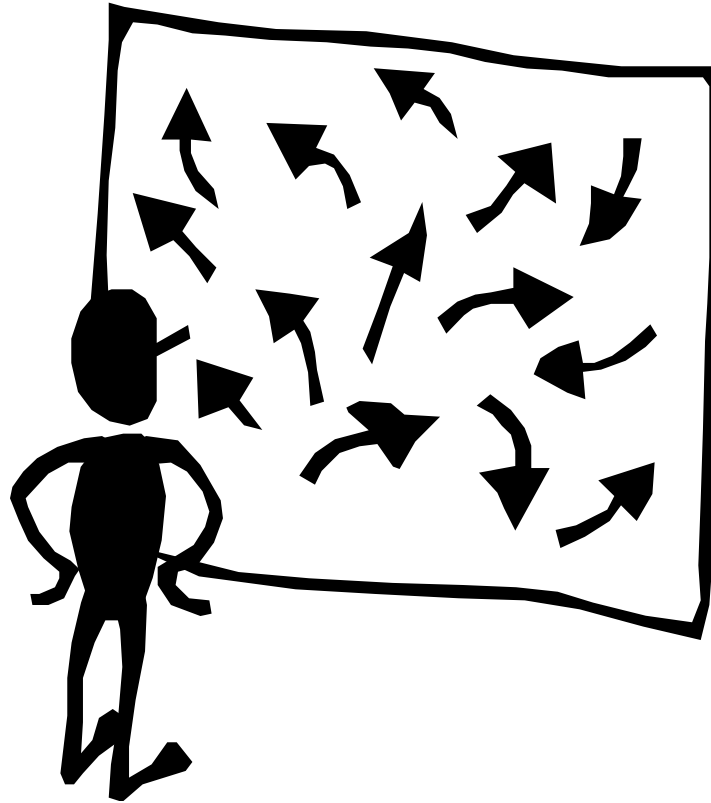
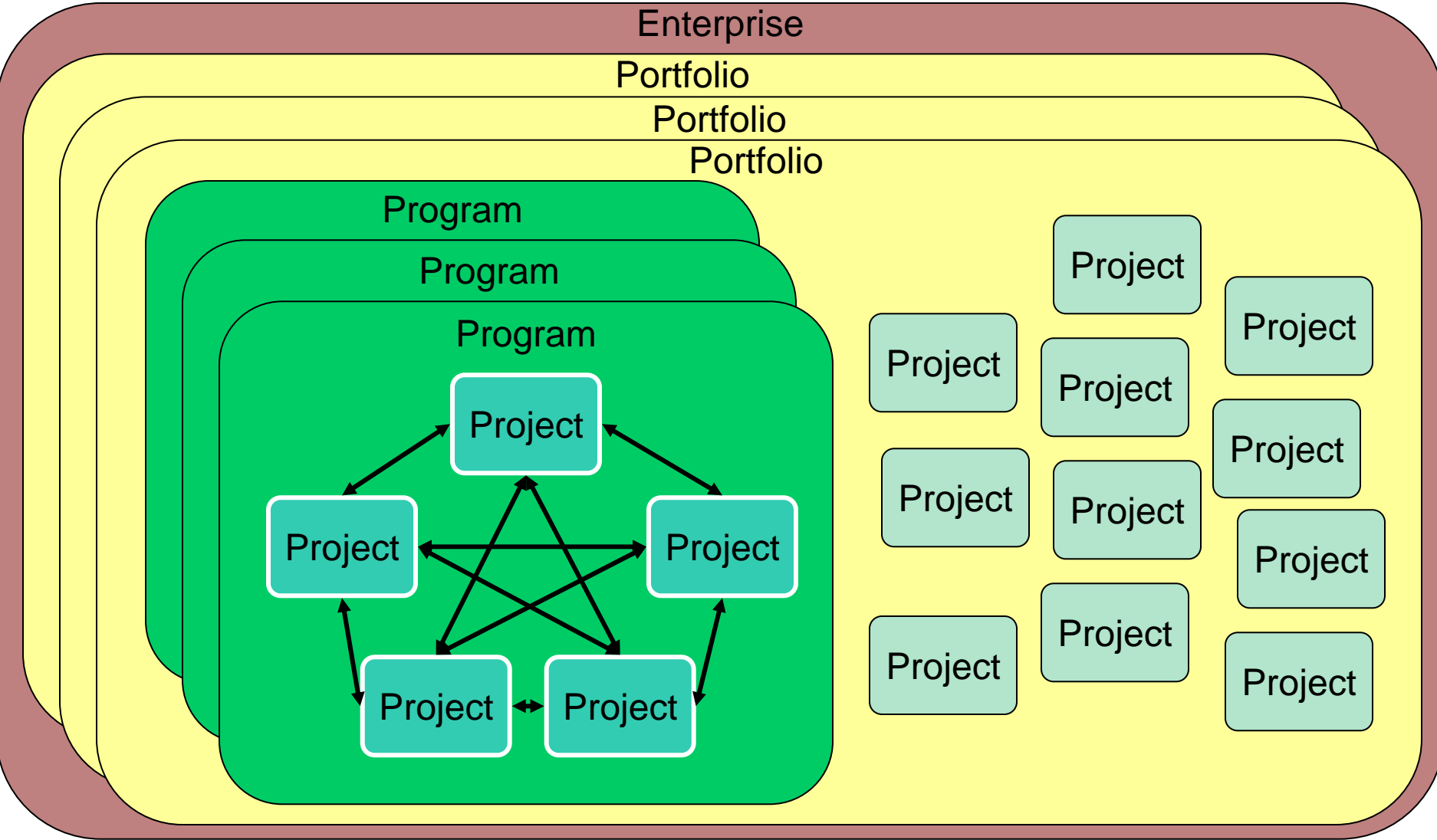


Program, Portfolio, and Enterprise Risk ...We're not in Kansas Any More



Tom Kendrick, PMP
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Projects, Programs, Portfolios, and the Enterprise



Risk Management in Projects



Based on *A Guide to the Project Management Body of Knowledge, Third Edition*, Chapter 11, Project Management Institute © 2004

Risks—More Than Just a Hierarchy

Program Risk: Includes the key project risks, as well as additional risk from scale, project interdependencies, and “white space.”

Portfolio Risk: Includes key program and project risks, but depends on risk correlations and generally focuses on financial metrics.

Enterprise Risk: Contains portfolio risk factors, but extends beyond financial considerations into additional areas.

The Effect of Risk Correlation

Overall risk for projects in aggregate depends on correlation:



For programs and for portfolios of **related** projects, risks correlate and **increase** uncertainty.

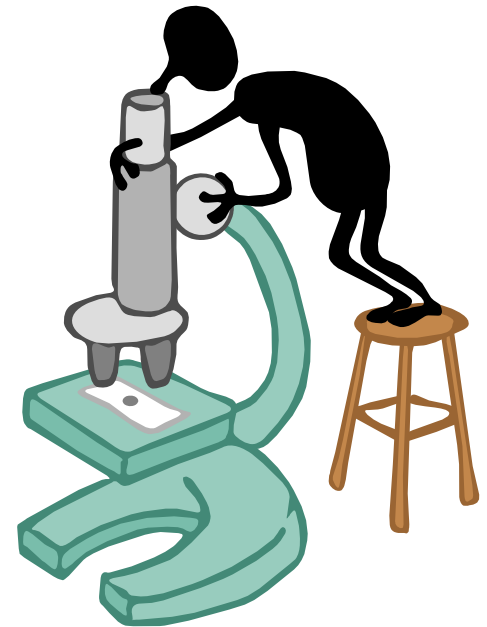


For portfolios of **independent** projects, risks may offset and **decrease** uncertainty (at least financially—as with portfolios of stocks, loans, or insurance policies).

Managing Program Risks

Program risk management requires detailed planning at the component project level

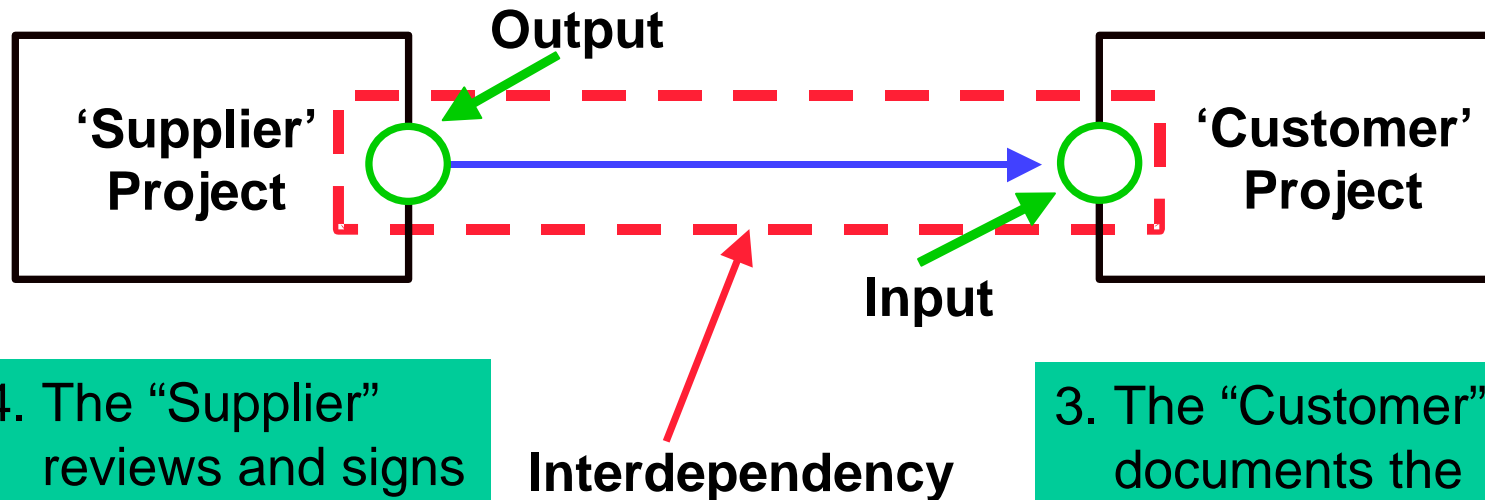
- Identify and list all project-level risks that represent significant program-level exposure (Showstoppers).
- Identify and list program risks related to complexity or scale.
- Identify all shared resources among component projects, or with committed work outside the program.
- Identify all project interconnections, and formally manage all interfaces.



Interdependencies Connect Projects

2. The “Supplier” specifies output criteria and planned timing.

1. The “Customer” defines input and timing desired.



4. The “Supplier” reviews and signs a formal, written agreement.

3. The “Customer” documents the interdependency.

5. If discussion and negotiation do not result in commitment, escalate to resolve.


Formally Document Interfaces

Interface Definition Form

Program: Defeat the Empire

Interface Name: The FORCE

Interface ID: Jedi-1

	Sub-Project	Agreed by	Org	Date
Supplier	<u>Deneba</u>	<u>Yoda</u> 	<u>Jedi</u>	<u>Oct. 31</u>
Customer(s)	<u>Knight</u>	<u>Luke</u>	<u>Rebel</u>	<u>Nov. 1</u>
	_____	_____	_____	_____

Interface Definition: Develop the FORCE in Luke, enabling him to rejoin the resistance with strange, new mental powers. “There is no try; there is only do.”

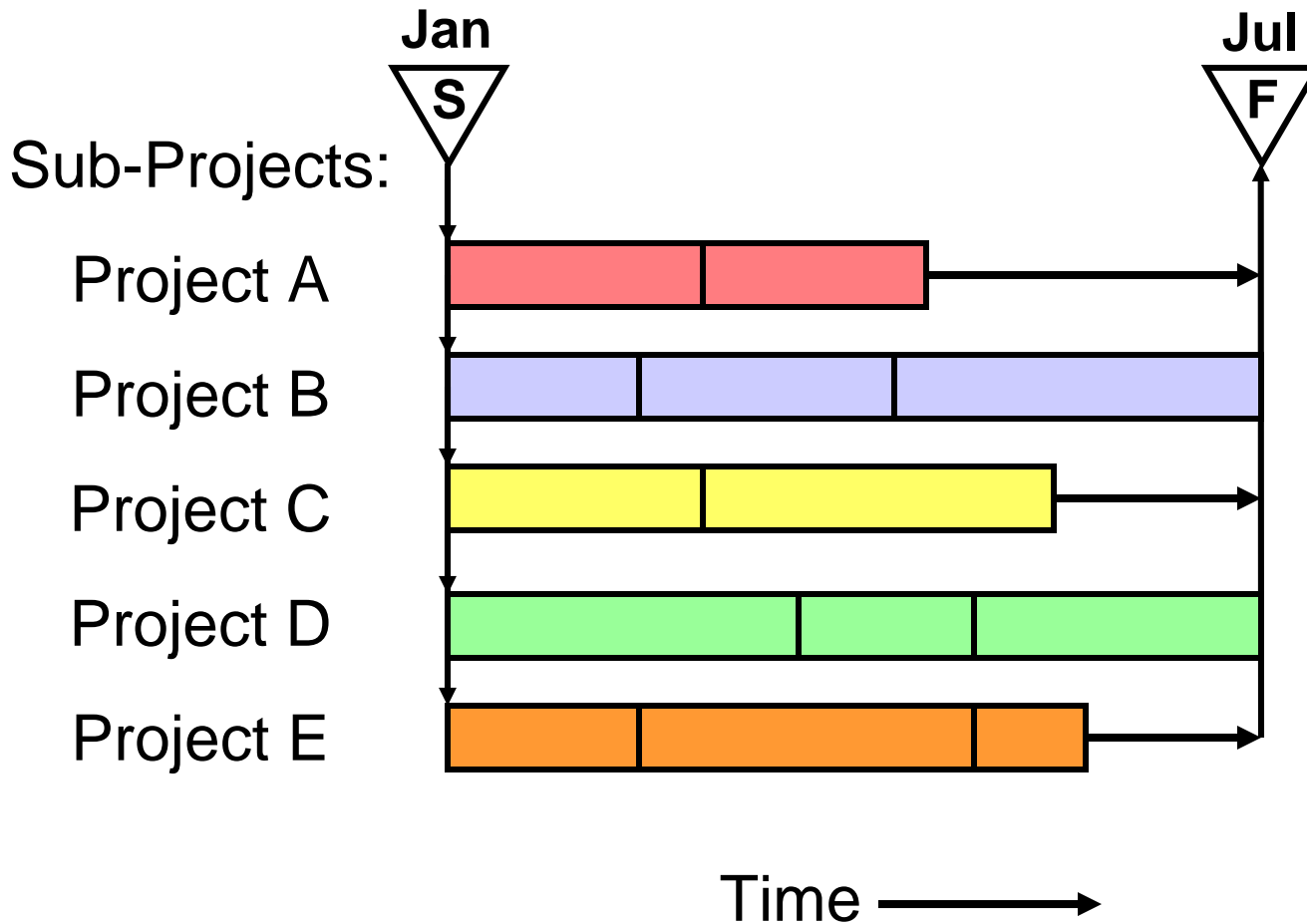
Completion Criteria: Demonstrate ability to lift massive objects out of swamps, operate a light saber, and to accurately fire charges into Death Stars without use of instruments.

Prepared by: Obi-Wan Kenobi

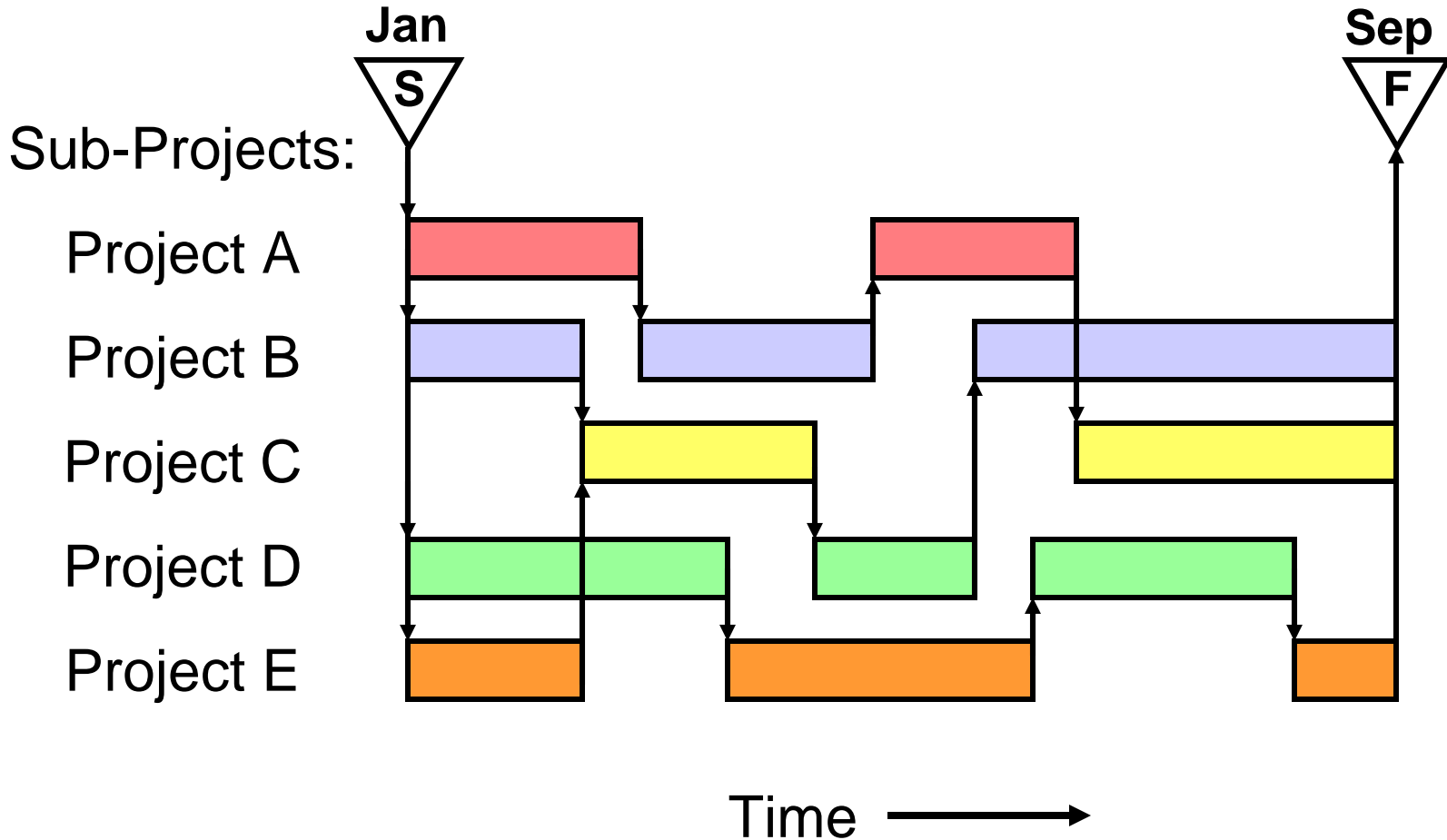
Rev, 1

Date: Oct 15

Plan Each Project in the Program

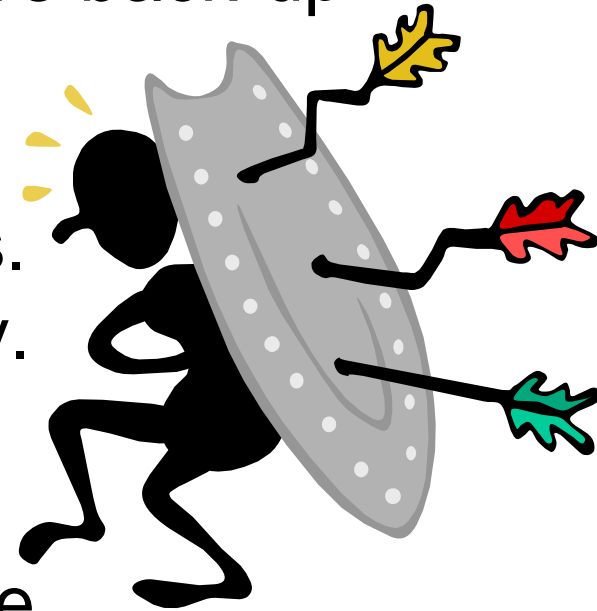


Identify All Program Timing Dependencies and Offsets



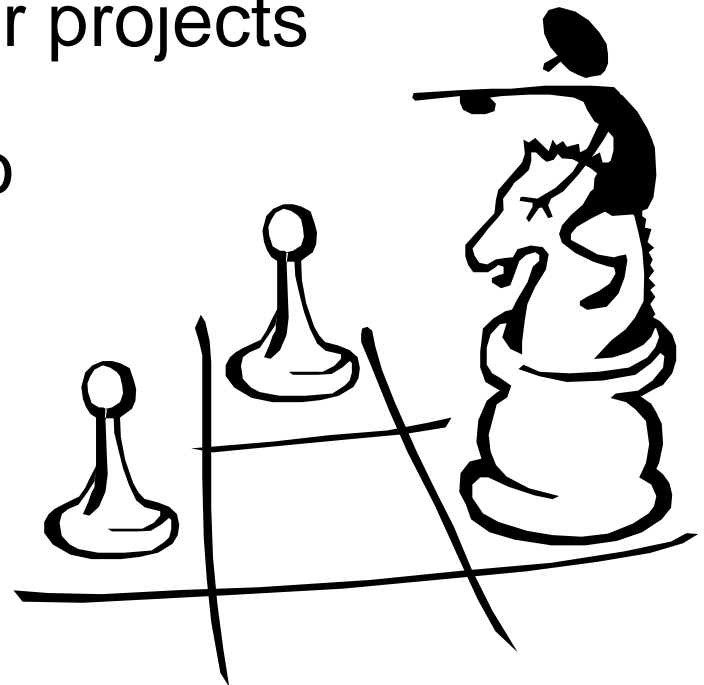
Program Risk Management

- Respond to significant program-level risks.
- Establish program financial contingencies and timing reserves.
- Formally manage change and limit late changes.
- Get credible commitments for all resources, covering both skills and effort. Have back-up resource plans.
- Establish and enforce all program cross-project interface agreements.
- Escalate promptly when necessary.
- Perform Program Risk Reviews throughout the program.
- Keep all major program risks visible.



Portfolio Risk Management Goals

- Appropriate mix of projects and project risks
- Selection of best project possibilities
- Proper staffing of fewer, better projects
- Better alignment of projects to business strategies, long versus short-term vision



Portfolio Risk Management

- Specific risks: Same as for projects, programs.
- Risk in Aggregate:
 - Categorization by type
 - Overall decision process
 - Risk correlation analysis
 - Ongoing analysis of projects, external factors

Categories of Projects

- New basic research and development
- Revolutionary products, processes, or new markets
- Next generation/new platform to replace an old offering
- Evolutionary improvements to an existing product or service
- Maintenance, support, or infrastructure

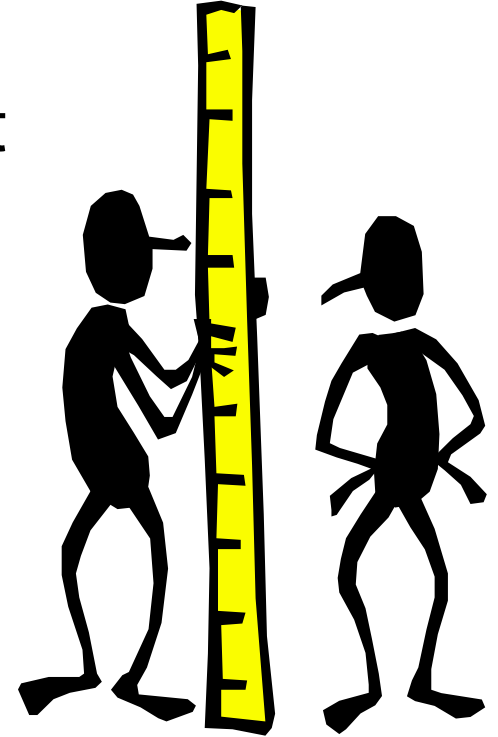
Highest
return, risks



Lowest
return, risks

Portfolio Decision Preparation

- List all new and current projects.
- Develop expectations for the project portfolio mix.
- Develop project plan-based information on:
 - Project size
 - Project risk
 - Results expected (ROI, etc.)
 - Other decision criteria
- Involve project leaders in discussions and data collection for long term planning.
- Determine available resource capacity.



Portfolio Composition

R&D organizations traditionally have a mix such as:

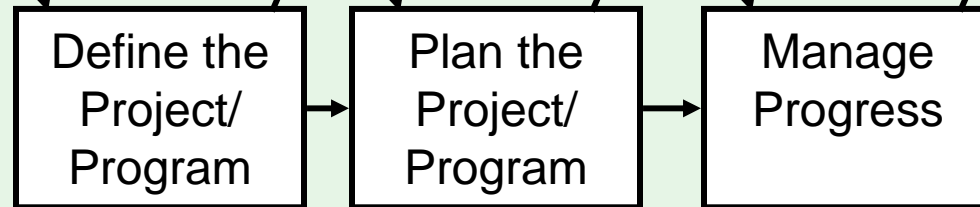
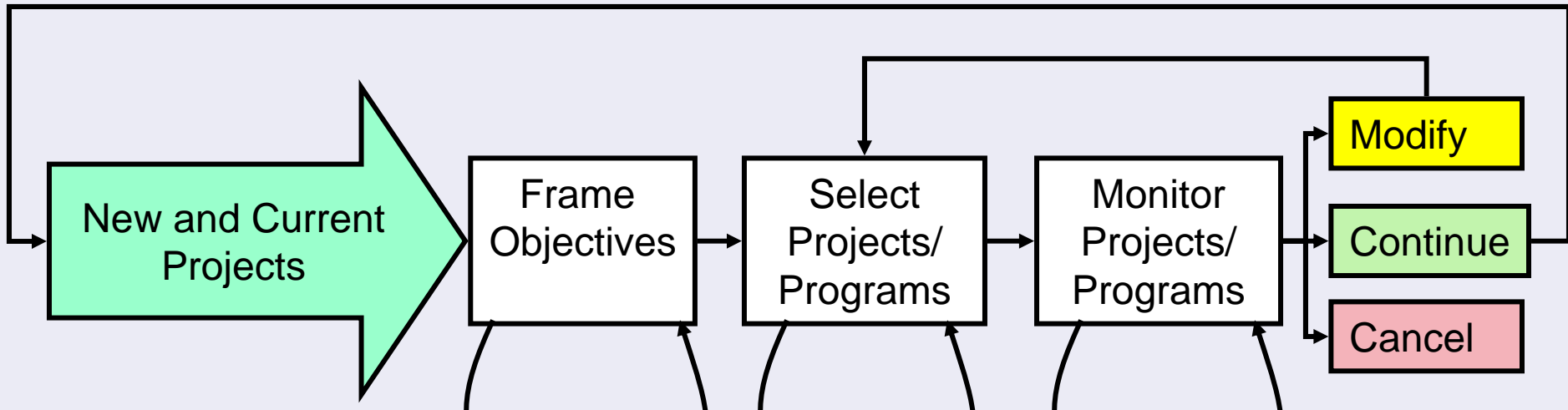
- High risk: New, Revolutionary 0-25%
- Med risk: Next generation, Platform 35-65%
- Low risk: Evolutionary, Maintenance 25-50%

Proportions will vary over time but the target mix must reflect strategic decisions and staffing and investment constraints.

Periodic reviews are necessary to maintain the target weightings. (The “low risk” project group tends to expand over time...)

Project and Portfolio Management

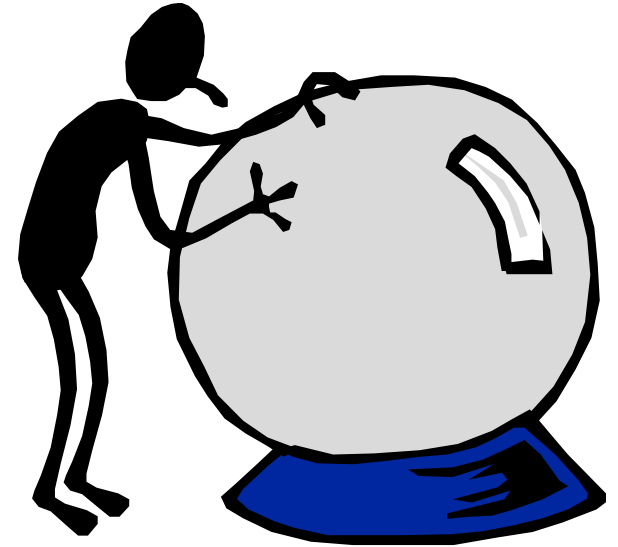
Portfolio Management



Project and Program Management

Portfolio Risk Issues

- Heavy emphasis on ROI
- Decisions not based on realistic planning data
- Poor capacity analysis
- Data quality, particularly for new projects and programs
- Strategic alignment, mix of short and long range objectives
- Correlation assessments, projects and programs that compete for the same resources
- Organizational biases
- Repercussions to teams on risky, leading edge projects



Portfolio Correlation Factors

- Reliance on similar new technologies or applications
- Dependence on the same resources, especially outsourced or specialized staffing
- Significant project risks listed in common by several projects
- Potential failure modes shared by projects
- Reliance on uncertain external events or expectations
- Too many projects of a single type

Program and Portfolio Risks

- Project portfolios can minimize overall risk
- Programs tend to increase risk, due to:
 - Size
 - Timing and other aggregation effects
 - Resource contention
 - Communications challenges
- In both cases, risk assessment and project management techniques are essential for lowering uncertainty.



Enterprise Risk

Enterprise financial risk: Primarily managed using the portfolio process.

Includes other risk domains:

- Safety and security
- Fraud and financial liability
- Casualty loss and disaster preparedness
- Organizational reputation and brand protection
- Intellectual property management

Regulatory Enterprise Risk Management:

- COSO
- Other Standards

Enterprise Risk and Projects

Enterprise risk management creates many projects in organizations, initiated to manage enterprise exposures, such as:

- Sarbanes-Oxley (US) and other similar regional and national requirements
- Fraud and security management
- Safety and environmental management
- Management of potential legal actions

As at the portfolio level, major risks associated with big projects and programs are a significant factor for overall enterprise risk management.

COSO Enterprise Risk Management

COSO (Committee of Sponsoring Organizations)

Enterprise Risk Framework:

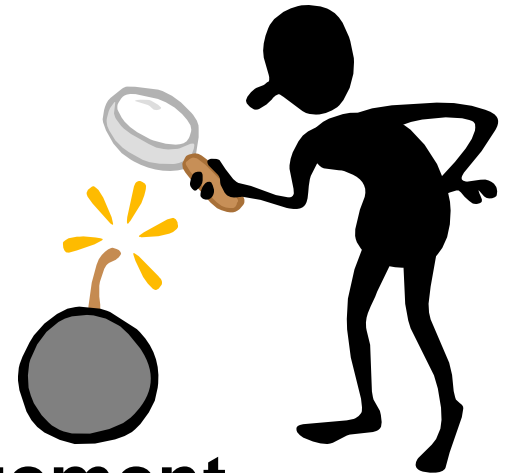
- Internal environment (Risk appetite)
- Objective setting (Measures)
- Event identification (Risk identification)
- Risk assessment
- Risk response
- Control activities (Review processes)
- Information and communication
- Monitoring (Monitoring and control)

(Similar in overall structure to PMI PMBOK)

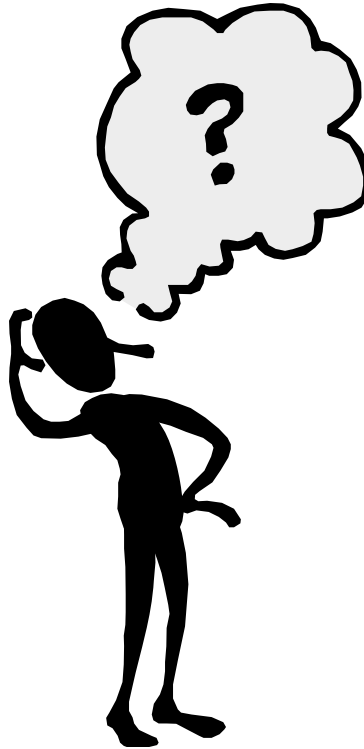
Other ERM players include: RIMS, ISO, and others

Summary

- **Integrate risk management at all levels.**
- **Manage risk well in every project.**
- **Understand and manage program-level risks, especially cross-project dependencies, resource contention, and “showstoppers.”**
- **Minimize portfolio risk using appropriate criteria and realistic project data, including risk. Base portfolio decisions on factors in addition to ROI.**
- **Use risk correlation analysis to lower program and portfolio risk.**
- **Understand your organization’s policies for Enterprise Risk Management.**

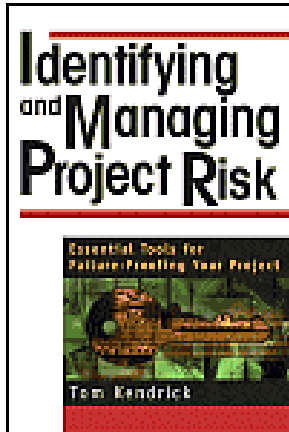


Questions?



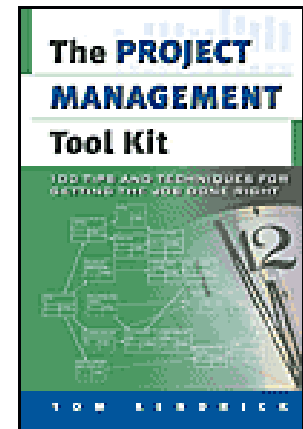
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VP Admin, PMI Silicon Valley, CA Chapter**

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