

PROJECT SELECTION GUIDELINES

Congratulations,

You have been selected to attend Six Sigma Champion training. The core objectives for the Six Sigma Champion training are as follows; 1) understand the Six Sigma methodology and be able to apply it to company projects, 2) select Six Sigma projects to achieve breakthroughs in operational and product performance, 3) evaluate the key deliverables associated with Six Sigma projects and 4) select Green Belts and Black Belts as project leaders.

During the two day Champion training all aspects of the above objectives will be covered in detail; however, as project selection is such a critical and essential component of a successful Six Sigma deployment it is useful to spend some time prior to attending training considering appropriate projects. This guideline is written to provide some help in moving the project selection process forward. Use the ***Champion Worksheet.xls*** templates to brainstorm potential projects, record and prioritize them.

Step 1. Brainstorm Candidate Projects

Brainstorming possible Six Sigma projects can be done by the individual Manager or Director or in association with their staff. Make sure to include those painful processes that run horizontally across the organization irrespective of the process owner or Champion. Brainstorming allows for examining all of the possible projects that impact financial performance and customer satisfaction. At this point don't worry who should be the Champion for each project.

Often it is useful to begin with stating site or corporate operational annual goals such as *"For FY 04 there is a goal of 15% reduction of wafer cost."* Explore each improvement area to determine if there are candidate projects that relate to that topic. Whether or not a candidate project impacts strategic goals, if it improves operational margins, revenue or customer satisfaction it should be considered for inclusion part of the project prioritization.

When brainstorming potential projects please consider the following areas:

- Painful processes within the site and across the corporation
- Areas with operational waste
 - Over Production
 - Waiting (lag time/cycle time)
 - Transporting
 - Over processing (excessive test, excessive cleaning etc.)
 - Excessive inventory, spare parts, etc.

- Excessive Motion (poor linear flow)
- Yield and defect rates too high
- Cost of Quality
 - Cost of Prevention
 - Cost of Appraisal
 - Cost of Internal failure
 - Cost of External failure
- Revenue opportunities that are capacity related
- Revenue opportunities that are sales related
- Customer satisfaction issues
- Strategic objectives

Record all of your potential project ideas on the ***candidate project brainstorming*** template.

 **Candidate Project Brainstorming**

Candidate Project Name	Estimate 1 unit cost	1 unit savings	Annual Transaction Rate
Painful Processes			
1 Workflow "Automation"	\$ 1,000.00	\$ 500.00	2,000
2			
3			
4			
Areas with Process Waste			

Step 2. Estimate Financial and Customer Satisfaction Benefits

Next, estimate the potential savings or improvement in customer satisfaction that are possible from a successful project in that area. You may not know the exact numbers at this point; however an honest estimate will go a long way to moving the project selection process forward.

1. Begin by determining the current cost associated with generating one unit of the transaction, activity or product.
2. Estimate the possible one unit savings that a successful project may produce.
3. Determine the number of units or transactions that occur annually.
4. Determine the cost associated with doing the project (use \$125K if unsure).
5. Determine estimated benefits (benefits =1 unit savings*annual transaction rate - project cost). If you filled out the other sections this will automatically be computed for you.
6. Determine and record any must do projects that impact customer satisfaction. Describe how this project is expected to impact customer satisfaction.

Step 3. Prioritize Candidate Projects

Now use the project prioritization template to evaluate each project, rank them on the quality attributes of the project and determine the appropriate impact and

effort required to complete each project. In general those projects that are high effort and high impact go to the black belts, those projects that are moderate effort to high impact and moderate effort go to the green belts and those project that have high to moderate impact and low effort go to individuals or limited scope project teams. Note, on the “Project Selection Matrix” there is a 2 by 2 matrix that is automatically populated once the other evaluation criteria is completed.

6σ PROJECT SELECTION MATRIX

Rank	Potential Projects	Champion	Benefits		Business Goals	
			Financial	Translatability	Defined	Customer Sat.
			5	1	1	1
			3	4	3	7
			9	5	7	3
			3	4	9	8
			9	6	4	7

The template weighting criteria are established first and then all projects entered and ranked based on the criteria given in the template.

Benefits

Financial (ROI)

Translatability (Results of the project extend to other operational areas)

Business Goals

Defined Annual or Strategic Business Goals

Customer Satisfaction (measurable)

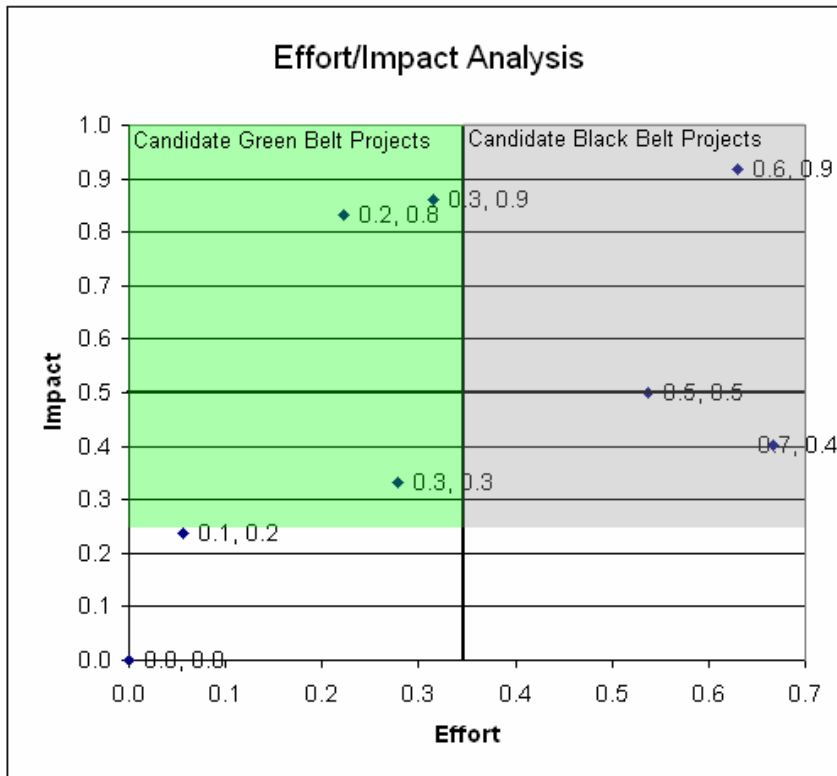
Risk

Clarity (clear project boundaries)

Complexity (time to complete and difficulty of the project)

Probability of Success (likelihood of the project succeeding)

Once all the projects and project ranking criteria are entered examine the effort impact analysis graph to determine where you should assign Green belts, Black Belts, individuals and other improvement teams to the various projects.



Step 4. Separate Projects and Assign to Project Owners

Once the prioritization is complete rank each project and determine if a Black Belt is needed to lead the project, a Green Belt or if it is an individual or limited team needs to be assigned. Some projects are put on hold or considered for future opportunities. Use the Project prioritization matrix and determine who should be the project Champion.

Step 5. Charter Projects

Review your final candidate list of projects with your management team and achieve consensus on the project list. Determine who would be the appropriate individual to lead the team and get ready to charter the individual and or team to initiate the project. Project chartering will be covered in greater detail in the Champion training.

Champions typically write the problem statement, objective and goal for the Six Sigma project.