

Effective Project Portfolio Management for Greater Cash Flow and Risk Management

 **Project Controls**
EXPO
London, UK – Nov. 18th, 2014

George Haddad, Assoc. AIA
Sr. Director, Business Development & Industry Strategy
Primavera Global Business Unit

Cash Flow and Risk... Are they tied together?



Why Many Companies Fail?

- Not Profitable?
- It's the lack of Cash Flow,...not Profit.



Profit is a vital indicator of Performance... however, its generation does not necessarily guarantee an organization's **growth, development, or even survival.**

Improved Cash Flows



Challenges Many Organizations Face

- Keeping liquidity in the positive position needed to support day-to-day operations.
- Flexibility to respond to new emerging opportunities.
- How to service maturing short-term debt and upcoming operational expenses.



Cash Flow's Impact on C-level Executives

- Planning: Short/Long-term Investment Strategies.
- Decisions: Focused on Anticipated Funding Requirements rather than projecting levels of Profitability.



Capital Budgeting Process

- The process for managing Cash Flow:
 - The basic unit of analysis is the Investment Capital Project.
- Projects and Programs:
 - Represent a series of Contingent Cash Flows over time.



Capital Budgeting Process

The value of a business is a function of its expected **Cash Flows**.

To generate cash flows organizations invest capital in **Assets and Projects**.



Capital Budgeting and Cash Flow and Value

- Value = Cash Flows - Costs
- High Working Capital ratios = Too much money is tied up.
- Typical Reaction:
 - Collect Receivables
 - Delay Payments to Suppliers
 - Cancel/delay Projects or cut inventories
- This only attacks the symptoms not the root causes.



Need a More Effective Approach...

- Fundamentally rethink and streamline key Budgeting Processes to:
 - Free up cash reserves.
 - Reduce dependency on outside funding.



A Common Mistake

Sit on significant Cash Reserves ...
to alleviate the Risks of the “unknown”





Effective Governance Framework

- Need for effective governance framework for **Proposing, Selecting** and **Managing** projects.
- **Perceived Value** and ability to provide Maximum returns.
- Balanced against **Risk** across the **Entire Portfolio**.



Effective Governance Framework Drivers



- Do more with Less:
 - Demonstrable value for every project.
 - Balance against a portfolio of projects competing for resources.
- Project Ranking:
 - Driven by anticipated returns.
 - Impact on available Cash Flow.
 - Risk impact.

Primary Role of Strategic Governance

1. What activities/projects is the organization currently funding?
2. What value are these investments returning?
3. What alternative investments could generate higher value?



Strategic Decision Support

- Determine the Optimal Mix of proposed projects to yield best return over a period of time, with Least amount of Risk.
- Challenge:
 - Once budgets for fixed investments have been allocated they are not easily reversed.



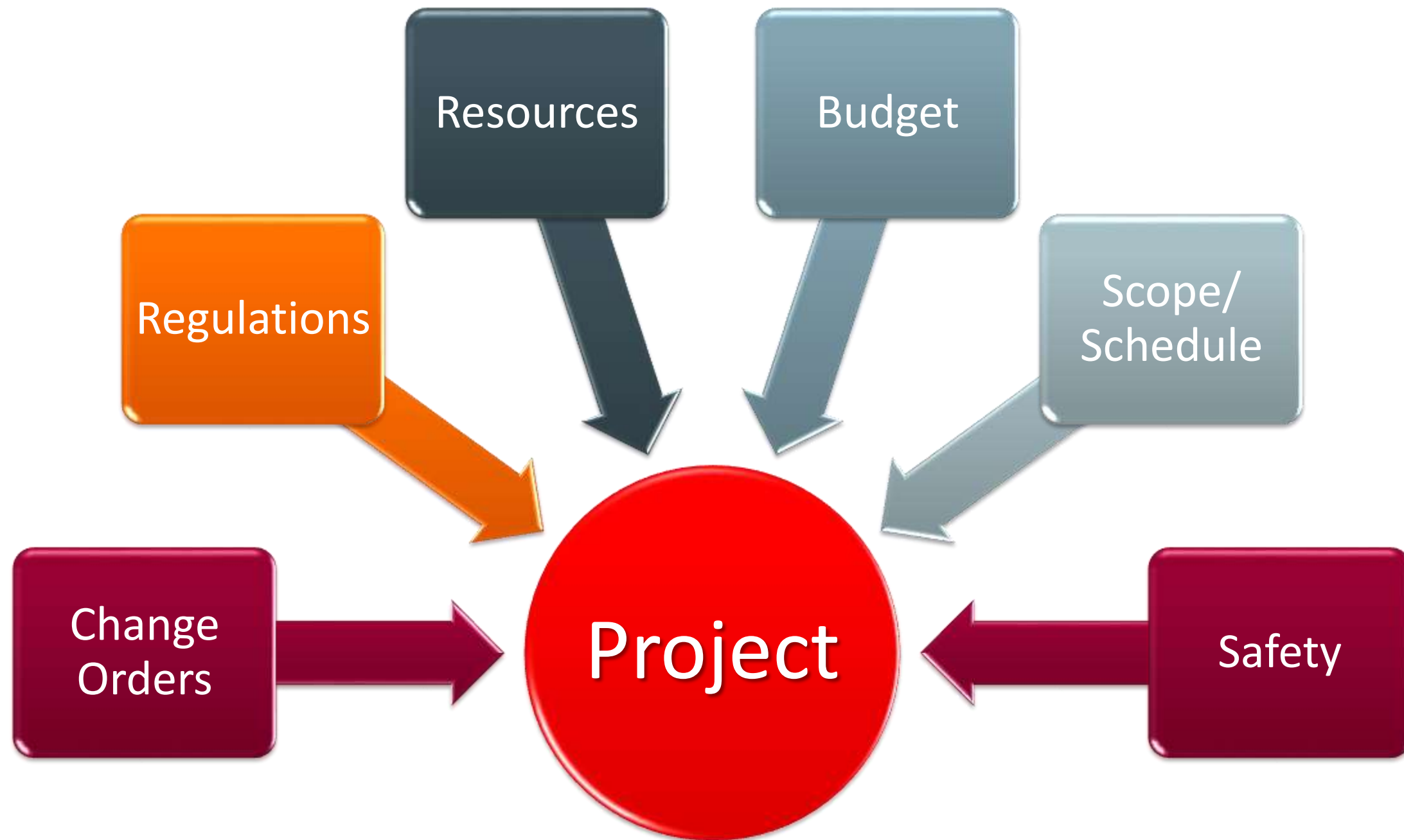
RISK & CONTINGENCY PLANNING





- Every project has risks.
- Organizations that succeed plan for risks:
 - Anticipate
 - Mitigate
 - Provide Response
 - Contingency Plans

What is RISK? ... Just One Word... *“Uncertainty”*



Contingency Budgets and Risk Management

- Stagnant Cash Reserves:
 - How much?
- Contingency Monies:
 - Estimated at between 5–10% of total project operating costs across the portfolio.
- Freeing up a small portion:
 - Can help you augment you cash flow and expand your portfolios.



Risk Assessment



Contingency Planning and Risk Assessment

- Begins at the Planning Stage.
- Incorporates Project Risk Register:
 - to provide insight into initial concerns.
- Scenario modelling extended to Delivery Stage:
 - to strengthen ability to anticipate and respond to any unexpected surprises.
- Valuable Data:
 - to support the decision about how much contingency is required.

Challenges of Setting Contingencies

- Hard to question the 5-10% contingency figure with no detailed visibility into the true level of project risks.
- Lack of transparency and accountability.
- Few projects return leftover contingency funds.
- Project directors regard contingency funds as theirs:
 - Funds are expended on something else, such as project improvements or the purchase of additional equipment.

So why do Contingencies Fail sometimes?



Individuals making Assumptions



- Decisions within separate projects.
- Risk level assessments in Isolation.
- Lack of visibility across the portfolio.



Determining the **correlation** between projects is an important factor in highlighting how one project going over budget can impact others.

Isolation's side effects



- Poor Alignment
- Poor Communication
- Lack of Coordination
- No Collaboration

Lack of collaboration and standardization shows up in the form of excessive contingencies

Lack of Collaboration and Standardization

- The traditional Silos that disconnect executives from project teams, and isolate different project teams working across the portfolio.

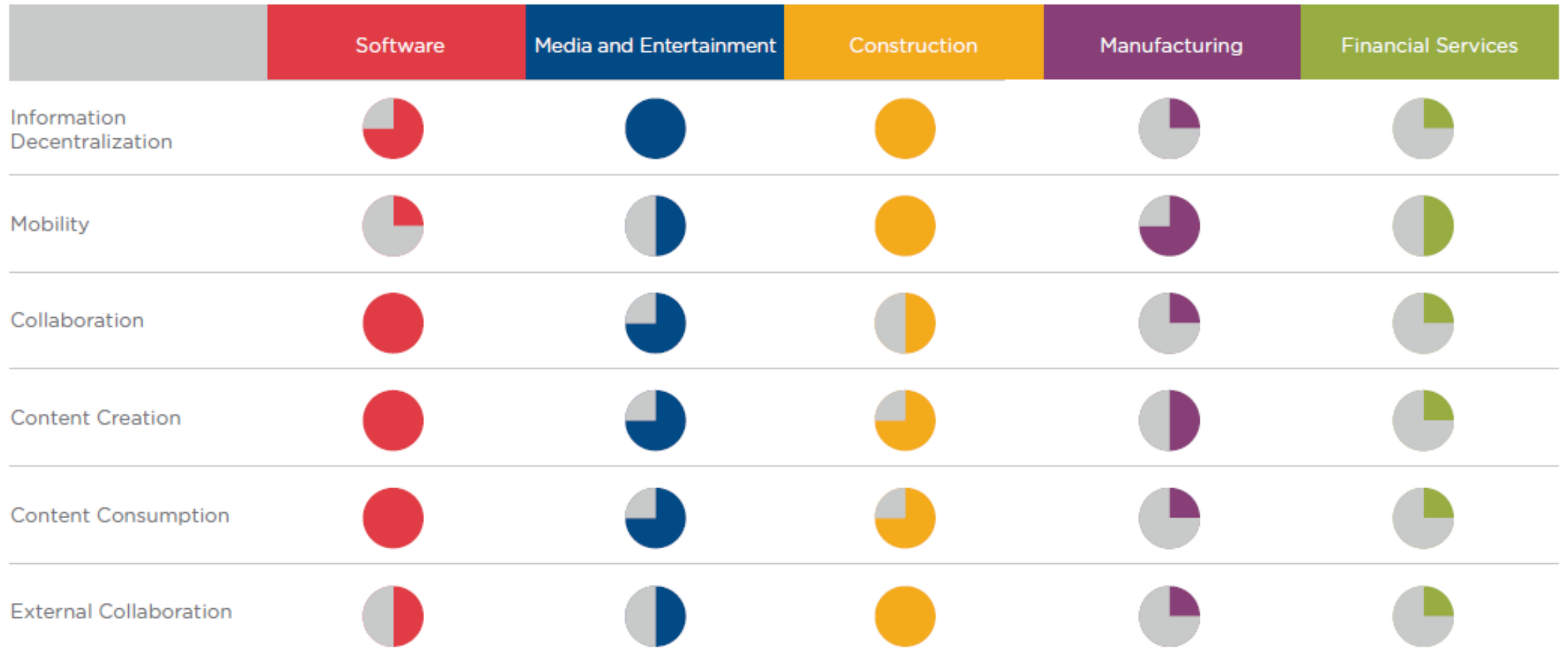


Collaboration is vital to Project Management



How Companies in Different Industries Collaborate

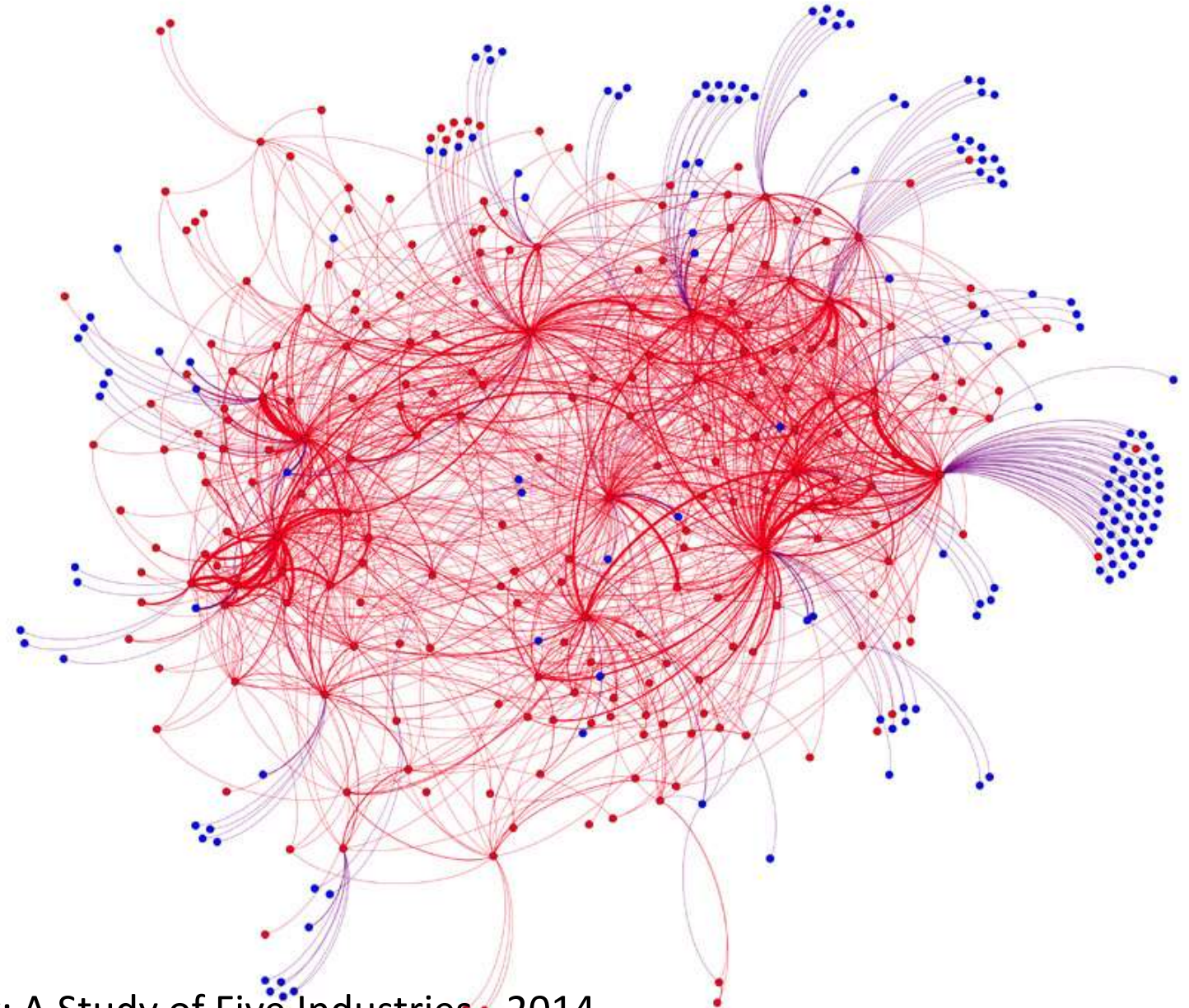
Industry scores



© Box, Inc. Source: Box.com - The Information Economy: A Study of Five Industries - 2014

Collaboration Patterns

SOFTWARE



Source: Box, Inc.- The Information Economy: A Study of Five Industries.- 2014

● Red Node: Individual company user

— Red Edge: Connection from internal user

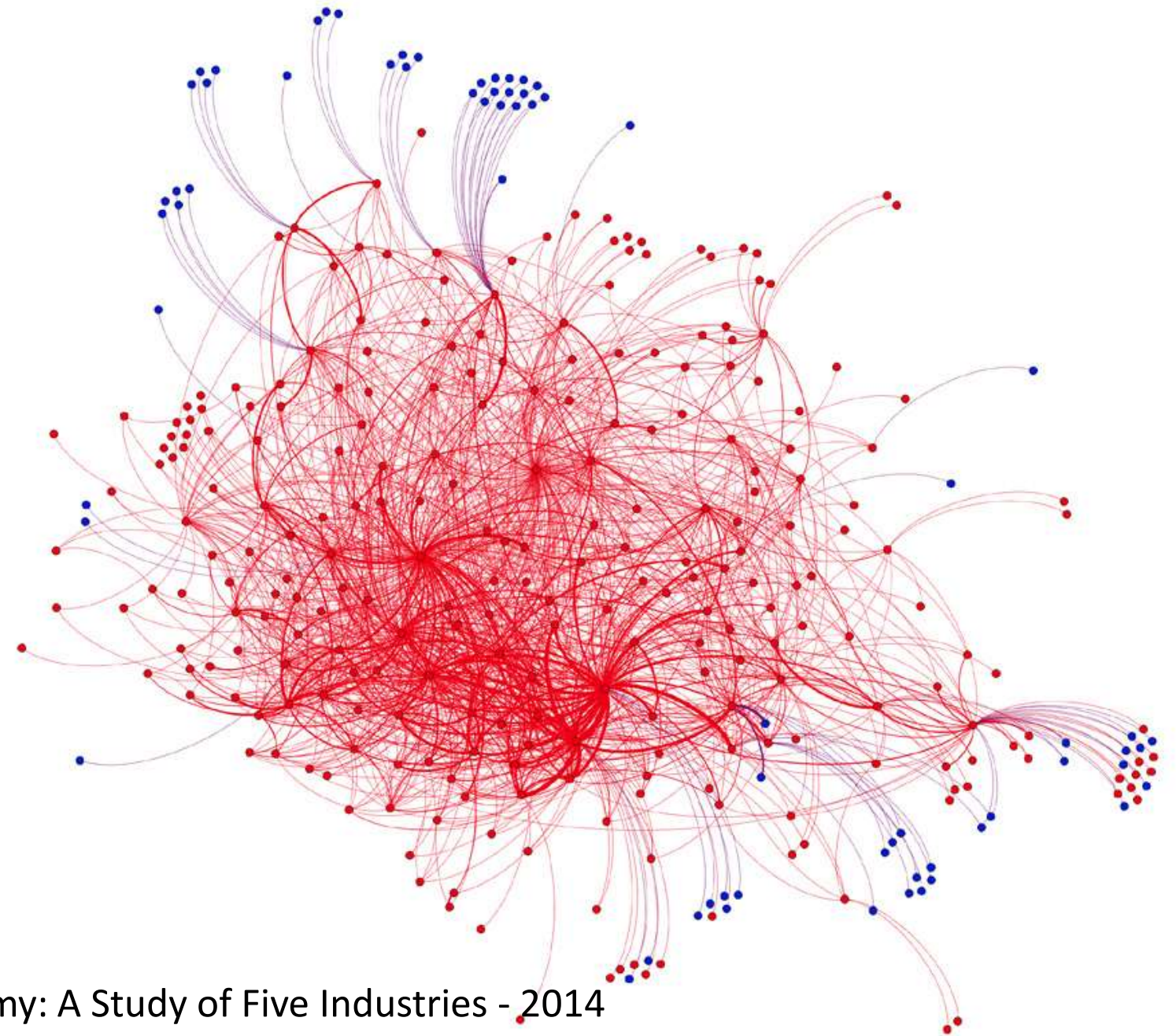
— Edge Weight: Thicker edge represents more frequent connections between users

● Blue Node: Individual external user

— Blue Edge: Connection from external user

Collaboration Patterns

MEDIA & ENTERTAINMENT



Source: Box, Inc. - The Information Economy: A Study of Five Industries - 2014

● Red Node: Individual company user

● Blue Node: Individual external user

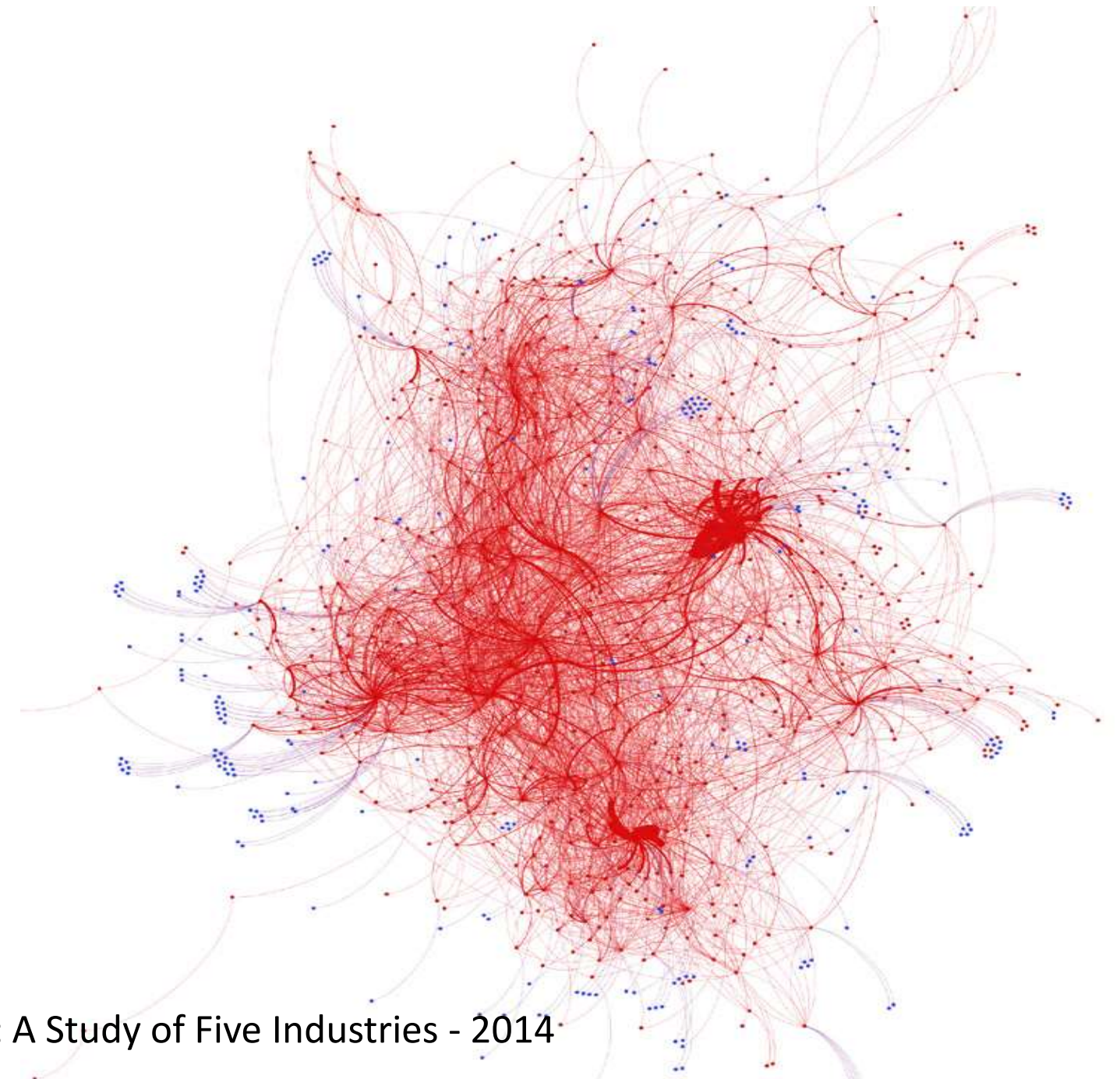
— Red Edge: Connection from internal user

— Blue Edge: Connection from external user

— Edge Weight: Thicker edge represents more frequent connections between users

Collaboration Patterns

MANUFACTURING



Source: Box, Inc. - The Information Economy: A Study of Five Industries - 2014

● Red Node: Individual company user

— Red Edge: Connection from internal user

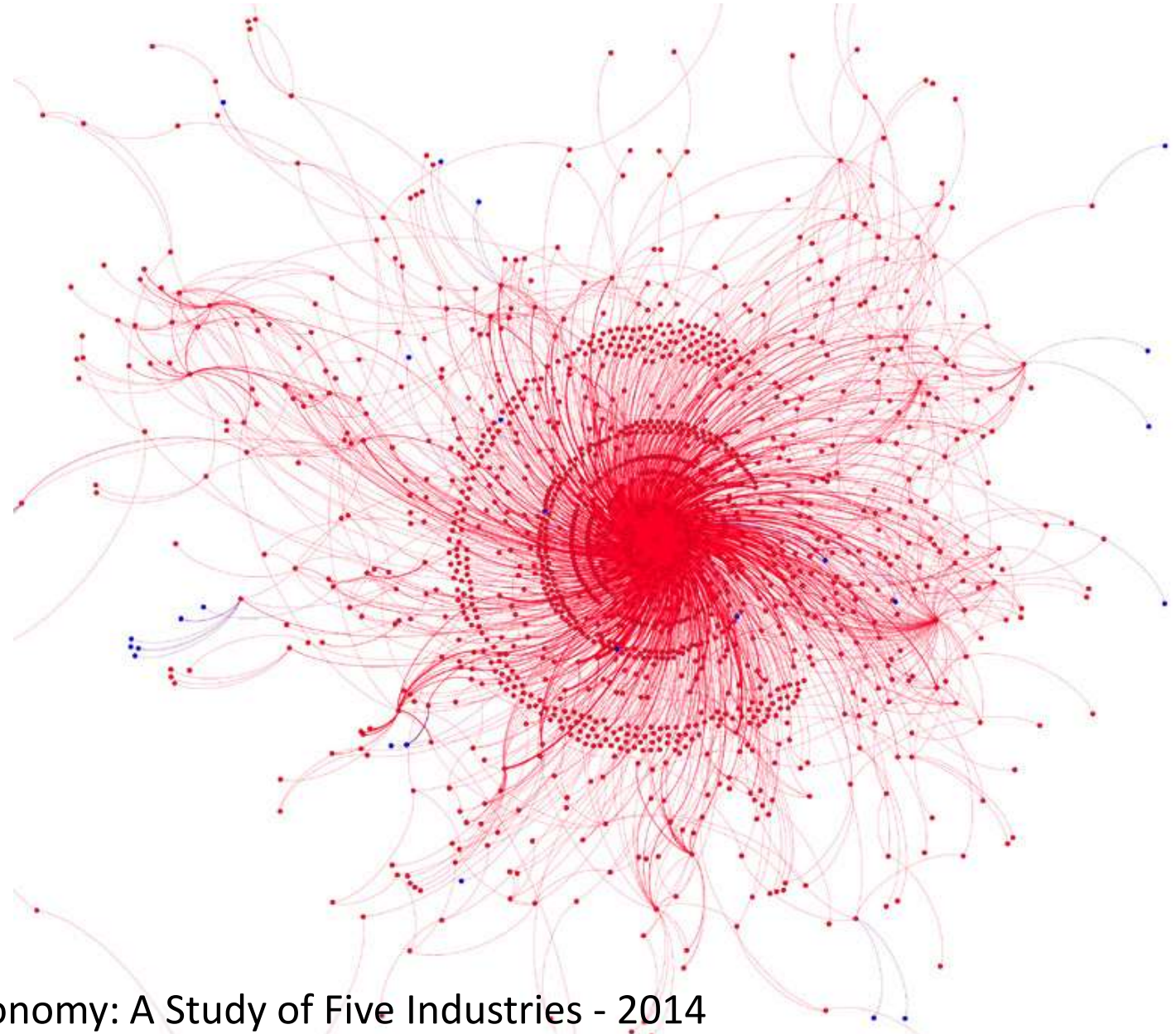
— Edge Weight: Thicker edge represents more frequent connections between users

● Blue Node: Individual external user

— Blue Edge: Connection from external user

Collaboration Patterns

FINANCIAL SERVICES



Source: Box, Inc.- The Information Economy: A Study of Five Industries - 2014

● Red Node: Individual company user

— Red Edge: Connection from internal user

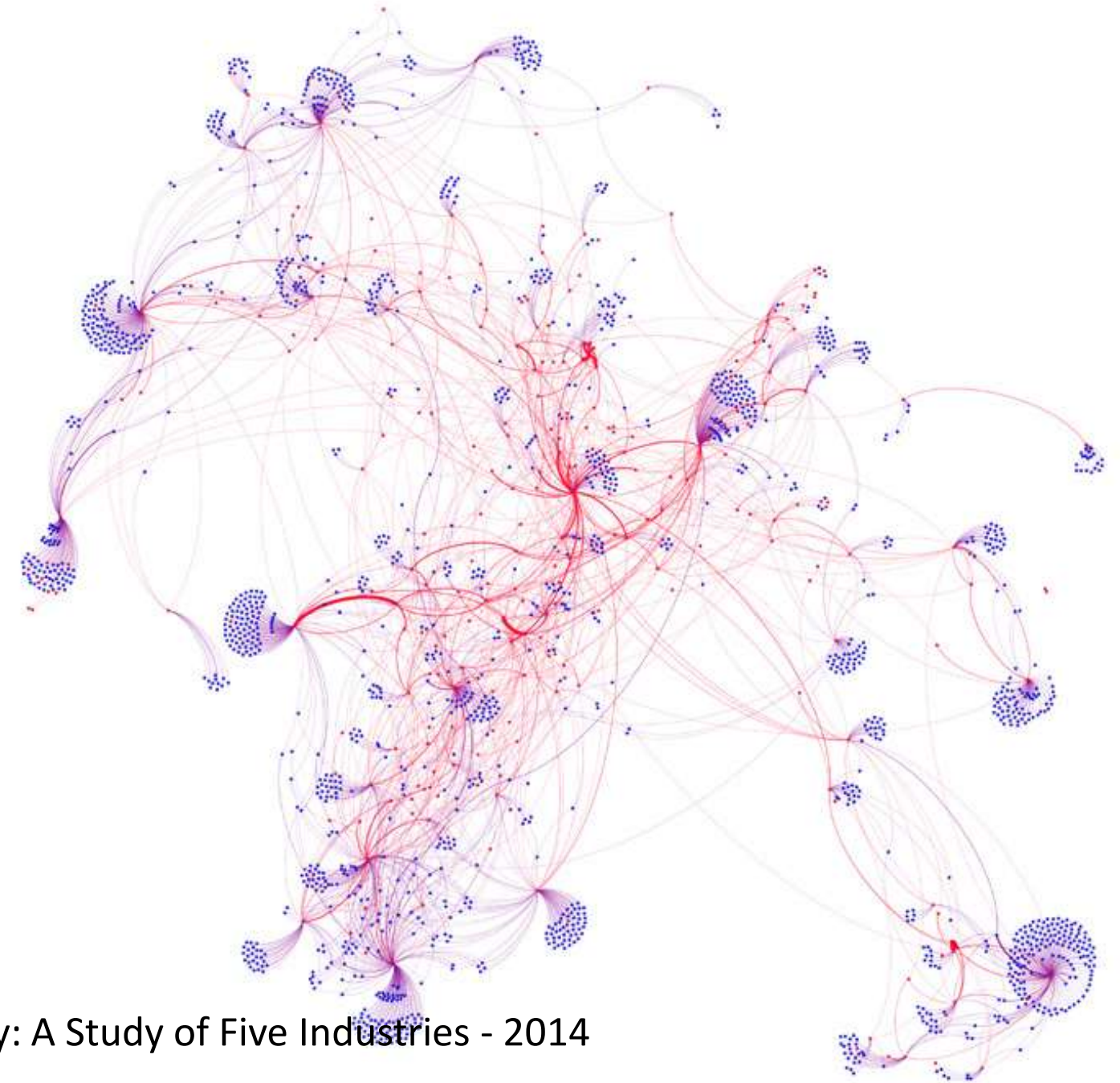
— Edge Weight: Thicker edge represents more frequent connections between users

● Blue Node: Individual external user

— Blue Edge: Connection from external user

Collaboration Patterns

CONSTRUCTION



Source: Box, Inc. - The Information Economy: A Study of Five Industries - 2014

● Red Node: Individual company user

● Blue Node: Individual external user

— Red Edge: Connection from internal user

— Blue Edge: Connection from external user

— Edge Weight: Thicker edge represents more frequent connections between users

Traditional risk management methods

- Rely on individuals to subjectively analyze risk.
- Attempts to estimate but not identify, assess or mitigate.
- Ignore Projects Correlation (over budget impact).
- Projects' Dependency (design flaws impact).



Pressures that AEC companies face

- Managing Risk more discretely.
 - Understanding Risk at every **milestone**, every **delivery date** and every customer **change order**.
- Managing Resources.
- Improving customer management and **visibility**.

Leading AEC firms were asked to indicate their “top two” pressures:

- Build assessment of risks into various stages of the project (stage gate): **48%**
- Define and implement standard project management best practices: **44%**
- Improve communication with clients throughout projects: **33%**
- Improve deployment of skilled resources across multiple projects: **26%**
- Improve visibility into project data: **19%**

Source: Aberdeen Group, September 2014

A man in a dark pinstriped suit is seen from behind, looking out over a city at night. The city lights are blurred in the background, creating a bokeh effect. The man's head is bald, and his hands are in his pockets. The overall mood is contemplative and professional.

**What should
executives do?**

What Should Execs do?

- Take ownership of a centralized Enterprise Capital Portfolio Management solution.
- Implement a Risk Assessment and analysis process.
- Get more realistic level of risk residing in your portfolio.
- Deploy a collaborative solution that eliminates Silos.
- Remove key failure factor,..."Optimism Bias".

Consolidated view of Risk

- Gain flexibility needed to reduce contingency budgets without increasing the risk of failure.
- Access to risk intelligence matrix of higher risk/higher return projects with lower risk/lower return activities.
- Opportunity to hedge against risks across the portfolio,... some come in under the budget, others over the budget.

Enterprise Project Portfolio Management Approach



Enterprise Project Portfolio Management (EPPM)

- ✓ All projects remain aligned with strategic goals
- ✓ Spend balanced across projects and supporting activities
 - ✓ Risk and Value balanced appropriately
- ✓ Projects underway remain in a healthy condition

Primavera Portfolio Management Solutions

Collaboration

Dashboards

Investor Maps

Workflows

Risk Registers

Cost Control

- Web-based enterprise portfolio management
- Enables strategy-based governance
- Provides one version of the truth
- Manages portfolios of investments to achieve strategic goals
- Facilitates visibility and collaboration across the enterprise

Oracle Primavera Integrated EPPM Solution

Analytics Dashboards & Reporting

ORACLE | PRIMAVERA

Primavera P6 EPPM

Project Management
Planning & Scheduling
Risk Management
Resource Management
Portfolio Management

Primavera Unifier

Project Cost Controls
Project Delivery Management
Team Collaboration
Business Process Automation

Risk Analysis

Monte Carlo Simulation
Quantitative/Qualitative Risks

Primavera Gateway Integration Framework

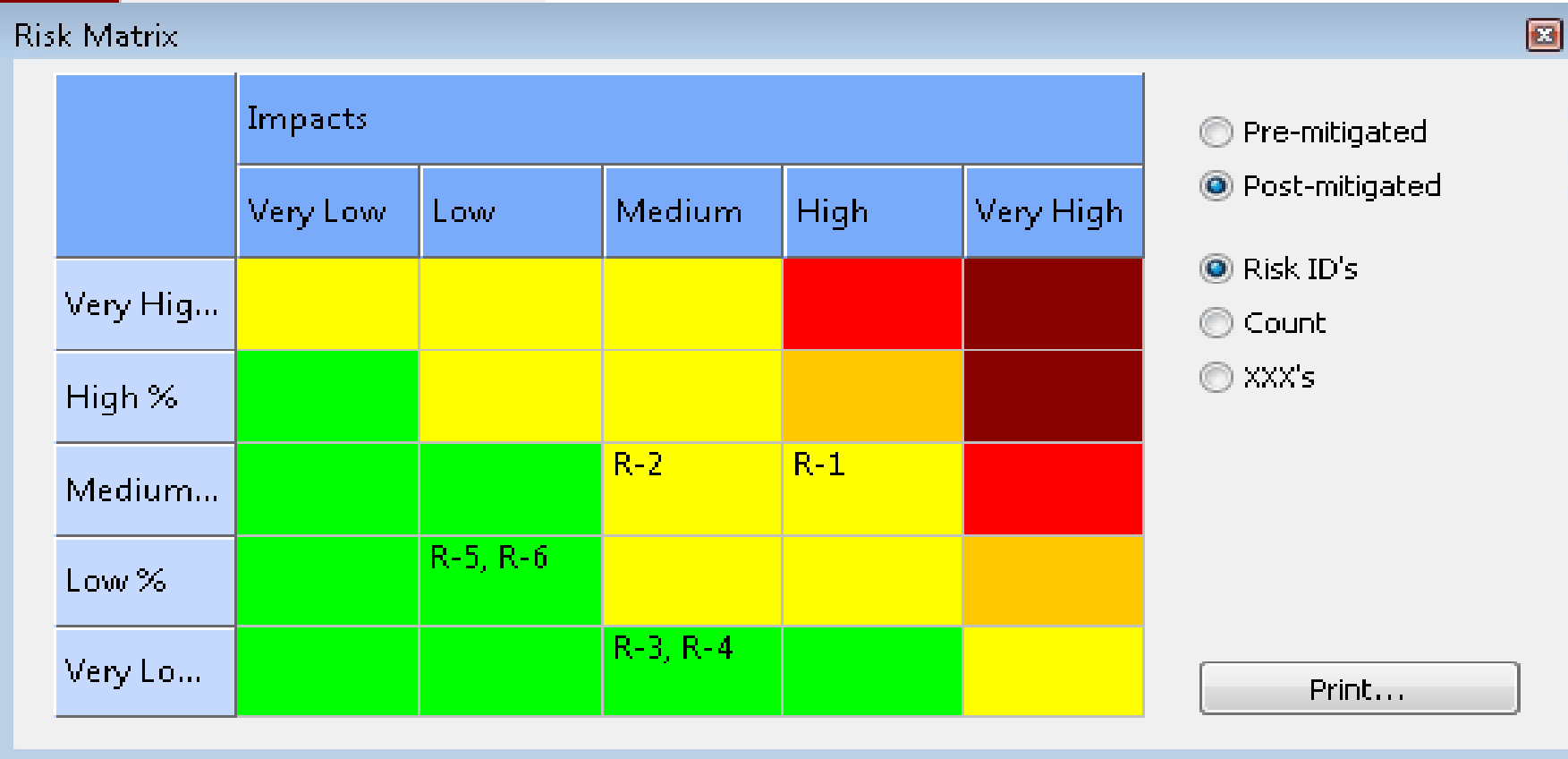
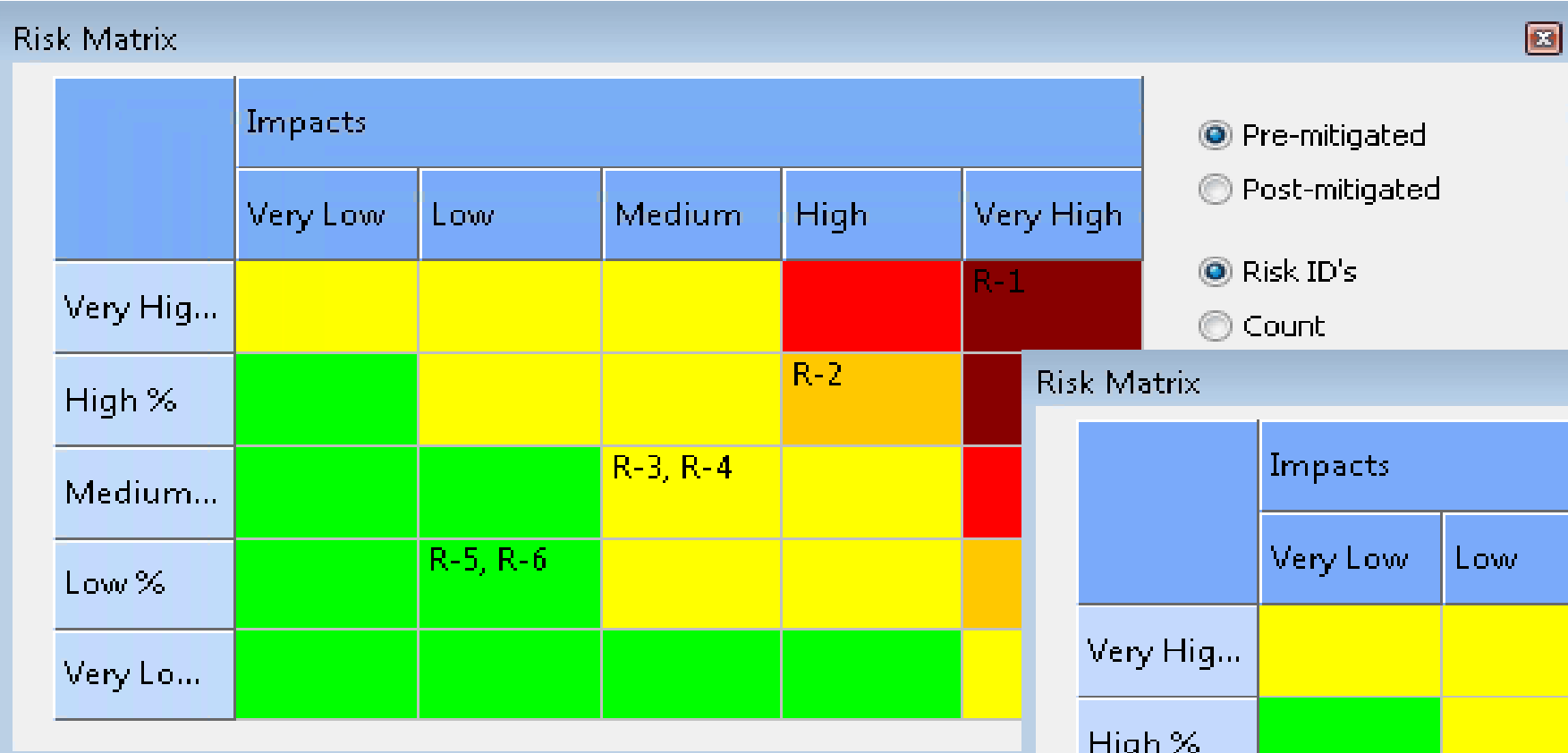
Risk Registers

Risks of Project Swordfish										
ID	Name	Activities	Owner	Category	Status	Probability	Schedule	Cost	Exposure	Score
Risk-01	Technological Complexity	IT1060,IT1070	Mandy Charles, VP IT Ops	Complexity & Interfaces	Open	H (50% or higher)	H (10 or higher)	H (\$25,000.00 or higher)	\$28,125.00	9
Risk-02	Staff Turnover	IT1040,IT1050,IT1060	IT Consultant	Resources	Proposed	L (Up to 25%)	H (10 or higher)	H (\$25,000.00 or higher)	\$4,687.50	5
Risk-03	Senior Management Buy-in	IT1000,IT1010,IT1020	IT Consultant	Communication	Open	H (50% or higher)	H (10 or higher)	M (\$10,000.00 to \$25,000.00)	\$13,125.00	9
Risk-04	Unrealistic Expectations	IT1010,IT1020,IT1030,IT1040	Mandy Charles, VP IT Ops	Planning	Active	M (25% to 50%)	M (5 to 10)	M (\$10,000.00 to \$25,000.00)	\$6,562.50	5
Risk-05	Scope Creep	IT1030,IT1040,IT1050,IT1060	Mandy Charles, VP IT Ops	Requirements	Rejected (Closed)	H (50% or higher)	H (10 or higher)	L (Up to \$10,000.00)	\$3,750.00	9
Risk-06	External Business Impacts	IT1000,IT1080	Shannon Zhu	Market	Managed (Closed)	L (Up to 25%)	L (Up to 5)	L (Up to \$10,000.00)	\$625.00	1
Risk-07	Client / User Involvement	IT1030,IT1040,IT1070,IT1080	Ian Vincent	Customer	Impacted (Closed)	L (Up to 25%)	L (Up to 5)	N (Negligible)	\$0.00	1

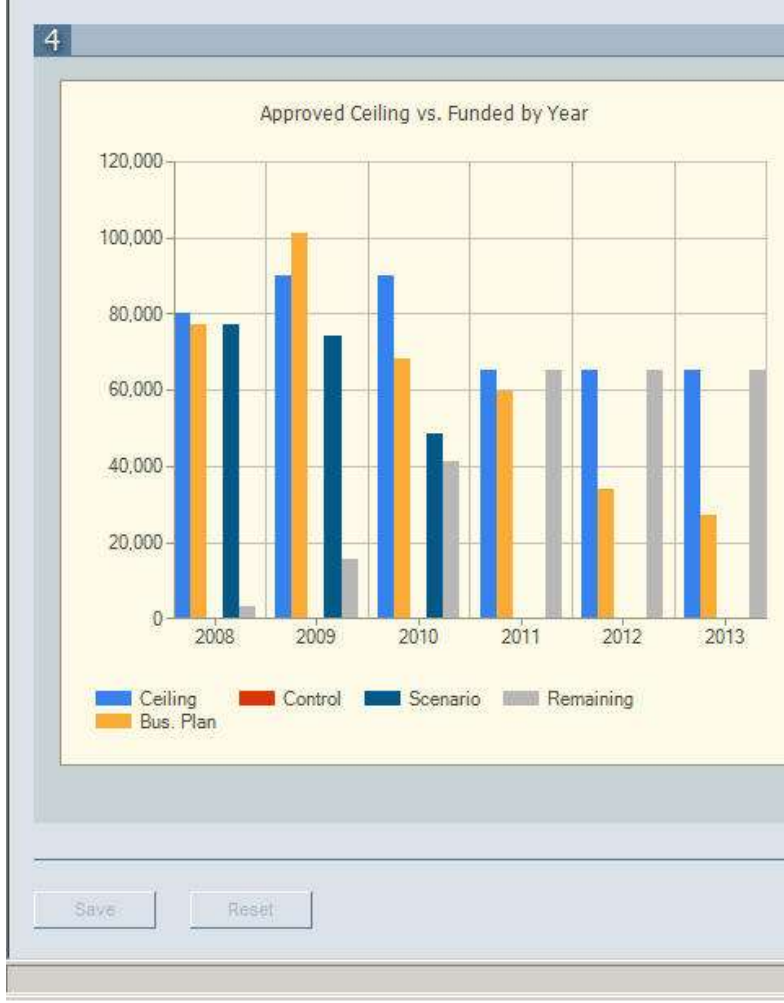
Response Plans											
Active	Name	Response Type	Status	Start	Finish	Probability	Schedule	Cost	Score	Remaining Cost	Planned Cost
<input checked="" type="checkbox"/>	Response Plan	Accept		04-Apr-11	10-Jan-12	L (Up to 25%)	H (10 or higher)	H (\$25,000.00 or higher)	5	\$0.00	\$0.00
	Response Action		Proposed	04-Apr-11	10-Jan-12	L (Up to 25%)	H (10 or higher)	H (\$25,000.00 or higher)	5	\$0.00	\$0.00
	Response Action		Proposed	04-Apr-11	10-Jan-12	M (25% to 50%)	H (10 or higher)	H (\$25,000.00 or higher)	7	\$0.00	\$0.00
<input type="checkbox"/>	Response Plan	Accept		04-Apr-11	10-Jan-12	H (50% or higher)	H (10 or higher)	H (\$25,000.00 or higher)	9	\$0.00	\$0.00
	Response Action		Proposed	04-Apr-11	10-Jan-12	H (50% or higher)	H (10 or higher)	H (\$25,000.00 or higher)	9	\$0.00	\$0.00
	Response Action		Proposed	04-Apr-11	10-Jan-12	H (50% or higher)	H (10 or higher)	H (\$25,000.00 or higher)	9	\$0.00	\$0.00



Risk Matrix / Pre – v.s. Post Mitigated



Dashboards



ORACLE Primavera Portfolio Management

Setup | Admin | Log out | Administrator, System | Friday, Sep 23, 2011

Investor | Scorecard | Workbook | Forms | **Dashboards** | To-Do

Dashboard: Portfolio Overview | Item: Current Initiatives - 1 | Data as of: Today

Dashboard | Item | Clipboard | Collaborate | View | User | Setup | Tools | Help

Save | Reset | abc Spelling

PORTFOLIO OVERVIEW

Investment Value

Investment Value Index: indicator distribution
Items distributed by Investment Value Index

Color	Percentage	Count
Blue	3.7%	1
Green	7.4%	2
Yellow	11.1%	3
Red	25.9%	7
Purple	51.9%	14

Primary Strategy Support

Primary Strategy Distribution
Items distributed by Primary Support Strategy

Color	Percentage	Count	Description
Blue	37%	10	Support for External Customers
Orange	7.4%	2	Support for Internal Customers
Purple	18.5%	5	Support for Increased Productivity
Red	18.5%	5	Support for Competitive Differentiation
Cyan	18.5%	5	Support for Reducing Costs



Investor Maps



Scorecards

ORACLE Primavera Portfolio Management Setup | Admin | Log out | Administrator, System | Friday, Sep 23, 2011

Investor **Scorecard** Workbook Forms Dashboards To-Do

Scorecard: Application Recommendation Budget Impact Portfolio: All Application Investments Data as of: Today

Scorecard | Portfolio | Clipboard | Collaborate | View | User | Setup | Tools | Help Highlight

Applications	Application Criticality	Business Capability Score	Application Recommendation	Total Application Cost	5 - Yr. Application Financial Impact	5 - Yr. Current Total Application	5 - Yr. Recommended Action Total
All Application Investments	79	7	Upgrade	15,910,000.00	9,015,000	55,100,000	46,085,000
2 Accounting Database	88	7	Maintain	110,000.00	0	500,000	500,000
3 Accounts Payable (Legacy)	57	2	Replace	625,000.00	0	3,200,000	3,200,000
4 Accounts Receivable (ERP)	88	10	Maintain	350,000.00	0	1,750,000	1,750,000
5 Accounts Receivable (Legacy)	33	4	Retire	750,000.00	3,750,000	4,000,000	250,000
6 Adverse Experience Reporting	45	6	Maintain	210,000.00	0	1,100,000	—
7 APC Plant Control Systems	100	10	Upgrade	137,500.00	200,000	700,000	500,000
8 Asset Management (Legacy)	100	3	Replace	410,000.00	1,000,000	2,000,000	1,000,000
9 Clinical Trials System	55	5	Upgrade	140,000.00	250,000	600,000	350,000
10 Collections Management	45	8	Upgrade	160,000.00	150,000	850,000	700,000
11 Customer Self Serve	100	7	Maintain	280,000.00	0	1,200,000	1,200,000
12 Customer Self Service	100	9	—	280,000.00	—	—	—
13 Database for Managing Customers	100	9	Upgrade	240,000.00	400,000	1,300,000	900,000
14 Discovery DataMart	78	5	Maintain	100,000.00	0	500,000	500,000
15 E-Commerce	55	5	—	140,000.00	—	—	—

Oracle Primavera EPPM Solutions

- **Primavera Risk Analysis:**
 - Risk management and assessment.
- **Primavera P6 EPPM and OPPM:**
 - Capital Portfolio management, Resource & Scheduling.
- **Primavera Unifier:**
 - Collaboration, Cash Flow management, Budgeting and Funding, Cost Control and Project Delivery management.
- **Primavera P6 Analytics & Reporting:**
 - Detailed analytics and reports.
- **Primavera Earned Value Management:**
 - Measure construction deliverables progress and earned value.

THANK
YOU

Hardware and Software

ORACLE®

Engineered to Work Together