

# Defining Six Sigma Projects

An awareness of Six Sigma parameters allows improved project delivery.

Six Sigma’s impressive bottom-line results normally flow from Six Sigma projects. Properly defined Six Sigma projects meet certain criteria:

1. They have clearly defined deliverables.
2. They are approved by management.
3. They are not so large that they’re unmanageable nor so small that they’re unimportant or uninteresting.
4. They relate directly to the organization’s mission.

The project definition is made explicit in the project charter, which is a document issued by senior management, usually the



project sponsor (*not* the project manager or Black Belt), that provides the project manager with the authority to apply organizational resources to project activities. The project

charter typically includes:

- A description of the business need addressed by the project (i.e., the opportunity or threat presented to the organization that provided the stimulus to undertake the project)
- The product that will be produced by the project, that is, characteristics of the value (product or service) that the project will create
- The relationship between the business need and the product. The product should be described at a high level, but with sufficient detail to support subsequent project planning.
- The authorization to apply organizational resources to the project

The problem statement answers the question “Why is it essential that this project be done *now*?” It should be specific enough to help the team identify the project’s scope and major stakeholders. Although the project team will develop a work-breakdown structure that will break

large projects into smaller subprojects, problems of gargantuan proportions should be subdivided into smaller projects before assigning them to Six Sigma teams. Senior leadership should put the problem statement in writing.

The project charter should include a statement indicating the mission of the project team and linking the project to the larger organization’s mission via the charter. Avoid the following pitfalls in developing mission statements:

- The mission is unclear or undefined (e.g., “Get a team together to work in the shipping department”).
- The mission is too broad (e.g., “Reduce customer complaints”).
- The problem’s nature and severity aren’t defined (e.g., “Are scratches really a big problem?”).
- Projects have little or no affect on the organization’s success. (Even if they’re successful, no one will really care.)
- Missions overlap the missions of other teams (e.g., team A’s mission is to reduce solder rejects, team B’s mission is to reduce wave solder rejects and team C’s mission is to reduce circuit board assembly problems).
- Projects improve processes that are already scheduled for extensive redesign or discontinuation.
- Missions cover a huge system (“patient admitting”) rather than a manageable process (“outpatient surgery preadmission”).
- Missions focus on symptoms rather than root causes (e.g., “Reduce touch-up of defective solder joints” instead of “Eliminate wave solder defects”).
- Project deliverables are undefined (e.g., “Study TQM” rather than “Reduce waiting time in Urgent Care to an average of 10 minutes”).

The mission statements of various teams should identify the boundaries between them. Where confusion exists, project sponsors should meet to clarify responsibilities.

**Table 1: Boilerplate Project Charter Document**

Project name/number	
Project sponsor	Print Name:
	Signature:
Sponsoring organization	
Project Black Belt	
Project Green Belt	
Team members	
Principal stakeholders	
Date chartered	
Revision	Number:
	Date:
	Sponsor approval signature:
Project start date	
Target completion date	
Project charter statement:	
Project mission statement:	
Problem statement:	
Project description:	
Business need addressed by this project:	
Product or service created by this project (deliverables):	
Resources authorized for use on this project:	

There are six steps in the chartering process:

1. Obtain a problem statement.
2. Identify the principal stakeholders.
3. Create a macro flowchart of the process.
4. Select the team members.
5. Identify the training to be received by the team.
6. Select the team leader.

Note that these steps are done at a high level. As the project proceeds, the project team will refine and elaborate on each of these items. The refinement will require frequent communication with the project sponsor. Project charter revisions must be documented and approved by the sponsor. Project Charters are formal documents that become part of the project plan. The table below should help you put together a charter for your Six Sigma project.

## About the author

Thomas Pyzdek is a consultant in Six Sigma. Learn more about Six Sigma at [www.pyzdek.com](http://www.pyzdek.com). E-mail Pyzdek at [tpyzdek@qualitydigest.com](mailto:tpyzdek@qualitydigest.com).