Lean 5S Event Execution Playbook Lean Principles and Tools for Workplace Excellence



Purpose:

This playbook equips participants with leading-edge Lean principles, tools, and a step-by-step roadmap for successfully completing a 5S event. Learn how to identify, analyze, and eliminate waste, improve safety, and build a culture of continuous improvement. Thank you to those that contributed to this playbook, your efforts are greatly appreciated! Please send any recommendations to info@8020lean.com

Contents Include:

- 5S introduction and Integration with Lean Six Sigma & DMAIC
 - Project Preparation & Gemba Walk
 - 5S Steps: Sort, Set in Order, Shine, Standardize, Sustain
 - Visual Management & A3 Communication
 - Templates, Checklists, and Worksheets

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Lean 5S Playbook

This playbook equips participants with the necessary Lean principles, tools and a roadmap for successfully completing a 5S event. Users will learn tools and methods to identify, analyze, and eliminate waste and improve safety while building a culture of continuous improvement or Kaizen. The playbook follows the traditional 5S approach, with the addition of preparation, safety, Go Gemba, basic quality tools and A3 Presentations:

- 0. **Prep Step** Project selection, planning Gemba Walk, conduct a 5S Audit and workplace scan to evaluate and baseline the current state, identify areas to focus improvement efforts and complete a draft charter.
- 1. **Sort Step** Sort through items in the target area to determine what items are necessary and where they belong, along with items for removal to include final disposition of the items. This step uses "Red Tags" as a tool for labeling items with disposition status and tracking information.
- 2. **Set in Order** Execute the relocating of items as determined in the "Sort" step.
- 3. **Shine** Raise the bar with Shine and then Sustain it! Clean the areas and make the environment safe.
- 4. **Standardize** Identify standardization opportunities and continue to implement Sort, Set in Order and Shine. Learn basic quality tools to address opportunities the team identifies during the project.
- 5. **Sustain** Develop and implement a plan to sustain improvements and make 5S a part of an organization's daily activities and its culture.

Where 5S Fits in Lean Six Sigma

Foundational Role in Lean

5S is the operational bedrock of Lean. It's the first step in creating a stable, visual, and waste-free environment — essential before applying advanced tools like value stream mapping, Kaizen, or Six Sigma analytics.

- Lean = eliminate waste
- 5S = eliminate chaos
- Together, they create flow, clarity, and discipline.

Precursor to Six Sigma Precision

Six Sigma focuses on reducing variation and defects. But before you can measure and improve, you need a clean, standardized baseline — that's where 5S comes in.

- Sort & Set in Order: Remove clutter and organize workspaces
- Shine: Clean and inspect to reveal hidden problems

- Standardize: Create repeatable processes
- Sustain: Build habits and accountability

This sets the stage for Six Sigma tools like control charts, process capability analysis, and DMAIC.

Integrated into DMAIC

5S aligns naturally with the Improve and Control phases of DMAIC, the lean six sigma project methodology:

DMAIC Phase	5S Contribution
Define	Clarifies process boundaries and scope
Measure	Enables consistent data collection
Analyze	Reveals root causes via visual controls
Improve	Implements 5S changes to reduce waste
Control	Uses 5S audits to sustain improvements

5S + Kaizen = Culture

5S is also the gateway to visual management, team ownership, and continuous improvement cultures — all pillars of Lean Six Sigma success.

Kaizen is a Japanese term meaning continuous improvement. In business and manufacturing, it refers to a philosophy or strategy that focuses on making small, incremental changes to processes, products, or practices to enhance efficiency, quality, and performance over time. It emphasizes teamwork, standardization, and employee involvement at all levels.

Kaizen is not about perfection; it is about pursuing perfection every day. This is more than a bunch of awesome tools, it is a mindset, one that changes organizational cultures by empowering employees with "world-class" problem solving skills.

Introduction to A3 Communication

The A3 problem-solving process is a structured, Lean-based methodology for identifying, analyzing, and resolving problems using a single sheet of A3-sized paper (11x17 inches).

Originating from Toyota's production system, it emphasizes clarity, collaboration, and root cause analysis. The process typically follows a logical flow: defining the problem, understanding the current state, setting a target condition, conducting root cause analysis (often using tools like the 5 Whys or fishbone diagrams), proposing countermeasures, implementing solutions, and evaluating results. This format encourages concise communication and shared understanding across teams.

What sets A3 apart is its emphasis on both the thinking process and the documentation. It's not just a report—it's a learning and coaching tool that fosters ownership, cross-functional dialogue, and continuous improvement. The A3 process aligns with PDCA (Plan-Do-Check-Act) cycles and supports a culture of problem-solving at all levels of an organization. By visually mapping the problem and its resolution path, it helps teams stay focused on facts, avoid jumping to conclusions, and build consensus around sustainable solutions.

A3 Report - Business Process Improvement	Process: Owner:	SME: Date:	
1. PROBLEM STATEMENT / BUSINESS CASE	4. ANALYSIS		
This is a pain	Findings	Actions/Solutions	
2. CURRENT STATE (visual representation)	5. FUTURE STATE (visual repres	entation)	
Metrics COPQ: Reprocessing: Delays: Waiting Time: Rework: Resource Utilization: Incomplete Requirements: Other: Cycle Time:	Metrics COPQ: Delays: Rework: Incomplete Requirements: Cycle Time:	Reprocessing: Waiting Time: Resource Utilization: Other:	
3. ROOT CAUSE (5 Whys / Fishbone)	6. PLAN		
	Activity (What, Where, How)	Team Responsible	Deadline
REAL REV	N REVISIONS ISE I REVOLUTIONIZE		

Prep Step 0 - Plan and Conduct 5S Assessment/Gemba Walk

The 5S project starts by selecting a project and defining the scope of the project, the main issues (problems), project goals and the impacts to stakeholders. Studies show that over 60% of projects failing to achieve their objectives also had weak or non-existent project charters. The information above is the bare minimum information, each situation dictates other requirements.

As with many successful projects, a well-defined, measurable problem statement is a critical starting point. Here is Checklist for writing a solid problem statement, **The KEY is to Make the Problem Statement Measurable!!**

	What is happening?
	Who is affected by the problem?
	What are the "gaps"?
	What are the consequences of not solving the problem?
	Where does the problem occur?
	When does the problem occur?
П	When did the problem start?

Once we have a solid problem statement, we can create our goal(s) statement(s) by solving those issues we identified.

Here is an example of a 5S warehouse project charter:

Project Title	Reorganize the warehouse			
Problem Statement	The warehouse has always been a problem. The racks are not labeled. A given type of material may be stored in several different locations. It takes forever to find things. We never really know how much we have on hand, so we never really know when or how much to order. The floor is clogged with recently delivered material because we don't know where else to put it. Most of the racks are blocked by material on the floor. Material on these racks cannot be accessed without first clearing a path.			
Goal Statement	Apply 5S.			
In-scope	Indoor warehouse area and outdoor c	Indoor warehouse area and outdoor containers		
Out-of-scope	Work areas	Work areas		
Constraints	Project must be completed in one week. No capital investment allowed.			
Assumptions	Whole team is available for the entire week.			
Project benefit metrics	Baseline Goal			
Average retrieval time	TBD	Reduce by 80%		
% Space available for deliveries	0% At least 20%			
% Space for permanent storage of high-use materials in designated locations	0% 75%			
Team members	Roles (Green or Black Belt, Le	eader, Member, Job Title, etc.)		

Next, we will complete an assessment that scores the target area in each of the 5S areas (plus Safety) for levels of maturity (L1-5). You can use this assessment to baseline the current performance and identify areas for improvement and any ongoing improvement initiatives.

Before beginning any hands-on 5S activities, it's important to evaluate the current state of the workplace and identify key focus areas. This involves engaging with team members to gather their input on existing challenges and opportunities for improvement. Conducting a thorough walkthrough (Go Gemba) helps to document initial conditions and sets the stage for measuring progress throughout the 5S implementation.

Go Gemba

What is it? "Go Gemba Refers to physically going to the location where the value created from the work we do is created and ultimately where we improve it.

Why use it? To truly understand the end-to-end process (value stream) that delivers to our customers, you must "go see" it and walk it. It is an effective way of breaking down the "silos" that processes meander through to ultimately deliver value to our customers.

When to use it? Multiple times a year or any time you are launching any type of lean six sigma effort. Use it to stay on top of any needs or changes between you and your internal or external customers

How do you perform the Gemba Walk?

- 1. **Identify your purpose** Why are you going to observe? What are you trying to learn by using Go Gemba? If you can't answer these questions, then don't start.
- 2. **Know your Gemba** People refer to the Gemba as the "factory floor", as if they were synonymous. This is true if the problem relates to the "factory floor". And there is no question that people should be spending more time "there", understanding what is going on. But this isn't the only Gemba. There are problems that require observation in the boardroom, or at the customer, or in our various locations and levels of processes where work is done. Gemba is wherever the activity is performed that you are trying to learn and understand. Find the point of that activity; this is your Gemba.
- 3. **Observe with a framework** Do you just see what is on the surface? Or do you see the people, process, and technology? Do you have a framework that helps you digest, analyze and communicate what you are observing? We use lenses and language to look at work performed as skills, activities, steps, handoffs and flows. Whether in the boardroom, finance team, financial accounting or onboarding, all work is made up of these components.
- 4. Validate what you see -The easiest thing to do is to assume that what we see is a true representation of reality. However, there are often many things that cannot be seen on the surface. These may include decisions made in people's heads, abnormalities that were missed because we did not know the norm or variations from one person to the next on how work is performed Ask questions. Seek input from many doing the same work.

Lean Summary

Lean focuses on the elimination of waste in a process. "Kaizen" is the spirit of continually improving processes, incrementally, every day. Lean is a part of the culture of an organization, not a quality function operating in a silo

DOWNTIME WORKSHEET – The "Eight Wastes" - Examples of the "Eight Wastes" are all around us, both in our professional and our personal lives. The table below defines each of the "Eight Wastes" using the acronym DOWNTIME.

Not meeting expected standards of quality (errors) or delivery (timeliness)
Making or doing more than is needed at the time, leads to excess inventory
Staff waiting to work, customers waiting to be seen. Accounts for over 80% of most processes' cycle times
Not fully utilizing workforce knowledge, capability, and creativity. Uneven workload distribution, etc.
People or things being moved from one place to another. Moving stuff to get to other stuff.
Excessive supplies, work in process, customers in process
Excessive motion in the completion of work activities. Lots of movement, not a lot accomplished. "Work = Effort x Distance"
Producing to a higher standard of quality than is required

Other types of waste include any activities that don't add value, or those activities our customers are not willing to pay for. Also look for any type of scrap and/or rework from activities not done right the first time.

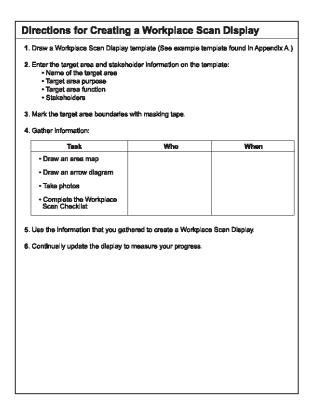
To begin the project, look out for the wastes discussed above as you conduct your Gemba Walk. Additionally, complete the following questions supporting the assessment from a 5S lens:

5S Audit Auditor:			rea: Date
Category	Description & Score (Starting with 5, subtract 1 point for each programme of the starting with 5 and 1	oblem)	Key Findings and Notes for Improvement
No Unnecessary Items	All items not necessary for performing work are removed from the workplace, only tools and products are present at work stations. No items are on top of machines, cabinets, or equipment.		
Documentation Binders	Only binders containing documentation necessary for operations (such as MSDS and SOP binders) are stored at the workstations.		
Material Storage	Boxes, containers, and materials are necessary and stored neatly in clearly labeled shelves or cabinets. WIP and other small items are not stored on the floor. Large items are stored on the floor in correctly color-coded areas. Stacked items are not crooked or in danger of toppling over.		
Tools and Gauges	Tools, fixtures, and gauges are stored neatly in designated locations that ensure cleanliness and prevent damage.		
Cleaning Equipment & Materials	All cleaning equipment and materials are easily accessible and stored neatly in a clearly-labeled location (color-coded, if hazardous materials involved.)		
Emergency equipment	Emergency/First aid equipment is unobstructed, correctly stored and color-coded. Emergency stop switches and hazard indicators are correctly marked with obvious, color-coded signage. Emergency egress routes are obvious and unobstructed.		
Aisles	Aisles are clearly marked with the correct color code, lines are straight, clean, continuous, and at right angles. Aisles and operator exits to the aisles are free of obstruction.		
Floors, Walls, and Ceilings	All floors, walls, and ceilings are clean and free of debris, oil, dirt, and defects.		
Equipment Cleanliness	Machines and equipment are clean; windows and work surfaces are clean and polished.		
Equipment Maintenance	All machines are very neatly painted. Safety guards and signs are correctly installed. No fluid leaks, frayed electrical cords, or worn air lines.		
Visual Management Systems	Standard work, Process-level visuals, and the Tier 2 boards are up-to-date, in good condition, easily visible, and neatly displayed in the designated location(s).		
5S Control	Daily activities and periodic audits are up-to-date, results displayed visually, countermeasures implemented.		

Use the table below to score the results of the Gemba Walk. The results establish a baseline and highlights areas for focused improvement.

Зіх	S Evaluation	Tool		Six S Sta	ndards	
evel	Sort	Sweep	Straighten	Safety	Standardize	Sustain
5	Minimal supply of parts and supplies in the area. (In mfgr- 4 hrs or less) Everything needed to do a job is readily available.	Clean, fresh paint applied. Cleanliness supports orgoing PM activities. Minimal movement to access files, info, or set-up new job.	Six 8 principles part of culture so that tools, supplies, & files always in correct spot. Tools returned to proper location via counterbalance where applicable.	All new work areas designed for safety. Safety innovations for work areas and tools are common and frequent.	Photo/diagram based work instructions & visual aids which are current and dated. Training for new workers is documented & consistent.	A rating of 5 in all other categories. Six S Audits are completed as scheduled, results posted, & deficiencies are quickly corrected.
4	Anyone can find any needed item in 30 sec or less. 1-min retrieval of documents.	Full participation in daily cleaning. Six S agreements understood & practiced regularly. Anyone returns any item to its spot.	Missing items are rare but obvious. Ergonomic considerations included in organization.	Ergonomic changes made to improve safety: lift tables, fixtures, work heights, wiring.	Work instructions, quality & customer information displayed at information centers. All members make use of information centers.	A rating of 4 or greate in all other categories. Little or no variation in appearance of area through time.
3	All clutter removed. Visible storage of needed item — including cabinets. Clear aisle ways, floor space under desks, shelf tops.	Mess prevention measures in place. Work & break areas & equipment are cleaned daily (Mfgr each shift).	Visual controls for all storage areas proper storage location is obvious to anyone. Outlining in place. Storage planned with retrieval in mind.	Alsle ways marked & designed to prevent accidents. Tool inspections routine & include prompt follow-up. Safe work flow.	Use of standard color coding, visual icons, & visual aids throughout area. Process changes documented.	Area wide acceptance of 8x 8 principles. Visual aids are up to date. Sporadic use of audits Results of audits are posted.
2	Obsolete and unnecessary items removed. Reduced inventories. Still searching 5-10 min for some items.	Clean-up is a once- a-week activity. Key items to check have been identified.	Standard locations identified for all needed items – designated and labeled.	Cleanup procedures in place for spills and trash. Fire extinguishers clearly marked & inspected regularly.	Four-S standard is defined for all. (sort, sweep, straighten, safety) All team members trained.	Six S checklists are in use and monitored. Items are in the correct location & area clean.
1	Broken & obsolete items mixed in with needed items. Junk, mess & clutter common.	Attitude: Clean up is "not my job, man". Areas are dirty and disorganized.	No standard storage for anything. "Searching" is a common occurrence.	Work areas & aisles unsafe from clutter. Safety guards not in use, or modified.	Work place methods not consistently followed and not documented.	There is little effort to maintain Six-S. Six-S Check sheets ignored or pencil- whipped.

The last task for the Prep Step is to create a Workplace Scan Display. This Display provides a visual report of actual conditions, helping us to ensure understanding of 5S issues and opportunities through the interaction with area employees. You will create an area map including layout and photos of the current state.



Here is a template you can use to create a Workplace Display:

Workplace Scan Display Template		
Target Area:		
Target Area Purpose:		
Target Area Function:		
Stakeholders:		
Area Map and Arrow Diagram	Workplace Scan Checklist	
Before Pictures	After Pictures	

The prep phase deliverables include:

- 1. Project Charter/plan
- 2. Area assessment/waste analysis
- 3. Workplace displays of current operations
- 4. Initial listing of process improvement opportunities

Step One – Sort Step

In this step, we create an Item Disposition List to decide what to do with items in the target area. We sort through items in the area, keeping what is needed, eliminating what is not needed and reducing quantities of remaining items to the levels necessary to meet requirements at a given time.

Areas to target include:

- Desks & Workstations
- · Along walls
- Shelves

- Bulletin boards
- Shared Spaces
- Drawers and cabinets

Items within these areas include:

- Inventory
- Tooling
- Equipment
- Furniture
- Office supplies
- Documents
- Wall hangings

For each of the items you identify, determine which items are necessary and Red Tag the unnecessary items. Some questions to ask include:

- Is it needed in this area?
 - How often? By whom?
 - Has it been used in the last 30 days?
 - If we remove it, will it really matter?
 - Is it in the way? Taking up too much space?
- If not needed, attach red tag (see example below) and move the item to the red tag area



- Red-tag information should include:
 - Date
 - Tagged by
 - Item name
 - Name of the area where the item was removed
 - Additional comments

Use the Item Disposition table below to determine actions to take for each category:

Item Disposition List				
Purpose: To help you decide what to do with red tagged items Directions: 1. For each not tagged item, determine the category within which it belongs. 2. Determine the action required and write it on the red tag and/or the Unneeded Items Log. 3. Take the appropriate action.				
Action				
Sell Hold for depreciation Give away Throw away				
Return to supplier Recycle				
Remove from area to proper location				
Throw sway Recycle				
Remove from area to proper location				
Carry with you Keep at place of use				
• Store in area				
Store where accessible in plant				
Store in distant place Sell Give sway Throw sway				
Find out use Resmove from area to proper location				

Create a storage area for Red Tag items whereby:

- Items held in red tag area at most 30 days
- If needed, get authorization to retrieve items
- Remaining items disposed of (store, sell, recycle, give away, throw away)

The Second S – Set in Order

For this step:

- Review of the current situation
- Target issues to improve
- · Decide where things belong
- Make it obvious

Everything that remains has a place for each item:

- Identify best locations
- Relocate out-of-place items
- Set height, quantity, and size limits
- Focus on safety
- Install temporary location indicators

The best location is determined by the work, be creative and consider:

- Point of use, availability, proximity
- Frequency of use, visibility
- Ease of access and return
- Height, weight, size safety
- User-friendly environment
- Ergonomics

Locate and group items according to use, considering:

- Distance related to frequency
- Make kits with everything needed to do a task
- Specialty tools should be available when needed

Organizing areas for safety, think about some of the following, whether on the manufacturing floor or in the office:

- Cords wrapped & out of the walkway?
- Adequate lighting?
- Unsecured items sitting precariously on top of shelves and equipment?
- Is it clear to anyone who enters the area where the dangers are and what to do in an emergency?

Also consider the use of Shadow Boards or other types of Visual

The Second S - Set In Order
Checklist
Determine the criteria for relocating out of place items:
□ Determine who needs to be contacted regarding item relocation.
☐ Determine who will do the relocating.
Determine what policies and procedures affect item relocation.
☐ Determine the best time for item relocation.
 Identify and gather needed supplies (bins, labels, tags, colored tape, etc).
Identify and relocate large items:
□ Determine the best location for large items (refer to the area map and arrow diagram).
☐ Create a plan for moving these items and get it approved.
☐ Move large Items.
 Identify and implement Location indicators for these items in their new locations.
ldentify and relocate small items:
☐ Determine the best location for small items.
☐ Move small items.
 Identify and implement Location Indicators for these Items in their new locations.

The Third S – Shine

During this step, you will complete an initial cleaning plan and develop an ongoing cleaning plan to help sustain the gains. Complete the following steps and record the results:

The Third S - Shine
Checkilst
 Systematically determine targets and assignments.
Make sure all workers know their assignments.
Determine appropriate cleaning methods.
Get the right tools and supplies.
 Perform initial cleaning of targets using the Initial Cleaning Plan Worksheet.
Replace wires, hoses, tubes, etc.

Initial cleaning plan to embed



Daily cleaning plan to include all employees with rotation plan

Step Four – Standardize

Some playbook lines for the Standardize Step include:

Make standards obvious and easy to see from a distance

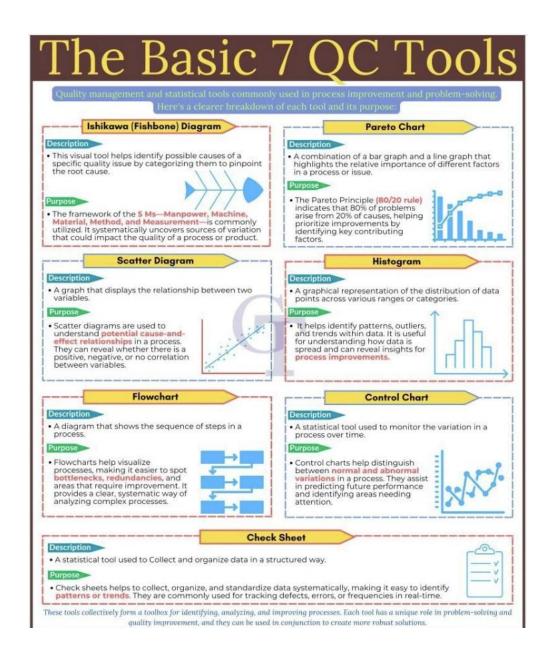
- Ensure information is on or near the operation or object
- Make standards understandable by anyone
- Ensure that 5S standards accomplish their purpose: An <u>organized</u>, <u>orderly</u>, <u>clean</u>, <u>safe</u>, <u>efficient</u> workplace

We start by identifying and categorizing conditions to standardize and the methods to control. As a part of sustain...

- Assign responsibility for maintenance
- Maintain and monitor conditions
- Plan-Do-Check-Act control ideas
- Sort Set in Order Shine

Conduct the following steps for Standardize:

The Fourth S - Standardize
Checklist
Prepare the standardization chart.
Identify standardization issues.
Identify and attain desired conditions for Sort, Set in Order, and Shine.
Make all standards clear and obvious.
Monitor and improve all standards.
Continue to implement Sort, Set in Order, and Shine.



Step Five - Sustain

The Sustain Step is an opportunity for leadership to improve an organization's culture through:

- · Development of new awareness and skills
- Support and leadership from management
- Ongoing communication
- 5S part of daily work
- Total employee involvement

We will create ongoing communications through the continual use of workplace scans and audits and other visual management methods. Action plans help us to address problem areas by identifying the actions, who is responsible and the results.

The plan to sustain includes ...

- New awareness and new skills
- Visibility
- Communication
- Standard work
- Employee Involvement

To complete the Sustain Step...

The Fifth S - Sustain
Checkilst
☐ Create a plan for Sustaining.
 Ensure that you have management support for the plan and make necessary modifications.
Inform everyone in the area about the 5S standards and their purposes.
 Create and maintain a 5S Communication Board as well as other communication devices.
Make 5S activities part of daily work through the 5-minute 5S.
 Continue to improve standards and visual methods to make all standards obvious.
☐ Maintain Total Employee Involvement (TEI).

Target Area:			
Directions:			
I. Identify the target area an	d record it in the	space provided abo	ve.
2. Identify the standards, gu	idelines, and pro	cedures that require	adherence.
 Identify the people or grou standards, guidelines, ar provided below. 			
methods as a partial list: ¥ 5S concepts and ski ¥ 5S communication b ¥ Before and after pho ¥ One point lessons	oard	•	·
* Study groups * Information signboar * Daily 5-minute 5S ac * Weekly 5S application 5. Use the form below to crud at a time so each idea have	ctivities on eate a plan. It m	nay be best to implem	ent ideas one
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Summary

The 5S methodology is a cornerstone of continuous improvement, focusing on creating and maintaining an organized, efficient, and safe workplace. Through employee involvement, ongoing communication, and the use of visual management tools such as scans and audits, 5S ensures that standards are established and sustained. Action plans and accountability reinforce progress, while new skills and awareness empower employees to actively participate in workplace improvements. Ultimately, 5S leads to greater visibility, enhanced communication, and a culture of sustained excellence.