



# Pre-Bid Education

## LICRAT Property Improvement Project

Tar Creek Relocation Zone  
Pitcher, Oklahoma



October 25, 2010  
Oklahoma Department of Central Services  
Construction and Properties Division

# Introductions

## Agency

Lead-Impacted Communities Relocation Assistance Trust

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## Consultant

Miami Engineering Service, LLC

Jack Dalrymple, PE, Project Manager

918/533-6889

[jackdccg@cableone.net](mailto:jackdccg@cableone.net)

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## Owner

Department of Central Services, Construction and Properties

David Mihm, AIA, Project Manager

405/522-4079

[David\\_Mihm@dcs.state.ok.us](mailto:David_Mihm@dcs.state.ok.us)

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# Agenda

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- Project Review
- Resources and Requirements
- Best Value Education
- Selection Process & Submittal Requirements
- Questions and Answers

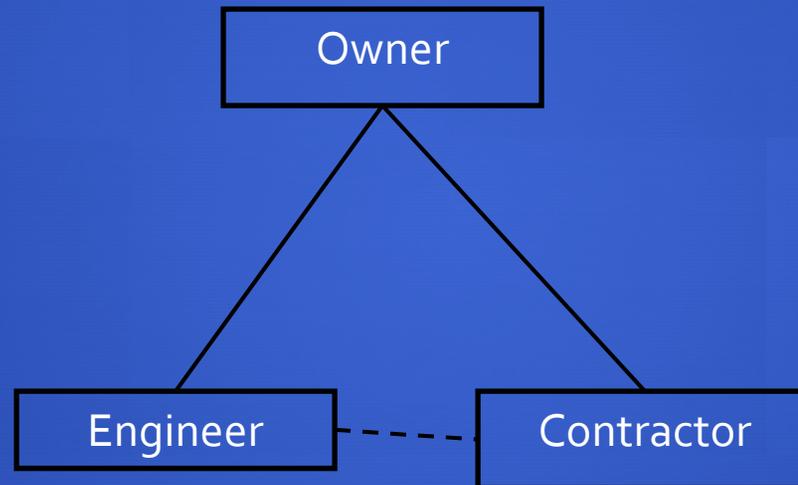
# Project Review

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- Scope of Work
- Bid Process

# Resources & Requirements

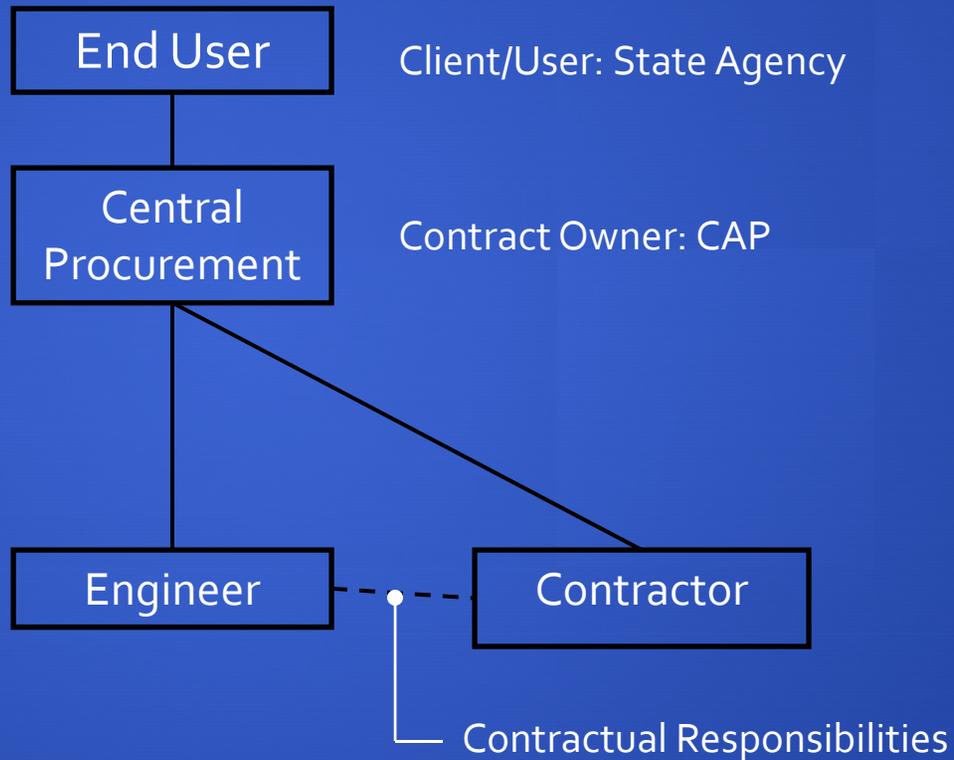
## Project Team



Traditional Relationship

# Resources & Requirements

**Project Team  
(as envisioned  
By State Law)**

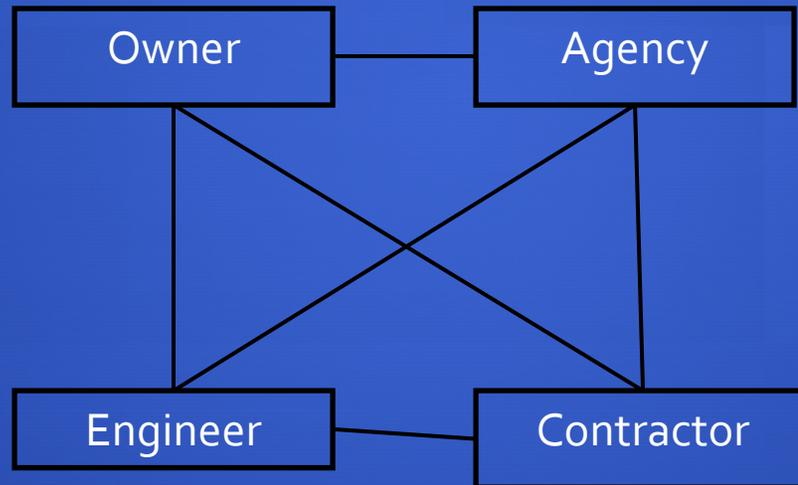


Central Procurement Model

# Resources & Requirements

## Project Team

(common perception)

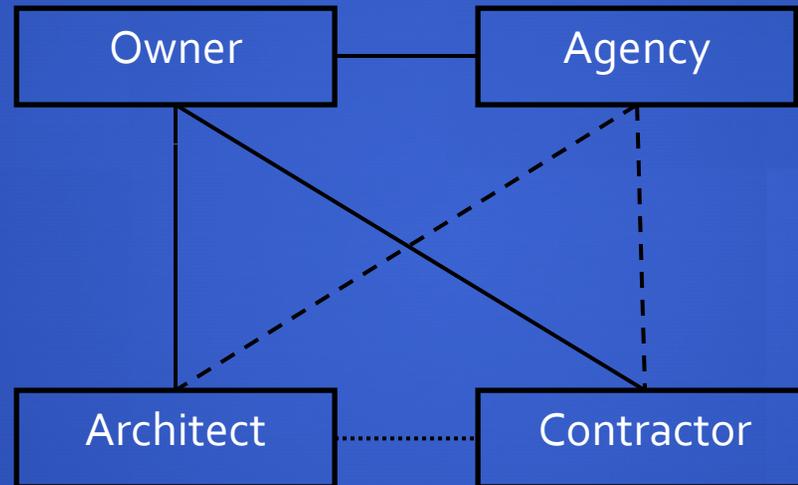


Confusion Model

# Resources & Requirements

## Project Team

(reality)



### Communication Model

- Official/Legal Communication
- ..... Contractual Communication
- - - - Vital Communication

# Resources & Requirements

## Project Team Roles

Agency

Establishes the Requirement

Owner

Contracts for services on behalf of Agency to fulfill the Requirement

Engineer

Plans a solution that meets the Requirement

Contractor

Builds the solution that meets the Requirement

*Clearly, most important element is "The Requirement"*

# Resources & Requirements

## Project Team Responsibilities

Agency

Communicate the Requirement, Compare results to Requirement

Owner

Manages schedule, budget, contract performance

Consultant

Translates Requirement into technical intent documents; Specific construction administration duties

Contractor

Translates the Technical intent into the physical, technical solution; performs “at risk”

*Neither the Agency nor the Owner have responsibility for technical decisions.*



# Best Value Education

LICRAT Property  
Improvement Project  
Tar Creek Relocation Zone  
Pitcher, Oklahoma



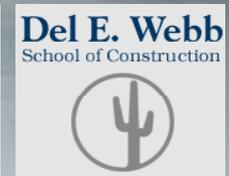
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Construction and Properties Division

Performance Based Studies Research Group

# LICRAT Property Improvement Project Pre-Proposal Education



[www.pbsrg.com](http://www.pbsrg.com)



PERFORMANCE BASED STUDIES RESEARCH GROUP

# State of Oklahoma's Strategic Plan/Vision



- Compete based on value
- Transfer risk and control to vendor
- Minimize client decision making, directives, and control
- Vendor writes majority of the contract
- Vendor manages contract
- Measurement, measurement, measurement

# Risk Minimization



- Set the Project up to Succeed
- State the Requirement, let the Contractor deliver the solution
- Select High Performance Consultants and Contractors
- Mitigate Risk through Pre-Planning
- When threats do occur, follow roadmap (rather than rely on conflict)

# State Contractor Expectations



- Proactive and Accountable
  - Vendor has control
  - Focus on risk in the seams
  - Risk – Plans to minimize risk – impact – customer satisfaction
  - Performance measurement – uses dominate information
    - Projected vs. Actual
  - Performance information/risk identification disengages the bureaucracy
- Win-Win
  - Contractor's success is just as important as State's success
  - Goal alignment
- “No contract” – “Vendor writes their own” \*\*\*
  - Vendor has control
  - Contract is a guide
  - If we have to go to the contract then everyone has already lost
  - Should never have to go the contract
  - \*\*\*Work Plan, Risk Management Plan, Measurement Plan are attachments to State's legal contract

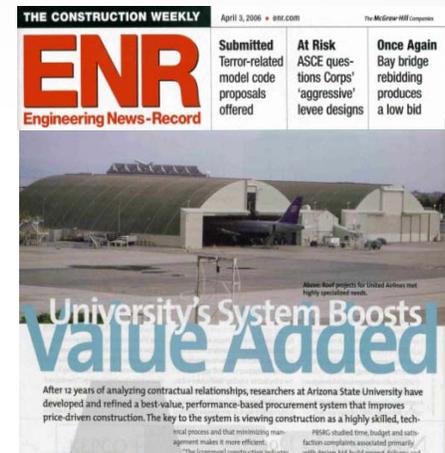
# PBSRG

(Performance Based Studies Research Group)

- 700 Procurements
- \$808 Million Construction services
- \$1.7 Billion Non-construction services
- \$1.3B Euro (\$2B) construction test ongoing in the Netherlands
- Africa/Southeast Asia/Australia
- ASU procurement - \$100M cash savings over 10 years
- GSA implementation in 2009
- 98% Customer satisfaction, 90% of PM/RM transactions minimized
- Increased vendor profits and decreased cost



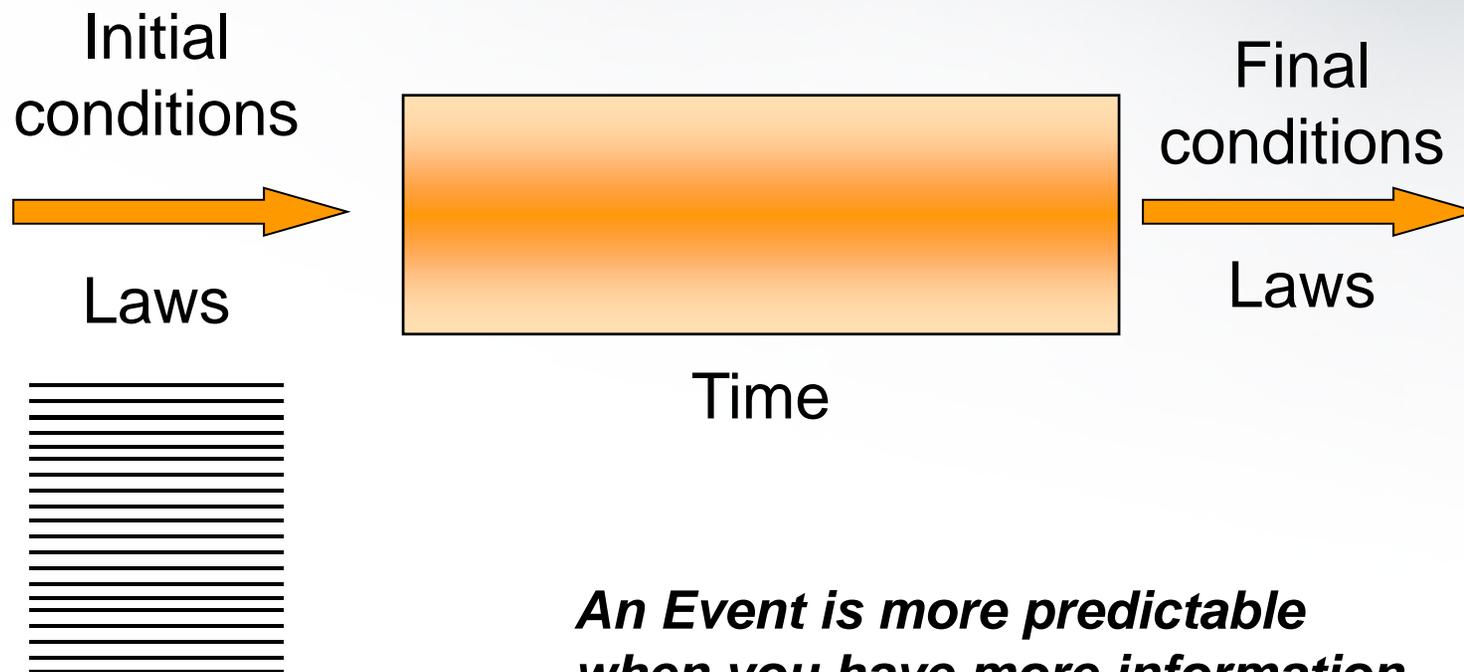
FULBRIGHT





# Information Measurement Theory

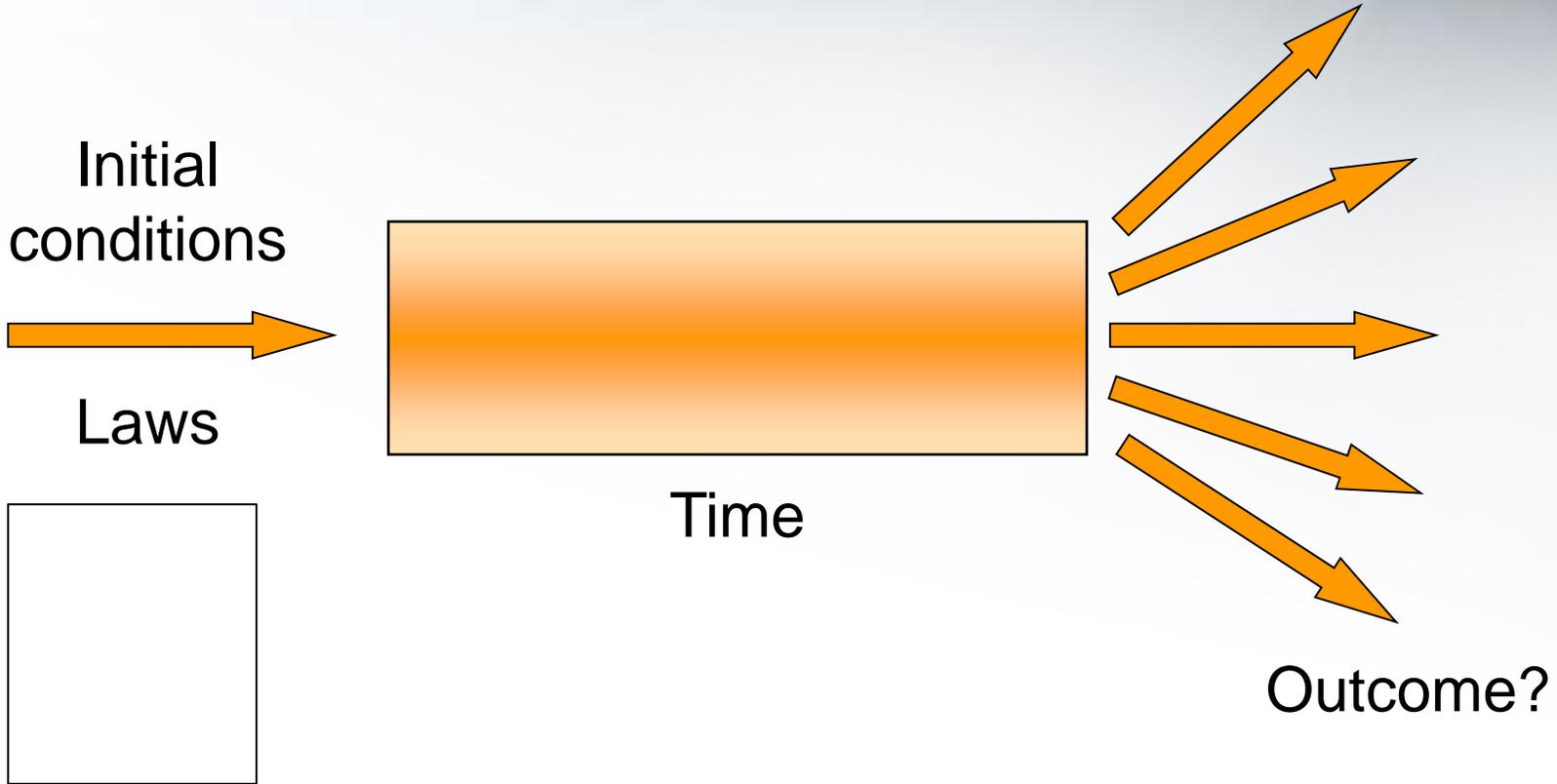
## *An Event...*



*An Event is more predictable  
when you have more information  
up front*

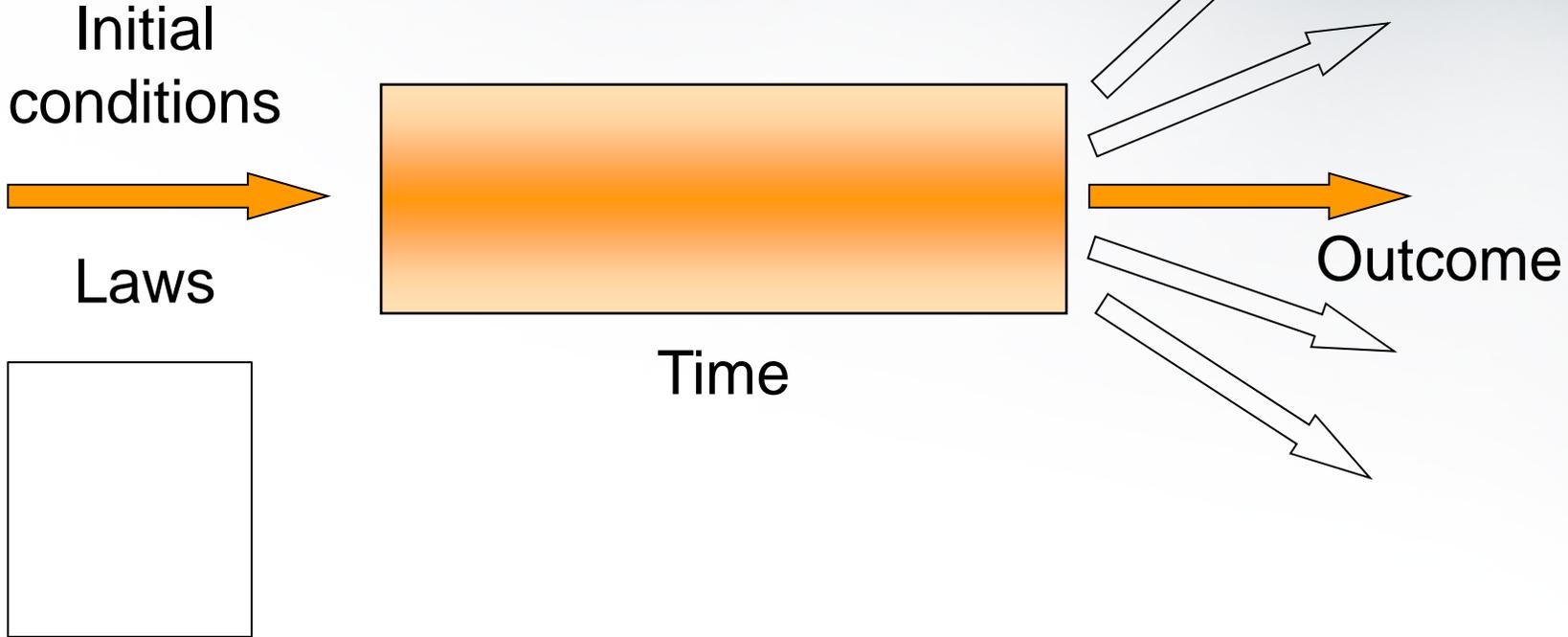


# What happens without information?

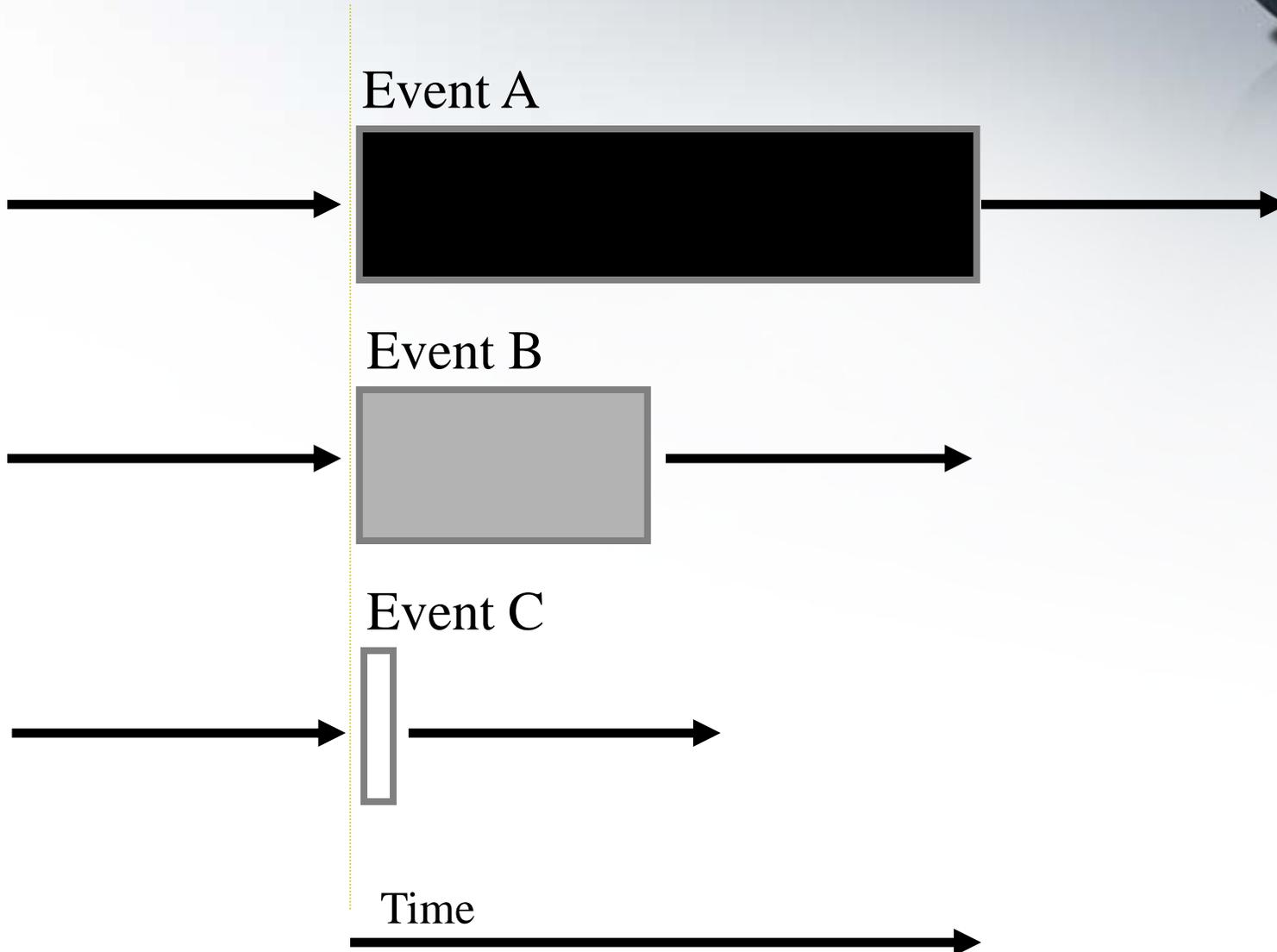




# Without information, still only happens one way

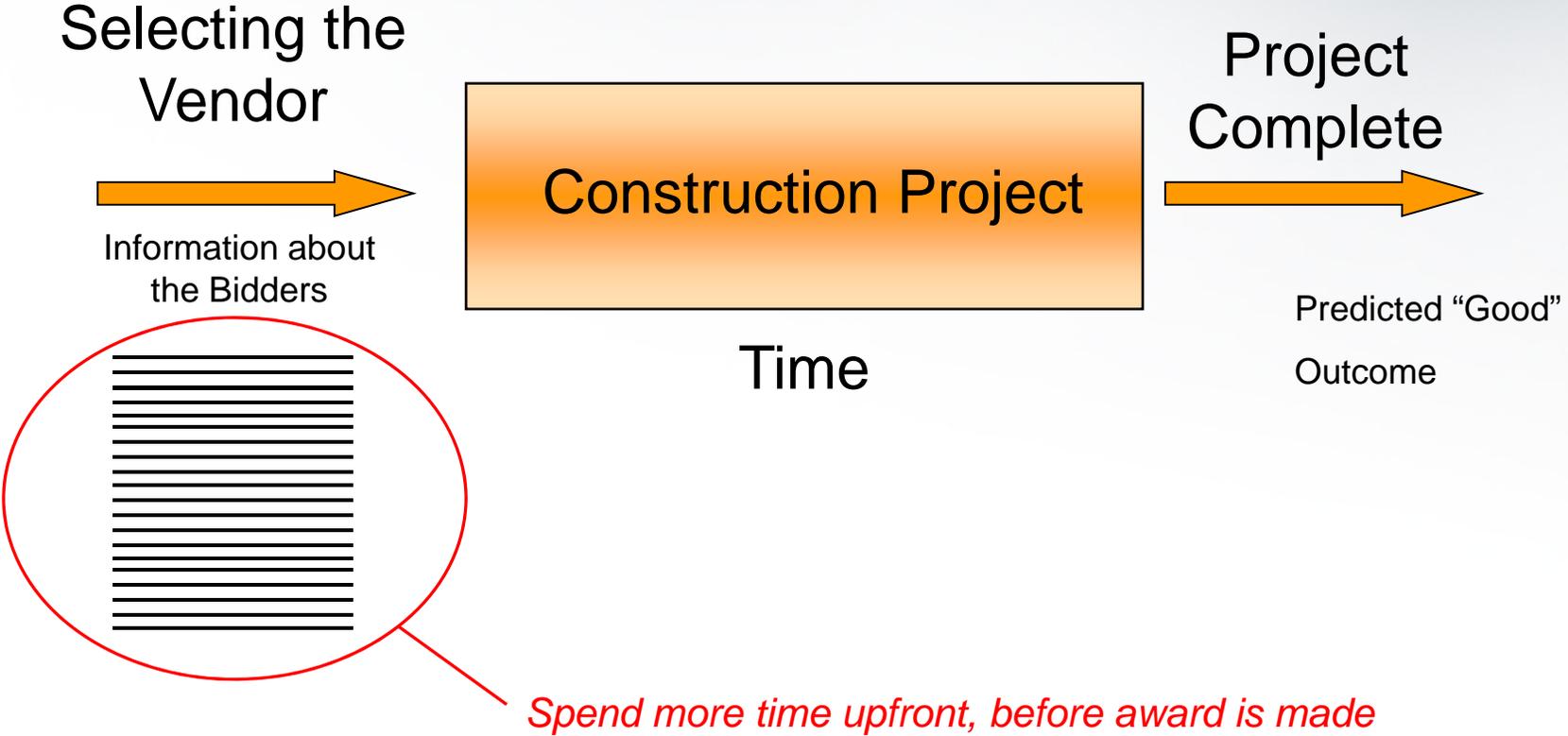


# Which event outcome is the easiest to predict?





# How does this relate to procurement?



PIPS will assist us in gathering the information

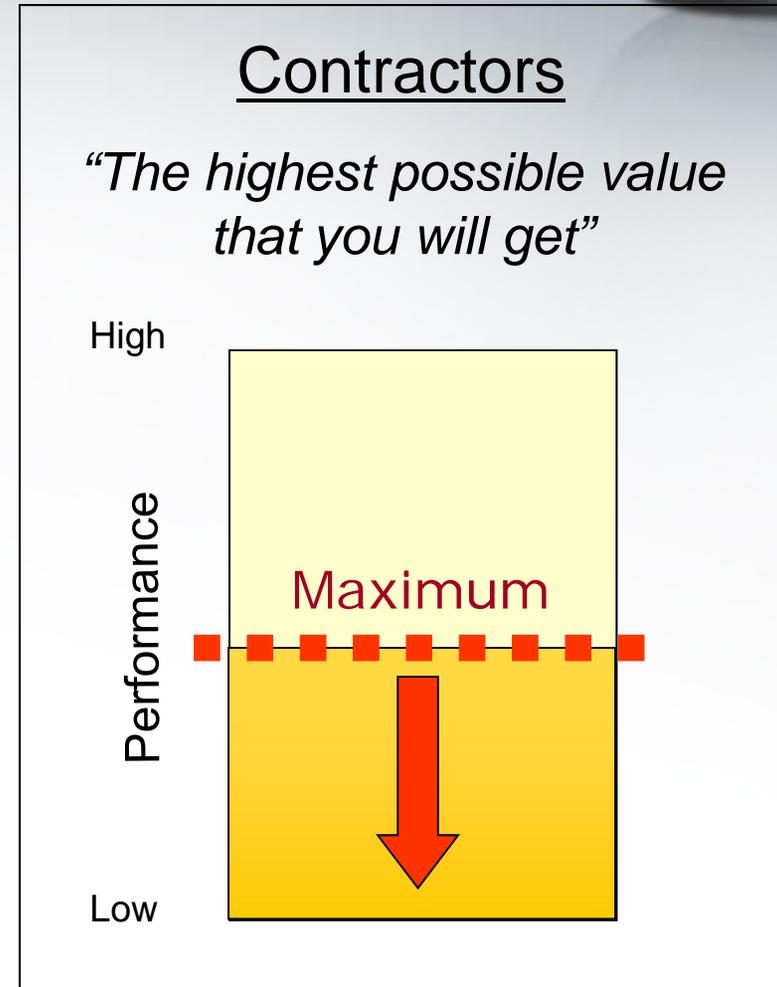
# Industry Structure



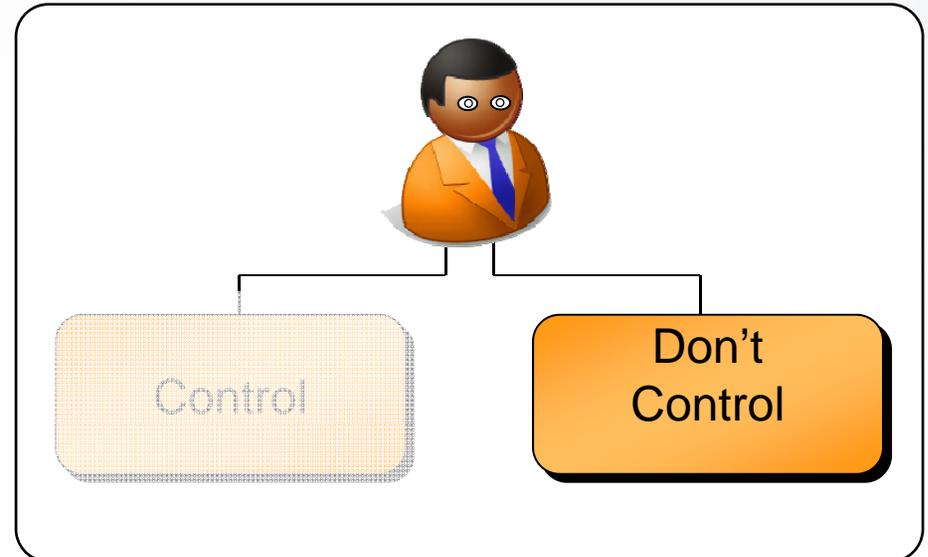
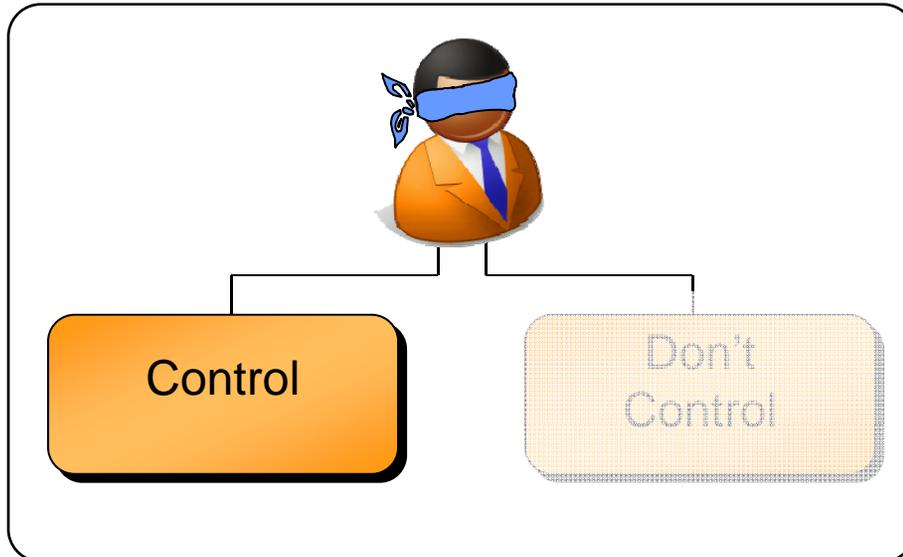
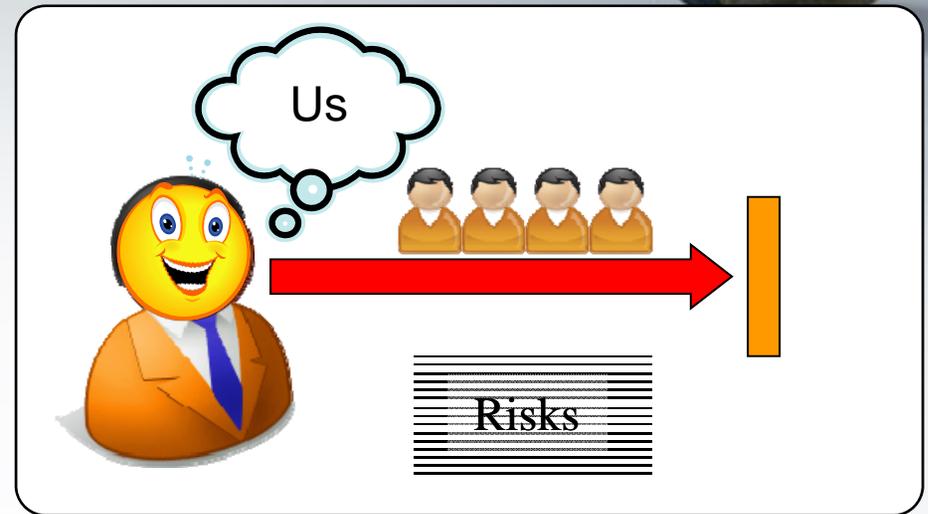
Performance	High	<u>III. Negotiated-Bid</u> Owner selects vendor Negotiates with vendor Vendor performs	<u>II. Value Based</u> Best Value (Performance and price measurements) Quality control <b>Vendor minimizes risk</b>
	Low	<u>IV. Unstable Market</u>	<u>I. Price Based</u> Specifications, standards and qualification based Management & Inspection <b>Client minimizes risk</b>
		Low	High

Competition

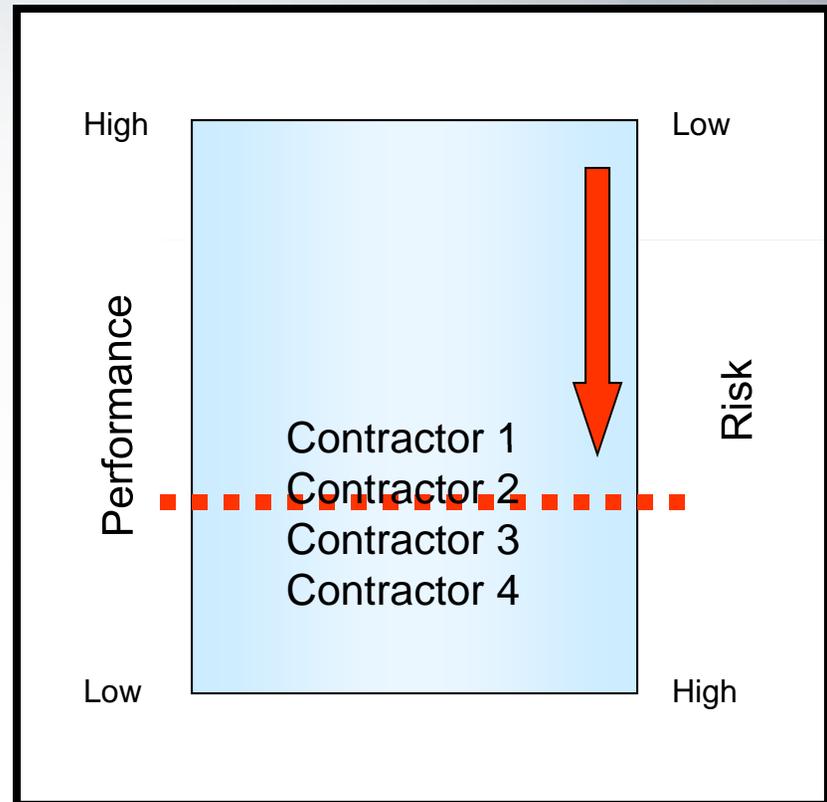
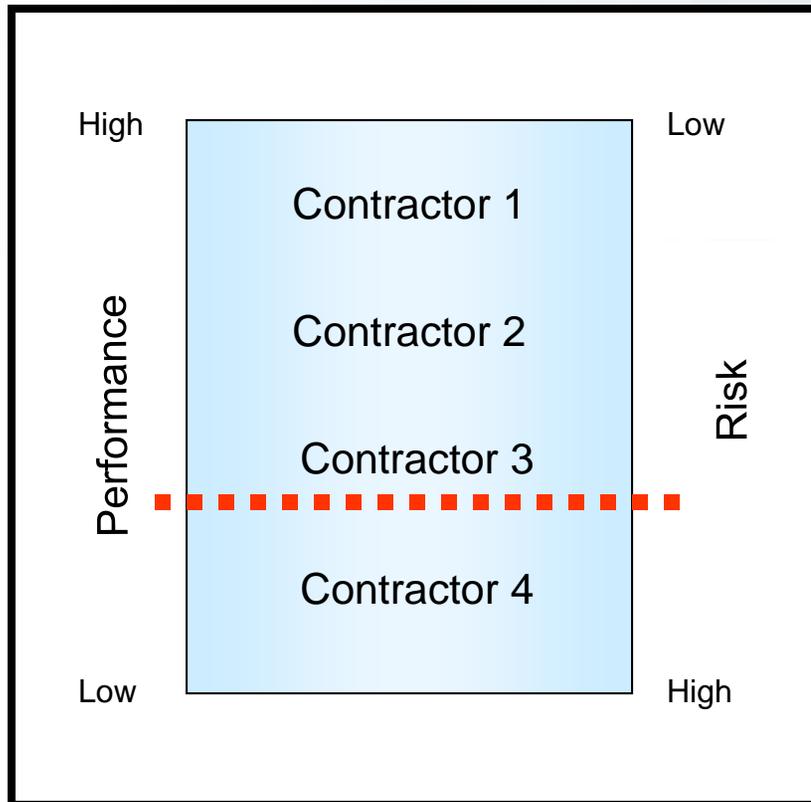
# Problem with Priced Based Systems



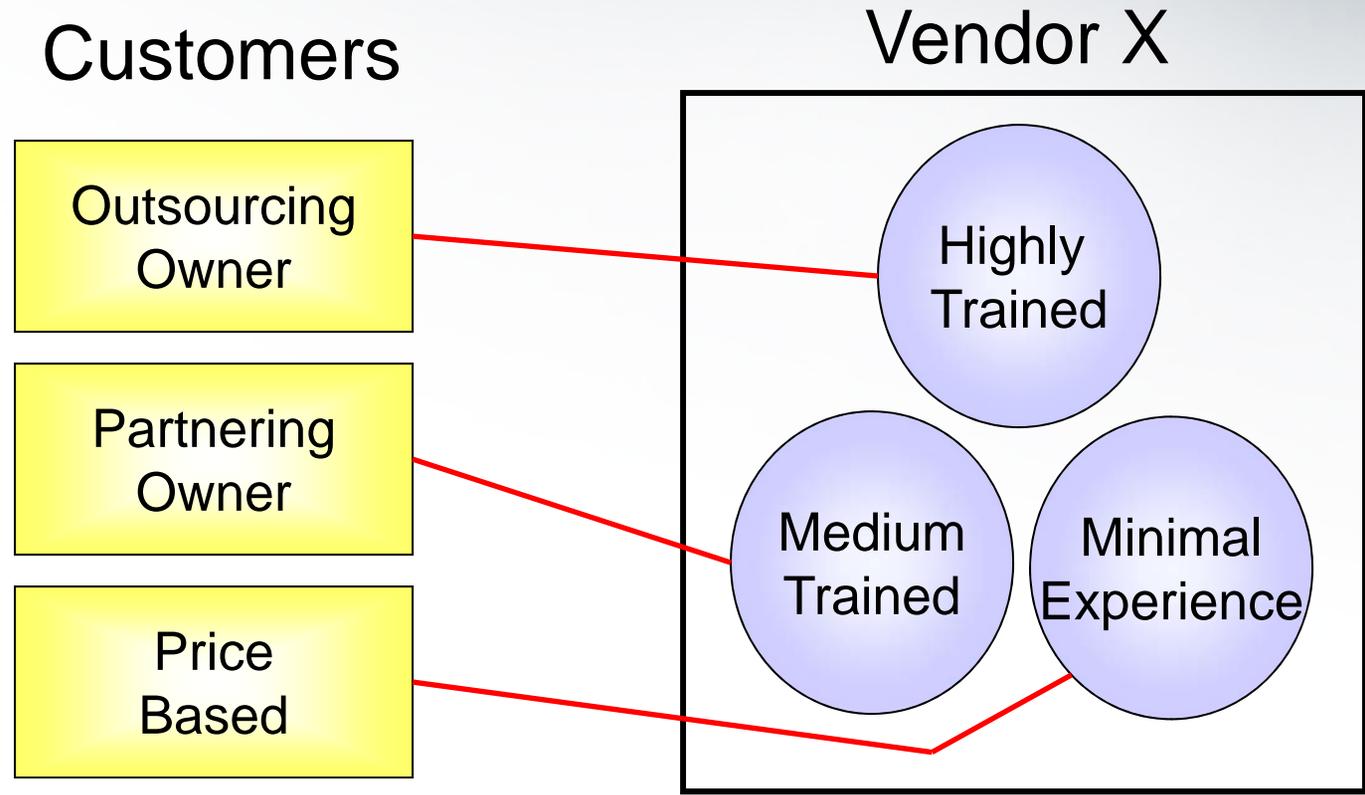
# Inexperienced vs Experienced



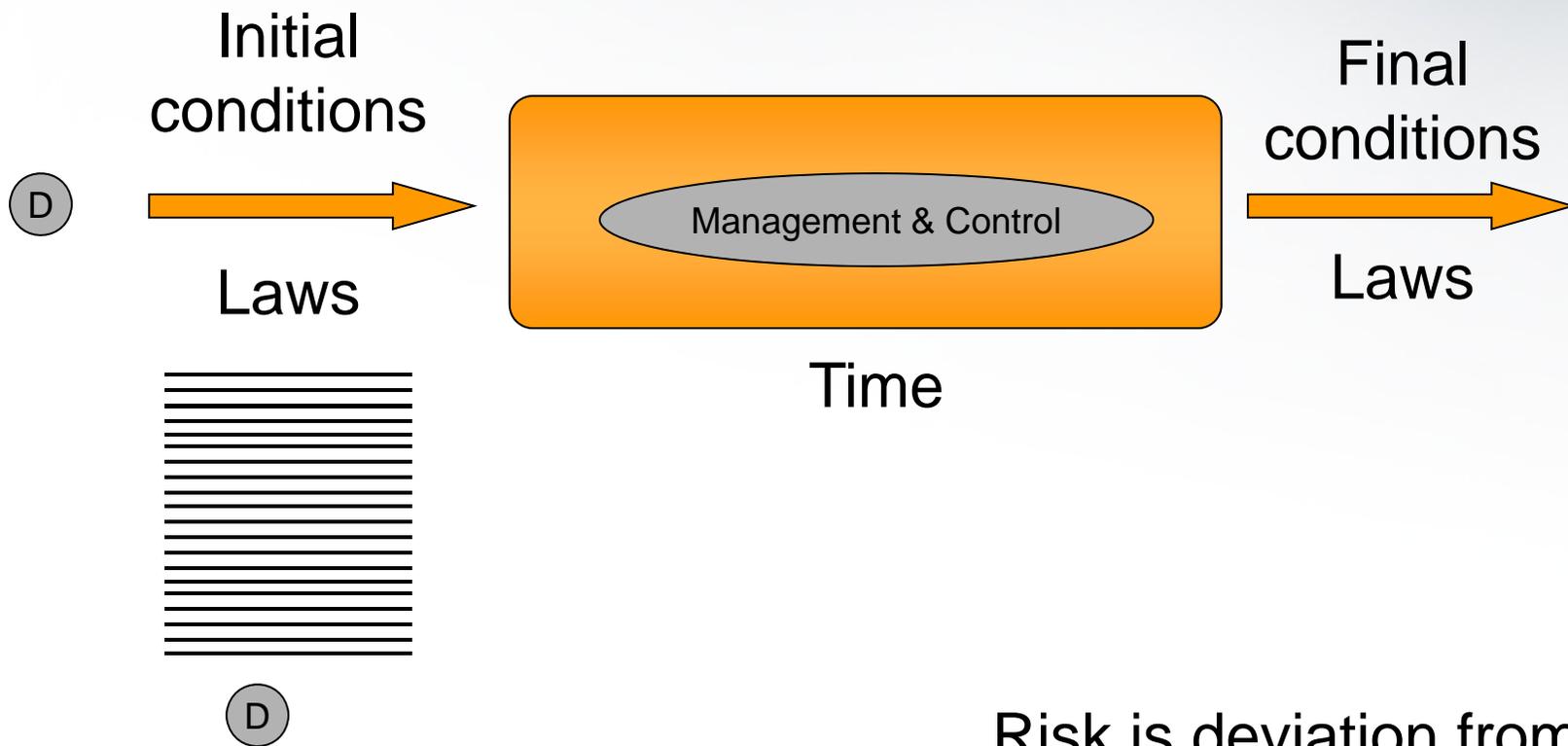
# Impact of Minimum Standards



# Industry performance and capability

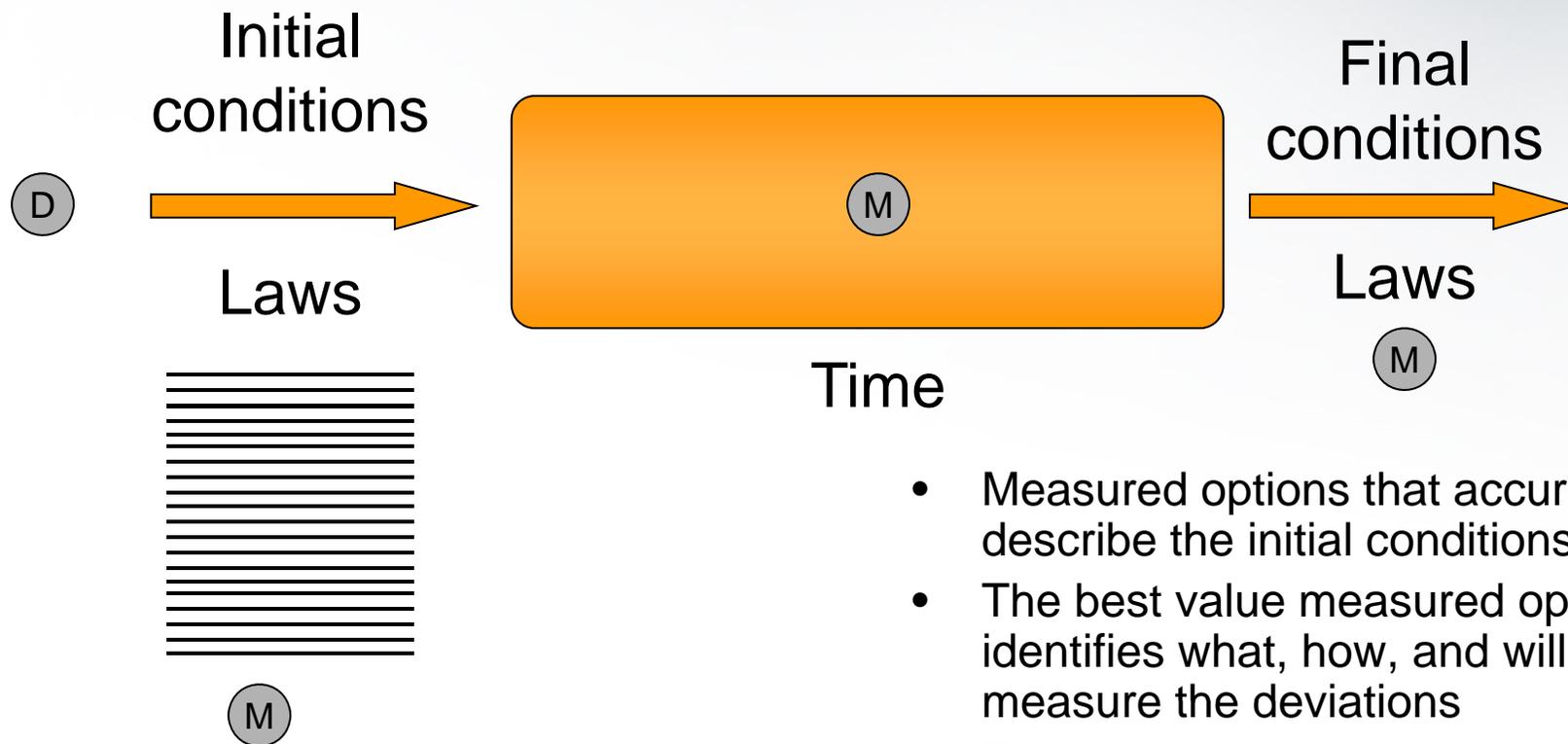


# Traditional Management



Risk is deviation from expected measurements

# New Project Management and Risk Management model that depends on efficiency



- Measured options that accurately describe the initial conditions
- The best value measured option identifies what, how, and will measure the deviations
- The measured solution replaces the buyer's guess

# Delivery of Services

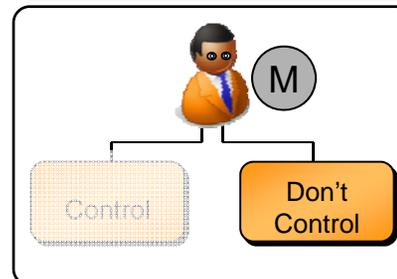
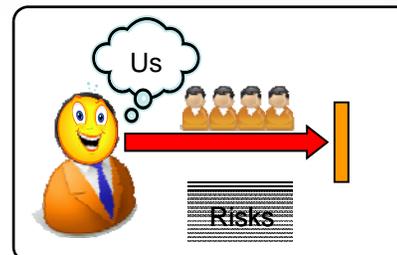
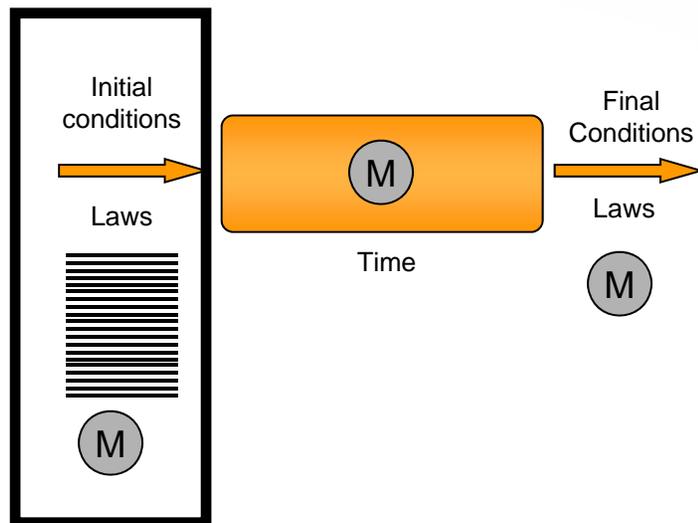
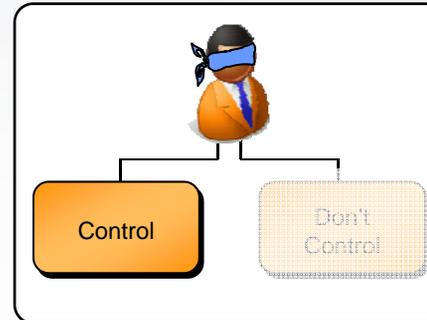
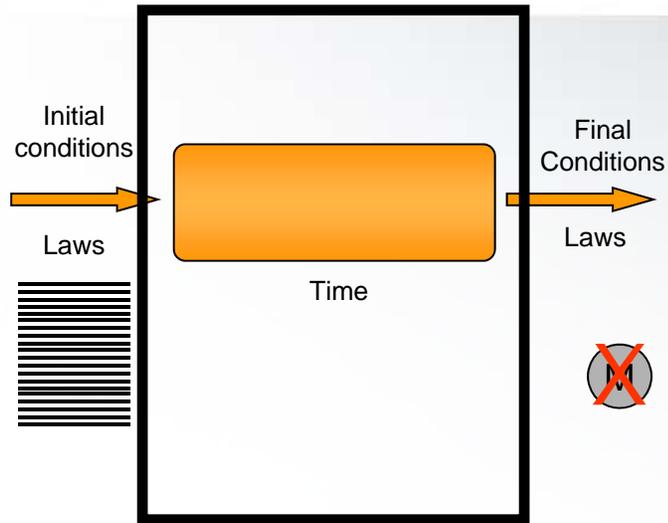


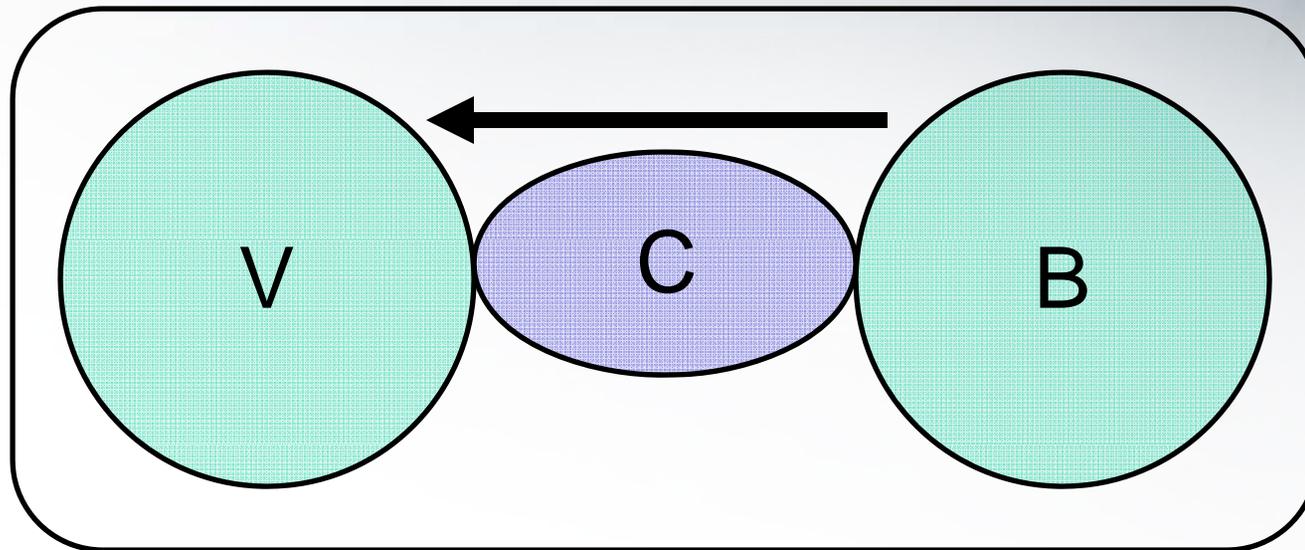
## Status Quo: High Risk

- Control, manage, direct, and inspect
- Increase the flow of information
- Inefficient, ineffective
- Maximizes technical issues

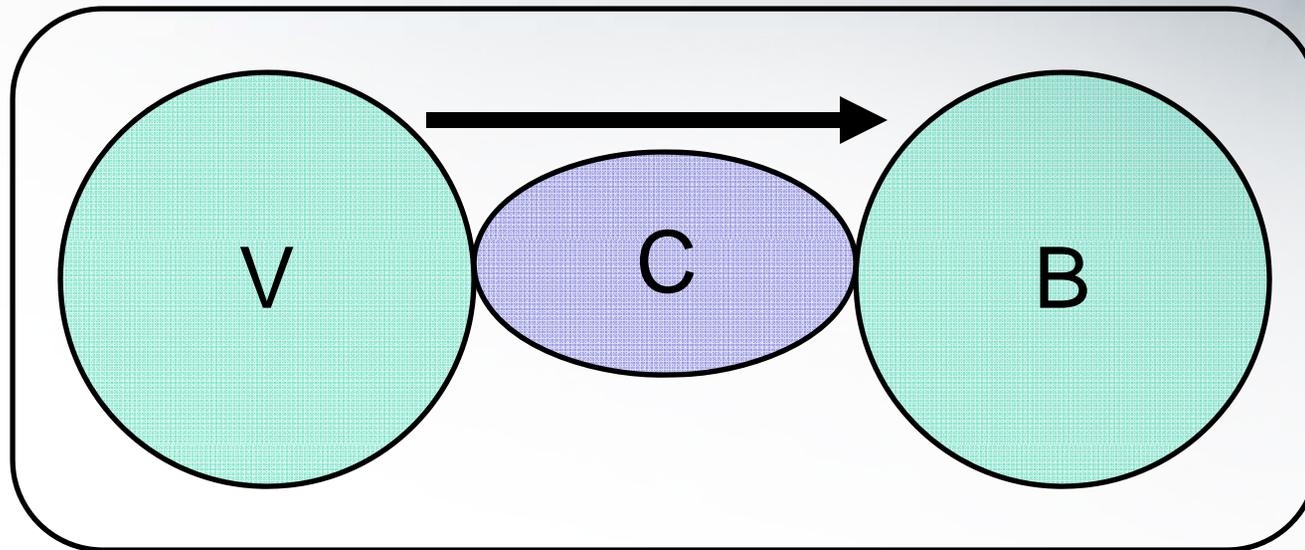
## New PM Model: Low Risk

- Transfer control to the contractor
- Preplanning
- Quality Control
- Measure
- Minimize flow of information
- Minimizes technical issues





Buyer Controls Vendor Through Contract



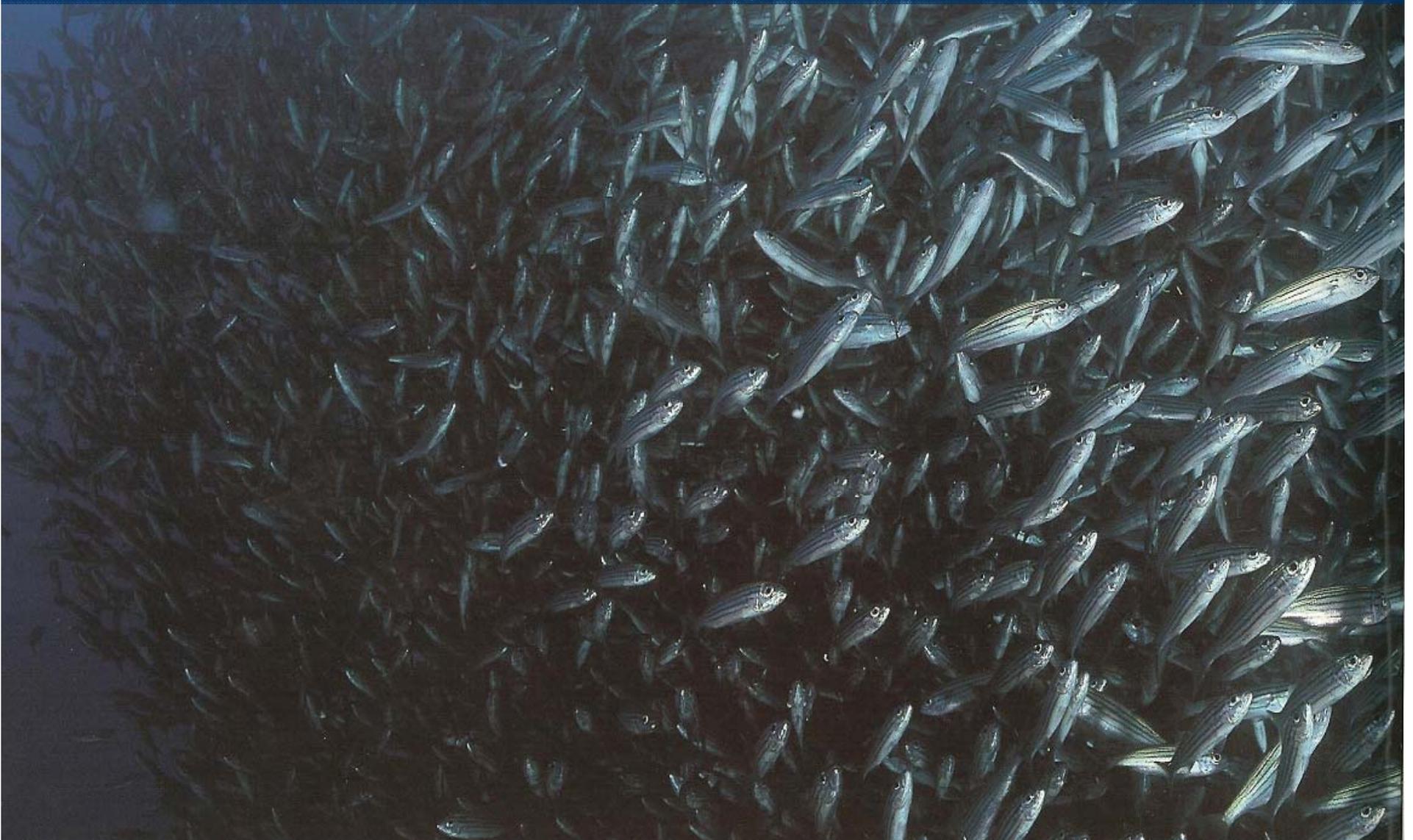
Vendor Manages/Minimizes Risk With Contract

# What is Dominant Information



- It is simple
- It is accurate
- There is minimized information
- It stands out
- It minimizes everyone's decision making
- It is easy to get, print out, someone has it very handy
- It predicts the future outcome
- It makes it clear among many parties

**This is Too Much Information!**



**How will you differentiate yourself?**

# Dominant vs Non-Dominant



## Non Dominant

- Roof material is high performing:
  - Tensile strength is 800 PSI
  - Elongation is 300%
  - Tear strength is 400 lbs
  - Xenon testing: 10,000 hrs

## Dominant

- Roof material has been installed and is performing:
  - 65 Customer Responses
  - Average Roof Age: 25 years
  - Percent Not Leaking: 99%
  - Customer Satisfaction: 9.8

# Dominant Information is Not Technical



*“And that's what verbose and hyper technical writing does - it wastes our time... As the legal jargon spreads across investor communications like weeds in a garden, increasingly the investors just stop reading it”*

- Christopher Cox (Former California Republican Congressman)

# Price Based Selection vs Best Value Selection



- Price Based (Management)
  - Qualifications
  - Technical Specifications
  - Interview
  - Detailed Financial
- No linkage
- Best Value (Leadership)
  - Past Performance
  - Risk Assessment (don't control) / Value Added
  - Interview
  - Financials (simplified)
- Linkage into PP/QC and Risk Minimization

# How do we know who is an expert?



- Use deductive logic instead of experience/decision making
- Ask those who come, how they know they know
- Ask them to go from beginning to the end of the project and identify and minimize the risk they do not control
- Ensure key personnel can “see”
- Preplanning and risk minimization by contractor



# Selection Process and Submittal Requirements

## LICRAT Property Improvement Project

Tar Creek Relocation Zone  
Pitcher, Oklahoma

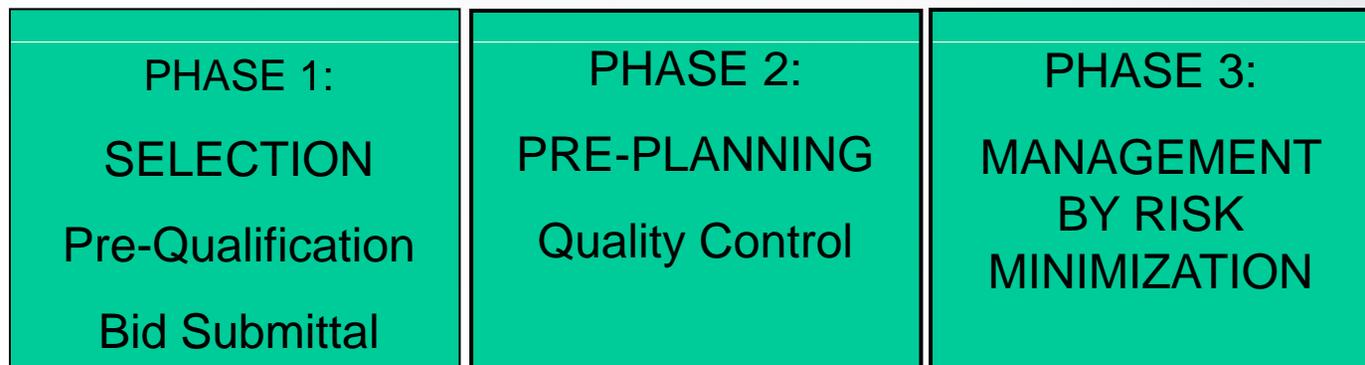


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# Best Value System

Performance Information Procurement System (PIPS)

PM model, Risk Management model

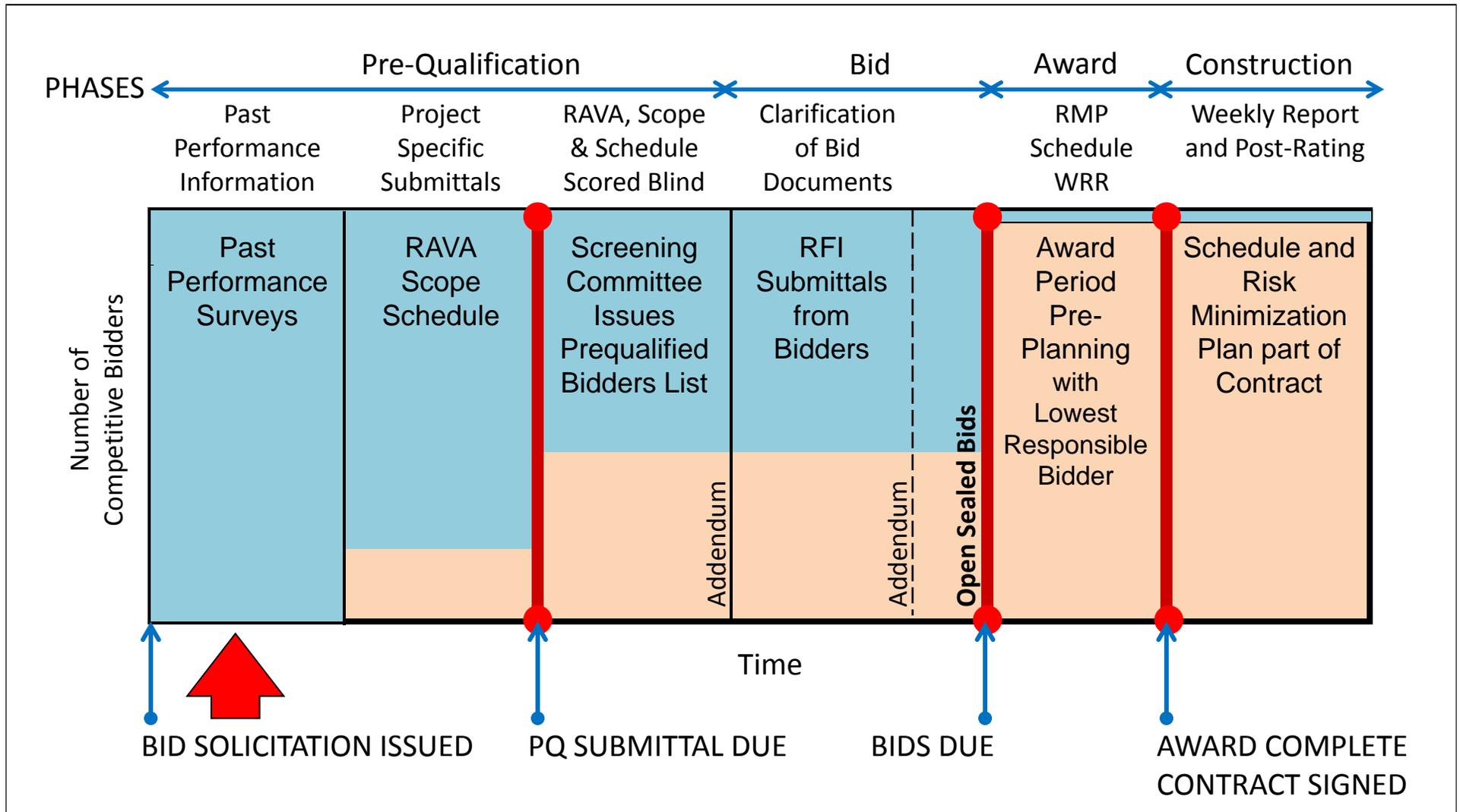




# Past Performance Information (PPI)

# Construction Contract Award

## Application of PIPS to “Lowest Responsible Bidder”

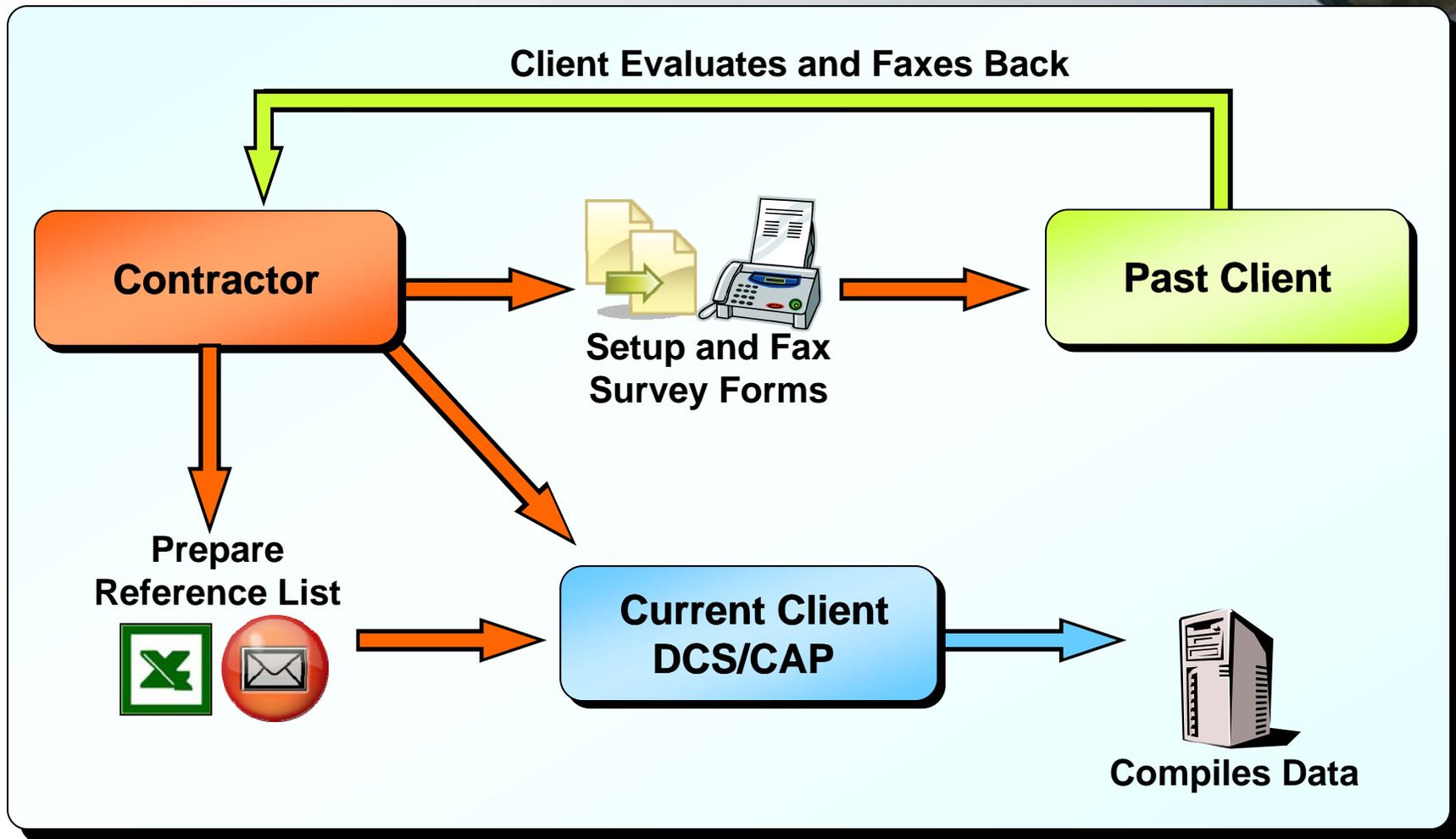


# Past Performance Information



- Critical Components:
  - Project Manager
  - Site Superintendent
- Minimum of 3 surveys for each
- 1 Survey can count for all critical components if it has their name on the survey.
- Vendor is responsible for the collecting the survey
- The State only wants the best past performance surveys

# Surveys Returned to Contractor





# Final Rating



- After the project is complete, the client will evaluate the project.
- The Final Rating will be heavily impacted by:
  - Change orders
  - Project delays
  - Poor quality
  - Owner surprises
  - Complaints
  - Ability to submit accurate and timely weekly reports
- In Best-Value Procurement, the vendors goal is to get a high rating in order to stay competitive.

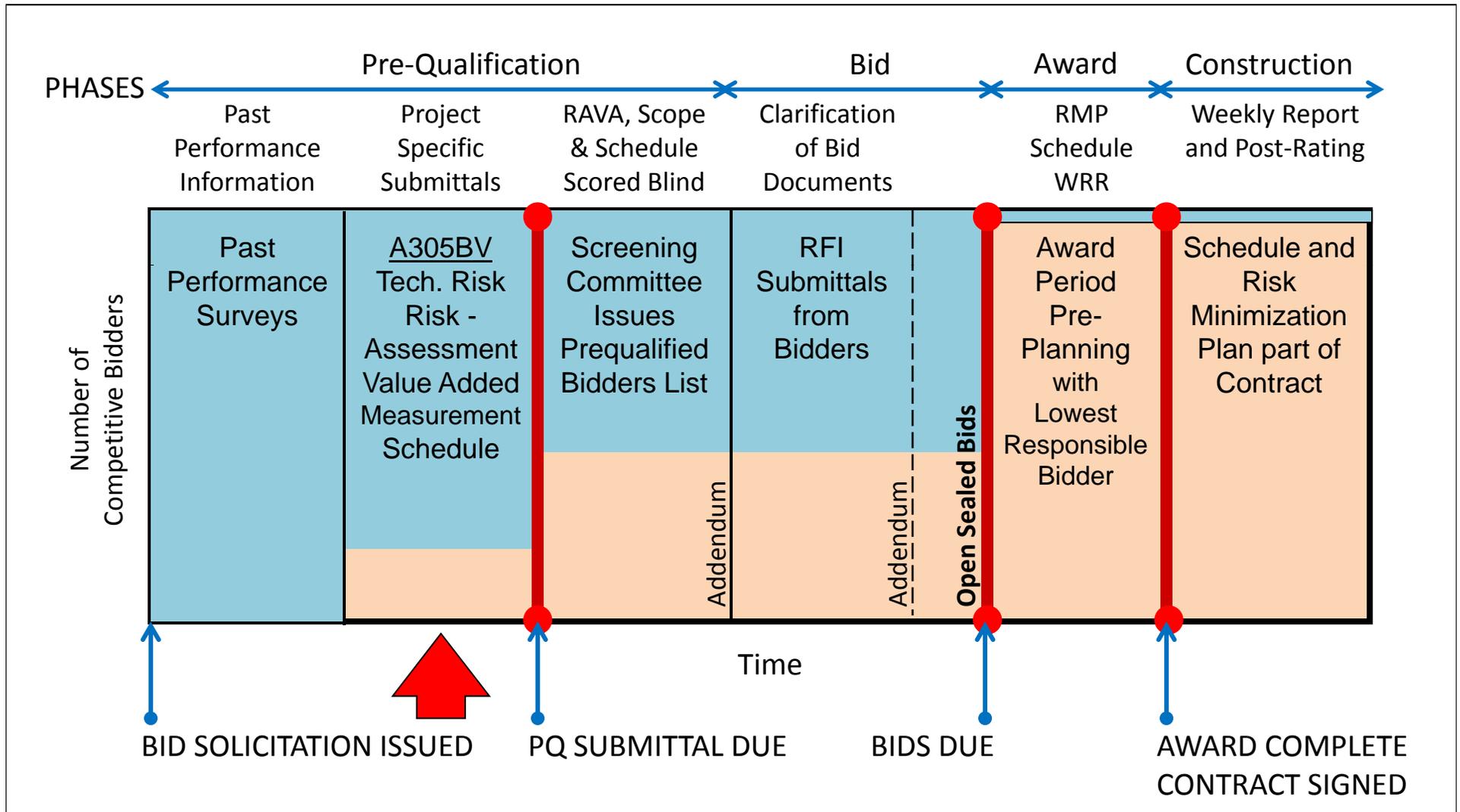




# Technical Risk Submittal

# Construction Contract Award

## Application of PIPS to “Lowest Responsible Bidder”



# Technical Risk Plan



- Contains:
  - Identifies any technical risks and how they will be managed
  - Explains how a vendor differentiates from other vendors in terms of technical expertise
  - Identifies Technical Risks in terms of Project Vision
  - Must not exceed 2 pages
  - No Names!
- Formatting:
  - Simple
  - Clearly laid out
- Verbiage:
  - Non-technical
  - Easy to read



# Risk Assessment (RA) Plan

# Risk Assessment



- The Risk Assessment section is used to identify high performing contractors that can:
  - Identify and minimize risk **before** the service has started
  - Deliver plan to minimize risk during the life of the service.
- The RA Plan should clearly address the following items:
  - List and prioritize major risk items (areas that may cause the service not to meet the expectations of the State).
  - Each vendor should focus on risks it does not control and
  - Explain how the vendor will minimize the risk.

# Sample Risks & Solutions



- **Risk 1:** Design issues can impact schedule.
- **Solution:** We have determined that the drawings are exceptionally good.
  
- **Risk 2:** Subcontractor availability may impact cost and schedule.
- **Solution:** We do not anticipate any issues with subcontractor availability.
  
- **Risk 3:** The children's playground is in close proximity to the parking lot.
- **Solution:** We will perform a critical review of the existing plan for any other flaws.

# Example of Solutions

## Risk: *Concrete Escalation*



- RA Plan 1

- The owner can be assured all risks associated with material escalations will be eliminated because we offer the benefit of an experienced project team that includes the most detailed, prequalified and extensive list of subcontractors and suppliers, from around the world.

## MARKETING INFORMATION

- RA Plan 2

- The cost of concrete has been rising drastically. Since this project requires a substantial amount of concrete, cost is a risk. To minimize this risk, we have secured and signed a contract with a local concrete supplier to prevent any increase in cost during the duration of this project.

# Example of Solutions

Risk: *Loss of Radio Flagship in Major Market*



- **RA Plan 1**

- We will work very hard to maintain excellent affiliate relationships. If we lose a radio station (e.g. it changes its format) we will move quickly to replace the lost station. If we cannot quickly replace a flagship station, we can be very creative and could even consider purchasing all local inventory from a new flagship station.

- **RA Plan 2**

- We own and will maintain two radio contracts covering the Phoenix area with where signals can be switched if required. The flagship station will be the station with the stronger signal and greater coverage. If a station is lost we will have a equal replacement within 2 months. If within two months a replacement is not contracted we will purchase inventory from another station or discount the cost of an inventory purchase and add it to our payments to ASU.

# Example of Solutions

Risk: *Noise from Demolition*



- **RAVA Plan 1**
  - We will work with the user to minimize the impact of noise from demolition.
  
- **RAVA Plan 2**
  - We will perform demolition during off hours and weekends. This will have a slight impact on our cost (less than 1%), but the impact to customer satisfaction justifies this. We will also install rubber sheets on the floors to diminish noise and vibrations. Both solutions can be performed within your budget.

# Example of Solutions

Risk: *Getting water to the site*



- **RAVA Plan 1**

- Coordination with [water company] is critical. We will coordinate and plan with [water company] as soon as the award is made to make sure that we get water to the site to irrigate the fields.

- **RAVA Plan 2**

- We will coordinate and schedule the water with [water company]. However, based on past experience there is a high risk they will not meet the schedule. We will have temporary waterlines setup and ready to connect to the nearby fire hydrant to irrigate until [water company] is ready. We will also have water trucks on-site if there is problems with connecting the lines.

# Example of Solutions

**Risk:** *Safe Food Supply/Food Born Illness*



- **RAVA Plan 1**

- Our internal food safety standards are recognized as being far more stringent than government regulatory requirements. In the unlikely event of a food-borne illness, our strong relationships with local, state, and national health agencies will ensure and 24-hour response.

- **RAVA Plan 2**

- If a food safety issue arises, vendor will effectively minimize the client's risk of exposure by:
  - 1) Vendor's system will issue a safety alert and related directives to 10,000+ units and all ASU email accounts in less than 15 minutes.
  - 2) The vendor will place a lock within in its foodservices purchasing system on any food with risk so it cannot be purchased,
  - 3) The vendor will remove all potentially harmful products within the first hour of notice.
  - 4) The vendor will identify as many purchasers as possible through credit receipt names and the client system to notify them individually. Warnings will be placed around campus within two hours of discovery.



# Risk Assessment Plan Template

Major Risk Items

<b>Risk 1:</b>	
<b>Solution:</b>	

<b>Risk 2:</b>	
<b>Solution:</b>	

<b>Risk 3:</b>	
<b>Solution:</b>	

<b>Risk 4:</b>	
<b>Solution:</b>	

<b>Risk 5:</b>	
<b>Solution:</b>	

<b>Risk 6:</b>	
<b>Solution:</b>	



# Value Added (VA) Plan

# Value Added Differentiation



- Answer the question: “What value do I bring that differentiates me from my competitors?”
- What is unique about my firm that demonstrates high performance
- Value Added is where vendors provide “great ideas”
- Anything that is not in the current scope
- Anything that deviates from requirements
- Any exceptional insight or advantage your firm has

# Example: Value Added Items





# Value Added Plan Template

**Value Added Options or Differentials (what you will do that the others do not)**

<b>Item 1:</b>	
<b>Impact:</b>	
<b>Item 2:</b>	
<b>Impact:</b>	
<b>Item 3:</b>	
<b>Impact:</b>	
<b>Item 4:</b>	
<b>Impact:</b>	
<b>Item 5:</b>	
<b>Impact:</b>	

# Things to Avoid



- Marketing data:
  - *Our company is known worldwide as a leader in quality food services.*
  - *We will use our long history to make sure the project is a success.*
  - *We will use state-of-the-art process to make it a success.*
- Technical data:
  - *We propose an MXDD3 Food Star system that will increase SME's by 85%*
- Transferring risk back to client:
  - *We will work with the owner to resolve issues*
  - *We will have team meetings with the owner*
  - *We will have a partnering meeting with the owner*
- General risks and/or general solutions:
  - *Food quality*
  - *Communication issues*
  - *We will plan ahead to coordinate activities*
  - *We will plan ahead to increase sales*
  - *We will minimize turnover*

# Vendor Recommendations



- Do not allow the client to make decisions
- Show vision and understanding
- Show that you can minimize risk (minimize the unknown)
- Show you have expertise (know what is going to happen before it happens)
- Show that if you win the contract, you will control it through performance measurement
- Use Value Added to highlight areas of differential
- Emphasize dollars, revenue, time, and quality/expectation (client's interest)
- If vendors do not differentiate, they are a commodity
- What is written in the Risk & Value Plans becomes part of the final contract



# Measurement Plan



# Example:

- Dominant Performance Indicators
  - Overall cost of network
  - Top of the line networking
  - Network Sustainability/Accessibility
  - Customer Satisfaction
- Documentation of Deviations to financials



Dominant Measurements	ASU Current	Qwest Value Add
<b>Overall Cost of Network</b>		
Annual IT Spend Ratio (new vs maintenance)	17/83	48/52
<b>Top-of-the-line Networking</b>		
% Converged	7%	100%
% Mobility	2%	100%
% Equipment not out-of-date	58%	95%
<b>Network Sustainability/Accessibility</b>		
% Equipment not needing replacement (Not at end-of-maintenance)	88%	100%
<b>Customer Satisfaction</b>		
Speed/Quickness Available (Wired / Wireless):		
% 1Gb - Wired Connections	59%	98%
% of 300Mb - Wireless Connections	8%	32%

	Dev.	Cap, Exp.	Maint.	FOE Costs	Total
<b>Year 1 Exp.</b>		\$ 4,100,000	\$ 1,652,000	\$ 6,818,000	\$ 12,570,000
<b>Ex. Risk X</b>	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ 100,000
<b>Ex. Risk X</b>	\$ 100,000	\$ 100,000	\$ (25,000)	\$ -	\$ 75,000
<b>Ex. Risk X</b>	\$ 50,000	\$ -	\$ 50,000	\$ -	\$ 50,000
<b>Ex. Risk X</b>	\$ 25,000	\$ 25,000	\$ -	\$ -	\$ 25,000
<b>New Year 1</b>	<b>\$ 275,000</b>	<b>\$ 4,325,000</b>	<b>\$ 1,677,000</b>	<b>\$ 6,818,000</b>	<b>\$ 12,820,000</b>

# Monitoring/Evaluation based on measurements



- Increase sale of food by 14%
- Increased cash to ASU by 23%
- Minimized management cost by 80%
- Increased customer satisfaction by 37%
- Increased capital investment by 100%

No	Category	FY 06-07 Incumbent	FY 07-08 New Vendor	Difference	% Difference
1	Total Revenue (\$M)	\$ 27.02	\$ 30.83	\$ 3.81	14%
2	Total Return & Commissions (\$M)	\$ 2.17	\$ 2.67	\$ 0.50	23%
3	Capital Investment Contract (\$M)	\$ 14.75	\$ 30.83	\$ 18.08	109%
4	Capital Investment 2006 vs. 2007 (\$M)	\$ 0.26	\$ 5.70	\$ 5.44	2092%
5	ASU Administration (# of People)	7	1.5	-5.5	-79%
6	Customer (Student) Satisfaction (1-10)	5.2	7.1	1.9	37%
7	Mystery Shopper Satisfaction	N/A	9.6	--	--



# Milestone Schedule

# Milestone Schedule



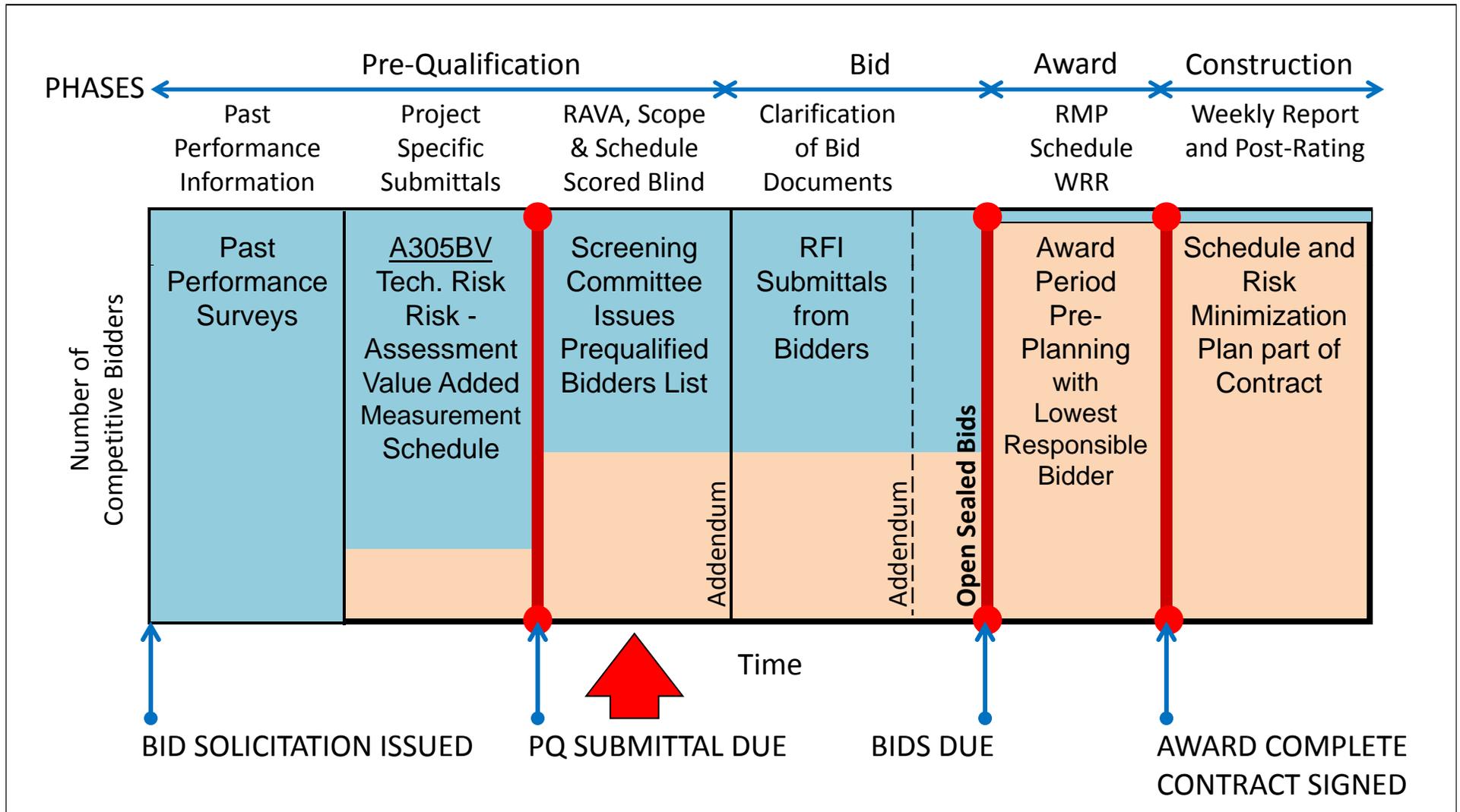
- Simple to understand
- 30,000 foot view of the project
- Show a clear path from beginning to end
- Use data points that can be used to measure progress



**Screening Committee  
Prioritizes and  
Selects 3-5 Most Qualified Firms**

# Construction Contract Award

## Application of PIPS to “Lowest Responsible Bidder”



# Best Value Selection



- CAP Form A305BV
- Past Performance
- Technical Risk
- Risk Assessment / Value Added
- Measurement Plan
- Schedule



## Rating Scheme – How Points are Assigned

- Numeric Scale: 1 - 10
- 1: Not Qualified
- 5: Can't differentiate, don't know\*\*
- 10: Dominantly better

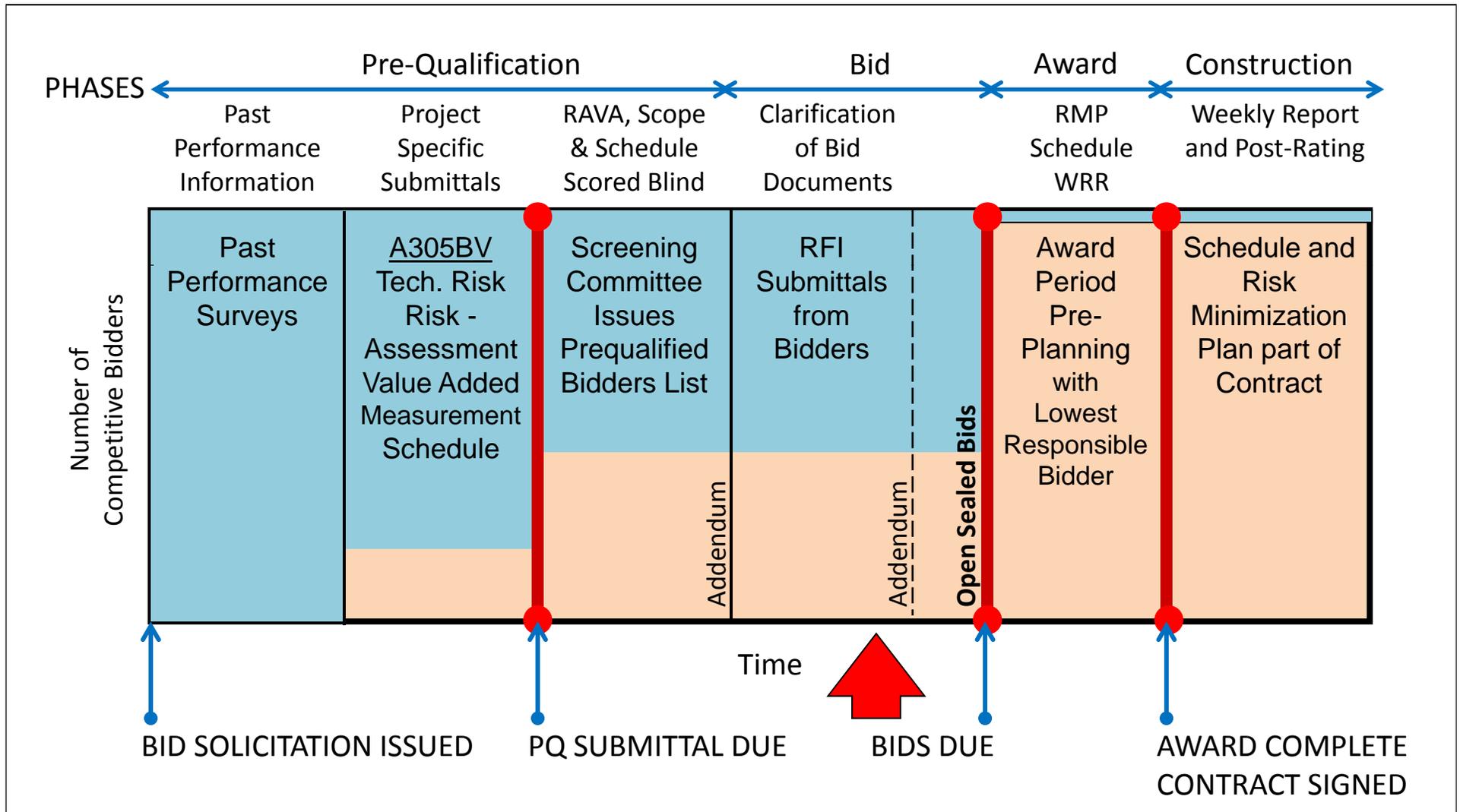
\*\*No decision making allowed



# Bid Phase

# Construction Contract Award

## Application of PIPS to “Lowest Responsible Bidder”



# Bid Phase

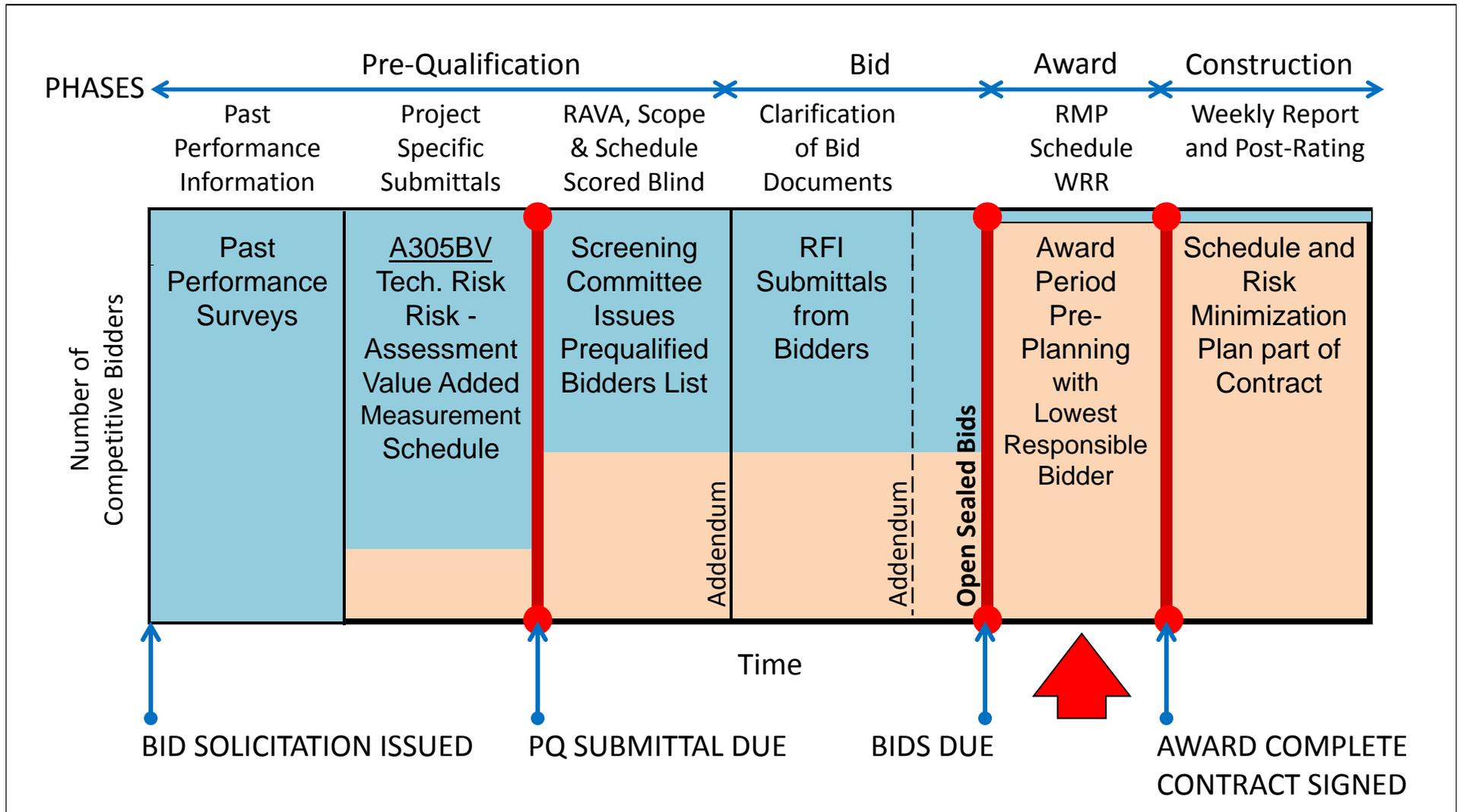
- RFI Period
- Identify all questions regarding scope of work and requirements
- State will assume that you know everything you need to know to price the work and submit a bid
- Price based on efficiency – contractor is the expert and controls work progress



# Pre-Award Planning

# Construction Contract Award

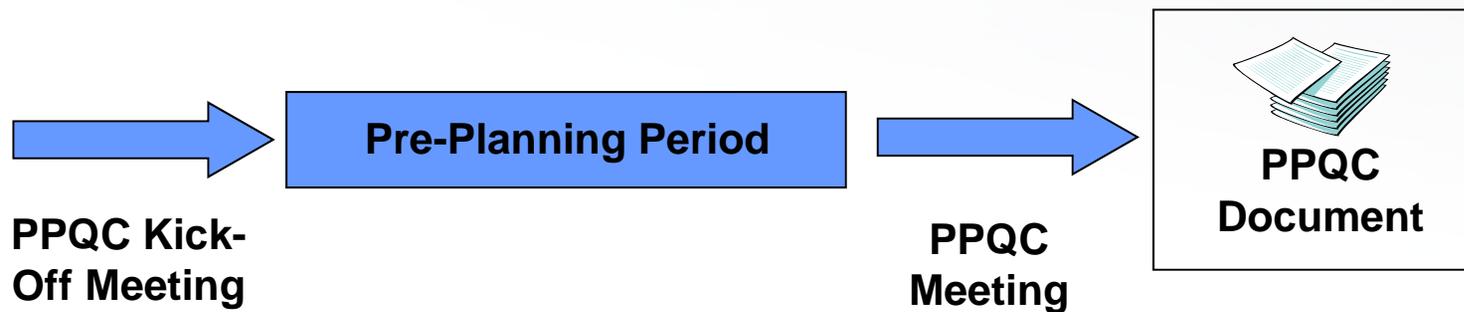
## Application of PIPS to “Lowest Responsible Bidder”



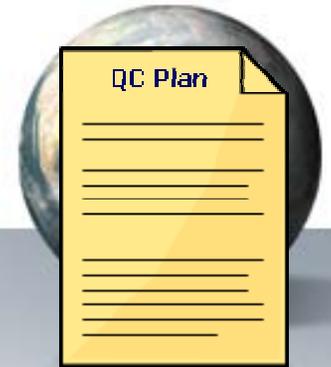
# Pre-Planning and Risk Management



- The Pre-Planning and QC Phase includes the following:
  - Kick-Off Meeting
  - PreAward Period
  - PreAward Meeting
  - PreAward Document



# Risk Management Plan



- Detailed Scope
- Performance Metrics
- Risk Management Plan
- Client Action Item List
- Weekly Risk Report

# The Weekly Report



- An excel document that tracks pre-identified risks/concerns and actual risks/concerns on a project.
  - Pre-Identified Risks/Concerns:
    - Any concerns of the client at any point in the project
    - Any risks identified before the project begins
  - Actual Risks/Concerns
    - Risks that are unforeseen
    - Risks that the contractor feels has a good probability of occurring
- All information on the weekly report must be in “Dominant” fashion.
  - “Dominant” means:
    - Simple, clear, concise, accurate.....
    - Easy to understand without a lot of information

# Questions and Answers

- Presentation will be posted on web:

[www.ok.gov/dcs](http://www.ok.gov/dcs)

- Left-hand menu
- Click on Construction and Properties



# Pre-Bid Education

## LICRAT Property Improvement Project

Tar Creek Relocation Zone  
Pitcher, Oklahoma



October 25, 2010  
Oklahoma Department of Central Services  
Construction and Properties Division