



**Capacity Building Programme
Government Procurement Reform
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**PROCUREMENT TRANSFORMATION
GLOBAL TRENDS AND ISSUES**

**David McDermont
International Governance Solutions**

david.mcdermont@intgov.com

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PRESENTATION OBJECTIVES

To identify and explain key issues that impacts the planning, implementation and management of the transition to e-Government Procurement.

The presentation will be based on :

- International Governance Solutions experience in e-Government Procurement assessment, planning and implementation in some 15 countries over the last 6 years.
- Findings and conclusions of the recently conducted International e-Procurement Systems Survey in Asia Oceania and elsewhere.

IGS INTERNATIONAL EXPERIENCE

- 10 years as senior strategic government procurement executives in Australia prior to 2002
- E-procurement system development and implementation in Australia, UK and Argentina
- E-GP assessments in 10 countries including China, Sri Lanka, Fiji, Armenia, Azerbaijan, Bangladesh
- E-GP Implementation Strategy development in 10 countries including Thailand, Bangladesh, Indonesia, Armenia, Kuwait
- ITC infrastructure harmonisation in India, Nepal, Bhutan and Bangladesh
- E-Procurement system surveys in Asia/Oceania, Europe, and South America.

WHAT IS E-GOVERNMENT PROCUREMENT?

Systems



PROCUREMENT PROCESS TRANSFORMATION

PLANNING

Identify Need

Establish Business Case

Plan Purchase

Develop Bidding Docs

FORMATION

Invite/Receive Bids

Evaluate Bids

Negotiate & Perform Due Diligence

Finalise & Award Contract

MANAGEMENT

Transition Procedures

Contract Operation

Review Contract

Extend or Close Contract

INTERNATIONAL SYSTEMS SURVEY

To provide information to e-procurement planners and implementers on:

- **System functionality and technical structure achieved**
- **Supporting technical, business and governance issues that support the systems.**
- **Costs to develop, acquire or modify systems and operate and maintain those systems.**
- **Implementation strategies applied.**
- **Critical success factors and lessons learned.**

COUNTRIES SURVEYED

North & South America	Asia & Oceania	Europe
Mexico Chile Brazil Argentina	Australia (NSW) Republic of Korea Hong Kong Singapore India (Nth Ind Rail) Philippines	Norway France Italy Romania Finland

ASIA PACIFIC SYSTEMS

1: SYSTEMS REVIEWED

•Australia (NSW)	smartbuy	www.smartbuy.nsw.gov.au
•Hong Kong	ETS	www.ets.com.hk
•India (N Rail)	N Rail EPS	www.nreps.com
•South Korea	GePS	www.pps.go.kr
•Philippines	PhilGEPS	www.philgeps.net
•Singapore	GeBIZ	www.gebiz.gov.sg

SURVEY RESPONDENTS

Informed persons from:

- **Government procurement management & regulatory lead agencies**
- **Business and technical staff from the organisation who developed/acquired/modified and/or subsequently maintained the system**
- **Major private sector supplier to government organisations**
- **Large Government agencies who purchase infrastructure, goods and services for government**

SURVEY STRUCTURE

PART A

SYSTEM DESCRIPTION & FUNCTIONALITY
GOVERNANCE & BUSINESS ISSUES

PART B

TECHNICAL & BUSINESS ISSUES
COSTS
IMPLEMENTATION
LESSONS LEARNED

VISION AND STRATEGIC PLANNING

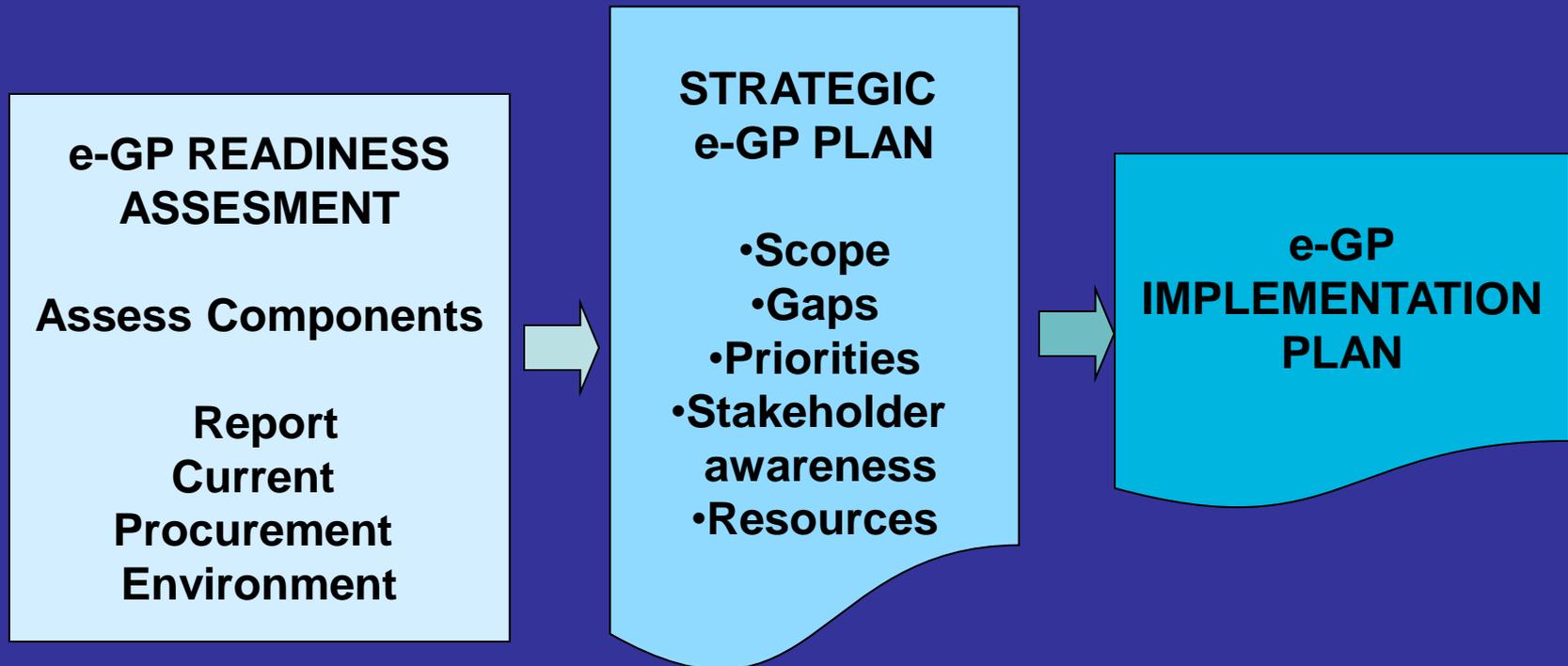
Vision

- **Public and international confidence through integrity, transparency, probity and professionalism;**
- **Efficiency of public sector processes, effectiveness of outcomes and value for government expenditure;**
- **Industry development through efficiency, opportunity and technology.**

Key Components (Drivers)

- ◆ **Government Leadership**
- ◆ **Human Resource Mgt**
- ◆ **Planning and Management**
- ◆ **Policy**
- ◆ **Legislation & Regulation**
- ◆ **Systems**
- ◆ **Standards**
- ◆ **Infrastructure & Web Services**
- ◆ **Private Sector Integration**

WHY ASSESS e-GP READINESS?



Builds Stakeholder involvement

STRATEGIC E-GP PLANNING

**INSTITUTIONAL
CAPACITY**
**GOVERNMENT
LEADERSHIP**
RESOURCING

GOVERNANCE
PLANNING & MGT
POLICY
**LEGISLATION &
REGULATION**

INFRASTRUCTURE

**e-GP
STRATEGIC
PLAN**

**PRIVATE SECTOR
INTEGRATION**

**BUSINESS
FUNCTIONALITY**
SYSTEMS
STANDARDS

PROCUREMENT AND GOVERNANCE

“Three governance themes that are critical to development assistance effectiveness and poverty reduction:

- ❑ public financial management
- ❑ **procurement**
- ❑ **combating corruption through preventive, enforcement, and investigative measures”**

(ADB: Governance and Anticorruption Plan II, July 2006)

Perceived Corruption Index Map 2006

Procurement Process: Impact of Corruption?

Stage	Process	Corrupt Opportunity
PLANNING	Identify Need	No real need
	Establish Business Case	Selective data/options
	Plan Purchase	No plan, weak control
	Develop Bidding Docs	Bias, barriers to entry
FORMATION	Invite/Receive Bids	No integrity/fairness
	Evaluate Bids	Bias, poor criteria
	Negotiate/Due Diligence	Collusion, restricted
	Finalise/Award Contract	Poor mgt. control
MANAGEMENT	Transition Procedures	Restricted compliance
	Contract Mgt & Operation	Collusion, no audit
	Review Contract	Bias, no review
	Extend/Close Contract	No consequences

Procurement Process: Impact of Systems

Stage	Process	e-TS	e-PS	e-CMS
PLANNING	Identify Need			#
	Establish Business Case			#
	Plan Purchase		#	#
	Develop Bidding Docs		#	#
FORMATION	Invite/Receive Bids	#	#	
	Evaluate Bids	#	#	
	Negotiate/Due Diligence		#	#
	Finalise/Award Contract		#	#
MANAGEMENT	Transition Procedures			#
	Contract Operation			#
	Review Contract	#		#
	Extend or Close Contract			#

E-PROCUREMENT SYSTEMS AND REDUCED OPPORTUNITIES FOR CORRUPTION

- ❑ Improved integrity and security of information
- ❑ Reduced opportunity for unauthorised interaction between buyers and suppliers
- ❑ Improved public transparency of the process
- ❑ Improved monitoring of procurement performance, trends, compliance and audit trails using information databases.

SURVEY: LEGISLATIVE SUPPORT FOR SYSTEMS

Half the countries had comprehensive legislation

Legislation for e-transactions, privacy, public liability, information integrity, compliance with procedures and audit was in place but was generally not well enforced

Legislation for consumer protection, behaviour of government officials was generally better enforced

SURVEY: INTEGRITY

INTEGRITY OF PROCESS		Y
1.	Code of Ethics in place and promoted?	6
2.	Code of Ethics is enforced?	5
3.	Legislation to regulate the procurement environment?	6
4.	Legislation is enforced?	5
5.	The system has resulted in processes consistency by agencies?	4
6.	Government procurement is held in high regard by suppliers?	6
7.	Regulatory organisation(s) monitors government procurement ?	6
8.	The regulatory organisation(s) is independent and reports directly to parliament?	2

SURVEY: TRANSPARENCY

Transparency	Y
All information for suppliers to bid is online?	4
All suppliers get exactly the same information at the one time?	6
Suppliers are not impeded from accessing the system based on location and (cost/infrastructure)?	6 (5)
Procurement policies, process/ guidelines publicly available on line?	6
Procurement legislation and regulations publicly available online?	6
The public can access the system to see details on contracts awarded, prices?	6

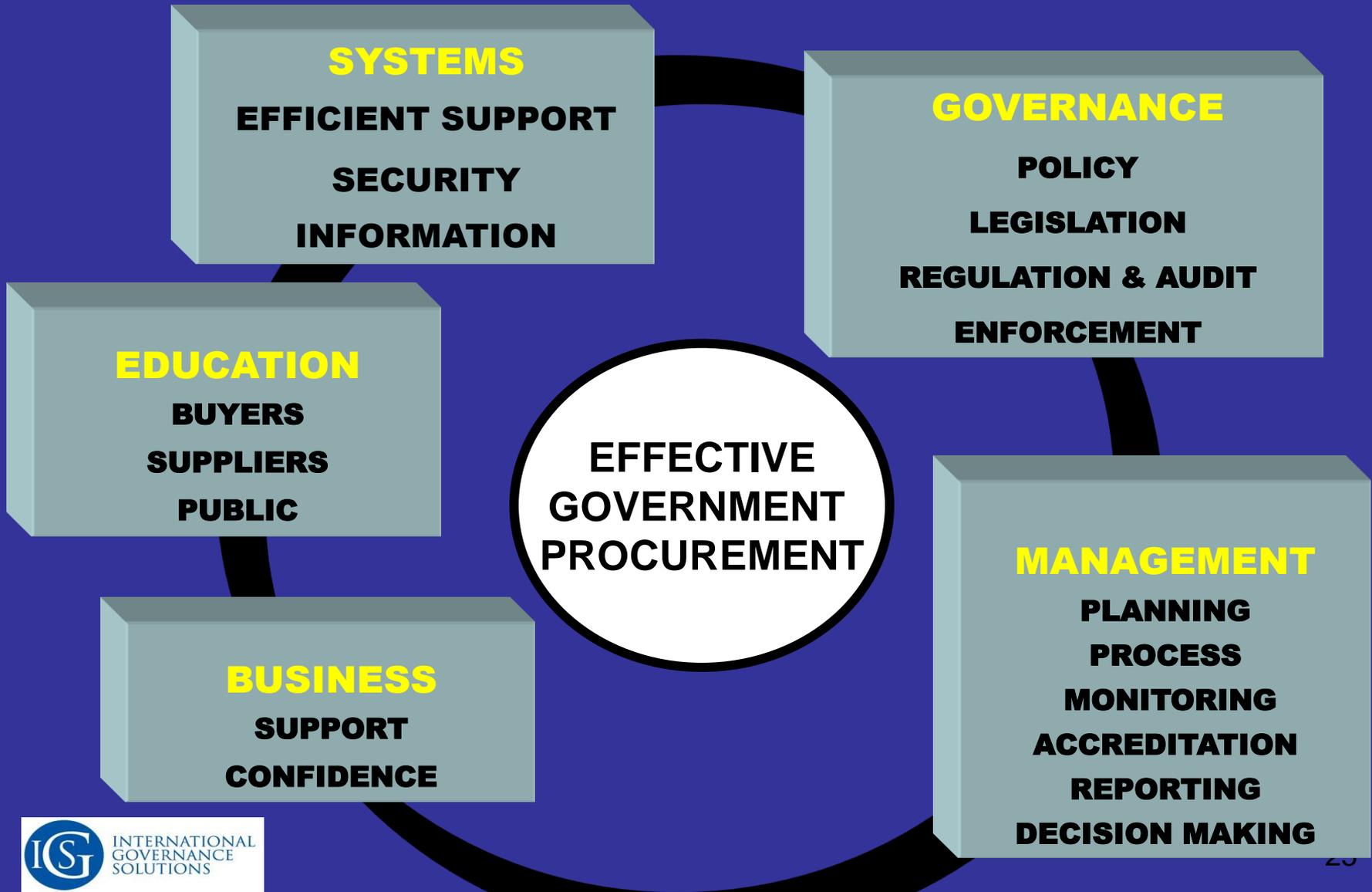
SURVEY: SECURITY TECHNOLOGIES

FUNCTION	TECHNOLOGY (NO. SYSTEMS)
Audit message	Log file, Hash, PKI (2) N/A(1)
Authentication of system	Password, PKI & SSL (2) SSL (2)
Non repudiation	PKI with digital signature (5)
Encryption	PKI & SSL (5), N/A (1)
Authentication of identity	PKI (3), N/A (2)
Passwords	Used (4)
Digital certificates	Applied (5)

SURVEY: SYSTEM AUDIT AND MONITORING

No	Issues	Responses (Countries)
1.	Who audits the capability of the system?	<ul style="list-style-type: none"> ▪ External organisations (2). ▪ Internal audit by Procurement Management Agency (3) ▪ Vendor of system (1)
2.	How often ?	<ul style="list-style-type: none"> ▪ Annually (4) ▪ Infrequently (1) ▪ Not yet (1)
3.	To who are audits reported?	<ul style="list-style-type: none"> ▪ Parliament (1) ▪ Head of Procurement Management Agency (3) ▪ Procurement Mgt Board (1) ▪ Not identified (1)
4.	How is use of the system monitored and reported?	<ul style="list-style-type: none"> ▪ In built system monitoring (5) ▪ Monthly reports (2) ▪ Not yet (1)

OVERVIEW: EFFECTIVE GOVERNMENT PROCUREMENT



SYSTEM PROFILE	COUNTRY (2005 DATA)					
	1	2	3	4	5	6
Systems	eT eRA	eT eP	eT	eT	eT/eP	eT/eP
Number of Suppliers	1,000	7,000	15,689 284 eP	15,000	20,461	140,000 2358 eP
Number of Buyers	25	46	128 eT 3458 eP	3,952	9,493	6,729 eT 21542 eP
Govt. agencies using system	1	1	14 eT 458 eP	3,952	120	10,432 eT 31,062 eP
Number of Transactions in 2005	71,800	14,556	16,800	85,000	170,000	19.7M eT 27.2M eP
Value of procurement managed by system	5B	464M	17B	NA	NA	43.2B
Number of staff involved in System	25	11	14	19	20	NA
Custom Built Web/ Client Server App.	Web	Web & Client	Web	Web	Web	Web
System a modified existing package				Y		Y part
System Developer	Public Private Sector	Private Sector	Public Private Sector	Private Sector	Public Private Sector	Private Sector
System commissioned	2005	2000	2000 eT 2002 eP	2000	2000	2002
Init. time to implement	12mts	12mts	4mths	9mths	12mths	36mths
Time to reach present quality	9mths	24mths	NA	0 mths	0ngoing 57mths	12mths

KEY ISSUES: SYSTEM PROFILES

- Share very similar functionality (e-T 27/40 e-P 33/36)
- Most are custom built web applications,
- Most developed and commissioned in 1999-2002
- Development time e-T (4-12), e-P (9-36) months
- Small to medium systems often lacked functionality in:
 - document download
 - payments online
 - provision of an audit trail
 - online buyer/supplier manuals
 - links to other systems

SYSTEM ARCHITECTURE

No	System Component	Product Applied
1.	Hardware	e-T: Sun, HP Compaq, HPUX, HP NetServe, Intel (2), e-P: Sun, HP Compaq, Intel
2.	Development Platform	e-T: Coldfusion, J2EE (4), Struts, MS Visual Basic, Java Runtime Libraries e-P: Coldfusion MX1 (2), J2EE (2)
3.	Operating System	e-T: Solaris, MS Windows (3), Unix e-P: Solaris, MS Windows(2), HPUX, Red Hat Linux, Unix
4.	Application Server	e-T: JRUN, MS IIS, Pentium, Applied?, Filenet Panagon IDM (Doc. management?), BEA Web Logic e-P: Intershop/J2EE (incl JServe and JSP), Applied
5.	Web Server	e-T: Apache, MS IIS (3) Applied e-P: Apache, MS IIS(2), Applied
6.	Database	e-T: My SQL(2) , Oracle (3), Applied e-P: My SQL, Oracle (2), Applied
7.	File Server	e-T: My SQL, Filenet Panagon IDM (Doc. Management)(2), e-P: MS Window Advanced Server
8.	Other	e-P: Domino Notes Server (Email Notes), Website Search Engine PLS

SURVEY; SYSTEM PERFORMANCE- AVAILABILITY

Overall System Performance		Overall Responses (5 countries)
1.	Performance indicators used?	a) System responsiveness b) System availability c) System reliability d) System resource usage
Availability		
2.	Technology to measure availability of your systems?	a) System logs b) Network management tools such as SYSMON, HP Openview, Big Brother, Tivoli, Sun OMS c) Monthly Reports
3.	Percentage time system available business hours?	Five systems >99.7% (year)
4.	Percentage time system available other times?	Five systems 95-99% (year)
5.	Scheduled maintenance downtime?	Five systems 0.5% - 5.0% (24 hrs)

SURVEY; SYSTEM PERFORMANCE- RELIABILITY

1.	Technology to measure reliability of the system?	a) DB Server Fail Over, SAN, NAS hard disc real-time copy b) HP Openview, OS scripts c) Audit trail and exception logs d) Web defacement monitoring e) Back up Centres/disaster recovery
2.	Outages per month?	Range < 1 per month to < 1 per year
3.	Peak number of transactions per hour without failing?	Ranges across 20, 100, 4-500, up to 3260 per hour depending on size. Most have not experienced their failure point. One system tested to 10 million transactions per hour.

SURVEY: INTERFACING OF SYSTEMS

No	Other Systems that link to e-T and e-P	e-TS (6)	e-PS (3)
1.	Supplier internal e-procurement systems	3	2
2.	Buyer Payments/Accounting	3	3
3.	Buyer Budgeting	2	2
4.	Buyer Financial planning	1	1
5.	Buyer Asset/Inventory Management	1	1
6.	National Procurement Database (PMIS)	1	1
7.	Procurement/Contract Management	2	0
	Organisations linked to e-T and e-P		
8.	All Government Departments	4	1
9.	All Local Governments	1	1
10.	All Regional Government Offices	1	1
11.	State Owned Enterprises	1	1

INTERFACING ISSUES

- ❑ **Balancing e-Market place benefits with internal agency management of functions**

- ❑ **Communication standards required for inter-operability of systems particularly between FMIS and e-procurement systems**

- ❑ **Functioning of national e-procurement markets requires common coding for:**
 - ❑ **Suppliers and Suppliers**
 - ❑ **Accounts**
 - ❑ **Items**
 - ❑ **Data and reporting**

SURVEY: BUSINESS ISSUES - 1

ISSUE	APPROACH
System ownership	Government 5/6
Funding of system	Government 6/6
Host system	Government 3, Private 3
Access system	Mostly PC & Internet Café 6 Mobile phone 2/6, PDA 1/6
Paper based system in parallel	Most 5/6
Mandatory use of system	Growing 2/6
Buyer & supplier satisfaction	75-80%, 2/6

SURVEY: BUSINESS ISSUES - 2

Supplier's pay to use system	2/6, < 100 USD/year
Buyer agencies pay to use system	2/6
Mechanism to hold agencies accountable	3/6 monitoring and annual audit
Foreign bidders can use system	4/6, some problems with digital certificates

SURVEY: COST OF SYSTEMS

System Stage		Small System < 10,000 Suppliers			Medium System 10-50,000 Suppliers			Large System >50,000 Suppliers		
		e-T	e-P	e-T and e-P	e-T	e-P	e-T and e-P	e-T	e-P	e-T and e-P
1.	Development	1.50		0.51	0.5	40.5	8.1			35.0
2.	Implementation	3.40		0.56	4.2	5.7	3.4			4.96
COSTS		4.90		1.07	4.7	46.2	11.5			38.3
3.	Annual Operation	0.80		0.37	4.3	4.5	2.4			5.5

SURVEY OF IMPLEMENTATION STRATEGIES

Surveyed 58 implementation issues related to:

- **Preparation (leadership & support)**
- **Governance**
- **Management and Planning**
- **Legislation & Regulation**
- **Buyer & Supplier Activation**
- **Business Issues & Standards**
- **Infrastructure & Web services**
- **System Implementation**

SURVEY: IMPLEMENTATION STRATEGIES APPLIED

- 4/6 countries addressed at least 29/58 activities identified
- 5/6 used a comprehensive integrated approach
- 4/6 implemented the systems as a pilot
- Most effectively implemented components were:**
 - Leadership and planning
 - System implementation
 - Governance-policy and legislation
 - Infrastructure (not an issue)
- Least effectively implemented components were:**
 - Management –training, use of information
 - Governance-regulation- audit, performance monitoring, enforcement
 - Standards

SURVEY: KEY BENEFITS IN USING SYSTEM

	SERVICE PROVIDERS	SYSTEM USERS
1.	Reduced process time/cost (6)	Better process transparency (4)
2.	Access to better information (4)	Reduced process time (3)
3.	Larger pool of suppliers, increased competition (4)	Reduced errors process/documents (2)
4.	Better process transparency (3)	Improved access to opportunities (2)
5.	Better process consistency (3)	Access to price comparisons (1)
6.	Improved communication with suppliers (2)	Increased participation in market (1)
7.	Better audit trails (1)	Better work integration for buyers(1)

SURVEY: INITIAL PROBLEMS

	PROVIDERS	USERS
1	Low confidence, slow supplier uptake (3)	Low confidence in using system (3)
2	Lack of inter-operability (2)	Slow download of documents (2)
3	Specific technical problems	Time to attach digital certificates
4	Lack of purchasable items	Process varies across agencies

Key problems are management problems

SURVEY: MEASURING OUTCOMES 1

NO	OUTCOME	RESULT	
1	% opportunities adv. online	50-100	2-4
2	% bid docs available online	95-100	1-5
3	% bid docs distributed online	70-100	1-4
4	% awards publicised online	35-100	2-4
5	Number public access/year	0.12 - 110M	6
7	% payments online	100%	1
8	% bids submitted online	30-100%	1-3
9	% purchase orders online	30-100%	1-2

SURVEY: MEASURING OUTCOMES 2

NO	OUTCOME	RESULT	
10	% purchases from e-Catalogue	35-100	1-1
11	% supplier base accessed system	30-99	1-1
12	% suppliers won contracts	50	1
13	% reduction in buyer costs/bid	25	2
14	reduction in supplier costs	25-70	1
15	reduction in time/bid	5hrs	1
16	% increase in suppliers in market	19-100	1-1
17	% increase involve small firms	72-100%	2
19	% price reduction	3-20%	1-1
20	% suppliers satisfied with system	75-80%	1-1

SURVEY: SYSTEM LESSONS LEARNED 1

1. Provide a comprehensive awareness/training campaign for potential suppliers to improve uptake of the systems (confidence, literacy, fears) 5
2. Provide managers/buyers with education and training (fears, literacy, skills) 5
3. Top, committed, focussed, government leadership required 4
4. Assess the environment before planning 4
5. Phase out paper system quickly 4
6. Mandate the use of the systems for all agencies 3

SURVEY: SYSTEM LESSONS LEARNED 2

- | | |
|--|---|
| 7. Re-engineer the process for e-procurement | 2 |
| 8. Develop a procurement database very early | 2 |
| 9. Factor all legal, training, other support costs into initial budget | 1 |
| 10. Put e-procurement on a single national platform | 1 |
| 11. Remove barriers to foreign bidders | 1 |

KEY CONCLUSIONS

PROCUREMENT TRANSFORMATION 1

- ❖ Top committed, long term government leadership is essential
- ❖ E-procurement is about much more than systems
- ❖ Understand the existing environment, encourage stakeholders to participate in change
- ❖ Comprehensive plans work best
- ❖ Awareness, education and training are the key to effective uptake of e-GP
- ❖ Pilot the system first, learn support requirements
- ❖ Procurement information databases are a strong driver of performance and good practice

KEY CONCLUSIONS

PROCUREMENT TRANSFORMATION 2

- ❖ Interoperability and standards are critical to long term benefits
- ❖ Shift resources from process to procurement planning, performance management, and review
- ❖ Engage small business to improve participation and competition in the market
- ❖ Mandate the systems across government
- ❖ Implement E-Tendering systems first
- ❖ E-Contract Management systems have a lot of potential and can be built into e-Tendering systems.

Thank you



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QUESTIONS ?

David McDermont