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PM Model of the Future Source Selection, Risk Management, Contract Administration

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Acquisition Research Program:
Creating Synergy for Informed Change

PM Model of the Future Source Selection, Risk Management, Contract Administration

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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 Heartland Region implementation in 2009
- 98% Customer satisfaction, 90% of PM/RM transactions minimized
- Increased vendor profits and decreased cost



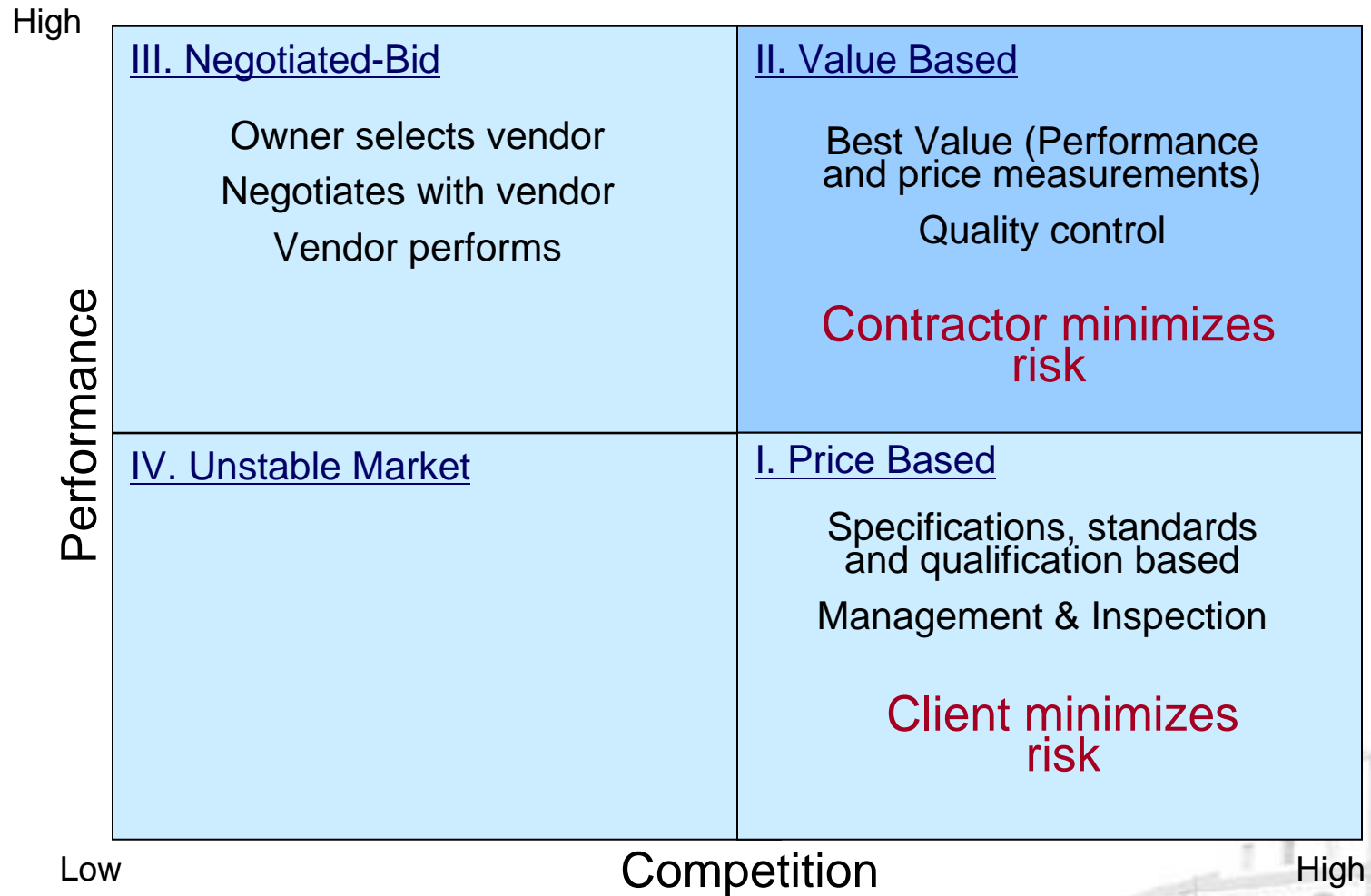
FULBRIGHT



Acquisition Research Program: Creating Synergy for Informed Change

Naval Postgraduate School
Monterey, CA

Industry Structure



Industry performance and capability

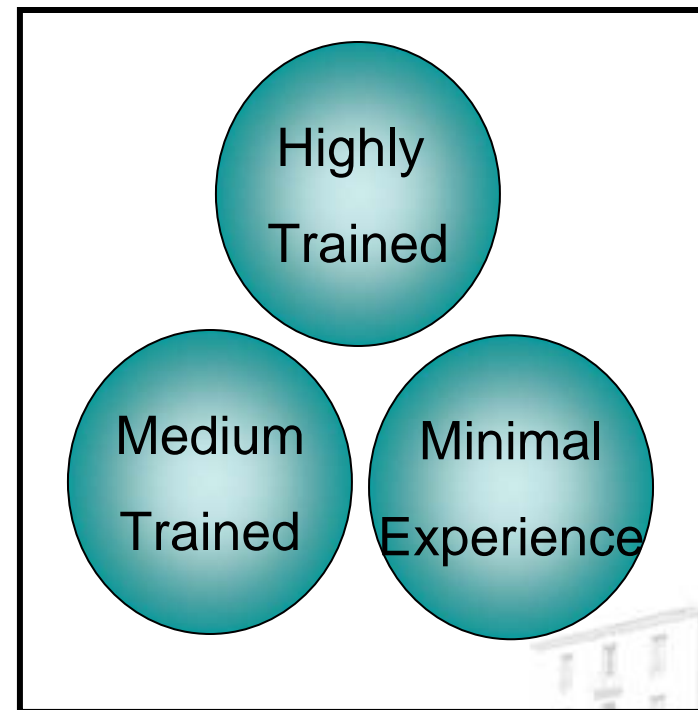
Customers

Outsourcing
Owner

Partnering
Owner

Price
Based

Vendor X



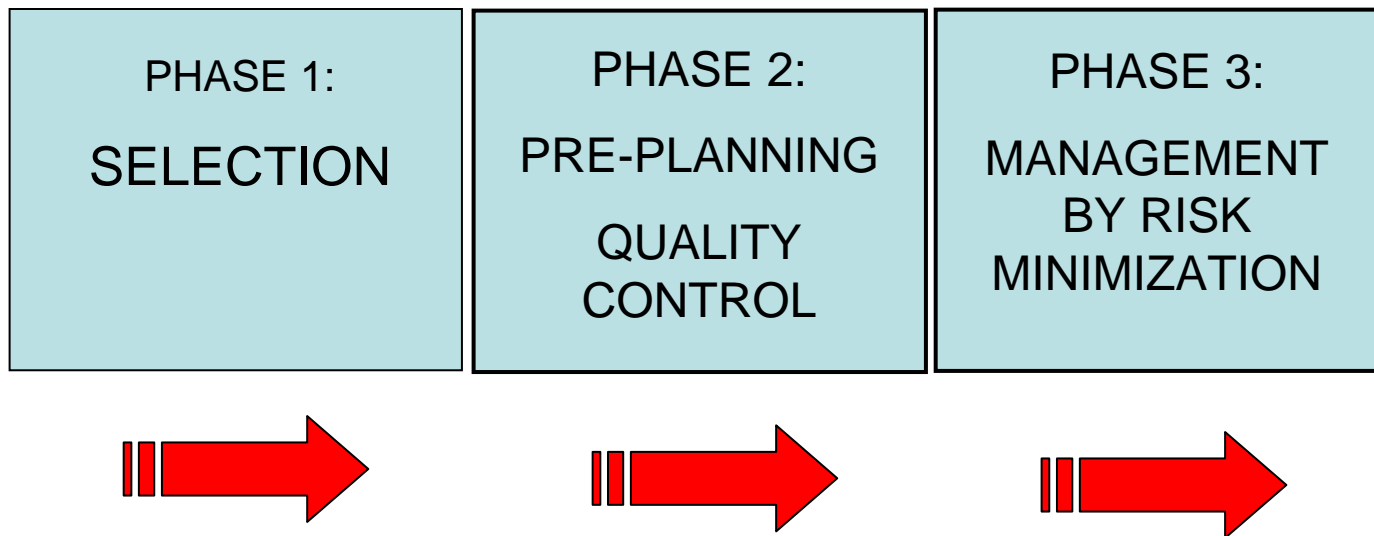
Major Points

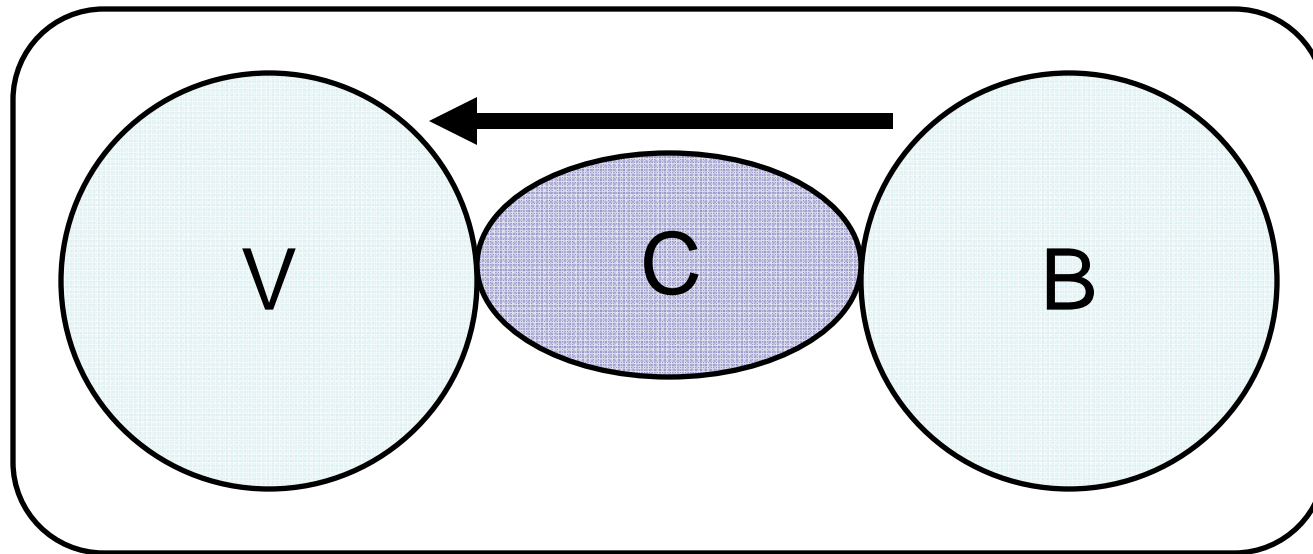
- Inefficient to manage and direct the expert
- An expert should be able to make things simple and easy to understand
- Most risk on projects/services comes from the misperception of the client
- Vendors are working off of a demand and supply model



Best Value System Performance Information Procurement System (PIPS)

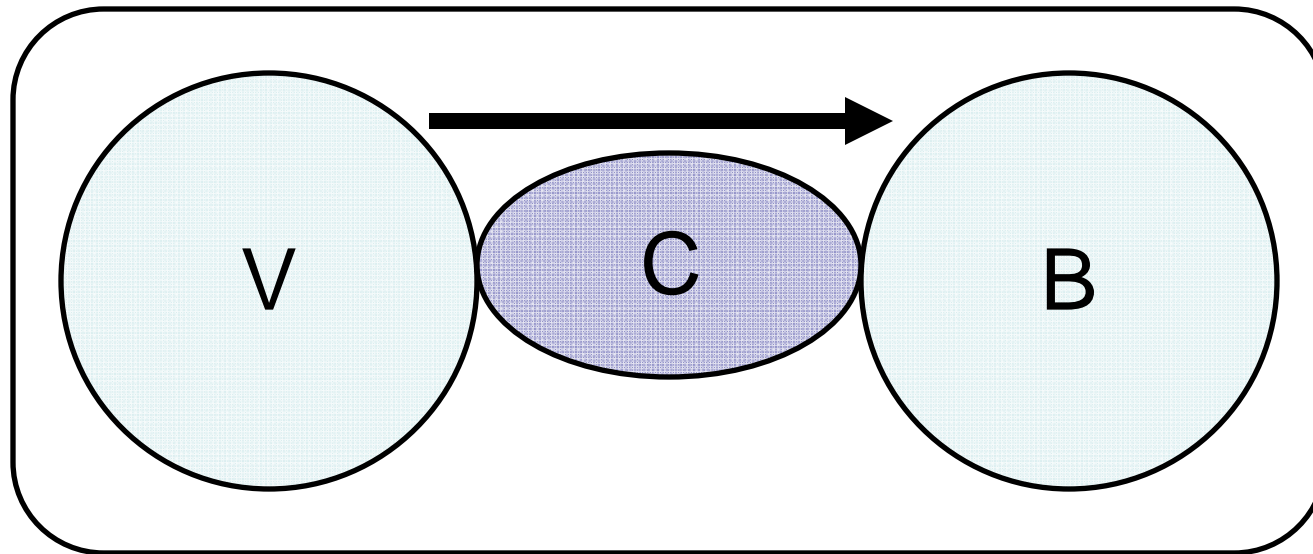
PM model, Risk Management model





Buyer Controls Vendor Through Contract





Vendor Manages/Minimizes Risk With Contract

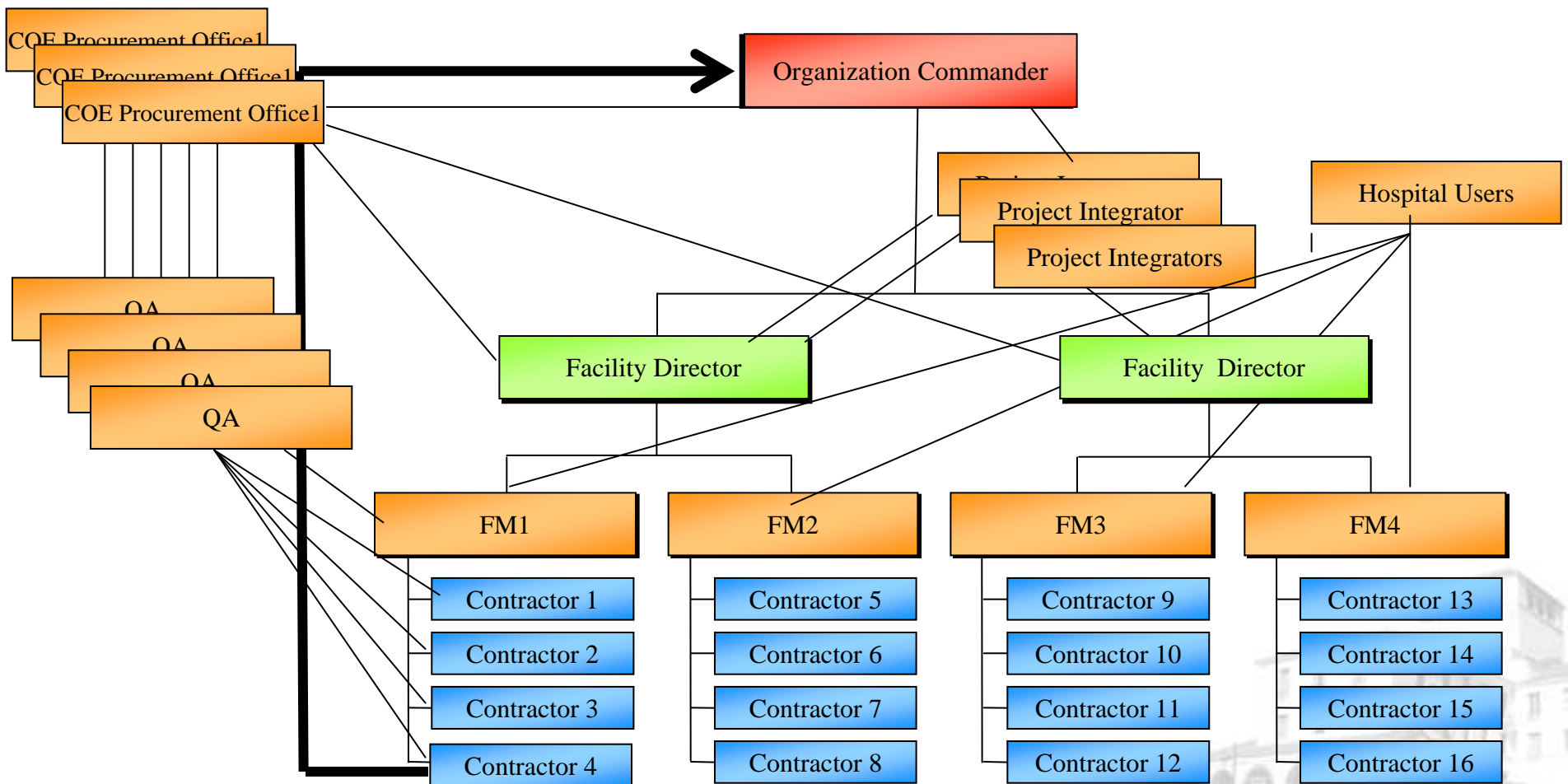


Principles of Logic and Common Sense

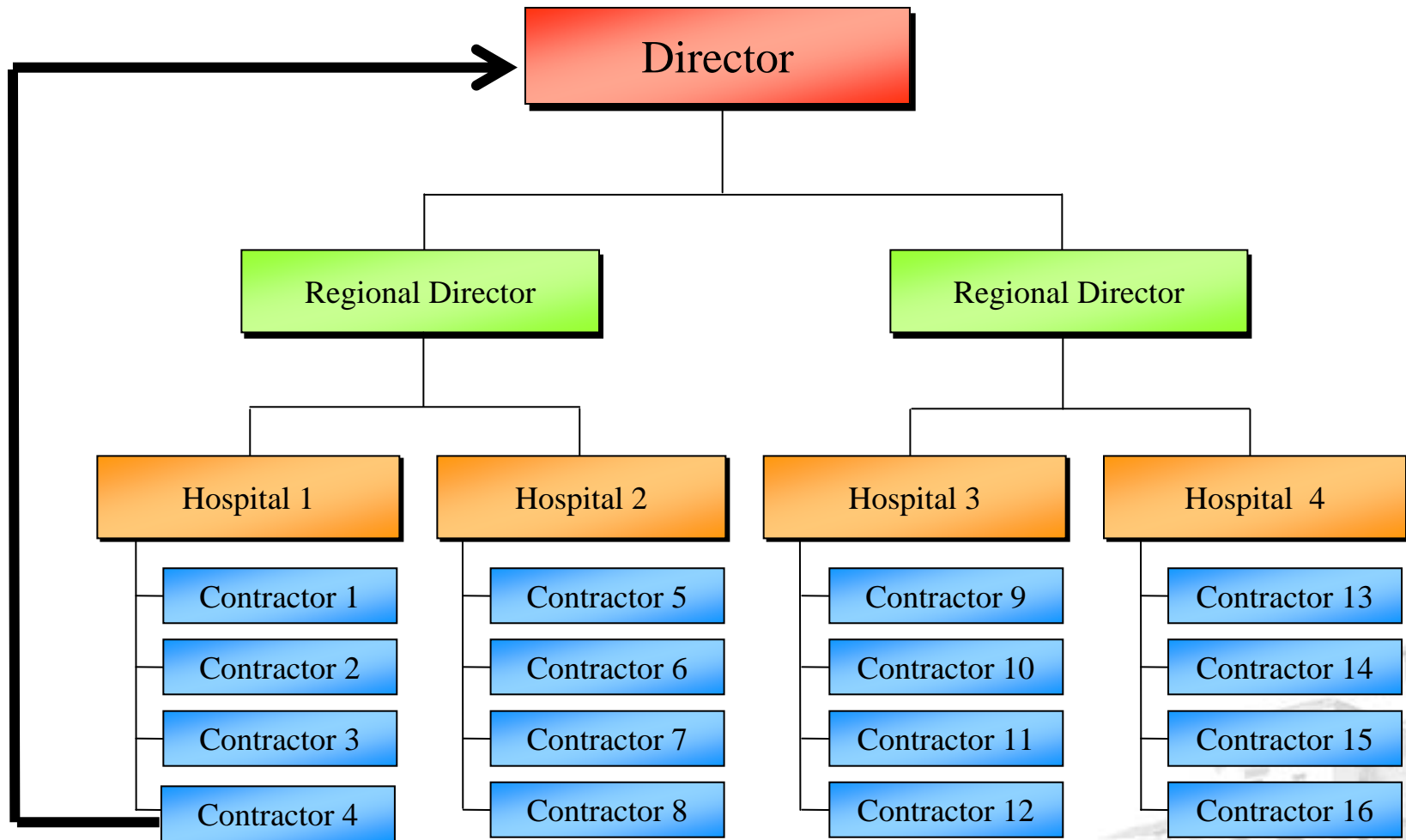
- Efficiency (less work and better results)
- Performance measurement (system generated measurements)
- Transfer of risk and accountability (to vendors who preplan and have expertise)
- Minimize transactions (up to 90% of our effort, allowing us to measure and analyze)



US Army MEDCOM Bureaucracy



Simplification



MEDCOM ON-GOING OVERVIEW

DIVISION OVERVIEW	1/15/2010
Original projects budget	\$711,572,485.02
Current estimated cost	\$740,069,776.77
Estimated cost over budget	\$28,497,291.75
% estimated cost over budget	4.00%
PROJECT OVERVIEW	
Total number of projects	265
% projects on time	57%
# of jobs delayed	114
% projects on budget	66%
# of jobs over awarded budget	90
AVERAGE PROJECT	
% over Awarded Budget	4.00%
% over budget due to owner	2.86%
% over budget due to contractor	0.00%
% over budget due to unforeseen	1.14%
% Delayed	18.27%
% Delayed due to owner	12.83%
% Delayed due to contractor	1.22%
% Delayed due to unforeseen	4.22%



TOP TEN LIST

TOP 10 RISK RANKING PROJECTS 1/15/2010						
No.	Project	Location	Risk #	Contractor	# Weeks on Top 10	NTP of Project
1	Addition to Third Floor Woman's Health Care Suite	Ft. Lewis, WA (MAMC)	42.63	CON A	56	10/18/2007
2	Bathroom Conversions, Bldg 9200	Ft Benning, GA	35.10	CON A	14	9/19/2008
3	WP/Rpl Surgical Supply Cartlifts	Ft. Stewart, GA (WACH)	14.23	CON A	8	9/30/2008
4	Renew Health Clinic, Building 990	Yuma Proving Grounds, AZ	13.53	CON A	9	9/11/2007
5	Misc. Medical Repair Projects '08	Ft. Bragg, NC (WAMC)	13.10	CON I	2	9/29/2008
6	Rep,Reconf for TBI Program	Schofield Barracks, HI	12.73	CON A	40	10/7/2008
7	Convert Constant Volume to VAV	Forest Glenn, MD (WRAIR)	11.46	CON D	6	10/29/2006
8	Replace Elevators	Ft. Belvoir, VA (DACH)	10.46	CON E	8	5/2/2008
9	Repair Budge Dental Clinic	Ft. Sam Houston, TX (BAMC)	10.34	CON D	2	9/30/2007
10	Expand Patient Administration Division	Ft. Lewis, WA (MAMC)	9.12	CON A	5	10/15/2009



Modifications and Risks

AWARDS & MODIFICATIONS						
No.	Award / Modification	Date	Type	Days	\$\$	Description
1	Award 1	1/2/2007			\$9,500,000.00	Award
2	Modification 1	01/05/07		0	\$ 250,000.00	Risk 1
3	Modification 2	3/8/2007		20	\$ 100,000.00	Risk 2
4	Modification 3	5/10/2007		0	\$ 150,000.00	Risk 3
					Total Contract:	\$ 10,000,000.00
					% Billed:	50%
					% Completed	60%

No	Date Entered	Risk Items	Plan to Minimize Risk	Planned Resolution Date	Actual Date Resolved	Impact Days to Critical Path (Calendar)	Impact to Cost
0	3/17/2006	EXAMPLE: Risk A	Risk A Plan: 1) Problem background - why is this an unexpected project risk? 2) What will be done to minimize this? 3) Who is responsible for the plan? 4) What kind of impact will this have?	3/17/2006		0	\$ 10,000
1	12/25/2007	Delay in Workplan	Risk Plan B	1/3/2007	1/3/2007	0	\$ 250,000
2	3/1/2007	Contaminated Material	Risk Plan C	3/6/2007	3/7/2007	20	\$ 100,000
3	4/30/2007	Scope Change	Risk Plan D	5/5/2007	5/6/2007	0	\$ 150,000



On-Going Projects: Regional Performance Lines

REGION OVERVIEW	CHPPM	PRMC	AMEDD	SRMC	WRMC	MRMC	NRMC	AFIP	Average
Total Number of Projects	3	28	7	49	38	26	27	1	22
Total Awarded Budget	\$27,782,738	\$ 44,409,340	\$ 18,452,757	\$148,750,286	\$133,683,925	\$ 60,138,879	\$118,356,664	\$9,754,941	\$70,166,191
Current Cost	\$27,910,447	\$ 47,054,360	\$ 20,198,239	\$155,289,910	\$139,654,057	\$ 63,259,537	\$121,621,485	\$9,823,830	\$73,101,483
PROJECT INFORMATION	CHPPM	PRMC	AMEDD	SRMC	WRMC	MRMC	NRMC	AFIP	Average
% Projects On Time	100%	64%	57%	53%	34%	31%	22%	0%	45%
% Projects On Budget	67%	61%	86%	47%	53%	46%	33%	0%	49%
% Delayed	0.00%	22.50%	13.70%	15.80%	21.50%	37.90%	32.80%	0.06%	18%
% Over Budget	0.46%	5.96%	9.46%	4.40%	4.47%	5.19%	2.76%	0.71%	4%
Average Risk Number	1.01	2.14	1.52	1.92	4.33	2.77	3.05	1.07	2.2
GENERAL INFORMATION	CHPPM	PRMC	AMEDD	SRMC	WRMC	MRMC	NRMC	AFIP	Average
# of QA's	1	14	5	17	14	8	14	1	9
# of Projects per QA	3.0	2.0	1.4	2.9	2.7	3.3	1.9	1.0	2
# of Facilities	1	2	4	9	8	9	10	1	6
Accurate Weekly Risk Reports	66%	60%	50%	60%	45%	37%	50%	0%	46%
Risk Management Plans	100%	68%	66%	77%	60%	55%	59%	100%	73%
Average Risk Resolving Time (days)	0.77	12.2	25.3	19.4	23.3	19	22	1.5	15
Projects with risk # more than 7	0	1	0	3	9	2	2	0	2



CONTRACTOR PERFORMANCE LINES

CONTRACTOR OVERVIEW	CON A	CON B	CON C	CON D	CON E	CON H
Total Awarded Budget	\$ 311,698,895	\$ 68,513,436	\$ 52,432,079	\$ 208,010,504	\$ 80,506,795	\$ 1,200,377
Current Cost	\$ 322,159,798	\$ 71,286,239	\$ 54,026,603	\$ 215,332,223	\$ 86,837,793	\$ 1,315,698
Over Budget	\$ 10,460,903	\$ 2,772,803	\$ 1,594,523	\$ 7,321,719	\$ 6,330,998	\$ 115,321
PROJECT OVERVIEW						
Total Number of Projects	146	15	7	58	35	2
% Projects On Time	66%	40%	29%	55%	29%	50%
# of Jobs Delayed	49	9	5	26	25	1
% Projects On Budget	75%	60%	14%	59%	51%	50%
# of Jobs Over Awarded Budget	37	6	6	24	17	1
AVERAGE PROJECT						
# of Risks per Job	1.01	3.60	3.71	1.31	2.23	1.00
Number of overdue risks	1	0	2	1	1	0
% Over Awarded Budget	3.36%	4.05%	3.04%	3.52%	7.86%	9.61%
% over budget due to Contractor	0.04%	0.53%	0.01%	0.00%	-0.42%	0.00%
% over budget due to Unforeseen	0.87%	0.54%	1.98%	0.19%	1.18%	0.00%
# of Days Delayed	60	135	351	72	145	105
# days delayed due to Contractor	4	41	4	0	16	31
# days delayed due to Unforeseen	10	55	61	4	58	0
Risk Number	2.83	2.37	2.76	2.35	2.16	1.74
% Projects missing	1%	6%	0%	0%	0%	0%
% Projects with no RMP	32%	43%	0%	0%	0%	50%



FACILITY PERFORMANCE LINES

FACILITIES OVERVIEW	1/15/2010	FACILITY A	FACILITY B	FACILITY C	FACILITY D
Total Awarded Budget		\$ 36,551,271	\$ 6,980,380	\$ 4,312,272	\$ 9,824,793
Current Cost		\$ 36,678,980	\$ 6,980,380	\$ 4,312,272	\$ 10,543,804
Over Budget		\$ 127,709	\$ -	\$ -	\$ 719,011
PROJECT OVERVIEW					
Total Number of Projects		4	3	3	4
% Projects On Time		100%	100%	100%	25%
# of Jobs Delayed		0	0	0	3
% Projects On Budget		75%	100%	100%	25%
# of Jobs Over Awarded Budget		1	0	0	3
AVERAGE PROJECT					
# of Risks per Job		0.25	0.00	0.00	2.75
Owner Generated Risks		0.25	0.00	0.00	1.25
Number of overdue risks		0	0	0	1
% Over Awarded Budget		0.35%	0.00%	0.00%	7.32%
% over budget due to Owner		0.35%	0.00%	0.00%	5.27%
% over budget due to Contractor		0.00%	0.00%	0.00%	0.00%
% over budget due to Unforeseen		0.00%	0.00%	0.00%	2.05%
# of Days Delayed		0	0	0	110
# of days delayed due to Owner		0	0	0	19
# days delayed due to Contractor		0	0	0	29
# days delayed due to Unforeseen		0	0	0	62
Owner Rating		10.00	10.00	10.00	9.13
Risk Number		1.01	1.00	1.00	2.48



Arizona State University Food Services Contract

No	Summary Criteria	Out of	Vendor		
			Incumbent	B	C
1	RAVA Plan	10	5.91	7.09	6.31
2	Transition Milestone Schedule	10	5.17	6.96	6.33
3	Interview	25	15.77	16.78	13.53
4	Past Performance Information - Survey	10	9.80	9.99	9.82
5	Past Performance Information - #/Clients	Raw #	5.67	3.00	4.42
6	Past Performance Information - Financial	10	7.02	8.67	6.90
7	Financial Rating	10	4.00	8.00	8.00
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
Financial Totals			\$ 52,217,512	\$ 84,762,589	\$ 84,511,811

\$32M more over ten years

No	Summary Criteria	Weight/Out of	Vendor		
			Incumbent	Best Value	C
1	RAVA Plan	28	16.55	19.85	17.67
2	Transition Milestone Schedule	2	1.03	1.39	1.27
3	Interview	25	15.77	16.78	13.53
4	Past Performance Information - Survey	9	8.82	8.99	8.84
5	Past Performance Information - #/Clients	1	1.00	0.53	0.78
6	Past Performance Information - Financial	15	10.53	13.01	10.35
7	Financial Rating	5	2.00	4.00	4.00
8	Financial Return - Commissions	7	3.31	6.58	7.00
9	Capital Investment Plan	6	4.31	6.00	3.61
10	Equipment Replacement Reserve	2	1.77	1.00	2.00
		100	65.09	78.13	69.04



After 1 Year: 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	Myster Shopper Satisfaction	N/A	9.6	--	--



Final ASU IT Networking Contract

ASU Maintenance Annual Cost	Qwest Maintenance Annual Cost	Total Annual Qwest Savings	Total Qwest Annual Value Added and Savings
\$13,981,934	\$12,500,000	1,481,934	2,756,934

- ASU IT Networking previously performed in-house
- ASU IT Network Details
 - 76,000 Students and Faculty
 - 5 yr. Contract
 - 4 Different Campuses

Value Added	Estimated Annual Value
Voicemail Integrated w/email	\$75,000
Experts in other areas of Qwest to draw upon	\$75,000
Reduction of ~2000 sqft ASU office space & utilities	\$44,000
Skysong state-of-the-art Network Operations Center	\$100,000
New Contact Center Solution	\$400,000
University Benchmarking	\$50,000
Measurement & Reporting	\$50,000
Engineering & Design	\$150,000
Speech Enabled Voice Messaging	\$25,000
Conferencing & Collaboration Capabilities	\$9,000
IP Fax Capabilities	\$12,000
Unified Communications Management Toolset	\$85,000
Green initiatives (Kw savings)	\$200,000
Total Additional Estimated Annual Value to ASU:	\$1,275,000



Dominant Information

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



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

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



GSA Region 6: Five Year Plan

- Year 1:
 - Set-up core team structure
 - **Design-Build IDIQ Contract**
 - Education when needed
 - 2 Test projects
- **Year 1 Revised:**
 - 7 Test projects
 - 16 projects with **Weekly Risk Reports**
- **Start Small... Grow Slow**



Why is GSA Heartland Region Effort so Significant?

- GSA is known as the biggest buyer of non-military services in the U.S.
- First time the application is being run with procurement and project management champions
- Best combination of PM/Procurement action officers in 16 years of testing
- Organization who has already been developing measurements of performance and who is attempting to utilize the measurements
- Visionary leadership with visionary action officers
- Biggest potential impact on industry practices of any of testing organizations



GSA Weekly Risk Report Data

No	Criteria	Unit	PIPS	Traditional
1	Total Number of Projects	#	4	8
2	Total Awarded Cost	\$	\$ 1,970,792	\$ 9,396,738
3	Average Awarded Cost	\$	\$ 492,698	\$ 1,879,348
4	Average Procurement Time	Days	65	98



Contractor Reaction to PIPS

- Two contractors are educating their people
- Changing their procedures to be proactive and identify value for the client
- Educating others on the benefits of being visionary



Contractor Perceptions on Best Value

No	Criteria	Unit	Old Process - Before Project	New Process - Before Project
1	Effectiveness of the vendor.	(1-10)	5	8
2	Value of preplanning by the vendor.	(1-10)	5	9
3	Value of managing & minimizing the risk that the vendor does not control.	(1-10)	5	8
4	Profit margin maximization.	(1-10)	4	7
5	Accountability of all the participants.	(1-10)	5	8
6	Transfer of risk and accountability to vendor.	(1-10)	7	8
7	Minimization of surprises.	(1-10)	5	9
8	Coordination with client.	(1-10)	6	8
9	Total Number of Pilot Projects Surveyed	#	3	

