



# WASTE ASSESSMENT: THE SEVEN DEADLY WASTES

*Measuring waste elimination potential is the first step in a systematic reduction of non-value-added costs.*

Waste elimination is one of the most effective ways to increase profitability in manufacturing and distribution businesses. But before waste can be eliminated, you must first understand exactly what waste is and where it exists in the factory or warehouse. While products differ in each factory, the wastes typically found in manufacturing environments are quite similar.

## THE SEVEN DEADLY WASTES

After working for years to eliminate waste, Japanese automobile manufacturer Toyota identified the following seven types of waste as being the most prominent. To help organize and focus waste elimination efforts, MorganFranklin has grouped them into three categories:

THE DEADLY SEVEN	PLANNING	ENGINEERING	SUPERVISION
Overproduction	x		x
Waiting Time	x		
Transportation		x	
Processing		x	
Inventory	x		
Motion		x	
Defects			x

## UNDERSTANDING WASTE ASSESSMENT

MorganFranklin's Seven Deadly Wastes assessment tool helps you identify areas of waste within your business operations, giving you the power to effectively allocate problem-solving resources and monetary assets to increase your efficiencies and save costs by:

- Identifying waste within your company and recognizing the benefits of process transformation
- Evaluating each waste within your operation so that concentration can shift to the features that are most important to your customers
- Improving the actions needed to correct your waste situation and eliminate challenges before investing more in production

## ASSESSING AND ELIMINATING WASTE

The first step in eliminating the Seven Deadly Wastes is to identify each one within the operation. A strategy can then be formulated to correct the situation and eliminate the problems. Such action may require simple, inexpensive solutions applied to a single work station or could involve considerable changes, such as a new layout of the factory floor or more efficient machinery. Appropriate solutions require careful study of the operation, clearly defined objectives, and thorough investigation of the benefits to be gained by each change.

**1. Overproduction.** When demand slackens, overproduction creates serious problems with unsold inventory and wasted byproducts, including: material handling, storage space, inventory interest charges, machinery and equipment, and overhead costs. Production should be limited to only the necessary quantity, meeting the requirements of high quality, low cost, and correct timing.

## The benefits of waste assessment:

- Learn how you measure up against the best in the industry
- Go green by eliminating non-value-added materials and activities
- Waste Assessment doesn't just benefit you. The fastest way to go green is to eliminate non-value-added materials and activities.
- Launch a time and cost-effective culture of waste elimination
- Follow the model of one of the world's leading manufacturers
- Use a straightforward approach to address a complicated problem
- Prioritize the improvement process
- Get evaluated by an objective third party
- Send a clear message about waste, measurement, and improvement

**2. Waiting Time.** Time is often wasted due to idle workers or employees who spend time watching machines while being powerless to prevent problems. By completing only the required amount of work, the speed and volume capacity of each work station can be monitored. To reduce waiting time, utilize only the machinery and personnel needed to meet production demands.

**3. Transportation.** Commonly observed in many factories, the root cause of this waste is often poor layout of the floor or storage facilities, which can lead to over-handling of materials. Long vendor supply lines have dramatically increased transportation costs through escalating fuel prices and other surcharges. To eliminate transportation waste, apply improvements to work layout, process coordination, transportation methods, housekeeping, and supply chain optimization.

**4. Processing.** Before production even begins, reduce or eliminate processing waste by employing the principles of design for manufacturing (DFM), utilizing best practices and ensuring that fixtures and machinery undergo regular preventative maintenance.

**5. Inventory.** Because of the substantial cost associated with excess inventory, rigorous measures should be implemented to reduce inventory to minimum levels. Forecasting errors, unreliable supply, and poor inventory accuracy should be systematically eliminated to avoid unintended inventory. On the contrary, the eight justifiable reasons to have inventory should be optimized to achieve the greatest benefit at the lowest cost.

**6. Motion.** Waste of motion can be defined as time spent not adding value to the product or process. Movement does not necessarily indicate that work is being accomplished. This waste can be eliminated through carefully planned layout and fixture selection.

**7. Defects.** Waste from product defects not only increases wait time, costs, labor, and materials, but can also lead to customer dissatisfaction and loss of future business. Time-saving efforts are futile if a preventive system has not been implemented to identify and correct defects and the conditions that cause them.

#### **CHOOSE MORGANFRANKLIN**

MorganFranklin helps clients perform Waste Assessments, implement best practices, and direct Continuous Improvement Programs. Our engineers are experienced in the principles and implementation of Lean Design, Lean Manufacturing, and Lean Supply Chain. Collectively, they hold more than 100 patents for products and processes used to improve production and performance. MorganFranklin will help you evaluate your assessment results and will propose corrective actions for improving operations. A wide array of companies have utilized MorganFranklin's Waste Assessment experience to increase their process efficiencies and save costs.



*“We reached a turning point. If we had not improved our manufacturing costs, our doors would be closed today. Instead, the company worked with outside experts to identify the waste in our operations and streamline our business to eliminate WIP inventory, material handling, and inefficient processes. Their Waste Assessment started us on a path that saved our business and years later, our tools are still proudly ‘Made in the U.S.A.’”*

**Downie McCarty**  
Owner and President  
Baltimore Toolworks  
Family-owned since 1925

Visit [www.morganfranklin.com](http://www.morganfranklin.com) to learn more about our Waste Assessment offerings and solutions.  
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