

**By Chris Vandersluis President, HMS Software** 

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#### **Chris Vandersluis**

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- An economics degree from Montreal's McGill University Over 35 years of experience in the automation of project management and timesheet systems.
- Member of the PMI since 1986
- Was on the Microsoft's Enterprise Project Management Partner Advisory Council for 5 years (2003-2008)
- Published in numerous publications including Fortune Magazine, the American Management Association's Project Management handbook, a columnist for Computing Canada, PMI's PMNetwork, Project Times magazine and Microsoft's TechNet
- ☐ Author of the popular blog EPMGuidance.com



#### Our objectives for today

- How to identify and distinguish the project selection and prioritization process from the project scheduling and tracking process
- 2. Learn the basic building blocks of a business-oriented project selection/prioritization process
- 3. Insight into how to implement a project selection and prioritization process and the potential challenges





# What is a Project Portfolio Management Process?

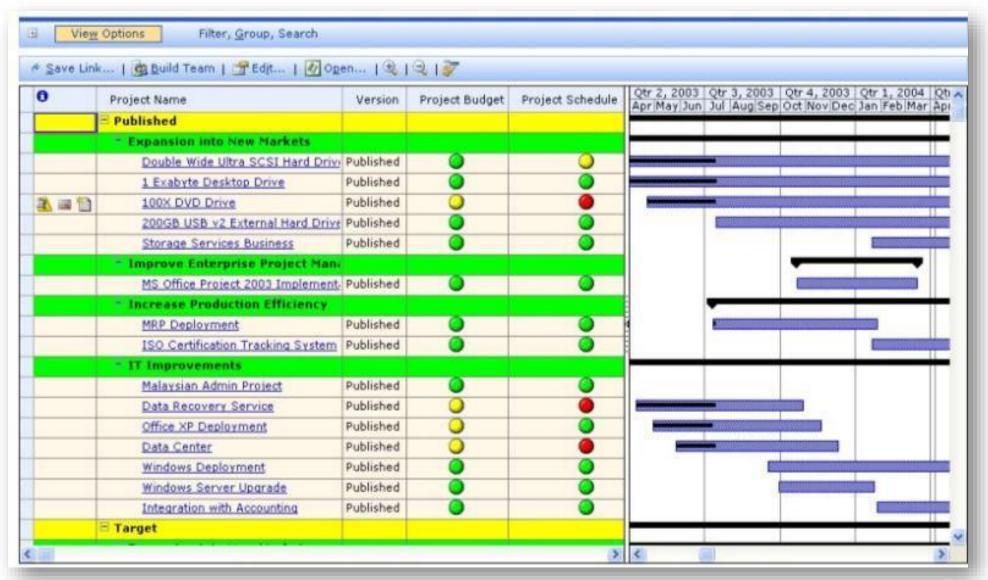


#### **Project Portfolio Management**





#### **PPM: Project Grouping**





#### **PPM: Project Dashboards**





#### **PPM: Project Selection**





#### **EPM vs. PPM**

# "If EPM is about doing projects right, PPM is about doing the right projects"



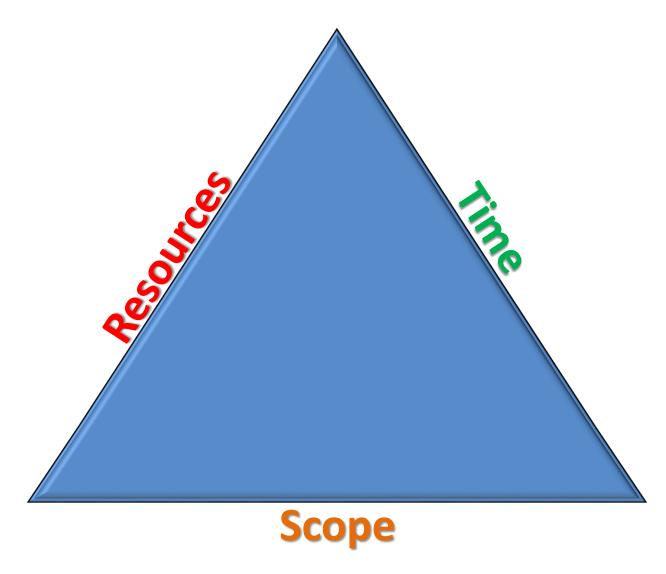
Ben Chamberlain Microsoft Product Manager Project Portfolio Server



### DEFINING A PROJECT PRIORITIZATION PROCESS

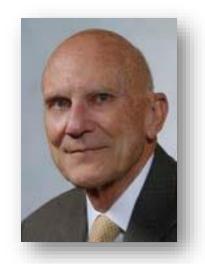


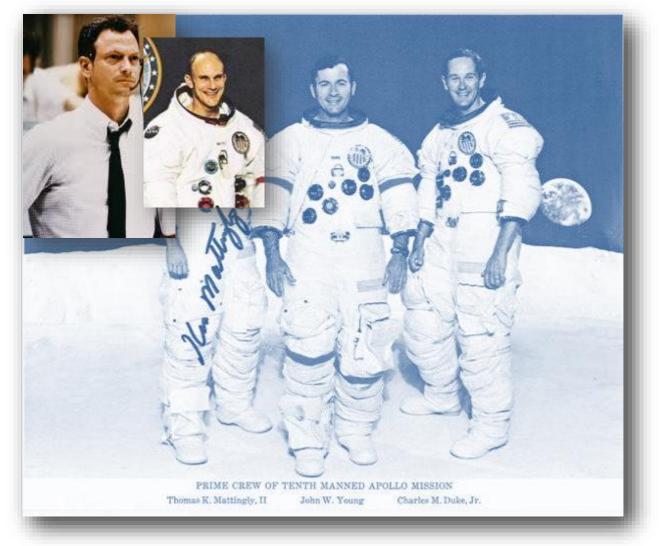
#### **Project Constraints**





#### **Ken Mattingly**







#### What is project management?

"What is a project? It is an exercise of producing a defined result with insufficient resources."

Rear Admiral, Ken Mattingly
Apollo 13 Astronaut, VP Lockheed





#### No prioritization? Then why have PM?

No one has an abundance of resources

...nor should they



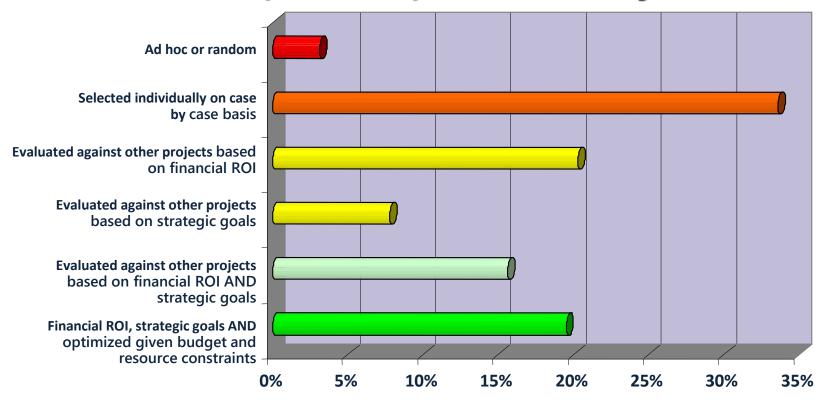
### Between 1999 & 2001 American companies spent \$130 billion on technologies never used

Mastering the Three Worlds of Information Technology (Harvard Business Review, A. McAfee Nov. 2006, pp. 141 -149)



#### **PPM Selection survey**

#### How are Projects Currently Selected in Your Organization?





#### **Project Prioritization**

"When project initiatives are assessed only as a narrative, prioritization becomes a battle of narratives".

- ☐ The result is that:
  - All projects are listed as priority 1
  - All projects have, in theory started
  - Prioritization is done on an ad-hoc basis

☐ The goal: "Find a process that breaks ties"



#### What do Executives need?

#### A sip from the firehose





#### What do Executives need?

- The biggest challenge for Business Decision Makers is the deluge of data; data from all sorts of various sources and in myriad formats.
- ☐ There is no shortage of data but a profound lack of knowledge and, by extension, of decision making ability
- Business Decision Makers want data volume decreased and decision making increased.



According to a survey done of 385 IT and Finance VPs, 82% do not possess information which is of sufficient quality, trustworthiness or usefulness to manage their operations.

Computing Canada, April 7, 2006

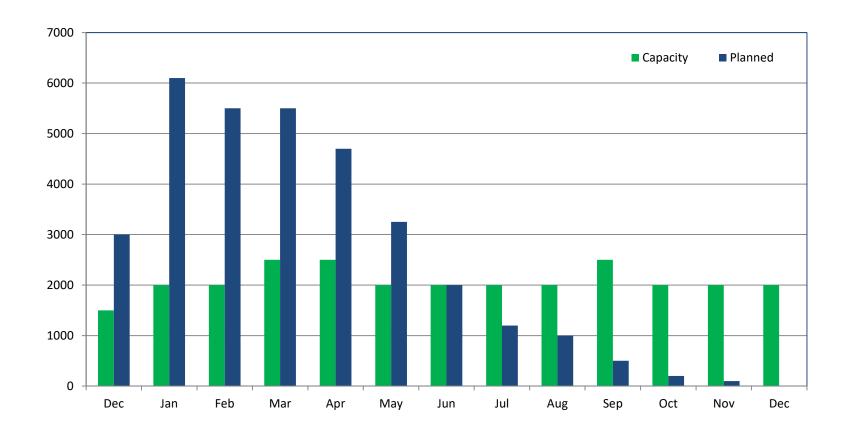




## Creating a project prioritization process



#### Non-prioritized projects





#### **The Portfolio Prioritization Process**

- 1. Identify Business Drivers
- 2. Develop questionnaires for measurement in each category
- 3. Determine the inter-driver impact through pairwise comparison
- 4. Assess answers for the questionnaire for each project
- 5. Calculate priorities based on the questionnaire answers
- 6. Prioritize a summary schedule based on the priority listing and identify which projects would be done first based on the priority and which will not be accomplished based on limited resources
- 7. Review the results and force projects into the priority list where required with the understanding that other projects would then not be completed.



#### **Business Drivers vs KPI's**

☐ Business Drivers are short sharp statements that express the shared focus of the organization in actionable terms.

■ Key Performance Indicators are Measurements of past performance that empower management to action when results are not occurring as expected.

■ New Project initiatives are based on Business Drivers



#### **Rules for Business Drivers**

- Choose 4 to 8 business drivers
- □ Have the drivers align to goals that are recognizable by all of management
- □ Include relevant managers in the selection and relevance of the business drivers (These are the same managers who are requesting projects)
- Look to your mission statement, strategic goals, current business challenges, global or regional initiatives to find business drivers

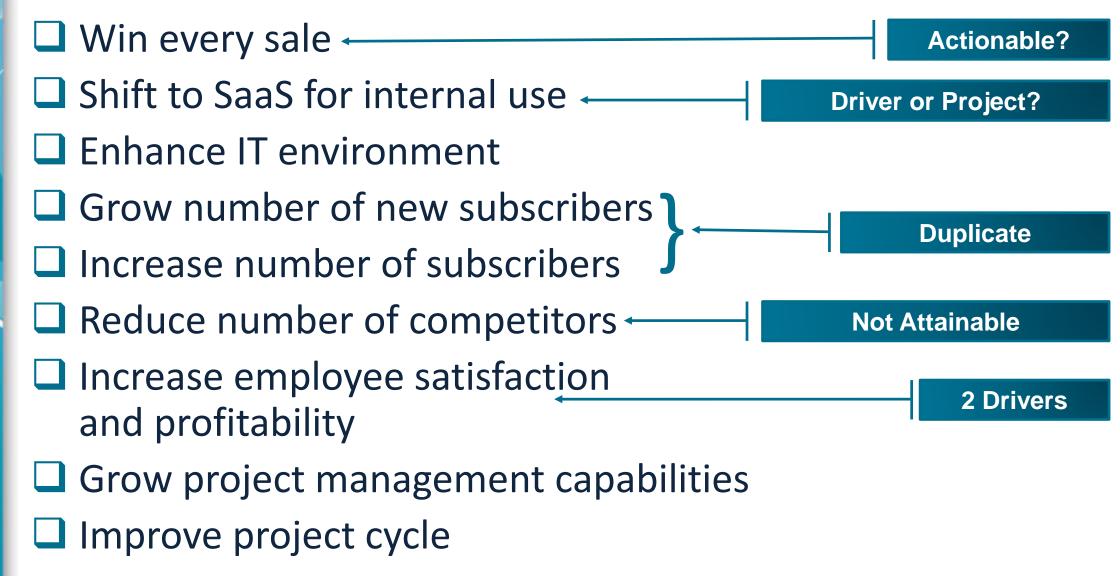


#### **Business Driver Characteristics**

- Business Drivers should be:
  - Measureable
  - Action oriented
  - Unique
  - Leveled
  - Attainable
  - Clear to all decision makers



#### **Business Driver Examples**





#### **Project Questionnaire**

- ☐ Create multiple choice answers for fundamental questions to determine the impact of each project on each project driver:
  - Extreme
  - Strong
  - Moderate
  - Low
  - None



#### Real World example of questionnaire

Compliance	Extreme threat	Threat to the institution's existence or major criminal or civil liability
	Strong threat	Threat to the institution's reputation
	Moderate threat	Threat to operational requirements
	Weak threat	Threat of minor sanctions
	No threat	Does not affect Compliance
Strategic Need	Extreme Benefit	Strategic objective cannot be performed without this project
	Strong Benefit	Strategic objective would be significantly advanced
	Moderate Benefit	Strategic objective would be advanced
	Weak Benefit	Strategic objective would be slightly advanced
	No Strategic Benefit	There is no strategic benefit
Operational Business Need		
Risk		
Number of Stakeholders		



Prioritized project list

	Projects	
0004	Software Testing Architecture Upgrade	5.4103%
0030	Integrated Development Environment Training	5.2419%
0010	Operating System Upgrade	4.9408%
0002	Bug Tracking Database Design	4.8599%
0015	Router Benchmark System Upgrade	4.5835%
0012	ERP System End-User Training	4.4214%
0001	Feature Request Database Evaluation	4.3877%
0009	IT Architecture Deployment	4.1869%
0005	Data Warehouse Upgrade	4.0967%
0016	Hub Upgrade	3.7939%
0026	Network Application Architecture Design	3.7645%
0022	End-User Network Training	3.7259%
0024	Knowledge Management System Enhancement	3.6055%
0017	Packet Optimization Software Design	3.5751%
0027	Secure Software Audit	3.5358%
0003	Software Roadmap Design	3.5069%
0006	Revision History Database Design	3.3276%
0025	IT Staff Training	3.2555%
0031	Automated Processing System Implementation	3.1829%
0021	Firewall Configuration	3.1272%
0029	Internal Software Database Audit	2.9445%
0008	IT Vendor System Rollout	2.6281%
0023	Internal Web Page Design	2.5622%
0018	HTTP Traffic Monitoring	2.1432%
0020	Network Traffic Management System Upgrade	2.0483%
0014	Website Design Rollout	2.0200%
0007	Software Benchmarking Architecture Upgrade	1.4279%
0019	Compliance DB System Implementation	1.3007%
0011	PDA Replacement	1.0820%
0013	Word processing system upgrade	0.6726%
0028	Internal Application Customization	0.6407%



#### **Business Driver Matrix**

	Improve Market Share	Improves customer satisfaction	Project Risk	Alignment to Strategy
		Market Share is strongly more important	Market Share is Strongly more important	Market Share is Moderately more
Improve Market Share		than Customer Satisfaction	than Project Risk	important than Alignment to Strategy
			Customer Satisfaction is Equal to Project	Customer Satisfaction is Strongly less
Improves customer satisfaction			Risk	important than Alignment to Strategy
				Project Risk is Moderately less important
Project Risk				than Alignment to Strategy
Alignment to Strategy				

Improve Market Share Increase market share by 10%

Improve customer satisfaction Increase overall customer satisfaction by 10% as measured by the quarterly customer satisfaction survey

Project Risk Exposure to project risk as assessed in our project risk matrix scoreboard

Alignment to strategy Degree of alignment to one of the 4 key strategic goals as published by the board of directors for this year

Description	Score
Strongly more important than	9
Moderately more important than	3
Equal to	1
Moderately less important than	0.33
Strongly less important than	0.111



#### **Business Driver Matrix Score**

	Improve Market Share	Improves customer satisfaction	Project Risk	Alignment to Strategy
		Market Share is strongly more important	Market Share is Strongly more important	Market Share is Moderately more
Improve Market Share		than Customer Satisfaction	than Project Risk	important than Alignment to Strategy
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Alignment to Strategy				

Description	Score
Strongly more important than	9
Moderately more important than	3
Equal to	1
Moderately less important than	0.33
Strongly less important than	0.111

	Improve Market Share	Improves customer satisfaction	Project Risk	Alignment to Strategy	Alignment to Strategy
Improve Market Share		9	9	3	21
Improves customer satisfaction	0.111		1	0.111	1.222
Project Risk	0.111	0.33		0.33	0.771
Alignment to Strategy	0.33	9	3		12.33

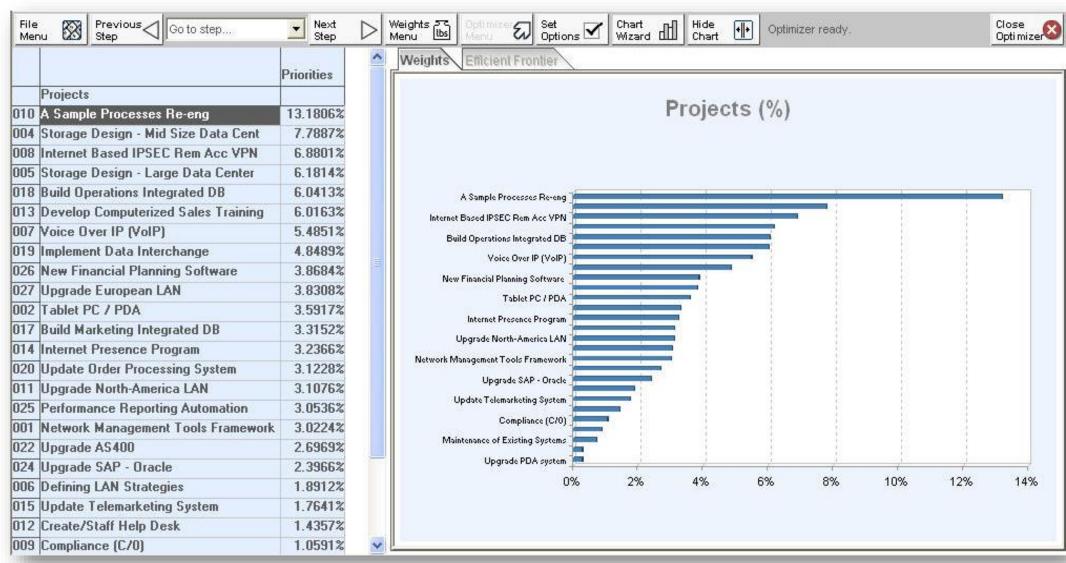


#### **Driver Matrix Scores**

Driver Matrix								
	Weighting		Scores					
			Project 1	Project 2	Project 3	Project 4	Project 5	
Improve Market Share	21	59	0	1	2	3	4	
Improves Customer Satisfaction	1.22	3	0	1	2	3	4	
Project Risk	.771	2	4	3	2	1	0	
Alignment to Strategy	12.33	35	0	1	2	3	4	
Total:	35.321	100	8	103	198	293	388	

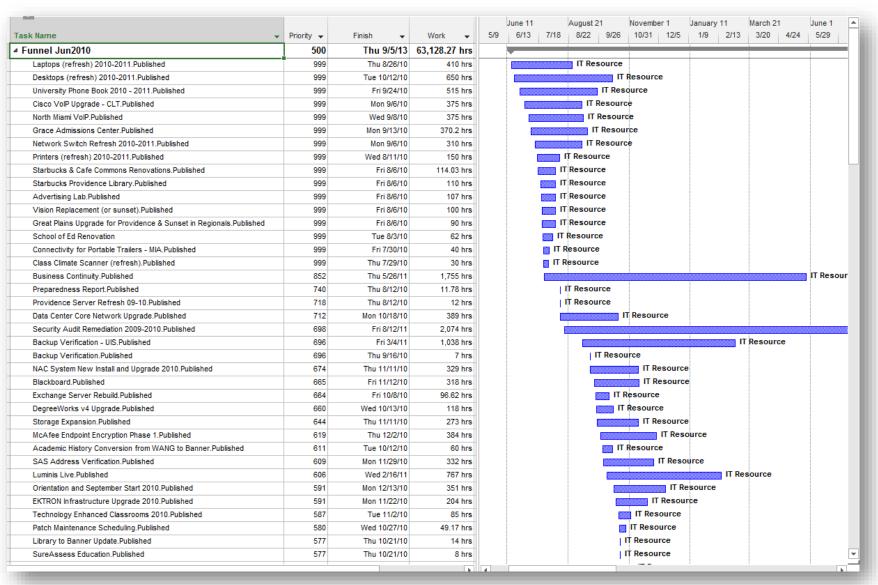


#### Ranking projects





#### **Prioritized Schedule**





#### STAGE GATING



#### **Ongoing prioritization**

■ We've just covered project selection and initiation so far, but if we go any further, it's worth talking about stage-gating.



#### Stage-gating

- □ The term Stage Gate was coined in Montreal at McGill University
- ☐ The concept was the result of the study of the effective practices of a large number of organizations by Dr. Robert Cooper



#### **Stage Gating**











Stage 1

Stage 2

Stage 3

Stage 4

Stage 5

#### **Initial Idea**

An original idea is pitched. Gateway – Initial approval to move to Design

#### Design

During Design, basic design is completed along with commercial viability. Gateway – Go engineer or create the idea.

#### **Engineer**

Build the idea.
Continue to review
commercial viability and
market acceptance.
Gateway – Move into
testing and
documentation.

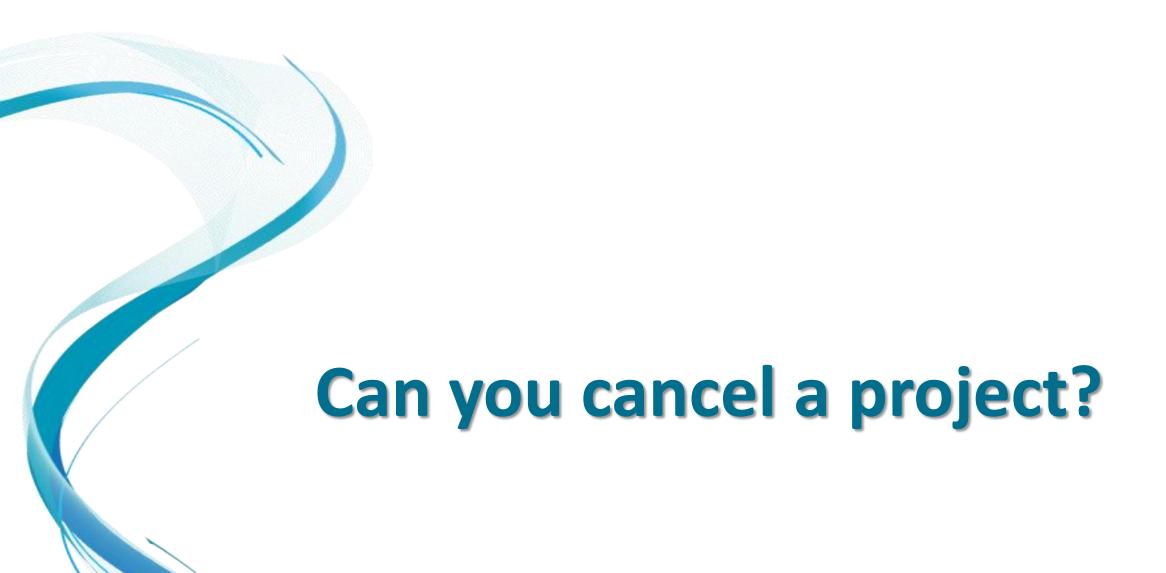
#### **Quality Assurance**

Document and test the created product.
Review Commercial viability and prepare materials for marketing and shipping. Gateway
- Marketing acceptance.

#### **Deployment**

Marketing takes the idea and prepares to sell and distribute it.
Stage ends when product is released to market.





#### **PPM Pitfalls**

- "We have stage gating, it's just that all the gates are open"
- "We have project cancelling criteria, we're just not allowed to cancel the project"
- My compensation is tied to the success of this project, not its cancellation



#### When the Horse Dies:Dismount!





#### **Beating a Dead Horse**

Dakota tribal wisdom says that when you discover you are riding a dead horse, the best strategy is to dismount. However, project managers sometimes try some of the following ideas they:

Change riders
Buy a bigger whip
Rename the horse
Stay very quiet while on the dead horse and hope no one notices
Appointing a committee to study the horse.
Send the rider for additional training
Outsource the riding of horses
Do a study of dead horses
Harness two or more dead horses together to see if the cart will go any faster
Add funding to increase riding performance
Say things like, "This is the way we have always ridden this horse."
Automate the dead horse to see if software can make it ride faster
Rewrite the description of horses to ensure yours can't be defined as either dea or even a horse
Reclassify the horse as "living impaired"



## AUTOMATING THE PROJECT PORTFOLIO PROCESS



#### **PPM Software (Wikipedia)**

# And that's just Wikipedia...

https://en.wikipedia.org/wiki/Comparison\_of\_project\_management\_software



#### Successful automation tips

- Don't automate until you know what you're automating (And don't let the tail wag the dog!)
- Process, process, process will always be more important than the look and feel of a screen
- Make sure you budget expertise (internal or external)
- ... and training
- ... and time.



## DEPLOYING BUSINESS PRIORITIZATION PROCESS





#### Deploying a Business Prioritization Process



#### A common request...

"We just bought this PPM Software product... Can you come make it work?"

Our most common response:

"What would you like it to do?"

Most common reply "Don't you know?"



#### **Deploying Business Prioritization**

- Common expectations
  - ☐ Technology will solve everything
  - ☐ It can be done by Friday... this Friday
  - ☐ All employees will adopt without objection
- It's not a technology project, it's change management
- Instituting organizational culture change



#### **Common expectations**

- ☐ It will be ready instantly
- ☐ It is all about the technology
- ☐ It's just like we do now but on the Web
- No one will require training
- ☐ It will never affect my projects



#### Establish deployment team

- ☐ Identify Key Stakeholders
- ☐ Identify internal expertise resources
- ☐ Engage external expertise (if required)

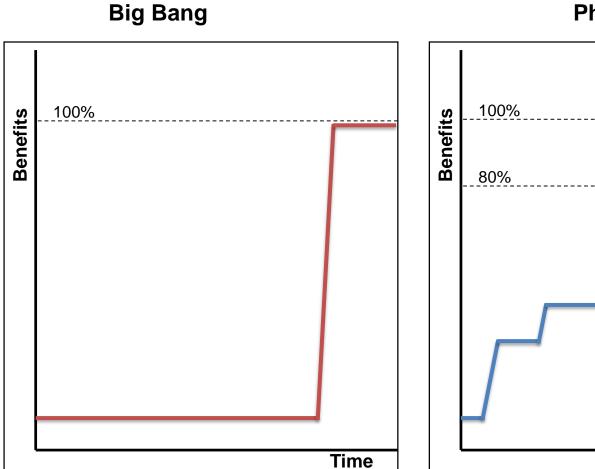


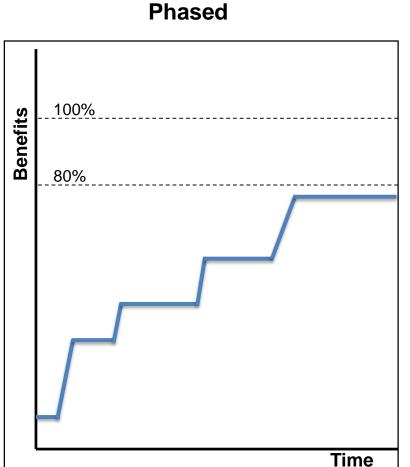
#### **Identify Business Objectives**

- Executive and Stakeholder workshops
- ☐ Identify management role impact
- Prioritize business objectives and create a Master Deployment Plan
- Establish milestones and metrics



#### Big bang or phased deployment?







#### **Big Bang or Phased implementation?**

- ☐ Big Bang
  - Better chance of reaching 100% of originally perceived benefits
  - Better chance of reaching 0% of benefits because:
    - ☐ Project is cancelled
    - ☐ Team changes
    - ☐ Priorities change
    - □ Organization changes

- Phased
  - Better chance of not getting to 100%
  - ☐ Chances of getting some benefits are close to 100%
  - ☐ Secret is targeting the biggest initial benefit for the lowest risk





# Pitfalls And Sinkholes



#### So... we're done... right?

- ☐ Sorry, no.
- ☐ Just because you know how to create a project prioritization process doesn't mean it will be adopted with open arms by everyone
- ☐ There are still barriers to overcome and pitfalls and sinkholes to avoid



#### Hot tips to encourage prioritizing

- ☐ Set up the rules long <u>before</u> you try prioritizing live projects
- ☐ Create a metric for determining what makes a high vs. low project not a subjective opinion
- □ Define a referee for any desired exceptions before the process is implemented. Get agreement that the referee's word is final ("we don't argue balls and strikes")
- Get senior management support early on. There are bound to be concerns as the process is implemented. Make sure you've got the backing you need before they arise.



#### **Common pitfalls**

- No project planning for the project portfolio system
- No requirements or scope established
- ☐ It's all about technology once it's installed, the problem is solved!
- No budget allocated
- ☐ No executive sponsor support or too short term



#### **User Resistance**

In completed EPM deployments, what challenges were experienced as an "extremely" or "somewhat challenging" aspect of deployment?

Challenge	Percent experienced
Culture change (user resistance)	100%
Lack of knowledge on EPM system and requirements	100%
Executive sponsorship	80%
Importance of PM to the Organization	60%
Long-term funding	60%
Current state of PM processes and practices	40%
Technological capabilities	40%
Competing initiatives	40%

\*Preliminary Results of EPM System Implementation Benchmark Survey, Center of Business Practices, 2004



#### PITFALL AVOIDANCE



#### **Avoiding the pitfalls**

- What we see most often:
- No charter
- No schedule
- No executive sponsor
- No budget except for software
- No dedicated team
- No success metrics
- No expectation of changes in culture



#### **Change Management is key**

- ☐ Some of the challenges you'll face include:
- Acceptance of centralized standards and who gets to make them
- Creating a common coding structure so data comes together
- Convincing everyone to participate
- Convincing management to support the project long-term



#### Overcoming change resistance

- Tools in your arsenal?
  - ☐ You control the display
- Have a plan and manage like a project
- Have management sponsorship
- ☐ Return on investment for each type of user
  - □ People will need to invest time and effort what will they get back?



#### Overcoming change resistance

Become the path of least resistance Templates Do it manually or on a white board so everyone can follow the process and not blame the software Easy to follow process Consider objections and ways you can overcome them. **□** e.g.: Consider a temporary amnesty Consider establishing rules for project prioritization Communicate, communicate, communicate Seminars, lectures, white papers, presentations

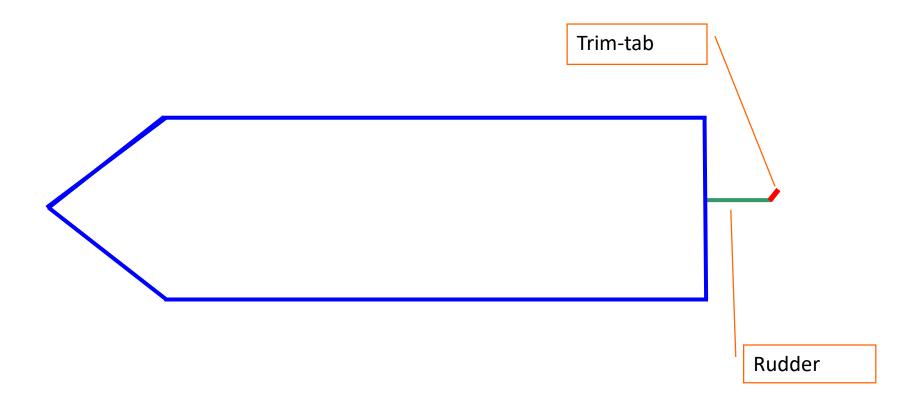


#### **Overcoming Change Resistance**

- ☐ Get sufficient authority and then impose the change
  - How can employees thwart this method?
- ☐ Be democratic, take a majority vote
  - What are the negative implications of this?
- ☐ Trim-tab



#### **Buckminster Fuller's Trim Tabs**









#### WRAPPING UP



# Find your own path

A battle plan lasts, until contact with the enemy.

Napoleon Bonaparte





#### **Contact Information**

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## Thank you

