

## Blog 3: To optimize asset management, define assets as systems, not components

(Getting Ready for ISO 55000 – Part 3 of 10)

**Insights from the "Asset Management for the 21st Century - Getting Ready for ISO 55000" Seminar, May 2013, Calgary:** *This blog is based on a series of interviews with John Woodhouse from The Woodhouse Partnership (TWPL), who delivered this well-received seminar. John Woodhouse is CEO and Managing Director of asset management consulting firm TWPL, is a founder member of the Institute of Asset Management. He chaired the development of the PAS 55 standard and is UK Principal Expert in the development team for the ISO 55000 standard.*

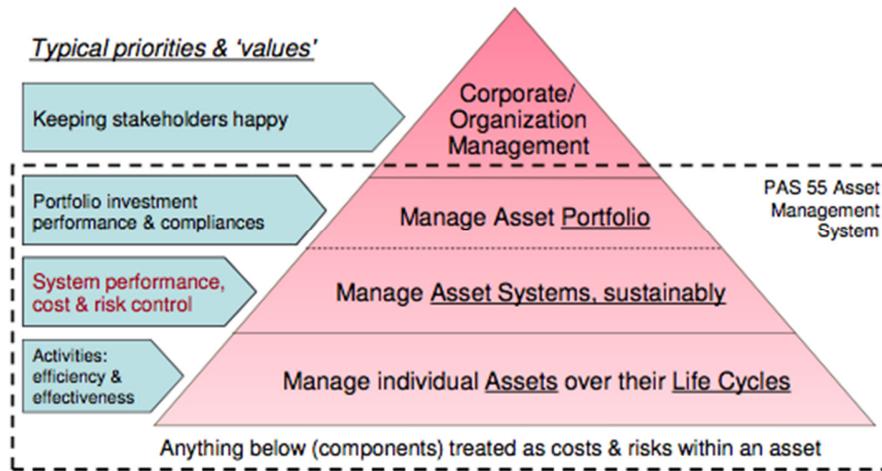
Asset management can make a significant impact when companies start thinking about the systems (the collections of assets that provide value) and stop focusing on maintenance of individual components.

Too often in asset management programs, the physical equipment units are used to define the assets. This leads to local optimization of say, a pump and its costs, performance, and reliability, rather than looking at the pumping *system* and how it contributes to plant performance. Most of the effort goes into maintaining pumps, but the benefits of healthy pumps are only measureable at the system performance level—where the sum of many parts yields lower total costs or increased performance and sustainability.

For example, a well maintained, pump in good condition is of limited value if the operating environment cannot exploit the pump's capability, the upstream fluid sources are erratic, or the electrical power system is unreliable. Pump management must be coordinated with the management of "pumping" as a system, which must in turn be managed with plant-level performance, plans, and priorities.

Sometimes it is even better to define the functional systems themselves as the assets and individual equipment items as just components. That way it is far easier to optimize operational costs, risks, and performance in line with the plant or organization's objectives. This higher-level perspective is reflected in the [PAS 55](#) standard for asset management, as shown in the following figure.

**Coordinating Asset Management**



The graphic above describes the different concerns at different levels of asset management. Near the top is managing a portfolio of assets to achieve business results in line with a corporate strategy and stakeholder expectations. The next level down is where systems come in: portfolio performance is achieved by managing various types of systems, delivering their required performance at the lowest cost and level of risk. This is the level where many optimizations take place, such as between short-term opportunities and longer term consequences. And within asset systems, the individual assets are in turn managed for lowest total life cycle cost.

One implication of this structure is that objectives cascade downwards and performance information can roll back up. The life cycle characteristics of each asset influence how the asset systems perform and should be managed. The needs and capabilities of each system then determine what can be expected in terms of business results.

In this way, a mature asset management process provides a clear line of sight from organizational strategy all the way down to what gets done to an individual asset, and back up the process in terms of what can be achieved by the assets being managed. This line of sight alignment, when commonly understood across the organization, is the backbone for rapid and sustainable progress.