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ICT Applications for the Public Sector

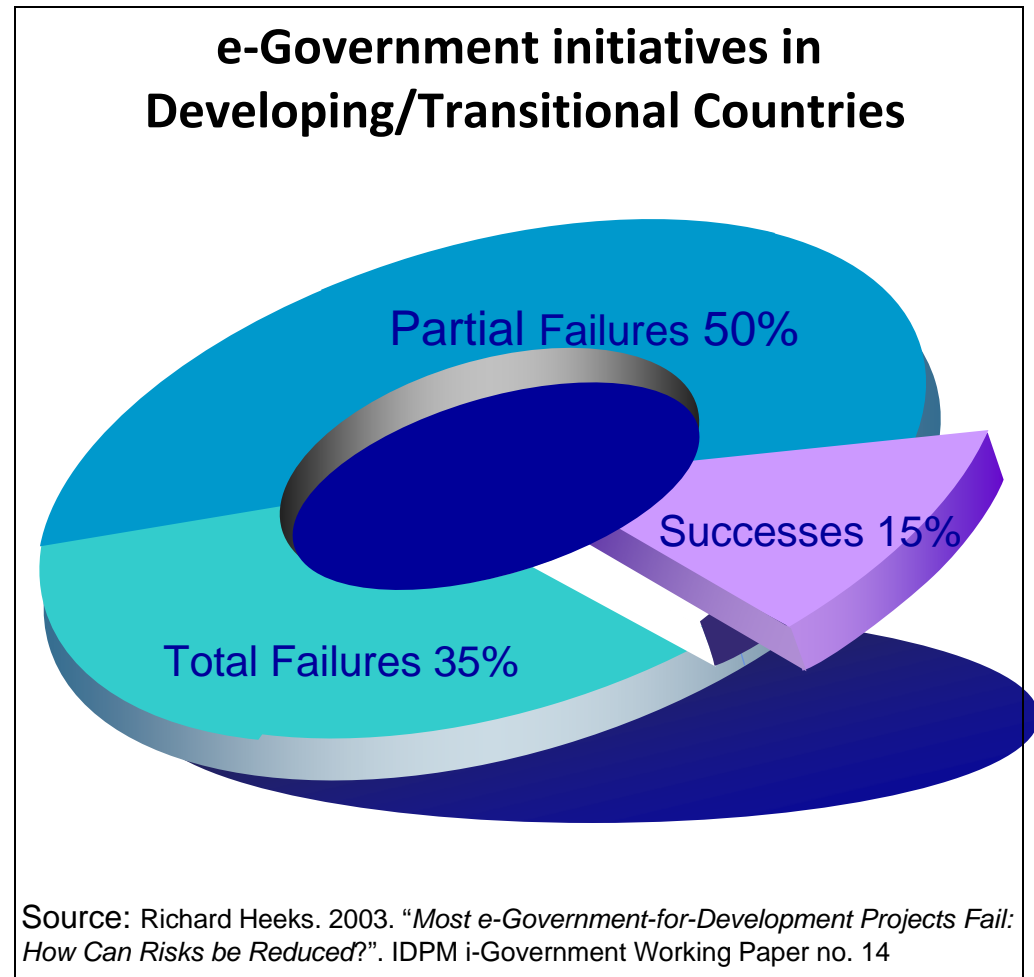
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Sectoral and E-government Applications Practice, CITPO

Lack of due attention to reform gives rise to project failures

- Guardian headline: “£2bn cost of government’s IT blunders” (Saturday January 5, 2008)
- Department of Works and Pensions alone accounted for £1.6bn in terms of failed IT projects
- Risks are high, though a lot learnt since the early days

BOTTOM LINE: ICT PROJECTS ARE RISKY, HAVE UNIQUE NEEDS



Presentation agenda

- Sectoral ICT Applications: Overview of Bank-wide Trends
- ICT applications in the Public Sector
- Current Demand and Emerging Needs
- Key Aspects to consider for implementing ICT solutions
- World Bank Findings on ICT implementations



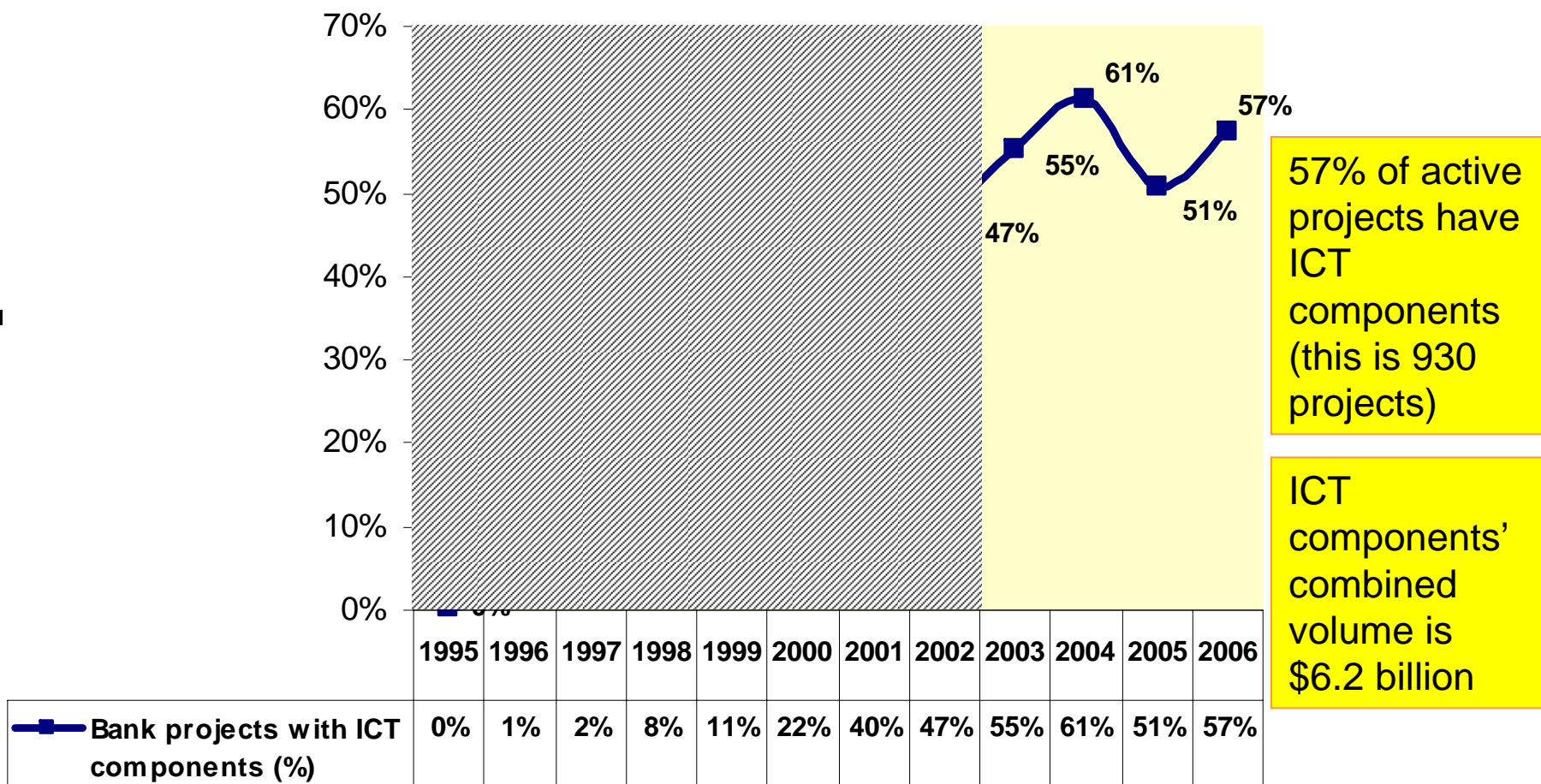
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Sectoral ICT Applications: Overview of Bank-wide Trends

The Number of Projects with ICT is growing

About 150 contain ICT components (out of 250 new WB projects each year).



Source - QAG Study 2007

Sectoral ICT Applications @ the Bank: Key Examples

Sector Applications can help achieve development outcomes in all Bank sectors...

e-Government

- Public Expenditure Management
- e-Procurement
- Digital Government
- Electronic Payment Systems, Payroll Processing
- Administrative Systems
- Records Management

Financial Sector

- Centralized Transaction System (Central Bank)
- Treasury, Budgeting and Fiscal Systems
- Financial Management Information Systems

Public Sector

- Electronic Tax Products & Systems
- Public Debt Database/Monitoring System
- Judicial systems, Court Administration System
- E-voting Administration

Trade

- Single point of entry for the chamber of commerce
- Provide information on laws and regulations & compliance information
- Custom Systems

SMEs

- Access to international information
- Logistic support, e-commerce
- Business connectivity

Human Resource Management

- Human Resources Management Systems
- Employment and wage accounting information

Urban Management Systems

- Land/Property Management Systems
- Urban planning Systems
- Community based information systems & services
- Land titling, Registries, Cadastral Systems
- Transport Information Systems & GPS Applications

Environment & Natural Resource Management

- GIS initiatives
- Environmental Protection & Resource Management
- Environment/Agriculture Integration Systems
- Ecologically-balanced Agricultural Management
- Water Resources Management

Health

- Hospital Administration systems
- Preventive health care, Curative health care
- Internet based public health systems
- Doctors' forum, Diagnostic tools
- Health Information Systems & Technology Center

Education

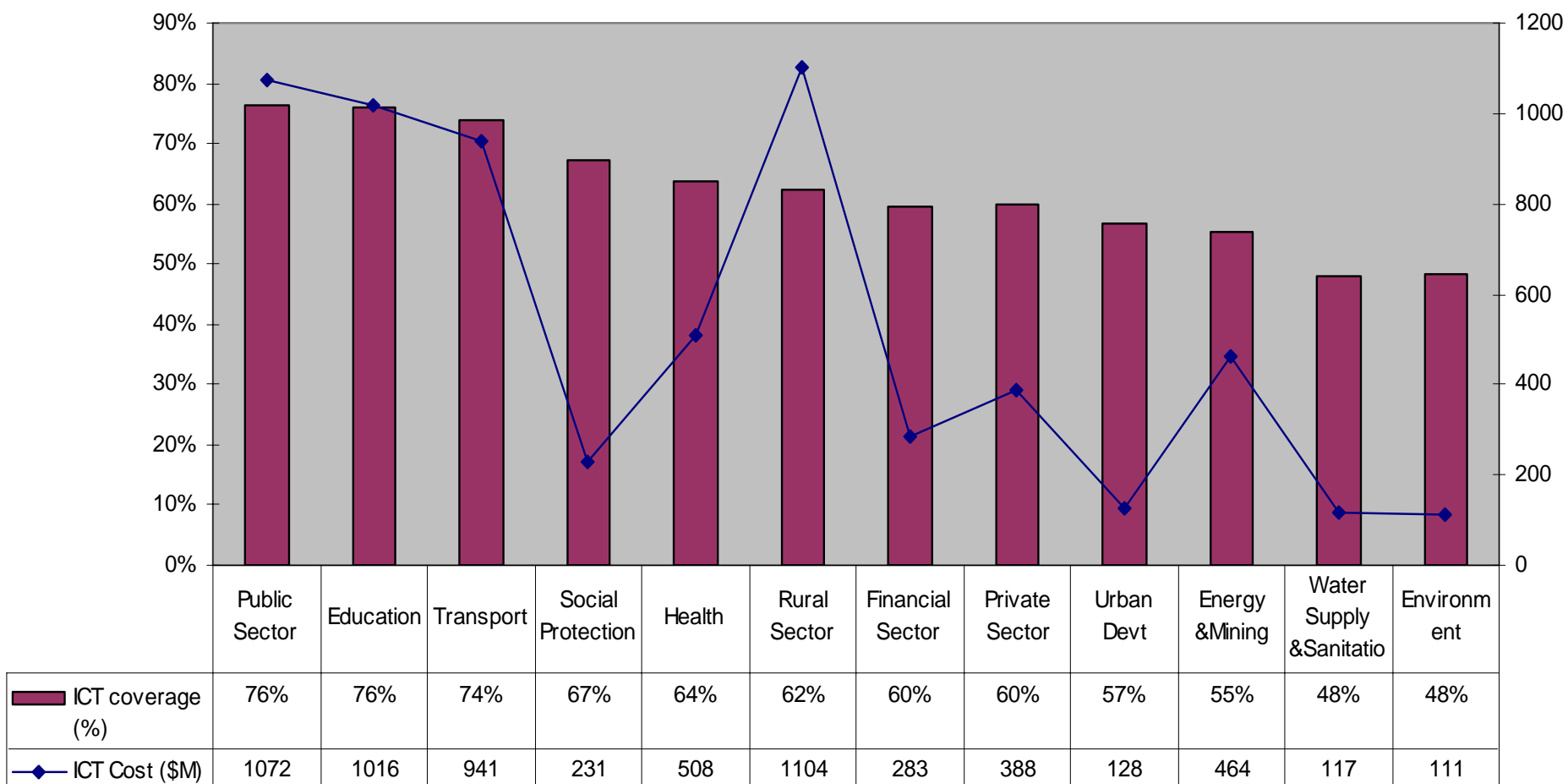
- Basic, Higher, Professional Educational Systems
- Distance Learning, GDLN, etc.
- Computers for Classroom, e-learning
- Education MIS

Social Sector/Service Delivery

- Social Safety Net
- Pension, Social Risk Management Systems

Sectoral ICT Applications @ the Bank: Portfolio Dimension

...But **Public Sector Applications** are the most commonly implemented, with 76% of Public Sector projects containing ICT components





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ICT applications in the Public Sector

Public Sector Applications: Promoting Good Governance

Good governance consists of a public service that is efficient, a judicial system that is reliable, and an administration that is accountable to the public

Elements of good governance:

1. **Administrative management** emphasizing the need for effective financial and human resource management
2. **Accountability** in public service, including effective accounting, auditing and decentralization
3. Efficient, transparent information and service delivery to citizens to reduce risks of corruption and promote public debate ('**citizen-centric governance**')
4. Predictable **legal framework** with rules known in advance and an independent judiciary

Examples of Public Sector Applications

STRATEGIC FOCUS

POTENTIAL OF ICT

BANK PROJECT EXAMPLES

Administrative Management

- Records Management systems
- HR Management Systems, online job listings
- e-Pensions Administration

SRI LANKA: e-Sri Lanka Program; (US\$ 50 mil): Creation of a 'single window' for gov services; inter-connected government agencies for improved productivity

Accountability

- Treasury systems to improve fiscal control
- e-Procurement for checks on govt. purchasing
- e-Taxation for efficient revenue collection

CHILE: Public Expenditure Management Project, (\$23 Mil) improve transparency of public finance via a modern and integrated IFMIS

Citizen-centric Governance

- e-Gov portal for 24/7 service delivery
- e-services to reduce exploitation, official discretion
- e-democracy to empower citizens

GUATEMALA: GT TAX ADMIN. TAL, (\$28 Mil): Computerized tax collection system to improve convenience to citizens and accuracy in revenue collection

Law & Justice

- Court MIS, e-case filing to expedite processes
- Legal systems for judges
- Public awareness via online case data

EL SALVADOR: Judicial Modernization Project; (\$ 24 mil) automates case management programs, and provides e-learning for judicial employees



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Current Demand and Emerging Needs

Current Demand and Emerging Needs

- ICT to support service delivery
- High value applications
- ICT to enhance competitiveness
- Connectivity (ICT Infrastructure) as a *key enabler*



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Key Aspects for Consideration in implementing ICT Applications



ICT applications can help achieve sectoral goals

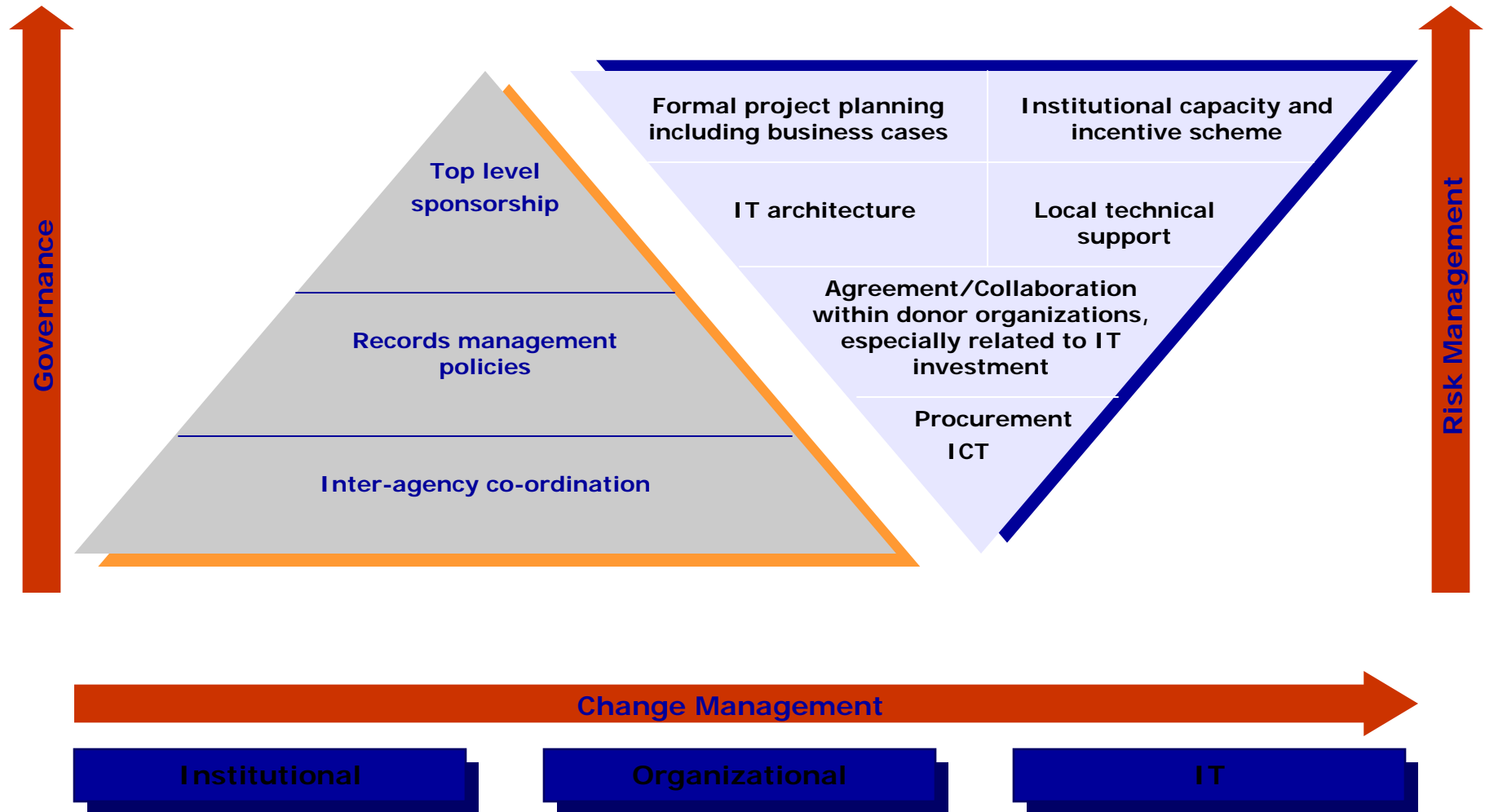
- ICT applications in sectors can, if integrated with project design, help enable achievement of sectoral goals through:
 - Cost Effectiveness
 - Revenue Improvements
 - Efficiency
 - Transparency
 - Controls
 - Quality or Error reduction
 - Enhanced Access to Services

But government reform and change management are necessary for hoped-for outcomes

Observations about ICT applications in the government/public sector:

1. Cost reduction and operational efficiency are the major drivers for ICT applications in the government/public sector
2. ICT applications, if simply added to existing government structures and processes, have yielded very modest outcomes
3. Reform activities **must** precede effective ICT deployment in government
4. Effective reform and change management are often the most complex aspects of public sector ICT applications

IT Implementation – A Complex Process





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World Bank Findings on ICT implementations

QAG Findings: Key risks to quality of Sectoral Applications

1. Bank ICT support units rarely called upon for assistance: Insufficient awareness of importance and need for specialized ICT support
2. ICT considered a 'technical' component, often developed as a separate element with limited integration with project design
3. High risk nature of ICT investments frequently overlooked
4. Special procurement requirements not properly recognized
5. Critical skills gap among ICT practitioners within the Bank
6. Fragmentation of ICT activities among regions/sectors
7. Limited coordination, knowledge sharing

Institutional Risk

Reputational Risk

Operational Risk

Risks of ICT Projects

- Political Risks
- Human/Institutional Factors
- Technical Issues
- Managerial Issues

Political risks

- leadership failure
- politically determined objectives and timetables; conflicting political agendas; instability of program sponsors
- gradual erosion of political support

Human/Institutional

- **human/institutional capacity gaps insurmountable within project scope**
- **lack of cooperation and trust (social capital)**
- **deficient stakeholder participation in decision making**
- **high resistance to change; poor knowledge sharing**

Technical

- over-emphasis on state of the art technology
- architectural overreach;
- excessively complex procurement
- malfunctioning technology
- insufficient technical capacity; excessive staff turnover

Managerial

- unrealistic program objectives
- supply-driven planning
- lack of early results
- faulty phasing of work
- inflexible implementation strategy
- insufficient project management skills
- people management specification creep
- poor expectation management

Conclusions

- ICT investments are high risk but also high payoff
- it is less a matter of choosing *between* ICT and a particular development activity, but of choosing the *most effective way* for ICT to help in its implementation
- Seek help early in the process !

Credits

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- Randeep Sudan - CITPO
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THANK YOU