



## The 5S Method in Perpetuum Mobile

### Introduction

The **5S methodology** is a component of Lean management and a systematic approach to organizing the workplace. Its goal is not only to clean and maintain the work area but also to maximize profit and employee efficiency. 5S is a structural methodology that uses specific tools and a mindset to encourage value creation and increase efficiency. It is a way of organizing and managing the workspace and tasks to improve effectiveness by eliminating waste, fostering growth, and reducing complex processes.

The five key terms of the 5S methodology represent its five phases, which give the method its name:

- **1S - Seiri (Sort)**
- **2S - Seiton (Set in order)**
- **3S - Seiso (Sweep)**
- **4S - Seiketsu (Standardize)**
- **5S - Shitsuke (Sustain)**

In organizations that have implemented the 5S methodology, the time spent searching for tools is significantly reduced, which increases efficiency. For example, documents and folders are organized and readily accessible, and the most important ones are lined up and clearly marked. The workspace is also well-lit, and employees are placed near the tools they need to reduce unnecessary movement and clutter.

The implementation of the 5S method at Perpetuum Mobile is expected to lead to improvements such as reduced work in progress, shorter production cycle times, and more available workspace.

Three basic principles will be kept in mind during the implementation of the 5S system at Perpetuum Mobile:

1. 5S uses a **visual mindset**, allowing a person to recognize irregularities at a glance.
2. 5S is based on **consistency and continuity**.
3. 5S is a **systematic method** for involving and empowering employees in the management process.

### **Phases of the 5S Method**

#### **1S - Seiri (Sort)**

The first step is to identify what is necessary and what is not. The goal is to notice and remove all unnecessary items, papers, and tools from the workspace. This phase also involves evaluating which items are essential. During this process, a team must understand the purpose of these items, what is "produced" at that workstation, and who the customers are. The guiding principle is: "If you are not sure whether you need it, you don't".

The sorting process includes tagging all unnecessary items with red tags. A "red tag" area is designated to store useful but unnecessary items so other employees can take them if needed. Things that are completely useless are removed immediately without being stored in the red tag area.

#### **2S - Seiton (Set in order)**

This phase is about putting everything in order. Every item must have a designated place and be put back in its place, using as many visual cues as possible. After sorting, only the necessary items remain. Placing these items in clearly visible locations near where they are needed improves the efficiency of movement for people and materials. To optimize the layout, a "Value stream mapping" method can be used to analyze the business process and identify changes.

To conduct this phase, you should:

- Clearly label equipment and spaces so all employees can identify them.
- Use colored lines to separate different work areas.
- Draw lines around specific equipment to mark its exact location and designate lines for the movement of people and office equipment.
- Identify safety issues and arrange the layout to minimize potential safety problems.

### 3S - Seiso (Sweep)

This phase involves a thorough cleaning of everything. This includes not only cleaning the workspace but also repairing faults and analyzing the process to eliminate the root cause of clutter. Cleaning and maintaining the workspace should become a daily routine. A clean work environment significantly reduces dirt that can lead to employee illness or equipment malfunctions, which in turn increases productivity and profit.

### 4S - Seiketsu (Standardize)

Standardization involves making routine cleaning and maintenance a part of the daily work style. The goal is for all team members to agree to and accept the new way of working as the norm. It is crucial not to lose the progress made in the first three phases. This phase can be aided by:

- Documenting all procedures from the first three phases and making them part of the daily routine.
- Using visual aids and management tools (boards, labeled shelves, colors) to highlight deviations.
- Scheduling 5S activities as often as possible.
- Creating a formal 5S agreement that outlines expectations, roles, and responsibilities before starting the program.

### 5S - Shitsuke (Sustain)

This final phase, which is often the most difficult to implement, is about making all procedures a part of the daily routine. It requires implementing the 5S philosophy as a mindset throughout the entire organization and fostering personal discipline to follow what has been agreed upon. The culture and mindset of the people within the organization greatly influence the success of this phase, and it requires persistent, dedicated work.

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