



Treasury Board of Canada
Secrétariat

Secrétariat du Conseil du Trésor
du Canada

IT Measurement for Outcomes

Challenges in Whole of Government Approaches

**Presentation to
Information Systems Audit and Control Association**

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Bob Wilkinson
IT/IM Stewardship,
CIOB

Canada 

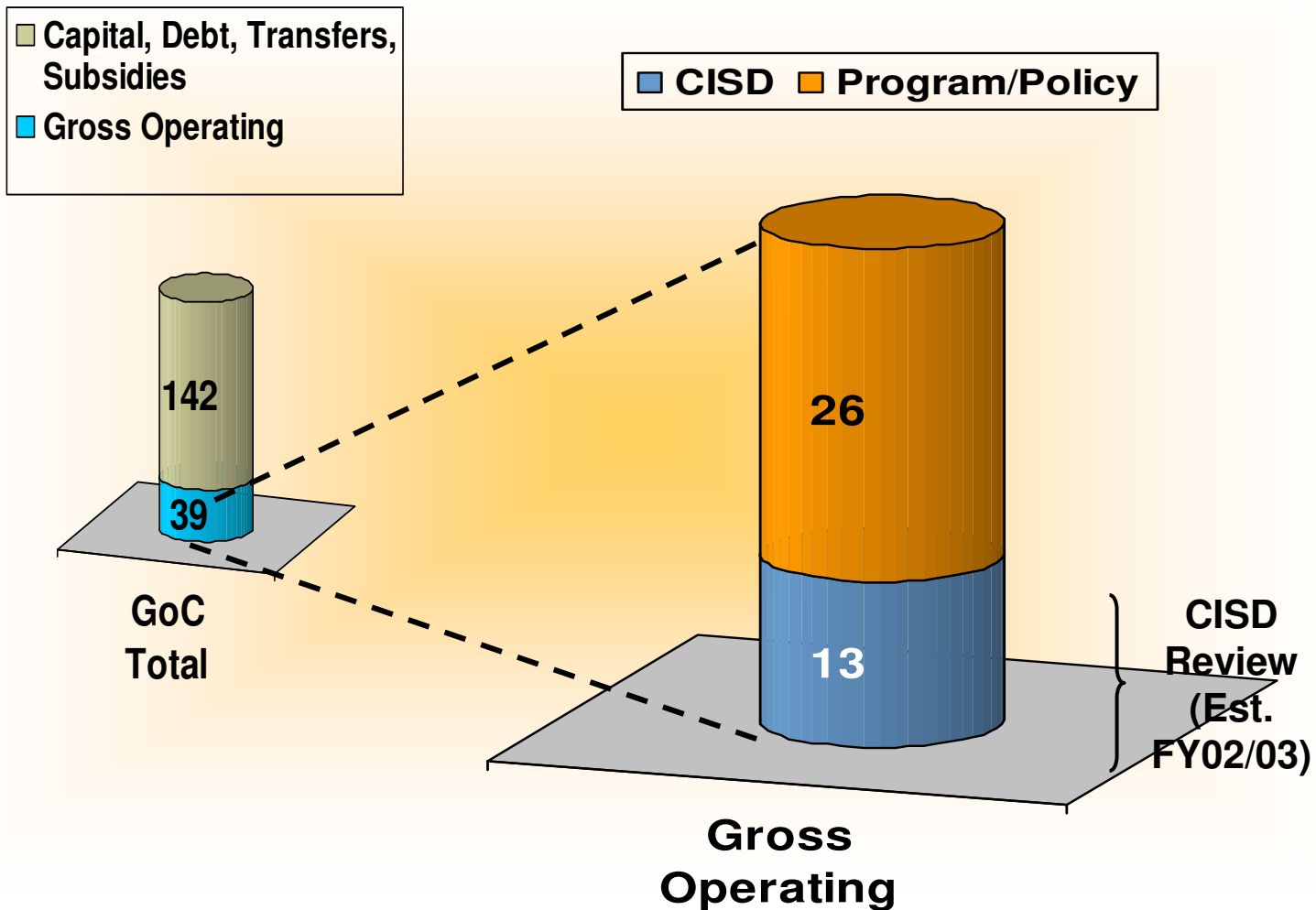


Topics

- Where We Started
- Defining the Objectives
- Gathering the Data
- Analysing/Validating the Results
- Drawing Conclusions

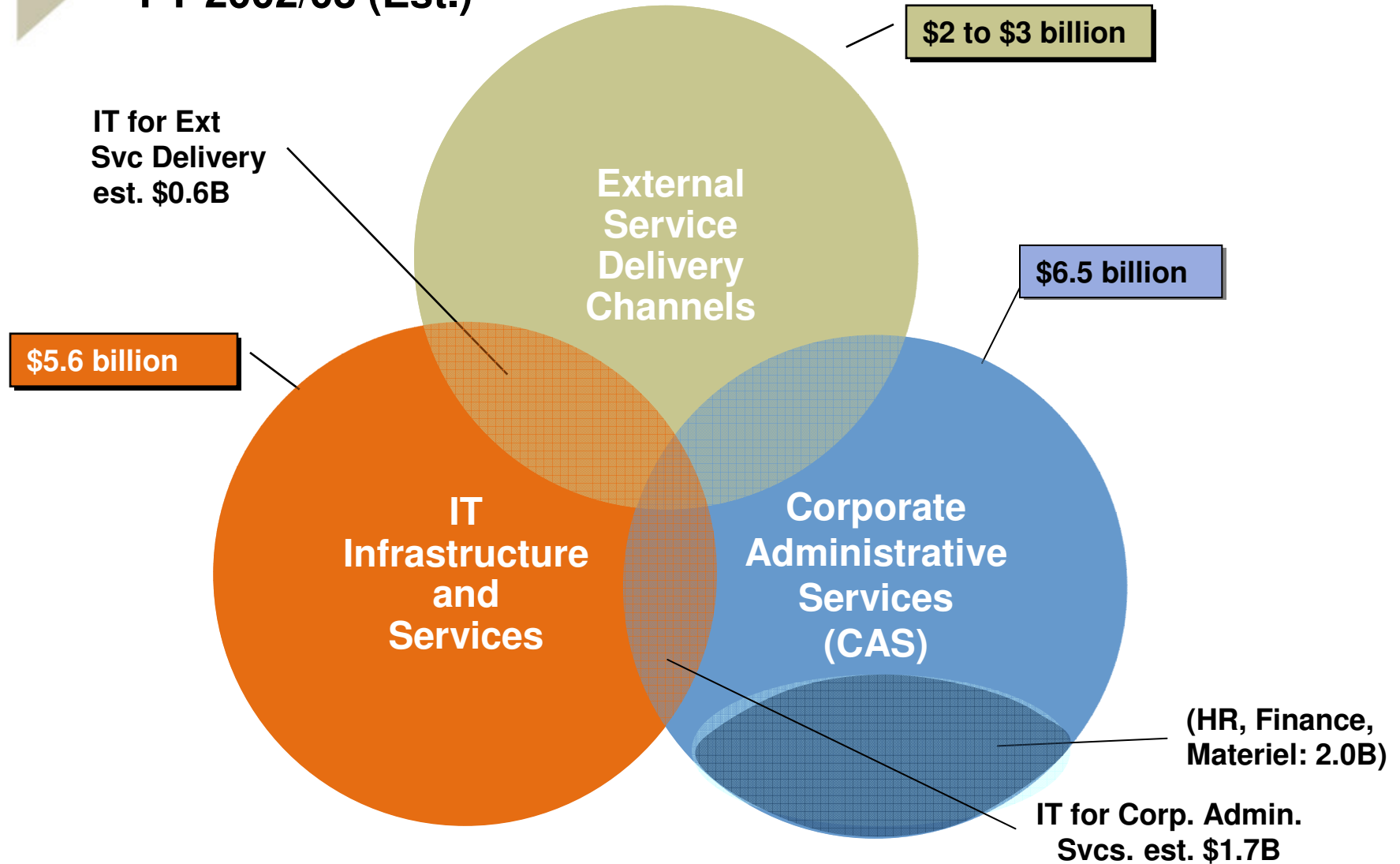


Scope (\$B) of CISD FY 2001-02 (Actual) Expenditure & Management Review



CISD Expenditure Scope ~\$13B

FY 2002/03 (Est.)

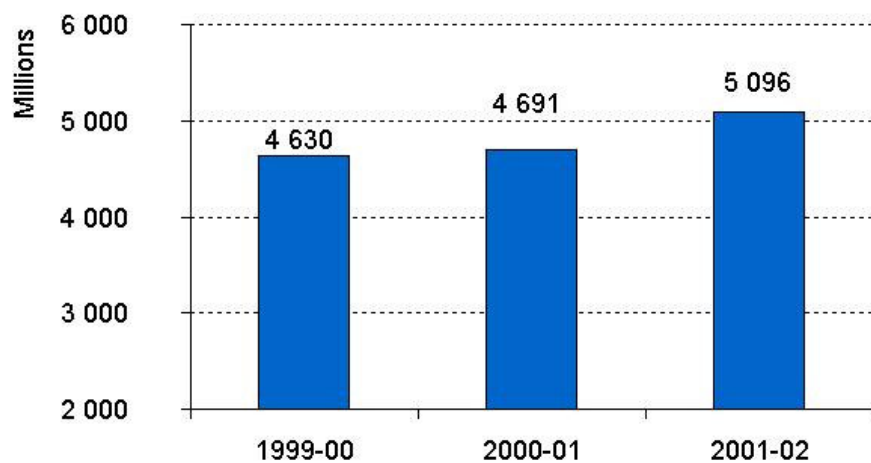


Delivery of IT Services: Expenditure Based

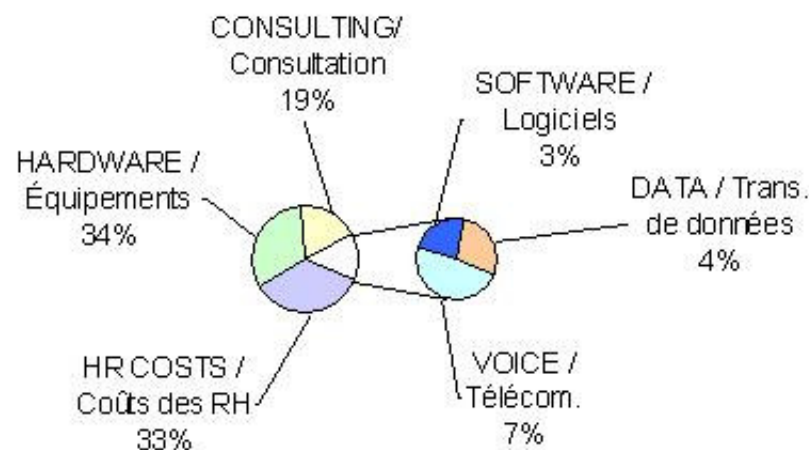
**\$0.5 B increase
over 2 years**

\$5.1B in 2001-02

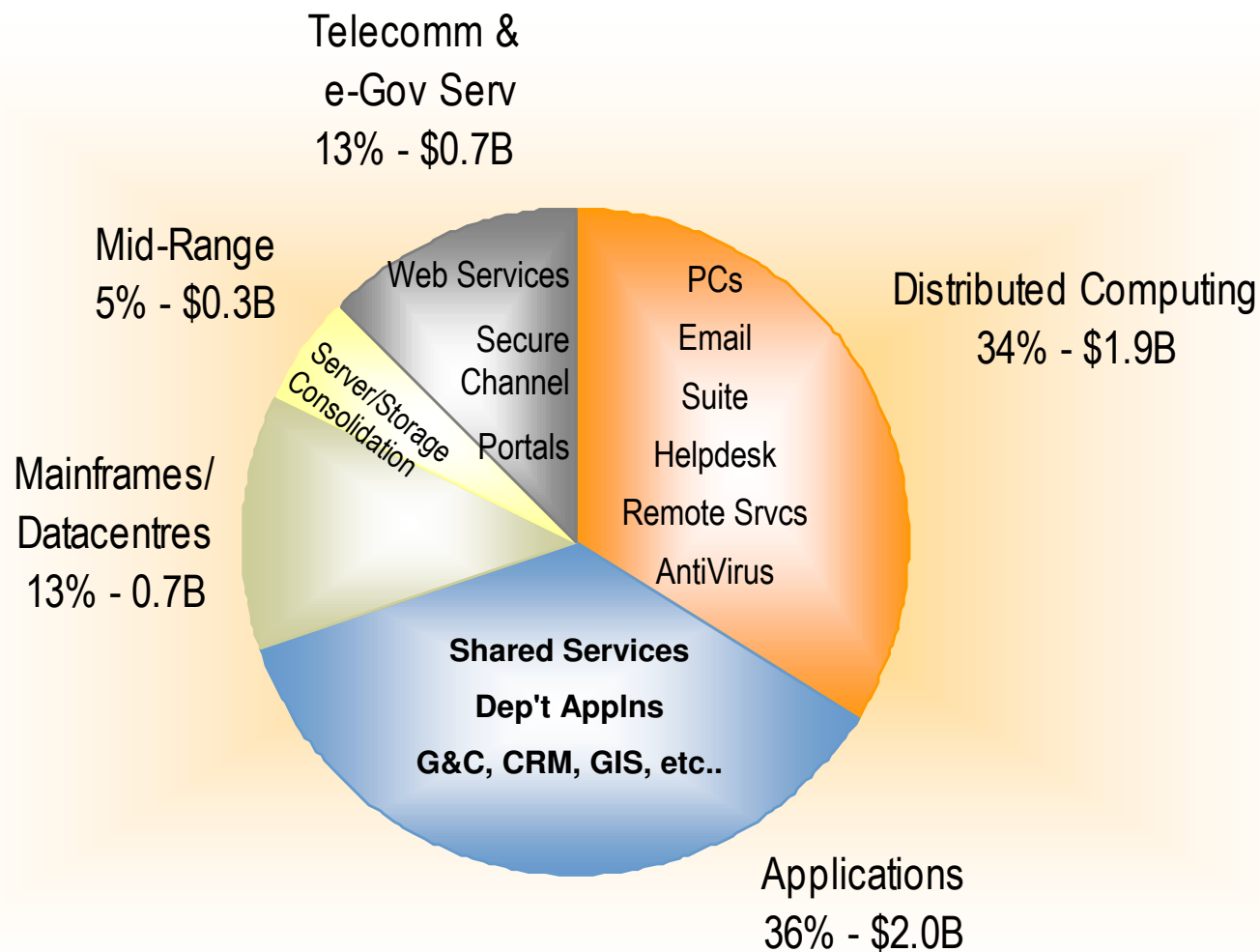
Estimated at \$5.6B in 2002-03



Breakdown of spending
by category in 2001-02



Delivery of IT Services: Outcome Based





Overall 2003 Findings

- **Expenditure Review**
 - Potentially high margin of error in figures
 - More accuracy requires detailed departmental data and analysis
(baselining and benchmarking)
- **Management Review**
 - Without accurate gov-wide information and measurement extremely difficult to:
 - Improve management
 - Operate as one enterprise
 - Set targets for effectiveness, efficiency and service improvement
 - Assess accountability against targets
 - Change course when required
- **Systemic Barriers**
 - Significant duplication and fragmentation across government in all areas



Topics

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- Defining the Objectives
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What and Why did we Need to Measure

CISD demonstrated that reliable data is currently not available and that

- A reliable set of baseline data needs to be developed from which meaningful decisions can be made

Baselining: Intended to Build Reliability

- A need to establish a common GoC nomenclature for IT (Services, Cost Elements, Indicators...)
- A need to verify a reliable understanding of current resources/services
 - Use PAA process in initial data collection for all services in order to reconcile CISD figures to individual departmental data and enhance confidence in the data

What Would be Answered through Baselineing?

- **Are the CISD Expenditure estimates accurate?**
 - If not, how and why do they vary?
- **Are individual departments receiving:**
 - value for their expenditures (comparative workload/expenditure analysis)?
 - consistent service availability (comparative service level/expenditure analysis)?
- **Is the GoC receiving:**
 - value for it's expenditures (comparative whole-of-government workload/expenditure analysis)?
 - service availability that is required (comparative whole-of-government service level/expenditure analysis)?
- **What is the workload:expenditure mean and standard deviation for the GoC?**
 - What do other governments/organizations experience?
- **What workload/service levels are possible for the GoC by adopting a different model (common) for service delivery within:**
 - the same expenditure levels? and
 - reduced expenditure levels?, how much reduced?
- **Do we have sufficient data to enable meaningful, ongoing tracking of Total Cost of Ownership within the GoC?**



Topics

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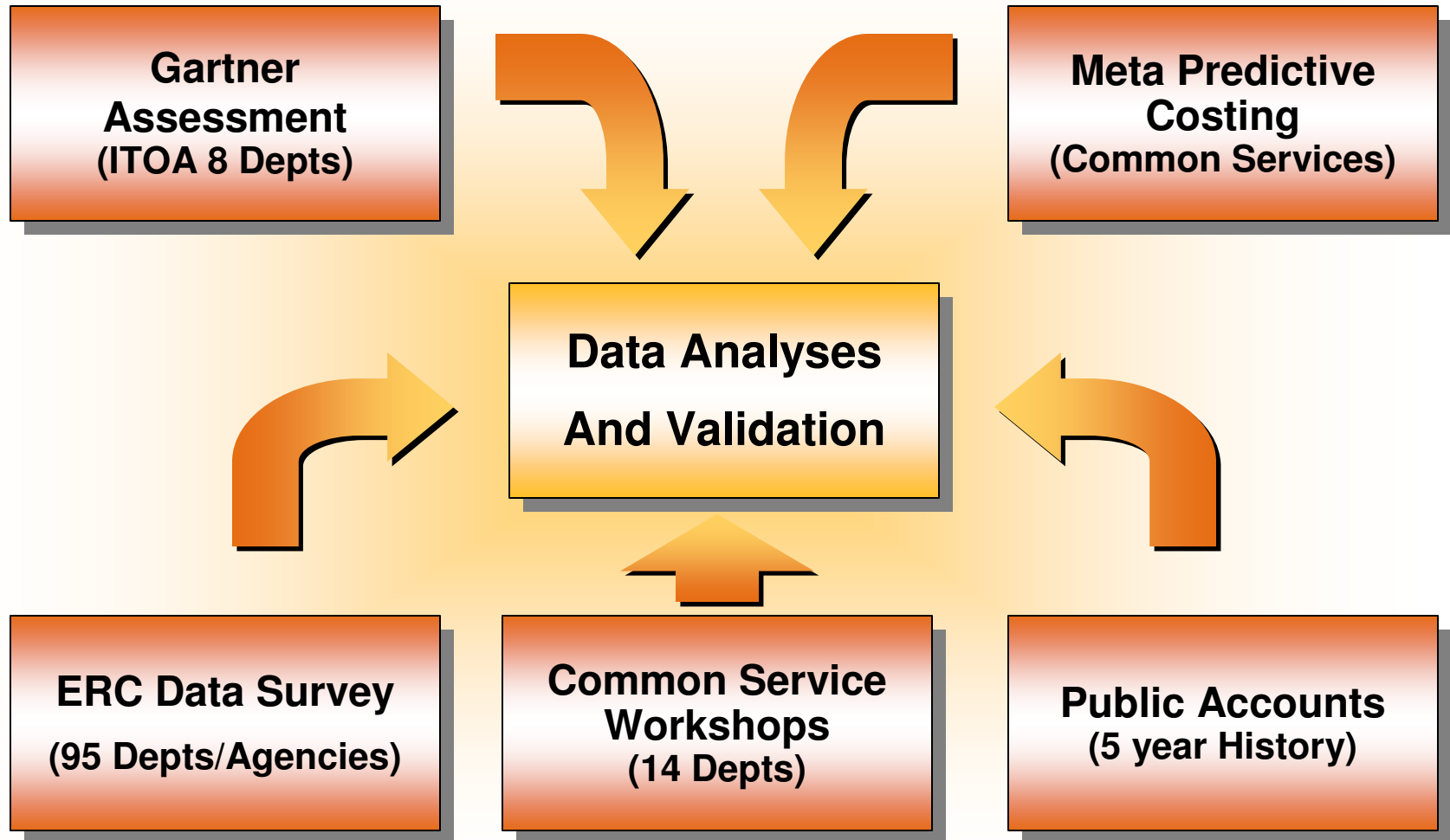
Gathering the Data

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Methodology for Improving Confidence in Data



A Simple Spreadsheet ...

	Actual		WORKLOAD
	2002-03	2003-04	
	in '000 \$	in '000 \$	
Informatics services (Total)	0	0	
Distributed Computing	0	0	# users
Salaries			Users: General
Professional Services			Users: Mobile
Hardware (purchase, lease, maintenance)			Users: High End
Software (purchase, lease, maintenance)			
Telecommunications			Geographic dispersion
Facilities, Operating & Other			
Midrange Computing-Program	0	0	Total No. of Servers/Storage(GB)
Salaries			UNIX Servers/Storage
Professional Services			WinTel Servers/Storage
Hardware (purchase, lease, maintenance)			Other Servers/Storage
Software (purchase, lease, maintenance)			
Telecommunications			
Facilities, Operating & Other			
Midrange computing-Corp.Admin.	0	0	Total No. of Servers/Storage(GB)
Salaries			UNIX Servers/Storage
Professional Services			WinTel Servers/Storage
Hardware (purchase, lease, maintenance)			Other Servers/Storage
Software (purchase, lease, maintenance)			
Telecommunications			

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... A Complex Request

- Requiring a whole new approach to measurement:
 - Nomenclature and definitions
 - Process
 - Scope of Accountability
 - Functional Perception and Depth
 - Geographic complexity and data integration
 - Rationalization to Public Accounts





Topics

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Analysing/Validating the Results

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Challenges in Validating the Results

An activity that was expected to take 6-8 weeks took over 5 months and analyses is still ongoing.

Of 94 departments and agencies solicited 48 responded representing 94% of the FTEs served in the GoC.

Of the approx. \$5B reported in Public Accounts roughly \$3.5B were reported in the Survey.

In an activity intended to improve confidence in the reliability and accuracy of the data – why was there such a difference and why was this such a challenge to accomplish.



Fundamental Differences in Reporting

CIOs confirmed a high degree of confidence in the expenditures reported within their scope of accountability.

Significant expenditures in IT occur within program areas and are not captured or managed within the IT service domains identified.

Capital asset reporting largely excludes IT assets – this precludes accurate costing and relies upon extrapolations from identifiable expenditure data.

Knowledge and understanding of the business functions is essential to accurate reporting for outcomes.

The concept of workload as a consistent measure was new.

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Topics

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Drawing Conclusions





ERC Early Findings

Under the current form of reporting:

- Departments are not capable of consistently or accurately tracking and reporting either their total spend on IT or their spend on specific IT services.
- Departments have not been able to consistently or reliably report on simple workload indicators.
- Therefore, they cannot develop or report on Key Performance Indicators nor measure their ability to improve their service capability.



Analysis is Still in Process

Early Conclusions:

- Growing consensus and acceptance of standardized terminology and workload measurement approaches to categorizing IT services
- Common nomenclature for IT Services can be adopted and used to inform common reporting requirements for IT services
- The use of standardised approaches to measurement can facilitate the effective benchmarking of service delivery
- ERC survey has illustrated both potential value of consistent information but also the extreme difficulty in producing reliable information on IT services when practices are so diverse across the GoC
- Initial findings in expenditure reporting and workload measurement can be expanded to form the basis of Key Performance Indicators for IT services throughout GoC.



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