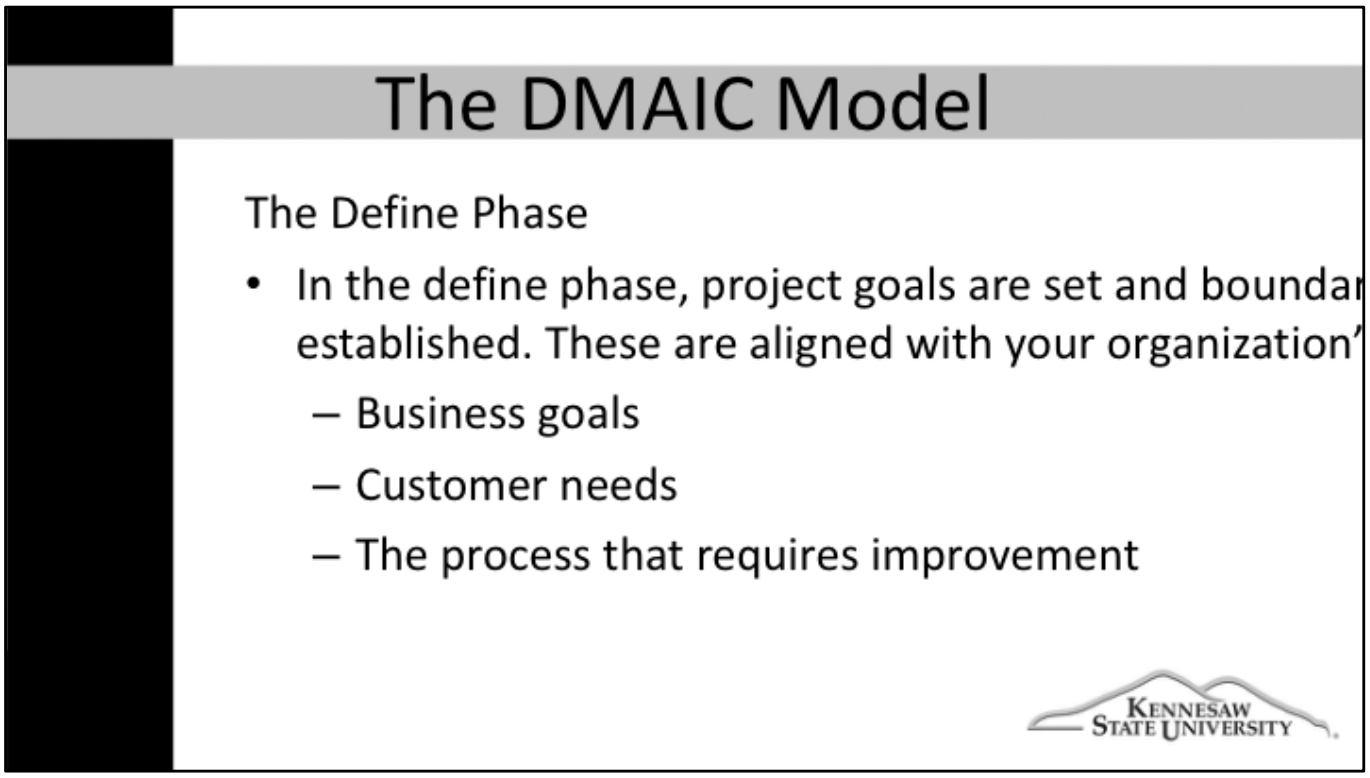
The DMAIC Model

Define	Measure	Analyze	Improve	Control
1.Develop project charter	6. Define the current process	11. Develop cause and effect relationships	14. Identify breakthrough & select practical approaches	20. Measure results & manage change
2.Identify stakeholders	7.Define detailed VOC	12. Determine and validate root causes	15. Perform cost/benefit analysis	21. Report scorecard data & create process control plan.
3.Perform initial VOC and identify CTS	8.Define the VOP and current performance	13. Develop process capability	16. Design future state	22. Apply P-D-C-A process.
4.Select team and launch the project	9.Validate Measurement System		17. Establish performance targets , project scorecard	23. Identify replication opportunites
5.Create project plan	10.Define COPQ and Cost/Benefit		18. Gain approval to implement and implement 19. Train and execute	24. Develop future plans

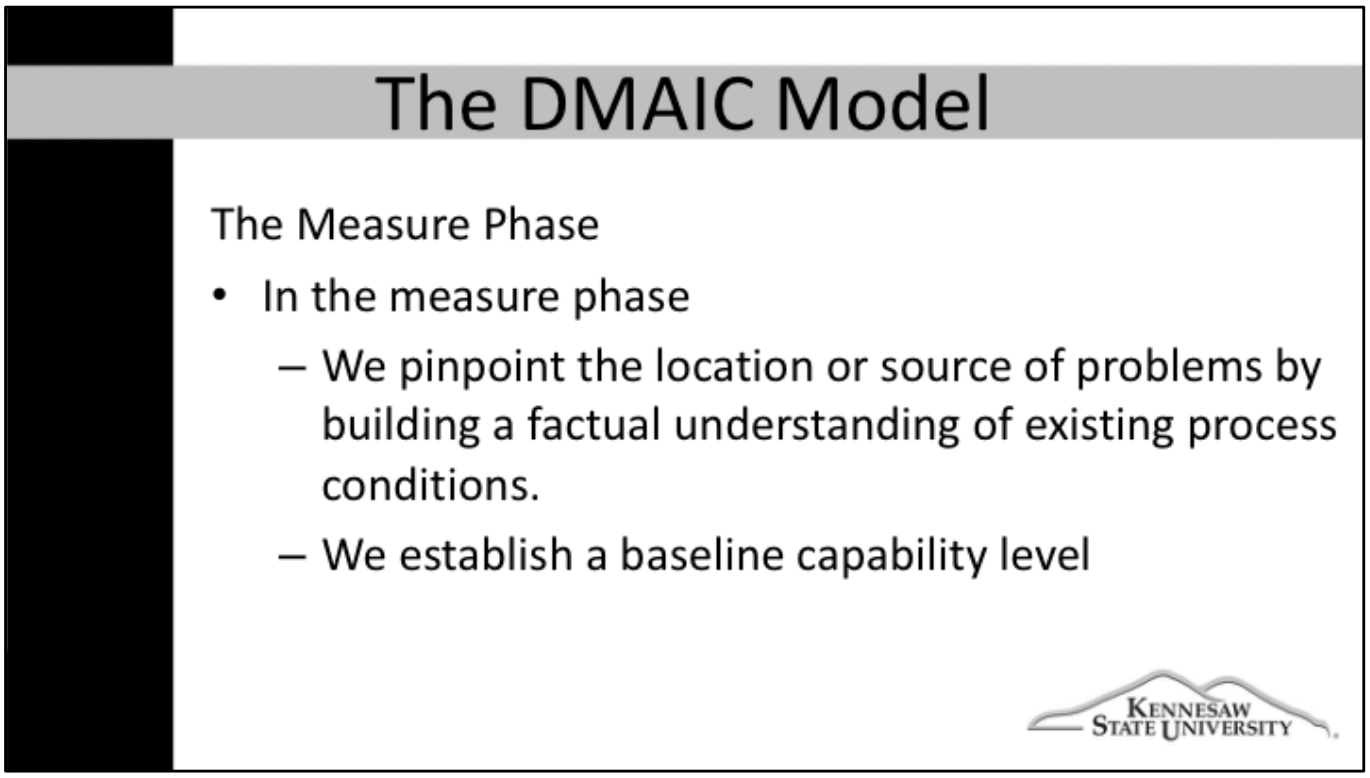
KENNESAW STATE UNIVERSI

Although there are many process methodologies for Six Sigma, the most common is DMAIC. DMAIC consists of Define, Measure, Analyze, Improve, and Control. It is primarily used in manufacturing, service and transactional settings.

Under each phase, there are a series of essential steps required



In the define phase, project goals are set and boundaries established to align with the aims of the organization



The measure phase establishes our baseline and attempts to localize the vital few X's that are the prime drivers behind the problems we seek to address in our project.

The DMAIC Model

The Analyze Phase

- In the measure phase, we produce a baseline performance of the process.
- The baseline assessment makes it possible to pinpoint the location or source of problems by building a factual understanding of existing process conditions and problems
- In the analyze phase, we develop theories of root causes, confirm theories with data, and identify the root causes of the problem.

Kennesaw State University

Using the findings in the measure phase, conjectures are formulated of root causes. We can confirm these theories through the collection of data to further localize and understand the sources of the problem. It is very important that we confirm that our process is functioning as it should prior to analyzing the problem. Otherwise, any results we glean could be invalid

The DMAIC Model

The Improve Phase

- In this phase, we are ready to develop, implement and evaluate solutions targeted at your verified cause.
- The goal is to demonstrate with data that your solutions solve the problem and lead to an improvement.

Kennesaw State University

Now that we have ascertained the sources of the problem, we are ready to develop, implement and evaluate solutions targeted at your verified cause. Our aim here is to demonstrate a positive change to the current state of the process through our adjustments.

The DMAIC Model

The Control Phase

- In the improve phase, the solution was piloted and plans made for full scale implementation.
- The control phase concentrates on insuring the problem stays fixed. And the new methods can be further improved over time

Kennesaw State University

The improve phase is really meant as a pilot of the proposed change. To ensure long term effective change on a larger scale, mechanisms must be put into the place to ensure the problem stays fixed long after the team has been repurposed. We also wish to leave open the possibility for future improvement and adoption of best practices in other areas of the business with similar problems.