

An aerial photograph of an industrial facility, likely a refinery or chemical plant. The image shows a dense arrangement of large, cylindrical storage tanks, some with white tops and others with blue or grey tops. A complex network of pipes and walkways connects these tanks. In the upper right, there is a large, rectangular building with a corrugated metal roof. The facility is situated near a body of water, with a rocky shoreline and green vegetation visible in the lower portion of the image. A dark grey rectangular box with a white border is overlaid on the right side of the image, containing the main text.

6 AREAS OF FOCUS TO ACHIEVE REAL INNOVATION IN MANUFACTURING

Courtesy: Adam Robinson



6 Areas of Focus to achieve real Innovation in Manufacturing

1. Increase Productivity



- ❑ Increase **Operational Productivity** through by exploring and implementing well known tools of Operational Excellence such as Lean Manufacturing, Six Sigma, Theory of Constraints (TOC), Business Process Management such as implementing technology such as ERP, a warehouse management system, and of course a transportation management system to get a handle on your transportation department.
- ❑ Increase **Resource Productivity** across the full “Supply Chain”. According to Manufacturing Resource Productivity manufacturers can generate new value, minimize costs, and increase operational stability by focusing and prioritizing on four broad areas: production, product design, value recovery, and supply-chain management.

6 Areas of Focus to achieve real Innovation in Manufacturing

1. Increase Productivity



- ❑ In production, manufacturers should implement programs to improve labor and capital productivity through Operational Excellence. By incorporating energy and materials parameters into product-design approaches, manufacturers could reduce the use of materials that are non-renewable, hazardous, difficult to source, or expensive.
- ❑ Changes to product design could increase opportunities for recycling and reusing components and materials at the end of product's life cycle.
- ❑ For value recovery, companies can satisfy their resource needs by recycling and reusing materials historically discarded as waste. This process in increased value recovery is achieved with a great reverse logistics program.

6 Areas of Focus to achieve real Innovation in Manufacturing

1. Increase Productivity



- ❑ Those involved in waste management and the use of great technological advances to pave the way by developing services that allow manufacturers to capture value from materials left over after production or after a product has reached the end of its life cycle.
- ❑ In supply-chain management companies could transform their supply chains into supply circles, emphasizing that materials can be looped back into the production process after they have fulfilled their utility over the life of a product.
- ❑ With real innovation in manufacturing, manufacturers will need to dedicate much effort to optimizing resources and at the same time rethinking their business models to capture the value residing in resource ownership.

6 Areas of Focus to achieve real Innovation in Manufacturing

2. Implement Continuous Improvement Culture

- ❑ Kaizen or Continuous Improvement is a Japanese term well known and applied by many companies.
- ❑ This is part of Operational Excellence, whose main aim is focused in reduced operating costs, improved processes and working within a permanent culture of improvement. Kaizen and a focus on real innovation in manufacturing creates a standard model for “excellence in organizations through the application of universally accepted principles of operational excellence, alignment of management systems and the wise application of improvement techniques”.



To be continued...