

# FORUM 2017: Creating Connections Together



## The Good Bad and Ugly of Procurement



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# Procurement Exercise

- Get in groups of 3-4
- Pick the best drawer in the group they will be your Expert
- Select 1-2 people to be your Buyer representative
- Select 1-2 people to be your hired consultant.

**Objective/Service: To replicate a picture of a house.**



# Rules

- Expert
  - Can't See - Must keep their eyes closed
  - Is the only person that can touch the pen or pencil
- Buyer
  - Is the only one that will see the picture of the house.
  - Can't touch – cannot use their hands for anything.
- In-House expert or outside consultant
  - Can't speak – Is not able to say anything to the Expert.



# Desired House



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# Inefficiencies and Issues with Traditional Procurement

- Hiring an expert, but telling them what to do.
- Intent of the client is lost in translation (Buyer to consultant to expert)
- Buyer never gets what they had in their mind. Always surprised.
- Accountability is never put on the Expert, because they are always controlled by the consultant and buyer.
- Requires greater resources.





# Biggest Issue: Management of the Expert



# Best Value Approach

- 24 years
- \$17.6M Research Funding
- 1,900 tests delivering \$6.6B of services
- 98% customer satisfaction
- Nine countries, 33 states
- Minimized 5 - 30% project cost
- Performed two longitudinal studies that identified the biggest issue in the delivery of services



# Minnesota Tests [6 years]



General Overview	Overall	Group 1	Group 2	Group 3	Group 4
Total Number of Projects	399	8	21	10	355
Total Awarded Cost (\$M)	\$434.88	\$37.81	\$17.24	\$5.07	\$332.70
<b>Overall Change Order Rate</b>	<b>8.83%</b>	<b>3.73%</b>	<b>4.04%</b>	<b>1.27%</b>	<b>10.16%</b>
Client	7.61%	2.15%	1.08%	0.33%	8.83%
Designer	0.69%	1.68%	2.07%	0.63%	0.33%
Contractor	0.01%	-0.21%	-0.17%	0.00%	0.01%
Unforeseen	0.52%	0.12%	1.06%	0.31%	0.51%
<b>Overall Delay Rate</b>	<b>47.17%</b>	<b>35.31%</b>	<b>1.59%</b>	<b>16.38%</b>	<b>51.68%</b>
Client	21.92%	15.26%	0.00%	7.41%	24.13%
Designer	4.47%	5.69%	1.59%	8.97%	4.48%
Contractor	2.65%	10.93%	0.00%	0.00%	2.42%
Unforeseen	4.54%	3.42%	0.00%	0.00%	5.04%







# US Army Medical Command [5 years]

Before report:

- Did not have a way to track projects.
- Unaware how much cost or time deviation was occurring.
- Thought the vendors were “cheating” them.
- Could not quantify problem was coming from.

<b>General Overview</b>	<b>MEDCOM</b>
Total Number of Projects	619
Total Awarded Cost (\$M)	\$973.94
<b>% Over Awarded Budget</b>	<b>5.50%</b>
Client	4.13%
Designer	0.60%
Contractor	0.00%
Unforeseen	1.31%
<b>% Delayed</b>	<b>41.13%</b>
Client	30.84%
Designer	0.25%
Contractor	1.48%
Unforeseen	8.57%

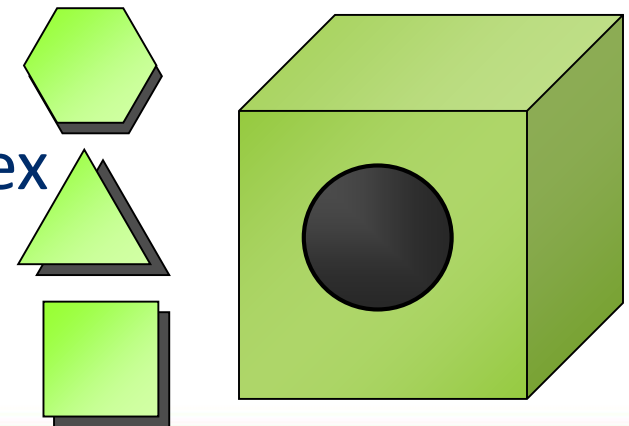


# Traditional Procurement Model

- Buyer is the expert
- Environment is complex
- Vendors are the constraint
- More structure and activity is required
- Focus on making vendor change
- Results are slow
- The situation is identified as complex or dynamically changing



Reactive

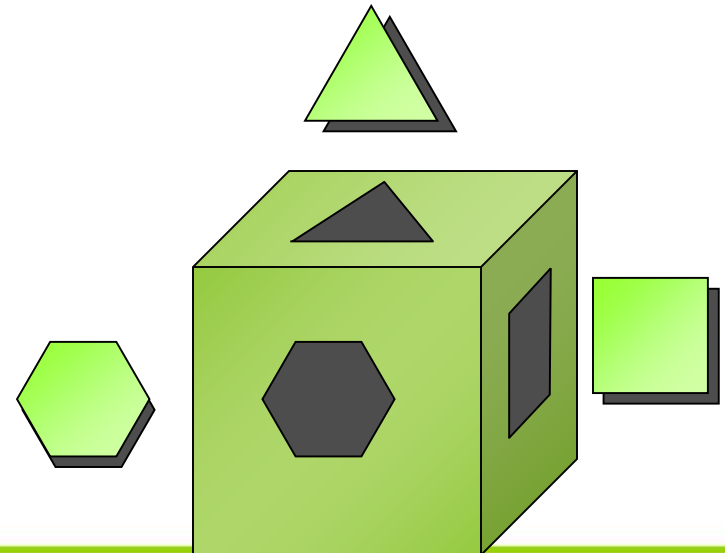


# Owners Utilize Expertise

- Focus on alignment of expert vendors.
- Identify and utilize expertise.
- People doing the work are the experts.
- Focus is on experts using their expertise.
- Minimize MDC
- Experts can see into the future and minimize their decision making



Proactive

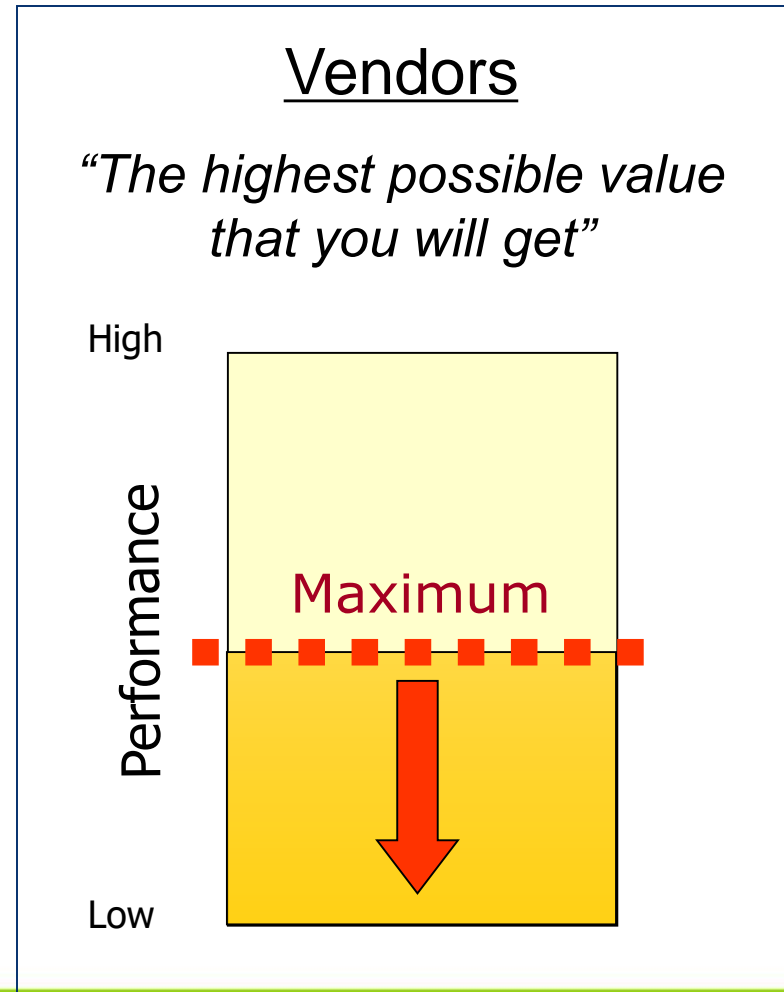


# MDC vs. Utilization of Expertise

<b>Performance</b>	<b>High</b>	<p><b><u>III. Negotiated-Bid</u></b></p> <p>Minimized competition                  Long term                  Relationship based                  Vendor selected based on performance</p>	<p><b><u>II. Value Based</u></b></p> <p>Buyer selects based on price and performance                  Vendor uses schedule, risk management, and quality control to track deviations                  Buyer practices quality assurance</p> <p><b>Utilize Expertise (No Thinking)</b></p>	
	<b>Low</b>	<p><b><u>IV. Unstable Market</u></b></p>	<p><b><u>I. Price Based</u></b></p> <p>Designers and engineers do not know                  Procurement system uses Management, direction, and control                  No transparency</p> <p><b>Manage, Direct and Control [MDC] (Influence)</b></p>	
		<b>Low</b>	<b>Perceived Competition</b>	<b>High</b>



# MDC Systems result in adversarial environment and reactive behavior



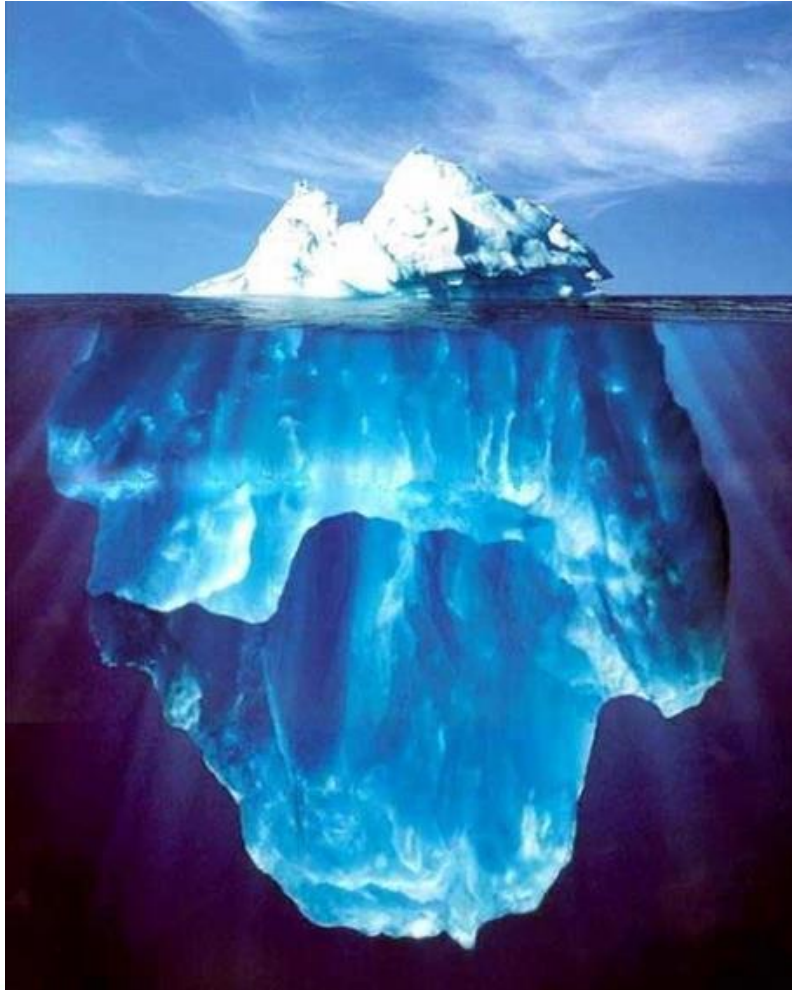
# Observation and Deductive Logic

- Owner/buyer control lead to the degradation of industry expertise and quality
- Contracts have little value in ensuring success
- Management, direction and control used to minimize risk increases risk
- Experts have no risk
- Expert vendors should write their own scope of work
- The buyer/client causes over 90% of project deviations and risk
- Passing of information should be minimized





# There is something wrong with an inefficient micro-managed system.....



There is too much work....

Everyone has to do everything, and no one has the time to succeed....

Performance will not go up

The only way to survive is through relationships

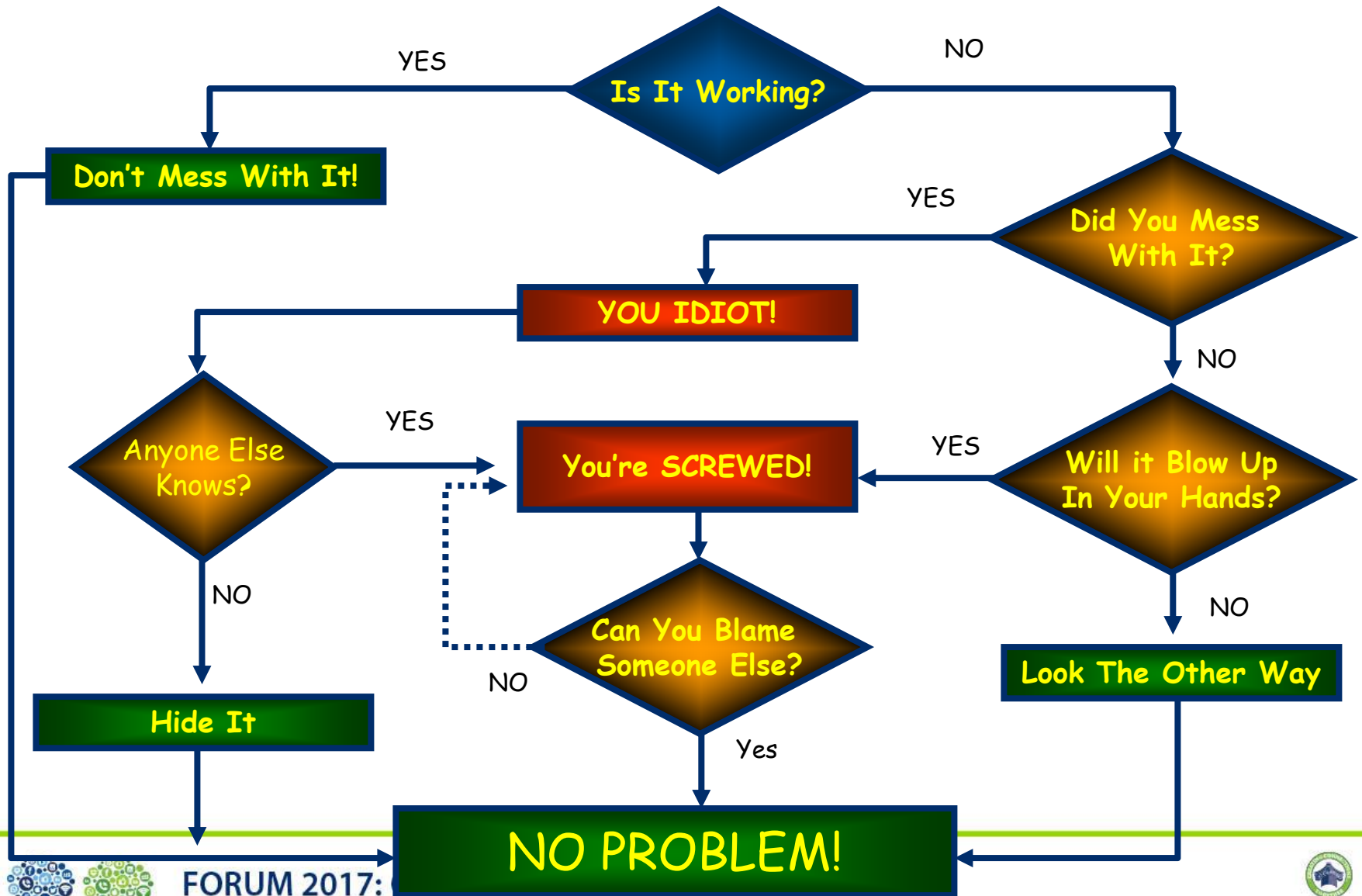
This is not an efficient or successful environment



**And no one quite knows what**



# "Micro-manager's Code" The movement of risk.....



# Need a New Model

- Minimizes management, direction, and control.
- Minimizes decision making.
- Increases accountability of expert vendors.
- Improves quality and performance of services.
- Decreases cost and time.



# Approaches to Procurement

## Know Nothing

- Assume that we know nothing
- Minimize decision making
- Do not manage, direct and control [MDC]
- Utilize expertise
- Make experts identify the future
- Simple, metrics and risk that expert does not control

## Know Everything

- Know everything
- Decision making
- Manage, direct, and control (MDC)
- Do not utilize expertise
- Buyer tells expert what the expert will do
- Technical details



# One Issue

- If we give the vendor control
- If we utilize their expertise
- If we don't have technical knowledge
- Then.....

Then vendor will take advantage of us, cheat us, and rob us of everything we have!





1935: Boeing develops the 299 prototype for an army long-range bomber contract.



# Boeing 299 Prototype

- The 299 was one of the most advanced planes of the time.
- It possessed greater speed, payload capacity and range than the competition.
- It was openly understood that the contract would go to Boeing, following the formality of final testing.

Contract Competitors	Cruise speed	Range and bomb load	Service ceiling	Armament
Boeing 299	204mph	2040 miles @ 2573 lbs.	24600'	5 guns
Douglas DB1	167mph	1150 miles @ 2496 lbs.	23900'	3 guns
Martin 146	183mph	1237 miles @ 2260 lbs.	24000'	3 guns



However, during a final check flight, the 299 crashed shortly after takeoff, killing the pilot and another crew member.



# Investigation of Plane Crash

- Army investigation called the plane's systems too complicated to fly (The pilot had forgotten to release a new elevator locking system).
- The Army contract for an initial 133 aircraft was given to Douglas for a smaller, less capable airplane.
- Continued testing of the remaining 299 prototypes found no problems with the plane's design or construction.



# Conclusions of Crash

- Suggestions based on conventional wisdom said that 299 pilots needed more training.
- Test Pilots said extra training was not the answer because the pilot (Major Hill) killed in the crash was already highly trained as the Army's chief of flight testing.
- Test pilots said that there needed to be a method of measurement to ensure that each step in the plane's operation was carried out.





The solution to the complexity issue was a checklist, which covered step-by-step tasks for takeoff, flight, landing, and taxiing, giving both the pilot and co-pilot responsibilities (accountability).

PILOT'S DUTIES IN RED  
COPILOT'S DUTIES IN BLACK

**BEFORE STARTING**

1. Pilot's Preflight—COMPLETE
2. Form 1A—CHECKED
3. Controls and Seats—CHECKED
4. Fuel Transfer Valves & Switch—OFF
5. Intercoolers—Cold
6. Gyros—UNCAGED
7. Fuel Shut-off Switches—OPEN
8. Gear Switch—NEUTRAL
9. Cowl Flaps—Open Right—OPEN LEFT—Locked
10. Turbos—OFF
11. Idle cut-off—CHECKED
12. Throttles—CLOSED
13. High RPM—CHECKED
14. Autopilot—OFF
15. De-icers and Anti-icers, Wing and Prop—OFF
16. Cabin Heat—OFF
17. Generators—OFF

**STARTING ENGINES**

1. Fire Guard and Call Clear—LEFT Right
2. Master Switch—ON
3. Battery switches and inverters—ON & CHECKED
4. Parking Brakes—Hydraulic Check—On—CHECKED
5. Booster Pumps—Pressure—ON & CHECKED
6. Carburetor Filters—Open
7. Fuel Quantity—Gallons per tank
8. Start Engines: both magnetos on after one revolution
9. Flight Indicator & Vacuum Pressures CHECKED
10. Radio—On
11. Check Instruments—CHECKED
12. Crew Report
13. Radio Call & Altimeter—SET

**ENGINE RUN-UP**

1. Brakes—Locked
2. Trim Tabs—SET
3. Exercise Turbos and Props
4. Check Generators—CHECKED & OFF
5. Run up Engines

**BEFORE TAKEOFF**

1. Tailwheel—Locked
2. Gyro—Set
3. Generators—ON

**AFTER TAKEOFF**

1. Wheel—PILOT'S SIGNAL
2. Power Reduction
3. Cowl Flaps
4. Wheel Check—OK right—OK LEFT

**BEFORE LANDING**

1. Radio Call, Altimeter—SET
2. Crew Positions—OK
3. Autopilot—OFF
4. Booster Pumps—On
5. Mixture Controls—AUTO-RICH
6. Intercooler—Set
7. Carburetor Filters—Open
8. Wing De-icers—Off
9. Landing Gear
  - a. Visual—Down Right—DOWN LEFT Tailwheel Down, Antenna in, Ball Turret Checked
  - b. Light—OK
  - c. Switch Off—Neutral
10. Hydraulic Pressure—OK Valve closed
11. RPM 2100—Set
12. Turbos—Set
13. Flaps  $\frac{1}{2}$ — $\frac{1}{2}$  Down

**FINAL APPROACH**

14. Flaps—PILOT'S SIGNAL
15. RPM 2200—PILOT'S SIGNAL

**AFTER LANDING**

1. Hydraulic Pressure—OK
2. Cowl Flaps—Open and Locked
3. Turbos—Off
4. Booster Pumps—Off
5. Wing Flaps—Up
6. Tailwheel—Unlocked
7. Generators—OFF

**END OF MISSION**

1. Engines—Cut
2. Radio—On ramp
3. Switches—OFF
4. Chocks
5. Controls—LOCKED
6. Form 1

**GO-AROUND**

1. High RPM & Power—High RPM
2. Wing Flaps—Coming Up
3. Power reduction
4. Wheel Check—OK Right—OK LEFT

**RUNNING TAKEOFF**

1. Wing Flaps—Coming Up
2. Power
3. Wheel Check—OK Right—OK LEFT

**SUBSEQUENT TAKEOFF**

1. Trim Tabs—SET
2. Wing Flaps—UP
3. Cowl Flaps—Open Right—OPEN LEFT
4. High RPM—CHECKED
5. Fuel—Gals per tank
6. Booster Pumps—ON
7. Turbos—SET
8. Flight Controls—UNLOCKED
9. Radio Call

**SUBSEQUENT LANDING**

1. Landing Gear
  - a. Visual—Down Right—DOWN LEFT Tailwheel Down, Ball Turret Checked
  - b. Light—ON
2. Hydraulic Pressure—OK
3. RPM 2100—Set
4. Turbo Controls—Set
5. Wing Flaps  $\frac{1}{2}$ — $\frac{1}{2}$  Down
6. Radio Call

**FINAL APPROACH**

7. Flaps—PILOT'S SIGNAL
8. RPM 2200—PILOT'S SIGNAL

**FEATHERING**

1. Throttle Back
2. Feather
3. Mixture and Fuel Booster—OFF
4. Turbo Off
5. Prop Low RPM
6. Ignition Off
7. Generator Off
8. Fuel Valve Off

**UNFEATHERING**

1. Fuel Valve On
2. Ignition On
3. Prop Low RPM
4. Throttle Cracked
5. Supercharger Off
6. Unfeather
7. Mixture Auto-Rich
8. Warm up Engine
9. Generator On

**SEQUENCE OF POWER CHANGES**

**INCREASING POWER**

1. Mixture Controls
2. Propellers
3. Throttles
4. Superchargers

**DECREASING POWER**

1. Superchargers
2. Throttles
3. Propellers
4. Mixture Controls





# Results of the List

- The remaining prototypes with the checklist procedure in place flew 1.8 million accident-free miles.
- Since that time, the Checklist has become a universal procedure in all of aviation.
- Let us compare how successful the plane became when the checklist procedure was instituted.



The competitor that was awarded the original small contract became the B-18 Bolo. 350 total were eventually produced. Not being a very good bomber, most were used as patrol planes.



The Army renamed the 299 as the B-17 Flying  
Fortress  
and nearly 13,000 were ordered.  
It played a pivotal role in the war.



# We need a system to prevent the client from making a decision



# Metrics must be Non-Technical

## Non Dominant

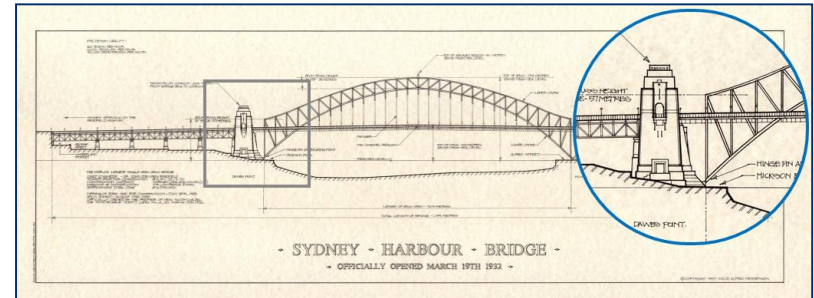
- Roof material is high performing:
  - Tensile strength is 800 PSI
  - Elongation is 300%
  - Tear strength is 400 lbs
  - Xenon testing: 10,000 hrs

## 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



# BV Approach (LS) vs. Traditional (RS)



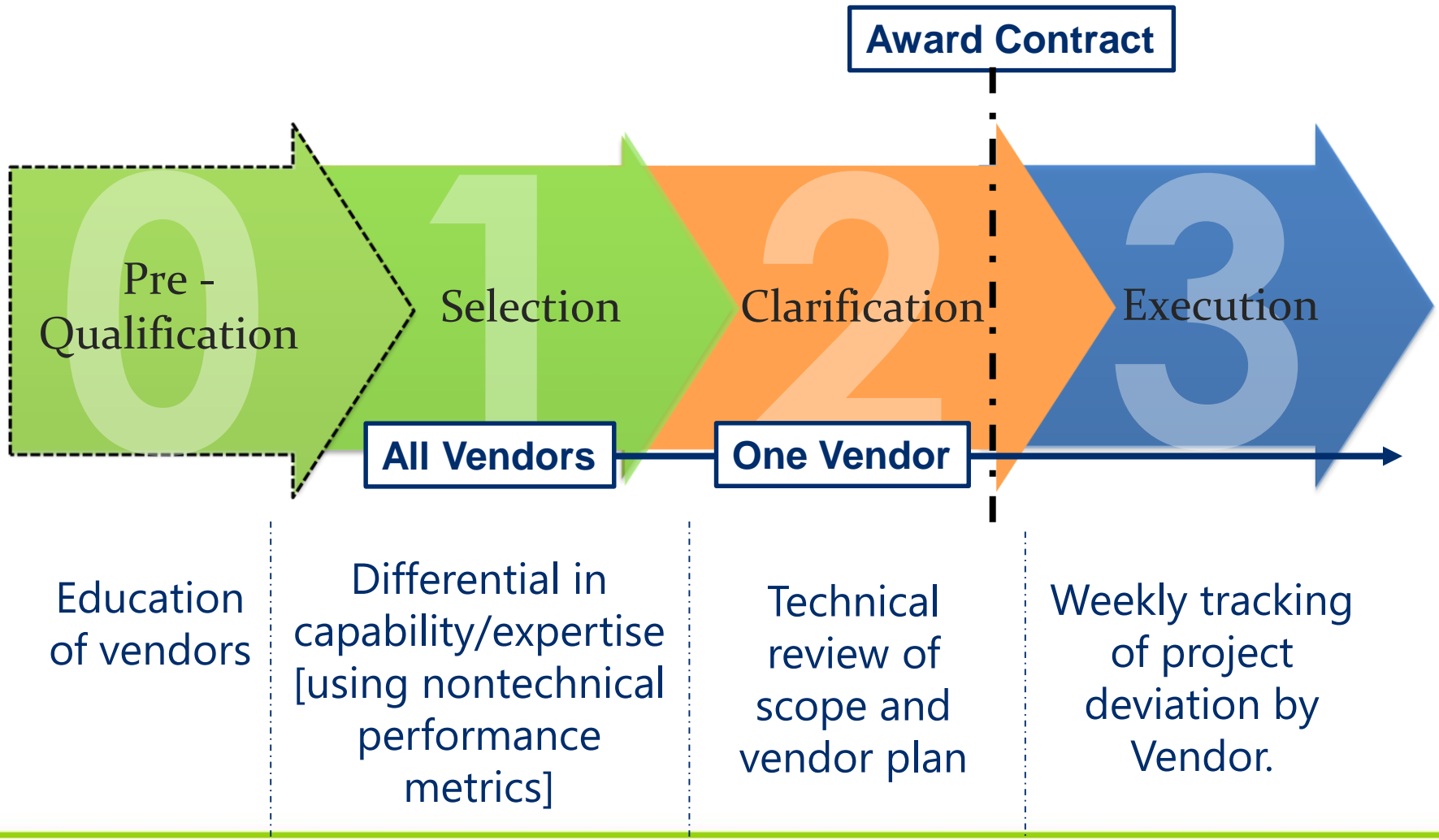
- Metrics
- Minimizes thinking
- Uses expertise to create plan from begin to end
- Plan is non-technical
- In terms of stakeholders
- Less client decision making
- More efficient
- No influence (accept others)

- Details
- Increased thinking
- Client creates plan (MDC)
- Plan is technical
- In terms of technical details
- More client decision making
- Less Efficient
- Influence (do not accept others)





# Best Value Approach (Utilizing Metrics in Procurement)



# Project Requirement/Intent

- New laboratory construction.
- University campus, fast track project.
- Intensive mechanical systems, clean room environment.
- Expected timeframe: 2 years.
- Budget: \$45,000,000
- Full design specifications/drawings included.



# Match performance and Client Requirement

Requirement	Client Requirement
# of Projects	1
Type of client	University
Type of work	Clean Room
Budget	\$ 45 M
Project Duration	2 years
Cost Deviation	-
Time Deviation	-
Client Satisfaction	-



# Match performance and Client Requirement

Requirement	Client Requirement	Vendor Performance
# of Projects	1	7
Type of client	University	University
Type of work	Clean Room	Clean Room
Budget	\$ 45 M	\$ 50 M
Project Duration	2 years	2.2 years
Cost Deviation	-	.1%
Time Deviation	-	1%
Client Satisfaction	-	9.5 / 10



# How Buyer Communicates Project Requirement

- Software package for ERP System
- Number of entries per year: 20,000
- Number of existing software/platforms integrated into system: 6
- Number of heavy users: 20
- Number of organizations using system: 10
- Average number of trained personnel: 2



# Project Specific Performance

Requirement	Client Requirement
# of Projects	1
Type	ERP
Average budget	\$ 2.5M
# of employees serviced	1,000
Transactions / month	20,000
Existing interfacing software	6
# of departments	5
Time Deviation	-
Cost Deviation	-
Customer Satisfaction	-



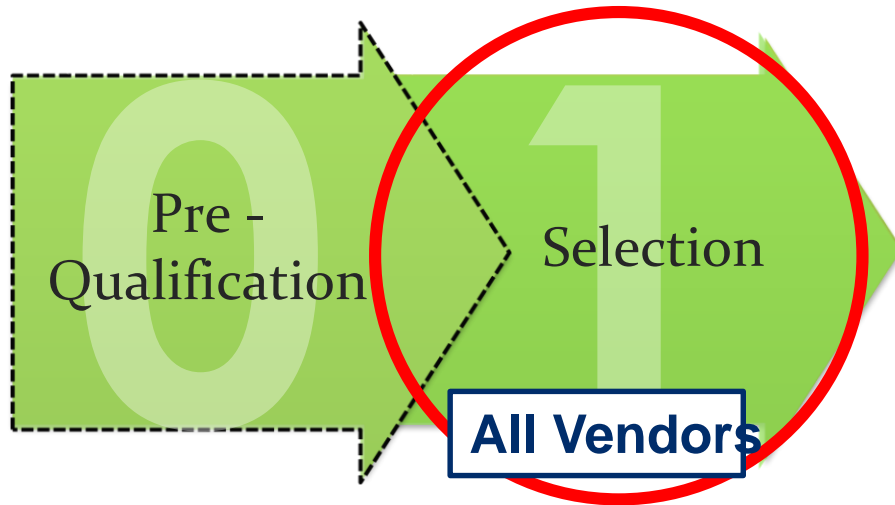


# Project Specific Performance

Requirement	Client Requirement	Vendor's Project Performance
# of Projects	1	2
Type	ERP	ERP
Average budget	\$ 2.5M	\$ 3.0M
# of employees serviced	1,000	800
Transactions / month	20,000	22,000
Existing interfacing software	6	5
# of departments	5	5
Time Deviation	-	.5%
Cost Deviation	-	0%
Customer Satisfaction	-	9.5 / 10



# Selection Phase



## Selection Criteria

1. Level of expertise
2. Risk assessment
3. Value added
4. Interview
5. Price

## Content

- Simple, non-technical.
- Project specific.
- Centered on performance metrics.



# Submittals and Selection Criteria

- Level of Expertise (LE)
- Risk Assessment Plan (RA)
- Value Added (VA)
- Price
- Interview



# Project Submittals

- Level of Expertise, Risk Assessment, Value Added
  - Two pages
  - Claims and verifiable performance metrics



# Rating System

- Two components:
  - Claims.
  - Verifiable performance measurements (VPM) to substantiate each claim.
- High performance claim with VPM. **6-10**
- High/Low performance claim with no VPM. **5**
- If a decision has to be made.
- Low performance claim with VPM. **4-1**



# Traditional Performance

- Company “A” will provide an experienced project manager, who has delivered many large IT projects with complex systems. In past projects he has received very high client satisfaction with incredible performance.





# Traditional Performance

- Company “A” will provide an **experienced** project manager, who has delivered **many large** IT projects with **complex** systems. In past projects he has received very **high** client satisfaction with **incredible** performance.
- He has **20 years** of experience, is certified in project management, and has participated in over **30 projects**.



# Expert Performance Metrics

Company “A” will provide a PM who is:

## **Experienced with Large Projects**

- # of projects: 5
- Largest project budget: \$1.5 Million
- Average project budget: \$500K

## **High Performing**

- Average Customer Satisfaction: 9.8
- Average Cost deviation: 2.5%
- Average Schedule deviation: 0%

## **Experience with Complex Projects**

- Average # of interfacing software packages: 4
- Average # of transactions per month: 10,000
- Average # of departments/users: 10 departments / 100 users



# Traditional Risk Mitigation

- Risk: A **critical** risk in IT projects is the **possibility** that the connecting software packages do not integrate properly which can cause **enormous** delays.
- Solution: Kashiwagi company will do everything possible to discover **as soon as possible** whether the software packages integrate properly. We have a very **successful** company risk methodology and **refined** integration process used in all projects.



# Expert Risk Mitigation

Risk: **(Critical/possibility)** In **4** of our past **10** projects the client's connecting software packages were not compatible, **(Enormous)** the market average is **6 weeks** to correct.

Solution: Company "A" mitigation process:

- # of projects implemented: **10**
- **(As soon as possible)** Discovery within first month
- **(Successful)** Minimized delay to: **0-1** week
- Customer satisfaction of risk process : **9.8/10**



# Traditional Value Added

VA Option: Client can upgrade software from version **2.3** to version **2.5** for an additional **\$10,000**.

## Benefits of Option:

- New technical system management possibilities.
- Online patching to reduce downtime.
- Most up-to-date virus protection software.
- Increased processing speed.



# Expert Value Added

VA Option: Client can upgrade software from version **2.3** to version **2.5** for an additional **\$10,000**.

## Benefits of Option: **(4 Clients)**

- Reduced downtime by **40%**.
- Increased processing speed by **20%**, users surveyed rated impact to processes speed as **9 out of 10**.
- Average duration used by clients is **5 years**. YTD savings of **\$25,000**. (**\$5,000 / year**)





# Match performance and Client Requirement

Requirement	Client Requirement
# of Projects	1
Type	ERP
Average budget	\$ 2.5 M
# of employees serviced	1,000
Transactions / month	10,000
Existing interfacing software	3
# of departments	6



# Match performance and Client Requirement

Requirement	Client Requirement	Vendor's Project Performance
# of Projects	1	2
Type	ERP	ERP
Average budget	\$ 2.5 M	\$ 3.0 M
# of employees serviced	1,000	800
Transactions / month	10,000	12,000
Existing interfacing software	3	5
# of departments	6	5



# Interviews

- 15 - 30 minutes
- Key Personnel (assigned to project):
  - Project Manager
  - Lead technical expert
- Individual interviews
- Non-technical backed by VPM



# Looking for an Expert (KSMs)

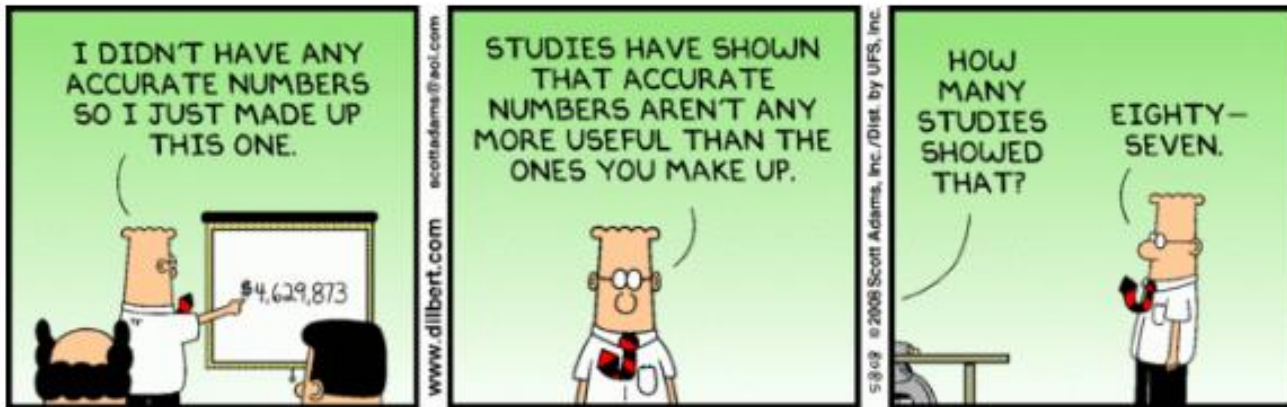
- Simple and dominant.
- Understands people.
- Uses metrics to communicate.
- Is clear and concise.
- Can see the project from beginning to end.
- Minimal thinking and decision making.
- Calm and natural.



# Interview Questions

1. How many times has your company (you personally) provided the scope of services and what were the results?
2. Please explain the difference between this required scope of work and your previous similar projects?
3. What are the risks that you do not control, and how are you going to mitigate the risks?
4. Why were you selected to lead this project? What value do you bring?
5. What is your understanding of the clarification period if you are rated the highest performer?





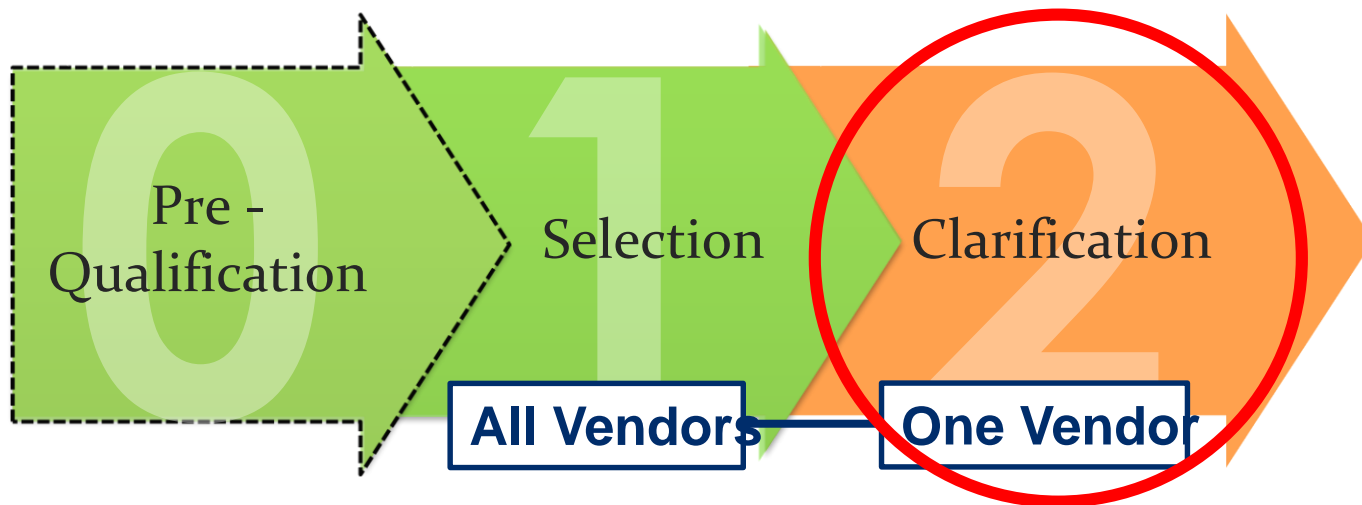


# Dominance Check

- Check ratings are dominant and supported by metrics.
- Check if identified best value vendor is within budget constraints.
- Check references and metrics of identified best value vendor.



# Clarification Phase



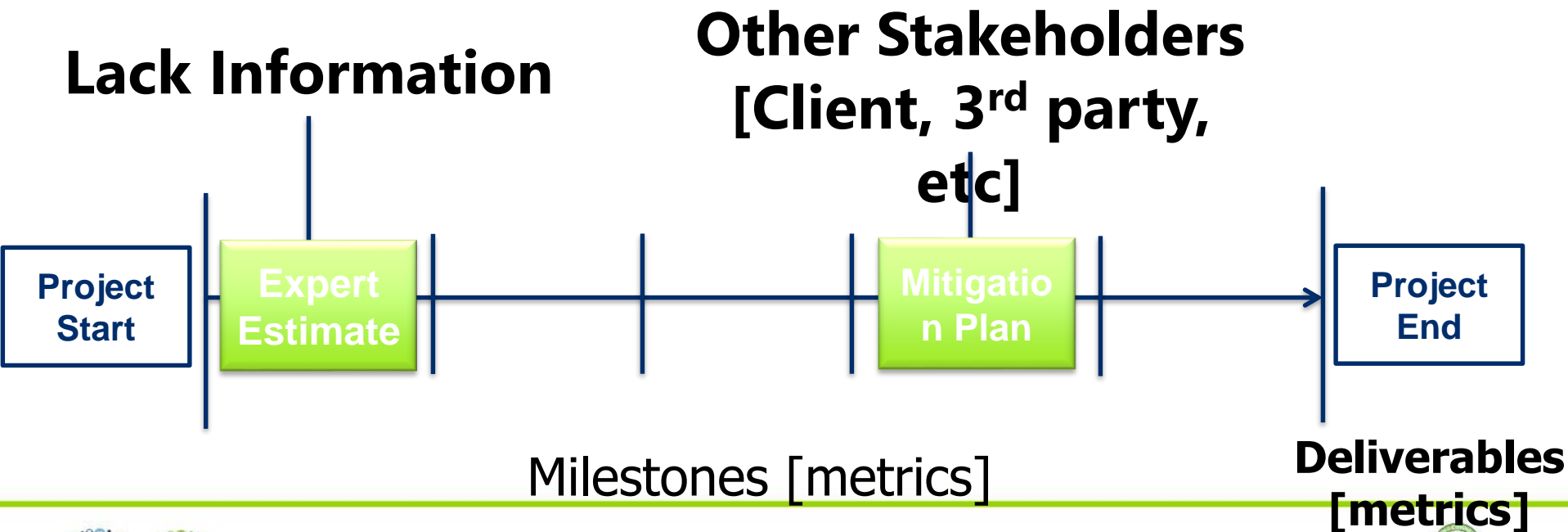
## Vendor clarifies their proposed scope (plan):

- Deliverables [performance metrics].
- Detailed and milestone schedule.
- Risk items and risk mitigation.

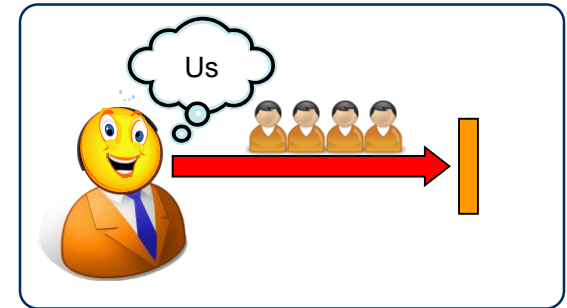
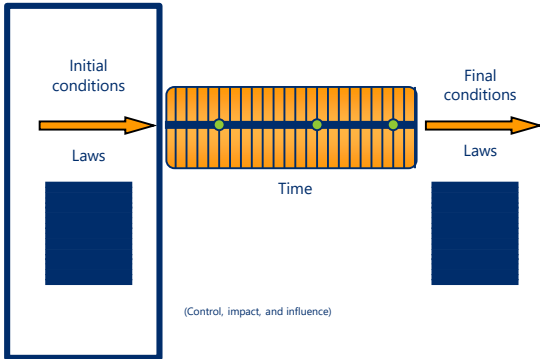


# Simple Expert Plan [Performance and Risk]

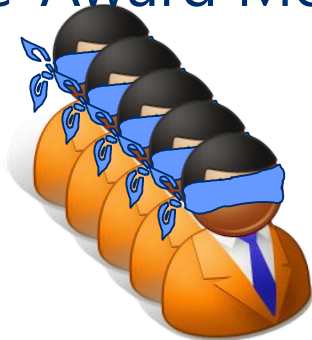
- Proposal based on Client RFP [requirement].
- Must meet all client requirements [RFP].



# Relationship Between Events



## Pre-Award Meeting



Critics, decision makers who show up at the wrong time

Deviations

Risks

Milestone Schedule

RMP and Measurements

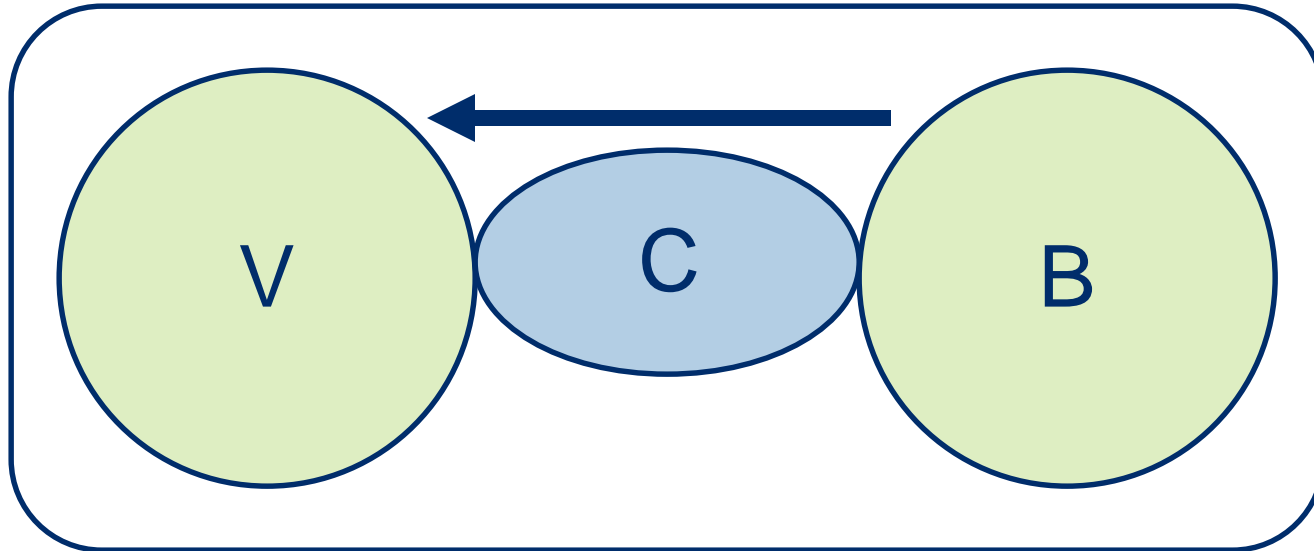
- Transparency
- Proactive behavior
- Preplanning
- Minimization of transactions



# Clarification Documents [Plan]

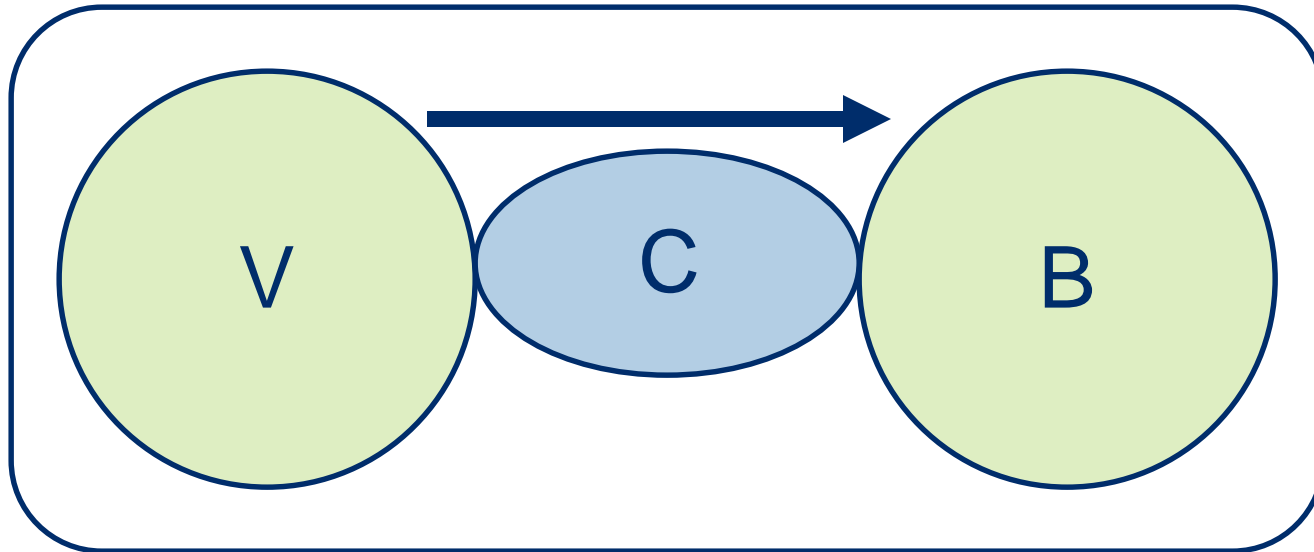
1. Scope of work
2. Project Plan
3. Price schedule
4. Detailed and milestone schedules
5. Performance metrics
6. Weekly risk report (WRR)
7. Risk management plan (RMP)
8. Final Presentation





Buyer Controls Vendor Through Contract





Vendor Manages/Minimizes Risk With Contract







**Mission:** Increase quality of environmental engineering services

**Timeline:** 1 year

**Projects:**

- Yuma: Air Quality
- ASRAC: Water Quality
- Brownfields: Waste Management

**Executive Team:**

- Teena Ziegler
- Erik Massey



# Process [creating a list of experts] Become Simpler and Less Expensive

Criteria	% Diff	Traditional	Best Value
Required time to evaluate proposals	- 95%	286 hrs.	13 hrs.
Protests	0%	0	0
Avg. Customer Satisfaction of process (1-10)	63%	5	9
ADEQ Administration Cost	- 96%	\$ 98,520.00	\$ 3,840.00
ADEQ Admin. Cost Savings		\$ 94,680.00	



# Case Study [Traditional vs. Best Value]

ADEQ PM Criteria	Pinal County (Traditional)	Yuma (Best Value)
Total Cost of Projects	\$400K	\$138K
Overall Client Satisfaction	6/10	10/10
Project Duration (days)	730	352
% Total Schedule Deviation	150%	23%
% Schedule Deviation Due to ADEQ	-	23%
% Schedule Deviation Due to Vendor	-	0%
% Cost deviation	300%	0.5%*
% of Milestone Deliverables Requiring ADEQ Revisions	100%	0%
% of ADEQ Time Required to Complete Vendor Milestones	50%	15%

\*Deviation caused by unforeseen risk (EPA implementing new requirements)



# Overall Supply Chain Performance

No.	Criteria	Traditional	Best Value
1	Total # of projects	35	60
2	Total cost of projects	\$5.5M	\$5.8M
3	% of projects SOW completed in fiscal year	50%	99%
4	# of ADEQ PMs to manage projects	7	5
5	Customer satisfaction of vendor performance	6.9/10	8.3/10 D1 (7) D3 (9)

\*Data was adjusted due to project de-scoping (29 projects, \$1.2M (22%), 479 days (4%))

- ADEQ PMs increased work capacity by 140%
- Vendors performed 94% more work in 33% less time
- ADEQ customer satisfaction of vendor work increased by up to 30%



# ASU Dining Service



**SKEMA Business School**

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**FORUM 2017: Creating Connections Together**



# Traditional Contracting Process

- Same supplier won the contract for 42 years.
- Specifications were 36 pages and Solicitation was 178 pages long.
- Award made based on best marketing and most promises.
- It took over 9 months to finalize contract.
- No performance measurements throughout contract.
- University had their own management group to direct the supplier.



# Best Value Contracting Process

- RFP focus on expectations
- Allow the vendor to differentiate themselves through proven capability (metrics).
- Supplier required to identify plan and performance measurements before contract award.
- 60 page RFP (compared to 178 pages)





No	Summary Criteria	Out of	Vendor		
			A	B	C
1	RAVA Plan	10	5.9	7.1	6.3
2	Transition Milestone Schedule	10	5.2	7.0	6.3
3	Interview	25	15.8	16.8	13.5
4	Past Performance Information - Survey	10	9.8	10.0	9.8
5	Past Performance Information - #/Clients	Raw #	5.7	3.0	4.4
6	Past Performance Information - Financial	10	7.0	8.7	6.9
7	Financial Rating	10	4.0	8.0	8.0
8	Financial Return - Commissions	Raw \$	\$ 30,254,170	\$ 60,137,588	\$ 64,000,000
9	Capital Investment Plan	Raw \$	\$ 14,750,000	\$ 20,525,000	\$ 12,340,000
10	Equipment Replacement Reserve	Raw \$	\$ 7,213,342	\$ 4,100,001	\$ 8,171,811
<b>Financial Totals</b>			<b>\$ 52,217,512</b>	<b>\$ 84,762,589</b>	<b>\$ 84,511,811</b>

## A financial difference of 62.3%

No	Summary Criteria	Weight/Out of	Vendor		
			A	B	C
1	RAVA Plan	28	16.5	19.9	17.7
2	Transition Milestone Schedule	2	1.0	1.4	1.3
3	Interview	25	15.8	16.8	13.5
4	Past Performance Information - Survey	9	8.8	9.0	8.8
5	Past Performance Information - #/Clients	1	1.0	0.5	0.8
6	Past Performance Information - Financial	15	10.5	13.0	10.4
7	Financial Rating	5	2.0	4.0	4.0
8	Financial Return - Commissions	7	3.3	6.6	7.0
9	Capital Investment Plan	6	4.3	6.0	3.6
10	Equipment Replacement Reserve	2	1.8	1.0	2.0
			<b>100</b>	<b>65.1</b>	<b>78.1</b>
				<b>78.1</b>	<b>69.0</b>

# Memorial Union (MU) Fire

Natural Disasters	Step 1	Our policy in responding to a natural disaster is included in original RAVA document risk #9.
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## **RISK 9: NATURAL OR MANMADE CATASTROPHIC EVENT**

### **SOLUTION: Utilize our entire team in the greater Phoenix/Tempe area for crisis response**

Our company maintains sufficient business interruption insurance to address any resulting financial or facilities issues resulting from a catastrophe. Our first priority in the event of disaster is to focus on community support and recovery. In addition to primary roles such as providing food, shelter, and basic medical services, our local planning and national reach would provide ASU with access to backup communications, transportation infrastructure, and crisis management experts. We empower our on-site teams to act in the best interests of our clients and our communities, allowing for real-time entrepreneurial response to specific situations not directly addressable in any pre-incident plan. As an example, in the case of a recent hurricane, our teams in surrounding, unaffected states provided long-term shelter and more than 550,000 meals to over 26,000 evacuees on less than 24 hours' notice. Our disaster plan envisions integration with existing ASU plans to ensure that crisis response is seen as an ASU effort rather than separate activities by the University and its food service partner.


#### Trigger Events:

- 1) Floods, fires, or manmade disasters

#### Action Planning:

- 1) Proactive planning includes meeting with ASU's disaster preparedness committee to clearly understand food services' role.
- 2) Proactive planning and contingency planning including the following:
  - a) Communication plans
  - b) Evacuation plans
  - c) Inventory control
  - d) Housing plans
  - e) Employee, student, staff, and faculty safety
  - f) Short-term planning (including meal planning, food safety, meal delivery, and accounting and reporting)
  - g) Long-term planning (including site usage, venue changes, and community outreach)
  - h) Information gathering
- 3) Plan sharing with all ASU stakeholders
- 4) Utilize sprung structures for temporary dining facilities if need be






Friday Morning – 11-2-07

- MU closed
- Investigation switches from Tempe and ASU authorities to ATF
- Treated as a criminal investigation
- Rumors abound...





Saturday Morning – 11-3-07

- MU employees allowed to get items left behind in building
- Gym begins being prepared for MU
- Contractors brought in
- Protective floor installed



Work takes place around the clock





Sunday Afternoon 11-4-2007

- Arranging gym
- Stocking







Monday morning 11-5-07

- Open for business at 9:00 am
- Radio station was brought in
- Serving "grab and go" plus full convenience store

# MU Fire Summary

- Aramark had very fast response and resolution
- Did not cease operation and look for direction (no contract directives)
- Utilized their RMP and proactively mitigated the risk, which was planned for before their service began.
- Weekly report and performance measurements creates the documentation of how the risk is resolved
  - Shows value added and vendor performance





# Other issues

- Client wants to unilaterally change the requirements of the contract
- Client wants to continue to direct the vendor
- Bureaucracy is having a difficult time with transparency



# Year One Results: Information Environment

No	Category	FY 06-07 Incumbent	Year 1 Aramark	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	\$ 16.08	109%
4	Capital Investment 2006 v 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	7.3	2.1	40%
7	Mystery Shopper Satisfaction (1-10)	NA	9.6	--	--

- 2008 results were generated despite...
  - Memorial Union Fire – 80% of Tempe campus dining
  - Unrealized Meal Plan Counts – Keystone to financial proposal
  - Extreme difficulty in “finding” prior numbers



# ASU Dining Performance Summary

Criteria	Year 1 (From Incumbent)	Year 2 (From Year 1)	Year 3 (From Year 2)	Year 4 (From Year 3)
Sales	14% Increase	11% Increase	24% Increase	13.5% Increase
Commission	23% Increase	6% Increase	20% Increase	22% Increase
ASU Management Requirement	Reduced 79%	--	--	--
Student Satisfaction	37% Increase	1% Decrease	9% Increase	3% Increase



# Vendor Performance

- Food Services Vendor has performed beyond ASU expectations
- Leader in making ASU a financial winner
- ASU using best value PIPS to revolutionize the new American University
- Food services and other procurements have brought the university \$100M in the next ten years



# State of Idaho Student Health Insurance Project



**SKEMA Business School**

Del E. Webb  
School of Construction



**FORUM 2017: Creating Connections Together**



# Overview

- Create a statewide Student Health Insurance Plan (SHIP) consortium
  - Boise State University (BSU)
  - Idaho State University (ISU)
  - Lewis-Clark State College (LCSC)
- 3-Year Contract | \$36 Million
- Measurements of Success
  1. Reduce internal University program administration costs
  2. Maintain or increase Customer Satisfaction (University & Students)
  3. Maintain or increase cost-effectiveness of program to students



# Analysis of Proposals

Total Score: **923**      **916**      **886**      **831**      **840**

NO	CRITERIA	FIRM A	FIRM C	FIRM D	FIRM E	FIRM F
1	Cost - Average Student Premium	\$1,422	\$1,327	\$1,365	\$1,561	\$1,596
2	Cost - Average Spouse & Dependent Premium	\$1,698	\$2,668	\$2,343	\$2,559	\$2,762
3	Average Interview Rating	6.4	6.6	5.2	6.3	6.9
4	RAVA Plan Rating	7.4	6.3	7.4	5.6	5.2
5	Work Plan Rating	6.7	7.2	6.3	5.5	5.6
6	PPI - 1-10 Rating	9.9	9.7	9.9	10.0	10.0
7	PPI - Number of projects and clients	10	17	9	10	10



# Overall Best-Value Results

- Previous Program:

- Student Premiums increased \$124/year (past 4 years)
- Spouse & Dependent Premiums increased \$126/year

School Premiums	2006-2007	2007-2008	2008-2009	2009-2010	Average Increase Per Year (\$)	Average Increase Per Year (%)
Student	\$1,012	\$1,182	\$1,263	\$1,385	\$124	11%
Spouse & Dependent	\$1,843	\$2,022	\$2,104	\$2,220	\$126	6%

- Best-Value Results:

- Student Premium has *decreased* by 2% (-\$26)
- Spouse & Dependent Premium has *decreased* by 19% (-\$519)
- In general, Benefits/Coverage have been increased





# Best Value Approach (BVA)

- Created in 1991
- Logic: Information Measurement Theory (IMT)
- New procurement model BV PIPS
- New Project Management Model
- New Risk Management Model
- Research based program:
- Based on “no influence” model
- Only research program in the world that has been audited four times by independent auditors

**ASU** ARIZONA STATE UNIVERSITY

**Professor Dean Kashiwagi**  
PhD, P.E., Fulbright Scholar, IFMA Fellow, Director  
Performance Based Studies Research Group (PBSRG)  
School of Sustainable Engineering and the Built Environment  
Ira. A Fulton Schools of Engineering

Performance Based Procurement System (PIPS)  
Non-Exclusive Intellectual Property Licenses [2000-2015]

1. State of Hawaii - 10/03/2000
2. University of Hawaii - 04/04/2001
3. U.S. Coast Guard - 01/20/2003
4. U.S. Federal Aviation Administration - 10/01/2003
5. U.S. Army Medical Command - 06/01/2004
6. University of Minnesota - 12/12/2005
7. Entergy Inc., Louisiana - 05/28/2006
8. Heijmans Infrastructuur BV, Netherlands - 06/28/2006
9. Ministry of Infrastructure & the Environment, Netherlands - 10/31/2006
10. Schering Corporation, New Jersey - 11/17/2006
11. State of Oklahoma - 11/13/2008
12. Delft University of Technology, Netherlands - 11/21/2008
13. Scenter BV, Netherlands - 11/21/2008
14. State of Idaho - 03/09/2009
15. Polk County Purchasing Division, Florida - 09/10/2009
16. U.S. General Services Administration Region 6 - 04/02/2010
17. University of Botswana (IT) - 10/01/2010
18. University of Botswana (Engineering) - 10/29/2010
19. University of Alberta, Canada - 11/05/2010
20. Bruntsfield Engineering, Malaysia - 12/02/2010
21. State of Alaska - 01/19/2011
22. Hennepin County Property Services, Minnesota - 01/26/2011
23. Boise State University, Idaho - 03/07/2011
24. Nederlandse Vereniging voor Inkoopmanagement (NEVI), Netherlands - 01/04/2012
25. City of Roseville, Minnesota - 05/15/2012
26. U.S. Consumer Financial Protection Bureau - 01/11/2013
27. University of Manitoba, Canada - 04/01/2013
28. Simon Fraser University, Canada - 06/27/2013
29. Dalhousie University, Canada - 07/06/2013
30. Sri Jayachamarajendra College of Engineering, India - 09/16/2013
31. Alberta Infrastructure, Canada - 09/30/2013
32. RISNET, Netherlands - 10/01/2013
33. Queen's University, Canada - 11/06/2013
34. University of Ottawa, Canada - 11/06/2013
35. University of Waterloo, Canada - 11/06/2013
36. University of Western Ontario, Canada - 11/06/2013
37. Wilfrid Laurier University, Canada - 11/06/2013
38. Arizona Department of Environmental Quality - 01/30/2014
39. Alaska Aerospace Corporation - 11/24/2014
40. Mars Inkoopadvies, Netherlands - 01/26/2015
41. Western Illinois University - 01/29/2015
42. Saint Louis School, Hawaii - 03/27/2015
43. University of Toronto, Canada - 04/01/2015
44. Best Value Europe, Belgium - 05/12/2015

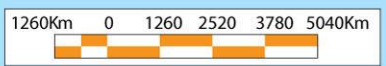
**AzTE**



# Best Value World Activities



- |                           |                   |                       |  |
|---------------------------|-------------------|-----------------------|--|
| 1. Netherlands            | 10. Austria       | 20. Ghana             | 30. Liechtenstein                              |
| 2. Belgium                | 11. Hungary       | 21. Togo              | 31. Montenegro                                 |
| 3. Luxembourg             | 12. Serbia        | 22. Benin             | 32. Kosovo                                     |
| 4. Switzerland            | 13. Moldova       | 23. Cameroon          | 33. Palestinian Territories and the Grenadines |
| 5. Slovenia               | 14. Macedonia     | 24. Equatorial Guinea |  |
| 6. Croatia                | 15. Albania       | 25. Rwanda            |  |
| 7. Bosnia and Herzegovina | 16. Cyprus        | 26. Cambodia          |  |
| 8. Czech Republic         | 17. Lebanon       | 27. Panama            |  |
| 9. Slovakia               | 18. Guinea-Bissau | 28. Malawi            |  |



# Tests in U.S. Over 24 years

- State of Hawaii
- State of Utah
- State of Georgia
- United Airlines
- Schering Plough
- Entergy
- Federal Aviation Administration
- Harvard University [2005 Corenet Global Innovation of the Year]
- U.S. Army Medical Command
- State of Oklahoma
- University of Minnesota and other states
- State of Arizona Department of Environmental Quality
- Kamehameha Schools



# Traditional Model vs. Best Value

	Overall Comparison	
Criteria	<i>Traditional</i>	<i>PIRMS Factors</i>
# of Outsourced Services	31	
Cost of Services	\$274,480,342	\$189,001,943
Added Value	-	\$72,762,248.60
Average Customer Satisfaction (CS)	3.43	8.02

- 5 Different Users, 31 projects, 30 different services
- Cost of services decreased on average by 31%.
- Suppliers were able to offer the buyer 38.5% more value, totaling up to \$72.76M.
- Average customer satisfaction of services provided increased by 4.59 points on a 1-10 scale (134% greater than the traditional customer satisfaction rating).





# 1<sup>st</sup> Government Test in Netherlands \$1B Infrastructure Delivery

- Infrastructure repair critically needed [drivers spend 1-2 hours on road going and coming].
- Procurement and execution takes too long [12 years].
- Over-management of vendors
- 16 project, 6 awards, \$1B test of best value PIPS.
- Goal is to finish 10 projects in 3 years.



# Results

- Program results: 15 projects finished (expectation was 10)
- Delivery time of projects accelerated by 25%
- Transaction costs and time reduced by 50-60% for both vendors and client
- 95% of deviations were caused by Rijkswaterstaat or external [not vendor caused]
- Organizational change was the biggest challenge
- NEVI , Dutch Professional Procurement Group [third largest in the world] adopts Best Value PIPS approach
- Now being used on complex projects and organizational issues



# NEVI [3rd largest professional procurement group after ISM and NIGP]: BV is Mainstream Approach



<PREV | Home> Best Value Procurement>



## BEST VALUE PROCUREMENT

Put parties in their power to create maximum value for the common goal

"Best Value moves the procurement function in paradigm, the function and the approach. It is of this movement in the Netherlands." - Dean K



- N**
- Intro
- Trainings (license)
- BVP Certification
- Extras
- Certified Trainers

Best Value is more than a procurement method; it is a philosophy that all parties must fully come to be in their power to create the most value for the

Of "monitoring and controlling of providers" to "let go and trust". That is easier said than done. A paradigm shift is necessary and will only succeed if

NE  
Be

**Program Dir. of Training:  
Jeroen van de Rijt**





Food Services



Complex IT project



Cataract surgery



Fasttrack €800M



Supplies of routine products



Airport, €100M



Parking Garage €55M



Construction works



Super complex Bio repository



Maintenance 8 year contract





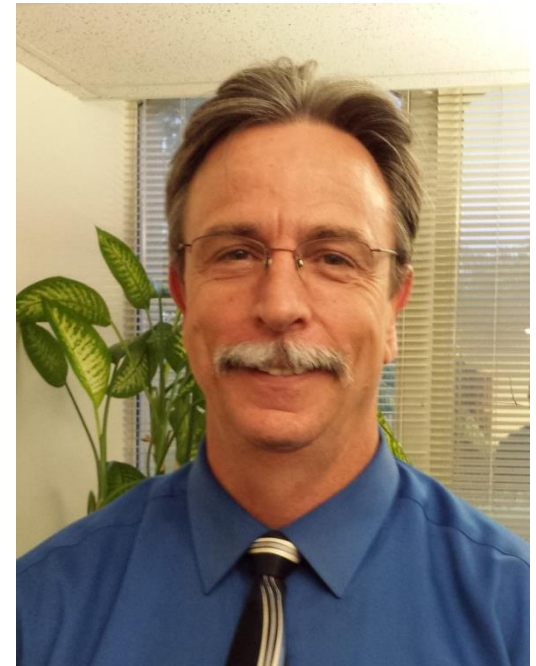
# Best Value Approach in Oklahoma

Steve Hagar

Central Purchasing Director

Licensed by ASU

Certified BV Expert



# Longest Sustaining U.S. Effort

<b>State of Oklahoma Central Purchasing Best Value Project Results</b>	
# of Awarded Projects	19
# of projects given to lowest bidder	12
# of cancelled projects (not awarded)	6
Estimated \$ of BV Projects Procured	<b>\$ 137.7/\$208.7M</b>
Average \$ per project	\$ 6.2M
Estimated \$ Cost Avoidance	\$ 71.8M
Average \$ cost avoidance per project	\$ 3.26M
Customer Satisfaction	9.0
# of customer satisfaction surveys	9



# Different Services Procured

- Commercial Off the Shelf (COTS) Tax Software (\$12M savings)
- Enhancement of Workforce Job Website
- Electronic Document Management for Construction Documents.
- Computer to Plate Printer (better system than specified)
- State wide light bulb and lighting fixture contract (\$100K rebate)
- Emergency hazardous Waste Removal contract (no protest)
- Construction Commissioning Services
- State Mental Health Services (\$3M/year less)
- Performance Measurement of Federal Grants
- New Construction and Renovation
- Juvenile Center and Services (overcame protest) (cancelled)



# Advancements

- Norway and Poland running first tests
- India is importing technology
- Saudi Arabia is moving ahead with implementation
- State of Utah returning to BVA after 16 years of first implementation
- Education programs flourishing in Phoenix metropolitan area



# BVA Requirements

- Make it simple by observation
- Do not make stakeholders think, make decisions or stress
- Minimize everyone's work load
- Minimize importance of documentation and meetings



# Leadership Society of AZ using BV Approach to Educate HS Students

- Summer Programs
- After-School Seminars
- Success Coaching
- Life Coaching
- Community Workshops
- Teacher Training
- Motivational Speaking
- On-Line Programs





# Reported Student Impact



**94%**  
Feel More  
Accountable

**58%**  
Are Less  
Stressed

**43%**  
Are More  
Confident

**36%**  
Feel  
Happier



# Motivating Student Heroes



- 1 week after course
- Friend contacted her while standing on a ledge ready to jump
- Saved his life using IMT concepts
- Parents were amazed!!!

“[The program] was so enjoyable. I wish all school was like this”





# Strengthening Families

- Senior High School Quarterback
- Struggling in school
- Left home, sleeping on couches for a month
- Returned home after 2 class periods
- Repaired relationship with his mother
- Mother attended LSA parent conference



# Father discovers his son after IMT experience

- Father reports that student has behavioral issues in school
- Parents were going to send student to military school
- Father [engineer] wants him to be an engineer
- After attending LSA program, father is amazed, and decided to not send him to military school, but to support student in his efforts.



# Parent-Teacher Feedback

## Parent Feedback

- 9.8 / 10 overall rating
- 91% saw a significant change after the summer program
- 99% would recommend LSA programs

“[My son] had a phenomenal learning experience. We could see a real change in his attitude, confidence and how he conducts himself.”

– *Parent*

## Teacher Feedback

- 10 / 10 overall rating by School Administrators

“I have been thoroughly impressed by the Logic and Leadership program hosted at our school. I would recommend it to every high school who wants their students to accomplish more in their studies and wants what is best for their students.”

– *Principal Juan Nunez, North HS*



# Parents are amazed at impact of IMT

**This program has been life changing for [my daughter] and I'm so glad we found LSA! – Parent**

**This is the best summer program that I've ever been a part of. –Student**

**An unbelievable growing experience for my teenage son. His view point has completely changed and he has a new confidence in himself. –Parent**

**The best money we have spent on any activity for him yet! –Parent**

**This class changed my entire perspective on success and leading others. Overall the best and most beneficial program/class I have ever attended! –Student**

**Most summer camps are just a way for kids to build there resume but this was a truly life altering experience. Facts and Logic created the perfect platform for me to not only learn the concepts but to buy into them. Instructors are genuine people who care about students lives. The greatest leadership program available for young adults and my favorite experience in the summer time by far. –Student**

**A sample of 49 online reviews (4.9 out of 5.0 rating)**



# Online Programs

- Student programs
- Teacher development
- Employee development
- Over 60 hours of material
- Coming Spring 2017
- Open to partnerships to host young students

COLLEGECH**ICE**  
Today

KSMUniversity

**LeadAZ.org**

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# Impact of New Paradigm

- Minimize thinking and decision making
- Minimize stress
- Reduce activities
- Identify and utilize expertise
- Use metrics



# Lessons Learned

- Simplicity is the key. If you give someone the opportunity they will make a decision.
- The less the buyer talks the better!
- The buyer doesn't need to be an expert in the service they are purchasing.
- The more the buyer utilizes the vendor's expertise the more efficient a service is delivered
- We must retrain vendors to speak the clients language.





- The concept was here the entire time
- No one knew how to transfer the logic and common sense into something so “complex”







Linkedin

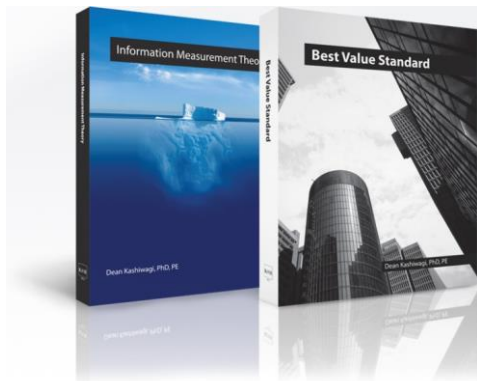
[jacob.k@leadaz.org](mailto:jacob.k@leadaz.org)

YouTube

KSM-inc.com [Kashiwagi Best Value]

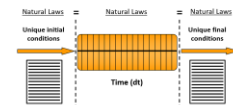


## Jan 15-19, 2018 (Tempe, AZ) 2018 Best Value Certification, Education and Training



SECRETS TO SUCCESS

HOW TO KNOW  
EVERYTHING  
WITHOUT KNOWING  
ANYTHING



DEAN T. KASHIWAGI



FORUM 2017: Creating Connections Together

