

# Chapter 16

## Project Charter

A *project charter* is a document stating the purposes of the project. It serves as an informal contract that helps the team stay on track with the goals of the enterprise. Each charter should contain the following points:

- **Purpose:** Establishes goals and objectives
- **Benefits:** States how the enterprise will fare better when the project reaches its goals
- **Scope:** Provides project limitations in terms of budget, time, and other resources
- **Results:** Defines the criteria and metrics for project success

### PROBLEM STATEMENT

Develop and evaluate the problem statement in relation to the project's baseline performance and improvement goals. (Create)

**Body of Knowledge IV.B.1**

Part IV.B.1

The problem statement should be a concise explanation of a current state that adversely impacts the enterprise. In many ways, the problem definition phase is the most important phase of the DMAIC cycle. If this phase is not done thoroughly, teams may move on to subsequent phases only to stall and cycle back through "define." This phase should be emphasized, and teams should not move forward until the sponsor/process owner signs off on it.

The following are examples of well-defined problem statements:

- The reject rate for product X is so high that competitors are taking some of our market share
- The cycle time of product B must be reduced in order for the organization to remain competitive

## PROJECT SCOPE

Develop and review project boundaries to ensure that the project has value to the customer.  
(Analyze)

**Body of Knowledge IV.B.2**

Six Sigma projects sometimes suffer from disagreement among the project team members regarding project boundaries. The process of defining scope, of course, can result in problems of the extremes:

- Project definitions with scopes that are too broad may lead a team into a morass of connecting issues and associated problems beyond the team's resources. Example: "Improve customer satisfaction" with a complex product or service.
- Project boundaries that are set too narrow could restrict teams from finding root causes. For example, "Improve customer satisfaction by reducing variation in plating thickness" restricts looking at machining processes that may be the root cause of customer problems.
- The tendency is to err on the side of making the scope too broad rather than too narrow. Individuals who have experience with projects and project management should be used in the definition and charter phases to help improve the probability of appropriate boundaries.
- Several tools are available to assist in setting a project scope:
  - Pareto charts to help in the prioritizing process and sometimes in support of project justification
  - Cause-and-effect diagrams to broaden the thinking within set categories
  - Affinity diagrams to show linkages between the project and other projects or processes
  - Process maps to provide visualization and perhaps illuminate obvious project boundaries and relationships

Collectively, these tools help the Black Belt zero in on the scope, and sometimes, even more importantly, what is out of scope. In fact, it is often necessary to state explicitly what is out of scope. Scope may be defined or limited by the following:

- Geography
- Demographics
- Organization structure

- Process boundaries
- Relationships (for example, suppliers, customers, contract personnel)
- Those using system A

In addition to defining what is in scope, teams will find it necessary to explicitly state what is out of scope as well. Though one would initially think that this should be obvious by simply stating what is in scope, many sponsors, team members, and other stakeholders often fail to make this important connection. For example, process B is in scope, whereas processes A and C are out of scope.

## GOALS AND OBJECTIVES

Develop the goals and objectives for the project on the basis of the problem statement and scope.  
(Apply)

**Body of Knowledge IV.B.3**

The next step in forming the project charter is to establish the goals. Goal statements should be SMART:

- Specific: This is not the place to be generic or philosophic. Nail down the goal.
- Measurable: Unless the team has measurable goals, it won't know whether it is making progress or whether it has succeeded.
- Achievable, yet aggressive: This is a judgment call; experience with project planning and execution will help in meeting this requirement.
- Relevant: The goal must be specifically linked to the strategic goals of the enterprise.
- Timely: The goal must make sense in the time frame in which the team must work.

Example 16.1 shows a SMART goal linked to the organization's strategic goals of customer satisfaction and quality.

### **Example 16.1**

Improve the production yield for part A on process B from its current baseline of 60% to 90% within six months.

**Part IV.B.3**

## PROJECT PERFORMANCE MEASURES

Identify and evaluate performance measurements (e.g., cost, revenue, schedule, etc.) that connect critical elements of the process to key outputs. (Analyze)

**Body of Knowledge IV.B.4**

Although one may argue with the statement, "If it can't be measured, it isn't worth doing," measurement of progress toward a goal is a critical part of a project definition. Since it is important that projects have a measurable impact on the enterprise, the common denominator of most metrics tends to be financial. However, an intermediate goal such as prompt response to customer orders would have associated measurements such as cycle-time reduction, document throughput, and shipping efficiency. Therefore, a performance measurement in this area should include specific goals for these measurements.

Similarly, the general project goal of increased profitability for a particular product line might have as a secondary metric the amount of cost reduction, which, in turn, could have a tertiary metric involving inventory reduction.

The improper choice of metrics may lead the project team in the wrong direction. The classic example is machine utilization. If an objective is to increase the percentage of the day that each machine produces parts, excess inventory will often be built. Similarly, if the bottom line of an accounting balance sheet is used as a metric, excess inventory may not be drawn down to a less wasteful level, because most accounting systems assume that inventory is an asset. Having a goal of increasing the ratio of direct to indirect labor sometimes leads a manufacturing team in the wrong direction, because moving people off the line into support positions may be the best path to process improvement.

All processes can be measured in terms of quality (that is, defects) and cycle time. Process cost flows from these two metrics. Reducing cost without focusing on reducing defects and cycle time is a recipe for disaster.