# Project Identification and Definition

*The key to getting fast results …*

# Key Elements of Success for Projects

$$Y = f(\text{Success}_x)$$

$x_{s1}$ = Management support including Process Owner

$x_{s2}$ = Proper resources

$x_{s3}$ = Clearly defined metrics to track success

$x_{s4}$ = Project ties directly to a business objective

$x_{s5}$ = Team involvement

$x_{s6}$ = Clear Implementation Plan and Control Plan

$x_{s7}$ = Financial impact

$x_{s8}$ = Communication

***What Are The Key Factors That Lead To Successful Projects?***

# Factors that can Lead to Project Failure

$$Y = f\,(\text{Failure}_x)$$

$x_{f1}$ = Generic rather then specific problem statements

$x_{f2}$ = Unclear goals

$x_{f3}$ = Project not consistent with business objectives

$x_{f4}$ = Insufficient and/or inaccurate data

$x_{f5}$ = Poorly defined plan for execution

$x_{f6}$ = No one individual accountable for implementation and sustainability of solutions and results



3

## Why Is Project Selection And Alignment To Business Objectives So Critical?

- Management support, personnel allocation, and capital expenditure are more readily available if projects are consistent with, and are clearly aligned to business objectives. This support will result in successful projects.
- Those that don’t align well with critical success factors have a high likelihood of failure.

***Be Very Sure Your Project Matters And Matches Improvement Strategy Being Applied.***

# 6-steps That Management Takes In Project Selection And Kick-off

1. Consider list of improvement opportunities
2. Prioritize opportunities with respect to Critical Business Objectives
3. Select Opportunity to be taken on by an improvement team – becomes a "Project" at this stage
4. Determine appropriate improvement methodology to apply
5. Develop Draft Charter:
   - Clarify Business Case
   - Establish Primary and Secondary metrics
   - Determine Objectives and Milestone Dates
   - Determine Project Leadership (Project Leader, Process Owner, Belt)
   - Select team
6. Launch Project

# Step 1: List Potential Projects

**List of Potential Projects**

***Use data when available***

| Potential Projects | Type of Problem (cost reduction, defect reduction, cycle time reduction … ) | Definition of project / issue |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

Create a list of potential projects (very high level) based on known performance gaps. Scorecards and dashboards, if available, can provide clear guidance areas and focus.

# Step 2: Organize and Prioritize

Step 2: Ensure project is consistent with organizational Goals and Objectives

| Organizational Goals and Objectives / Potential Projects | **Operational** Constraint | **Reduce Lead Time** | **Reduce Materials Cost** | **+ or – target Indicators** | **Improve Customer Satisfaction** | **Reduce Errors** | | | | | Overall Impact Rating |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Potential Projects | Impact Rating | Impact Rating | Impact Rating | Impact Rating | Impact Rating | Impact Rating | Impact Rating | Impact Rating | Impact Rating | Impact Rating | |
| **Document design** | 2 | 2 | 3 | 1 | 2 | 2 | | | | | 48 |
| **Loan lead time** | 3 | 3 | 1 | 3 | 4 | 3 | | | | | **324** |
| **Job scheduling** | 3 | 2 | 1 | 3 | 2 | 3 | | | | | 108 |
| **Work order cycle time** | 3 | 3 | 3 | 2 | 2 | 2 | | | | | 216 |
| **Marketing materials** | 2 | 3 | 2 | 2 | 2 | 2 | | | | | 96 |
| | | | | | | | | | | | |

# Step 3: Select the Project

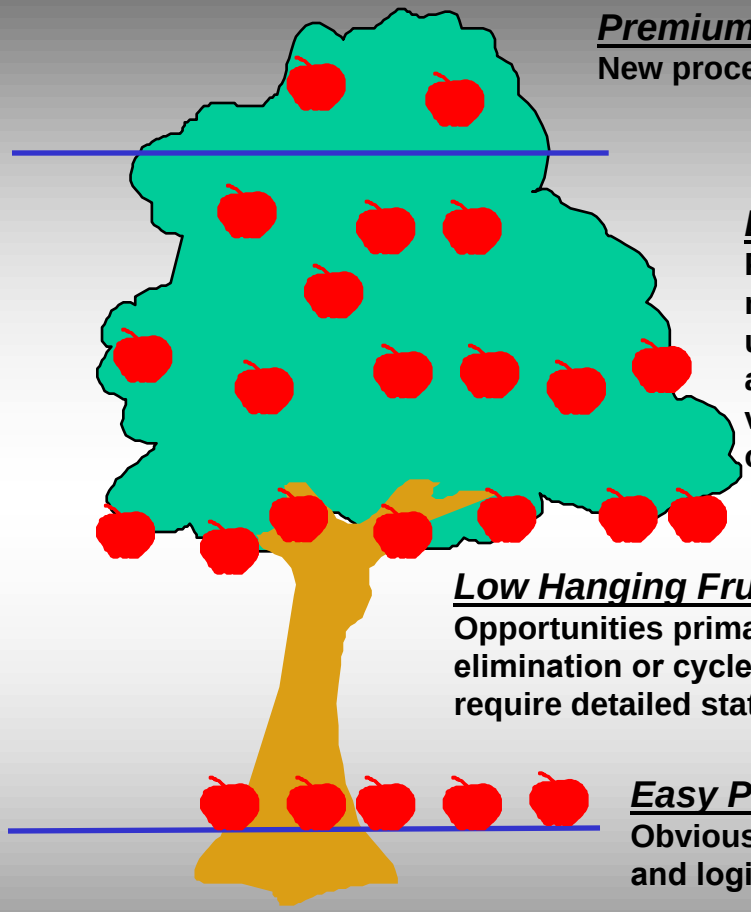
Select the Specific Project

- Select the highest potential impact project that is consistent with organizational objectives. This logic provides for the greatest ROI for the organization.
- Other factors may come to play in final selection of project
  - Available resources
    - Are the other projects currently active in area of highest priority project ?
    - Are/would team members or leadership be available ?
  - Urgency
    - Is there a time critical aspect that one project has over another ?



8

# Step 4: Project Methodology Selection Process

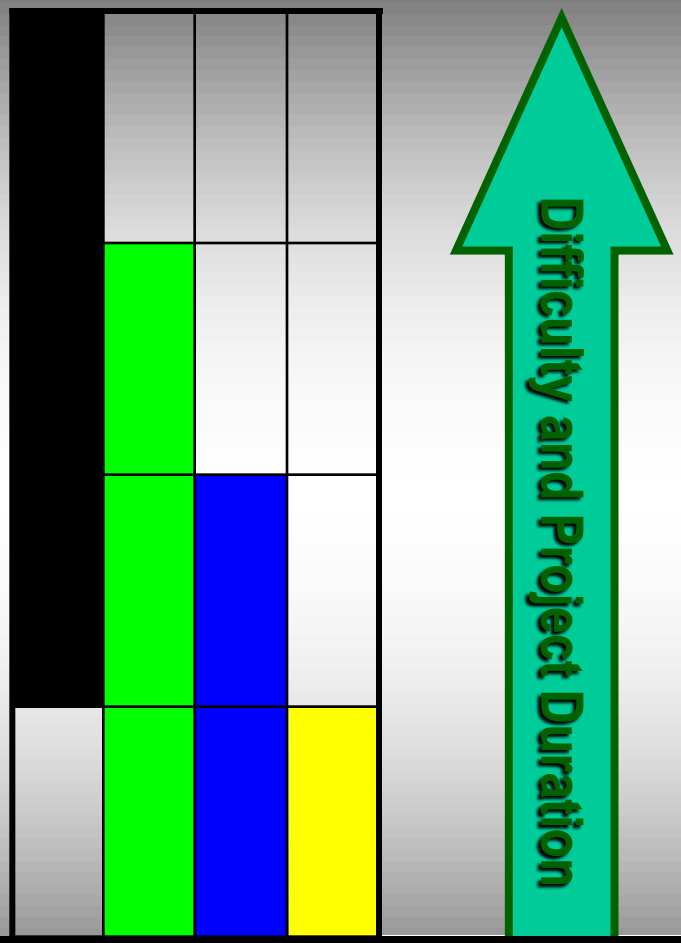


***Premium Fruit*** **DFSS**
New process or product design required

***Bulk of Fruit*** **DMAIC**
Process based problems needing significant analysis to understand underlying causes and where reduction in variability is the primary objective

***Low Hanging Fruit*** **LEAN**
Opportunities primarily relating to waste elimination or cycle time reduction that don't require detailed statistical analysis

***Easy Pickings*** **JDI**
Obvious problems that have intuitive and logical solutions….just go do it!




***Lean can be applied to all processes as a first improvement effort. Especially effective for processes that have opportunities to reduce waste or are focused on cycle time reduction.***

# High Level Methodology Comparison

| | Quick Win / Just Do It! | | Lean | Six Sigma | Design for Six Sigma |
|---|---|---|---|---|---|
| Primary Objective | REDUCE WASTE | | REDUCE WASTE & IMPROVE FLOW | REDUCE VARIATION & DEFECTS | PREVENT DEFECTS & WASTE IN NEW PROCESS |
| Methodology | PDCA<br>• Plan<br>• Do<br>• Check<br>• Act | DAISA<br>• Define<br>• Analyze<br>• Improve<br>• Standardize<br>• Assess | DCAFC<br>• Define<br>• Current State<br>• Analyze<br>• Future State<br>• Control | DMAIC<br>• Define<br>• Measure<br>• Analyze<br>• Improve<br>• Control | DMADV<br>• Define<br>• Measure<br>• Analyze<br>• Design<br>• Verify |
| Team Composition | One or more Employees | | Multi Level/ Function: | Led by Certified Belt | Black Belt Driven Cross Functional Team |
| Project Duration | Hours - Days | | Days - Weeks | 3 – 6 Months | 4 – 12+ months |
| Impact to Culture | High – Universal | | High – Widespread | Medium – Focused | Low – Strategic |
| Cost in $'s | Hundreds | | Hundreds | Thousands | Hundreds of Thousands |
| Risk to Company | Low | | Low - Medium | High | Highest |
| Complexity of Change | Low | | Medium | Medium - High | N/A |
| Return | Thousands | | Tens of Thousands | 30 – 100k+ | 100k – 1MM+ |

# Step 5: Develop a Draft Project Charter

- Project Charter
  - Problem Statement
  - Primary and Secondary Metrics
    - Understand current baseline performance
  - Objectives (project goals)
  - Timeframe (milestones)
  - Define Scope
  - Team and Project Leadership

***Team Alignment To The Project Charter Is Critical For Project Success***

# Project Charter Framework

## Problem Statement:

During < the period of time for the baseline performance>, the <primary process measure> for <primary output measure> was <baseline performance>. There is a gap of <difference between baseline and historic best or desired performance> from < historic best or desired performance>, representing < cost or revenue impact of filling gap> of benefit.

Problem Example: During the '05/'06 Fiscal Year, the estimated processing time from receipt of commodity vendor cost increases to notification of price increases to customers averages 122 days. The best single price change notification cycle time achieved was 3 days. The gap between 122 and 3 days represents an estimated cost of lost profit of $281,000 based on the last fiscal year.

## Goal Statement:

Improve the <primary business measure> for <primary output measure> to <goal> by <date>. This improvement represents <some fraction of> the gap of <difference between baseline and historic best or desired performance> from < historic best or desired performance>, representing < cost or revenue impact of filling gap> of benefit. The process improvement will be implemented by < Identify the expected timing of the improved process achieving the desired performance >

Goal Example: Reduce processing time for notification of price increases to customers from an average of 122 days to 30 days. This would result in a savings of $118,000 gross profit per fiscal year. This project will be implemented by September 30, 2006.

## Start / Stop Points for Project:

<What are the boundaries for the project?>

Example: Start at 8/21, stop no more than 4 – 6 weeks out for implementation.

## In Scope:

<What processes, systems, products, services, channels, etc. will you consider in this project?>

Example:

- Cost increase notifications received by the commodities team.
- All or nothing bids (8 bids and 75% of total commodity sales)

## Out of Scope:

<What processes, systems, products, services, channels, etc. will you NOT consider in this project? If any of these will be addressed in a later project, mention it here.>

Example:

- Price increase notifications that never reach the commodity team.
- Price changes that are not communicated by the vendor.
- Line item bids.

## Project Team:

| | |
|---|---|
| **Champion:** | **Paul Simone** |
| **Team Leader:** | **Howard James** |
| **Team Member:** | **Donna Smith** |
| **Team Member:** | **Tina Begouis** |
| **Team Member:** | **George Tinsel** |
| **Team Member:** | **Warren Bloom** |
| **Team Member:** | **Tim Mortenson** |

# Example – Link From Critical Business Objective To Business Case To Problem Statement

**Critical Business Objective**

**Costs**

**High Level Processes**

**Receive Invoice** → **Enter into Accounting System** → **Pay Vendor** → **Confirm receipt of payment**

**Business Case Level**

During FY06, 28% of the invoices were payed more than 15-days earlier than terms resulting in a time-value of money cost to the company of $120k

During FY06 37% of the payments were made later than terms resulting in $235k in penalties being paid.

**Project Level**

Project #1

Project #2

Project #3

Project #4

**Project # 5:** During FY06 839 (55% of total late payments) did not contain complete vendor information on Vendor Master.

Project #6

Project #7

# A "Good" Problem Statement

- The problem statement should include:
  1. Link. Establishes a clear link to a business performance goal in the business case.
  2. Timeframe. What is the timeframe being referenced in the statement of the pain, i.e., how long has this been occurring.
  3. Baseline Performance. Current performance level – measured, reported in clear numerical terms
  4. The GAP. Clarifies the difference between current performance and the targeted level of performance – clearly define the gap at a detailed process level. Expressed in the output unit of measure.
  5. Business Impact. What is the business impact if we fix it? Usually expressed in financial terms.

***The elements of a Problem Statement are the SAME as for a Business Case – Just written at a different level.***

# Good and Bad Problem Statements

## Poor Problem Statement

**The lead time for processing invoices is 18 days. Lack of current technology in our process is contributing to this problem. The current lead time must be reduced by 30% to reach our goal.**

## Better Problem Statement

**During fiscal year 2006, the lead time for processing invoices was 18 days. The targeted (budgeted) time for processing invoices is 12 days. This gap of 6 days has contributed to an increase in total OT of over 150 hrs per month which has a business impact of $128,500 annually.**

The issue should always be stated as a Problem. It must quantify the impact to the organization (annualized). Do Not attempt to solve the problem at this stage or explain why the problem exists.

# Determine the Primary Metric

- The single measure (the Y) that identifies the success of the Project
  - Multiple Primary Metrics usually implies multiple Projects
- Specific Measure of the primary result of a Process
- Must be consistent with the problem statement and objective
- Should be plotted on a time series graph

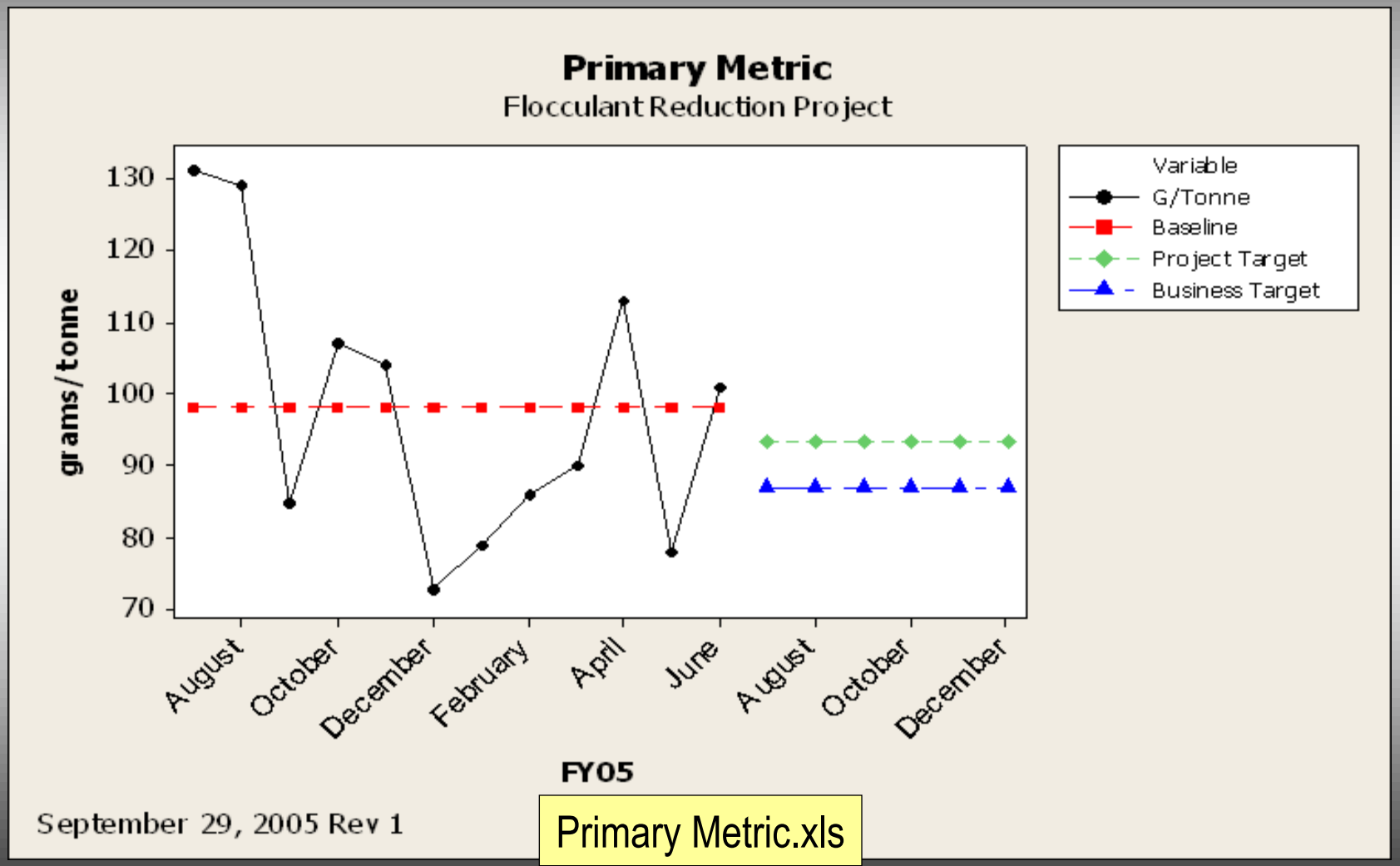
***Only 1 Primary Metric Per Project Allowed***

## Baseline Data
## Why Is This An Important Step?

- Decreases the temptation of team members to assume current performance level. No more “ought,” “should,” and “I think” notions around performance.
- These refer to guesswork and not fact. Despite the chance that educated guesses may have a high probability of being correct, that doesn’t make them fact.
- When making changes, deal in facts, not what “ought” to happen.
- As you improve your process you will have a quantitative measure of the improved performance.

***Some Lean And Six Sigma People May Say***
***“In God We Trust – All Others – Bring Data”***

# Elements of the Charter
# Primary Metric Chart - Example




Primary Metric.xls

# Secondary Metric(s)

- A measure(s) that will “keep you honest”
- Tracks potential negative consequences
- More than one may be required
- For example: A Primary Metric for a Lean project may be Cycle Time of the process. A secondary metric may be maintaining the quality of the process output. It would <u>not</u> be ok to reduce the cycle time of the process and increase the defects or reduce product quality.

Primary Metric.xls

***There Are No Improvement Goals Implied Or Stated For Secondary Metrics – Only That It Won’t Get Worse.***

# Elements of a Charter Objectives

- The Objectives should be established for the primary metric that follows the SMART criteria.
  - **S**pecific
  - **M**easurable
  - **A**ttainable
  - **R**elevant
  - **T**ime-bound
- Often necessary to have interim goals



20

# Project Team Roles

- **Project Leader/Process Owner**
  - Leads the Team
  - Assigns project resources
  - Active in ALL Team Meetings
  - Communicates Team results
  - Accountable for Sustaining Results

**Champion**

- Defines scope
- Approves solutions
- Rewards progress
- Accountable for results

**Deployment Leader/ Business Leader**

- Select Projects
- Project Reviews
- Program Administration

**Role of Team Members**

- A Subject Matter Expert in project process area
- Represents a faction of the stakeholders
- Clarifies charter
- Recommends solutions
- Helps to Implement approved solutions
- Generates buy-in
- Learn problem solving tools and methodology and build into workplace culture

Process Level Team Member

Process Level Team Member

Interested Supervisor or Manager

**SS Belt**

- A Resource to the team with data collection and analysis and Team facilitation
- A Resource to team to assist with tool usage

Significant impacted Stakeholder from Value Stream



21

# Example - Team Make-up Template

## Team Composition - Payroll process defects reduction

| Name | Team Role | Expertise | Time Commitment | Other |
|---|---|---|---|---|
| Blair Jones | Champion | Manager | Wkly meeting/update<br>Attend 30% team meetings | |
| Sara Evans | Project Leader/<br>Process Owner | In-depth knowledge of process | Attend all meetings<br>Review meeting after each session | |
| Earl Pierce | Belt | Process | 1 of 2 project.<br>Full-time | |
| Lisa Smart | Member | Process Expert<br>Comms. skills | 30% of time | Payroll verification duty given to Rose during project life |
| Brent Jacobs | Member | Process Expert<br>Data analysis | 30% of time | Time sheet verification given to Eric during project life |
| Norman Reams | Interested party | Account / Benefits manager | | Wants to be advised with respect to anything on benefits |
| Leonard Spoon | Resource | Payroll process manager at Leonix | | Offered to help if requested. Leonix is industry leading practice |



22

# Step 6: Launch Project

- Advise Project Leadership
- Set expectations:
  - Determine any immediate action items necessary to complete the project
  - Assign responsibilities
  - Review metrics and any other applicable data
  - Determine interim dates for team meetings, task completions, etc
  - Determine project completion date
  - Determine Report Out date



23