approach to asset life cycle management, resulting in the reduction of

conflicts between individual departments and functional groups.

- Interrogating 'what if' strategic scenarios to inform options and implications around different organizational viewpoints and drivers, e.g., get a better understanding of the implications of asset management decisions.
- Providing a single, organizational-wide understanding of the 'plan' and how each function contributes.
- Providing requirements and guidance for developing more concrete implementation plans that increase consistency and alignment in planning approaches across the different levels (Strategic, tactical, operational), e.g., bridge the gap between high-level organizational plans and asset management plans.
- Creating the essential component of an organization's 'line of sight', from organizational overall objectives to delivery of asset management.
- Establishing the gaps between current capability and stakeholder requirements as well as indicating how those gaps (current or future) are to be addressed.
- Providing the clarity of a shared purpose and the mechanisms of collaboration and coordination. It helps to de-silo the organization by showing how combined and integrated effort is needed and harnessed to deliver strategic objectives.
- Enabling various stakeholders to gain greater confidence that goals will be delivered and that the intended programs and resource commitments are appropriate.