

STRATEGY

HOW YOU CAN USE THE TOYOTA A3 PLANNING MODEL IN YOUR BUSINESS

Key advice for applying a tested & proven strategy in your processes

by Lisa Wayne and Preston Ingalls

Have you ever pulled up the "Print" options to select how you wanted a document printed, and saw one of the print formats as being an "A3?" It is an odd size—11.69 x 16.54in or (29.7 x 42.0cm). It's a traditional landscape size in Europe, Asia and rest of the world that uses the metric system of measurement. A3 is a paper size that is typically used for drawings, diagrams and large tables. It is also frequently used in laser printers to output two A4 pages as a spread. In addition to being an option when printing, it also has a much deeper meaning in the problem-solving and planning world.

Many organizations use the A3 model's process and report capabilities as a structured and powerful tool for problem resolution and communications to further critical thinking. The basic concept is to put the main storyline on a single sheet of paper that is 11x17 inches

(A3 metric format). You would be surprised how much you can communicate on a single page and eliminate the unnecessary and superfluous information to the reader.

Isao Kato, former manager of training at Toyota, describes the A3 Model as a combination of forces including the PDCA Cycle (Plan-Do-Check-Act), the basic steps for a quality check (QC) circle, and using the Toyota concept of "making things visible at a single glance." It also has origins in the humorous anecdotes of Taiichi Ohno, the father of the Toyota Production System (which became lean manufacturing in the United States), who refused to read more than the first page of written reports. Instead, he would say "Let's go and see," and make people "get the facts" while he tested their thinking.

THE A3 MODEL'S PROBLEM-SOLVING EFFICIENCY

Problem-solving is a universal job skill that applies to any position and every organization. While everyone in an organization has at some point been tasked with solving a problem, not all are successful at moving beyond the symptoms. Most organizations have templates and knowledge of the problem-solving tools, so why aren't they more successful at problem-solving? Could it be the method or process chosen?

Some view problem-solving events as just another task to check off a to-do list. Some view problem solving as a "process of the month" and are not successful in eliminating problems. Some jump to conclusions and solutions too fast without understanding the real root causes.

Organizations need a simple but effective way to identify and correct problems. While

there is no "magic" in the physical A3 document itself, it is the heart of a stepped process that leads to effective problem solving. It becomes an effective visual communication tool, where the goal is always to solve problems in a structured manner while engaging everyone in the organization.

As Jim Womack, founder and chairman of the Lean Enterprise Institute, said, "The most basic definition of an A3 would be a PDCA storyboard or report, which reflects Toyota's way of capturing the PDCA process on one sheet of paper. But the broader notion of the A3 as a process embodies the way of thinking represented in the format, which captures the heart of lean management. In this context, an A3 document structures effective and efficient dialogue that fosters understanding followed by the opportunity for deep agreement."

HOW TO FULLY USE THE A3 MODEL

Examine the diagram in Figure 1. Where would your organization fall on this chart? Our observation is most people who use A3s use them on on special projects as a "report-out" tool of the results. Although this provides the benefit of a quick summary, it doesn't begin to take advantage of the benefit of the A3 or of the A3 process. Using an A3

as a report-out tool is like using a smartphone exclusively for phone calls. Yes, you are getting some value, but only a fraction of what is possible. The body of a Lamborghini Aventador hardly pays homage to the powerful V-12 under the hood in this half a million-dollar car.

THE A3 MODEL'S PROBLEM-SOLVING EFFICIENCY

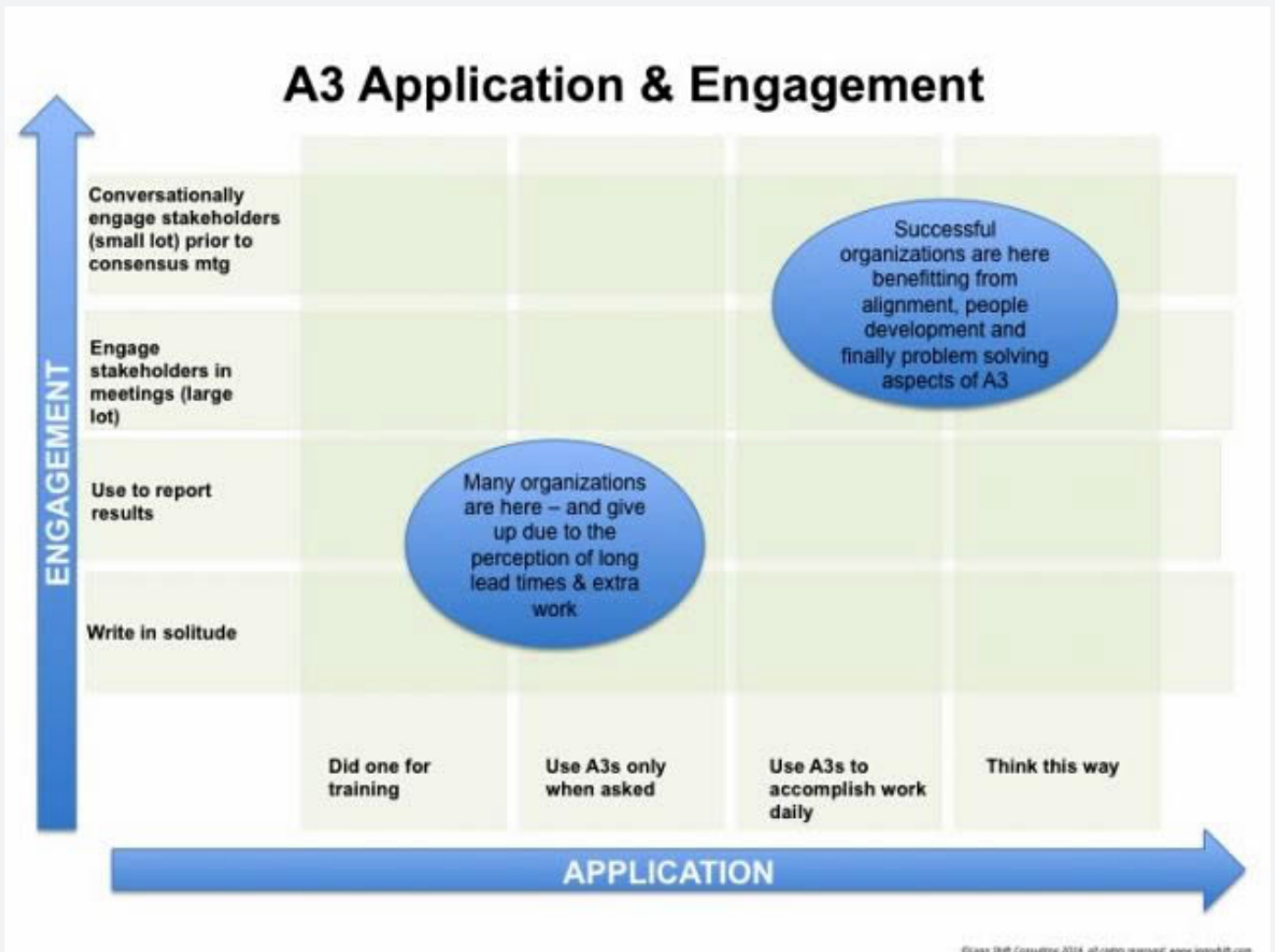


Figure 1

Companies that successfully implement the A3 process for decision-making, strategic planning, proposals, and problem-solving can realize instant and sustainable gains. Large companies, like Toyota, have been successful in its application for years. Toyota views problems as opportunities to improve its processes and its products versus seeing them as barriers or obstacles.

At Toyota, no problem is a problem! Toyota takes advantage of a problem by approaching it as a means to grow its employees, processes and products. Every A3 that is completed builds better problem-solvers and strategic thinkers. Figure 2 shows the A3 format.

THE A3 MODEL'S PROBLEM-SOLVING EFFICIENCY

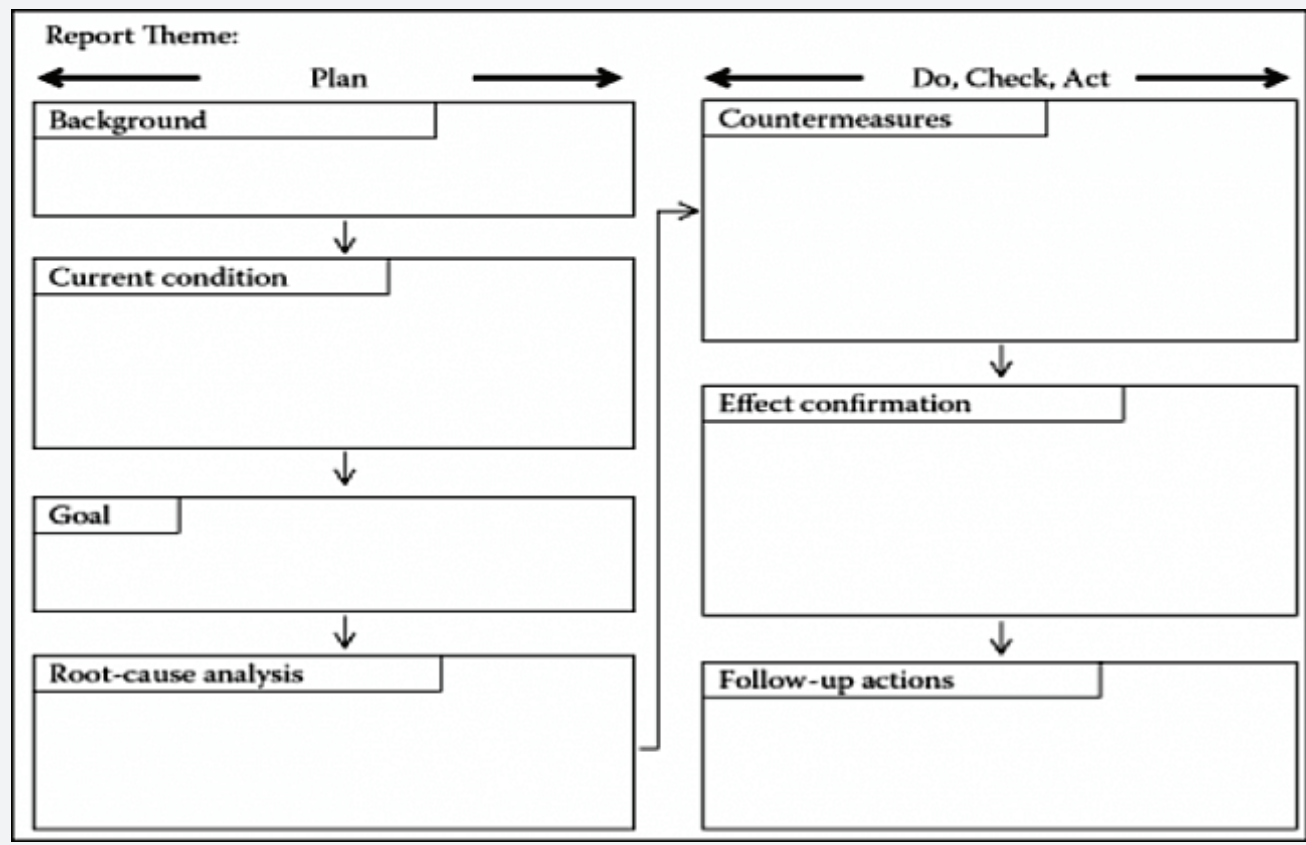



Figure 2

It is a visual tool that everyone in the organization understands and can see the progress or outcome, without spending a lot of time looking thru documents and directories. It is a "one-stop-shop" for information on the intent, progress, results and more. Companies that use the A3 tool have these displayed in centralized locations where they can be viewed by many.

The format of the Toyota A3 looks similar to problem solving templates created by U.S. companies in the 1980s and 1990s. For example, Ford Motor Company created an 8.5-inch by 11-inch 8D Problem-Solving template as shown here in Figure 3.

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THE A3 MODEL'S PROBLEM-SOLVING EFFICIENCY



8D Report			
Concern Title		Ref. No.	Open Date
Status Date	Vehicle Model Plant	Part Name Part No. Release No. Release Date	
1 Team Name, Dept. Tel. No. Champion		2 , Problem Description (Definition)	
3 Containment Action(s)		% Effect	Implementation Date
4 Root Cause(s)		% Contribution	
5 Chosen Permanent Corrective Action(s)		Verification	% Effect
6 Implemented Permanent Corrective Action(s)			Implementation Date
7 Action(s) to Prevent Recurrence			Implementation Date
8 Congratulate your Team		Champion	Close Date
			Reported by Name, Dept. Tel. No.

Figure 3

Figure 4 shows an A3 we helped a client develop for a 2017 Implementation Plan of

Total Process Reliability (TPR).

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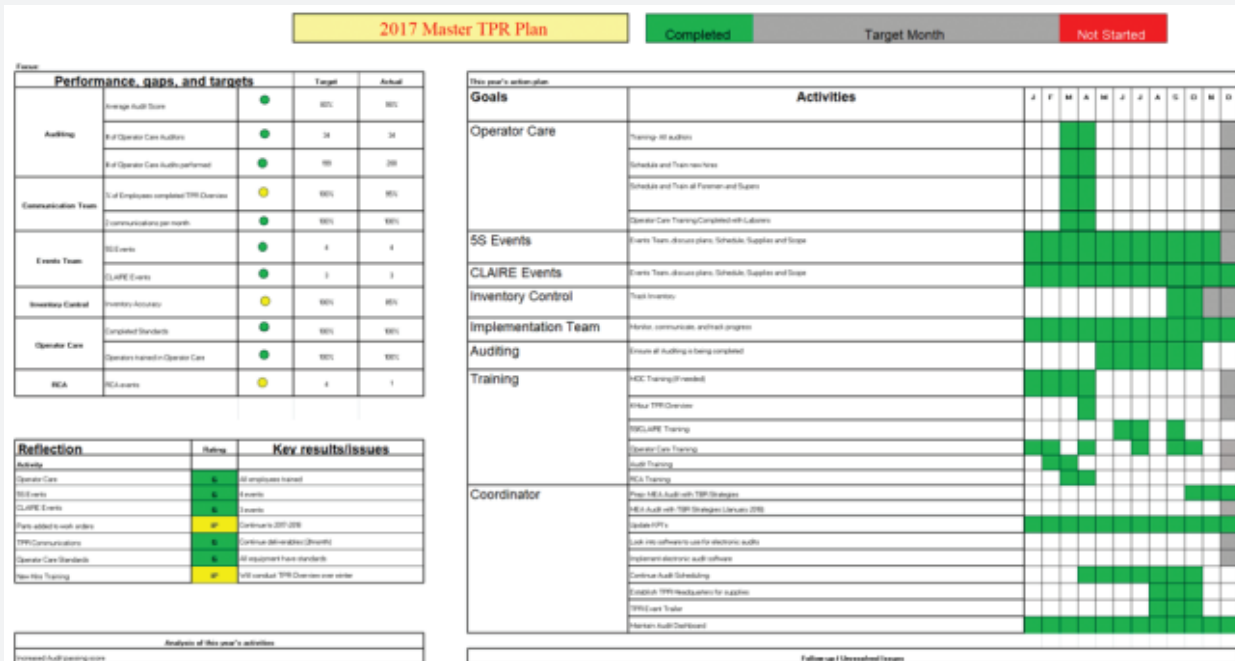


Figure 4

Figure 5 is an example of several published A3s displayed where employees can view the progress of an initiative or project.

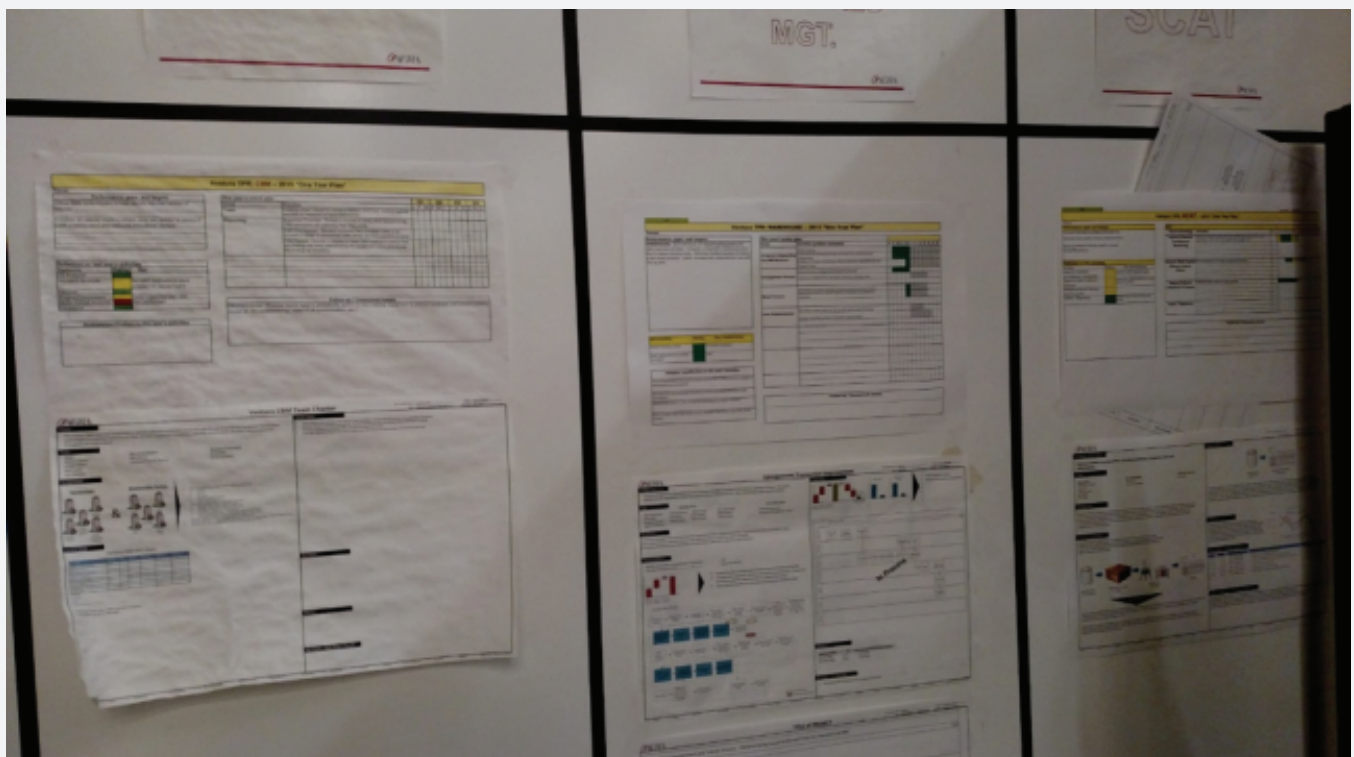


Figure 5

USING THE A3 MODEL IN YOUR BUSINESS

The widespread adoption of the A3 Model process standardizes a methodology for innovating, planning, problem-solving and building foundational structures. However, its ability to help create a broader and deeper form of thinking to approach complex issues and challenges makes it a great tool. The A3 model can be used to further the following:

- Anytime you wish to clearly tell a story, especially when you wish to simplify or clarify a complicated issue.
- Can be used as a jumping off point for Kaizen efforts.
- Provides a clear and concise method of reporting information.
- Used to teach problem-solving.
- Creates efficient working environment.

Shigeo Shingo, author of "A Study of the Toyota Production System," is credited with saying, "The best approach is to dig out and eliminate problems where they are assumed not to exist."

For several excellent resources on this versatile tool, read "Managing to Learn: Using the A3 Management Process to Solve Problems" by John Shook and Jim Womack. Another great source is "Understanding A3 Thinking: A Critical Component of Toyota's PDCA Management System" by Durward Sobek II, which is referenced in the diagram in Figure 6. So, the next time you are thinking about approaching a project, imagine Toyota's Lean Founder, Taiichi Ohno, saying, "Keep it on one page," and apply the A3 model to your efforts.

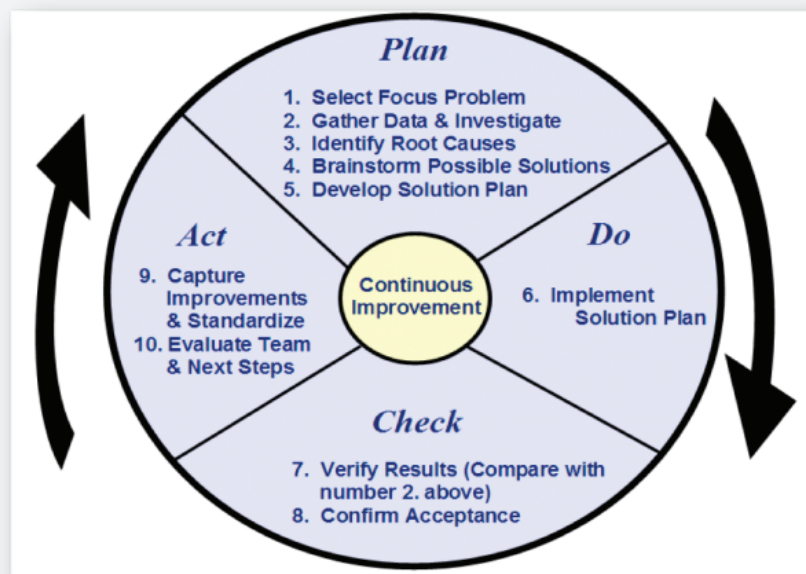


Figure 6

ABOUT THE AUTHORS

With over 45 years of experience, **Preston Ingalls**, president and chief executive officer (CEO) of **TBR Strategies**, has led maintenance and reliability improvement efforts across 30 countries for Toyota, Royal Dutch Shell, Exxon, Occidental Petroleum, Hess, Mobil Chemical, Aera Energy, Skanska, Bayer, Baxter Healthcare, Lockheed Martin, Unilever, Monsanto, Pillsbury, Corning and Texas Instruments. He consults extensively with construction industry fleets and the oil and gas industry in the areas of equipment uptime and cost reduction. He holds two bachelor's degrees in engineering and a master's degree in organizational development. Ingalls is a contributing writer to seven trade publications and has written over 80 articles.

With over 19 years of experience in total process reliability (TPR) practices, **Lisa Wayne**, a lead consultant for TBR Strategies, assists construction industry fleets and oil and gas companies achieve operational excellence and efficiency. Prior to her time with TBR Strategies, Wayne worked for **Aera Energy**, where she was a materials management specialist, a logistic specialist and a planner. Aera Energy won the North American Maintenance Award during Wayne's tenure—an award given for best maintenance and reliability efforts across all industries. Aera became the only company in its industry to win the award, and the only company to win the award twice.