



Improving Alignment between Technical and Financial Management within Organizations

Organizations have a strong focus on financial management whether it be a public sector organization that must demonstrate financial sustainability to its citizenry or a private sector, for-profit organization that must demonstrate profitability. Capital intensive organizations acquire assets to deliver product or services aligned to that need. When assets don't perform as expected there are undesirable results such as reduced share prices and failure to meet corporate goals¹. It doesn't require an advanced degree to understand that there must be an alignment between the monetary value we expect from assets and financial success of the organization. Yet, there are examples in which this alignment is simply not demonstrated. Organizations of all types experience events that range from the extreme-high consequence events like the life-claiming Deepwater Horizon to common events that result in 'loss of value' incidents that demonstrate how decisions are often based on unreliable insight.

There are common examples of this kind of unreliable insight, particularly the kind in which budget reductions are done by accounting for cost alone. Cuts in capital and O&M budgets may bring some relief to the income statement and put cost metrics in a more favorable light in the short term. In the public sector, it may be politically expedient to delay investing money in infrastructure. In the private sector it may be expedient to delay investing in order to more favorably present financial performance results. Whatever the intent or motivation, unbalanced and misaligned approaches to managing assets have financial consequences regardless. Not having visibility to the consequence of those decisions is a fundamental problem. The impact of the problem is measured in multiple billions in avoidable cost.

Can aligning the financial management system and the asset management system solve this problem? The ISO 55000 Asset management International Standards have significantly raised awareness that managing assets is about striking the appropriate balance between cost, risk and performance. With the appropriate intersections between finance and asset management an organization can have clearer visibility to these three metrics. An organization's expertise should already have the ability to keep them in balance; in order to achieve that balance, it is essential that the processes are aligned.



Therefore, the need for alignment of technical and financial management resides in the simple fact that the technical management of assets cannot be optimized without linkage to the financial management system. Likewise, the objectives of long term financial planning and the distribution of funding cannot be effectively achieved without linkage to operation and performance data from the technical asset management system. Alignment is a functional condition that allows access and

¹ Stittleburg, J., "Wasted Energy; why risk management efforts in the oil and gas industry have stalled and why that needs to change", Risk and Insurance Management Magazine, July/August, 2012, P.20.

visibility to information needed by operational experts and top management so as to base their decisions from a position of knowledge to support effective decision making. This article provides concepts on how organizations can improve what they do in the way of aligning technical and financial functions.

What are the benefits of Alignment?

Imagine a world where regulatory filings take just a few days rather than a few months. You could have the ability to leverage more favorable terms, conditions, and pricing on insurance by readily demonstrating how well you manage your assets. Your expensive human capital is far and away more productive now because they spend less time chasing down data and more time applying their expertise and doing their jobs. Your people have a direct visibility to the life cycle costs of your assets and on the variables that could change them. These are some examples of the types of transformational improvements being discussed. An effective intersection between asset management functions and finance functions will generally result in the following kinds of benefits:

- Availability of and access to ‘financial and technical’ data for improved decision support
- Improved and scalable internal controls
- Improved transparency and accuracy of reporting
- More effective means of measuring performance and continuous improvement
- Ability to more readily answer incisive questions that demand more granular detail
- Greater assurance that the needs and expectations of stakeholders are being met
- Greater justification of budgets and Improved allocation of resources
- Ability to more accurately assess risks and develop risk mitigation strategies

How is this Alignment achieved?

As with most other management systems there are the common elements of people, process, and technology. These are discussed below from the aspect of asset management systems and how they align to financial management.

People

Organizations put a great deal of effort into recruiting and retaining people. It is important to recognize that engineering and technical experts tend to drive toward removing unnecessary complexity. From the asset management standpoint, they are driven to safely maximize asset performance at the lowest sustainable cost while observing the risk profile of the organization. The training and expertise of people involved in asset management is already tuned to this aspect of alignment. Finance people have short term financial reporting and accounting standards to address as well as longer term funding issues. The more we can foster the common understanding of terminology used between the technical and financial functional areas, the better we will achieve communication and alignment of these functions.



Leadership

Although the ISO 55000 International Standards make certain specific demands from top management, the task of inspiring and directing the collective skill and expertise of the organization naturally falls to leadership. In order to achieve the alignment under discussion, as a member of leadership you can do the following:

- Create a vision of business improvement
- Promote alignment and empower those who can ensure it exists
- Equip them with visibility and access to data and information they need to apply their expertise
- Remove obstacles
- Help them trust you
- Trust them and they'll exceed your expectations

Process

The ISO 55000 International Standards make reference to an integrated management systems approach. Although the immediate discussion is regarding alignment between finance and asset management processes it is important to recognize how asset management can dovetail into other management systems such as supply chain, safety health and environment, quality, etc. There are several processes discussed in more detail below.

Decision Making

Decision making should follow a process or orderly path from problem to solution.

Rational decisions seek to optimize or maximize benefits. Decision making should be objective, unbiased and based on facts and include an information gathering process. A key ingredient for decision making is the analysis of alternatives or options. Future consequences, risk and uncertainty should all be addressed. Professional judgment is applied weighing the evidence supporting each alternative. Once a selection is made between alternatives, action should be taken.

We recommend that you assess whether or not your asset management business processes are properly intersected with financial business processes. Integrated decision making can bring together the elements of monetized risks to help a decision maker analyse outcomes in terms of both tangible (financial) and intangible benefits. When data is produced from well-intersected processes and available on a common platform, the professional judgment of an experienced engineer or subject matter expert or the strength of personality from an accomplished leader can each be used to drive the organization closer to realizing its objectives. Additionally, opportunities for improvement will be revealed more readily.

Performance Measurement & Reporting

Correctly intersected data, with balanced visibility, can provide financial indicators that drive resources to where they are most needed. For instance, financial data can point to chronic defects that, over time, can be massively expensive. The technical data that corroborates the financial data can then be used to model future investments needed to ensure this asset is capable to serve the projected course of its technical life. The number of chronic defects could point to future performance issues which may elevate risk exposure to the organization.



Management needs to be informed of the link between proposed investments and the specific risks those investments are intended to mitigate. We recommend the following steps:

- Determine the mutually useful metrics to both financial and technical disciplines.
- Ensure operational risk is being monetized and is highly visible to top management. Implement a method of modeling invested capital so that the impact of decisions can be measurably evaluated before commitments are made.
- Utilize a team of experts to determine if the organization's cost accounting function is able to seamlessly aggregate settlement data from the technical system so as to accurately and transparently provide data for financial analysis and reporting.

Continual Improvement

The requirements of ISO 55001 include provision for organizations to seek to continually improve their practice through regular review by top management. The intersection of business processes discussed in this paper can augment organizational maturity to levels that are characteristic of top quartile performers. An organization can grow culturally. When resources in operational and tactical roles can see their efforts making a measurable impact it can drive them to derive new ways to leverage improvements. Automation can begin to play a more significant role as well.

Technology

Organizations make investments in platforms and enabling technology. With the rapidly developing offering of technology and systems and platforms it can be difficult to evaluate what might be a strong multiplier to address an organization's needs to gain a competitive edge or sharpen its capabilities in some way.

Information Management

The ISO 55000 family of International Standards can help an organization to map its enablement requirements. It does so by establishing the link between the asset management system and the organizational objectives. It provides the structure for policy, a strategic asset management plan, and plans to reach asset management objectives. As a result of that work the organization can begin determining if there are deficiencies in technology that stand in the way of being able to properly intersect key management system functions, namely finance and asset management.



We recommend that you consider doing a high level assessment of your organization in relation to the ISO 55001 requirements. You may have internal resources who, with the right external expertise, could conduct a high level assessment of how your business processes are currently intersected. The aim of this exercise would be to evaluate current state, determine a reachable future state, and to calculate the value of the difference over time. The value assumption for most organizations, from an asset management systems perspective, is fairly substantial. It merits a small investment of time and resources to quantify this value more specifically for your organization. It

tells you how you might consider the technology options to help you leverage more value from your existing technology investments and what new investment you might need to make.

Conclusion

Achieving alignment leads to a ‘whole of organization’ approach with effective collaboration between various departments throughout the asset intensive organization. When an organization shares databases and have a common understanding of terminology, an organization will be more effective and efficient as each part shares data for better decision making.

This concept of alignment is a strong requirement of the ISO 55000 suite of asset management system International Standards. The standards recognize the importance of all technical and financial functions needing to work together with common objectives derived from and aligned to the overall organizational objectives. Only in this way, and through application of the standards, will organizations move towards maximizing the value that they can derive for all stakeholders by managing the assets with an appropriate balance of cost, risk and performance.



Further articles on “What is Alignment” and “How to Align” are being prepared by Working Group 5 of TC 251 and will be published through the ISO/TC 251 website in the near future.

TC 251 through WG5 has also commenced the process to begin developing a Technical Specification that will provide Guidance on alignment between asset management, finance and accounting within organizations.



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Peter Way PSM
Convener WG5 of TC 251
peter.way@ipwea.org

About ISO/TC 251

We are the ISO Technical Committee for Asset Management Systems responsible for the development of the ISO 55000 family of standards. These standards define good practices in Asset Management and requirements for a management system.

Find out more at committee.iso.org/tc251.