

# Using Asset Management in Container Terminal Design

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## **Abstract:**

A key issue in container terminal design is achieving high berth productivity, furthermore the customer expects a highly predictable and reliable service. Container terminals are traditionally designed for a certain capacity. However, in practice this initial design capacity is only a part of the picture. The concession for operating a container terminal is usually granted for several decades while the life cycle of the main equipment spans 10-15 years. Creating a strategy which takes into account the complete life cycle (Design-Construct-Use/Maintain-Destruct) will be beneficial for economic viability. Asset Management (AM) can provide a prospective terminal operator with the tools to develop such a strategy.

Of equal importance to creating an AM strategy is to implement it effectively. Employing a people centered approach will greatly improve the chance of a successful implementation. Involving people from all layers of the terminal operators' organization will not only greatly improve the chance of success, but will also increase the quality of the AM strategy. Having a rationale behind the AM related choices allows the terminal operator to adjust focus and predict the consequences of this new focus.

Based on a recent case study we propose a framework based on the PAS 55 standard by the British Standards Institute. The goal of the framework is to allow a prospective terminal operator to efficiently and effectively manage his container terminal. The main targets are creating a basis for Continual Improvement and implementing maintenance management as an integral part of the operational process.