

A3 THINKING



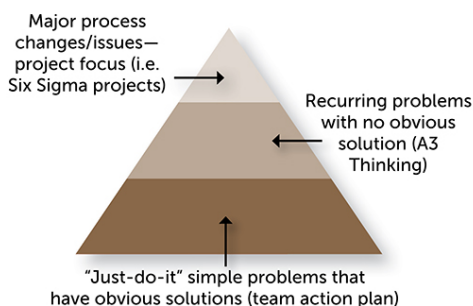
A3 DEFINITION

A3 is a fundamental management tool, evolving to allow groups of people at all levels of an organization to address problems and business issues through a structured process, fostering alignment and learning.

Created at Toyota, A3 was originally named for the 11"x14" size of paper used to capture relevant information to make problems visible, and to provide a sequential format for solving them according to the PDCA (Plan, Do, Check, Act) approach.

A3 APPLICATION

The A3 Thinking methodology is used for a myriad of issues, especially mid-level, re-occurring problems which are not immediately obvious. Simple, quick-to-solve, and more complex issues can be addressed using other methods (i.e., 5-Why's, and Six Sigma/DMAIC, respectively). To illustrate the hierarchy of the levels of the problem-solving process, see the pyramid below:



Once widely promoted in the organization and supported by leadership, A3 becomes a way of thinking for everyone, and is applied to all business issues requiring analysis and structure. A3 creates a framework for deeper thinking about problems/issues to solve, and prevents people from jumping to ready-made solutions. The danger in doing so is inevitably the wrong (surface) issues are addressed, creating even bigger obstacles and challenges.

Referring to the examples below, consider where you and your team have had similar "quick-fix" experiences:

1. Issue: losing revenue. Quick fix: hire new salesperson. A3 solution: create new procedure where existing contract renewals don't automatically expire
2. Issue: old machine breaking down, resulting in unplanned downtime. Quick fix: buy new machine. A3 solution: establish routine maintenance, implement AM, address 6 major losses of TPM

The structured format of the A3 process allows teams to shift to critical thinking at all levels, creating an environment where A3 becomes an integral part of a daily improvement system.

A3's involve cross-functional teams and are supported by a sponsor. A3's not only create a framework for solving problems, but for structured decision-making, strategy revision, status updates, etc.

A3 THINKING

A3 IN ACTION

The A3 Thinking process has a variety of uses and can be applied to all industries and departments. Consider the examples listed below. What issues in your company can be addressed using A3 Thinking?

- Improve the focus and efficiency of training programs
- Understand and address revenue declines in market segmentations
- Maximize impact of promotional campaigns on customer loyalty
- Revise and share product strategies
- Articulate status of improvement projects
- Streamline and fail-safe employee onboarding process

Keep in Mind:

1. Use only one A3 at a time, for each team.
2. An A3 should not take too long to complete – 3 to 4 weeks is ideal.
3. An A3 is a living document; therefore, at any time, it can be modified/adjusted according to new observations, facts, measures and experiments.

A WORD ABOUT A3 AND PDCA

A3 Thinking is based upon PDCA, a fundamental Continuous Improvement (CI) principle. PDCA is an ongoing cycle that refers to analyzing a situation, identifying solutions, implementing them, and checking results. A brief snapshot of the PDCA cycle is below:



Plan – Analyze a problem from multiple vantage points to determine causes, generate ideas to solve it and develop a hypothesis, design an experiment, and create an implementation plan

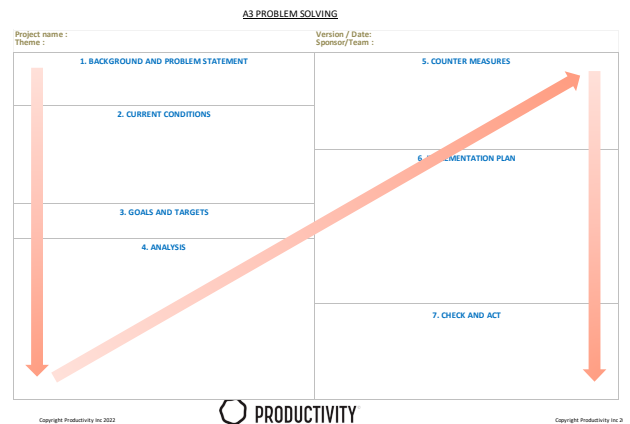
Do – Implement a solution and conduct an experiment to test the hypothesis

Check – Measure and evaluate results of the implementation plan against the target to determine if the understanding of the problem and solution are correct

Act – Create new standards based on successful results, or make modifications if necessary

THE A3 PROCESS – A CLOSER LOOK

A standard A3 document is comprised of 7 steps. The questions for each step guide the process owner/team to formulate the story of the issue being addressed. Below is a sample A3 and summary of the format (in this case, the format used for problem-solving):



Title / Theme:

Identify the problem (what is the issue to be addressed)?

1. **Background / Problem Statement:** What are you talking about and why is it important? What is your initial understanding/context of the problem?
2. **Current Condition:** What is currently happening? What facts indicate there is a problem? What are the customer's expectations; where is the gap in performance? What is the data saying – have you been to Gemba?
3. **Goals:** Define future/target state. What specific outcomes/performance improvements do you want to achieve?
4. **Analysis:** Conduct a process analysis to understand the causes of the problem. Use the simplest analysis tool as warranted by the problem (5 Why's, CEDAC/Fishbone Diagram, Pareto, etc.). Use Lean principles to eliminate causes of waste or variability.
5. **Countermeasures:** What are the solutions to the problem? How do you close the gap between current and desired state? Apply Lean concepts to build an effective and efficient future state process. Determine temporary fixes (containment), until permanent solutions are put in place.
6. **Implementation Plan:** Develop an action plan or build a project team for implementation. How are you going to organize yourselves to get it done? Involve all stakeholders and establish target dates for experimentation and final approval.
7. **Check and Act:** Evaluate results and monitor progress. Possible Next Steps – what further action is still required? Test proposed actions.

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BENEFITS OF A3 THINKING

The A3 process plays a critical role in building a Continuous Improvement organization. It acts as a vehicle for reinforcement and improvement in:

- Making problems transparent and working at getting to root cause(s)
- Creating a structured, sequential, visual process for solving business issues
- Gathering data at the source (Gemba)
- Building a CI improvement mentality
- Sharing worker knowledge, and establishing collaboration, ownership, and accountability

Note: [Click here](#) for last month's Word of the Month, which features a bigger-picture look at problem-solving tools and techniques, and the importance of creating an effective Problem Statement.

A3 THINKING, NOT TO BE CONFUSED WITH F1 RACING

When Max Verstappen's slower pit time became the norm, he and his crew knew they needed to get to the root of the problem to not only immediately turn things around, but to put measures in place to prevent reoccurrence, and to support the Red Bull Racing organization's overall strategy. Upon evaluating the situation, team consultant, Sebastian Vettel stated, "time to throw down an A3!" Armed with a structured process, the crew brainstormed killer improvements, and Max's pits are crushing the competition. Hello checkered flags!

INSIGHTFUL QUOTES ON A3 THINKING

"The purpose of critical thinking is rethinking: that is, reviewing, evaluating, and revising thought."

Jon Stratton

"If you do not know how to ask the right question, you discover nothing."

W. Edward Deming

