

A graphic illustration of a laptop. The screen shows a bar chart with three green bars of increasing height from left to right. To the right of the bars is a blue globe with white grid lines. The text 'Grain Operations Webinar Series' is overlaid in the center of the screen.

Grain Operations Webinar Series

Webinar 2

Budgeting and Capital Project Management for Grain Operations Supervisors

A laptop computer is shown from a slightly elevated perspective. The screen displays a bar chart with three green bars of increasing height from left to right. To the right of the bars is a blue globe with white grid lines. The text 'Budgeting and Capital Project Management for Grain Operations Supervisors' is overlaid on the screen in a blue serif font.

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Objectives

- Define budgeting and the rationale for doing it
 - What is included in a budget
 - How to create a budget
 - How to use a budget
- Introduction to Capital Project Management
 - Picking the right project
 - Project management techniques
- Relationship between budgeting and project management

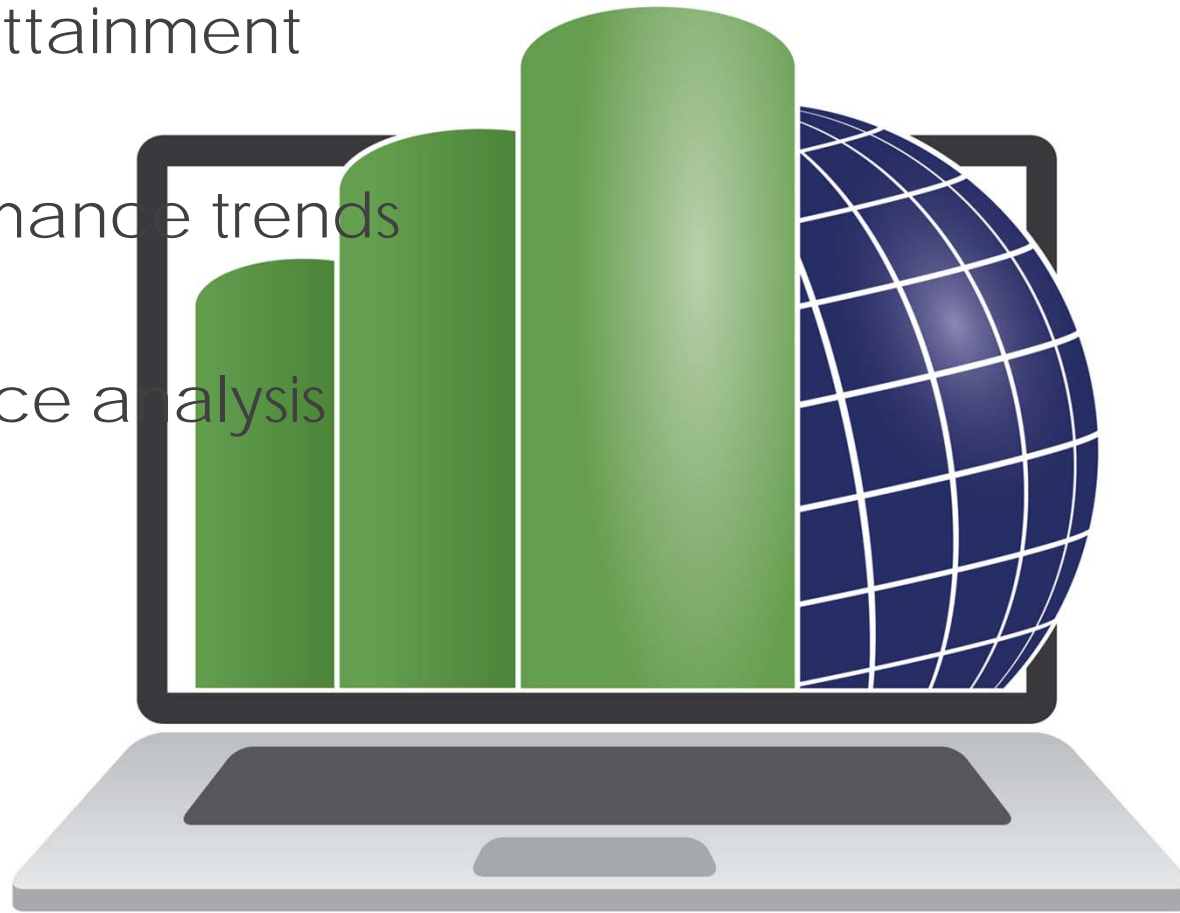


Budgeting



Budgeting – An Analytical tool

- Goal attainment
- Performance trends
- Variance analysis



Planning for Success

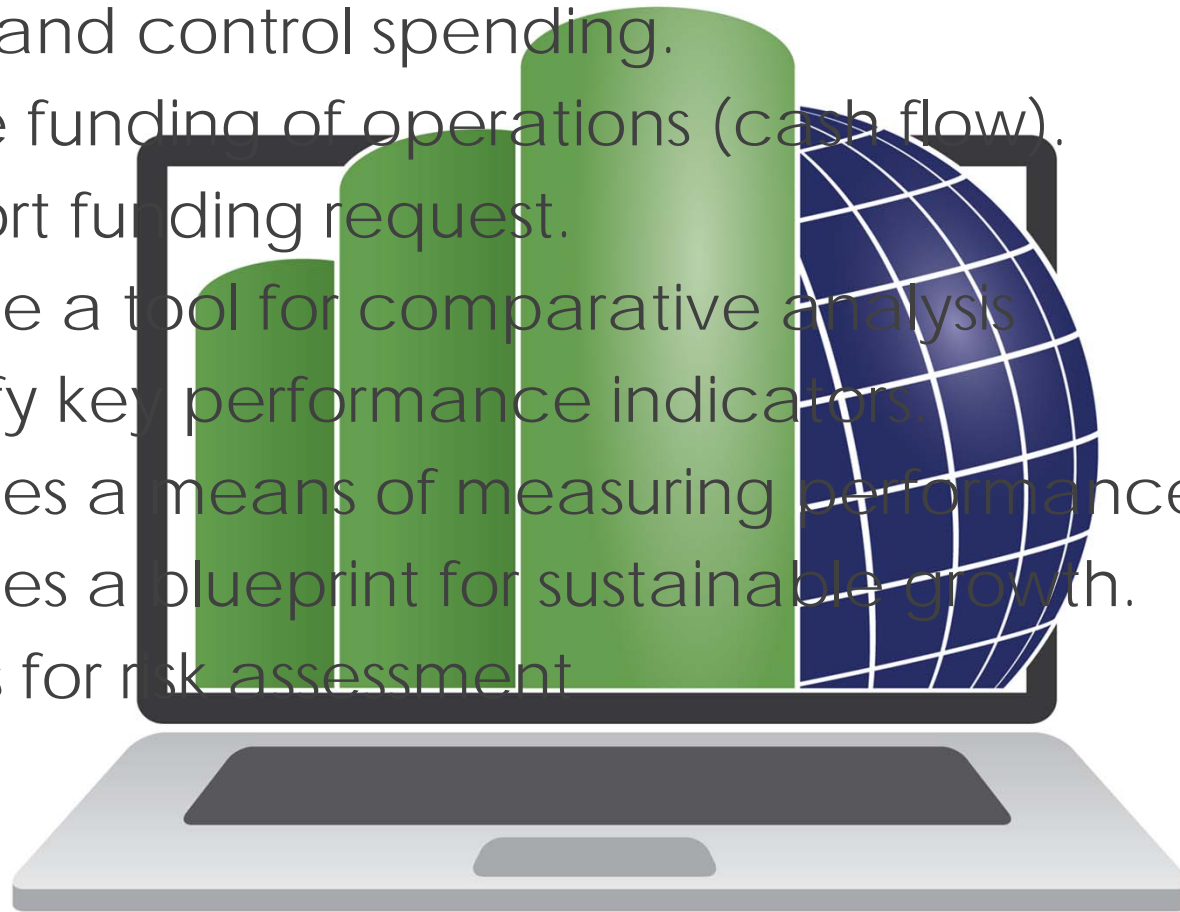
A Budget is:

- The part of the planning process that estimates an organization's outgoing expenses and incoming revenues.
- A budget is for a specified time period
- A plan to manage assets and capital
- A method of establishing targets and goals.
- A means of measuring goal attainment
- An ongoing process not a static exercise.
- A tool for sustainability, improvement, and growth.



Benefits of Budgeting

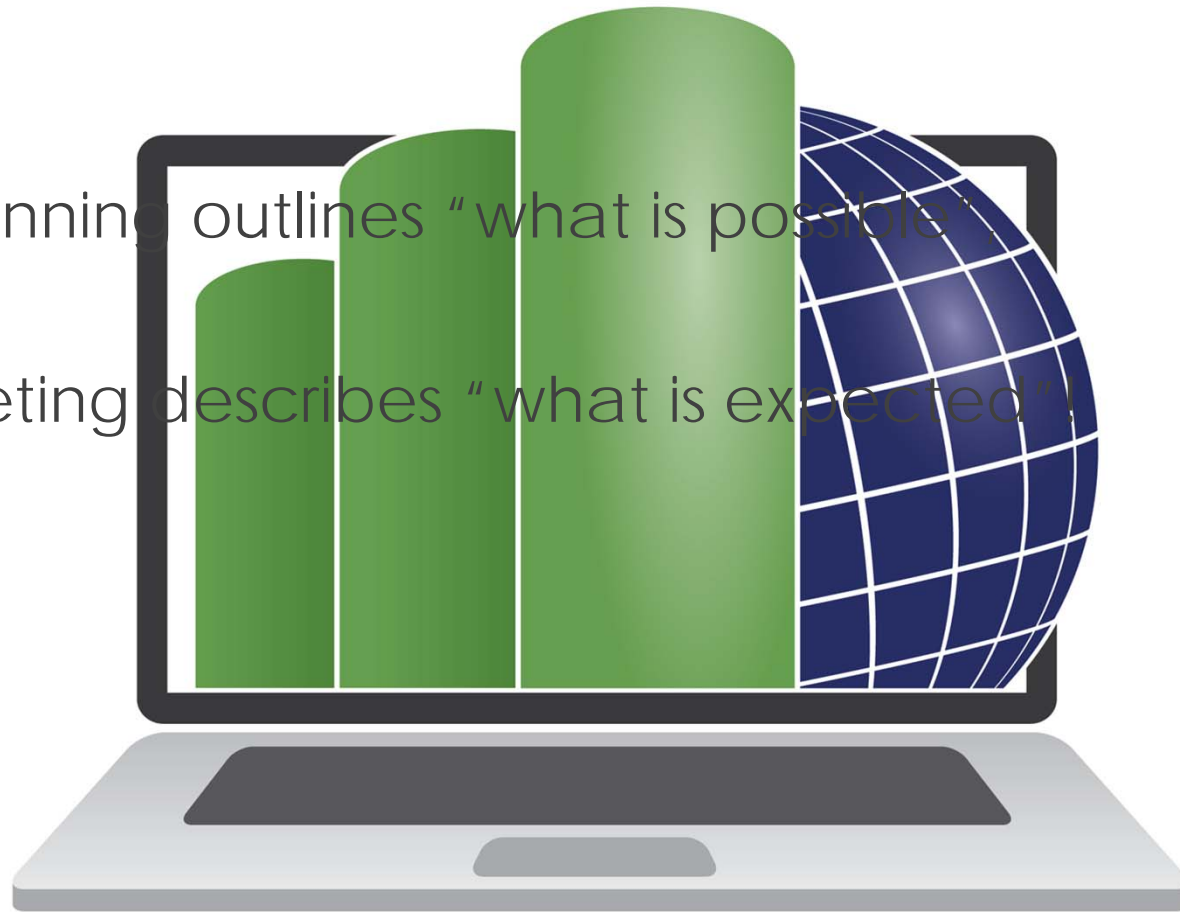
1. Track and control spending.
2. Ensure funding of operations (cash flow).
3. Support funding request.
4. Provide a tool for comparative analysis
5. Identify key performance indicators.
6. Provides a means of measuring performance.
7. Provides a blueprint for sustainable growth.
8. Allows for risk assessment



Budgeting's Relationship to Planning

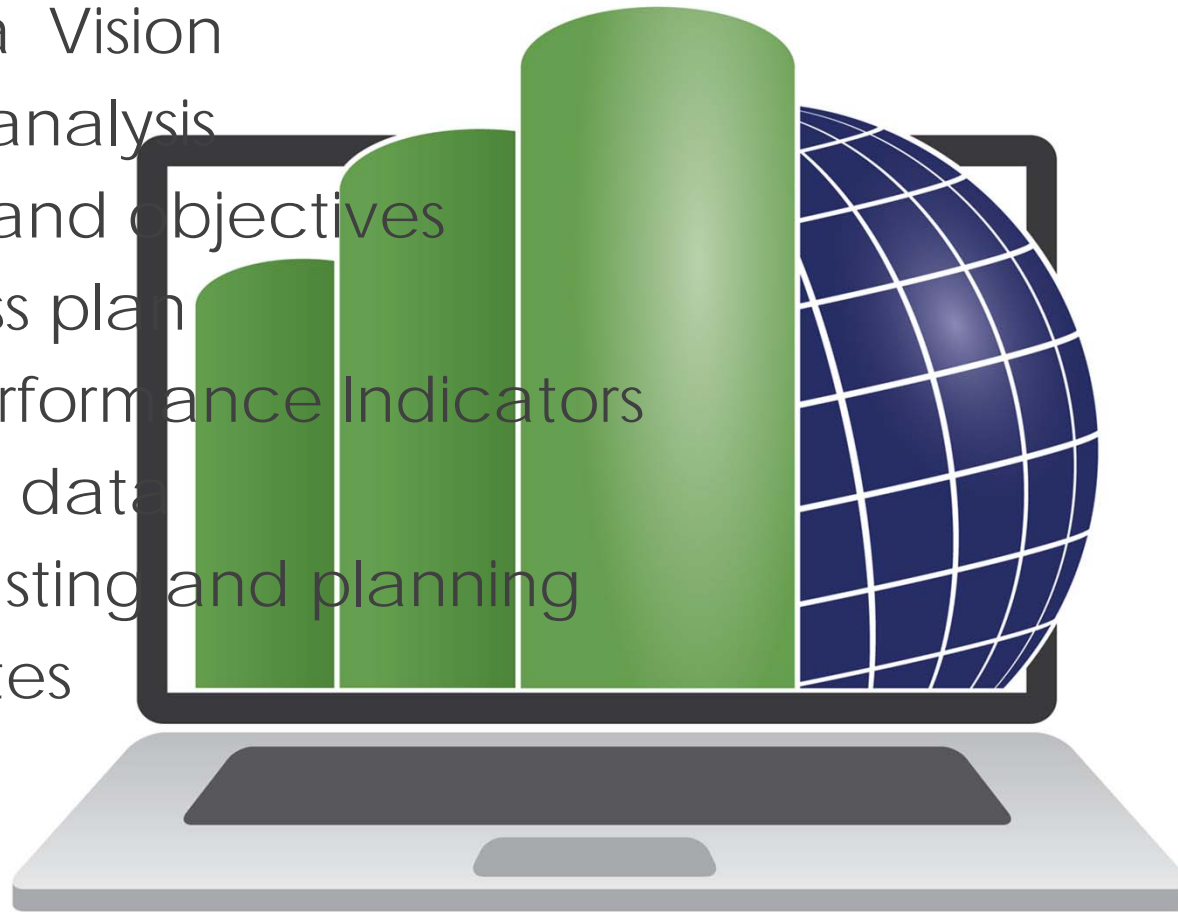
Planning outlines "what is possible"

Budgeting describes "what is expected"



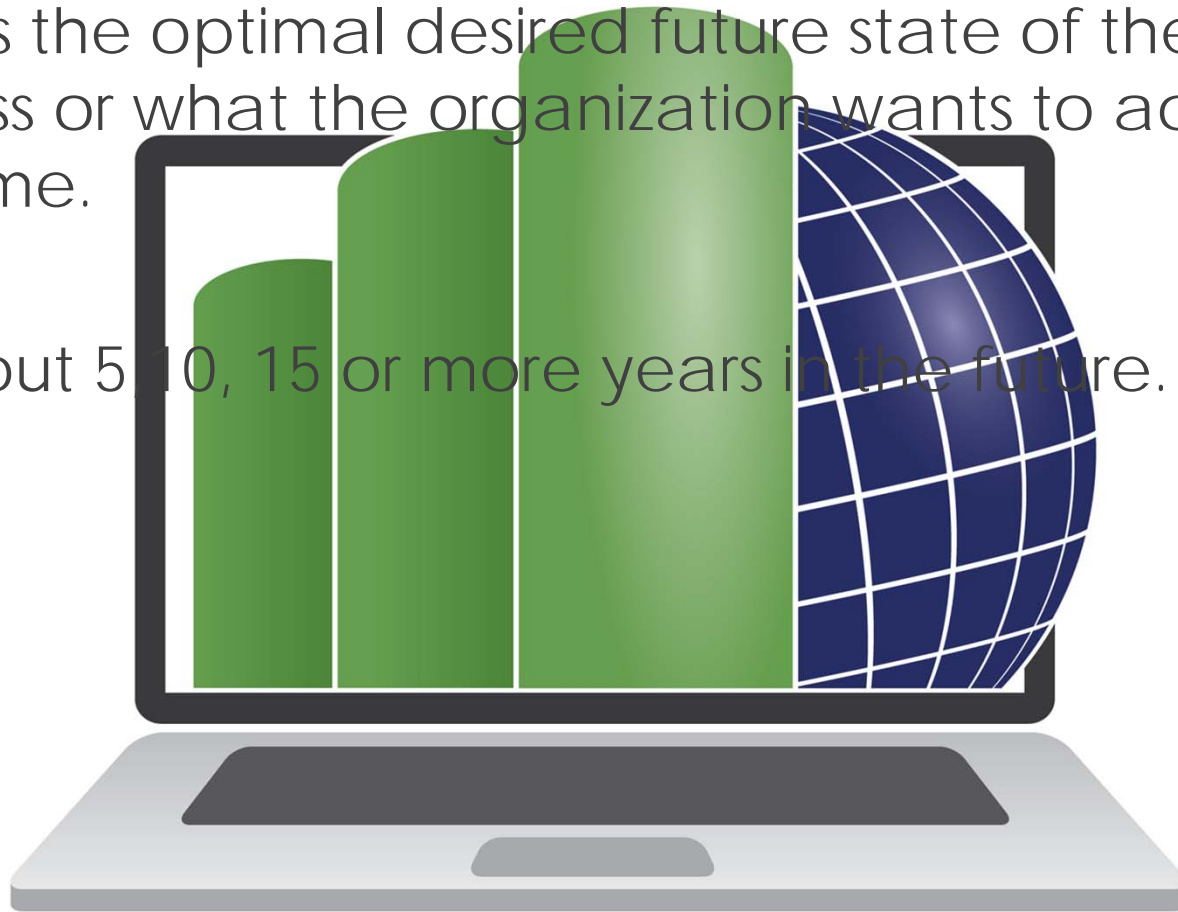
Where to Start

- Have a Vision
- SWOT analysis
- Goals and objectives
- Business plan
- Key Performance Indicators
- Source data
- Forecasting and planning
- Estimates



Vision

- Defines the optimal desired future state of the business or what the organization wants to achieve over time.
- Looks out 5, 10, 15 or more years in the future.



S.W.O.T. Analysis

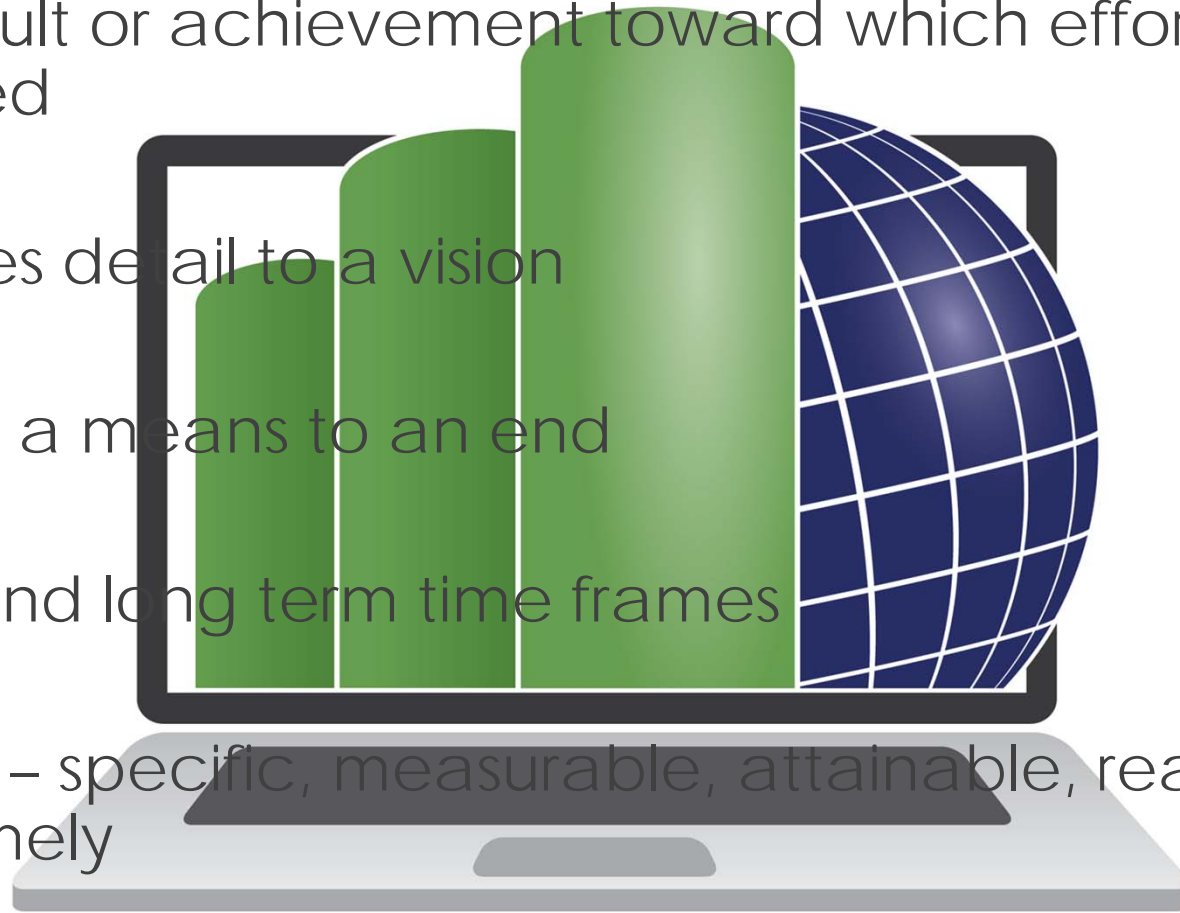
- Strengths
- Weaknesses
- Opportunities
- Threats



Defines where you are starting from

Goal

- The result or achievement toward which effort is directed
- Provides detail to a vision
- Target, a means to an end
- Short and long term time frames
- SMART – specific, measurable, attainable, realistic, and timely



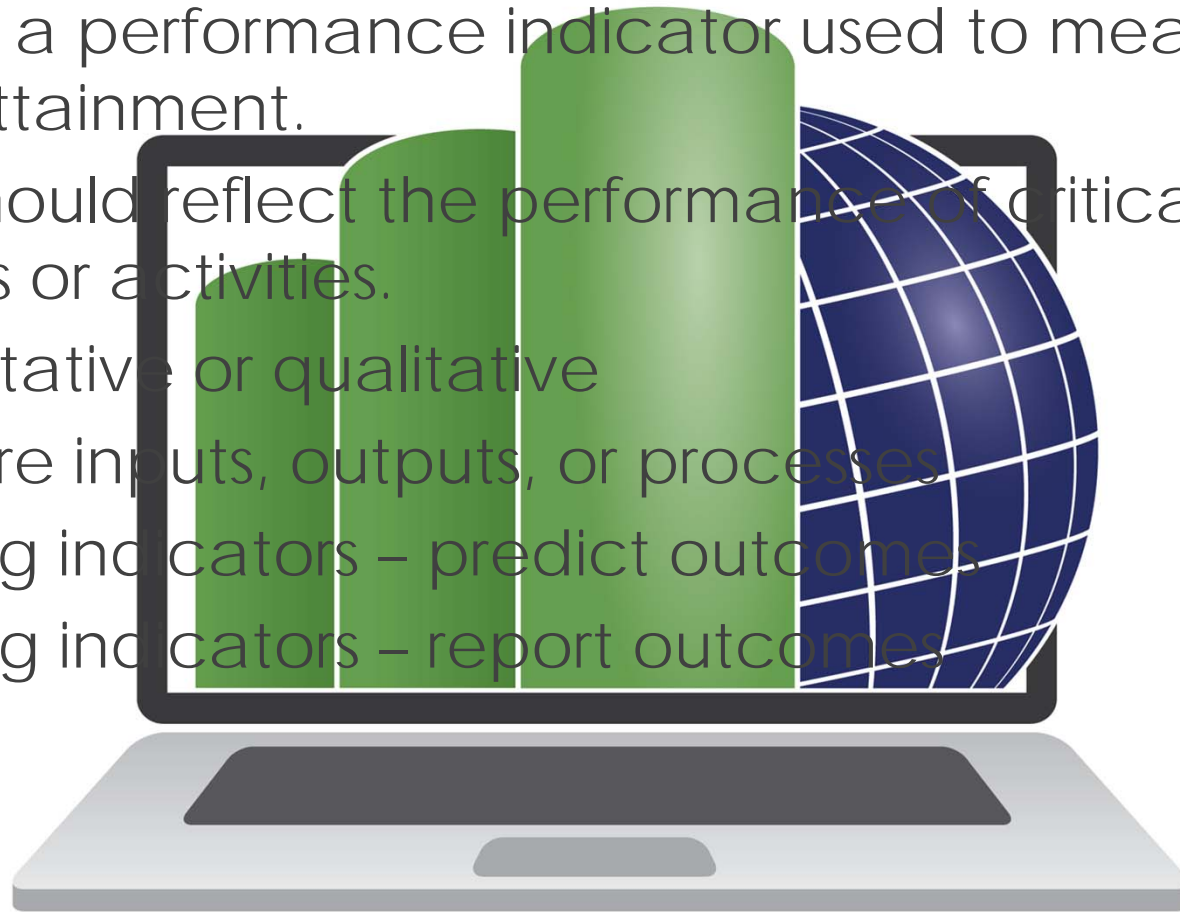
Business Plan

- A business plan is a written description of a business's strategy going forward
- A map to take you from where you are to where you want to be.
- Communicates the plan to employees
- Provides direction to decision making and action taking
- Requires periodic updating



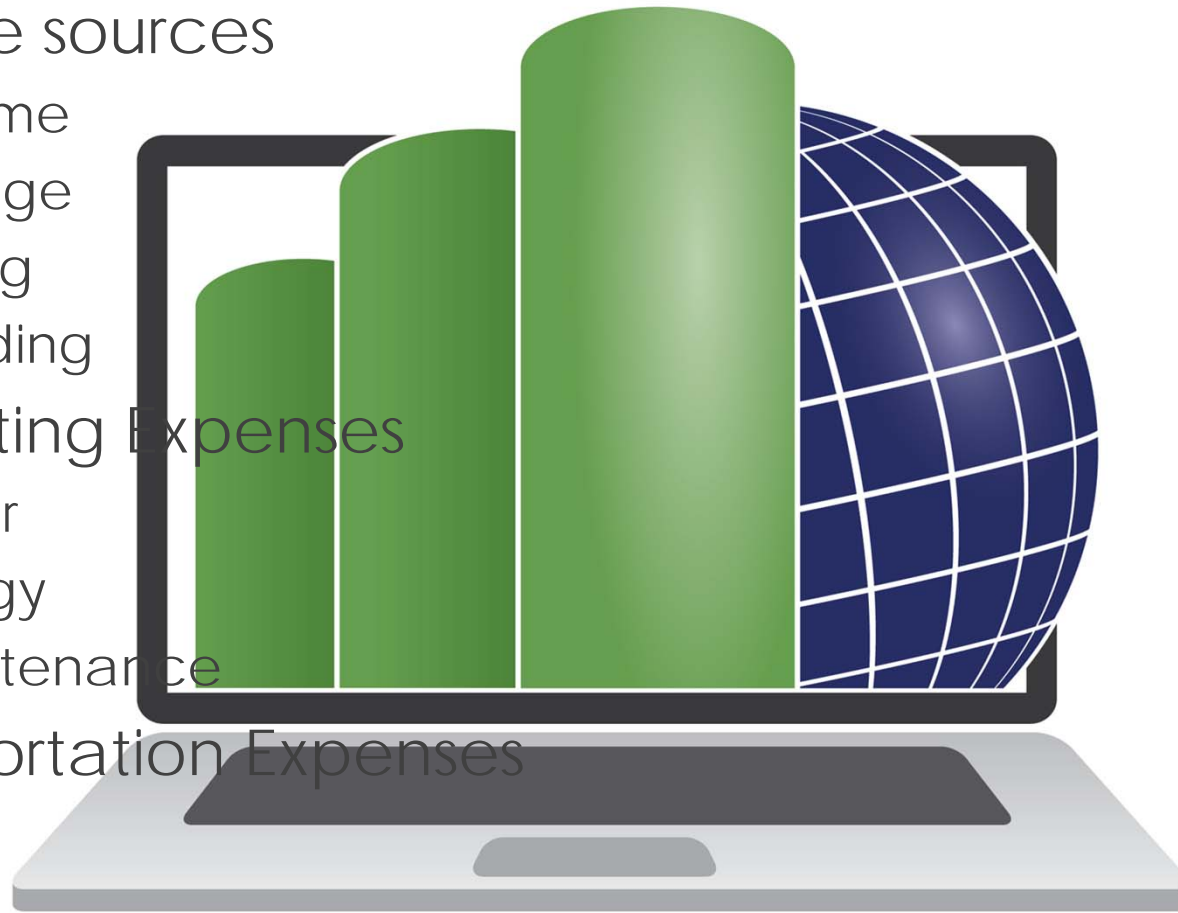
Key Performance Indicators

- A KPI is a performance indicator used to measure goal attainment.
- KPI's should reflect the performance of critical actions or activities.
- Quantitative or qualitative
- Measure inputs, outputs, or processes
- Leading indicators – predict outcomes
- Lagging indicators – report outcomes



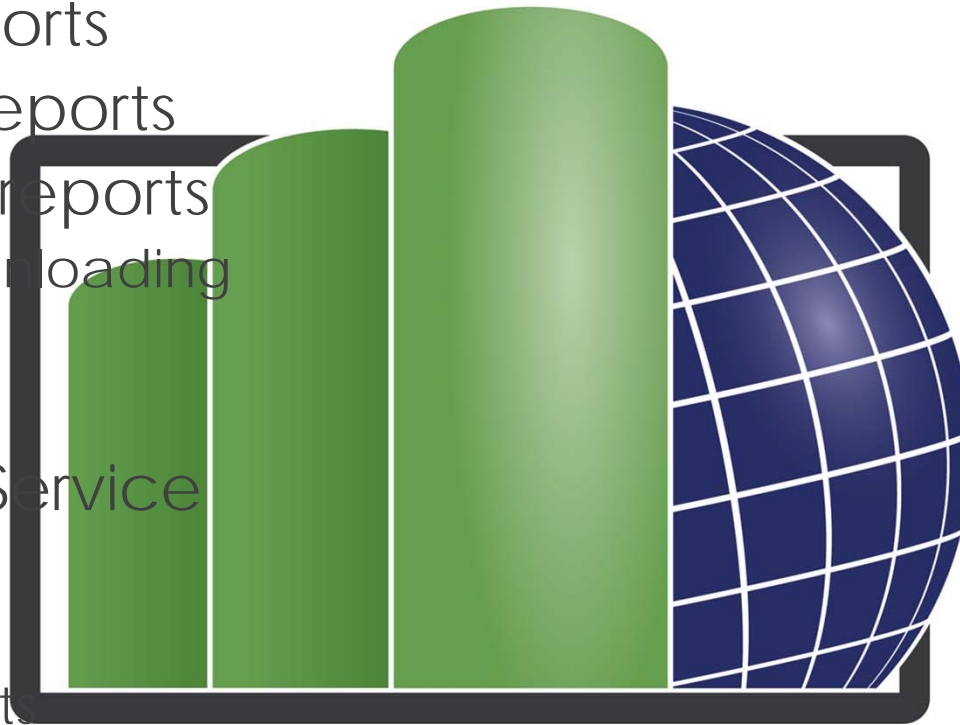
Source Information

- Income sources
 - Volume
 - Storage
 - Drying
 - Blending
- Operating Expenses
 - Labor
 - Energy
 - Maintenance
- Transportation Expenses



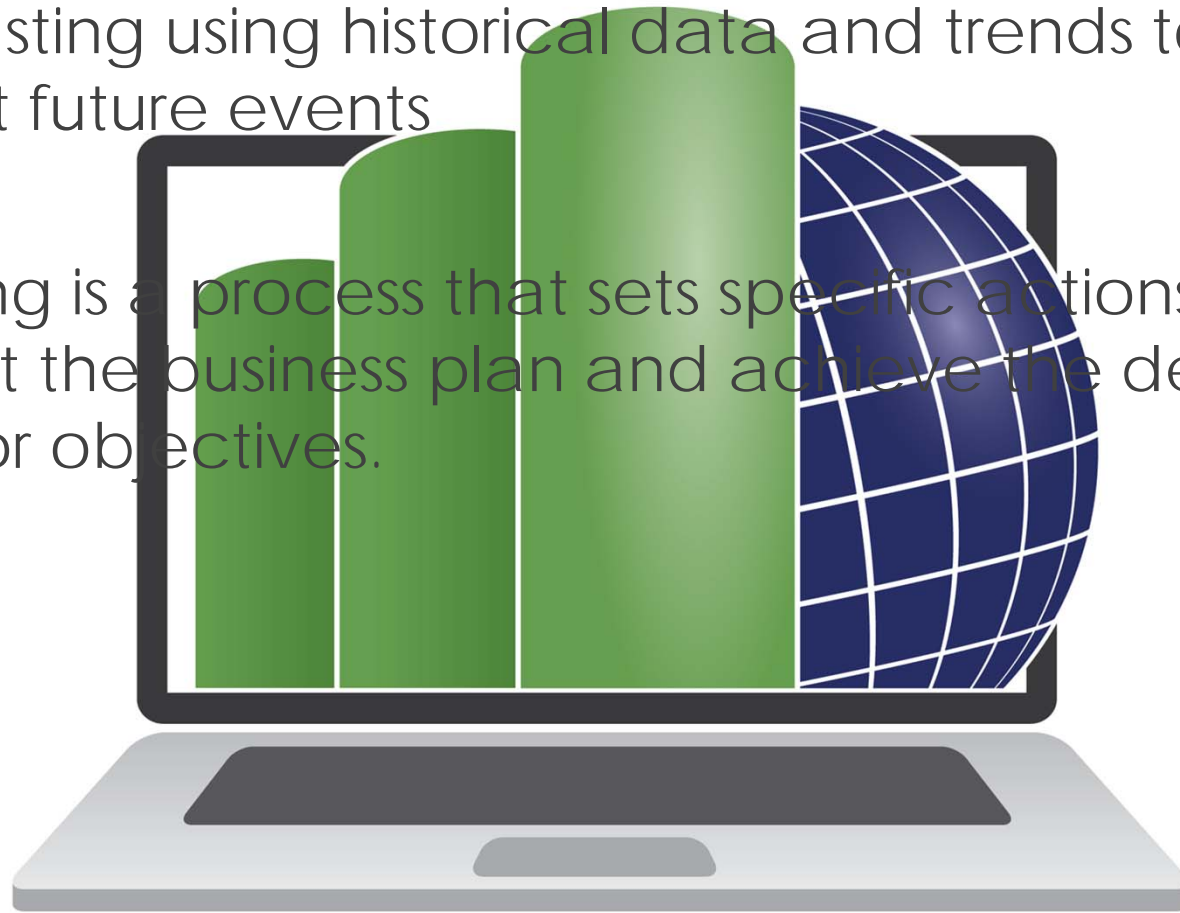
Source Information

- Quality reports
- Inventory reports
- Operating reports
 - Loading/unloading
 - Drying
 - Aeration
- Customer Service
 - Reliability
 - Speed
 - Complaints
- Depreciation schedules
- Regulatory standards



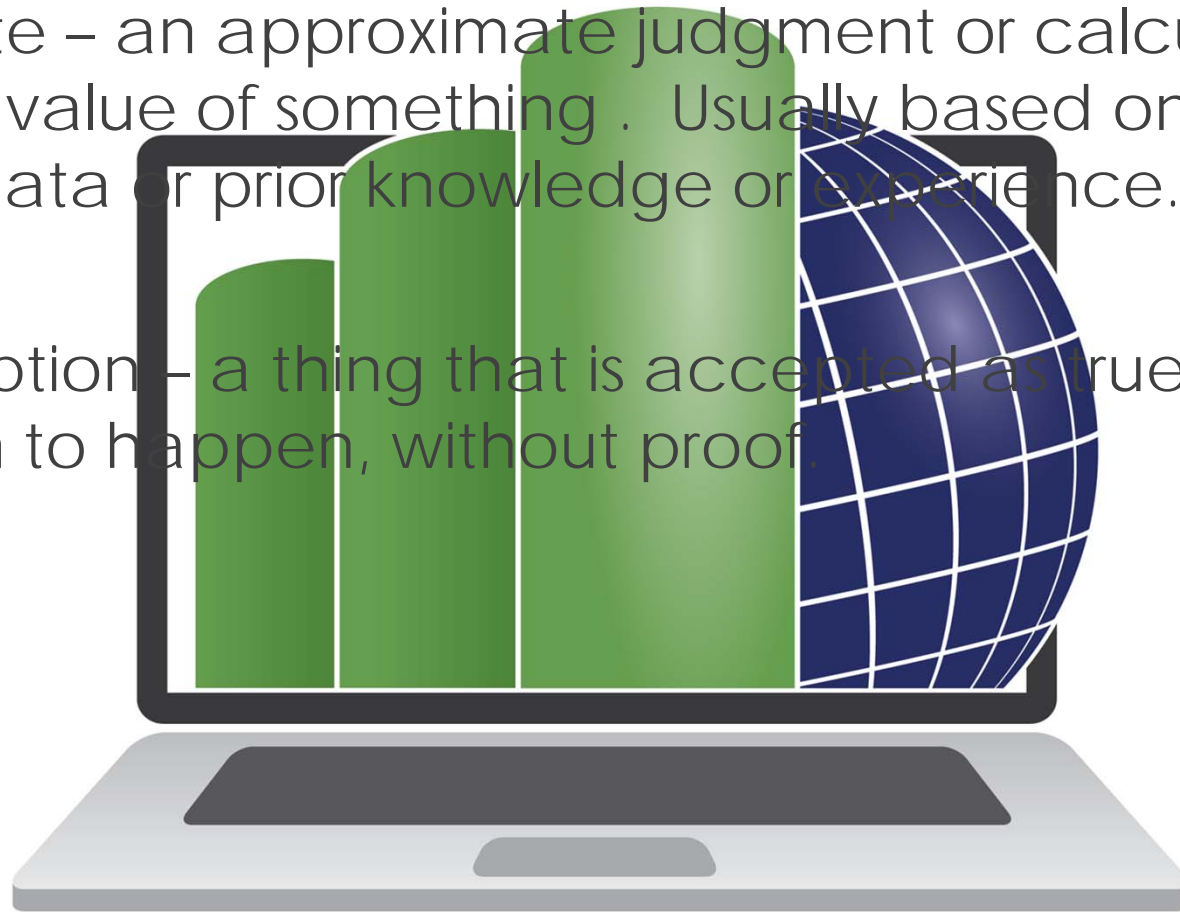
Forecasting vs. Planning

- Forecasting using historical data and trends to predict future events
- Planning is a process that sets specific actions to support the business plan and achieve the desired goals or objectives.



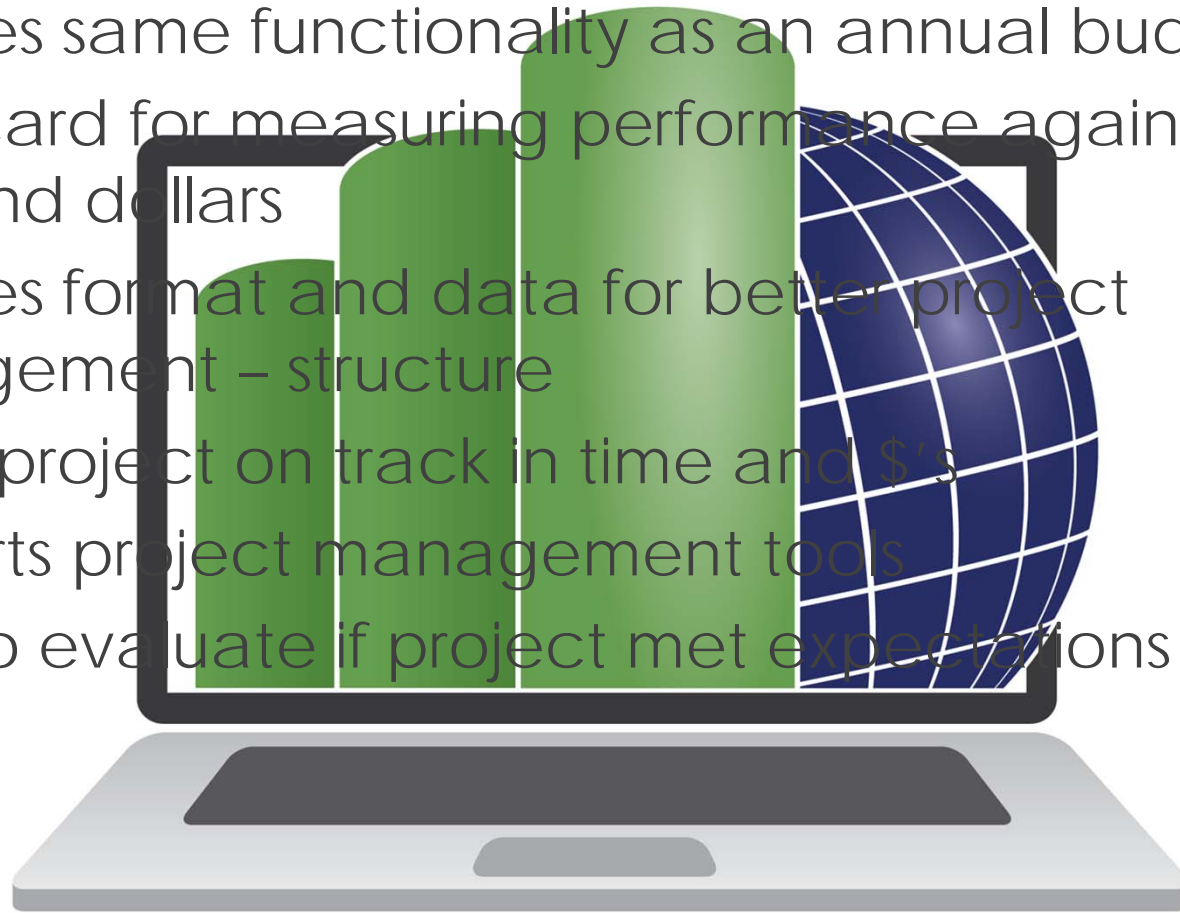
Estimates vs. Assumptions

- Estimate – an approximate judgment or calculation on the value of something . Usually based on some input data or prior knowledge or experience.
- Assumption – a thing that is accepted as true or certain to happen, without proof.



Project Budgeting

- Provides same functionality as an annual budget
- Scorecard for measuring performance against real time and dollars
- Provides format and data for better project management – structure
- Keeps project on track in time and \$'s
- Supports project management tools
- Used to evaluate if project met expectations

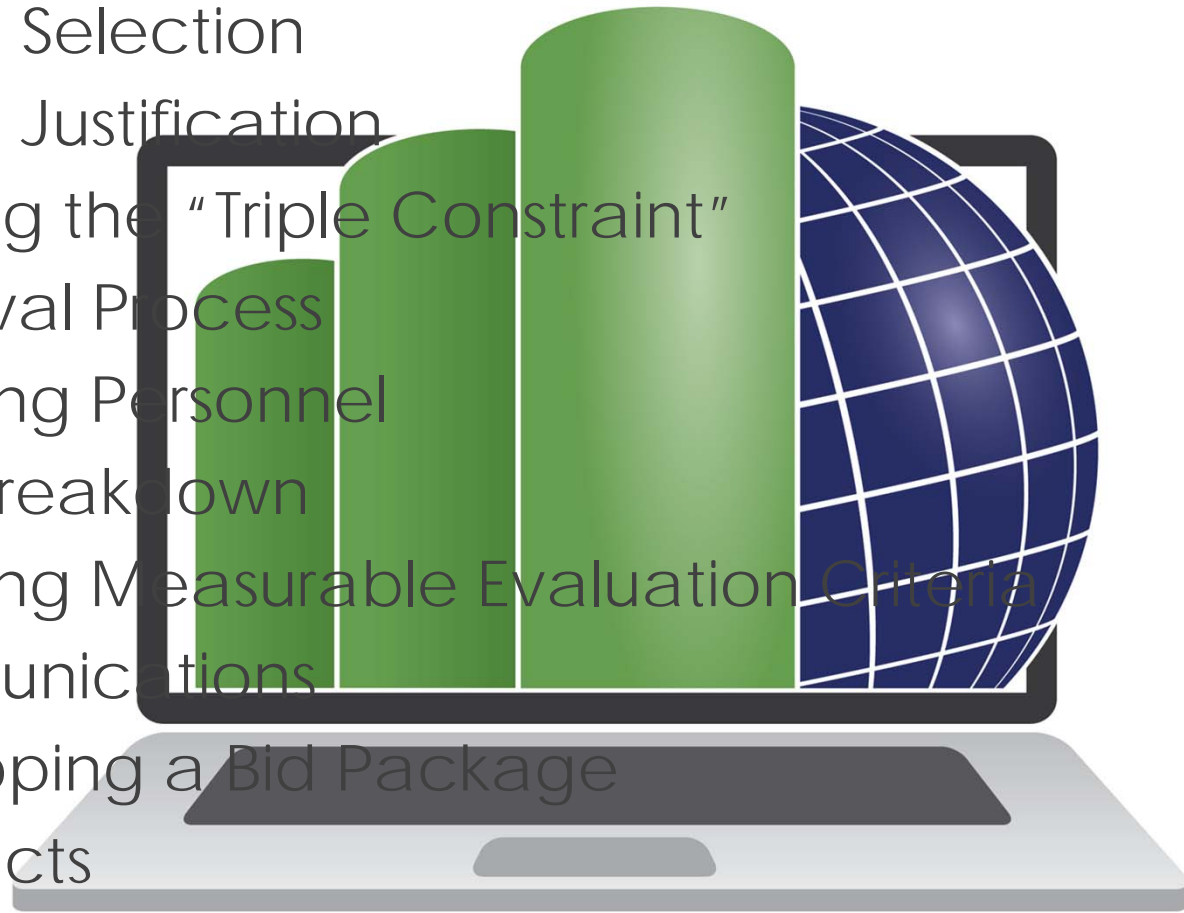


Capital Project Management



Factors in Capital Project Management

- Project Selection
- Project Justification
- Meeting the "Triple Constraint"
- Approval Process
- Selecting Personnel
- Work Breakdown
- Selecting Measurable Evaluation Criteria
- Communications
- Developing a Bid Package
- Contracts



Factors in Capital Project Management

- Procurement
- Insurance/bonds/ warranties
- Project site management
- Project Review



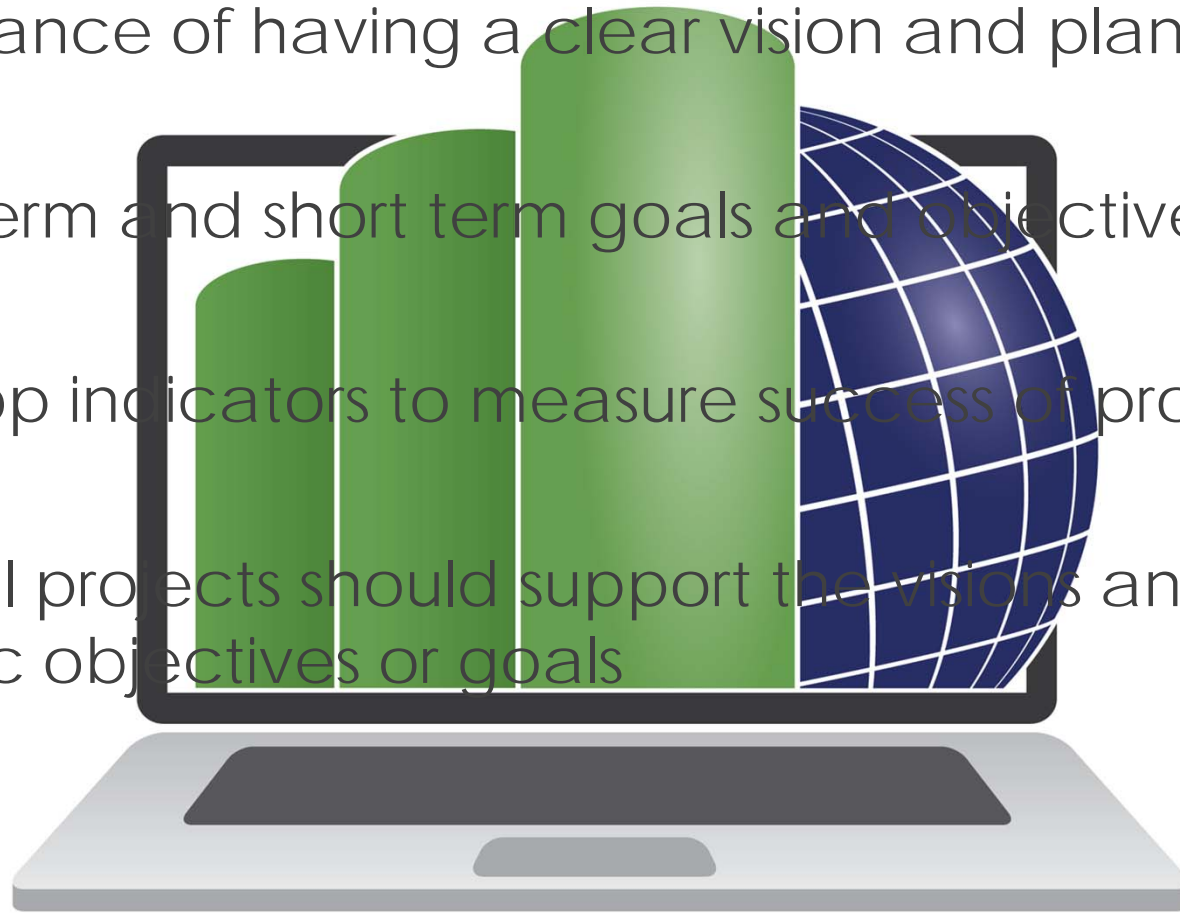
Criteria in Selecting a Project

- Is the project critical to the vision or goal attainment?
- Does the project align and support the business plan?
- Is the project required to be regulatory compliant?
- Is the project required to keep the company viable?
- Does the project meet the minimum return on investment requirements?
- What is the risk associated with the project?



Aligning Capital Program to Company Vision

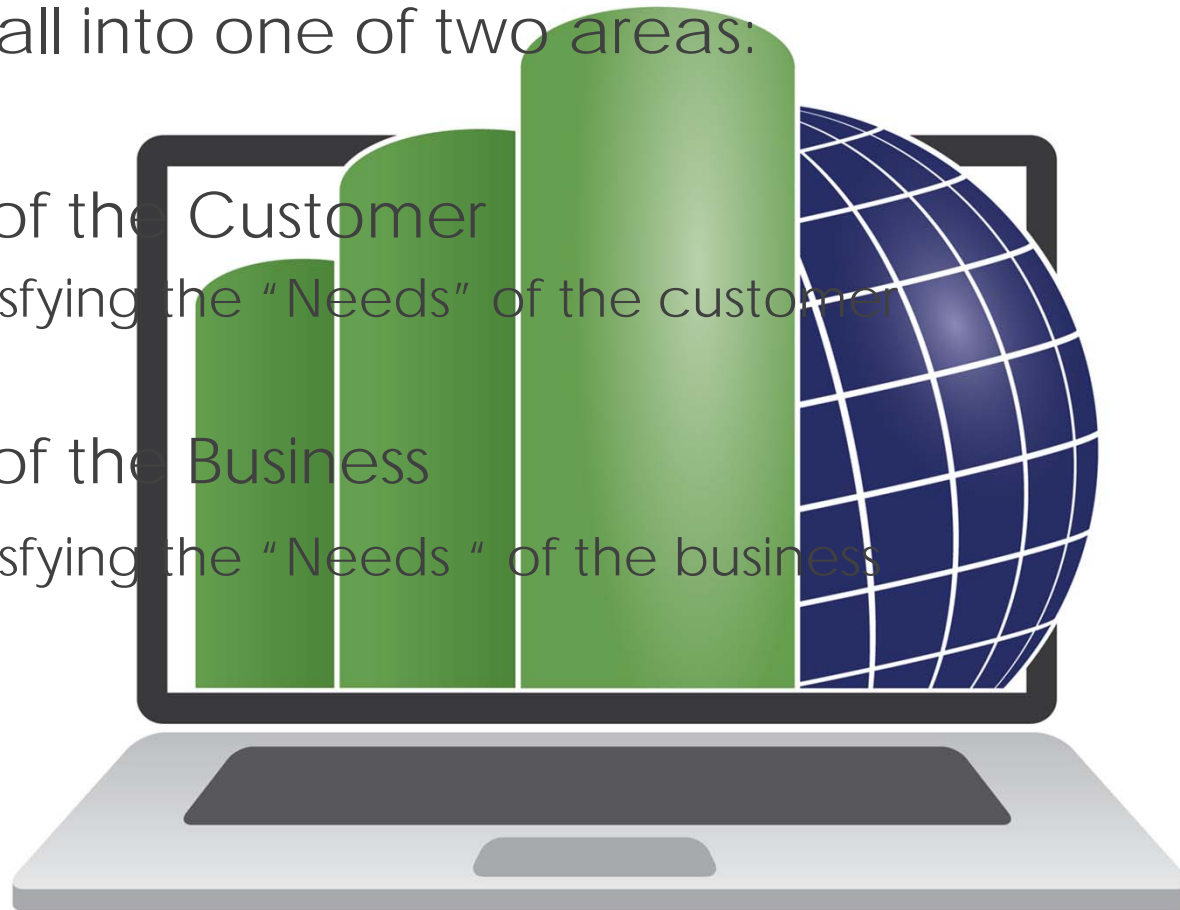
- Importance of having a clear vision and plan
- Long term and short term goals and objectives
- Develop indicators to measure success of project
- Capital projects should support the visions and fulfill specific objectives or goals



Selecting a Project

Projects fall into one of two areas:

- Voice of the Customer
Satisfying the "Needs" of the customer
- Voice of the Business
Satisfying the "Needs" of the business

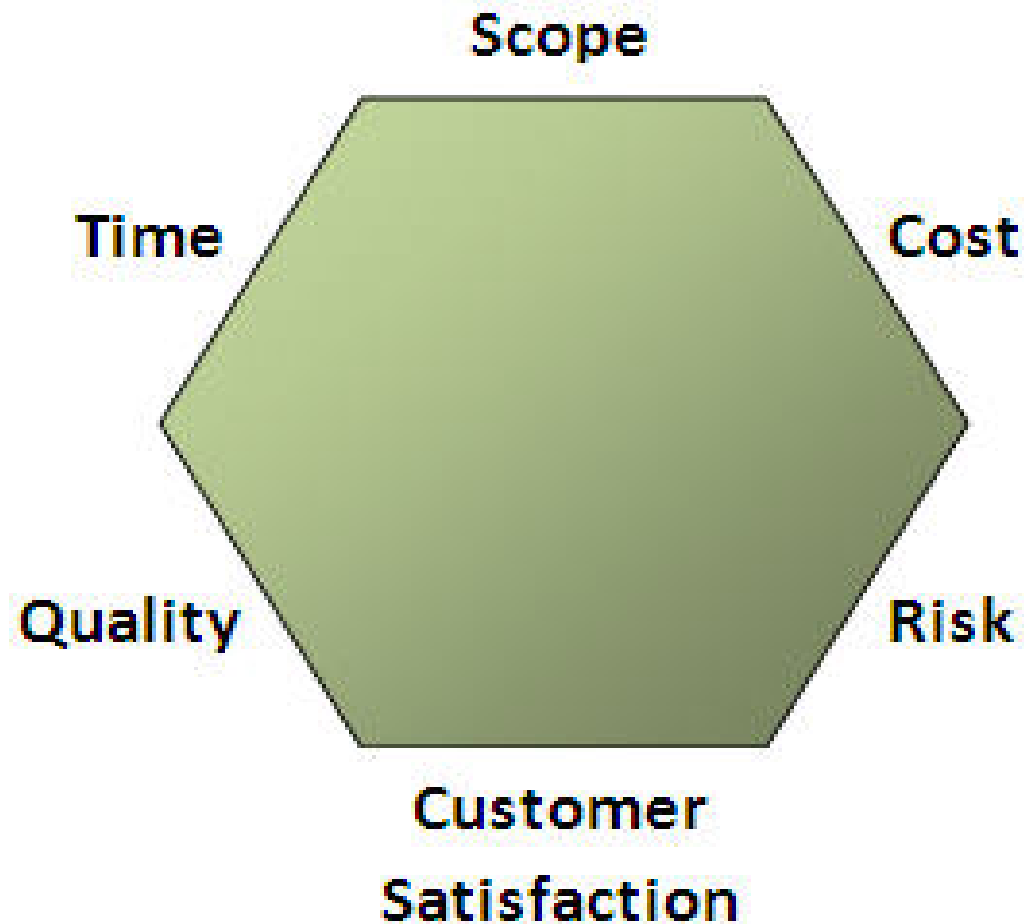


Justifying a Project Voice of the Customer

- Service
- Quality
- Reliability
- Repeatability
- Competitive prices
- Appreciation
-



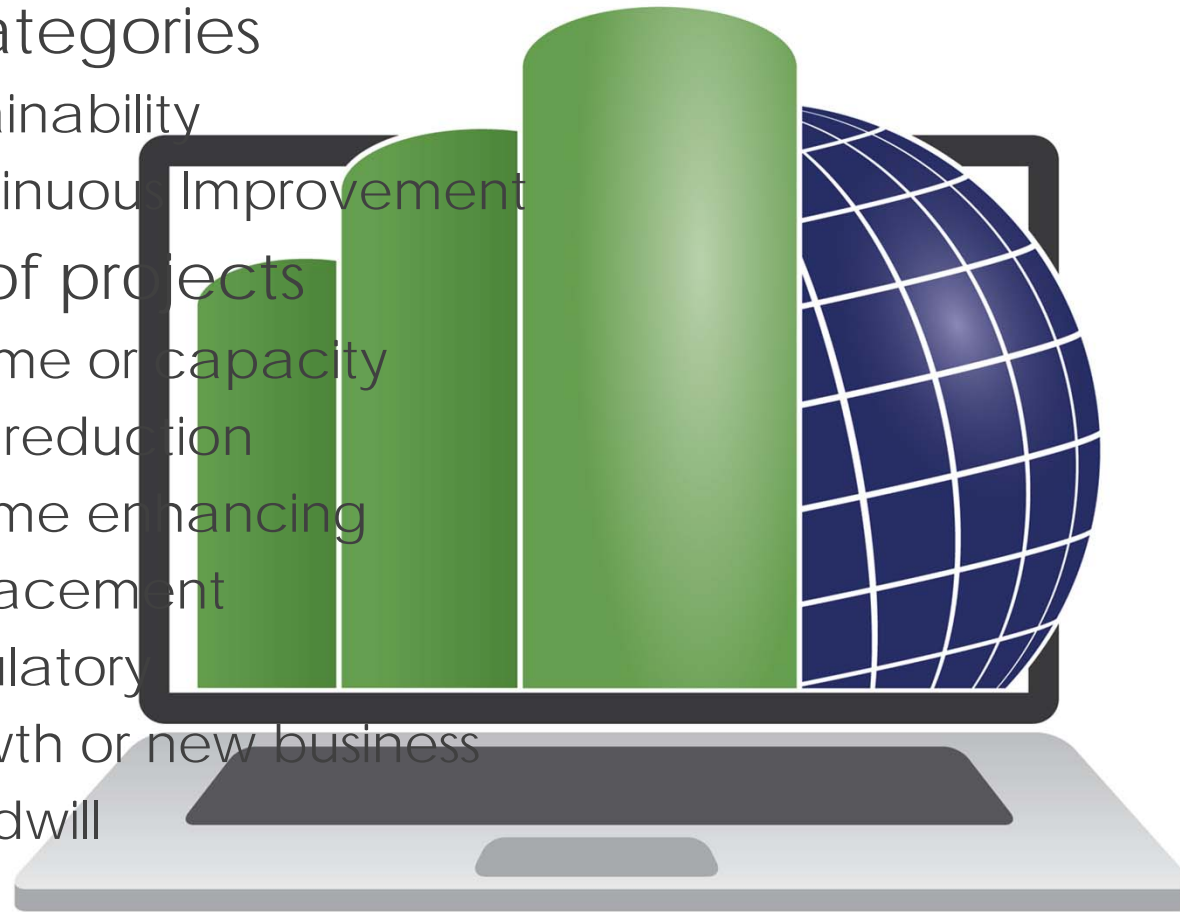
Enhanced Triple Constraint



Justifying a Project

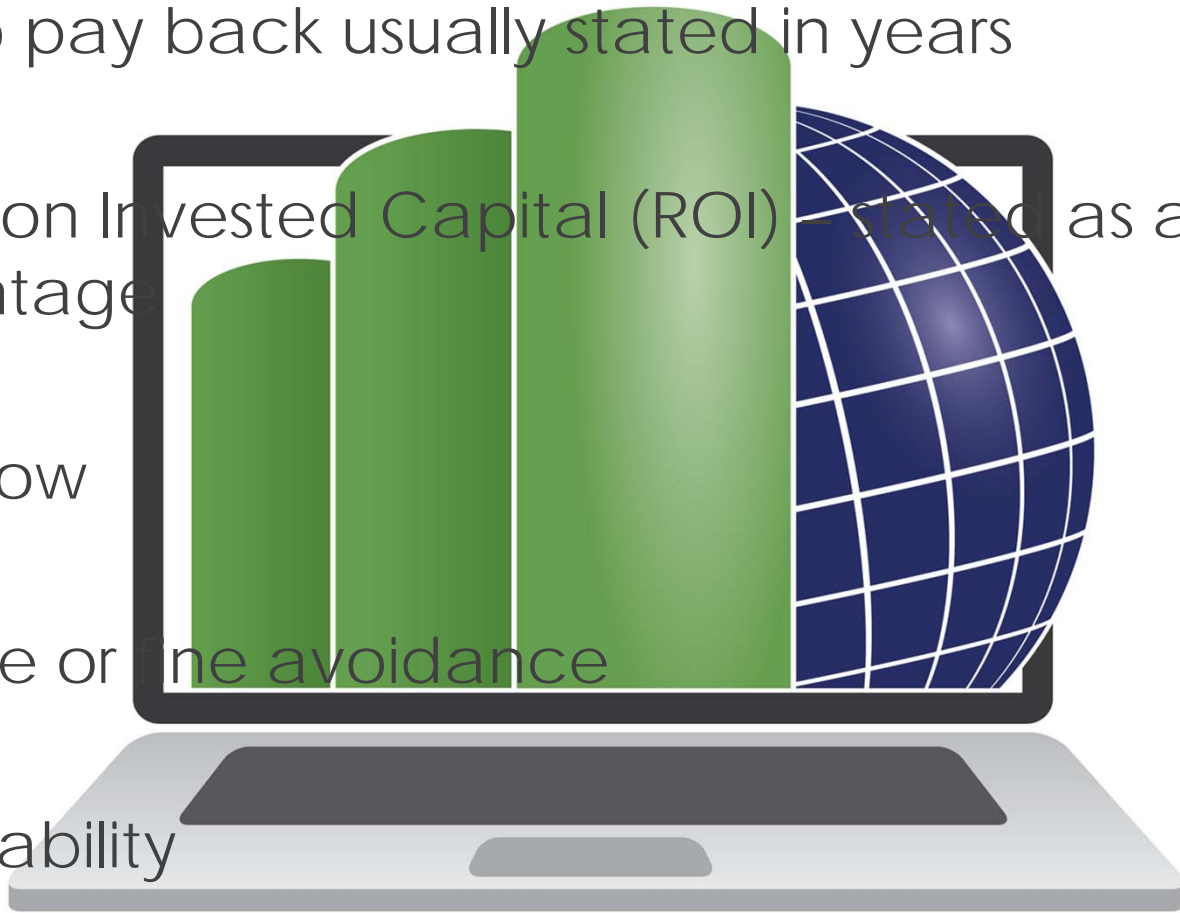
Voice of the Business

- Two categories
 - Sustainability
 - Continuous Improvement
- Types of projects
 - Volume or capacity
 - Cost reduction
 - Income enhancing
 - Replacement
 - Regulatory
 - Growth or new business
 - Goodwill



Financial Justification

- Time to pay back usually stated in years
- Return on Invested Capital (ROI) – stated as a percentage
- Cash flow
- Expense or line avoidance
- Sustainability
-



Financial Justification – Simple Years to Pay back

Cost of Project	\$ 500,000		
Additional Expenses annually	\$ 25,000		
Reduction of Expense Annually	\$ -		
Additional income annually	\$ 90,000		
Annual income less annual expenses nets		\$65,000	
Total project cost divided by annual net =		7.69 year to pay back	
<p>This simple calculation does not take into account the additional interest cost on the borrowed money or possible increase in required working capital for larger inventories.</p>			

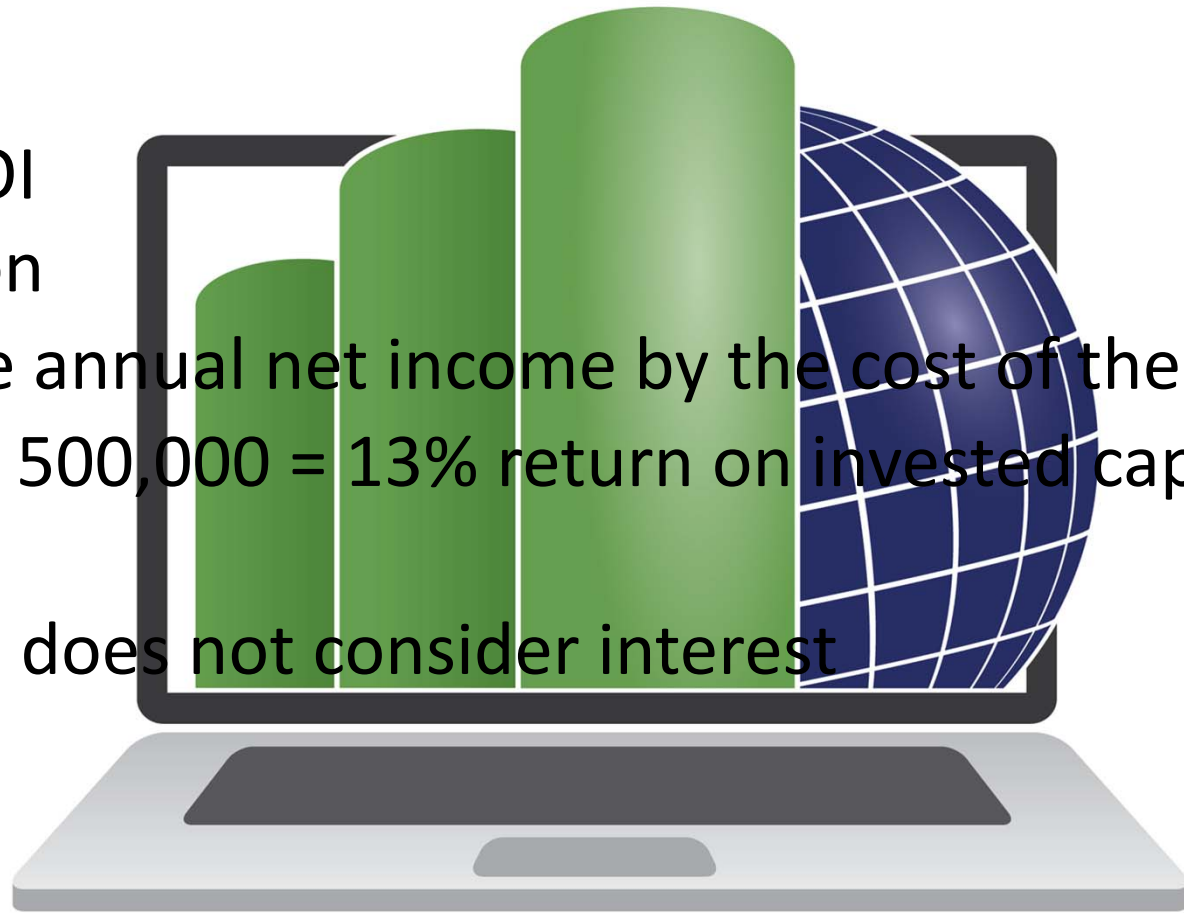


Financial Justification – Simple ROI

Simple ROI Calculation

Divide the annual net income by the cost of the project
 $\$65,000 / 500,000 = 13\%$ return on invested capital

Again this does not consider interest
cost



Approval Process

- Requestor
- Developer
- Supervisor
- Engineering
- Accounting
- Finance
- Regulatory
- Human Resources
- Management
- Board



Request for Expenditure

Request for Expenditure

Date Submitted _____

Name of Project _____

Submitted by _____

Reason for Project

Income Enhancement

Cost Reduction

Safety

Environmental

Other Regulatory

Sustainability

Customer Service

Quality

Other

General Description of project _____

Describe Benefits of project _____

Cost of Project _____

Net impact on annual income _____

Years to pay back _____

ROI _____

Estimated Completion Date _____

Potential Risk _____

Approval #1 _____ Date _____

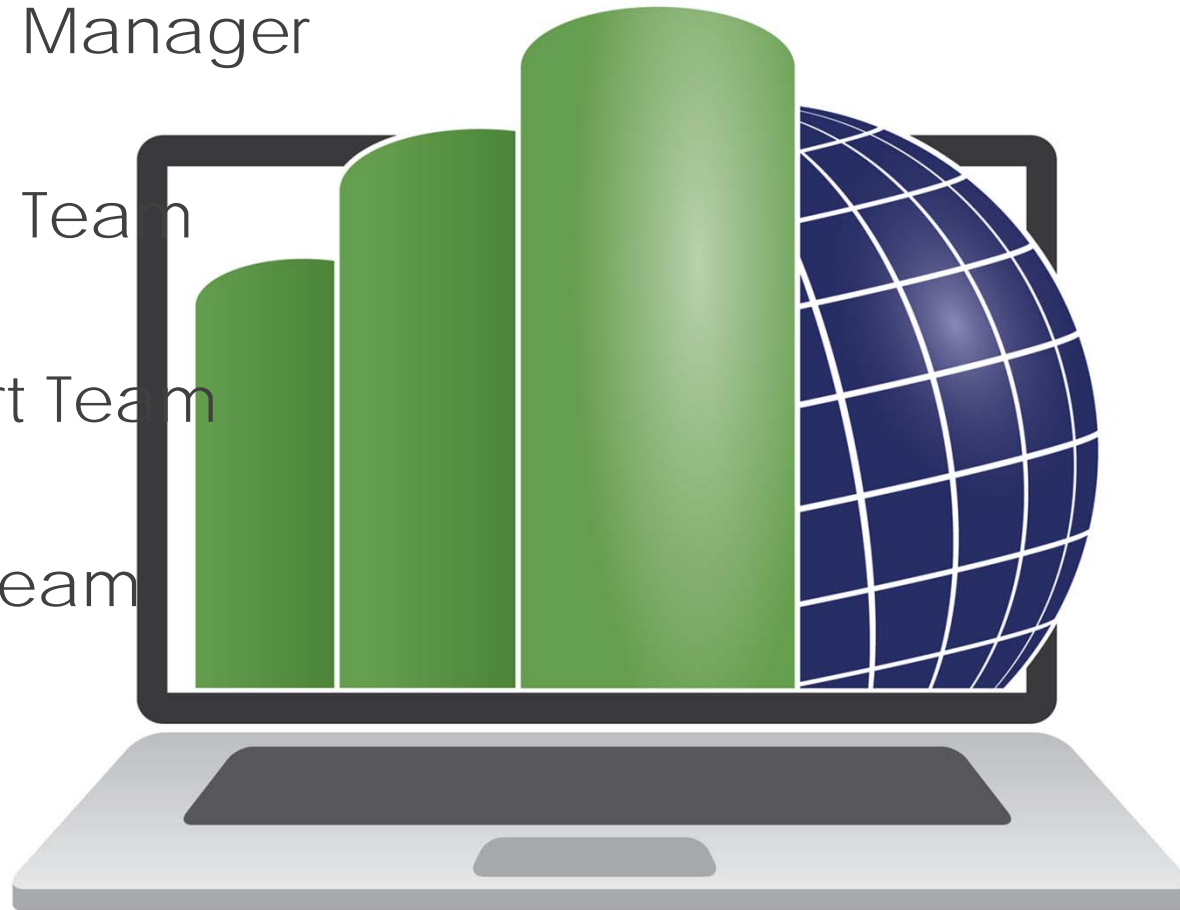
Approval #2 _____

Approval #3 _____



Selecting Personnel

- Project Manager
- Project Team
- Support Team
- Audit Team

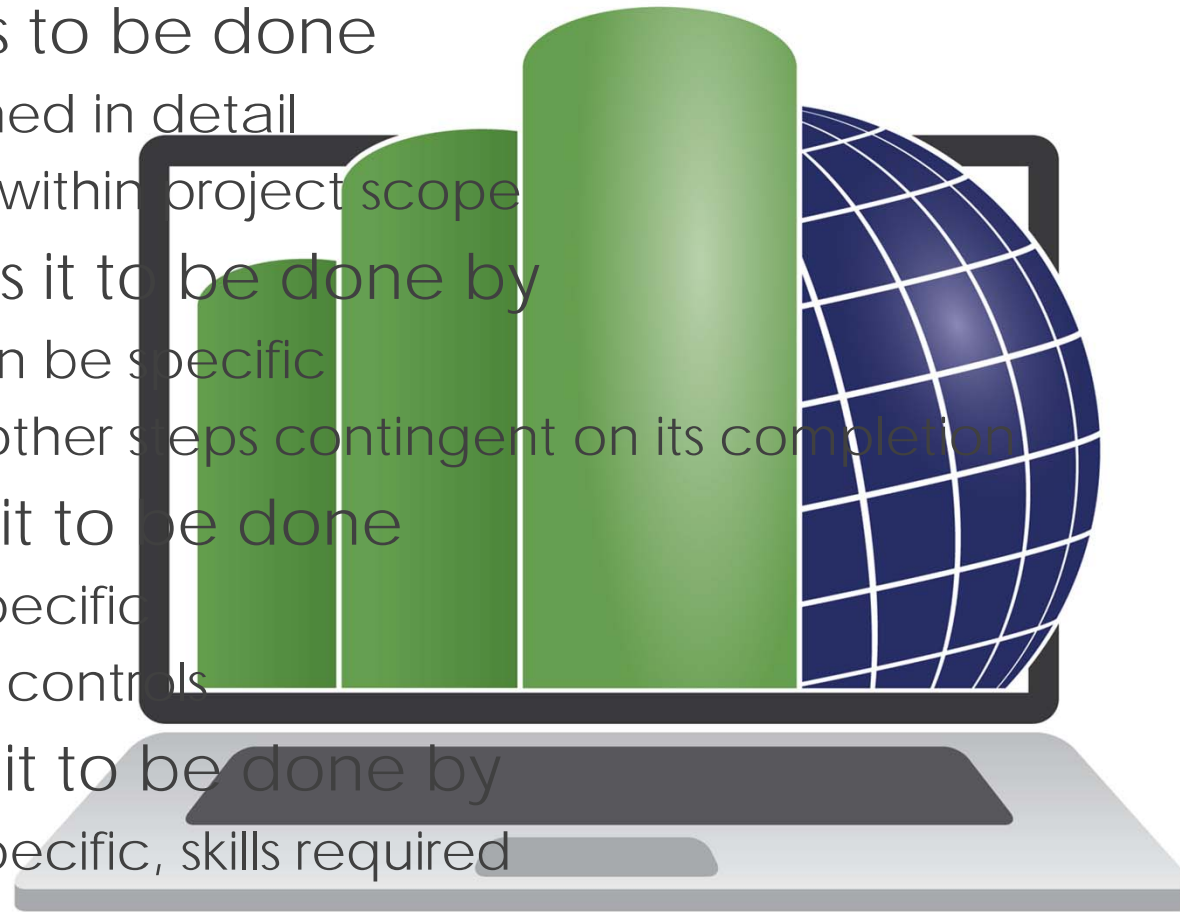


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Work Breakdown

- What is to be done
 - Defined in detail
 - Stay within project scope
- When is it to be done by
 - Again be specific
 - Are other steps contingent on its completion
- How is it to be done
 - Be specific
 - Who controls
- Who is it to be done by
 - Be specific, skills required



Measurable Evaluation Criteria

- Develop indicators that will allow you to review and manage the progress being made in the work breakdown section
- Measurable
- Reliable
- Agreed upon up front



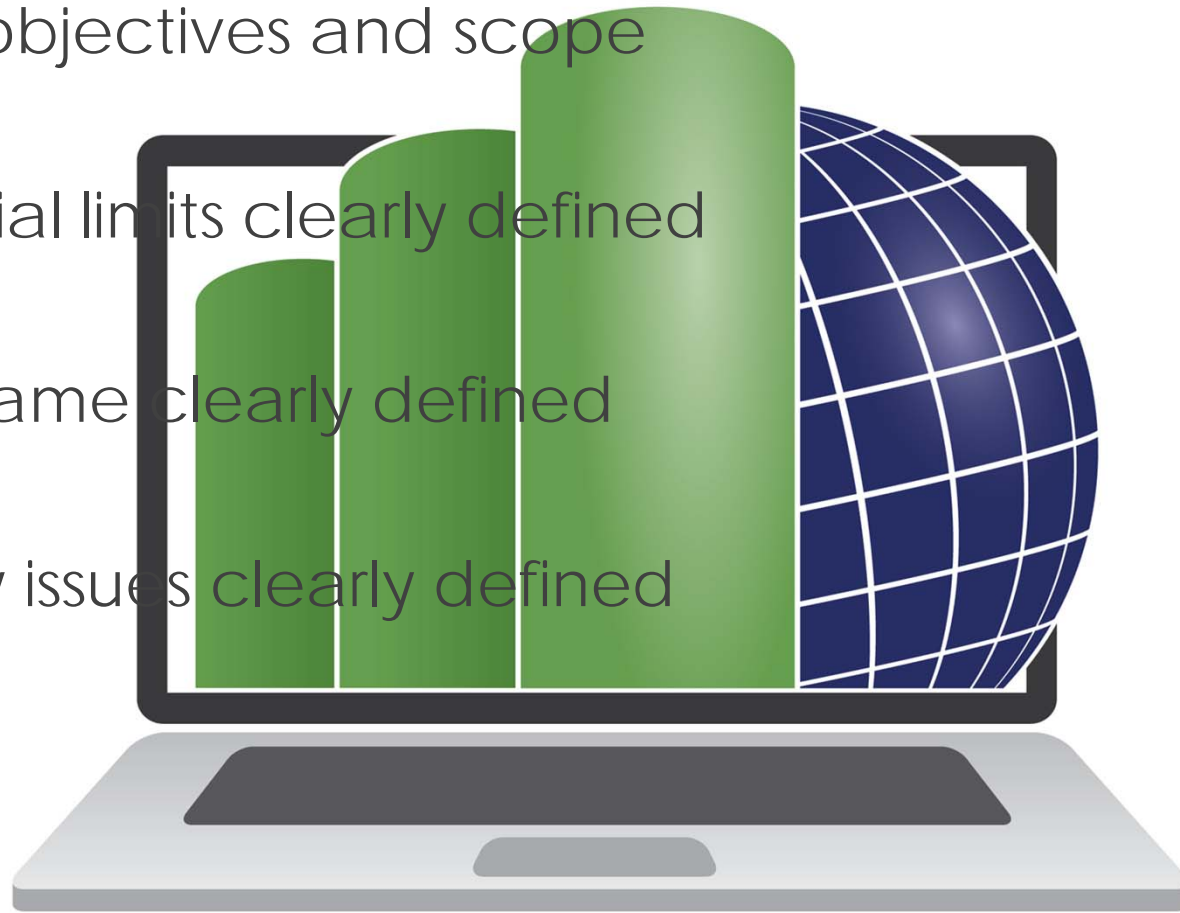
Communications

- Intercompany
 - Management, project team, support team, end users
- External
 - Governmental agencies
 - Suppliers and vendors
 - Engineering
 - Contractors
 - Utilities
 - State, county, and local officials
 - First responders and police
 - Neighbors', civic leaders
 - Press



Developing a Bid Package

- Clear objectives and scope
- Financial limits clearly defined
- Time frame clearly defined
- Quality issues clearly defined



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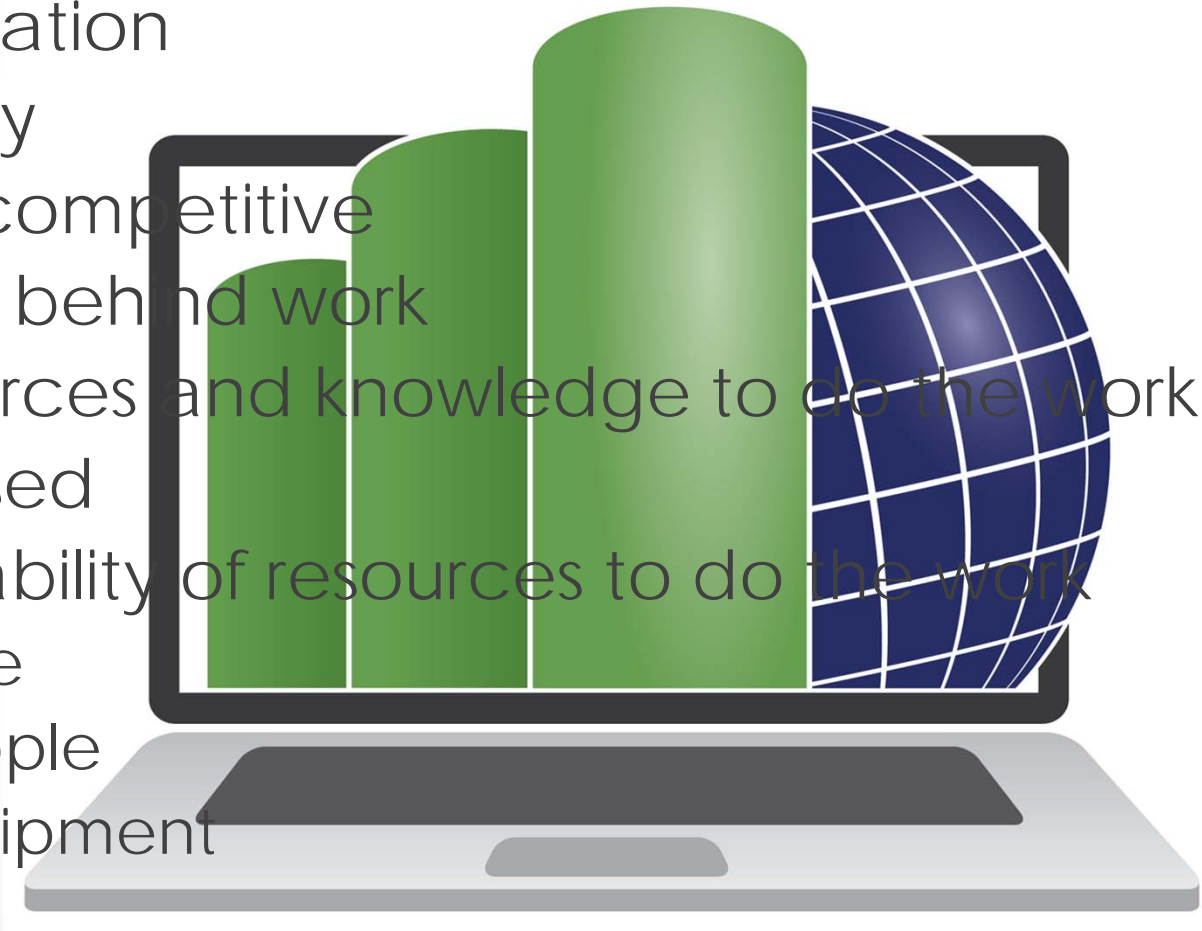
Developing a Bid Package

- Site location – property map or Google Earth map
- Location and description of existing structures
- Geotechnical, topographical, or hydraulic info
- Storage Capacity – total volume and # of bins
- Method of receiving – truck, rail, barge, etc.
- Method of shipping
- Processing needs – cleaning, drying, aeration, fumigation, sizing, etc.
- Future Expansion needed
- Equipment preferences
- Safety Policies



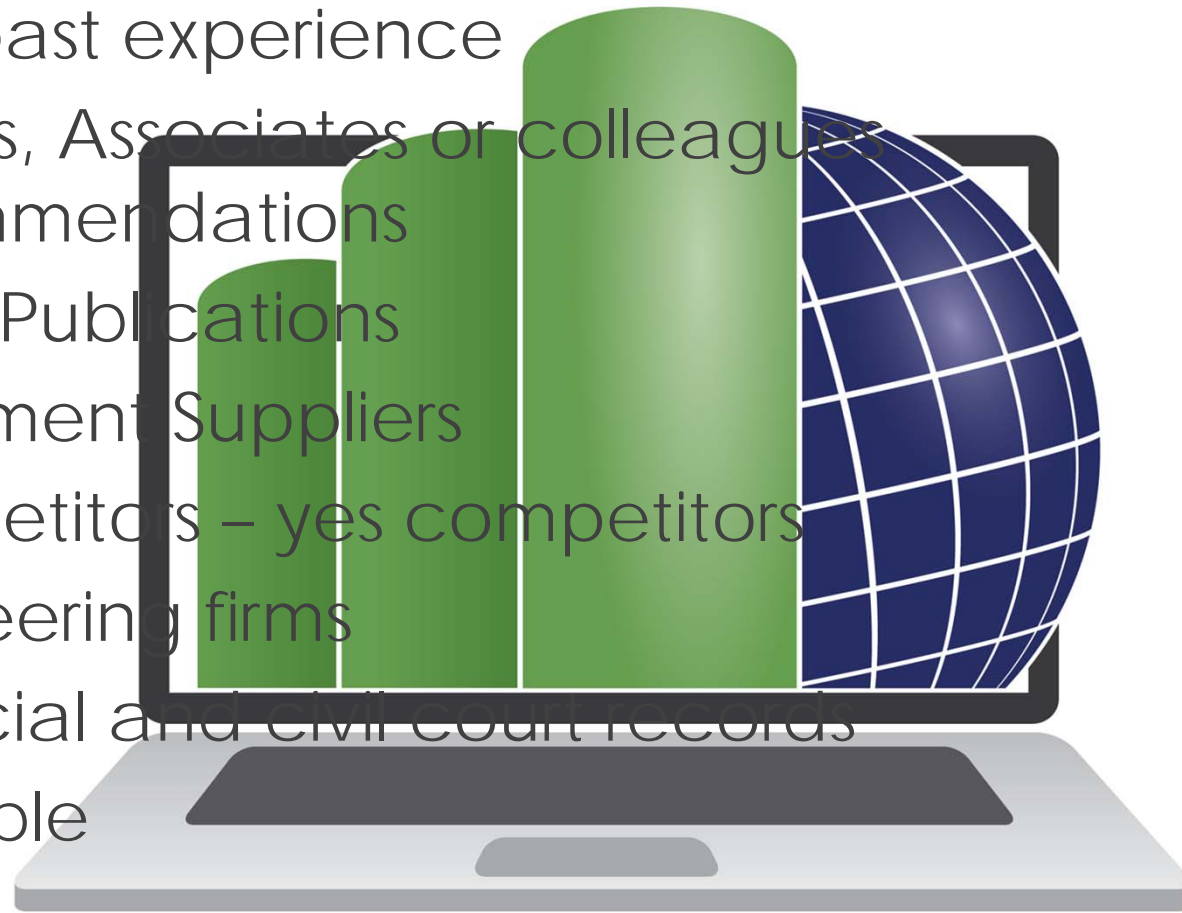
Selecting a Contractor

- Reputation
- Quality
- Cost competitive
- Stand behind work
- Resources and knowledge to do the work
- Licensed
- Availability of resources to do the work
 - Time
 - People
 - Equipment



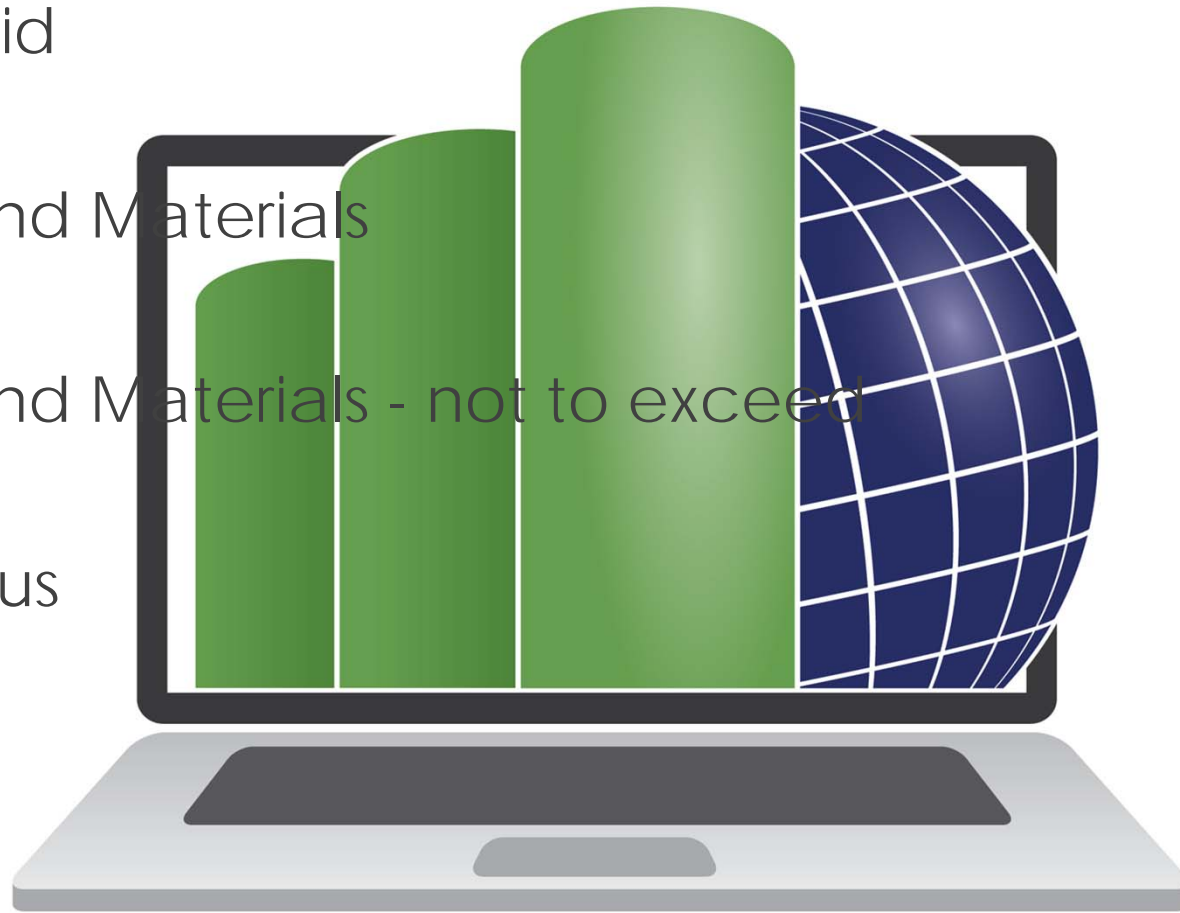
Selecting a Contractor

- Your past experience
- Friends, Associates or colleagues recommendations
- Trade Publications
- Equipment Suppliers
- Competitors – yes competitors
- Engineering firms
- Financial and civil court records
- Insurable



Contracts

- Fixed Bid
- Time and Materials
- Time and Materials - not to exceed
- Cost Plus



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Contracts

- Must have a clearly defined scope
 - What is to be done
 - How it is to be done – design, materials, method
 - Who is going to do it – subcontracting language
 - When is it going to be done
 - How much is it going to cost



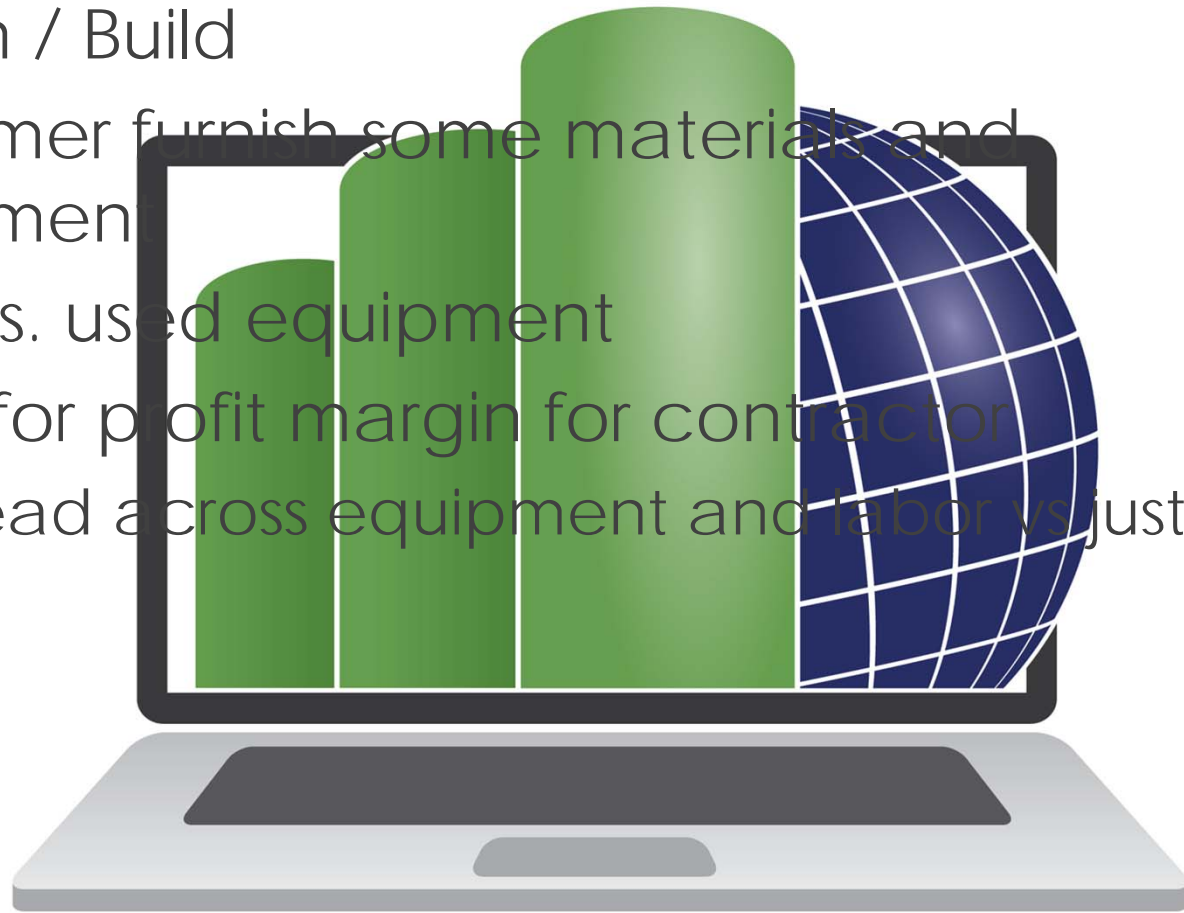
Contracts

- Contract to be detailed enough to convey the scope (no room for “interpretation”
- May include other provisions such as safety rules, equipment usage, utilities etc.
- Warranties, guarantees, escape clause
- Penalties
- Insurance provisions



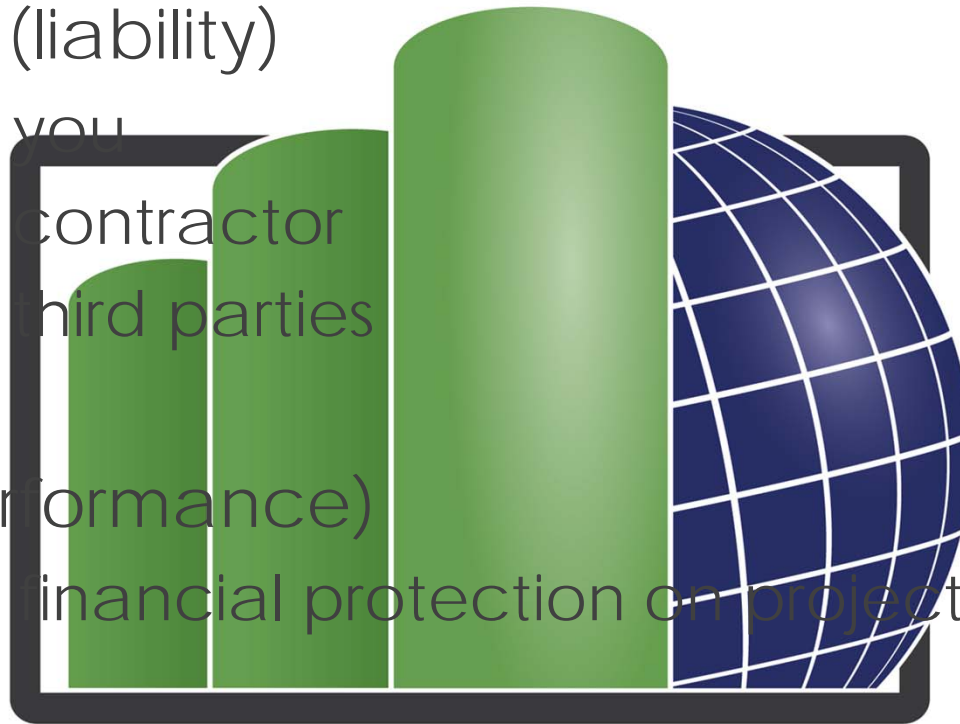
Procurement

- Design / Build
- Customer furnish some materials and equipment
- New vs. used equipment
- Allow for profit margin for contractor
 - Spread across equipment and labor vs just labor



Insurance/Bonds/Warranties

- Insurance (liability)
 - Protects you
 - Protects contractor
 - Protects third parties
- Bonds (performance)
 - Provides financial protection on project
- Warranties and guarantees (quality)
 - Provides quality protection



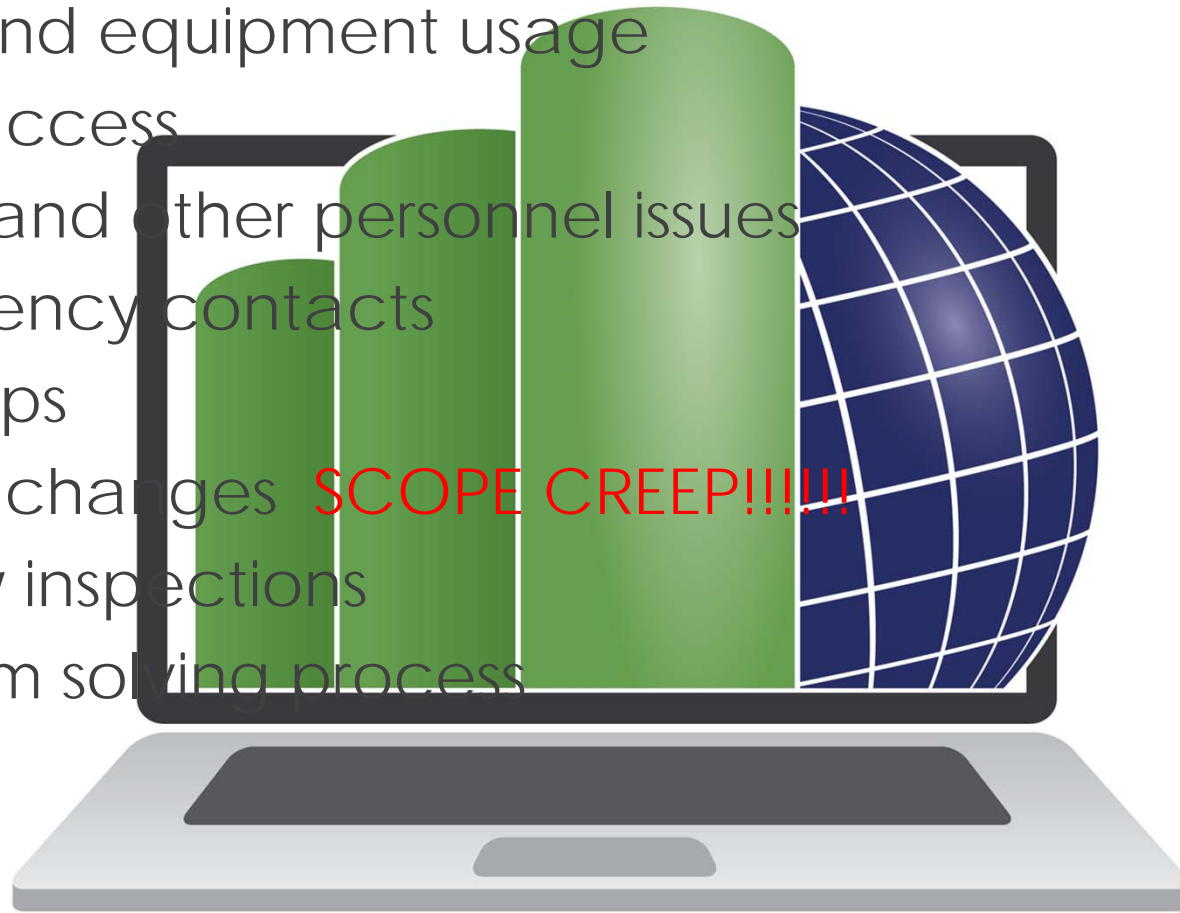
Project Site Management

- Project manager on site for customer
- Project manager on site for contractor
- Safety rules
- Time site is available for work
- Hours contractor will be working
- List of subcontractors and hired services (cranes)
- Lay-down yard , staging areas



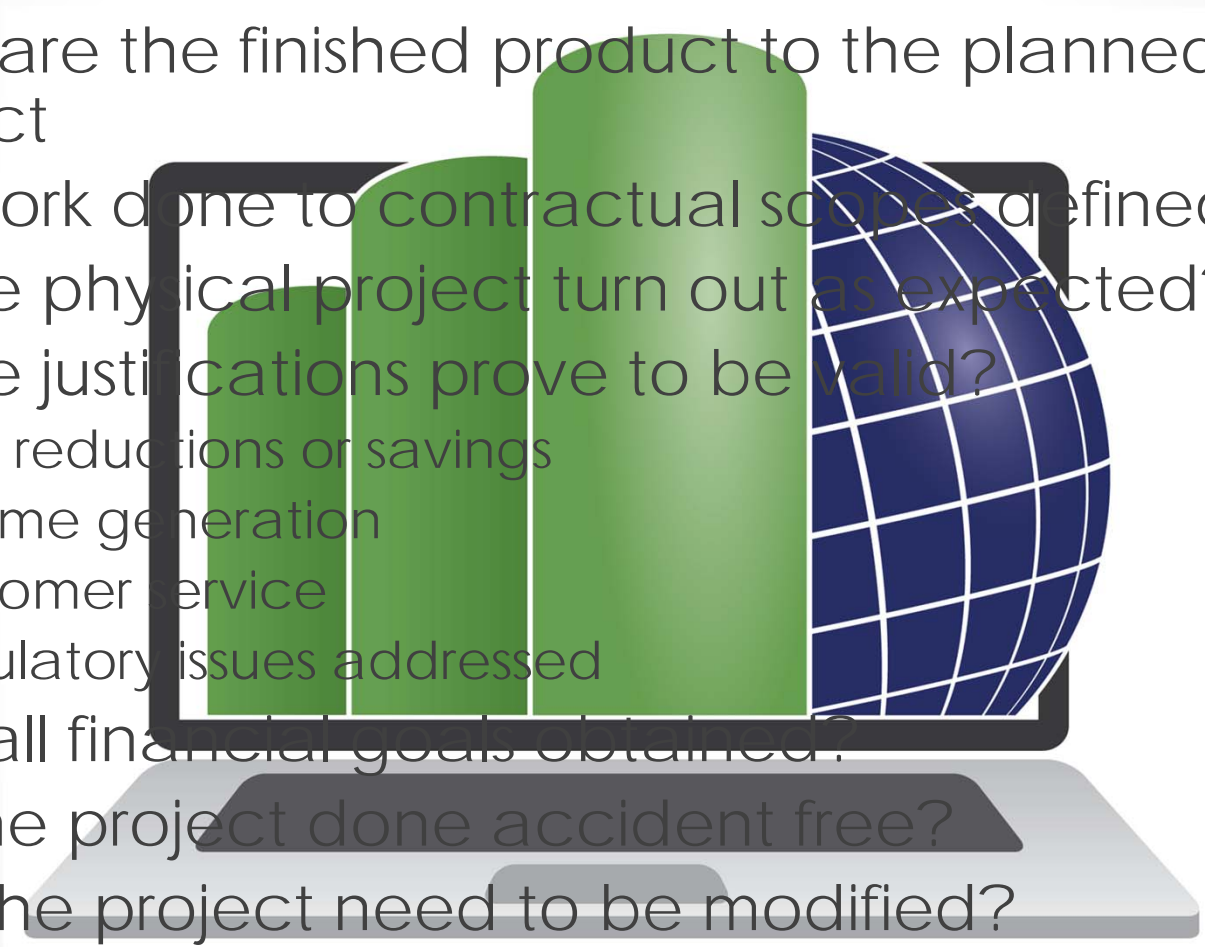
Project Site Management

- Tools and equipment usage
- Utility access
- Meals and other personnel issues
- Emergency contacts
- Hour slips
- Scope changes **SCOPE CREEP!!!!!!**
- Quality inspections
- Problem solving process



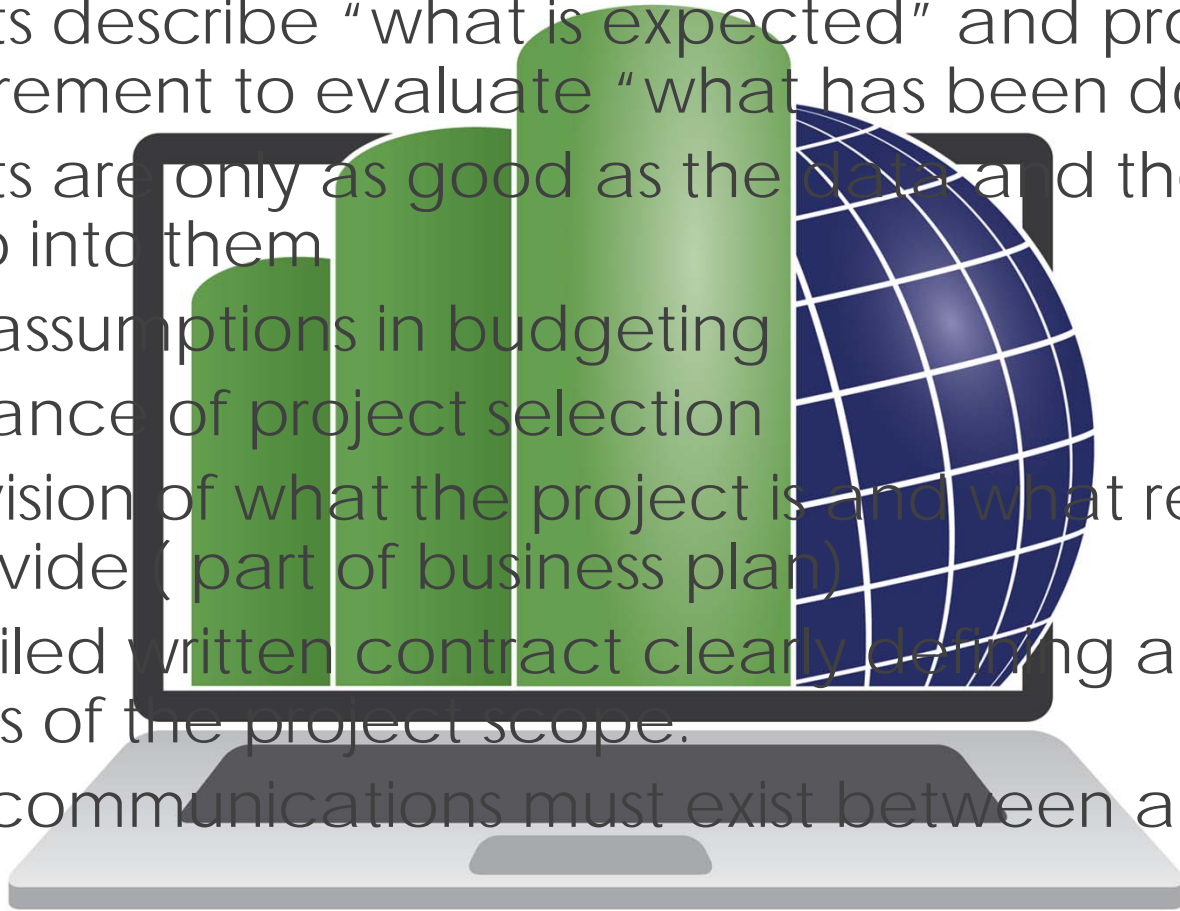
Project Review

- Compare the finished product to the planned product
- Was work done to contractual scopes defined?
- Did the physical project turn out as expected?
- Did the justifications prove to be valid?
 - Cost reductions or savings
 - Income generation
 - Customer service
 - Regulatory issues addressed
- Were all financial goals obtained?
- Was the project done accident free?
- Does the project need to be modified?



Summary

- Budgets describe “what is expected” and provides measurement to evaluate “what has been done”
- Budgets are only as good as the data and thoughts that go into them
- Avoid assumptions in budgeting
- Importance of project selection
- Clear vision of what the project is and what results it will provide (part of business plan)
- A detailed written contract clearly defining all aspects of the project scope.
- Good communications must exist between all parties



Summary

- Methodology for mediating problems should be established up front
- Take the time to do your homework
- Select the best contractor for "YOUR JOB"
- Protect yourself
- Budgets provide a format and data for better project management
- Budgets keep projects on track in time and \$'s
- Review the project





Disclaimer

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