

ASSET MANAGEMENT FOR DIRECTORS

Monique Beedles

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Introduction

Today's board directors are faced with an increasingly complex operating environment. There is greater scrutiny from shareholders and regulators, and a diminishing ability to predict the future based on past experience. In this context, there is also increased pressure on the board to deliver value for stakeholders. Compounding this complexity are the frequently competing imperatives of different stakeholders. Despite this, the board uses its best collective judgement to make decisions in the best interests of the company.

Asset Management for Directors aims to provide a clear framework for directors to address their asset management obligations. Creating value from the company's assets is a key responsibility of the board and forms part of its fiduciary duty. Board directors are asset managers.

In 2014, internationally-accepted standards for asset management were published for the first time in the ISO 5500X suite of standards. These standards provide a useful guideline for companies on world leading asset management practices.

Through the context of the board's governance roles, the book outlines the importance of asset management from the board's perspective. These governance roles are explained with reference to the well known Tricker model, which should be familiar to experienced directors.

The key points directors need to know about asset management are provided, without addressing technical aspects in too much detail. Rather, the book aims to inform the director who is not necessarily an expert in asset management on the fundamental knowledge they need to understand their company's asset management practices and to ask pertinent questions of management.

Asset Management for Directors also provides guidance for executives and asset management specialists on the aspects of asset management that are of most interest to the board and on how they can best ensure that they provide relevant and timely information to inform board decision making.

Each chapter includes a brief case study to highlight how the principles are applied in practice. These case studies cover a wide range of industries and help

to illustrate the array of asset types, both tangible and intangible, that boards are responsible for.

The book is designed to be read from start to finish, as each chapter builds on the knowledge in the previous chapter. However, cross references are provided and directors will also find the book a useful reference to particular topics as and when they become relevant to their own board situations.

Asset Management for Directors is a practical and timely guide to help directors navigate the complex world of contemporary governance decision making.

Chapter 1

Leadership for good asset governance

Key points

- Asset management converts capital into value for stakeholders of the organisation.
- The board has a fiduciary duty to deliver a return on asset investments.
- It is up to the board to take a leadership role in asset management.
- A whole-of-company approach to asset management will ensure best results.
- It is the board's role to set and approve the organisation's asset management policy.
- Ensuring alignment between the company's overall vision and values and the way its assets are employed is an important monitoring role for directors.

Bell Bay Aluminium Smelter

To identify an example of good leadership in asset management requires an entity that has been very long-lived, with assets well beyond their design-life, in a challenging market, that has been a quiet achiever without media fanfare from disasters or crises. It should exemplify the investment in sustaining the physical asset and processes, have strong and safe systems, innovative R&D, and a focus on developing capability and stability within its workforce and leadership team. Additionally, it should maintain good relations with the full range of stakeholders, including its community, the environment and of course, the shareholders who seek a profitable outcome.

Bell Bay Aluminium Smelter (BBAS) was built near Georgetown on the north

coast of Tasmania and commenced operations in 1955. Annual output has grown dramatically from an initial 2,500 tonnes per annum (Tpa) to over 185,000 tonnes of aluminium in 2015. The aluminium metal is generated from 588 reduction cells that are fed with white alumina and require intense electricity consumption, which is sourced from a nearby hydro-electric supplier.

Aluminium is a bulk commodity, traded on the London Metals Exchange (LME), so smelters have limited opportunity to 'specialise'. Rather, to remain profitable and operate for the long-term, each smelter must remain low-cost, by producing at a unit cost (\$/tonne) competitive with its peers. Modern smelters now produce 700,000 to 1 million Tpa. Lower-cost, larger-scale smelters routinely displace lower-volume, higher unit cost smelters. In Australia, smelters at Port Henry and Kurri Kurri have been closed. In current circumstances, the production capacity of BBAS compared to many of its modern peers is small. Yet, the smelter has maintained tight cost control and survived many challenges, to sustain long-term profitability. This outcome is a testament to its systems and overall asset management leadership. Sub assets, such as cast house furnaces, reduction cells and the carbon baking furnaces have multi-year lives that require optimal capital management for their renewal.

Aluminium smelting is not typical of heavy manufacturing processes – it produces molten aluminium metal at nearly 1,000°C. The process has traditionally been labour-intensive requiring many hands to routinely change anodes, replace dead cells, feed alumina into cells and transport molten metal to the cast house, often in dusty, hot and dangerous conditions. However, similar to the automotive industry, the aluminium smelting industry has benefitted from profound innovation in automation, now using robotic cranes, larger and smarter cell designs, and smarter control from computerisation.

Many manufacturing processes, including mining, wineries, breweries and other production-line processes such as cars and food are prepared in batches. However, the electrochemical reduction process used in aluminium smelters is a continuous process. An advantage of batch processes is being able to schedule planned maintenance, and even to tolerate from a risk perspective, a certain number of unplanned breakdowns and outages. The requirement to operate the reduction cells on a continuous, non-stop basis in an aluminium smelter brings a critical challenge – the reduction cells, which are the primary asset, cannot be allowed to switch off for more than four hours at a time. If this were to occur, many tonnes of molten materials in each cell would freeze up, and the cells could not be restarted. So the risk of losing the entire primary asset is very high, without vigilant management. An asset such as this cannot readily be taken offline for scheduled maintenance. Such criticality requires emergency preparedness to ensure rapid response in the case of a potential failure, including the ability to mobilise additional staff to help with recovery and the return to stable operations.

BBAS celebrated its 60-year anniversary in 2015, an indicator of its long-term

sustainability. The facility demonstrates many aspects of leadership in asset management. Using a theory of constraints approach, it sustains its bottleneck at its most capital intensive process step, it also uses business improvement methods such as Lean & Six Sigma to ensure processes are efficient and waste is minimised. BBAS has also benefitted from an in-house R&D function, known as the Cell Development Centre, which acted as an incubator for innovative design improvements and also developed technical knowledge & capability within its workforce. Leaders of the operation have been regularly promoted to larger, higher profile global roles. These factors, combined with low staff turnover, and a high proportion of employees with more than 25 years of service, all indicate a well led operation. Safe and strong management systems have received ISO & NATA accreditation, while smart data management and analysis has allowed very high production efficiencies to be achieved.

As one of the largest employers in Tasmania, community leadership and stakeholder engagement has also been important. Environmental stewardship through the development of on-site wetlands and the recycling of operational wastes as inputs to nearby cement manufacturing processes has also been significant. Past performance is no guarantee of future sustainability, however the 60-year life of BBAS has exceeded the expectations of stakeholders, including its shareholders, employees and the community within which it operates.

1.1 The board's role in asset management

Board directors are asset managers.

The board is entrusted by the owners of the organisation with the assets of the company and is expected to use these assets to generate value for stakeholders. This holds true whether the organisation is a private company, a public company, a not-for-profit organisation or a government entity. It is therefore essential that board directors have a thorough working understanding of asset management and how it applies to their role as custodians of the company's assets.

Creating value from the organisation's assets is a core function of the board and the objective of asset management. This chapter shows how Tricker's internationally accepted model of governance can be integrated with the principles of asset management, as detailed in the ISO 5500X suite of international standards for asset management. The result is an integrated framework that is useful for boards when understanding their role in asset management and useful for asset management specialists to better articulate their value to boards.

Effective communication between boards and asset management specialists requires a common language. Asset management is integral to the four governance functions of risk, strategy, compliance and policy. Likewise, the board has a role in the four asset management fundamentals: value, alignment, leadership and assurance. Through integrating these roles, a clear connection can be drawn between a company's overall strategic objectives and its asset management practices.

1.1.1 Governance framework

This book uses Robert Tricker's framework¹ for analysing board activities as a basis to define the roles of the board (see Figure 1.1). This framework is internationally recognised and is used for training board directors in their roles and responsibilities. The board works with and through the CEO. Together they comprise the group referred to as 'top management' in the ISO 5500X asset management standards. It is recognised that in companies with no formal board these roles may be played by the business owners, by the CEO alone, or by a small management team. Likewise, in the government or not-for-profit setting the nature of these positions may be slightly different. The terminology used to describe those in top management will vary according to the organisational context, but in each case there is a person or

Figure 1.1:
Tricker's model of
governance roles



1 R Tricker, 1994, *International Corporate Governance: Text, Readings and Cases*, Prentice Hall, Sydney.

group of people ultimately responsible for organisational decision making. For the purposes of this book, it is assumed that the company has a board and a CEO.

There is often a misperception that governance equates to compliance and that it is all about keeping accounts or reporting to the stock market. Tricker's framework acknowledges the broader responsibilities of the directors and covers four key roles of the board. These are risk, strategy, compliance and policy. Each role is defined through two perspectives. Firstly, whether the role relates primarily to matters internal to the company or external to the company and secondly, whether the role is focused primarily on the past and present or on the future. This model also acknowledges that the board works with and through the CEO, as the conduit between the board and the rest of the organisation.

1.1.2 Asset management framework

Just as there are misconceptions about the nature of governance, there are also misconceptions about the nature of asset management, including the perception that it involves matters of a purely technical nature. Tricker's governance model provides a broader view of the roles of the board, while the ISO 5500X standards, and in particular, the asset management fundamentals, also provide a wider perspective on the role and importance of asset management in the organisation.

There are four asset management fundamentals embedded into the ISO 5500X standards, as listed in Table 1.1.

Table 1.1: Asset management fundamentals and their explanations according to ISO 55000²

Fundamentals	Explanation
Value	Assets exist to provide value to the organisation and its stakeholders
Alignment	Asset management translates the organisational objectives into technical and financial decisions, plans and activities
Leadership	Leadership and workplace culture are determinants of realisation of value
Assurance	Asset management assures that assets will fulfil their required purpose

2 International Standards Organisation (ISO), 2014, 'Terms and Definitions', in *Asset Management – Overview, Principles and Terminology*, International Standards Organisation, Geneva, ISO55000:2014, p 3.

The ISO 5500X suite of international standards for asset management was first published in 2014 after many years of development by leading asset management practitioners from around the world. They are gaining increased acceptance in organisations globally as a basis for best practice asset management. The standards provide a framework to generate value from a company's assets by using a risk-based approach that considers the balance of risk, cost and performance. Value can be created by reducing risk, reducing costs or by improving asset performance. The ISO 5500X standards require that 'top management' be actively engaged in the organisation's asset management.

ISO 55000 defines 'top management' as the 'person or group of people who directs and controls an organisation at the highest level',³ with the clarifying note that 'top management has the power to delegate authority and provide resources within the organisation'.⁴ Further, 'top management' includes the board and the CEO, who may or may not be a board member in their own right. Other senior executives may communicate with the board through the CEO, even though they may have a direct reporting role to the board, or be executive directors themselves.

There is some confusion inherent in the term 'top management' because the roles allocated to the board are generally termed 'governance' roles and are kept distinct from 'management' roles, which are seen to be more operational in nature. However, as 'top management' is defined in the ISO 55000 standard, it in fact refers to the governing body. The ambiguity in this terminology is most likely due to the international nature of the standard and the fact that terminology had to be translated and clarified across a large number of different languages.

Depending on the organisation, the members of this 'top management' group may have little or no direct experience with the technical aspects of asset management. Nevertheless, they are required by the standard, and by the organisation's stakeholders, to take responsibility for the overall performance of the organisation's assets and are held accountable for the value these assets deliver. The responsibilities of the top management group include: setting asset management policy and objectives and

3 Ibid.

4 ISO, 2014, 'Elements of an Asset Management System', in *Asset Management – Overview, Principles and Terminology*, International Standards Organisation, Geneva, ISO55000:2014, Section 2.5.3.

aligning these with organisational objectives; creating and promoting the vision and values that guide policy making; creating an organisational environment conducive to the effective functioning of the asset management system; ensuring alignment with the organisation's other management systems; providing resources both material and human to support the asset management system; monitoring the organisation's culture; and championing the practice of asset management both within and outside the organisation.⁵

1.1.3 Board's rationale for adopting the ISO 5500X standards

In order to fully implement the standards to the level of certification, it is essential to have the support of the board and the CEO. Not only do the appropriate resources need to be allocated to this effort, but the top management group needs to be supportive of the approach in order to ensure that the company-wide culture aligns with the objectives the board is trying to achieve and that management systems across the organisation can be synchronised to achieving these outcomes.

The impetus to seek alignment with standards may come from the operational and technical areas of the business. In the case of ISO 5500X the move towards adoption of the standard is likely to be driven by asset managers working within the organisation at various levels. This is natural, as it is these professionals who are most familiar with asset management within the organisation and most likely to keep abreast of the latest developments as part of their daily work.

In the case of decisions around adoption of asset management related practices, such as ISO 5500X standards, it is often the role of asset managers to provide a business case to the board. The challenge for asset management practitioners is to frame such information and proposals in a way that makes clear to the board the costs, risks and benefits to the organisation of adopting the proposal. These benefits may apply to adopting leading asset management practices, as advocated by the ISO 5500X standards, whether or not the company chooses to become fully certified.

5 Ibid.

1.2 Considering asset management fundamentals in light of Tricker's governance model

There is a strong link between the asset management fundamentals as outlined in ISO 5500X, and the roles of the board as specified in the Tricker model. This section considers these roles and fundamentals in more detail, particularly with respect to how they align with each other.

1.2.1 Value

Under ISO 55000 'assets exist to provide value to the organisation and its stakeholders'. This means that value creation is the primary driver of asset management.

From the board's perspective, questions regarding the value fundamental include:

- What does value mean to our stakeholders?
- How will we create value?
- What are our value drivers?

These are questions of strategy formulation and address such issues as whether the company should pursue a growth strategy or a cost-reduction strategy. From an asset management perspective this includes considering the balance of risk, cost and performance, where the implementation of the company's strategy seeks to reduce risks, reduce costs and/or improve performance, while recognising that each of these three parameters if changed can impact on the others.

These and other aspects of strategy formulation all relate to value creation and are future-oriented. So, it is appropriate to frame the asset management fundamental of value in terms of the top, right-hand quadrant of Tricker's framework, where the focus is on the external environment with a future-oriented perspective.

1.2.2 Alignment

'Asset management translates the organisational objectives into technical and financial decisions, plans and activities'.⁶ This includes the creation of plans, processes and systems that are integrated across the business to ensure the company can achieve its objectives. In governance terms, these are policy-making activities that occur to

⁶ ISO, 2014, 'Fundamentals', in *Asset Management – Overview, Principles and Terminology*, International Standards Organisation, Geneva, ISO55000:2014, Section 2.4.2.

convert strategic objectives set by the board into practical actions at the operational level of the business.

From the board's perspective, questions regarding the alignment fundamental include:

- How do we measure our performance against our strategic objectives?
- How do our systems and processes support these objectives?
- How well do our internal systems align with each other (for example, asset management with human resources, accounting and information technology)?

These are questions of internal policy making and, like strategy formulation, they relate to how the board sets the direction for the company. Direction setting is a future-oriented activity that fits on the right-hand column of Tricker's model.

So, it is appropriate to frame the asset management fundamental of alignment in terms of the lower right-hand quadrant of the Tricker governance model.

1.2.3 Assurance

'Asset management assures that assets will fulfil their required purpose.'⁷ In some industries the term 'capacity assurance' is used to represent the role of asset management in assuring that the company has capacity to deliver to its customers through the fit-for-purpose functioning of its assets.

Assurance from the governance perspective includes both the external aspects of risk management with the onus on the board to provide accountability to stakeholders, and the internal aspects of monitoring and supervising the management of the company and ensuring all compliance obligations are met. When combined, both internal and external assurance provide the conditions through which the board can be satisfied that assets will fulfil their required purpose, as articulated in the company's strategy and asset management policy.

From the board's perspective, externally-focused questions regarding the assurance fundamental include:

- Do we have a robust risk management system in place?
- Have we considered all potential risks to the business?

7 Ibid.

- What is our risk appetite and have we communicated this?
- What specific risks apply to our business critical assets?
- How often do we review our risks?
- What measures have we taken to mitigate known risks?

From the board's perspective, internally-focused questions regarding the assurance fundamental include:

- How do we monitor compliance with our company policies?
- What reports does the board require on a regular basis?
- Which performance measures are most important to our strategic objectives?
- How do we maintain our 'licence to operate'?

Both external and internal aspects of the assurance fundamental relate to the concepts of 'conformance', which is the term sometimes used to describe the left-hand (present/past focused) side of the Tricker model. [In contrast, the quadrants on the right-hand side of the Tricker model (future focused) are often described using the term 'performance'.]

So, it is appropriate to frame the asset management fundamental of assurance in terms of its external and internal aspects, within the Tricker model quadrants of risk and compliance respectively.

1.2.4 Leadership

There is no single unified theory of leadership, but many disciplines use a leadership concept within the context of their own domains. The concept of leadership as it is defined by the ISO 5500X standards does not fall neatly into any one of the Tricker model quadrants. Rather, leadership is applicable to all four quadrants, as it requires consideration of both future direction and past performance, in relation to both the external and internal environments. While the leadership concept would sit well in the domain of the CEO, as is central to the Tricker model, it can also be represented as a domain that surrounds an integrated model of governance and asset management as it is essential to both. Likewise, the domain of leadership does not rest solely with the CEO, but in differing measure also with the board, other executives and other professionals within the company.

From the board's perspective, questions regarding the fundamental of leadership include:

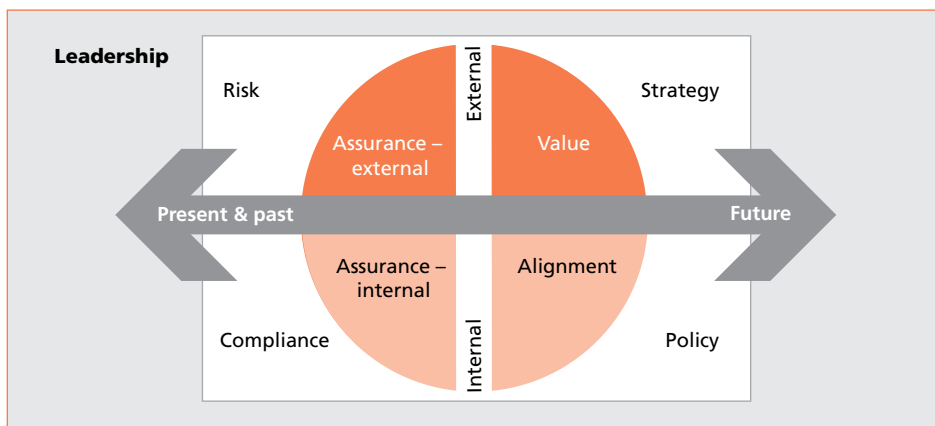
- Does our workplace culture support effective asset management practices?
- Is there good communication between the relevant areas of the business?
- Is each person clear on the nature of their role and responsibilities?
- Do we have the appropriate people employed in critical roles?
- How do we engage with stakeholders to ensure timely consultation on relevant asset management issues?

1.3 An integrated governance and asset management framework

By combining the elements of Tricker's governance framework with the fundamentals of asset management, as they are defined in ISO 5500X, an integrated framework for governance and asset management has been created.

The integrated model of governance and asset management developed here has applications for both boards and asset management professionals. Rather than seeing these as two dichotomous groups, all board directors are instead seen as asset managers, even though they may not be asset management specialists. This changes the perspective of all parties when applying the model to asset management decision making. This section further details the responsibilities of the board with respect to each area of the integrated model.

Figure 1.2: An integrated model of governance and asset management



1.3.1 Leadership

The concepts of leadership overarch all elements of the integrated model, as they need to be applied at every level of the organisation, across timeframes and in both the internal and external context. These include aspects such as culture and values. As stated in ISO55000, ‘top management should create the vision and values that guide policy and practice and actively promote these values inside and outside the organisation’.

1.3.2 Strategy and value: future focused – external environment

At both the board and the operational level, there needs to be a focus on the future that takes into account trends and potential changes in the external environment in which the company operates. This includes existing and potential competitive threats as well as strategic opportunities. The board takes these aspects into account as it formulates the strategy and sets the direction for the organisation. This is the process through which the company defines what business it is in and how it will create value for its stakeholders into the future. Value creation is one of the fundamentals of asset management and creating value from assets is the overriding purpose of asset management. The company cannot create value without employing its existing assets wisely and making prudent decisions about future asset acquisition and disposal.

Those who are not on the board, but who are involved in the operational aspects of asset management need a clear understanding of the board’s position on value creation and how the company’s asset management practices help to achieve this. Similarly, the board needs information and advice on the company’s assets, including the existing capacity of these assets and future capital and operational requirements. Asset management practitioners who use this integrated model to communicate with the board place part of their emphasis on the strategy quadrant to illustrate the aspects of value creation that are important to the board.

1.3.3 Policy and alignment: future focused – internal environment

It is the responsibility of the board to set and approve the company’s asset management policy. In doing so, they will rely on advice from asset management leaders to determine customer expectations, consult with relevant stakeholders and provide information on level of service requirements. Indeed, asset management specialists may need to

draft an asset management policy for subsequent discussion and approval by the board. The onus may be on the asset management professional to educate the board on the nature and importance of the company's asset management policy.

Likewise, there will be numerous other requirements at the system and process level to develop the asset management system in line with the company's strategic objectives and to ensure there is alignment between the different functional systems that the company uses. This is likely to be an iterative process where there is communication back and forth both vertically and horizontally within the organisation. This policy making has an internal focus and its aim is to ensure that the strategy set by the board can be enacted at an operational level.

1.3.4 Risk and external assurance: present and past focused – external environment

Directors should assure themselves that the company has both the capabilities and the capacity to achieve its strategic objectives. The board will assess the external environment as part of its strategy formulation process. This will include defining the company's risk appetite and assessing relevant risks to the strategy. However, on an ongoing basis, the board monitors risks of all types that may impact the organisation including the financial, reputational and environmental risks. Asset management professionals can play a part in keeping the board abreast of developments in the external environment that may change the established risk assumptions. For example, new technologies, new business models by industry competitors or new legislation that may change methods of work or alter stakeholder expectations.

Under the ISO 5500X standards, asset management practice takes a risk based approach. This is very relevant to the board and asset management practitioners should find that the directors take a strong interest in this area. Educating the board on the nature and potential likelihood of the full range of asset based risks should be an important part of the asset management function.

1.3.5 Compliance and internal assurance: present and past focused – internal environment

Once a set of aligned policies has been developed and implemented, the board will be required to monitor performance against these policies on a regular basis. This

is the board's internal assurance role. Management, through the CEO, provide reports to inform the board of progress against specific relevant parameters. There is a delicate balance to be struck between providing too much or too little information. Both measurement and reporting systems should be set up so that they provide information that is framed in terms of the strategic objectives. Therefore, the reports, which necessarily tell of occurrences in the past, should be compared with the expected future, as set out in the company's strategy and enacted through its policies.

In deciding which measures are most relevant in regular reporting, the board may need guidance as to the meaning of various measures from an asset management perspective. There may be parameters the board wishes to monitor that cannot be effectively measured within existing systems. In this case, a decision needs to be made about the importance of the measures and whether the board wishes to invest in the systems needed to monitor these. In some situations, asset management specialists may need to make a case to the board about the need for particular measures and this should also be done within the framework of the board's perspective, as illustrated in the integrated model (Figure 1.2).

1.4 The role of stakeholders

Boards have an important role in ensuring that the company engages appropriately with its stakeholder. The aim of asset management is to generate value for stakeholders through the organisation's assets. Therefore, it's important that the board has considered all relevant stakeholders in formulating the company asset management policy. Likewise, stakeholder considerations should be taken into account when setting objectives and reviewing results.

1.4.1 Identifying stakeholders

Relevant stakeholders are both internal and external to the company. It's important for the board to remember that employees are also stakeholders in the organisation. Since it is employees who will do the work needed to carry out the company's vision, it's essential that their capabilities, views and aspirations are considered as part of the board's agenda setting. In a unionised environment, the employees' collective views, or those of the wider industry also need to be considered.

External stakeholders also play an integral role in strategic decision making and therefore in decision making for asset management. Boards should also consider the role of a number of external stakeholders and how policies and determine how decisions may impact these participants.

Examples of external stakeholders:

- customers
- shareholders
- suppliers
- regulators
- competitors
- community groups.

Identifying relevant stakeholders can be done through a process of stakeholder mapping. This can be completed by the board with the assistance of management on a regular basis to keep up with the changing internal and external environment.

1.4.2 Assessing stakeholder expectations

Each stakeholder group will have their own expectations in terms of what the company should deliver for them. For example, shareholders will expect higher returns, while customers will expect lower prices. Likewise, employees will expect higher wages and suppliers will expect higher prices for their goods and services. In many situations, these stakeholder expectations will compete with each other. It will rarely be possible to fully satisfy all stakeholder expectations simultaneously. Therefore it is up to the board to make decisions that balance these expectations, while also being ultimately in the best interests of the company as a whole, and with consideration to its long-term performance.

Establishing levels of service for particular assets and asset classes may involve structured consultation with customer groups or community representatives. This is particularly important with government services that are made available to the general public, such as water, utilities, local government services or public transport. Once levels of service are established, ongoing stakeholder engagement may be regularly required to assess and respond to feedback. Important measures of performance may include customer satisfaction, as well as financial and mechanical measures.

Stakeholder expectations will drive many aspects of asset management decision making. For example, access to capital and expected return on investment, as well as tolerance for service downtime will be inputs into decisions such as whether a company's aim is to extend asset life or to allow certain assets to run to failure. These and other decisions will be guided by stakeholder expectations, as articulated through the elements of the asset management system.

Leadership for good asset governance

Board directors are in practice asset managers, as they have been entrusted with the assets of the company to generate value in line with stakeholder expectations. It is the board who is ultimately responsible for value creation. It is the role of asset management specialists to inform and assist the board in undertaking this responsibility.

Fundamental to the role of the board is the fiduciary duty of directors. Stakeholders have made an investment in the organisation. This could be through the capital invested by shareholders, the personal equity risked by business owners, the funds gifted by donors to not-for-profit organisations, or the tax payer dollars allocated by government. It is the role of the board to look after that investment wisely and to use it to create sustainable value for the organisation. This is asset management.

The following four chapters will cover aspects of asset governance as they apply to each quadrant of the integrated model presented here.

Key questions for directors

1. What investment are we making to ensure optimal management of our assets?
2. Is there a compelling business reason to pursue certification to ISO 5500X?
3. How do we make decisions as a board? How do our individual decision profiles impact this?
4. How do we avoid common pitfalls in decision making?
5. How do we develop and maintain a culture of innovation?
6. How do we balance long-term considerations against short-term priorities?
7. How does the board involve itself in setting the direction for asset management?
8. How does the board ensure that there is a company-wide approach to asset management?

9. How do we communicate with our stakeholders regarding the value we create through our assets?
 10. How do we ensure that our board members and executives have up-to-date knowledge of asset management matters?
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