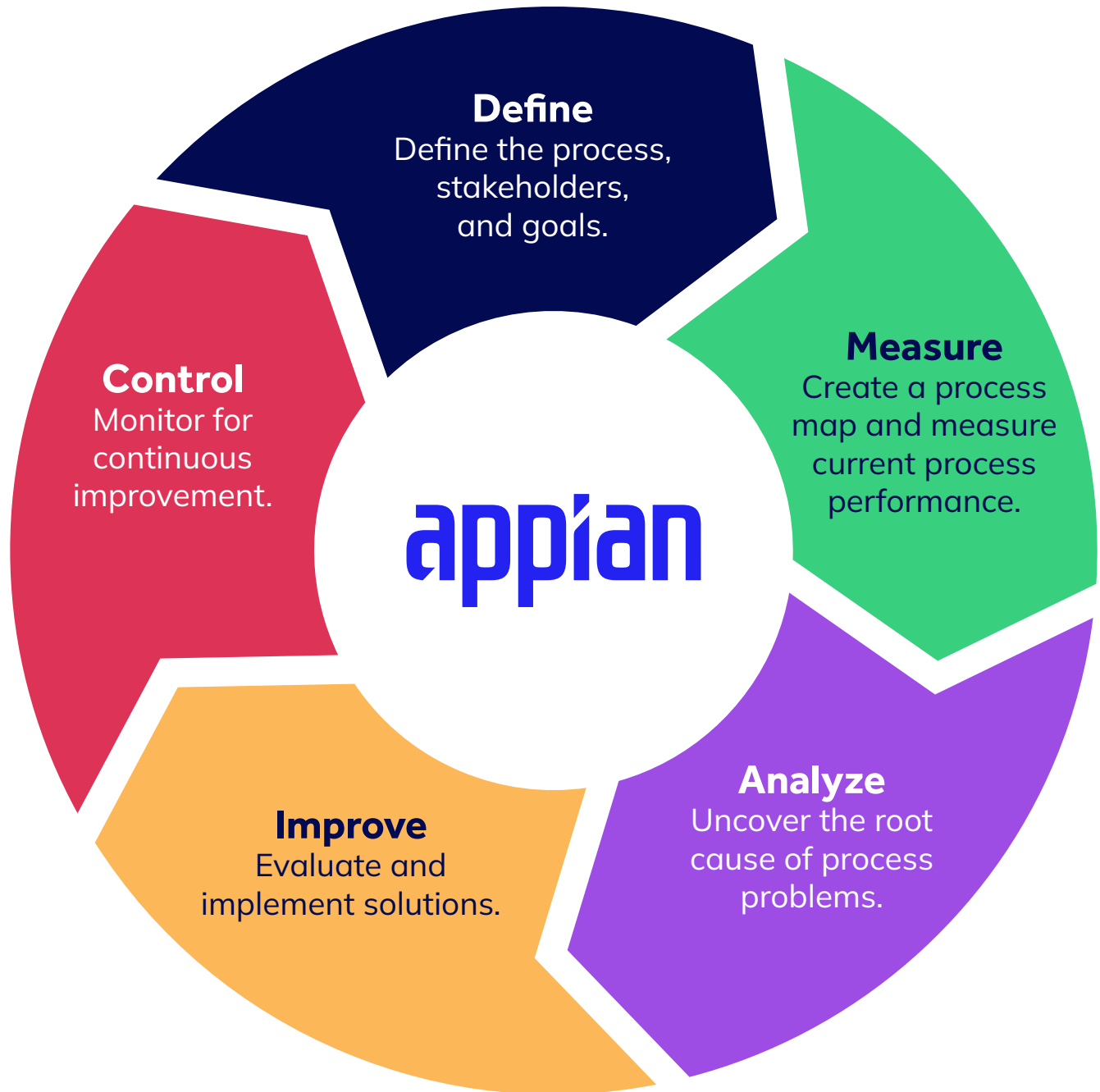# Process Optimization Guide

15 steps to master the continuous improvement cycle.

The philosophy behind continuous improvement is simple: iterative and ongoing changes to your processes result in more efficiency, better products, and better customer experiences. Use this guide to navigate your next process improvement project.

Define
Define the process, stakeholders, and goals.

Measure
Create a process map and measure current process performance.

Analyze
Uncover the root cause of process problems.

Improve
Evaluate and implement solutions.

Control
Monitor for continuous improvement.

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1 Select your process.
Select the process to be analyzed. Consider factors like data availability, support from management, opportunities for improvement, and impact to customers.

2 Create a reference model.
Determine whether a high-level model of the process already exists. If it doesn't, you can create one manually or generate one with process mining later.

3 Ask process-related questions.
Specify the question or questions to be answered in the process analysis. Consider the following questions: How well does the process perform? Is it automated? Is it meeting current requirements?

4 Determine relevant stakeholders.
Involve everyone who will contribute to the project, like business users, data and process experts, system specialists, and decision makers.

5 Define process KPIs.
Define the key performance indicators (KPIs) relevant for your project. Consider these questions to get started: What does success look like? How will it be measured?

6 Identify and extract the data.
Work with the data experts you identified in Step 4 to identify which process data is available, where it's located, and how it can be used.

7 Transform and import the data.
Process mining uses event logs—a table of events and their associated attributes—to visualize your process performance. If your data isn't in this format, you will need to transform it. Be sure that your event logs contain at least the following: case ID, activity name, and start and end times. Then, load the transformed data into a process mining tool to generate a visual representation of the as-is process, also called a *discovered model*.

8 Measure the current process performance.
With your process visualized, you'll now be able to see how it actually performs rather than how you think it performs. Common measurements of process performance include cycle time, lead time, and throughput.

9 Compare your process models.
See how your discovered model compares to your ideal process, or *target model*. One of the easiest ways to conduct conformance checking is to overlay your target model on top of your discovered model to see where deviations are occurring.

10 Determine the cause of process problems.
Deviations, like rework or skipped activities, indicate good opportunities for optimization. Use process mining tools to perform automated root cause analysis of process deviations or do so through manual statistical analysis and observation.

11 Analyze your KPIs.
With the cause of a process problem identified, you can now look at your data to see the effect of these problems or inefficiencies on your KPIs. This will help you prioritize which problems to focus on first based on your business needs.

12 Investigate solutions.
Based on your findings, determine which optimization measures best suit your needs. Examples include process automation, additional training, standardization, new IT systems, or updated process workflows.

13 Implement solutions.
Work with the team and all relevant stakeholders identified in Step 4 to put your solutions into practice.

14 Measure the performance of process improvements.
Gauge the success of your optimization efforts by revisiting the questions you defined in Step 3.

15 Continuously monitor and act.
Monitor process performance to make sure your improvements continue to have the desired effect and are optimized continually over time.