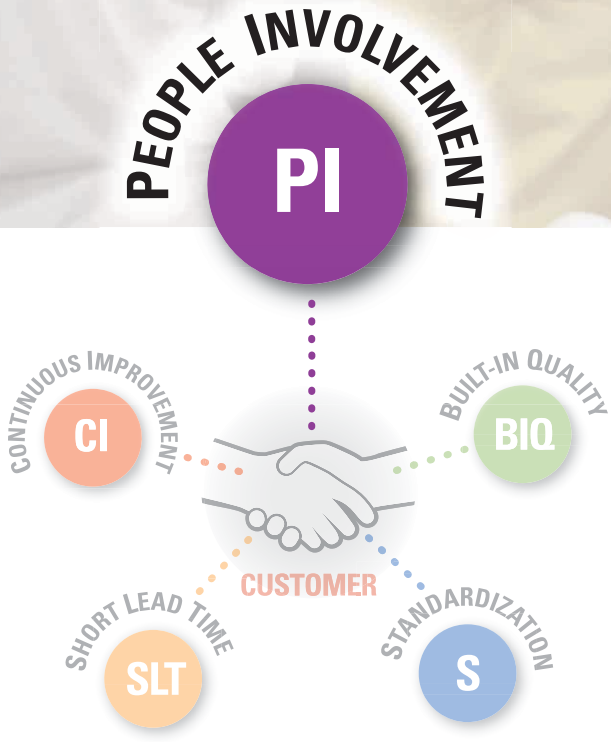
White Paper Series:

Lean Guiding Principles for the Supply Chain
Principle 1: People Involvement





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EXECUTION *is* EVERYTHING

The Lean Advantage

The key to delivering long-term customer value and outstanding business performance, quarter after quarter, year after year, is to implement a lean culture. Lean practices improve quality and productivity by taking cost and waste out of all facets of an operation, from the procurement of raw materials to the shipment of finished goods. In a lean culture, every step in every process must add value for the customer. If it doesn't add value, you strive to eliminate it.

The roots of lean thinking go back to the manufacturing innovations of Henry Ford in the early 20th century. On Ford's auto assembly lines in Highland Park, Michigan, work flowed smoothly and consistently through a series of standardized processes. That allowed Ford to turn out automobiles of consistently high quality, with great efficiency. (1)

But lean manufacturing really got its start after World War II at Toyota Motor Company. Building on Ford's concepts, Kiichiro Toyoda, Taiichi Ohno and others at the Japanese auto manufacturer developed the Toyota Production System (TPS). (2) The system was based on two main principles. The first, *jikoda* (automation with a human touch), declared that whenever a problem occurred, operators would stop work immediately to correct it. That practice kept defects out of Toyota's products. The second principle was "just-in-time," which called for making only "what is needed, when it is needed, and in the amount needed." (3)

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Much of the TPS is aimed at eliminating *muda*, or waste, which reduces quality and limits profitability.

The Toyota team identified seven kinds of waste:

1. **Overproduction** – manufacturing items before they are required
2. **Waiting** – leaving goods in stasis before they are ready for the next process
3. **Transporting** – excessive movement and handling to get goods from one process to the next
4. **Inappropriate processing** – using equipment that is more sophisticated and expensive than needed
5. **Unnecessary inventory** – holding goods that are not flowing through any process
6. **Unnecessary or excess motion** – allowing bending, stretching, walking, etc. that is not strictly needed to do the job and can jeopardize workers' health and safety
7. **Defects** – allowing quality deficiencies that result in rework or scrap (4)

To combat waste, a lean organization embraces the concept of kaizen, or continuous improvement.

To combat waste, a lean organization embraces the concept of *kaizen*, or continuous improvement. Rather than implement ambitious programs to accomplish sweeping reforms (initiatives that often collapse under their own weight), a lean operation makes incremental improvements day after day. These small changes add up to produce significant gains.

Observing Toyota's success with TPS, other Japanese firms started to adopt the approach during the oil crisis of the early 1970s. (5) Eventually, interest spread to other countries. Some U.S. manufacturers, including Omark Industries, General Electric and Kawasaki, started using lean practices with good results in the 1980s. (6)

Although lean thinking started in manufacturing plants, today companies use lean in their finance departments, customer service centers, supply chain operations, research and development organizations and many other areas. Lean thinking also has made an impact on the public and not-for-profit sectors.

Businesses that cultivate a lean culture report significant improvements in their operations. For example, by implementing lean principles at a manufacturing plant in Matamoros, Mexico, Kemet Corporation cut logistics costs by 20 percent, reduced crib inventory by 11 percent and reduced customer complaints from .49 parts per million in FY2005 to .32 parts per million in FY2007. It also increased productivity from 1.1 million pieces per person in FY2005 to 3.4 Million pieces per person in FY2007. (7)

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Goodyear Tire's manufacturing plant in Lawton, Oklahoma credits its lean culture with numerous improvements in safety, quality, delivery, cost and environmental impact. To name just a few: the plant reported that its year-end OSHA incident rate was at least 33 percent lower than the national average for tire manufacturers for four straight years; it gained a perfect score two years in a row on the Process and Product Quality Audit; its direct ship warehouse produces more than $5 million dollars in savings a year; and it has been sending zero waste to the landfill since January 2008. (8)

Xerox Corporation has been applying lean in combination with another business strategy, Six Sigma, since 2002. Company officials say that over the past seven years, the two strategies have yielded a return on investment of more than 300 percent. (9)

By working with a supply chain partner that has woven lean principles into its very fabric, you gain the benefits of lean culture without incurring the associated up-front costs.

In the supply chain arena, a lean culture offers tremendous rewards, but pursuing a lean strategy also requires a significant commitment. Luckily, becoming lean doesn't mean you have to re-engineer your operation. You can work with a logistics partner to make continuous, incremental gains in quality and efficiency. The right 3PL can jumpstart a company's transformation into a lean organization.

ORGANIZATION	MEASURABLE RESULTS
Kemet Corporation	• Cut logistics costs by 20% • Reduced crib inventory by 11% • Increased productivity from 1.1 to 3.4 million pieces per person
Goodyear Tire	• OSHA incident rate 33% lower than national average • Perfect score on Process & Product Quality Audit • $5 million savings in direct ship warehouse • Zero landfill waste since 2008
Xerox Corporation	• Lean/Six Sigma since 2002 • 300% ROI

By working with a supply chain partner that has woven lean principles into its very fabric, you gain the benefits of lean culture without incurring the associated up-front costs. Your partner already has made the investments, hired the necessary talent and climbed the learning curve.

At Ryder Supply Chain Solutions, a division of Ryder System Inc., five lean guiding principles govern every activity the company conducts in its own and its customers' warehouses.

They are:

1. **People Involvement:** Engaging every employee to root out waste, eliminate problems and make improvements
2. **Built-in Quality:** Striving to prevent mistakes before they happen, and engineering processes to make them "mistake proof"
3. **Standardization**: Documenting best practices and making sure that they are followed
4. **Short Lead Time:** Filling customer orders as promptly as possible
5. **Continuous Improvement:** Understanding that no matter how well a process works today, there is room to make it even better.



This white paper speaks to People Involvement. It is part of a series on the five lean guiding principles, written to provide insight on what it takes to develop a lean culture in a supply chain operation.

People: The Key to Lean Success

People involvement is the most important of the five Lean Guiding Principles. Nothing happens in a company without people to drive it forward. Employees must work as a single team, with everyone – from the CEO to the newest hire on the loading dock – pulling in the same direction.

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To create a lean culture that embraces every employee, you need to start with communication. Communication starts with courtesy.

CHARACTERISTICS OF LEAN EMPLOYEES

- Persist when confronted with difficulties
- Adapt, are proactive and thrive under uncertainty
- Take personal initiative
- Understand what's important at the moment and take appropriate action
- Are deeply engaged with the organization

Involving people in a lean culture means creating an atmosphere of mutual trust and respect. You have to cultivate an environment that's free of fear. People must know that they are valuable assets whose ideas are vital to the company's success. They are welcome to point out problems and make suggestions for eliminating waste. In fact, they're *expected* to. Employees also must understand that it's good to take risks, and that they should learn from their mistakes.

For example, if a forklift driver suggests a better route for moving pallets from Point A to Point B, and that new route makes the driver five percent more productive, the company should celebrate that success. If the driver tries the new route and discovers that it makes no real difference, the supervisor should praise the effort and urge the driver to use lessons gained in the experiment to try to find a better solution.

Courtesy and Communication

To create a lean culture that embraces every employee, you need to start with communication. And communication starts with courtesy. In a lean organization, supervisors go out of their way to thank employees for good work and smart suggestions.

Individuals in a lean culture also share their knowledge. If a supervisor notices that an employee is performing a task inefficiently, the supervisor takes the time to do some coaching.

Supervisors also encourage employees to work in teams. Small groups of employees work together to solve problems and figure out more efficient ways of performing their jobs.

In addition, supervisors make sure their teams understand how their work contributes to the company's success. At the start of each shift, employees meet briefly to share information and news. Warehouse workers might learn, for instance, how many orders they'll be picking that day, what time various orders need to be loaded, which orders are especially critical and how well the company is doing on its key performance indicators (KPIs).

The company's leadership also communicates company strategies to everyone in the organization. It is important to explain a strategy in terms that make sense to all employees, so that everyone will buy into the concept and commit to making it succeed.

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Another aspect of good communication is formal training. New employees take a short course on how to recognize and eliminate specific kinds of workplace waste. They also learn to solve problems with the help of a short workbook designed for use on the warehouse floor.

Any employee can use this booklet to step through a series of problem-solving techniques:

a) Analyze the current situation
b) Define the problem
c) Execute root cause analysis
d) Define countermeasures and select the measures to be used
e) Create the action plan
f) Track the progress and sustain the gains

Challenge the Status Quo

When a company provides problem-solving tools and encourages

their use, it gains a huge competitive advantage. Every employee becomes an efficiency expert, spotting opportunities to perform better, faster and at less expense.

In a lean operation, employees who notice problems don't complain—they make suggestions. An individual might approach a supervisor with a better way to perform a task; the supervisor then helps the employee implement the solution. In other cases, employees from different parts of an operation might team up to troubleshoot. For example, a company's own employees, employees of its 3PL and the company's customers might join forces to conduct lean exercises aimed at improving specific warehouse processes. (10)

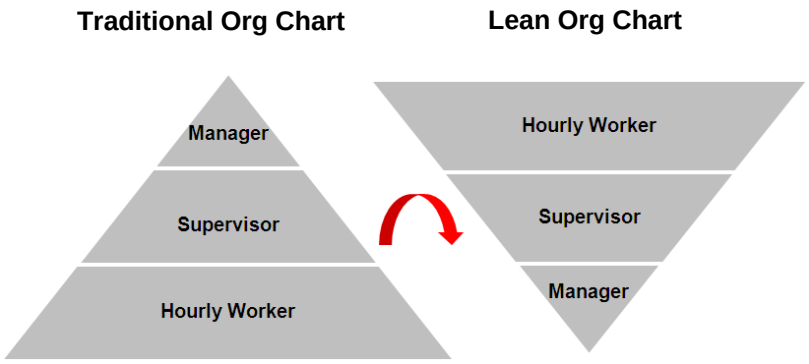
By empowering the experts – the people who do the work – a company discovers thousands of opportunities to shave costs and waste from the supply chain.

Empower the Experts

Who knows the best way to pack items into a carton—the employee who fills those cartons eight hours a day, five days a week, or the person who signs that employee's time card?

People who perform a job are the best experts on how to do it. That doesn't mean that everyone does the job equally well. Marie might pack cartons twice as fast as Annette and fit the items in more securely than George. Marie is an expert packer. In a lean organization, she would share her best practices to bring everyone up to speed. By empowering the experts—the people who do the work—a company discovers thousands of opportunities to shave costs and waste from the supply chain.

A company that empowers its employees flips its organizational chart upside down. Hourly workers are not expected simply to follow orders from supervisors and managers. Rather, those leaders are expected to give hourly workers the tools and encouragement they need to be effective in their jobs. A lean organization gives employees the power to make decisions about their work, while holding those employees accountable for the results.



When a lean organization conducts a meeting, it's easy to figure out who the highest-ranking people in the room are. They're the quiet ones, the servant-leaders who listen attentively while rank-and-file employees offer ideas and ask for support.

A company that wants to promote a lean culture must make sure that the management team buys into the notion of servant leadership. If managers aren't prepared to serve their hourly employees—if they don't provide tools and encouragement, if they ignore their suggestions—an aspiring lean enterprise will fail.

The Power of Cross-training

Employees trained to do multiple jobs are the Swiss Army knives of the supply chain. They're ready to take on different tasks as workloads shift, or when co-workers go on vacation. Employees who continually learn new skills and move throughout jobs stay motivated and enthusiastic.

More importantly, people who do several jobs understand how those jobs fit together. An employee who has only put products away in a warehouse might not understand the needs of the person who will eventually pick from that location. But a person who is trained to both pick items and put them away quickly learns how important it is to put the right product in the right place every time.

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A cross-trained employee is especially valuable in a lean operation. A person who changes jobs brings a fresh perspective o the new task. That person is more likely to ask questions, notice steps that don't add value and make suggestions for improvement.

Celebrate Success

While the ultimate goal in a lean culture is to increase value for customers, it's only natural for an employee to ask, "What's in it for me?" Celebrating success is the way to motivate members of your lean team to keep doing their best.

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There are many ways to celebrate success. Simply thanking an employee for a great suggestion, especially in front of others, can be extremely effective. So can material rewards. You might present cash or gift cards to employees whose suggestions boost performance or save money. You might pay by the piece instead of by the hour, so a team that discovers more efficient ways to work has a chance to earn more money.

Sometimes visible tokens of success provide strong motivation. In one program at Ryder, every time a warehouse employee makes a successful suggestion, he or she receives a pin that goes on his or her safety vest. Some employees have accumulated as many as 10 or 12 pins. They show them off like medals, proudly recounting how they earned each one.

Conclusion

In a lean supply chain, people are the key component. Everyone must pull together to eliminate waste, reduce cost and provide greater value for customers. In a lean culture, management communicates effectively, encouraging employees to spot problems and solve them. A lean culture values the expertise of people who do the day-to-day work and provides the tools those experts need to make improvements. It expands the knowledge base by training employees in multiple jobs. Finally, it promotes involvement by rewarding success.

MANAGEMENT TIPS: SUCCESSFUL PEOPLE INVOLVEMENT

- Communicate courteously and effectively
- Encourage employees to spot problems and solve them
- Value the expertise of people who do the day-to-day work
- Provide the tools the experts need to make improvements
- Expand employees knowledge by training them in multiple jobs
- Promote involvement by rewarding success

Whatever you manufacture or wherever you store and distribute your products, Ryder's supply chain solutions are designed to fit perfectly with your company's unique needs. Unmatched experience, flexibility and innovative thinking. This is what we offer to leading manufacturers and retailers of electronics, autos, consumer products and industrial products worldwide.

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Appendix

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