“Best Approach Towards Systems Development"

Comparison:
Homogeneous vs. Heterogeneous Solutions

Presenter : Vusi Magagula
Chief Information Officer
Organization: State IT Agency
South Africa

Venue: Safari Park Hotel, Nairobi
Date : 09 - 11 February 2005

Agenda

- Introduction
- Purpose of the Presentation
- About SITA
- Homogeneous vs. Heterogeneous Solutions
- The South African Experience
- Conclusion

Introduction

“All organizations are faced with a challenge of getting the right information to the right decision-makers at the right time”.

To overcome this challenge, Information Systems (IS) divisions within organizations MUST address the following areas:

- Business process integration,
- Business process fusion,
- Business process capability, &
- Business intelligence.

Without these, the IS division cannot build solutions that meet information needs of an organization.

Purpose of the presentation

- Address the advantages & disadvantages of consolidated systems in the African context.
- Start a debate on whether African Parliaments require “One Re-useable Homogenous Information System or Many Heterogeneous Information Systems.

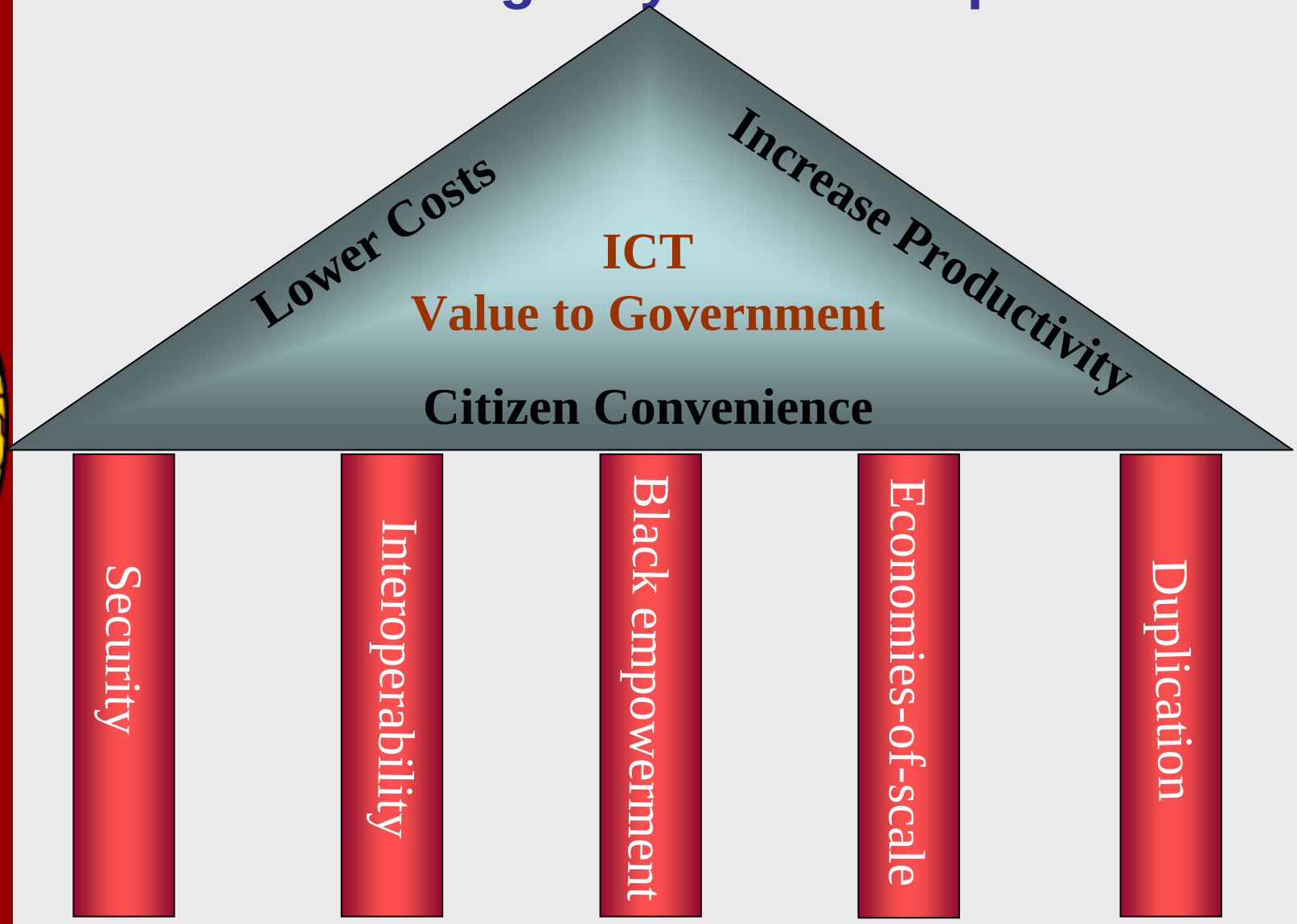
About SITA

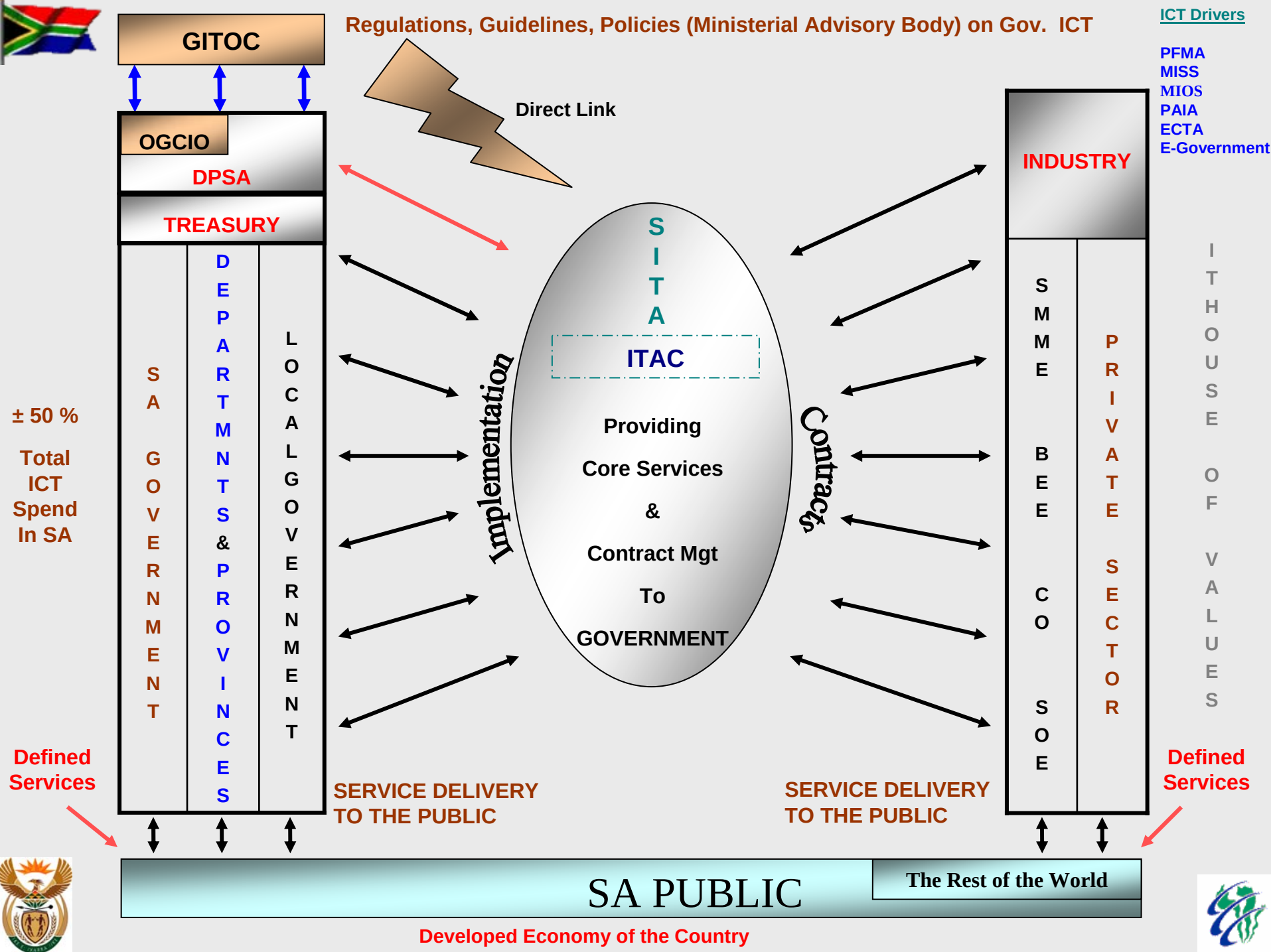
- **Presidential Review Committee Report (1998):**
  - Interoperability & Compatibility issues;
  - Poor ICT Security;
  - Unnecessary duplication; &
  - Lack of economies of scale.

- **Inability of Organs of State to:**
  - Recruit, develop & retain skilled ICT personnel;
  - Manage ICT procurement & ensuring that government gets value for money;
  - Use ICT to support transformation & Government service delivery;
  - Optimally use expensive ICT resources; &
  - Integrate ICT initiatives

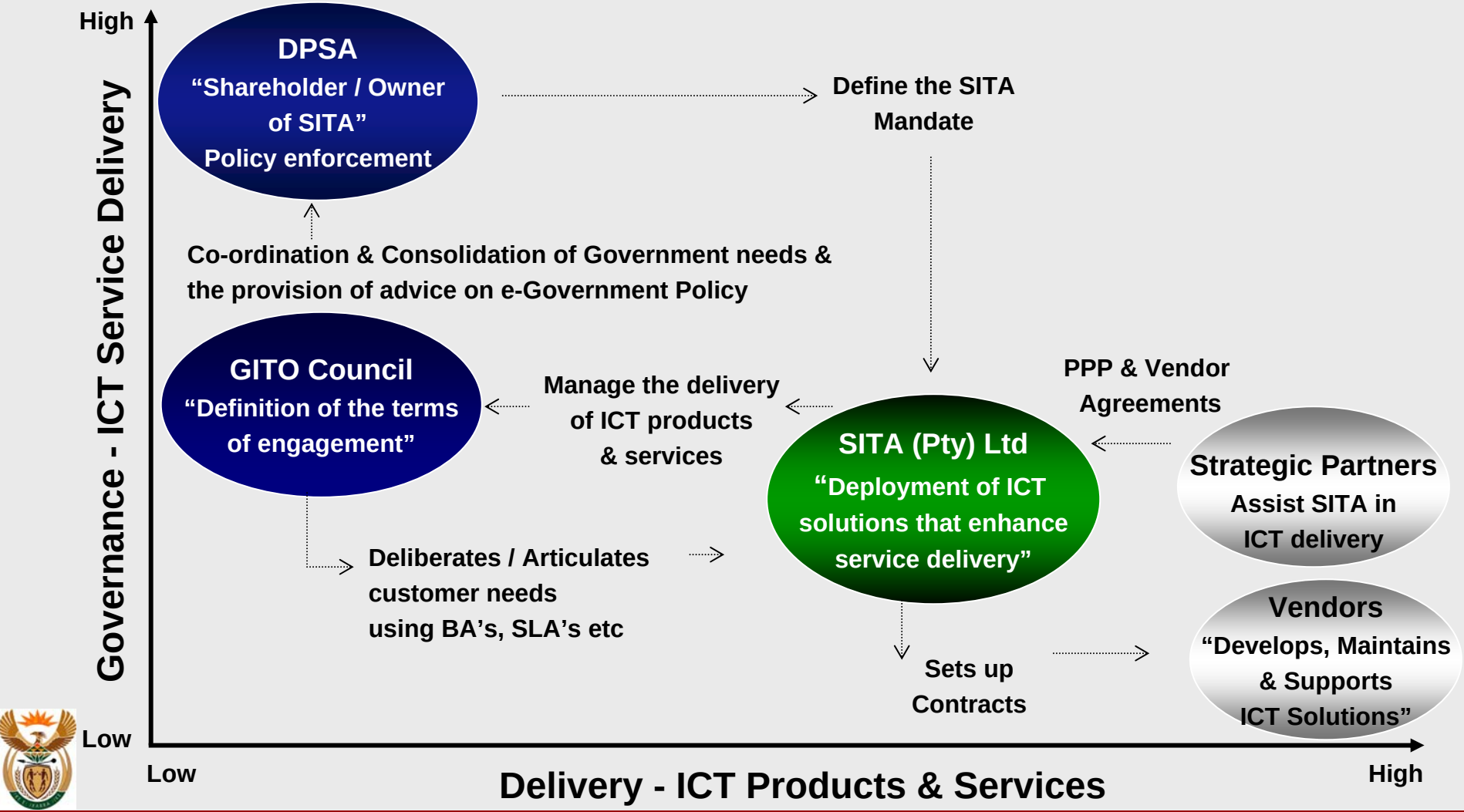
About SITA….

The State IT Agency Value Proposition

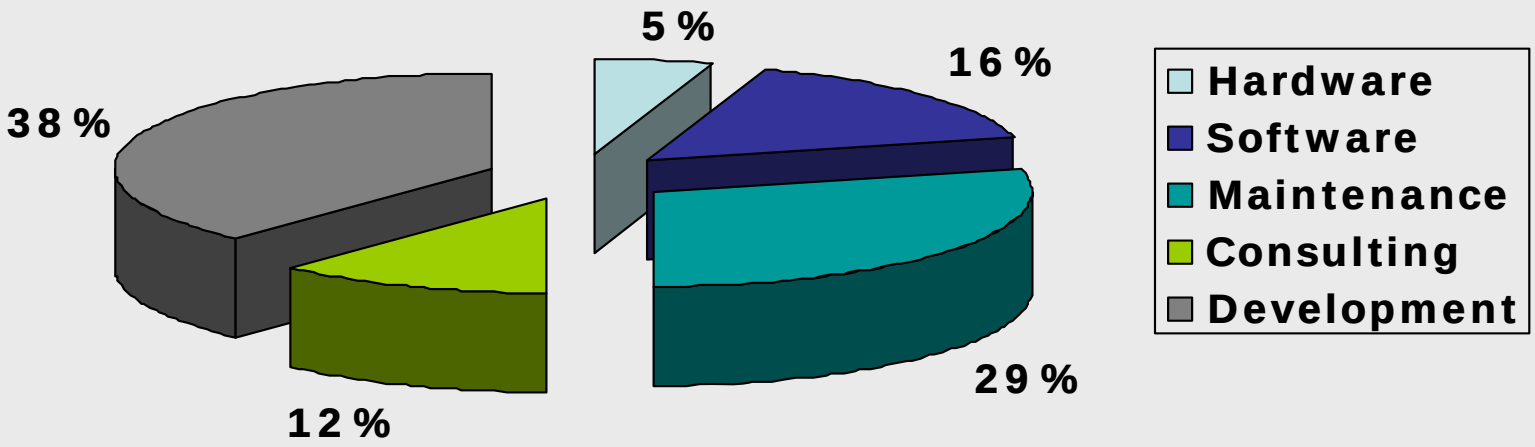



GITOC
Regulations, Guidelines, Policies (Ministerial Advisory Body) on Gov. ICT
ICT Drivers
PFMA
MISS
MIOS
PAIA
ECTA
E-Government
Direct Link
OGCIO
DPSA
TREASURY
SA GOVERNMENT
DEPARTMNTS & PROVINCES
LOCAL GOVERNMENT
SITA
ITAC
Providing
Core Services
&
Contract Mgt
To
GOVERNMENT
Implementation
Contracts
INDUSTRY
SMME
BEE
CO
SOE
PRIVATE SECTOR
ITHOUSE OF VALUES
± 50 %
Total ICT Spend In SA
Defined Services
SERVICE DELIVERY TO THE PUBLIC
SERVICE DELIVERY TO THE PUBLIC
Defined Services
SA PUBLIC
The Rest of the World
Developed Economy of the Country

ICT Governance Framework



ICT Spent Patterns in 2003



National IT Spend = R 35 billion (5.8$)

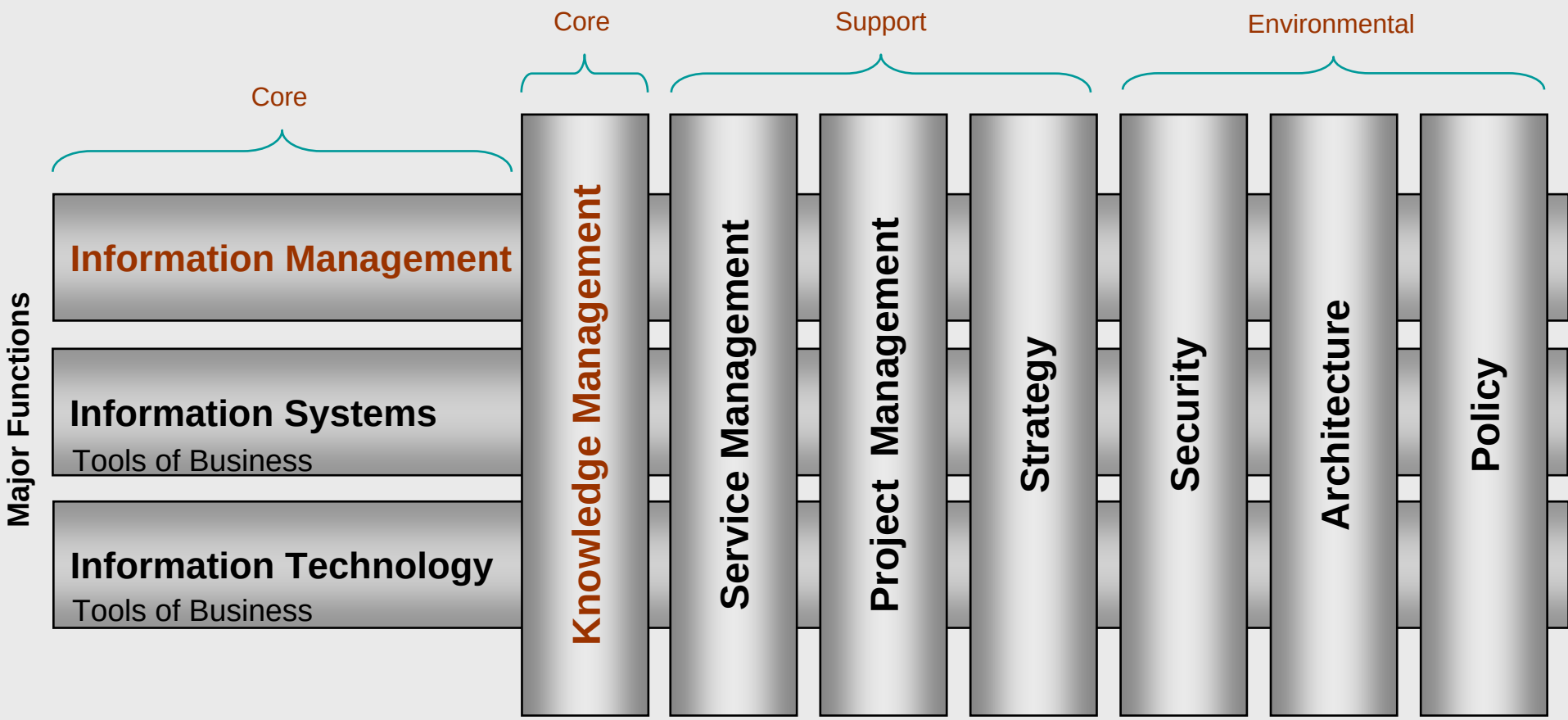
Govt IT Spend = R14 billion (2.3$)

SITA Turnover = R2.5 billion (0.5$)

30% spend on BEE companies

- **Homogeneous vs. Heterogeneous Solutions**

Providing Information to Decision Makers



Information & Knowledge is what we need to transform Africa

Consideration for an Information System

- Usability
- Reliability
- Scalability
- Affordability
- Sustainability
- Interoperability
- Customizability
- Design flexibility
- User-friendliness
- Architecture(s)
- Performance
- Capability Maturity
- Stakeholder buy-in
- Human Capacity
- Security

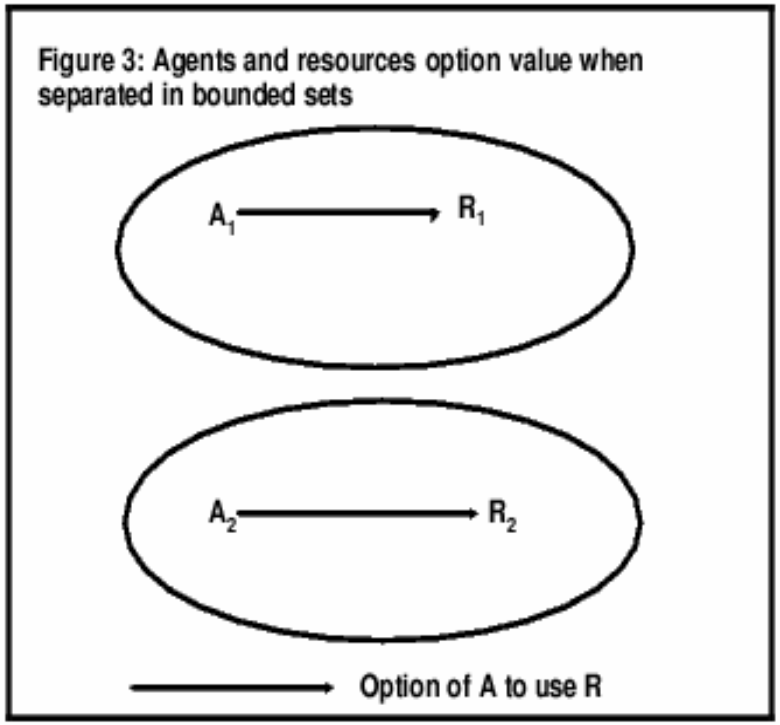
Detailed Comparison - Advantages

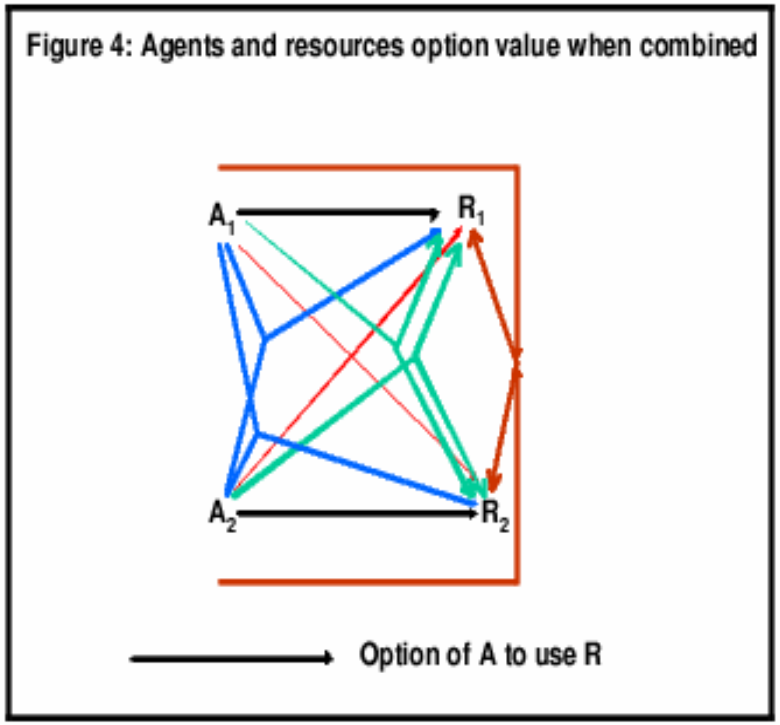
- **Homogeneous**
  - Single contract, single service provider
  - No complexities in supplier management
  - Consolidated risk
  - No complexities in service level management
  - Quicker trouble shooting
  - Less vulnerability (single point of access / entry into the system
  - Economies of scale
- **Heterogeneous**
  - Stimulated competition & innovation
  - Industry development through forced partnerships
  - Evenly spread revenue streams
  - Local economic development
  - Best of breed technologies for specific modules & functionality requirements
  - Recognizes diversity
  - Encourages innovation

Detailed Comparison - Disadvantages

- **Homogeneous**
  - Inherited shortcomings from specific modules
  - Monopolistic in nature
  - Supplier lock-in
  - Threat to business continuity in the event of the supplier going under
  - Little or no room for innovation
- **Heterogeneous**
  - Complex service level management
  - Increased risk & vulnerability
  - Inefficiency & complexity in trouble-shooting
  - Interoperability issues
  - No economies of scale
  - Possible duplication of data & processes
  - Requires synchronized version upgrades

Collaboration for Innovation





Today's opportunity ☺

Introducing Open Standards

Levelling the playing field

Proprietary Software

- Proprietary software solutions result in monopolistic, software & supplier lock-in.

Open Source Software

- “Open Standards” provide opportunity to convert disadvantages into advantages
- Enable each country to customize their Parliamentary solutions for local content whilst complying with frameworks (agreed upon)

- **The South African Experience**

The South African Experience

Ministerial Information Needs

- **Business Requirement**
  - Ministerial Information Management System
  - Secure sharing of documents such as Cabinet Memorandums
  - Secure dedicated IT network for South African Ministers
- **ICT Solution**
  - One Homogeneous Solution
  - Completely detached from any LAN, WAN or Internet
  - Template driven document formatting

The South African Experience….

Forum for South African Directors General (FOSAD)

- **Business Requirement**
  - **One stop information source & portal for FOSAD through which diary, meeting, calendar, agenda, minutes & document control can be achieved**
  - **Access with search facility to all acts, white papers, policy documents & all relevant information available**
- **ICT Solution**
  - **One Homogeneous FOSAD Portal**
  - **Template driven document formatting ?**

The South African Experience….

e-Government

- **Business Requirement**
  - Drastically improve public service delivery
  - Promote efficient citizen access to public services

  ICT Solution

  - Government IT architecture
  - e-Gateway architecture
  - Integrated Information Management Systems on
    - Human Capacity
    - Finance Management
    - Acquisition

Perceived Risks & Challenges for PAPI

Africa Parliament Information System(s)

- Limited user requirement specifications leading to misalignment of solution(s) in African parliaments
- Time allowed for solutions development
- Budget, Human capacity & other resources
- Language barriers (diversity)
- Resistance due to sovereignty, national intelligence & security
- Lack of underlying ICT infrastructure
- Incompatible legacy systems that may exit
- Adoption of governing frameworks for Information Management, Systems & Technology (IMST)

Conclusion….

Africa Parliament Information System(s)

- Open standards will be important for better collaboration
- Interoperability frameworks will enable interaction between parliaments
- Lets tally what systems are already in place & effort already taken
- Let us set up a task team that will lead the process of consolidating requirements
- South Africa as a country is geared up for the development of the African Parliament Information System(s) & PAPI framework

Thank you!!!

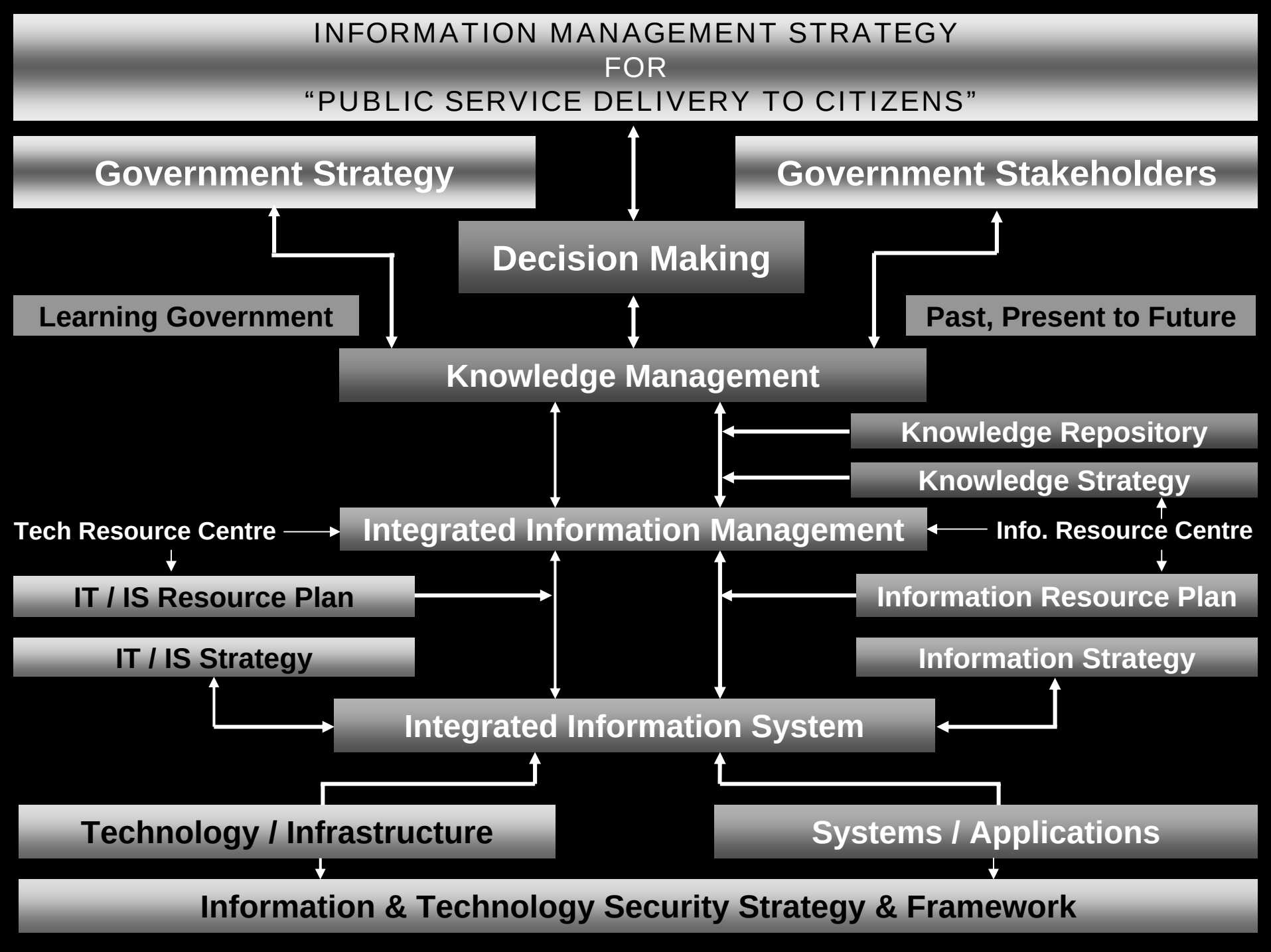
Comments, Questions & Answers

Backup Slides

Conclusion

Pan Africa Parliament Information System

- Open standards are important for better collaboration
- It is often not encouraged to set tight rules that might stifle development
- Lets tally what systems are already in place & effort already taken
- We need effective participation of Africa to heal Africa
- South Africa (SITA) is willing join the race and assist in the development of the African Parliament Information System(s) & supporting frameworks


INFORMATION MANAGEMENT STRATEGY
FOR
"PUBLIC SERVICE DELIVERY TO CITIZENS"
Government Strategy
Government Stakeholders
Decision Making
Learning Government
Past, Present to Future
Knowledge Management
Knowledge Repository
Knowledge Strategy
Tech Resource Centre
Integrated Information Management
Info. Resource Centre
IT / IS Resource Plan
Information Resource Plan
IT / IS Strategy
Information Strategy
Integrated Information System
Technology / Infrastructure
Systems / Applications
Information & Technology Security Strategy & Framework