

# Project Portfolio Management: Metrics that Work

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# Agenda

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PPM Interest

What is Project Portfolio Management?

Challenges

Myths

Benefits

Implementation Steps

Portfolio Management Models

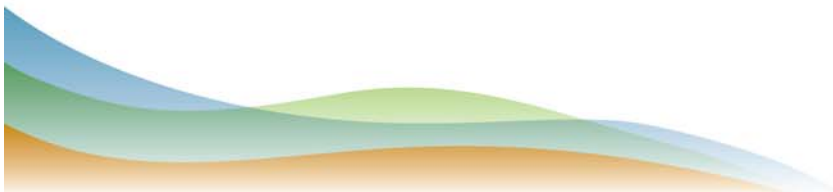
Types of Portfolio Metrics

Measurement Lessons

Dashboard Tips

Sample Dashboards

Screenshots



# Project Portfolio Management: Metrics that Work

PPM Interest

Definitions

Challenges

Myths

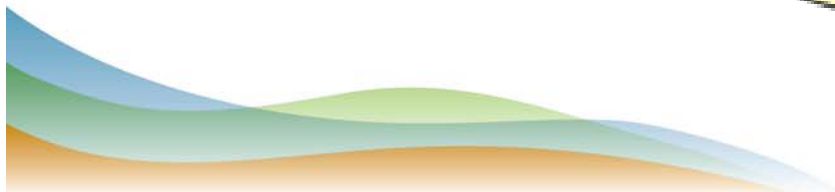
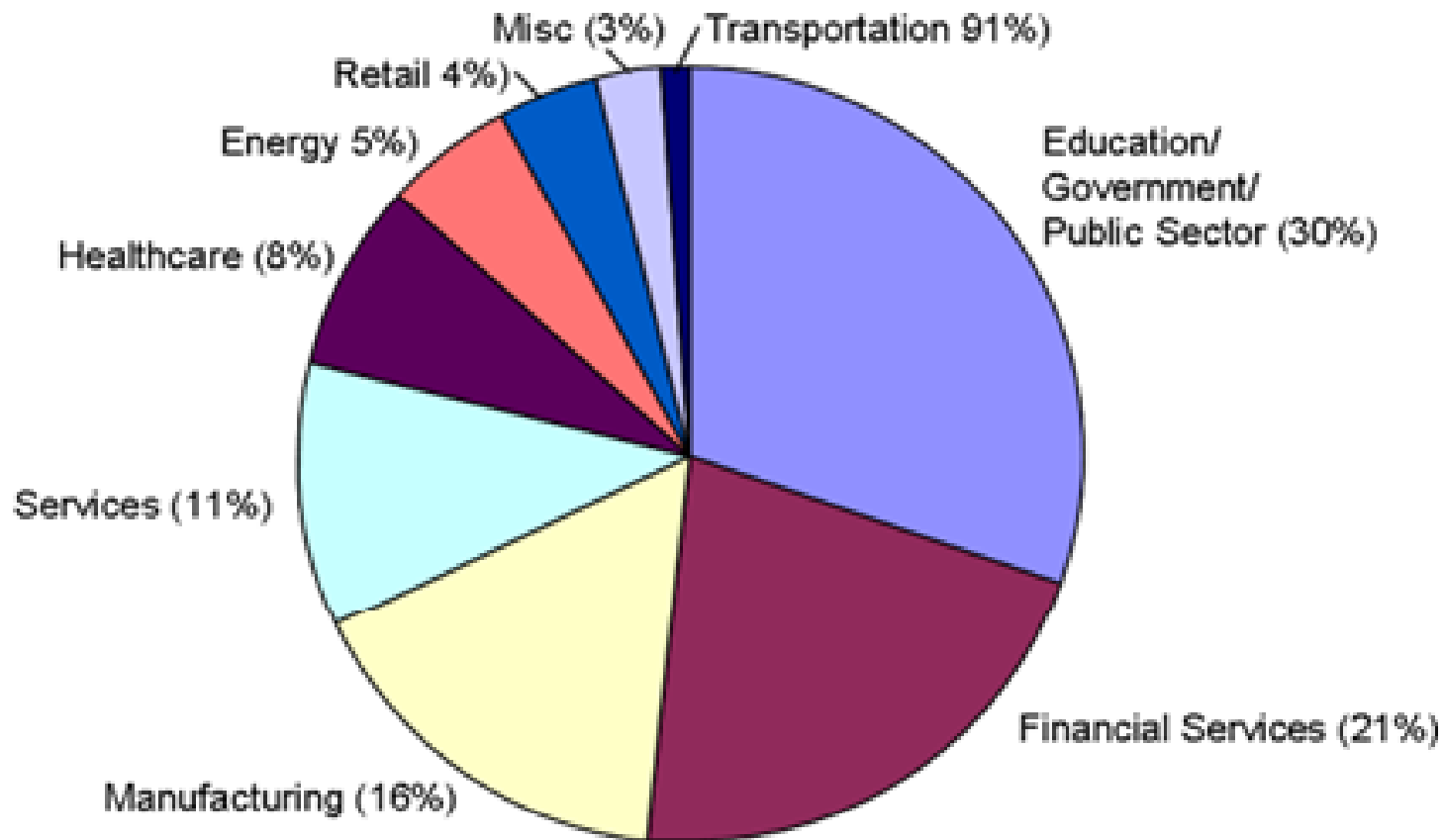
Benefits

Implementation Steps

# PPM Interest

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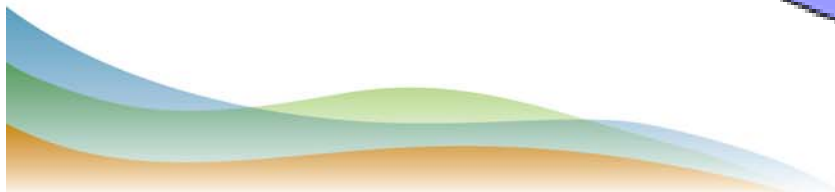
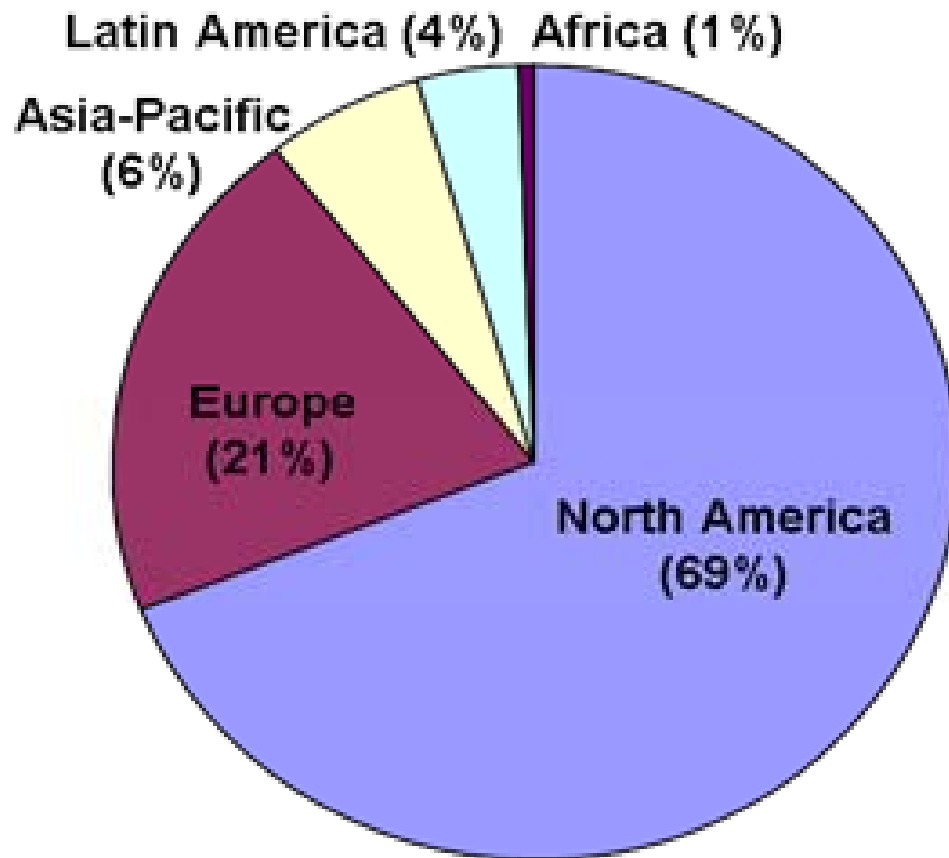
## “PPM”-related Searches by Industry March 2010 – Feb 2011



# PPM Interest

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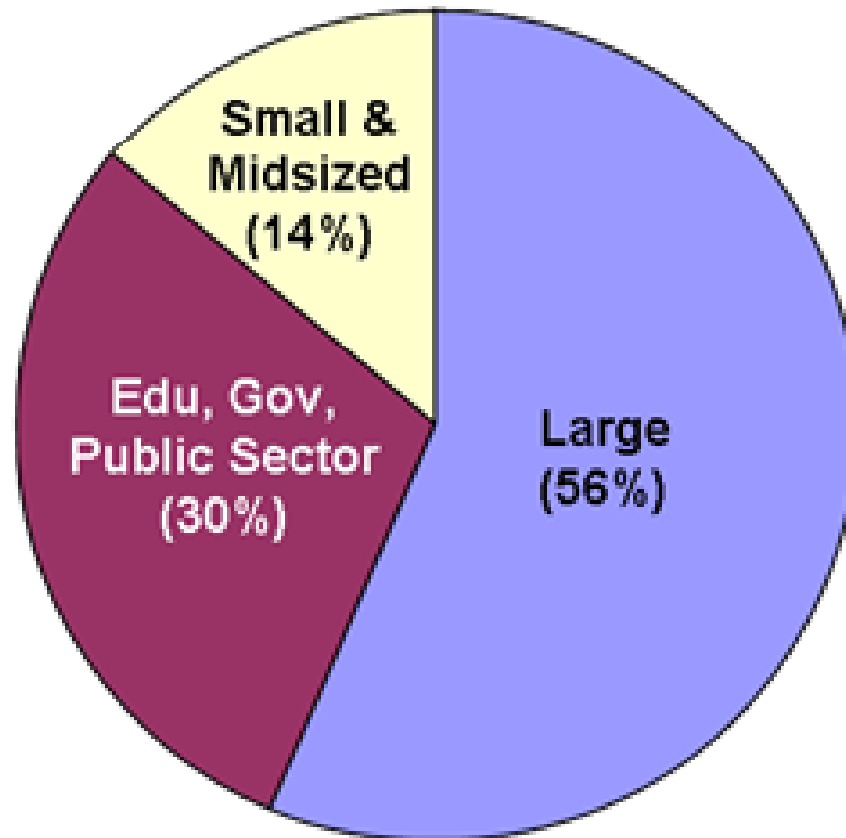
“PPM”-related Searches by Geography  
March 2010 – Feb 2011



# PPM Interest

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“PPM”-related Searches by Size of Enterprise  
March 2010 – Feb 2011

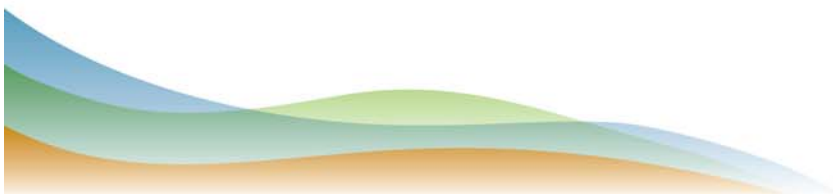


# Project Portfolio Management

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From *PMBOK 4<sup>th</sup> edition*:

The centralized management of one or more portfolios, which includes identifying, prioritizing, authorizing, managing, and controlling projects, programs, and other related work, to achieve specific strategic business objectives.



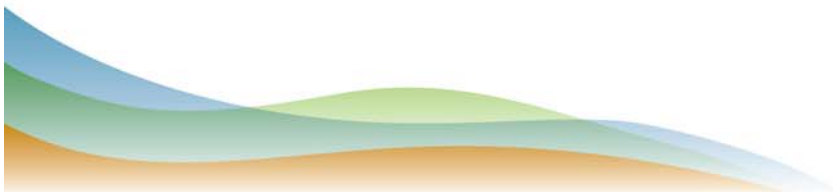
# PPM Scope

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PPM allows an organization to measure the impact of project management on procurement, human resources, cost, and product quality at a company-wide level.

Program level – cumulative management of projects contributing to common program objectives.

Portfolio – allows programs or projects to be prioritized for completion by strategic goals, revenue, operational and functional objectives.



# Who is your PPM audience?

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Most senior executives are not interested in the measures of success used by project management:

- scope
- time
- cost
- quality

Their measures of success are:

- profitability
- return on investment
- delivery of benefits
- taking advantage of windows of opportunity



# Who is your PPM audience?

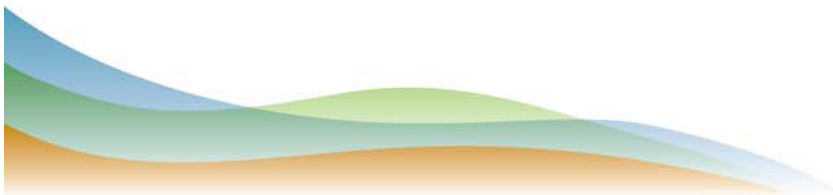
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Executives used to be interested in just two things about projects:

- when will they be finished
- what they will cost

Executives are now more interested in:

- what mix of potential projects will provide the best utilization of human and cash resources to maximize long-range growth and return on investment for the company?
- how do the projects support strategic initiatives?
- how will the projects affect the value of corporate shares (stock)?

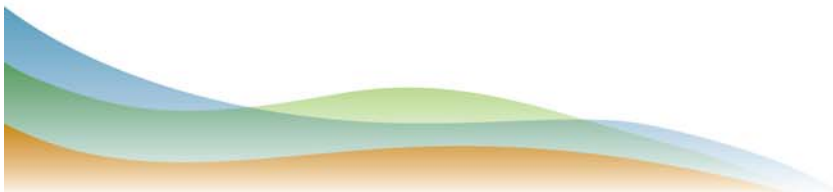


# Project Portfolio Management

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From *Project Portfolio Management: A Practical Guide to Selecting Projects, Managing Portfolios, and Maximizing Benefits* (Harvey A. Levine)

The bridge between traditional operations management and project management.



# Past/Current State

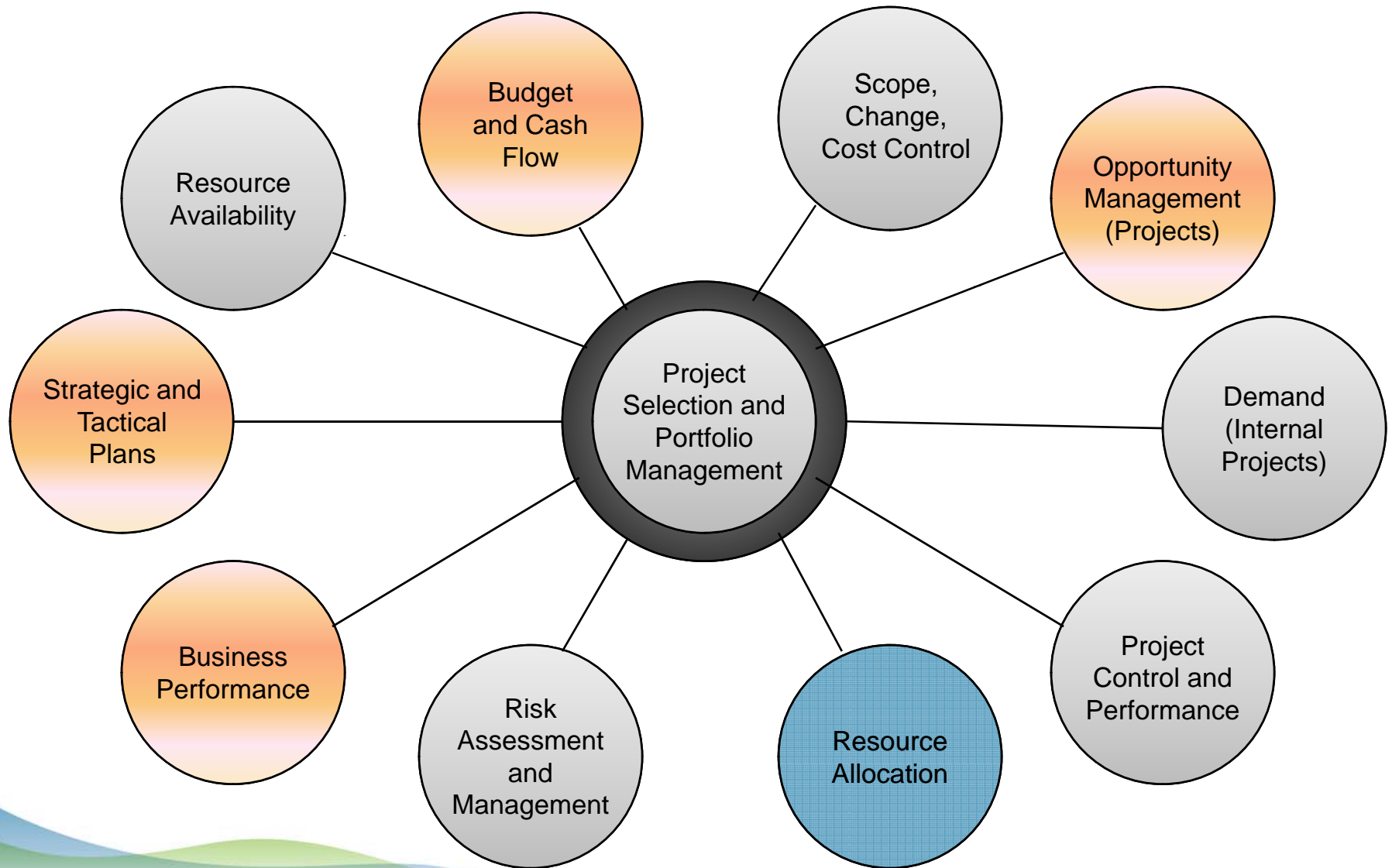
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Operations Management	Project Management
Strategies	Schedule/time
Objectives, goals	Project costs
Business performance	Project performance
Stockholder satisfaction	Stakeholder satisfaction
Project selection and mix	Scope/change control
Resource availability	Resource utilization
Cash flow, income	Cash usage



# PPM as the Hub

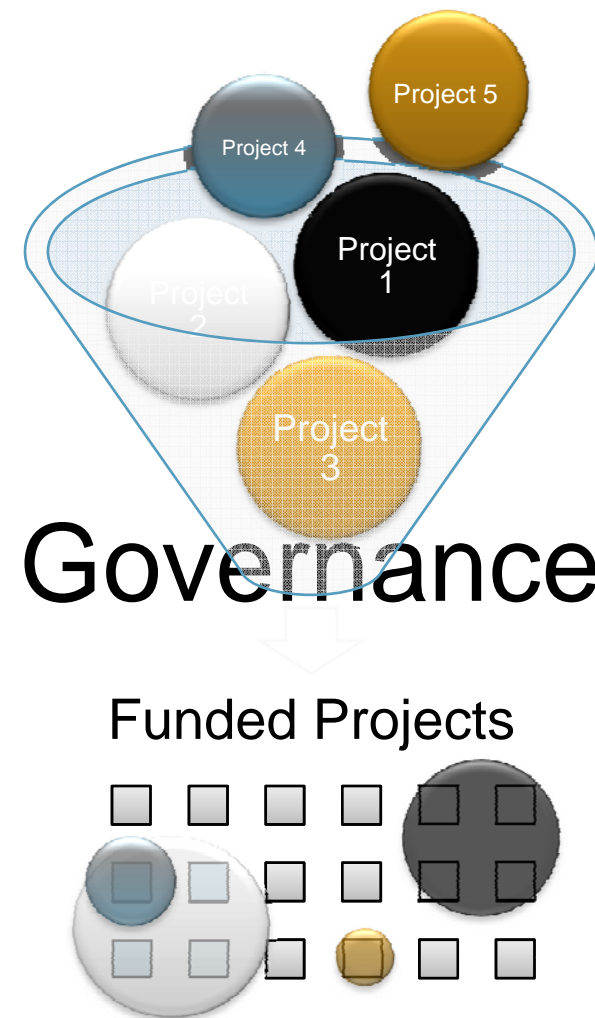
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# Project Portfolio Management

## PPM Enables Project Selection

- Aligns projects with organization priorities and capabilities
- Top-down **governance** approach to determine which projects to fund
- Uses a set of project selection criteria to rank project proposals
- Creates a diversified project portfolio by selecting a proper mix of project work across different technologies and lines of business
- Maps project work to individual applications within the portfolio

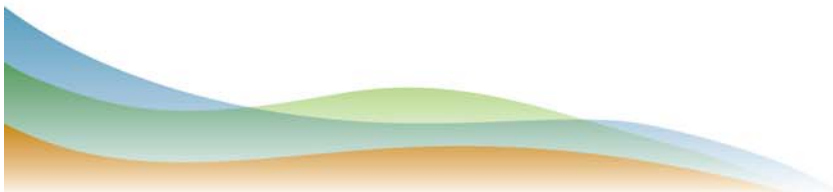


# Challenges of PPM

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## Organization

- Projects are often driven and defined by customers who set the milestones, schedules etc.
  - Consulting engagements
- In some industries project timescales reflect product lifecycles and can be up to 40 years long.
  - Defense, Infrastructure, Pharmaceutical
- The other end of the spectrum is a three to four month project timescale
  - Mobile phones, computers, electronic games

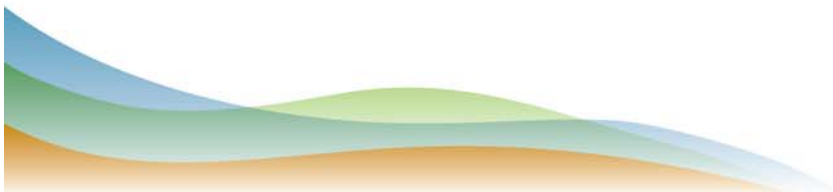


# Challenges of PPM

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## Cultural

- There is a big brother perspective.
- Management not buying into the process because they may get exposed. Pet projects become exposed.
- Heard more failure stories than success.
- Brings a level of detail that may create a fear factor among some.



# Challenges of PPM

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## Knowledge

- There is a lack of knowledge from consultants in this space.
- Reliance on consultants to solve the problem. Implementation of PPM is a change management process.
- Advocated by software consultants, but often they are not equipped to address issues around change management.
- The consultancy market tends to use a 'bus load' of consultants for large software deployment and this is a dead end.
- Some design at a very high level of maturity (e.g. level four of five) but the majority of companies are below level three.



# PPM: Three Dangerous Myths

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## Myth 1: PPM resides with IT

Defining a PPM rollout involves strategic questions often outside IT's purview.

What are all the company projects under way or in the queue?

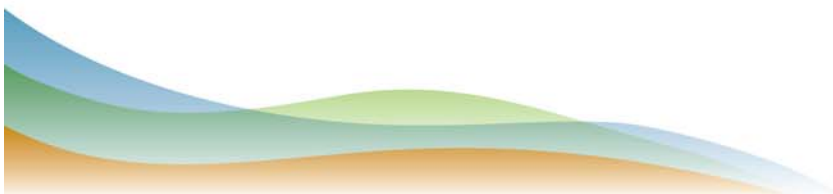
Are they projects the company should be doing?

How does each relate to its strategic initiatives?

How are they prioritized? Budgeted? Resourced?

Which business lines are profiting by them, and which are not?

How does management obtain insights into their progress?



# PPM: Three Dangerous Myths

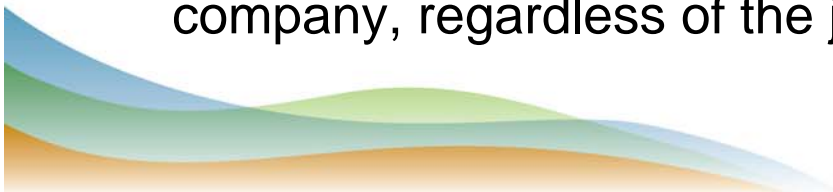
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## Myth 2: The Right Tool Drives PPM Success

Begin with an assessment of the organization's PPM maturity level and its appetite and ability to advance. If it's at level 1 now, realistically how feasible is level 4 or 5, and how rapidly can the company achieve it?

- Is there an executive commitment to the effort and expense involved?
- Is the rest of the organization prepared for the effort?
- What path will maturity take?
- What business benefits must PPM deliver?

The choice of tool is secondary to these considerations. The best tool is the one that most fully serves the very particular needs of the company, regardless of the judgment of the technology marketplace.



# PPM: Three Dangerous Myths

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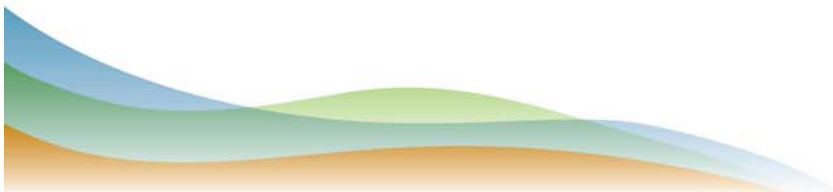
## Myth 3: The Best Starting Place is PPM Best Practices

Rarely are companies ready to implement PPM best practices out of the gate.

Start first with:

Standard definitions  
Cost and benefits estimates  
Labor and non-labor estimates  
Stakeholder impacts

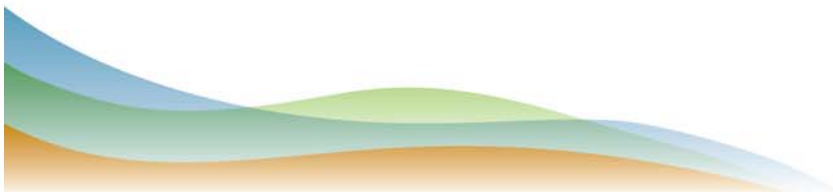
Measureable success criteria  
Return on investment  
External dependencies  
Stakeholder inputs



# Benefits of PPM (but not a Silver Bullet)

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1. Getting products to market on time resulting in safeguarded or increased revenue.
2. Driving delivery of quality products with increases client satisfaction and reduces warranty claims.
3. Reducing cost through supporting procurement in the effective acquisition and use of material resources.
4. Increasing productivity by assigning human resources to priority work and ensuring that they are assigned according to their skill sets.



# Benefits of PPM (but not a Silver Bullet)

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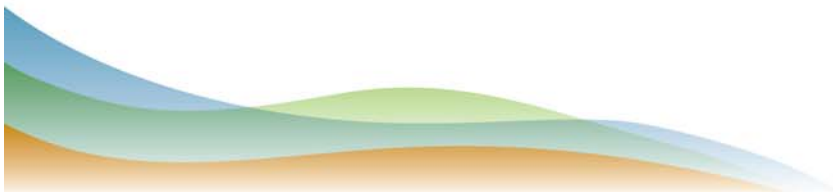
5. Increasing profitability by emphasizing projects that provide maximum return on investment.
6. Planning/forecasting human resource and equipment demand and comparing them to available resource and equipment in order to better understand enterprise capacity and meet present and future human resource and equipment needs.



# Implementing PPM

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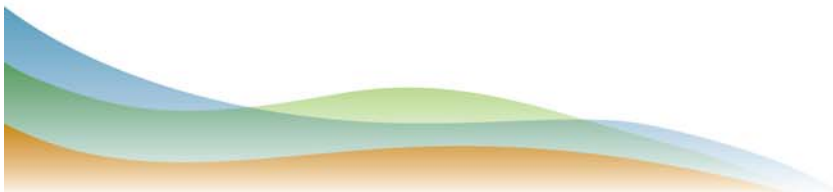
1. Apply a PPM approach to the management of their projects.
2. Identifying what scope of programs/projects is to be managed with the PPM system.
3. Determining what project performance information is measured for example, duration vs. effort vs. costs.
4. Developing and employing a common methodology, including inputs, processes, roles and outputs, to manage the completion of priority projects.
5. Selecting the right technology tools to support their PPM system.



# Implementing PPM

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6. Role training project and product management resources on the use and application of the methodology.
7. Measuring compliance on the use of the methodology and configuring tools to gather and report performance information.
8. Acquiring and maintaining management's support in the ongoing use and improvement of PPM.



# Project Portfolio Management: Metrics that Work

Portfolio Management Tools

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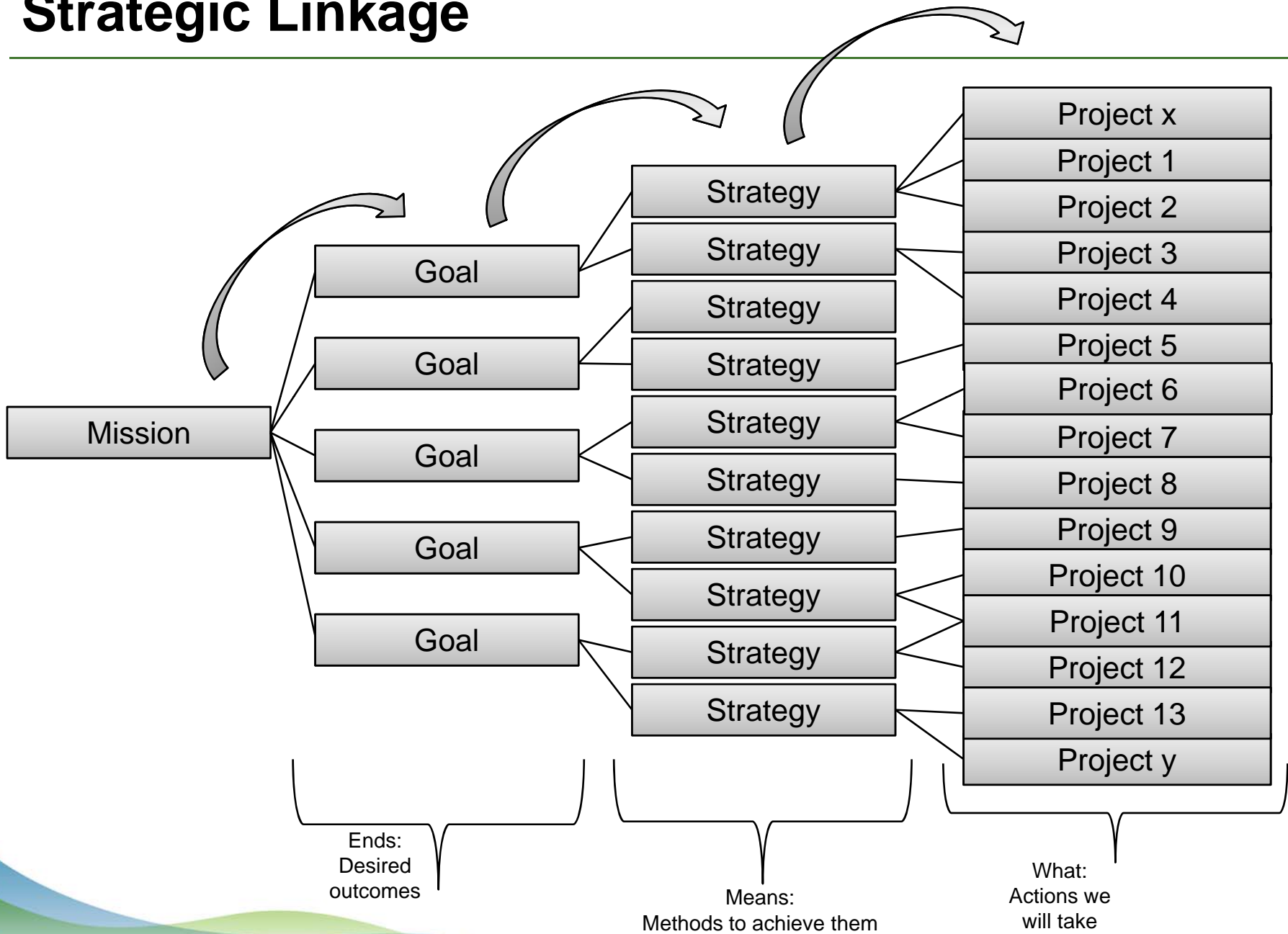
## Examples of Portfolio Management Models

Portfolio Value vs. Cost  
Capital Expenditure vs.  
Non-Capital  
Effort Hours and ROI  
Strategic Impact Matrix  
Risk vs. Return Chart

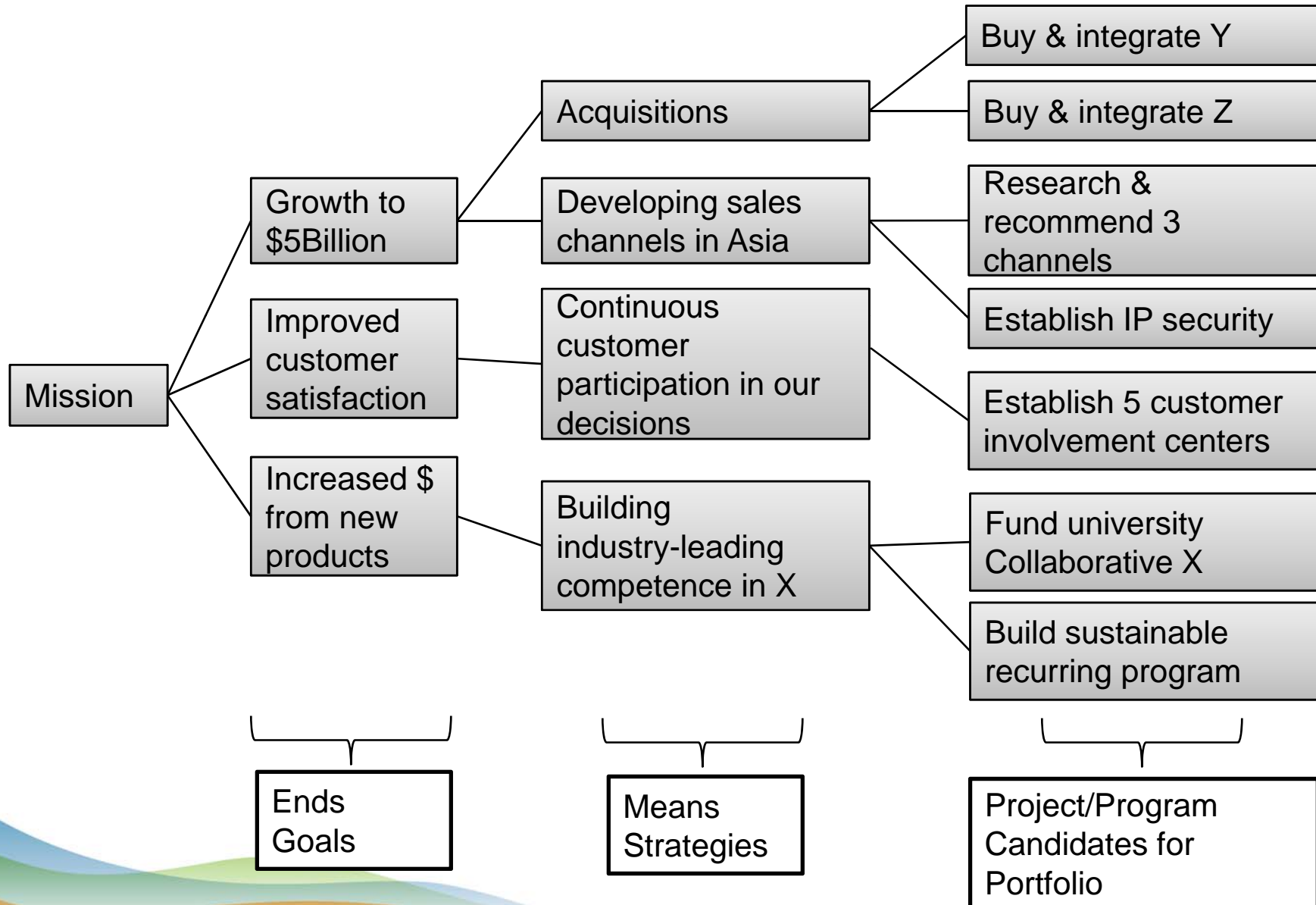
Launch Pipeline Calendar  
Market by Technology  
Newness Risk vs.  
Innovation  
Minimum Requirement  
Checklist  
And more . . .



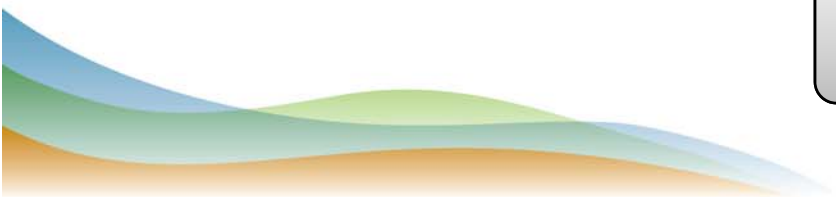
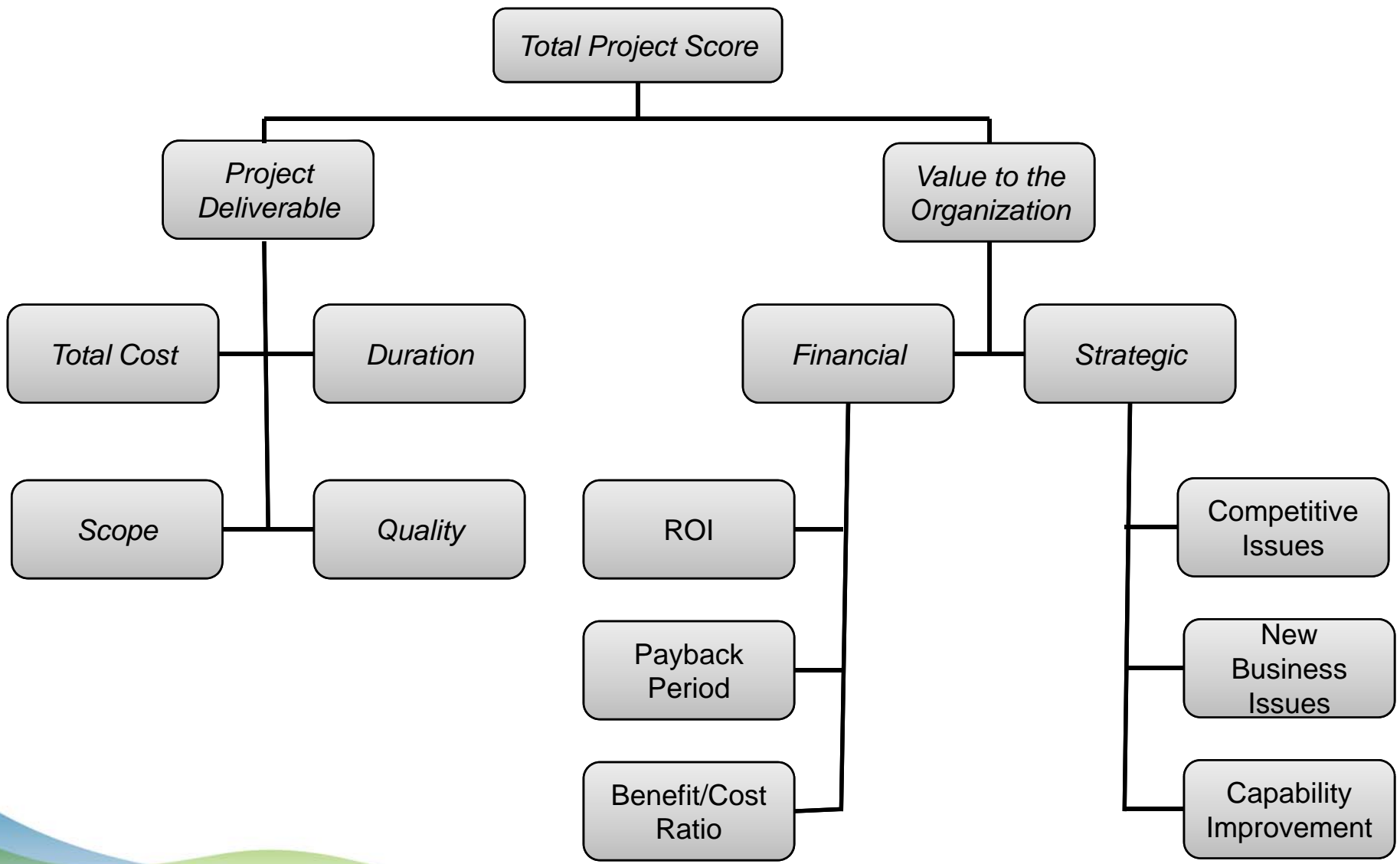
# Strategic Linkage



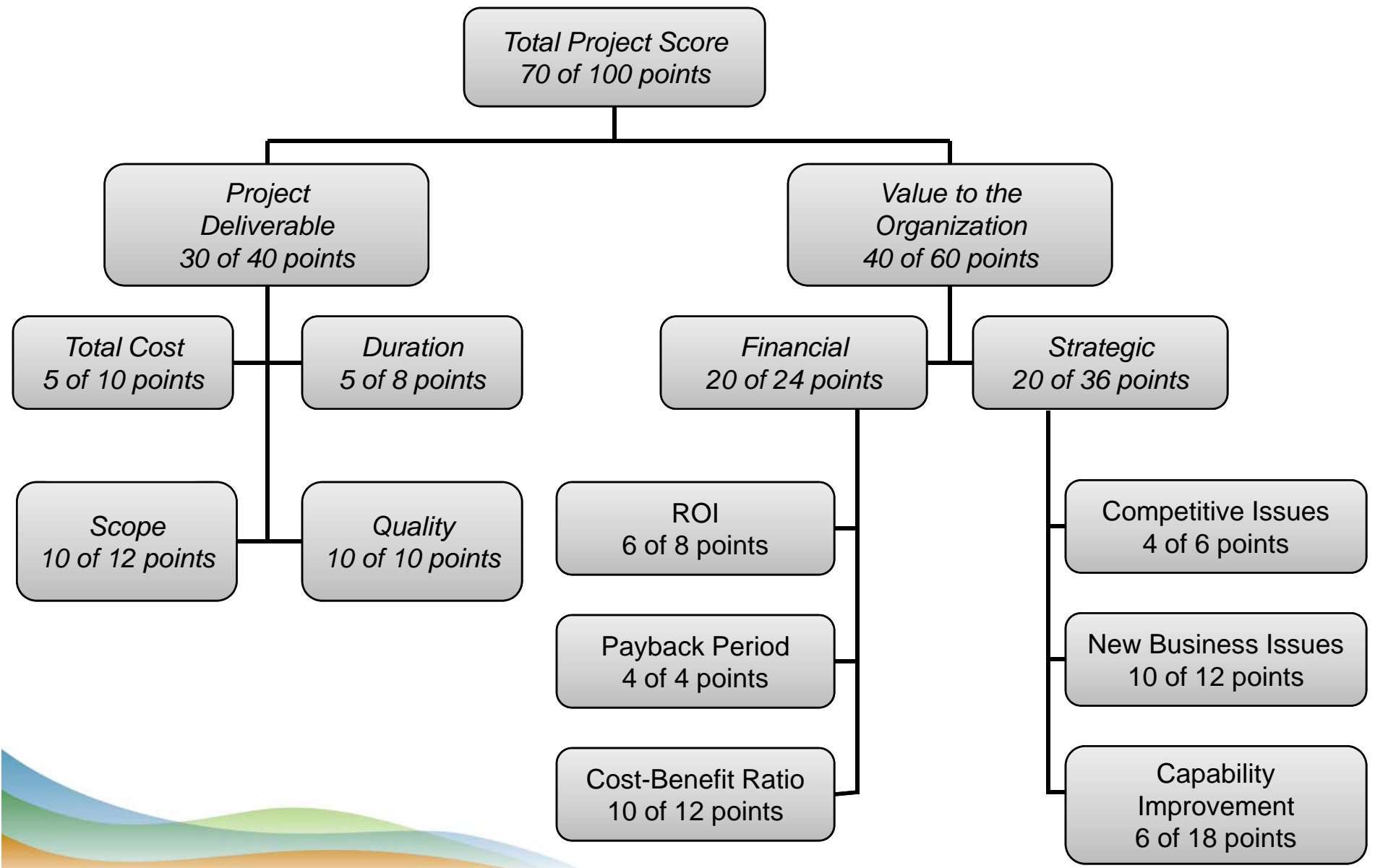
# Sample Strategy Elements



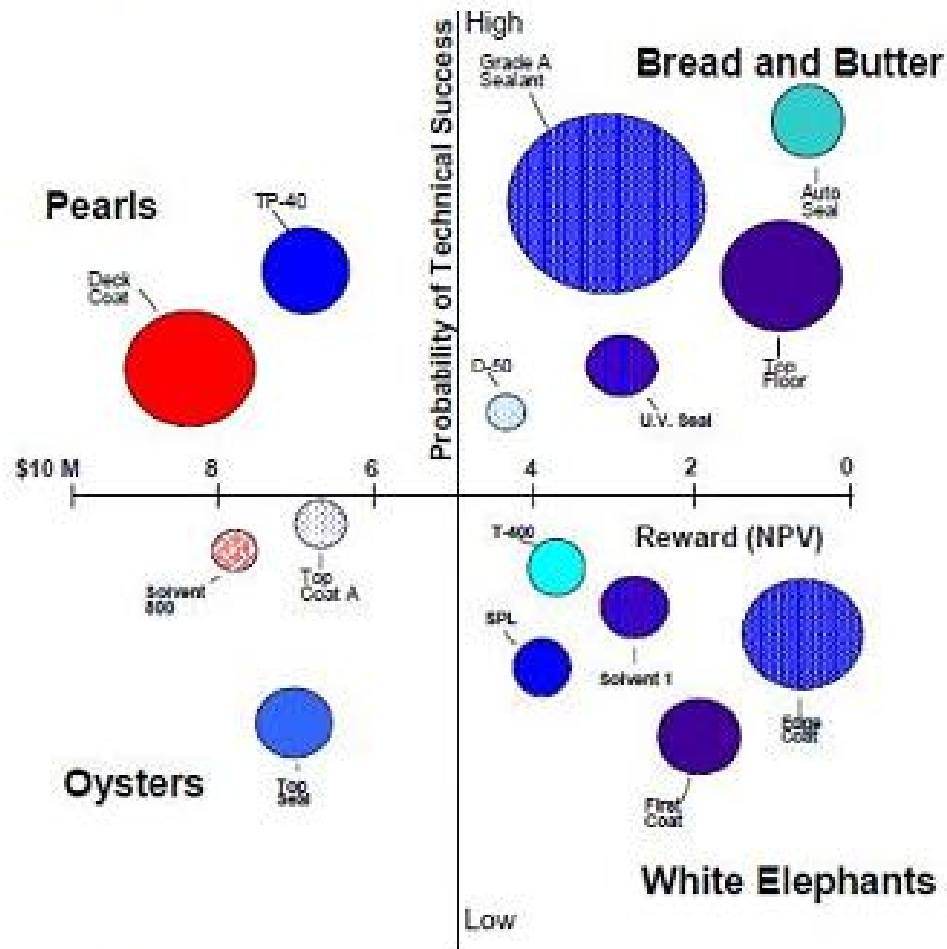
# Project Scoring Model



# Project Scoring Model (Addition of Schema, Points)



## The Popular Risk-Reward Bubble Diagram

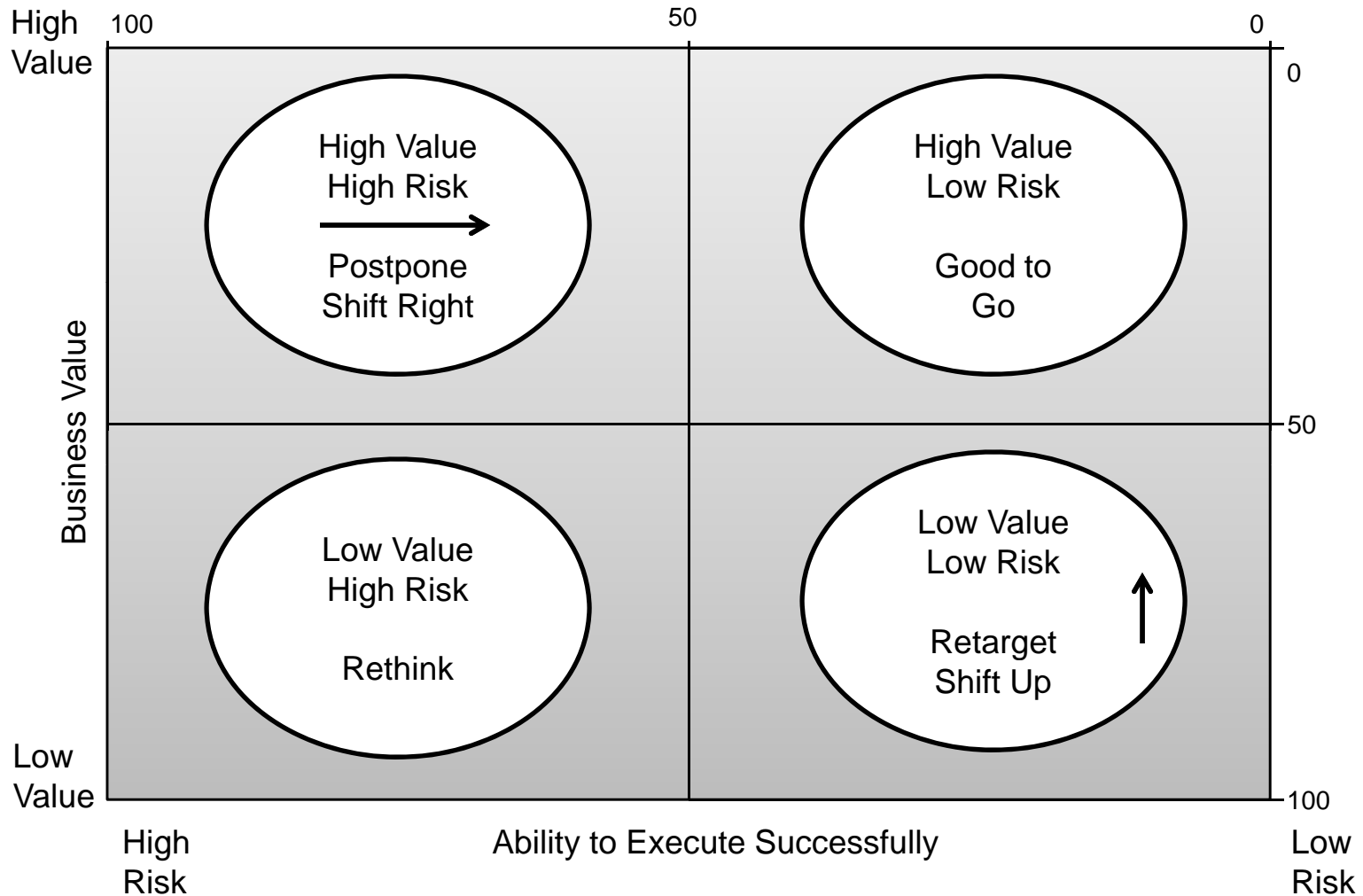


Projects are plotted as bubbles on this two-dimensional risk and reward grid. The bubble sizes denote the resources committed to each project.

Source: Cooper, Edgett, and Kleinschmidt, "Portfolio Management for New Products"

# Launch the Right Programs

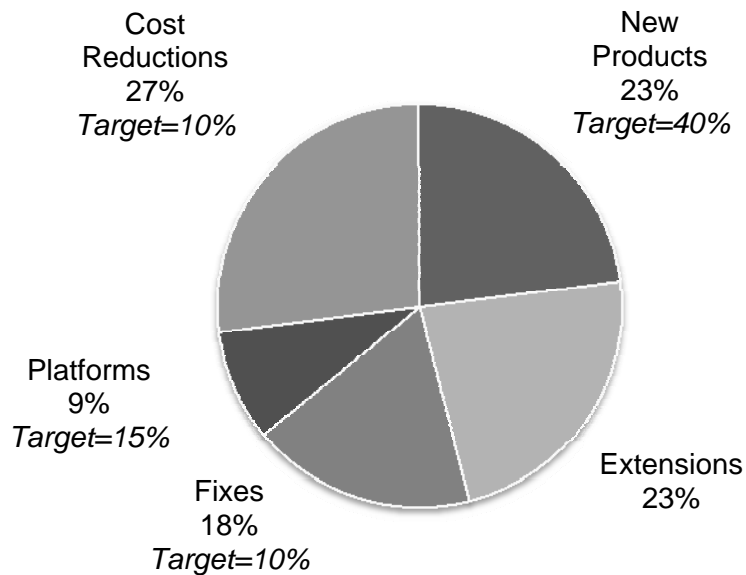
Select high value – low risk programs



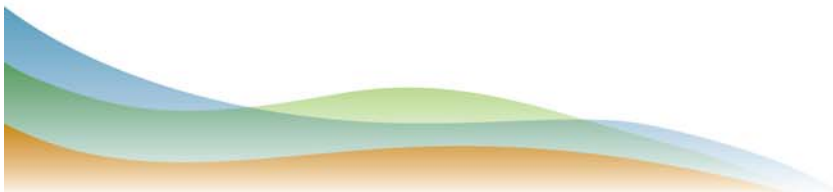
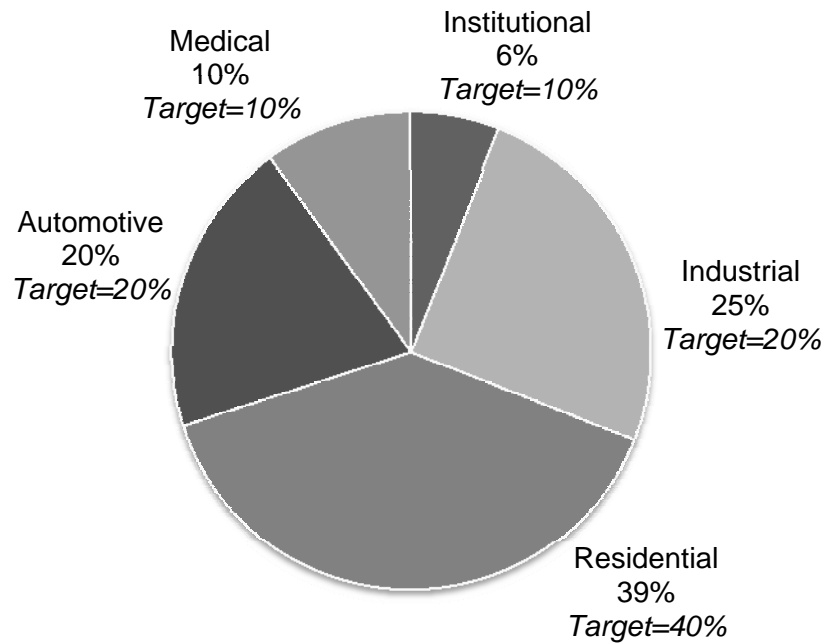
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# Resource Allocation in the Portfolio

## Breakdown by Project Types



## Breakdown by Market Sector





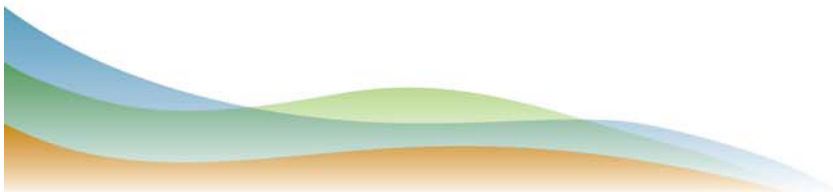
# Project Portfolio Management: Metrics that Work

5 Types of Portfolio Metrics  
Measurement Lessons  
Dashboard Tips

# 5 Types of Portfolio Metrics

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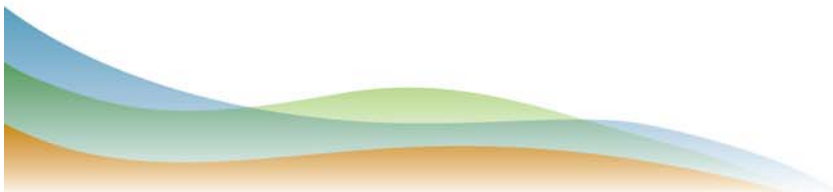
Category	Key Questions	Sample Metrics
Portfolio Mix	Is our funding aligned to strategic objectives?	<ul style="list-style-type: none"><li>% of Portfolio spend in “run the business”</li><li>% of Portfolio in “grow the business”</li><li>% of Portfolio in “innovate the business”</li><li>% of Portfolio in Short/Medium/Long-term projects</li><li>% of portfolio in Large and Extra Large Projects</li></ul>



# 5 Types of Portfolio Metrics

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Category	Key Questions	Sample Metrics
Demand & Capacity	Do we have the right prioritization and sequencing of projects given current capacity?	<ul style="list-style-type: none"><li>% of growth in project intake</li><li>% of growth in initiatives</li><li>Resource utilization (human, material, capital)</li><li>Recruiting pipeline</li><li>Production capacity</li></ul>



# 5 Types of Portfolio Metrics

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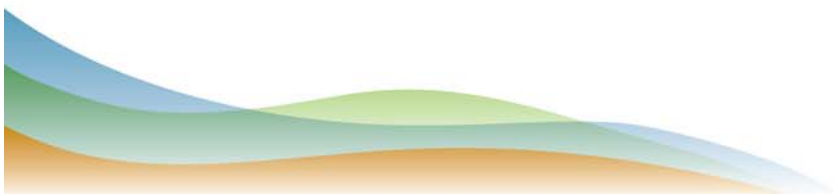
Category	Key Questions	Sample Metrics
Value	For our portfolio, to what extent did we achieve our objectives?	<ul style="list-style-type: none"><li>% on time</li><li>% on budget</li><li>Portfolio and sub-portfolio IRR</li><li>\$ saved for consolidation efforts</li></ul>



# 5 Types of Portfolio Metrics

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Category	Key Questions	Sample Metrics
Portfolio Health	For programs/projects in-flight, how is our execution progressing?	Counts and amounts for programs and projects  # of issues by severity



# 5 Types of Portfolio Metrics

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Category	Key Questions	Sample Metrics
Financial Management	How effectively are we managing program and project budgets and what are the financial trends?	% variance to plan % funding in-flight \$ committed but not spent



# Portfolio Measurement Lessons

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Introduce new metrics only when necessary

Quality versus Quantity

Prototype early and often

Data credibility is key to adoption success

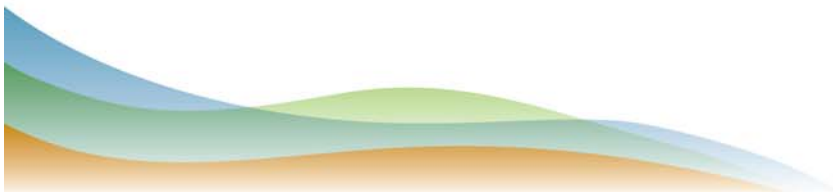
Keep the visuals clear and messages crisp



# 10 Dashboard Tips

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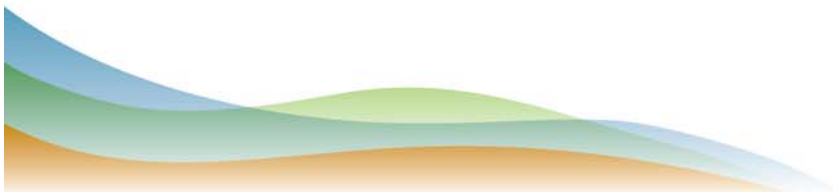
1. Know the questions your dashboard is trying to answer before building it
2. Make sure you can actually collect the data you want to measure
3. Know your audience and understand how they consume information
4. Begin by summarizing and analyzing data you already deliver



# Dashboard Tips

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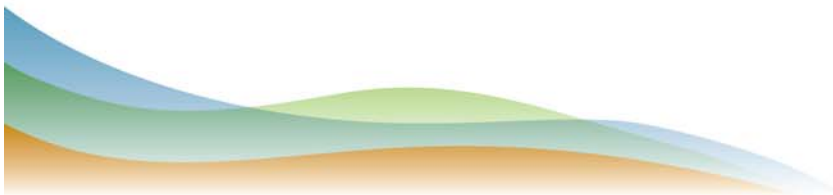
5. Your first dashboard should never use a dashboard tool – That will come later
6. Dashboards should always have a printable version
7. Incorporate application instrumentation into system design process
8. Make sure those responsible for creating the dashboard understand who is reading it – it will increase quality



# Dashboard Tips

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9. Create a report to perform checks and balances on core dashboard data to increase credibility
10. Keep a list that tracks decisions and changes made as a result of dashboard analysis; attach quantitative and qualitative benefits that result



# Sample Dashboards

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[Portfolio Management Template](#)

[Future Cost Model 5 Year Plan \(Excel based PPM\)](#)



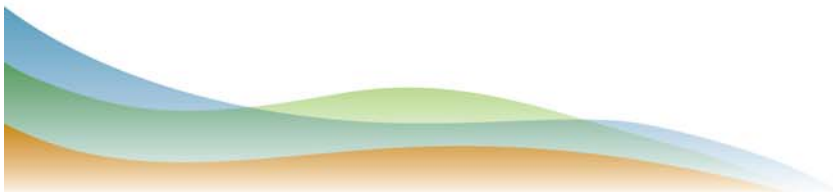
# Wrap Up

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What is most important is that you do it

Pick the analytics that fit your business and company

Find what works / is accepted, and use it consistently





# Thank You!

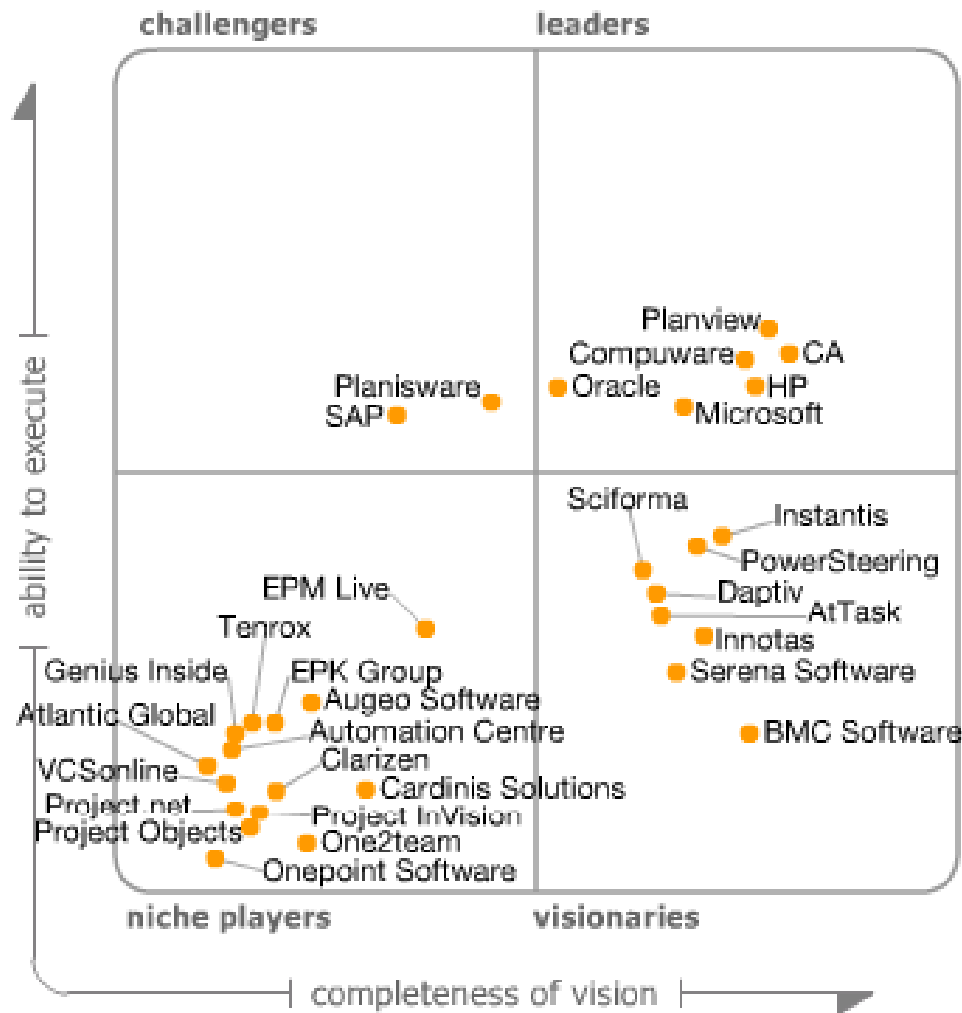
James Brown, PMP, PGMP, OPM3, PMI-SP

email: [james.brown@pioneer.com](mailto:james.brown@pioneer.com)

# Project Portfolio Management: Metrics that Work

Appendix

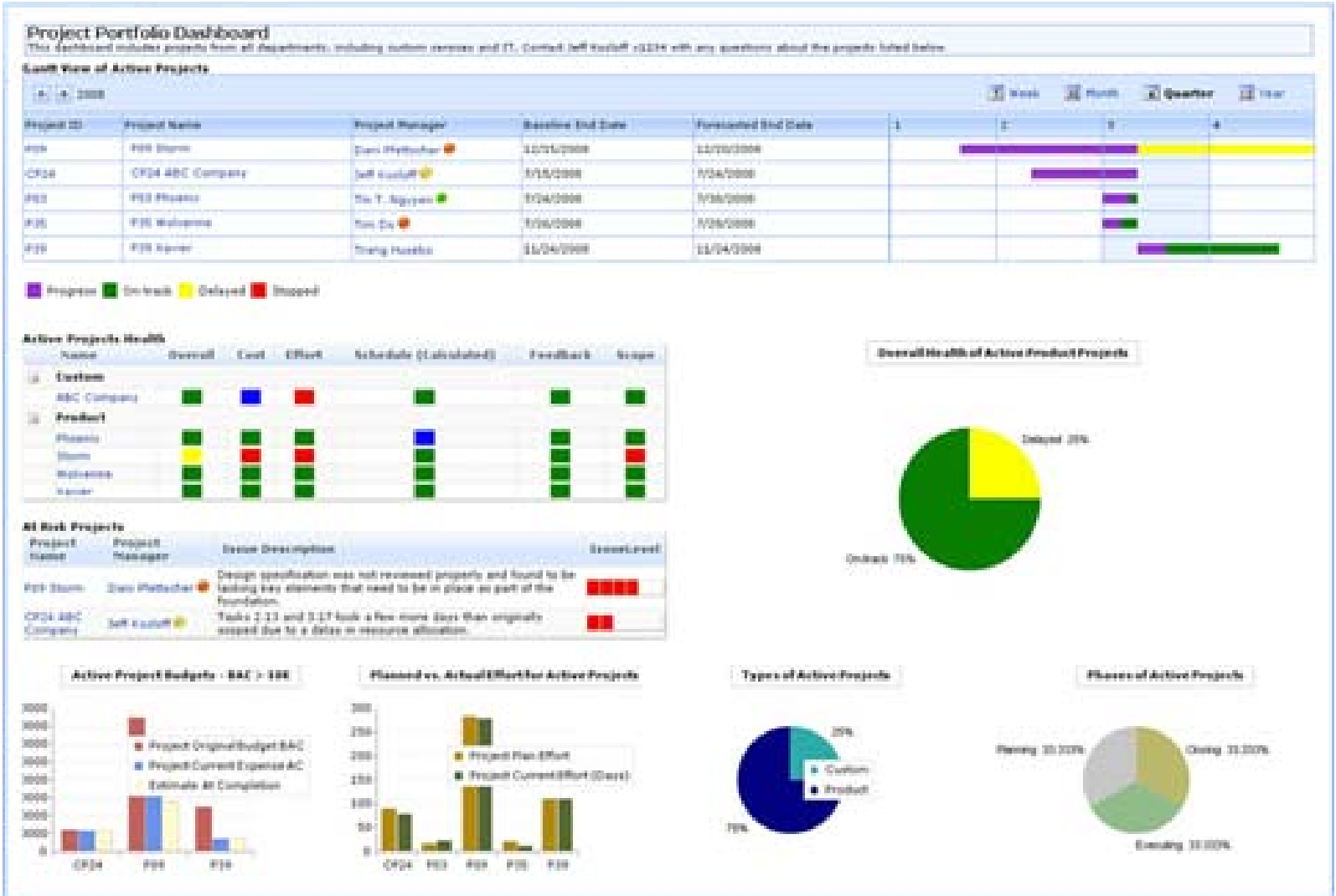
# Potential Enterprise Tools \$\$\$\$



As of June 2010

**Gartner (June 2010)**





Portfolio Selector

Test						
Example Unit						
321 Meeting New Regulatory Requirements	Qualification	G	Y	G		\$74,340
AAA Transition to Plastic		G	R	Y		\$0
ABC New Packaging	Launch	G	R	G		\$42,300
ABC New Product Features	Qualification	G	Y	G		\$95,000
Aurora ZYX	Qualification	R	G	G		\$102,000
Automation for 333	Definition	G	R	G		\$0
BBB Quality Improvement	Qualification	G	Y	G		\$87,000
Ceres CBA	Definition	Y	Y	Y		\$87,000
Copia AAA	Definition	G	G	G		\$113,000
Enhancement to 456	Development	G	Y	G		\$90,000
Mars 555	Definition	Y	Y	G		\$99,627
Mercury 321	Development	G	Y	G		\$83,000
New Media for ZZZ	Development	G	Y	Y		\$75,584
Pluto 234	Development	G	G	G		\$105,000
Product 321 Safety Enhancements	Definition	G	Y	R		\$75,030
[ more ]						

Microsoft Office Project Portfolio Server 2007

Builder Optimizer Dashboard About Log Out

Settings My Scorecard Resource Pool Preferences Reports

Builder / Main View

Portfolio Selector

Name	Proj Cat	Proj Class	Phase	State	NPV
BDX *					
BD Biosciences *					
BD Diagnostics *					
GeneOhm					
Microbiology Systems *					
Molecular Diagnostics					
PAS *					
PAS Compliance					
PAS HR					
PAS Innovation					
Acquisition MST					
Alternate Mfg. Site Valu-Sets	ce	Sustaining Engineering		Concept Start	
Angus Pre Attached Eclipse	ce	Sustaining Engineering		Concept Start	
BTD Capacity Increase	ce	Sustaining Engineering		Concept Start	
BTD I & D Shelf Carton Elimination		Sustaining			



# Technology Solution Sample Screens

Microsoft Office Project Portfolio Server 2007  
 Optimizer / Scenarios Entity: Projects

Builder Optimizer Dashboard About Log Out  
 Edit Analyze Chart Select

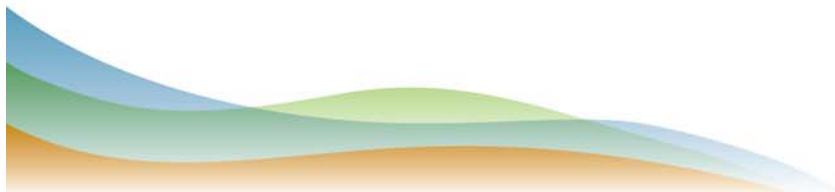
File Menu Previous Step Go to step... Next Step Weights Menu 27 Optimize Menu Set Options Chart Wizard Hide Chart Optimizer ready. Close Optimizer

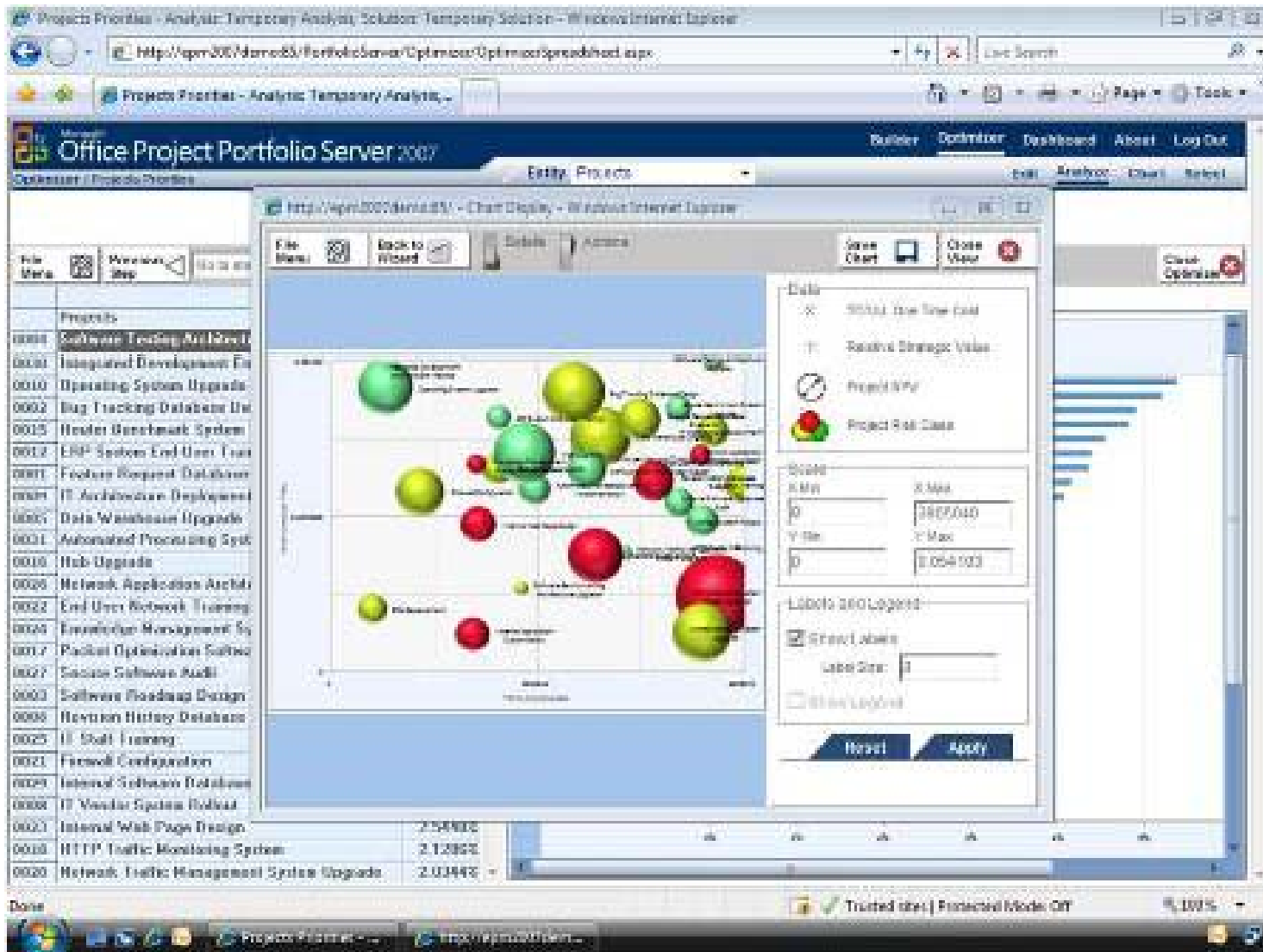
Projects	Priorities	cost RD FY08	Total Resource Demand Import	*cost RD FY08 Total Resource Demand Import 330.00	Decision Variables
0001	ABC New Product Features	8.1742%	1,342	21.00	✓
0020	Copia AAA	8.1426%	776	12.00	✓
0013	Juno 999	7.9977%	1,624	15.00	✓
0010	Saturn 111	6.9381%	272	6.00	✓
0019	Aurora ZYX	6.8447%	1,367	24.00	✓
0012	Jupiter AAA	6.7202%	1,179	15.00	✓
0017	Apollo 013	6.7202%	1,406	24.00	✓
0016	Vulcan 030	6.0064%	1,920	21.00	✓
0015	Pluto 234	5.9029%	1,650	6.00	○
0009	Mars 555	4.6254%	1,331	24.00	○
0011	Mercury 321	4.4559%	1,310	12.00	✓
0003	Product 321 Safety Enhancements	4.3926%	1,787	12.00	○
0006	New Media for ZZZ	4.3843%	362	27.00	✓
0007	BBB Quality Improvement	3.6446%	60	27.00	✓
0014	Neptun ZZZ	3.5172%	707	6.00	✓
0002	123 Label Change	3.1068%	481	9.00	✓
0005	Enhancement to 456	2.6932%	1,298	27.00	○
0018	Ceres CBA	2.3127%	105	18.00	○
0008	321 Meeting New Regulatory Requirements	1.8299%	631	15.00	○
0004	ABC New Packaging	1.5902%	476	9.00	✓
	Limit Vector	15,000	330.00	85.1812%	

Scatter Efficient Frontier

Constraints used in solution: \*cost RD FY08 15,000 Total Resource Demand Import 330.00

	Solution Value	Limit	Usage	Slack
cost RD FY08	85.1812%	15,000	14,718	282
Total Resource Demand Import	330	330	270	60
	81.818%			





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# Achieve PPM Success

Methods – employ a common methodology

Human Resource and Organizational Competency – train on a common PM process

Technology Tools – through consistent, concise, relevant, reliable and timely information

Performance Measurement

PPM Scope – decide which projects should be managed by its PPM system

