



**Operational Performance Solutions, Inc.**

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# Implementing the Operational Performance System In Government

*Lean Process Improvement for Citizens, Services and Public Servants, Making Government Easier, Better, Faster and Cheaper.*





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### Executive Summary

In recent years, some forward-looking government organizations have used a powerful process improvement methodology called “Lean”<sup>1</sup> to make astonishing gains in performance. Lean was originally developed and refined in the automotive industry, but the principles, processes, and tools have proven to be fully adaptable to government organizations.

OPS has been introducing Lean to government operations since 2008, as summarized in Table 1:

Government Organization	Improvement
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Baltimore City Mayor’s Office of Employment Development: Northwest Career Center	<input type="checkbox"/> Reduced wait time for job placement services from 2+ weeks to Same Day Access <input type="checkbox"/> Reduced backlog of full registration from 30+ days to Same Day Access
---	--

<sup>1</sup> This methodology was given the sobriquet “lean” in the first book in the United States to study the process in depth, *“The Machine That Changed the World,”* by James Womack and Dan Jones. 1991.

Nebraska Department of Health and Human Services	<input type="checkbox"/> Improved SNAP program Application Timeliness Rate from ~65% to over 95% <input type="checkbox"/> Reduced Call Center Wait Time from >15 minutes average to <5 minutes average
Maryland Department of Labor, Licensing and Regulation (DLLR)	<input type="checkbox"/> Reduced contract lead time from over 15 days to 3 days
Frederick Workforce Center	<input type="checkbox"/> 350% increase in customers enrolled in training programs
Baltimore City Health Department	<input type="checkbox"/> 400% increase in Annual Grant Reports completed on time. <input type="checkbox"/> 100% submitted on-time within 2 months of starting Lean journey.
Prince Georges Economic Development Center	<input type="checkbox"/> Reduced 2 week wait to Same Day Service
Maryland Science Center	<input type="checkbox"/> Reduced Wait Time for Large Groups by over 50%
Baltimore City Bankruptcy Filing Process	<input type="checkbox"/> Reduced Case backlog from 24 days to 1 day

**Table 1. Sample Lean Projects**

At its foundation, Lean is about people. People everywhere want to do a good job, and they respond energetically when they are invited to participate in improving their work.

Accordingly, when Lean is successfully sustained in an organization:

- Employees go to work each day with process improvement as an integral part of their daily work.
- All coordinated across the organization by a robust Annual Planning Process.

While experienced Lean practitioners can help to make exciting improvement in virtually any process fairly quickly, it is a tremendous challenge for an organization to develop the culture that will nurture and sustain this system. But in doing so, an organization commits to continuously making important improvements in customer satisfaction, employee morale, quality, safety and cost continually. This is a payoff that enlightened leaders realize is well worth the effort.

The remainder of this paper describes the proven roadmap, OPS’ Operational Performance System, to achieve this level of success. This is the journey to “Achieving Operational Excellence<sup>2</sup>.”

**1. What is "Lean"?**

"Lean" is the term that the authors of a 1990 study invented as shorthand to describe the principles, processes, and tools of the Toyota Production System. The term has come into common usage as a quick way to describe this proven system of continuous improvement. OPS uses the term "True Lean" because we work diligently to



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maintain the focus on Toyota's approach, which has proven to be the world's preeminent system for achieving and sustaining operational excellence.

At its core, this system is all about working more effectively, or, as one of the early contributors to the systems identified, it changes the nature of our work to be:

- Easier

2 OPS defines operational excellence as superior performance in quality, safety, responsiveness, schedule attainment, customer satisfaction, employee morale and cost

3 Shigeo Shingo

This is first and foremost. This is achieved by eliminating wasteful activities, which, when eliminated, enable work to be accomplished with less confusion, fewer mistakes, more consistent results, more predictable schedules, and less physical and mental effort and stress.

- Once work becomes easier, continued improvement helps to make it:
- Better (higher quality)
- Faster
- Cheaper

Employees embrace Lean because it simplifies their workday by eliminating wasteful, non-value-added activities and helps them to accomplish their objectives with higher quality and less effort.

### A Visual Model – Operational Performance System

Experience has shown the benefit of a visual model that shows the main elements of Lean to help individuals see how the various parts of the system support each other and the goal of operational excellence. Figure 1 below is OPS's visual model of its Operational Performance System, based on the Toyota Production System house, for a Lean Government transformation. This model can serve as a framework, but must be customized to each organization. The following paragraphs discuss these key elements:





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Figure 1. The Operational Performance System Model

### ***The Foundation - Employee Engagement Culture***

Lean concentrates on making every employee's work experience better and focuses on a "True Lean" organization - one in which every employee is actively engaged in making their work processes better, every day. Achieving this requires a culture in which each individual's input is actively sought, every employee is treated with great respect, and teams instinctively work together to solve problems because they are focused on finding and correcting a root cause, not on finding who to blame for the failure. The employee's work life must be structured to provide multiple opportunities to engage in continuous improvement activities, and the leadership team must actively solicit employee engagement while demonstrating sincere respect for every worker.

Therefore, the foundation of "True Lean" is an Employee Engagement Culture in the Basic Lean System Model.



Figure 2. Foundation - Employee Engagement Culture

### ***The Core - People***

In a "True Lean" culture, the system is sustained by engaged, knowledgeable employees who drive continually for process improvements, who see their achievements in the measures of the "few and mighty" metrics that are highly visible in their workplace.

The center of a Lean system is the people doing the work, as shown below in Figure 3 with the highlighted red box.



Figure 3. The Core - People

### ***A3 Problem Solving Thinking***

In a "True Lean" system, every employee is a highly skilled problem solver, who knows how to use a variety of robust tools to look past the apparent, easy (and often wrong) solutions to dig deep, find the root cause, and eliminate it so that the problem will never recur. There are many problem solving methodologies, but "True Lean"



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uses the A3 methodology that is based on Plan-Do-Check-Act (PDCA) or Plan-Do-Study-Act (PDSA) because it is rigorous, readily adaptable to team interactions, and effective in helping present complex issues in an understandable format. Figure 4 below highlights A3 Problem Solving Thinking as a load-bearing pillar that supports one side of the house or System Model. Within the highlighted area below is also the Lean Toolbox, which is emphasizing that this methodology is supported by the vast Lean tools and techniques to achieve real operational improvement.



Figure 4. Pillar - A3 Problem Solving Thinking

### Value Stream Analysis Process

The people who operate in a “True Lean” system know how to visualize a process, working back from the final delivery of the service to the customer through all the steps that must occur, and then know how to recognize and eliminate waste. This is the customer’s value stream. There is a process to getting everyone to see the value stream, designing a future state focused on the customer, implementing changes across the value stream and creating the culture to continually improve it. The ideal of "one piece flow" (i.e. every step in the process proceeds immediately to the next step with no delay) may never be achieved, but the more waste that is eliminated, the closer that operations will approach the ideal. Figure 5 below shows this as a load-bearing pillar that supports the other side of the house or System Model. Within the highlighted area is also the Lean Toolbox, which is emphasizing that this methodology is supported by the vast Lean tools and techniques to achieve real operational improvement.



Figure 5. Pillar - Value Stream Analysis Process



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**Results**

Lean has a long track record of delivering superior results in Safety, Quality, Customer Satisfaction, Employee Morale, and Reduced Cost. Lean organizations use readily available, transparent data from a "few and mighty" metrics to focus the entire team on improving performance in areas that matter to the organization and its customers. This is seen in Figure 6 as the roof of the model.



Figure 6. Roof – System, Results and the Organization’s True North

Over many years, OPS has repeatedly demonstrated the capability to successfully implement “Lean in government” and deliver incredible results as evidenced in the Table 2 below:

<i>Item</i>	<i>Measurable</i>	<i>Improvement</i>
<b>Process Flow</b>	<b>Time to Service Delivery</b>	<b>30% to 100%</b>
<b>Customer Service</b>	<b>% Composite Scores</b>	<b>30% to 90%</b>
<b>Quality</b>	<b>Reduction in Errors and Rework</b>	<b>50% to 99%</b>
<b>Cost</b>	<b>Reduced Costs</b>	<b>10% to 75%</b>



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<b>Productivity</b>	<b>Output per Team Member</b>	<b>20% to 50%</b>
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**Table 2. Sample Lean Results**

***Operational Philosophies***

A foundational element of Lean is that performance is based on strong processes that can be operated successfully by well trained, everyday people, as opposed to ineffective processes that need heroic, superperforming people to keep things running, often exhausting and frustrating themselves in the process. Lean's operational philosophies contribute to smooth, efficient operations where waste is minimized and continuous improvement is possible. These include:

- Manage materials and information Just-In-Time
- Control quality and cost by completing work in-station
- Synchronize the process with the most level schedule possible in the environment
- Minimize breakdowns with preventive measures
- Involve all employees in improving processes and reducing costs
- Use the system uniformly and consistently at all facilities
- Know and support the system at all levels of the organization

The Shingo Institute, home of the Shingo Prize for Operational Excellence, has one of the most complete models and guiding principles, as seen in Figure 7. Shigeo Shingo was the first to name the seven wastes, and one of the first to document the Lean approach to process improvement.



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**Figure 7. The Shingo Model and Guiding Principles (www.shingoprize.com)**

Many years of successful Lean implementation experience have reinforced the power of an operating model to help all employees see how these principles fit together to provide the desired outcomes.

**What Lean Looks Like**

A Lean organization exhibits the following characteristics:

**Flow**

- The ideal of "one-piece-flow," or continuous-flow-without-waste is pursued
- Flow is designed to meet the customer demand without degradation of key metrics.
- Processes are agile enough to handle surges in demand - both anticipated and unexpected.

**Metrics**

- Focus is on a FEW key metrics that drive the rest of the metrics for the organization. □  
 Metrics are measured, reported and trend charted on a weekly basis (at a minimum).

**Schedule**

- Efforts are made to level the schedule as much as possible, within demand constraints.



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### **Visual Controls**

- Flow is visible - it is clear who is where, what their next step is, and the status of that step. □ Visual controls are elegantly designed to be intuitive.

### **Workplace Organization (WPO)**

- There is a place for everything and everything is in its place.
- Abnormalities are immediately obvious.
- Error-proofing is used frequently to eliminate the chance of common errors.

### **Standardized Work**

- All major process steps have owners who maintain best practice procedures.
- Work Instructions are clearly posted or available.
- Some effort is strategically focused on experimenting and improving standardized work.
- This is a basis for training employees and auditing processes to ensure consistency of operations.

### **Quality**

- Primary reliance is on the processes and the people doing the work, not outside inspection.
- Work does not pass to the next station in any process until the quality is acceptable.

### **Materials**

- Delivery to the point-of-use is based on the principle of just-in-time.
- Appropriate inventory levels are marked; shortages are immediately seen and addressed.

### **Equipment Reliability**

- Maintenance efforts are focused on prevention, not reaction to breakdown. □ Tools and equipment are treated with care and respect.

### **Problem Solving**

- There is a standard problem solving methodology, universally applied.
- The root causes of problems are investigated and corrected.
- All personnel are familiar with basic problem solving tools.
- Teams and individuals search for how to fix the process, not who to blame.

### **Communications**

- Techniques exist to communicate clearly and regularly across the entire team.
- Team members communicate between each other continually and without inhibition.



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### **Continuous Improvement Spirit**

- People work naturally in teams, with a spirit of open dialog and common purpose.
- Individuals and teams manifest a spirit of continuous improvement.
- Teams celebrate improvements, but then quickly focus on the next level of improvement.

### **Leadership**

- Leaders at all levels of the organization "go out and see", treat people with respect, listen, and support continuous improvement.

## **2. Requirements for Sustained Success**

The powerful benefits of Lean Process Improvement can be very alluring to managers who are looking for "quick hit" improvements in performance, because the Lean processes of Value Stream Analysis and Problem Solving, when led by experienced practitioners, produce superb results virtually every time they are employed. Experienced practitioners work diligently to help the work teams feel as though "we did it ourselves", which is a great boost to morale and commitment to future improvements. However, sustainable success requires facilitators who know how to lead the process and utilize the appropriate tools to achieve the desired results.

Even if the organization astutely develops a cadre of knowledgeable facilitators, the system will only be sustainable over time if the culture becomes one that is supportive of continuous improvement and embraced at all levels of the organization, including middle management. In other words, success in a transformation to continuous improvement requires parallel development along two paths - Technical Tools and Techniques as well as Leadership and Culture – at the same time, as illustrated in Figure 8 below:



**Figure 8. Technical and Cultural Elements of a Lean Transformation**

## ***Technical Tools and Techniques***

### ***Value Stream Analysis***

"Lean" is a competitive strategy for improving the performance of any organization, and consists of a set of concepts, systems and tools that engage all employees in continuous improvement, the elimination of waste, and the pursuit of perfection. In a "True Lean" organization, every employee goes to work every day armed with an understanding of process improvement and looking for ways to improve. The entire continuous improvement effort is coordinated across the organization by an annual planning process called policy deployment, so that the everyday process improvement efforts of every single employee are directed toward goals set at the top of the organization.

One of the landmark texts<sup>4</sup> of this process provides the key principles of "Lean Thinking".

- Identify Value from the customer's perspective
- Map the end-to-end Value Stream for the product or service and identify waste
- Remove waste and re-design the Value Stream to improve *Flow*
- Produce based on customer *Pull*



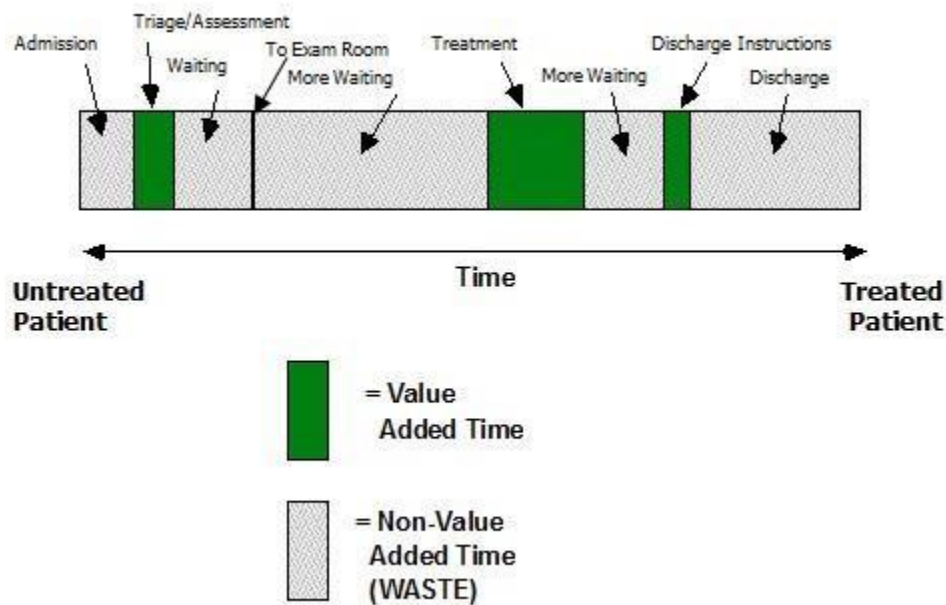
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- Continuously improve the Value Stream toward *Perfection*

4 "Lean Thinking." James Womack and Dan Jones. 1996.

Below is a depiction of the process for a patient being treated in a Hospital Emergency Room:



**Figure 9. Value-Added and Non-Value Added Activity in an Emergency Room Visit**

Improving such a process using "Lean" involves a scientific, disciplined approach to mapping this "Value Stream" with all the different perspectives (doctor, nurse, lab technician, transportation support, IT professional, hospital administrator, secretary, finance, etc.) integrated into the process. The Value Stream Map becomes an integrated view of the process that is shared by the entire team, often for the first time, and serves as the foundation for the Process Improvement Plan.



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**Figure 10. A Team Engaged in the Value Stream Analysis Process**

The cultural aspects of this process are evident from this picture of a team in action. There must be open dialogue, sharing of information, and a mutual drive to find the waste in the process and eliminate it. When a Value Stream is described in this manner and used as a foundation for the plan to improve the process, an inherent spirit of teamwork is developed, which can carry the project forward to success.

Once the Value Stream is documented as above, the team begins to brainstorm, first trying to find the "nonvalueadded" steps in the process and then beginning to conceptualize a future, idealized state that has greatly reduced waste. It is essential that this step be guided by an experienced Lean coach, who can gently steer the group toward identifying the wasteful effort and remedies.

As team capabilities develop, team members must learn the "seven forms of waste" (transportation, overproduction, motion, defects, waiting, inventory, and processing) and learn to apply root-cause problem solving techniques to be used in eliminating wasteful activities.

The method for developing an Implementation Plan for an area starts with the "Current State" of the Value Stream, which serves as the foundation for identifying waste and brainstorming on ways to improve the process. The team then builds a new process which becomes the "Future State", which incorporates the Lean improvements. The difference between the Current and Future State then becomes the basis for the implementation plan. In most cases, a fully engaged team can develop the Current and Future State Maps and develop the improvement plan in a week or less.

A successful Lean organization typically has many such teams at work on an ongoing basis, and thus enjoys the benefits of a powerful force continually driving for improved performance. The compound effects of these efforts over time results in dramatic improvements in safety, quality, schedule attainment, cost and morale.



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### **A3 Problem Solving**

Complex issues sometimes appear alluringly simple to solve, but are driven by a root cause that is masked by many factors. To solve a complex problem requires the full array of mental processes, which are characterized by Nobel Laureate Daniel Kahneman as "slow thinking". On the other hand, "fast thinking" is the process that developed in humans to be able to respond rapidly when under intense pressure, which bypasses the careful, deliberate approach of "slow thinking".

"True Lean" problem solving uses this slow thinking approach, employed by a team that is working together to find the root cause of a significant issue, and correct it. The process used is the classic Plan-Do-Check-Act (PDCA) cycle. In the types of problems encountered in Lean, snap decisions are often wrong.

A powerful part of the A3 process is the presentation of the entire Problem Statement, Background, Current Condition, Problem Analysis, Target Condition, Countermeasures, Implementation Plan, and Follow up on one 11" x 17" sheet of paper. Forcing the team to communicate all of this complex information on one sheet of paper is very effective method of presentation, requiring much thought.

<sup>5</sup> An eighth form of waste, "underutilized human potential" is increasingly being added to the traditional list of seven wastes. The Seven Wastes first identified by Shigeo Shingo can all be measured, and therefore can employ crisp, efficient techniques to demonstrate improvement. "Unrealized Human Potential" is not easily measurable, therefore OPS does not include it in our "True Lean" wastes.

Date: \_\_\_\_\_ Age: RADIO 5467 Problem Solving A3

<p><b>Problem Statement</b></p> <p>PORTABLE RADIO REPAIRS TAKE UP TO 14 DAYS TO COMPLETE, IDEALLY REPAIRS SHOULD BE COMPLETED IN 24 HOURS.</p> <p><b>Background</b></p> <p>THE BECD USES A VERY COMPLEX PORTABLE RADIO THAT IS EXPOSED TO MANY DIFFERENT ENVIRONMENTS THAT CAN DAMAGE THE RADIO. THE BECD HAS A LIMITED NUMBER OF SPARE RADIOS TO HAND OUT WHEN A RADIO NEEDS TO BE REPAIRED. RADIOS BEING OUT FOR REPAIRS TOO LONG CAUSES A SHORTAGE IN THE SPARE RADIO POOL AND SHORTENS THE LIFE SPAN OF A LEANING RADIO.</p> <p><b>Current Condition</b></p> <p><b>Problem Analysis</b></p> <p>WHY? BECAUSE RADIO REPAIRS TAKE 14 DAYS TO COMPLETE INSTEAD OF 24 HOURS</p> <p>WHY? IT TAKES A LONG TIME TO TRANSPORT THE RADIO</p> <p>WHY? THE EQUIPMENT TAG IS NOT FILLED OUT CORRECTLY</p> <p>WHY? THE TAG IS CONFUSING AND NOT GOOD FOR RADIOS</p> <p>WHY? IT WAS DESIGNED FOR REPAIRS TO BE DONE AT THE EQUIPMENT TAG</p> <p>WHY? THE FIRE DEPARTMENT ONLY USES 1 TYPE OF EQUIPMENT TAG</p>	<p><b>Target Condition</b></p> <p><b>Countermeasures</b></p> <ul style="list-style-type: none"> <li>ELIMINATE USE OF HOSE TAGS</li> <li>CREATE TECHNOLOGY ABLATED TAG</li> <li>TRAIN FEB STAFF ON HOW TO USE THE NEW TAG.</li> </ul> <p><b>Implementation Plan</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Action</th> <th>Responsible</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>DEVELOP NEW TAG</td> <td>LT. BROOKS</td> <td>3/15/16</td> </tr> <tr> <td>MAKE TAGS PRINTED</td> <td>FIRE SUPPLY</td> <td>4/1/16</td> </tr> <tr> <td>DEVELOP MOP FOR NEW TAGS</td> <td>LT. BROOKS</td> <td>3/30/16</td> </tr> </tbody> </table> <p><b>Follow Up</b></p> <ul style="list-style-type: none"> <li>MONITOR LENGTH OF TIME REPAIRS TAKE MONTHLY</li> <li>TALK REGULARLY TO DAMAGE/EQUIPMENT DESCRIPTION.</li> </ul> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Plan</th> <th colspan="5">Actual</th> </tr> <tr> <th>MONTHLY AUDIT</th> <th>4/1</th> <th>7/1</th> <th>8/1</th> <th>9/1</th> <th>10/1</th> </tr> </thead> <tbody> <tr> <td>AVERAGE TAGS/1000</td> <td>/</td> <td>/</td> <td>/</td> <td>/</td> <td>/</td> </tr> <tr> <td>ADAPTABLE TAGS</td> <td>/</td> <td>/</td> <td>/</td> <td>/</td> <td>/</td> </tr> </tbody> </table>	Action	Responsible	Date	DEVELOP NEW TAG	LT. BROOKS	3/15/16	MAKE TAGS PRINTED	FIRE SUPPLY	4/1/16	DEVELOP MOP FOR NEW TAGS	LT. BROOKS	3/30/16	Plan	Actual					MONTHLY AUDIT	4/1	7/1	8/1	9/1	10/1	AVERAGE TAGS/1000	/	/	/	/	/	ADAPTABLE TAGS	/	/	/	/	/
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Prepared By: \_\_\_\_\_ Reviewed By: \_\_\_\_\_

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Figure 11. A OPS Student's Government Problem Solving A3

### Leadership and Culture

The dramatic impact of Lean occurs when individuals across an organization feel responsible for helping to improve performance, and is assured that his or her ideas will be listened to, carefully evaluated, and acted upon when deemed in the best interests of the organization. Leaders in a Lean organization reflect the belief that the most important people are those who deal directly with customers, and their actions reflect this by their constant visits to front-line operations where they effectively model their support for people and their focus on high performance and continuous improvement. One noted Lean leader taught his team to "lead as though you have no power".

A good summary of the differences between a Lean Culture and Traditional Culture has been developed by some leading figures in the Lean community:



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6 A. P. Byrne, O.J. Fiume. From *Going Lean in Healthcare*. The Institute for Healthcare Improvement. 2005. P. 5.

<b>Traditional Culture</b>	<b>Lean Culture</b>
<b>Functional Silos</b>	<b>Interdisciplinary Teams</b>
<b>Managers direct</b>	<b>Managers teach / enable</b>
<b>Use benchmarks to defend the status quo</b>	<b>Learn from others; drive for perfection</b>
<b>Blame people</b>	<b>Solve the root cause</b>
<b>Reward individuals</b>	<b>Reward teams</b>
<b>Suppliers are the enemy</b>	<b>Suppliers are allies</b>
<b>Protect information; it is power</b>	<b>Shared information drives improvement</b>
<b>Reduce costs by increasing volume</b>	<b>Reduce costs by eliminating waste</b>
<b>Focus on internal issues</b>	<b>Focus on the customer</b>
<b>Weak processes need exceptional people</b>	<b>Exceptional processes drive performance</b>

**Table 3. Traditional Culture vs Lean Culture**

One of the most successful practitioners of Lean is Mr. Russ Scaffede, a former General Motors manager and then Toyota executive, who led the highly successful transformations as the senior operational executive at Donnelly Corporation (an \$800M+ supplier of high technology glass products to the automotive industry) and Tiara Yachts (a manufacturer of luxury power boats). In the book *The Leadership Roadmap*, which Russ coauthored with his CEO at Donnelly Corporation, Dwane Baumgardner, the authors provide an assessment tool that lets planners know how much organizational change will be required to support success in Lean, and describe a leadership team that is ready to be successful:

- Leaders are widely viewed as "walking the talk" regarding the importance of people
- A clear business model is in place that guides and inspires
- People feel that they are important, are actively engaged, and are recognized as a source of organizational success
- Leaders take responsibility for problems
- Leaders are open to, willing to, and able to change 7

Laying the foundation for a successful Lean transformation at any organization requires an accurate assessment of the state of leadership so that an effective project plan can be developed.

### **3. The Roadmap for Successful Transformation to "True Lean"**

Figure 12 below shows the challenges of constructing a Lean transformation strategy that will achieve the impressive operational objectives that are possible and sustain the effort for the long haul. This figure shows building blocks of Leadership Understanding and Leadership Commitment; followed by Workforce Understanding and Workforce Commitment; then development of a Process Model; then a Long-Term Plan;



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and then professional coaching to help lead the organization through this challenging change. This is the path to success, but it is a fragile model - if any one block is missed or removed, the entire structure will fall.

7 *The Leadership Roadmap; People, Lean and Innovation.* by Dwane Baumgardner and Russ Scaffede. 2008.



Figure 12. Leadership understanding and Commitment

The long-term goal of a successful Lean transformation is to have the system rest on a solid foundation, as seen in Figure 13, with all the support elements firmly in place so that the system is fully integrated and engrained into the organization:



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**Figure 13. Lean Transformation with Solid Foundation**

Figure 14 below illustrates the essential steps that must be achieved to develop and sustain a "True Lean" continuous improvement culture. By far the best way to achieve this transition is to start at the bottom and "Chart the Journey" with the full, active participation of senior leadership, all the way to the top, plus the commitment of the necessary resources by incorporating the effort into annual budgets.



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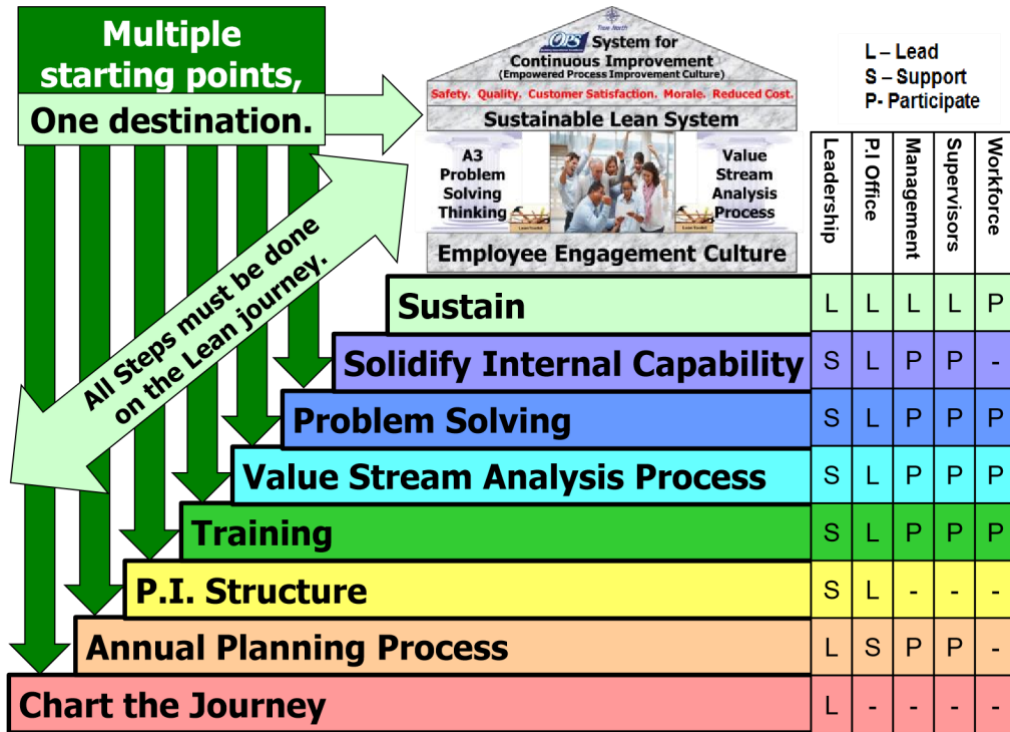


Figure 14. Requirements for Building a Sustainable "True Lean" Culture

Unfortunately, many organizations that are in need of process improvement start by working on a specific and very important performance issue before they really understand the full journey, including the time and effort to achieve sustainable success. Many process improvement organizations will only undertake projects where the CEO and Board of Directors will commit fully up-front, but OPS has always accepted the challenge of helping organizations fix "burning issues" in the belief that when they see the results, they will want to understand and then pursue a true transformation. While OPS has always been able to make dramatic improvements on the "burning issue", client management have not always taken that opportunity to work toward a sustainable culture of continuous improvement.

The activities of Figure 14 are straightforward, including how each level of the organization must either Lead, Support or Participate in each of these activities:

- Chart the Journey
- Annual Planning Process
- Performance Improvement Structure
- Training
- Value Stream Analysis Process (VSAP)
- Problem Solving
- Solidifying Internal Capability
- Sustaining

These steps form the platform on which the organization must then solidify their internal capability, and then sustain.



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Appendix A to this paper provides Guidelines for the First Two Years of a Lean Transformation. This approach is taken from "The Leadership Roadmap" by Russ Scaffede (Chairman of the OPS Board of Advisors) and Dwane Baumgardner. This important book offers superb insights into the nature of this transformation, and is based on the first-hand lessons that Russ and Dwane developed while transforming Donnelly Corporation from a traditional manufacturing organization to a world-class, continuous improvement culture based on the Toyota Production System.

**4. Training and Certification to Develop an Internal Capability**

Training and Certification of Lean Facilitators is an essential step in establishing a sustainable culture of operational excellence. As shown in Figure 14 above, an organization must develop its internal Performance Improvement Structure and staff it with full-time and part-time Lean Facilitators to be able to support Performance Improvement efforts.

The OPS approach to learning is based on the concept that people learn best by doing. Accordingly, our process for certifying Lean Facilitators is driven largely by work on front-line value stream analysis and problem solving activities that will give participants valuable, first-hand experience in solving real-world problems within the organization where they work every day.

An added (an extremely significant) benefit of this approach to training and certification is that the organization benefits from real improvements while the participants are dealing with actual issues with Value Stream Analysis Process (VSAP) and A3 Problem Solving activities. The elements of the OPS approach to Performance Improvement Training and Certification is illustrated in Table 4 below:

<b>Activity</b>	<b>Duration</b>	<b>Attendees</b>
<b>Beginner Class</b>	4 hours	All Employees
<b>Intermediate Class</b>	3 Days (2 consecutive days of class; a Problem Solving Review 30-45 days later)	Executives, Directors, Managers, Facilitator Candidates
<b>Advanced Class</b>	6 Days (2 2-day sessions and a Problem Solving Review 30-45 days after the second 2 days)	Facilitator Candidates
<b>Participate in a VSAP</b>	3-5 days	Facilitator Candidates
<b>Co-Lead a VSAP</b>	3-5 days	Facilitator Candidates



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<b>Lead a VSAP</b>	3-5 days	Facilitator Candidates
<b>Written Exam</b>	4 hours	Facilitator Candidates
<b>Oral Board</b>	2 hours	Facilitator Candidates
<b>Lean Bronze Prep</b>	2 days	Facilitator Candidates

**Table 4. Training Plan for Lean Facilitator Training and Certification**

In most instances, Lean Facilitator Candidates can complete this process in one calendar year or less. This will also prepare them for the national Lean Bronze certification exam and portfolio requirements.

Any organization must have a "critical mass" of trained Lean Facilitators to be available to workers and leaders who are tackling sophisticated process improvement issues. Experience has shown that effective Process Improvement requires a senior leader with several full-time Lean Facilitators, supported by trained and certified Lean Facilitators who have other part-time jobs. The organizational capability for continuous improvement is greatly strengthened when new people have the opportunity to serve as a full-time Lean Facilitator, while previous Lean Facilitators rotate back in to the organization's operations. In this manner, the organization will develop a very strong cadre of highly experienced Lean leaders.

## 5. Summary

The Operational Performance System works! It brings Lean principles and practices, tactics and training to government. The foundation is people. The systems, processes, and tools are proven. The impressive results are there for all to see. There is also a proven roadmap for government entities to undertake the journey to Operational Excellence.



**Figure 15. The Operational Performance System Model**

This journey that can lead to sustained, continuous improvement in Customer Satisfaction, Employee Morale, Quality, Safety, and Cost. In a world of tightening budgets and increased customer expectations, that should be music to the ears of all citizens, elected officials and government employees.



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## Appendix A: Guidelines for the First Two Years of a Lean Transformation

From: "The Leadership Roadmap" by Scaffede and Baumgardner

**NOTE: This generic plan template must be adapted to each specific implementation.**

Master Timeline: First Two Years		Year 1				Year 2			
		Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
<b>Task</b>									
<b>The Business Model</b>	CEO Commitment Decision	■							
	Executive Leadership Team Commitment	■							
	Board Commitment Decision	■	■						
	Basic Model Elements	■	■	■					
	Basic Model Review		■	■	■				
	Build Understanding and Ownership			■	■				
	Organizational-Wide Rollout			■	■	■	■	■	■
	Total Deployment of Basic Elements			■	■	■	■	■	■
	Ongoing Performance Reviews			■	■	■	■	■	■
<b>People Systems</b>	Leadership Roadmap Navigation Course			■	■				
	Performance Management Systems			■	■	■	■	■	■
	Compensation System			■	■	■	■	■	■
	Leadership Development System			■	■	■	■	■	■
<b>Lean System Structure Development</b>	Lean Expert Leadership	■	■						
	Organization-Unique Lean Production System			■	■				
	Lean Goals and Strategies				■	■	■	■	■
	Lean Production System Office				■	■	■	■	■
	Education Process for Lean Tools				■	■	■	■	■
	Lean Recognition				■	■	■	■	■
<b>Lean Implementation</b>	Executive Education	■	■						
	Lean Operations Leader		■	■	■				
	Design Organization's Lean System			■	■	■	■	■	■
	Introduction to Entire Organization				■	■	■	■	■
	Form Department Level Lean Implementation				■	■	■	■	■
	Implement Basic Training				■	■	■	■	■
	Draw Current and Future State Plant Layout				■	■	■	■	■
	Achieve Future State Layout				■	■	■	■	■
	Select Model Department / Cell for Application of Lean					■	■	■	■
	Establish Value Stream Map of Line / Cell					■	■	■	■
	Introduce Lean Tool Functionality to All Team Members					■	■	■	■
	Expand Lean Application around the Department					■	■	■	■
	Expand Lean Application to all Departments and Suppliers					■	■	■	■
	<b>Innovation System Structure Development &amp; Implementation</b>	Executive Education		■	■	■			
Innovation Leader			■	■	■				
Design Organization's Innovation System				■	■	■	■	■	■
Innovation Goals and Strategies				■	■	■	■	■	■
Implement Innovation System				■	■	■	■	■	■
Innovation Recognition and Reinforcement				■	■	■	■	■	■