

Stage Gate - Project Management

Leadership vs. Management

When Noah heard the weather forecast he ordered the building of the Ark

... that was Leadership

Then he looked around and said, "Make sure the Elephants don't see what the rabbits are up to."

... that was Management

Sal Sorrentino

The Trane Company

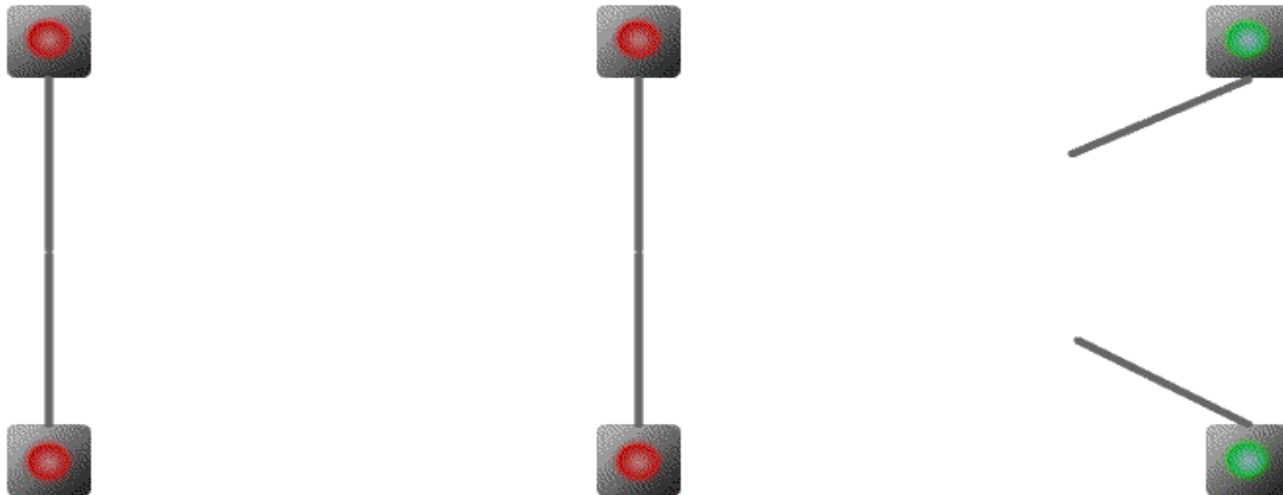
IT Director — Global Product Management and Distribution Systems

Project Management – Stage Gate

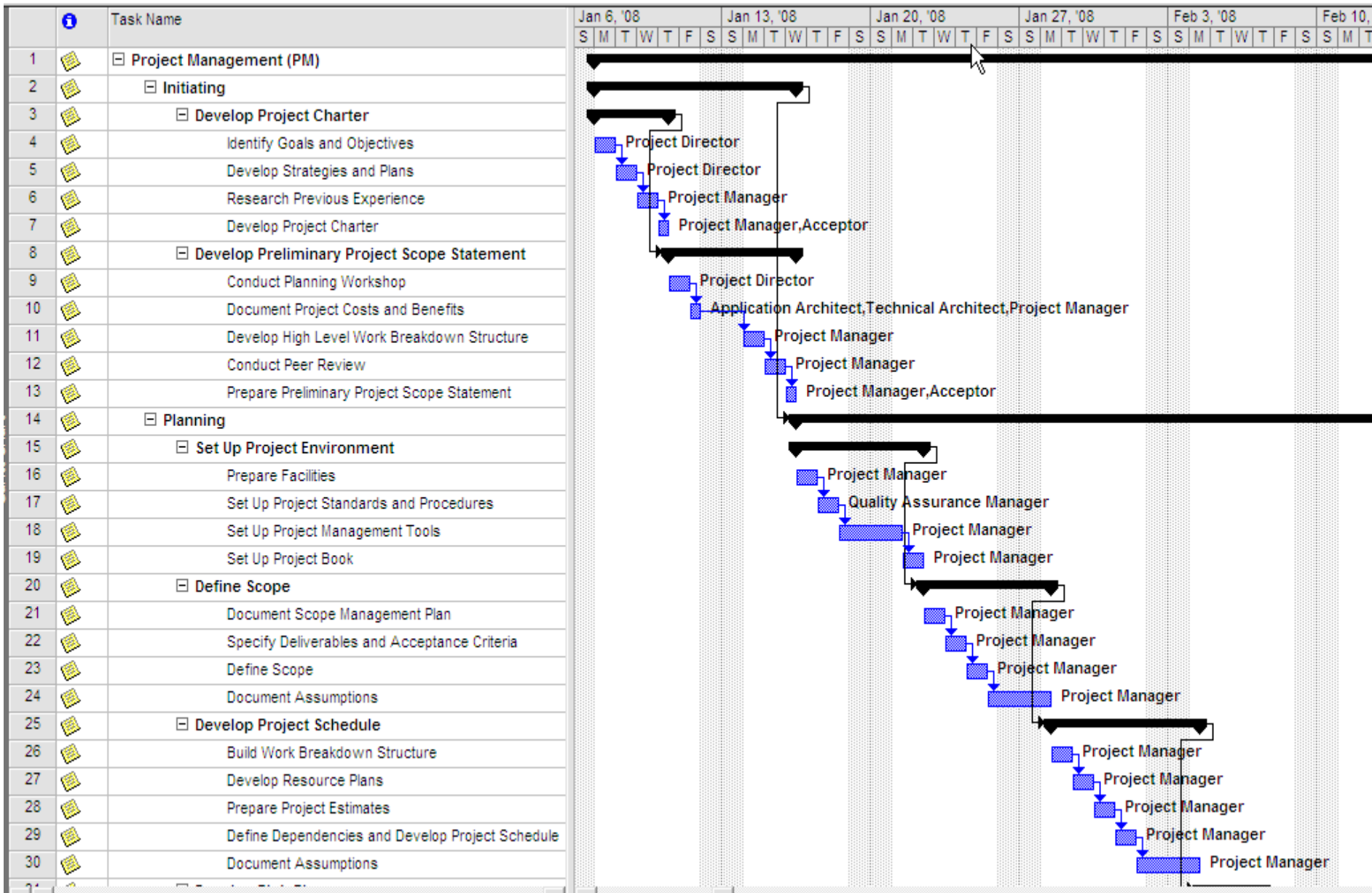
About the topic:

A move from Gantt charts to stage gates: Sal will provide an overview of how the project management of new product launches has evolved at Trane over the years. Originally, the process included a standard Gantt chart of a hierarchical process that might or might not succeed. Currently, a series of stage gates are developed for each project with all the stake holders signing off on each stage gate. This change in direction has resulted in greater buy in from key stake holders and a higher completion rate of approved projects. Sal will discuss how this change has affected stake holders, project leaders and project team members.

“Project Management isn't just a way to organize and prioritize tasks ... it is a commitment to a goal and managing the events that contribute to that goal.”



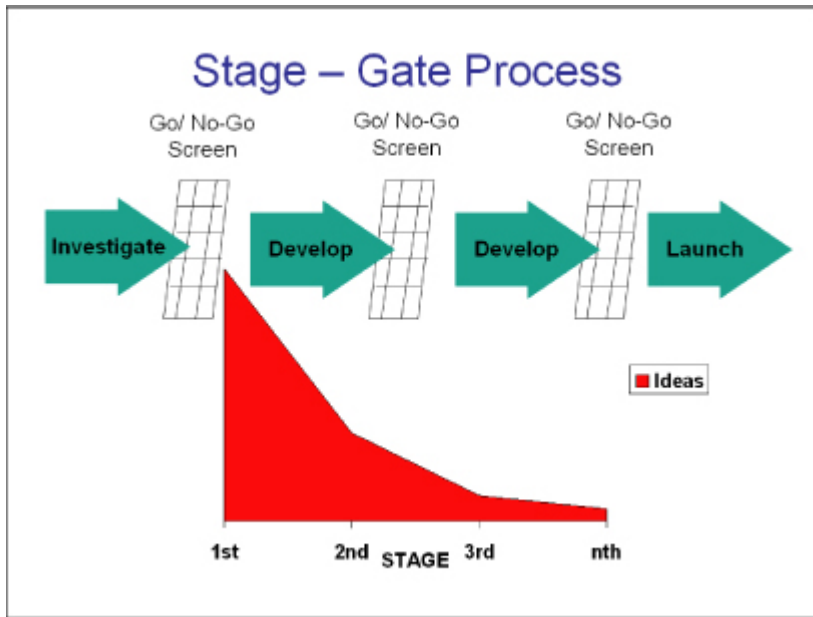
Typical Waterfall Project – Gantt Chart



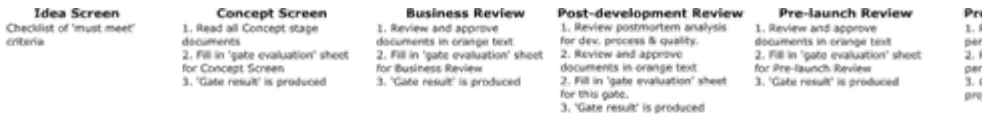
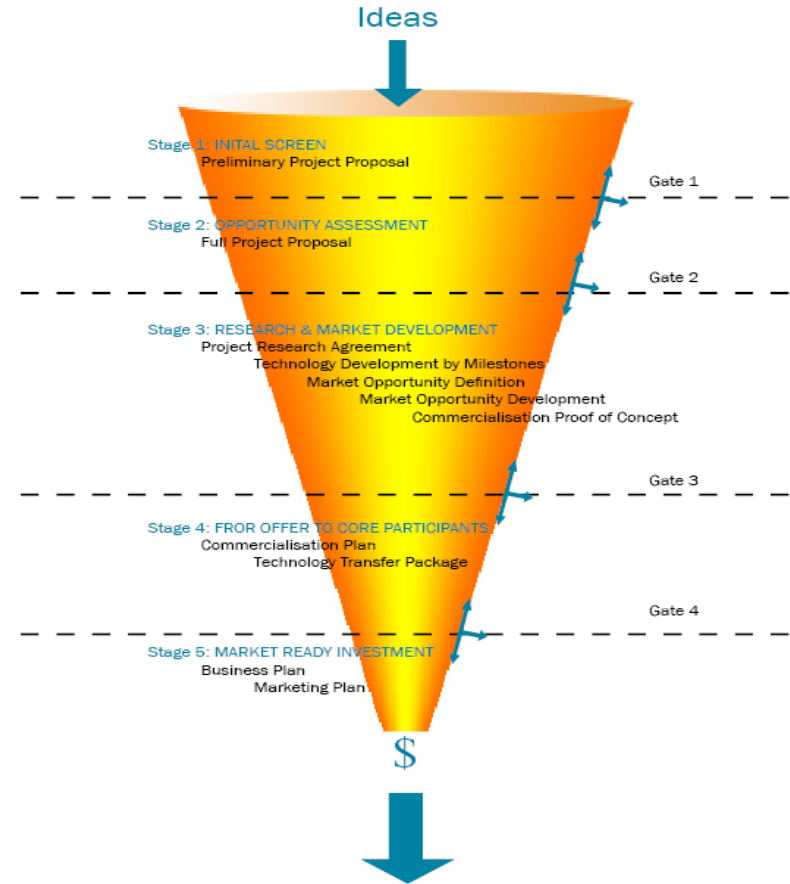
Stage Gate / Milestone Review

PMM							
Project	Start	Initiate	Discover	Plan	Construct	Validate	Transition
<u>DFSD Upgrade (new Interventions)</u>	● 7/8/08	● <u>10/14/08</u>	● <u>10/20/08</u>	● <u>11/3/08</u>	● <u>12/5/08</u>	● <u>12/17/08</u>	■ <u>On Time</u> 3/6/09
<u>IDT New Business Rules</u>	▲ <u>Behind</u> 3/2/09	▲ <u>Behind</u> 3/27/09	▲ <u>Behind</u> 6/9/09	▲ <u>Behind</u> 8/26/09	▲ <u>Behind</u> 10/23/09	▲ <u>Behind</u> 11/13/09	▲ <u>Behind</u> 1/6/10
<u>2009 Mobility Enhancements</u>	● 2/20/09	■ <u>On Time</u> 2/25/09	▲ <u>Behind</u> 4/29/09	▲ <u>Behind</u> 7/7/09	▲ <u>Behind</u> 8/20/09	▲ <u>Behind</u> 9/1/09	▲ <u>Behind</u> 10/5/09
<u>Parts to Service - Mob</u>	● 2/4/09	● <u>2/6/09</u>	■ <u>On Time</u> 5/1/09	■ <u>On Time</u> 7/9/09	■ <u>On Time</u> 1/8/10	■ <u>On Time</u> 9/3/09	■ <u>On Time</u> 10/7/09
<u>Commission Reference for Billable Maintenance Work</u>	■ <u>On Time</u> 3/2/09						
<u>Refrigerant Management System Phase 2</u>	● 1/16/09	● <u>2/5/09</u>	▲ <u>Behind</u> 3/18/09	▲ <u>Behind</u> 5/7/09	▲ <u>Behind</u> 8/11/09	▲ <u>Behind</u> 8/21/09	▲ <u>Behind</u> 9/15/09
<u>WennSoft Version 2.9.X Implementation</u>	● 1/26/09	● <u>1/29/09</u>	■ <u>On Time</u> 3/9/09	■ <u>On Time</u> 3/18/09	■ <u>On Time</u> 6/12/09	■ <u>On Time</u> 6/26/09	■ <u>On Time</u> 6/22/09
<u>Handheld Image Capture</u>	● 2/18/09	■ <u>On Time</u> 2/25/09	▲ <u>Behind</u> 4/29/09	▲ <u>Behind</u> 7/7/09	▲ <u>Behind</u> 8/20/09	▲ <u>Behind</u> 9/1/09	▲ <u>Behind</u> 10/5/09
<u>BIM Object Builder</u>	● 11/21/08	● <u>12/15/08</u>	● <u>1/19/09</u>	● <u>Late</u> 2/19/09	▲ <u>Behind</u> 3/25/09	■ <u>On Time</u> 3/25/09	■ <u>On Time</u> 4/28/09
<u>Project Management Tool</u>	● 1/4/08	● <u>2/28/08</u>	● <u>5/13/08</u>	■ <u>On Time</u> 5/7/09	■ <u>On Time</u> 9/9/09	■ <u>On Time</u> 12/1/09	■ <u>On Time</u> 6/30/11
<u>Direct Compensation (source tool changes)</u>	● 10/23/08	● <u>11/4/08</u>	● <u>1/8/09</u>	▲ <u>Behind</u> 3/10/09	▲ <u>Behind</u> 5/6/09	▲ <u>Behind</u> 5/28/09	▲ <u>Behind</u> 6/11/09
<u>Intervention Library Improvements</u>	■ <u>On Time</u> 3/2/09	■ <u>On Time</u> 3/27/09	■ <u>On Time</u> 6/9/09	■ <u>On Time</u> 8/26/09	■ <u>On Time</u> 10/23/09	■ <u>On Time</u> 11/13/09	■ <u>On Time</u> 1/6/10
<u>Spectrum: Asia Pricing Process Change</u>	▲ <u>Behind</u> 3/2/09	▲ <u>Behind</u> 3/6/09	▲ <u>Behind</u> 3/25/09	▲ <u>Behind</u> 4/14/09	▲ <u>Behind</u> 5/15/09	▲ <u>Behind</u> 5/28/09	▲ <u>Behind</u> 6/3/09
<u>TOPSS - New Equipment Acquisition Tool</u>	■ <u>On Time</u> 3/2/09	■ <u>On Time</u> 3/26/09	■ <u>On Time</u> 6/5/09	■ <u>On Time</u> 8/21/09	■ <u>On Time</u> 10/19/09	■ <u>On Time</u> 11/6/09	■ <u>On Time</u> 12/21/09

Stage Gate Representations



GRAIN FOODS Commercialisation Process



Idea Generation
Ideas stored in Idea Database from sources inside & outside the company.

Concept
Marketing documents:
- Preliminary Market Assessment
Technical documents:
- Statement of Work
- Initial Requirements
Finance documents:
- Financial Analysis

Business Case
Marketing documents:
- User Needs Research Plan
- User Needs Research Report
- Detailed Market Research
- Concept Test Plan
- Concept Test Report
Technical documents:
- SRS (Software Requirements Specification)
- Strategy Plan
- ITR (Issue Tracking Log)
- CMP (Configuration Management Plan)
Finance documents:
- Updated Financial Analysis
Production documents:
- Production Plan
- Distribution Plan
Team documents:
- Team Launch Report

Development
Marketing documents:
- Key Feature Test Plan
- Key Feature Test Report
- Product Launch Plan
- Marketing Plan
- Contingency Plan
Technical documents:
- Concept Test Report
Technical documents:
- SRS
- HLD (High Level Design)
- DLD (Detailed Design)
- Source Code files
- User Help files
- Installation file produced
Finance documents:
- Updated Financial Analysis
Production documents:
- Updated Production Plan
- Updated Distribution Plan
Team documents:
- Postmortem Analysis

Market Testing
Marketing documents:
- Market Test Plan
- Market Test Report
Technical documents:
- User manual (optional)
Finance documents:
- Updated Financial Analysis

Commercialisation
Execute marketing launch plan
Implement production plan
Finalise IP position
Obtain formal compliance app
Measure product financial performance
Prepare for project review
Contingency plan ready

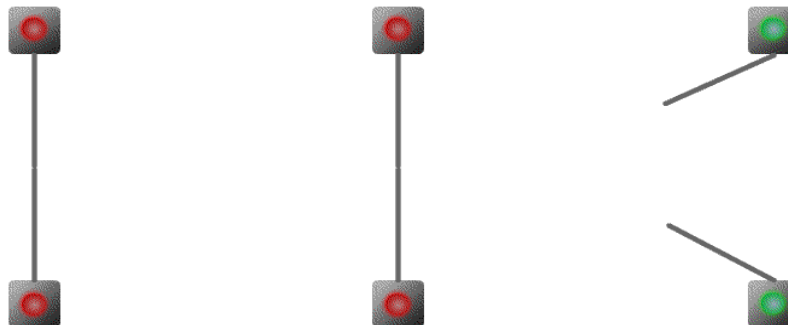
A Closer Look at the Stage Gate Process

What is a Stage-Gate process:

A Stage-Gate System is a conceptual and operational road map for moving a new-product or project from idea to launch. Stage-Gate divides the effort into distinct stages separated by management decision gates (gate keeping). Cross-functional teams must successfully complete a prescribed set of related cross-functional activities in each stage prior to obtaining management approval to proceed to the next stage of product development.

How Does the Stage-Gate® Process Work?

Stages are where the action occurs. The players on the project team undertake key activities to gather information needed to advance the project to the next gate or decision point. Stages are cross-functional (there is no research and development or marketing stage) and each activity is undertaken in parallel to enhance speed to market. To manage risk, the parallel activities in a certain stage must be designed to gather vital information - technical, market, financial, operations - in order to drive down the technical and business risks. Each stage costs more than the preceding one, resulting in incremental commitments. As uncertainties decrease, expenditures are allowed to rise and risk is managed.



A Closer Look at the Stage Gate Process

Gates *The structure of each gate is similar:*

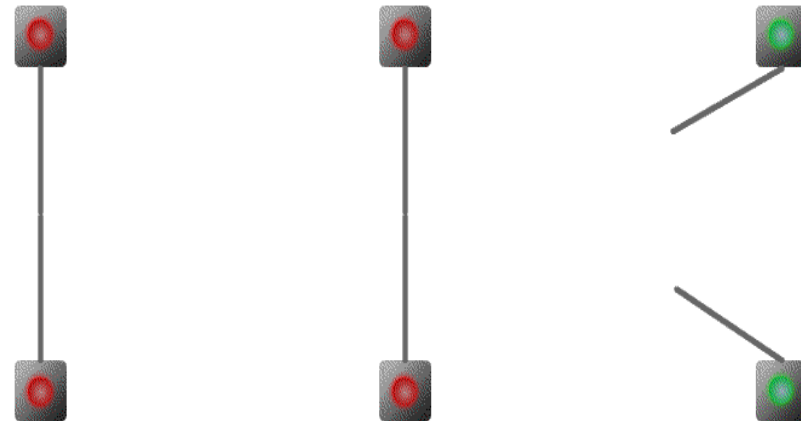
Deliverables: What the project leader and team deliver to the meeting. These are defined in advance and are the results of actions from the preceding stage. A **standard menu of deliverables is specified for each gate.**

Criteria: What the project is judged against in order to make the go/kill and prioritization decisions. These criteria include both **financial and qualitative criteria.**

Outputs: Gates must have **clearly articulated outputs** including: a decision (go/kill/hold/recycle) and a path forward (approved project plan, date and deliverables for the next gate agreed upon).

What are the benefits of using Stage-Gate®?

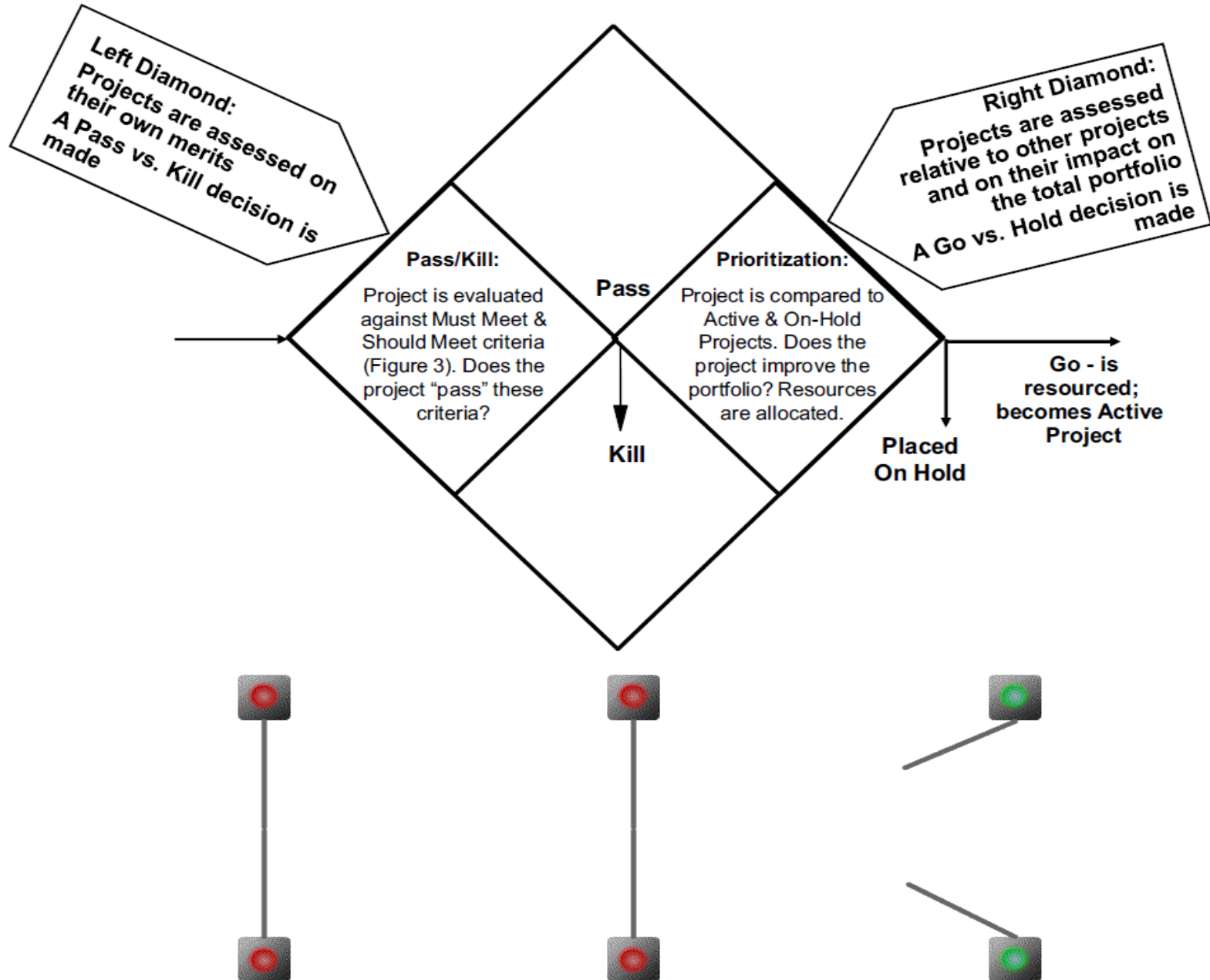
- Accelerates speed-to-market
- Increases likelihood of product success
- Introduces discipline into an ordinarily chaotic process
- Reduces re-work and other forms of waste
- Improves focus via gates where poor projects are killed
- Achieves efficient and effective allocation of scarce resources
- Ensures a complete process – no critical steps are omitted



The results:

A more effective, efficient, faster process that improves your product innovation results.

Stage Gates are Pass/Fail/Prioritize



How Stage Gate teams are organized

Sponsors – Executive Leadership (Business and IT)

- Must attend all Stage Gate Meetings
- Signature required to pass Gate
- Eliminates roadblocks
- Mentors the Team
- Drives Team to consensus

Stakeholders – Those most affected by the outcome

- Provide Requirements
- Perform User acceptance Testing
- Attend Stage Gate meetings to support Project Team

Core Team Members – IT and Business

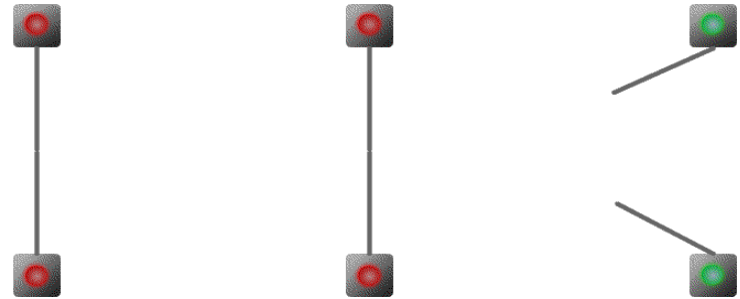
- Assigned/Perform tasks in the Project Plan
- Attend Stage Gate Meetings
- Support Project Manager

Project Manager – Manages all Business and IT work

- Leads Stage Gate Meeting
- Assigns tasks to team members
- Ensures all Gate evidence is complete
- Drives team to Consensus
- Asks for approval to move to the next Stage

SME – Subject Matter Experts

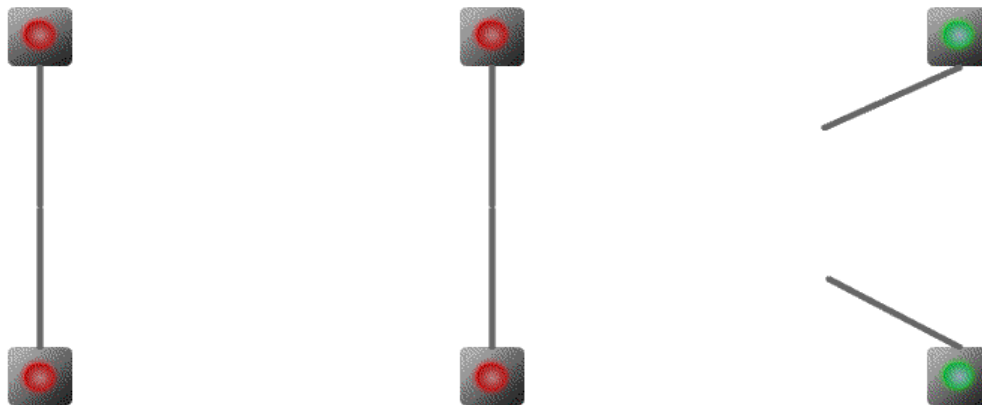
- Participate in Discovery and Planning activities as needed
- Validate Requirements
- Can be part of User acceptance Testing



				TRANSITION (C)		
Project Overview	Project Overview	Project Overview	Project Overview	Project Overview	Project Overview	PO
Create Project St	Update Project Chec	Update Project Checkl	Update Project Charte	Update Project Che	Update Project Checklist	
Create Project Ch	Update Project Char	Update Project Charte	Update Risk Analysis	Update Project Cha	Update Project Charter	PM
Assign Project C	Create Initial Risk A			Update Risk Analysis	Update Risk Analysis Scoring	
Document Projec		Project Plan	Updated Detailed Proj		PILOT	
Document Metr	Create Initial Project	Create Detailed Project	Update Deployment P	Project Plan	Communication	PO
Define Resource		Create Deployment Pl	Create Leverage/In	Update Detailed Pro	Communicate Status to StakeHolders	
Define Stakeho	Business Analysis	Create Pilot Plan	Update Pilot Plan	Finalize Pilot Plan	Execute Pilot Communication	
Define Stage G	Review State of the	Create Data Migration	Update Data Migratio	Finalize Deployment	Training and Support	
Define Project T	Capture AS IS Proc	Business Analysis	Finalize Business Req	Finalize Leverage	Conduct Pilot Users Training	PO
Document estim	Gather/Analyze VOC	Complete Detailed Bu	Review Data Analysis	Finalize Data Migrat	Provide Special Support to Pilot Locations	
Identify Project	Perform Initial Data	Revise Data Analysis	Complete Process Re		Respond to Change Requests	
Deployment Sc	Perform Gap Analys	Update Benefit/ROI	Revise Business Proc	Finalize System Sp	Gather and Document Feedback	
	Identify Process Imp	Document SOX Impac	Peer Review Process		Conduct Pilot Approval Meeting	PO
	Conduct Peer Review	Document Legal Impa	System Analysis and	Validation	Review Pilot Results	
Business Analysis	Document Proposed	System Analysis	Finalize Application Pl	Execute Regression	Review Final Deployment Schedule	
Check Alignment	Document Prelimina	Evaluate Existing Syst	Complete Detailed Sy	Execute User Accept	Go/No Go Decision to Implement	
Identify Similar P	Document Initial Bu	Review Outside Vendo	Complete Application	Complete Validation		
Document Potenti	Populate Business C	Determine Possible Sy	Complete Integration		FINAL	
Conduct RASCI A	Determine SOX Imp	Peer Review System S	Complete Data Sourc	Training and Sup	Update Planning Documents with Actuals	PO
	Determine Legal Im	Recommend/Finalize S	Complete Data Migrat	Finalize Training P	Communication	PO
		Create Application Pla	Complete Interface A	Finalize Support P	Modify Communication Plan Per Pilot Results	
Identify Potential	Communication	Validation	Complete Validation T	Complete Support	Communiate Status to Stakeholders	
	Review progress wit	Create Test Strategy	Complete Infrastruct	Train Support Gro	Execute Final Communication	
Communication	Create Communicat	Create User Acc. Test	Changes			
Identify Comm. P	Add Comm. Milestor	Create Initial Training	Complete Report Dev	Communication	Training and Support	PO
Identify Key Lead	Update Key Message	Validation	Create and Execute T	Review progress wit	Update Training for Support if Needed	
	Update Comm. Pow	Complete User Acc. T	Unit Test	Finalize Communicat	Conduct User Training	
	Develop Q&A and S	Create Regression Te	System Test	Finalize Key Messag	Provide Support to All Locations	
Identify Possible		Communication	Integration Test	Respond to Change Requests	Gather and Document Feedback	
	Determine Finance	Review progress with		Gather and Document Feedback		
Gate Review	Gate Review A	Update Communicatio	Training and Support	Pilot Audience	Conduct Deployment Approval Meeting	PM
Charter/Checklist	Charter/Checklist	Update Key Message t	Revise Training Plan	Deployment Audie	Review Results	
4 Blocker	4 Blocker	Update Collateral Mate	Review/Create Traini		Closeout Project?	
Potential Benefit	Proposed Optimum T	Secure Financing (Ap	Peer Review Training	Deploy Pilot		
Deployment Scope/	Improvements	Gate Review Ag	Create Initial Support	Deploy Final	Project Closeout	PM
Message and Comm	Initial Project Plan	Charter/Checklist	Communication	Gate Review A	Team Recognition	
RASCI Analysis	Overview of Peer Review	4 Blocker	Review progress with	Charter/Checklist	Transfer / Implement Control Plan	PO
Funding Options	Message and Commu	Final Business Requir	Update Communicatio	4 Blocker	Results VOC	
	Funding Source and V	Build or Buy	Update Key Message	Test Results	Summarize and Close Expenses (EO)	
Gate Review	Gate Review D	Benefit Analysis/ROI	Review Collateral Mat	Pilot Plan	Project Signoff	
Charter Approved	Charter Changes Appro	Pilot Plan	Gate Review A	Deployment Plan	Gate Review Agenda	
Project Funding Ide	To-Be Process Recon	Project Plan with Resou	4 Blocker	Message, Pilot and D	Charter/Checklist	
Resources Identific	Improvements Approv	Message and Communi	Charter/Checklist		4 Blocker	
Stage Gate Checkli	Funding Responsibility	Business Process Doc	4 Blocker	Gate Review D	Benefits	
6 Sigma- Project m	Initial Project Plan Ap	Business Process Doc	Business Requirements	Charter Changes Appro	Overall Project Budget	
		Charter/Checklist	Solution (Code/Test, Inf	Validation Testing App	Planned vs. Actual Schedule Milestones	
		Charter/Checklist	Summary System Spec	Formal Approval to Pi	User Feedback	
		4 Blocker	Training and Support Pl	Deployment Schedule	Gate Review Deliverables	
		4 Blocker	Message and Communi	Project Signoff	Project Signoff	
		4 Blocker	Business Process Doc	6 Sigma- Project Completed in MySixSigma		

What Benefits I have Seen?

- Reduced Rework
- Improved Team Building
- Improved integration with the Business/Customers
- Reduced/Eliminated Communications issues
- Managed Risk
- Improved Financial Control
- Improved Confidence
- Improved Project Forecasting



What do you think?

- What questions do you have?
- How do you feel about Stage Gates now?
- What will you take away from this discussion?

