

Wabash National's Lean Turnaround Experience

Employee involvement, standardized work, dramatic performance gains.

Dan Kiehl

The Wabash National AME event, "World-Class Benchmarking Opportunity," resonated with me. It appeared that their lean improvements were the result of many years' steady improvement at the Lafayette, IN operation, but that wasn't the case. Wabash National illustrates what can happen when everyone buys into the future state vision of the company and places the spotlight on action. Wabash associates spend their valuable time doing rather than holding long, drawn-out, time-wasting meetings where little is accomplished. So what spurred a flurry of activities at this

manufacturer of trailers and containers to drive their amazing results, such as a 240 percent improvement in first pass yield?

Many companies begin with a maverick idea, entrepreneurial guts, and a quest for market dominance. Wabash National fits the mold. The aluminum plate trailer concept (a patented idea) was pioneered and introduced by Wabash National in 1985. The innovative concept was launched and sales soared to more than \$1 billion in less than 15 years. This led Wabash to retain a customer base that is the envy of their competitors.

Founded in 1985, the company grew rapidly throughout the 1990s. They have held the number one industry position in U.S. van trailers since 1994 and sold nearly 70,000 trailers in 1999. Expansion included flatbed trailers and intermodal equipment, then broader global markets. Their rapid growth and drive to build market share didn't initially encompass a process improvement focus.

This formula is typical for many start-ups. Company X has an innovative idea, goes to market, and experiences huge growth and profitability. All is well with this formula as long as there is strong demand.

It has been said that a good lean initiative is often started with a crisis. The above scenario supplies just the right type of ingredients that, when a crisis occurs, can create intense interest in operational excellence and lean operations. At Wabash National, a look at the metrics leading up to the critical need

In Brief

During the past two-and-a-half years, associates at Wabash National Corporation put lean and continuous improvement concepts to work. Their on-time delivery, first pass yield, gross profit, and other improvements speak for themselves, and reflect their shared commitment to excellence.

About Wabash National

Headquartered in Lafayette, IN, Wabash National Corporation designs, manufactures, and markets truck trailers under the Wabash® brand name. The company is one of the world's largest trailer manufacturers and a leading manufacturer of composite trailers. A full line of trailer models is offered including dry vans, refrigerated vans, flatbed trailers, and domestic containers. The company's wholly-owned subsidiary, Wabash National® Trailer Centers, is one of the leading retail distributors of new and used trailers and aftermarket parts throughout the United States and Canada. Approximately 2500 non-union associates work at Wabash National in Lafayette, and there are more than 3200 full-time associates nationwide. Their website is www.wabashnational.com

for change in 2002 included an extremely high injury rate; on-time delivery at 70 percent; and first pass yield at 30 percent. Meanwhile, associate morale was low.

The State of the Company

Explosive growth came with a price — mounting debt — which is bad for a cyclical company like Wabash National. Servicing the debt can be a serious issue when the demand drops off and fixed costs act like a boat anchor. Vendors get stretched out, shipments become late, and the process becomes a vicious cycle. Factors driving cash consumption are larger inventories, high labor costs, and the high cost of poor quality. These are the costs that cannot be passed on to consumers when competition is heating up.

Dick Giromini, executive vice president and chief operating officer, described what went wrong as "self-inflicted wounds with no plan for value creation, a sales focus on top line growth, and execution headaches." The only measurement was "starts;" the organization lacked focus, with orders coming from the corner office; key performers' time was wasted in non-value-added

activity; the company was too leveraged for a cyclical industry; and associates were getting injured at an alarming rate, he said.

Getting It Into Gear

In 2002, Wabash National brought in new leadership at the top, President and CEO Bill Greubel. Greubel's background was in the automotive industry. When Greubel came on board, he brought in a new management team that included Dick Giromini. Giromini was well-versed in lean and Six Sigma, and with total support from Greubel, a new operating system was developed. They kicked off a new, lean approach at the company with the vision process. It started with a vision of the company, then

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developed into a mission statement, and later evolved into core values (see the accompanying box, "It Starts with Vision at Wabash National"), which, in turn, should fulfill corporate goals if executed effectively.

The Turnaround

Wabash is a big operation. They have over two million square feet under roof and over 2500 associates. The mission of turning the company around was daunting. Jerry Linzey, senior vice president of manufacturing and an experienced practitioner of lean manufacturing, said the best way to get started is to get going. In other words, engage the people immediately, and don't waste precious time in corporate meetings and weeks or months of classroom lean.

To get the process going, roadblocks had to be removed. Some of the roadblocks were people. Most of the Wabash shop floor associates welcomed the change. According to Linzey, "The resistance came more from the middle management ranks, folks who just could not adjust to new ways of doing things. Some people are set in their ways and refuse to change. In a few instances, personnel changes were required in order to move forward."

Wabash started their lean transformation by focusing on five key areas: 1) safety, 2) quality, 3) on-time delivery, 4) productivity, and 5) cost reduction. To begin attacking the five key areas, Linzey said they used the "Walkabout Process" (regular work area meetings). This process evolved out of necessity. Wabash was changing the culture and traditional meetings did not produce results and wasted massive amounts of time. Now, each morning, every business unit leader meets with his cross-func-

It Starts with Vision at Wabash National

Vision:

To be the acknowledged leader in the design, manufacture, and service of transportation products throughout North America.

Mission:

To provide ever increasing value to all of our stakeholders, including customers, shareholders, associates, suppliers, and our community. Based on core values of integrity, trust, and mutual respect, we will drive continuous improvement, thus assuring leadership positions in safety performance, product innovation and quality, customer satisfaction, community involvement, associate development, and teamwork.

Value Statements:

- The safety of our associates is our number one value and priority. The company and its associates will continually strive to eliminate incidents and injuries throughout all our operations.
- It is only through total and complete customer satisfaction that we will survive and thrive as a business. We will achieve this through excellence in providing world-class product quality, reliable on-time delivery, and best-in-class service.
- We owe it to our shareholders to deliver positive results that will promote increased value of our business. We will place a high level of focus on delivering on our promises and meeting, or exceeding, expectations.
- Our associates are central to our success. We will assist them in their development, both professionally and personally, by providing continued training opportunities, and empowering them to be successful.
- Continuous Improvement in all aspects of our business must be at the core of our very being. We must strive to be better today than we were yesterday and better tomorrow than we are today.
- Achieving and maintaining the position as low-cost producer is paramount to our long-term viability and success.
- Wabash has long established its reputation as the leader in innovation, creativity, and technology. We must leverage this and continue to provide creative solutions for the North American trucking industry.
- Communications are often at the core of most problems. We will make effective and thorough communications a key focal point in everything we do.
- As a leading employer, we willingly accept the responsibility to be good corporate citizens and will actively engage and support the communities in which we reside.

Corporate Goals:

- Achieve the numbers!
- Operational excellence!
- Focus on the customer!
- Grow the Business!

tional team consisting of safety, process engineering, materials, quality, and other disciplines. The meetings are held on the shop floor where the business unit metrics are displayed. At each meeting they review the prior day's results. Unit leaders ask, "What can be done *today* to gain better results?" Linzey said this type of management ties in with their company motto that Dick Giromini introduced and continually stresses, "We must be better today than we were yesterday, and better tomorrow than we are today." The meeting moves along the shop floor through several key areas, a crucial element to engaging and involving associates in needed improvement activities.

The factory had been a disorganized, poorly-lit dungeon — overall, not a friendly place to work. The chances of getting injured were as high as 47 out of every 100 workers. During the walkabouts, managers and associates from various work areas succeeded in addressing these issues. Spending time on the shop floor is the first step to understand what is really happening out there. Rumor has it that the new management staff at Toyota are, or were, required to stand in a small circle and observe activities, to learn what happened in the area as value-added (VA) or muda (waste). Wabash implemented their own version of that concept. See the results in Figure 1.

About Standard Work and Pigs

Wabash also concentrated on developing a standard work process. Wabash National people trained part of the AMEers in standard work using a process called "Standard Pig." Here is how it works:

1. The trainer tells the class to draw a pig with little instruction.

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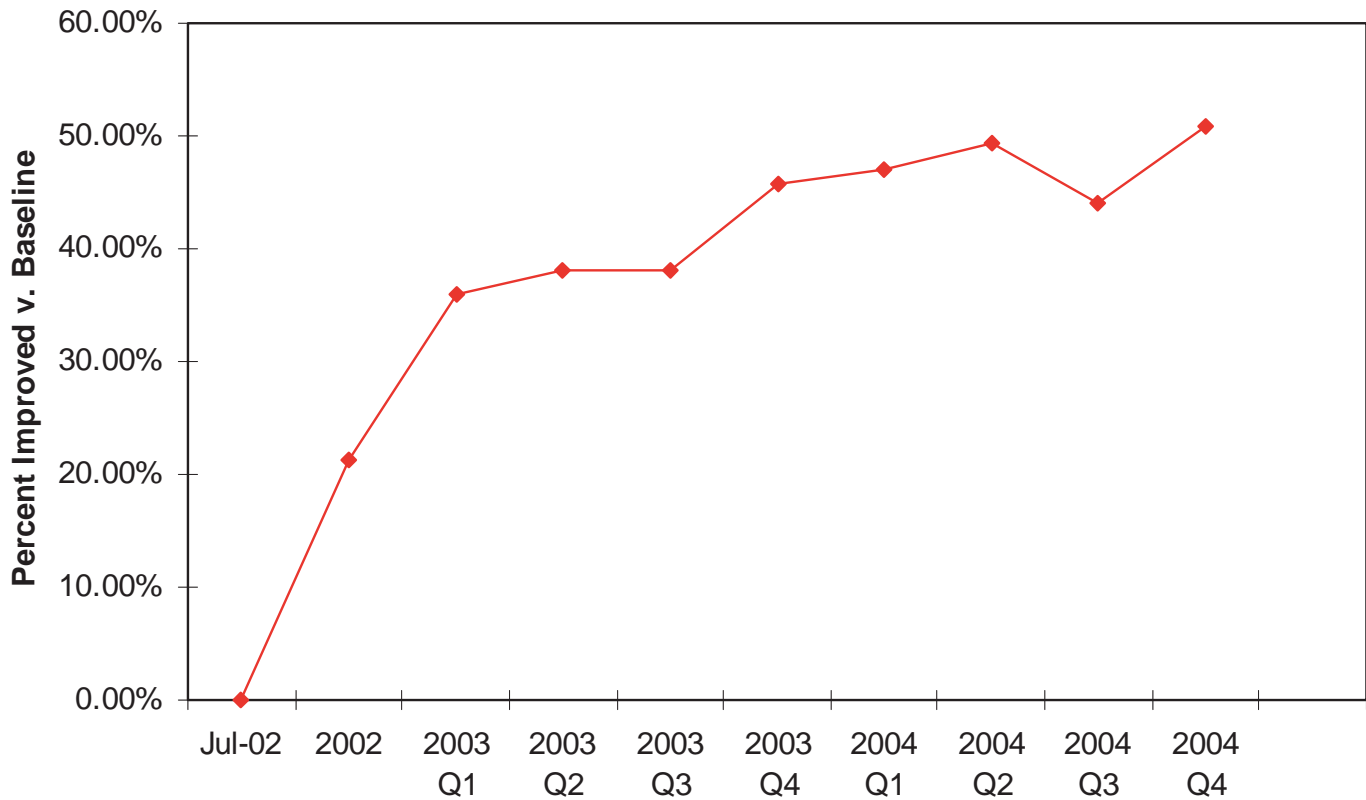


Figure1.

2. The trainer posts the drawings on the wall and pokes fun at everyone's drawing skills.
3. The trainer provides written instructions and a sheet of paper with a grid on it.
4. The trainer instructs the class to read the instructions and draw the pig.
5. The trainer posts the new drawings and pokes more fun at the budding artists.
6. The trainer shows a picture of how the pig should look to everyone.

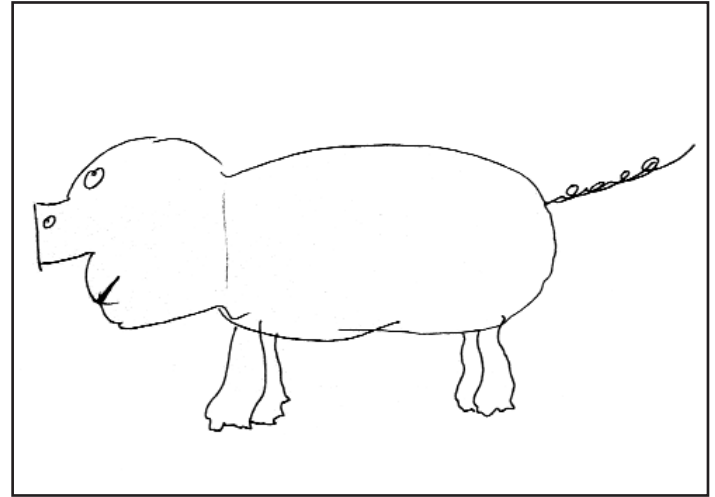
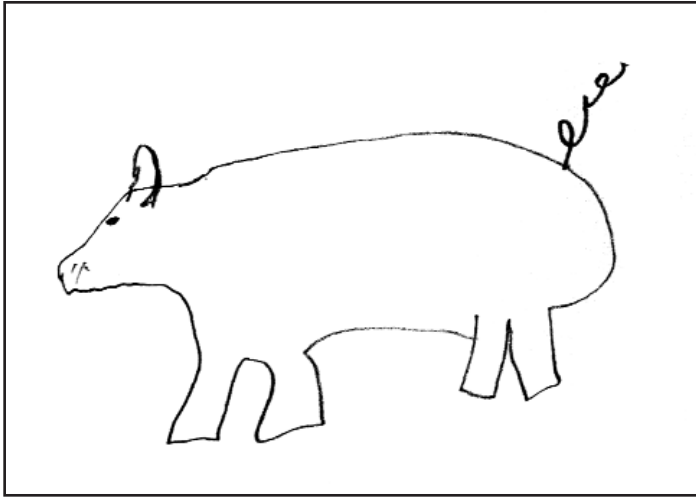
7. Everyone draws the pig again.

The results are remarkable. The first shot at drawing the pig is comical; most of the pigs look like cats. The next attempt is not much better, even after receiving instructions. After the class received a visual representation, the pigs were much more standard (see Figure 2). This training is unique in proving the point that a picture is worth a thousand words and the importance of standard work in the elimination of variability from unit to unit.

Plant Tour

It's hard to believe Wabash just started the process two-and-a-half years ago. The plant is well maintained, very clean and orderly. Evidence of their CI programs is everywhere, from well-lighted areas to clearly-marked aisle-ways to use of visual reorder signals, and timely metrics posted in strategic positions throughout the plant.

Wabash's strategy to engage the work force is not unique. Their unwavering focus on lean and con-



Standard Work

1. Draw a letter M at the top left intersection. Bottom center of M touches the intersection.
2. Draw the letter W at the bottom left intersection. Top center of W touches the intersection.
3. Draw the letter W at the bottom right intersection. Top center of W touches the intersection.
4. Draw an arc from the letter M to the top right intersection.
5. Draw another arc from the top right intersection to the bottom right W.
6. Draw an arc between the two bottom Ws.
7. Draw the letter O in the center left box.
8. Draw an arc from the letter M to the tangent of the circle.
9. Draw an arc from the left W to the tangent of the circle.
- 10 Draw an arc for the eye. Half way between M and circle.
11. Draw an arc for the mouth. Half way between W and circle.
Must be a happy pig.
12. Draw the cursive letter e near the top of arc on the right.
13. And finally draw two dots in the middle of the circle for the pig's nose.

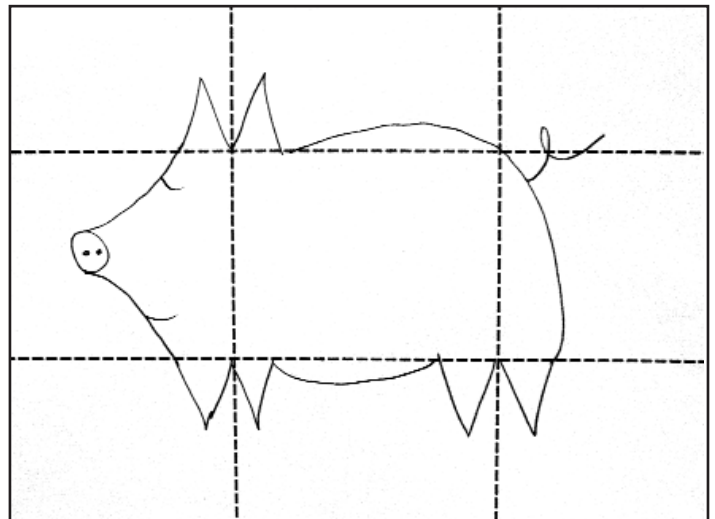


Figure 2. How do you draw a pig? As these images (typical for a "Standard Pig" exercise) suggest, instructions (and a sample drawing plus a grid) help budding artists create a standard image. The first two pictures reflect a lack of instruction (and perhaps a bit of artistic license); then the instructions for drawing a "standard pig" on a grid follow; and finally, there is a typical result after the artist follows the instructions, reflecting the importance of standard work in eliminating variability from one unit to the next.

tinuing improvements distinguishes their approach. Managers who support the shop floor are actually located on the shop floor — not tucked away in an office communicating through a computer. This is evidence of the commitment to excellence; leadership at many

organizations fails to take this very important step. Locating support personnel on the floor removes the line or buffer between management and associates. It places the managers where value is created, problems are solved, and all the action that is critical to success occurs.

Wabash National is not perfect; no one is. There is still waste in every corner of every operation. Wabash people recognize this fact of life, and they are constantly moving forward to become even more competitive by eliminating these costly wastes. Plans are in place to

continue their lean implementation, and to institute new production lines that will be up to 70 percent more efficient than existing lines. Wabash continues to proceed into new, uncharted areas for operational excellence.

The Results of Lean

The results at Wabash National reflect a total team effort, with everyone headed in the direction of improvement. They do this by involving *all* associates, rather than a limited group meeting and studying for weeks at a time. Wabash's approach is to attack the problem head on and learn from any mistakes made along the way.

Among their accomplishments to date are: improved safety performance by 520 percent; record performance in TRIR (Total Recordable Incident Rate) and DAFW (days away from work); first pass yield improvement of 240 percent; consistent 100 percent schedule attainment; improved productivity by 51 percent; production of 42 percent more product with 900 fewer associates; completed 325 formal CI events; created capacity to produce 1999 volumes or 70,000 trailers on two shifts/five days; annualized cost savings of \$75+ million; and extensive business process reengineering.

The results speak for themselves. According to Dick Giromini, Wabash now makes more overall gross profit on fewer units shipped than at the industry peak in 1999. Now, 95 out of every 100 trailers are ready to ship when they come off the production line. Wabash National associates were also recently recognized with the U.S. Senate Productivity Award (see the related box).

U.S. Senate Productivity Award

Jim Orbik, president of the Great Lakes AME region and vice president of Utilimaster Corporation, ended the Wabash National AME event by presenting the U.S. Senate Productivity award to Dick Giromini, executive vice president and chief operating officer of Wabash National. Wabash won the award for demonstrating excellence in productivity, employee involvement, cost reduction, and innovation in their CI process. The U.S. Senate Productivity Award is administered jointly by AME and U.S. Senator Richard Lugar of Indiana. Nominated companies are reviewed by a joint commission to determine the operation that best reflects innovation and advances in productivity.

This AME event was staged to recognize Wabash National's outstanding achievements and to share ideas with other manufacturers. The event focused on the background of Wabash, the path that brought them to this prestigious award, and a plant tour follow-up with a question-and-answer session.

"The U.S. Senate Productivity Award is an effective means of promoting and communicating manufacturing excellence inside and outside the state of Indiana," said Jim Orbik. He added, "AME is uniquely qualified to sponsor this type of award, with our networks that we have within the manufacturing community and the fact that AME supports several excellence award programs to identify and select potential winners. This award is very consistent with the mission of AME, to inspire a commitment to global enterprise excellence through shared learning. All U.S. Senate Productivity Award applicants, if selected, must share information about their accomplishments and the process by which they achieved their results with other manufacturers, helping to broaden the network of world-class organizations."

For more information about this award, contact Jim Orbik by phone (574/862-3440) or email (jorbik@utilimaster.com).

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