



Improving IM in government ... by design

Using Enterprise Architecture to get it right

***Managing Government Information 4th
Annual Forum March 28, 2006***

Session Overview

3 basic questions

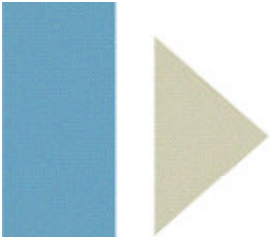
1. *Why use EA to improve IM ... and ... what does it mean anyway?*
 - Rick Bryson, Snr Director, Enterprise Architecture Domains, CIOB

2. *What is the IM Program ... and ... how will it help?*
 - Alexa Brewer, Snr Director, IM Strategies, CIOB

3. *We already know the problems – why not just get on with it?*
 - Kirk Labelle, Business Architect

4. **Questions/discussion**





***Why use EA to improve IM
and ...
what does it mean anyway?***

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Enterprise Architecture and
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The GC Information Management Program

IM by design

*to treat information as a strategic asset
and to manage it as a public trust*

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What is the GC IM Program Design Initiative?

An enterprise, whole of government effort to develop an effective **IM infrastructure**, comprised of **policies, information standards, common IM business processes** and **skilled people** to support GC priorities of:

- **Transparency and accountability**
- **Service delivery transformation**
- **Deliver better outcomes**
- **Improved operating efficiency**





IM Environment Today

We face many challenges:

- Breadth of IM not recognized by senior management
- Good IM practices have yet to become widespread in program delivery and day to day operations
- Problems in information sharing impede interoperability and provision of horizontal and transformed services
- Most IM investments not managed with an enterprise perspective
- Inability to measure the contribution of IM to business of government





IM Environment Today

- Information required by employees to conduct their work is fragmented and difficult to locate
- The complete government record not available for many audit situations
- GC cannot guarantee that information assets entrusted to it are always well managed
- Accountability for IM is not clearly articulated
- Many large IM solutions developed with inadequate IM expertise
- IM solutions require multidisciplinary teams yet these communities are not working together





Why an IM Program?

Our inability to “act as one” prevents us from achieving enterprise IM outcomes

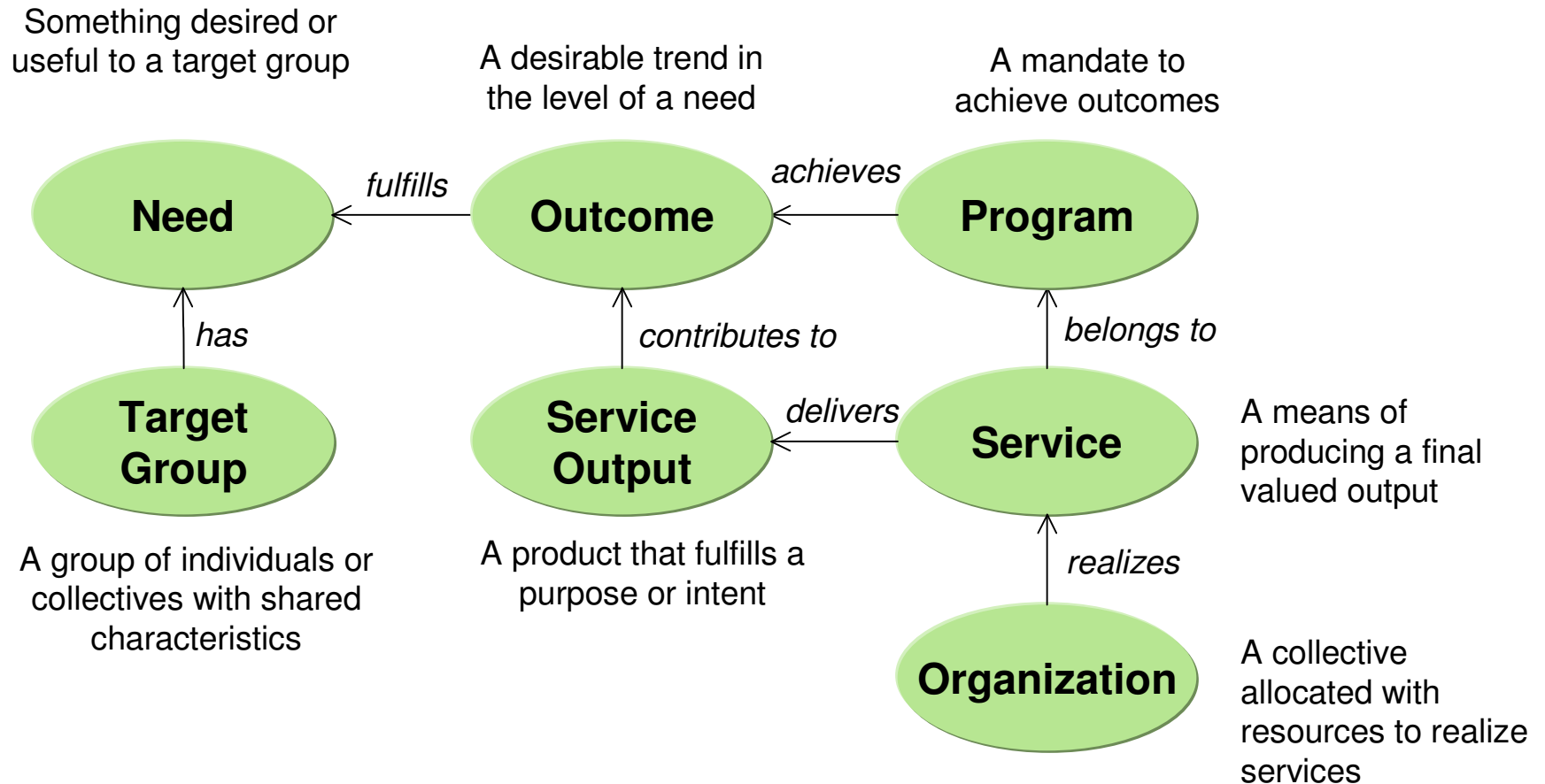
An GC IM Program will help to ...

- **Make information an asset for which everyone is responsible**
- **Align all IM initiatives**
- **Support cohesive outcomes**
- **Relate the IM contribution to the business of government**
- **Leverage common IM services and reuse solutions**
- **establish governance bodies for approvals and strategic directions**
- **Improve effectiveness of IM investments & accountabilities**
- **Build confidence in GC stewardship of the information entrusted to us**





A common vocabulary for describing the business of government...

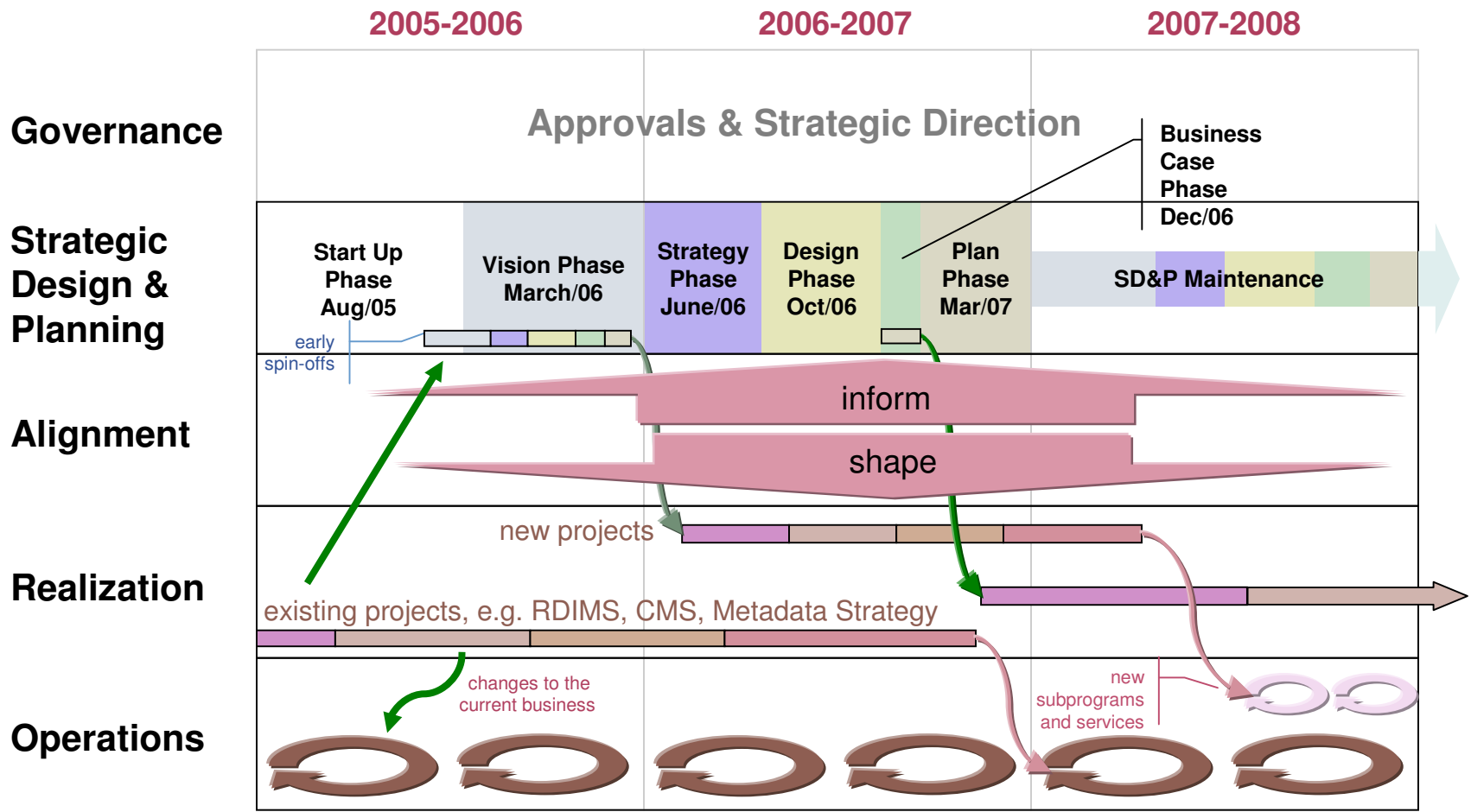


IM Program in context of the overall business of the GoC





IM Program Transformation Plan



IM Program transformation initiative

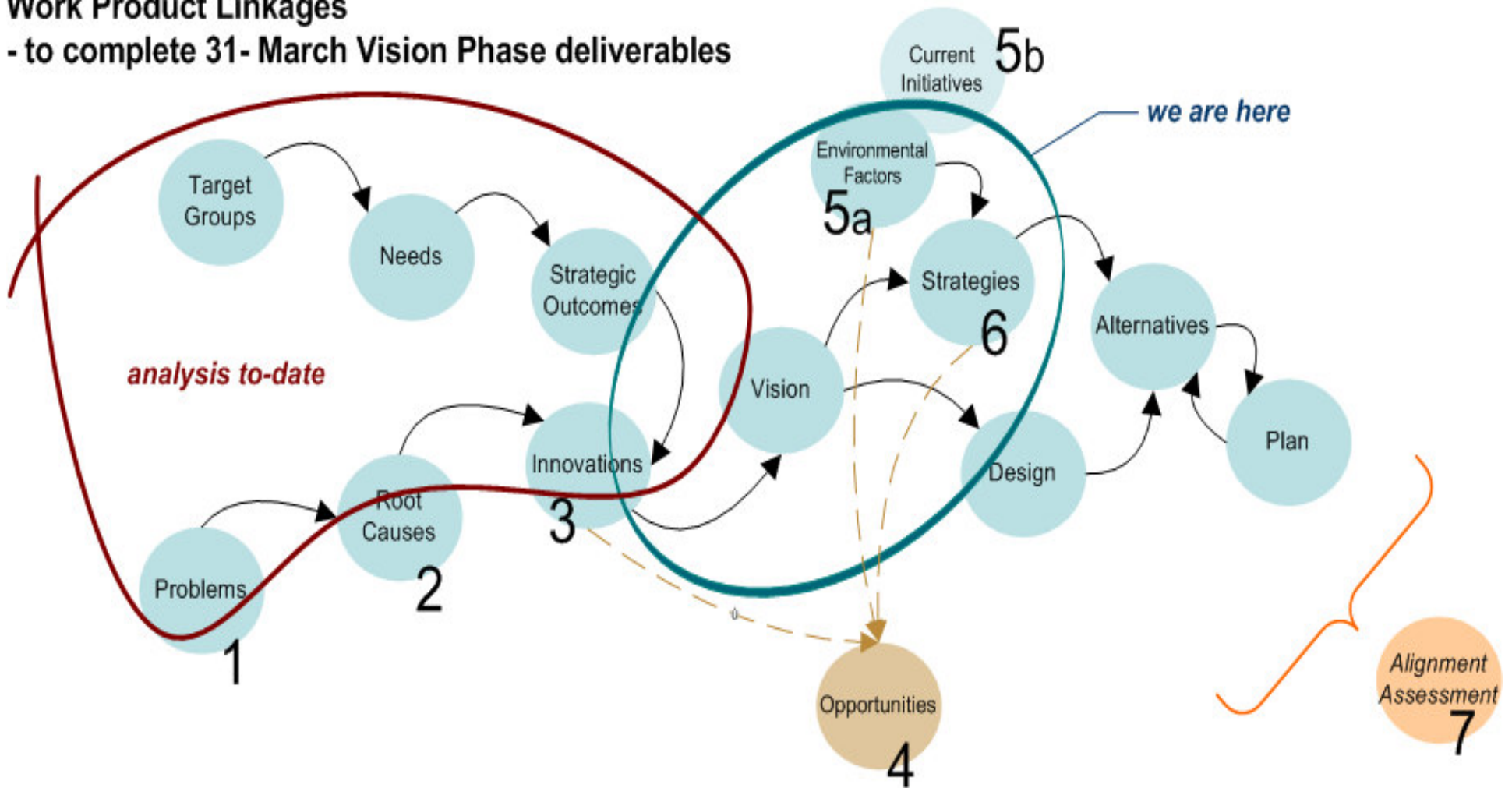
What is the IM Strategic Design and Plan?

Question that it will answer	Name of deliverable	Analogy from planning a house
What is wrong with where we are now?	Business Problem Assessment	Homeowner frustration with current home
Where do we want to go?	Vision	Architect's sketch capturing homeowner's dream
How should we get to the destination?	Strategy	Split level? (Design strategy) Contractor or build myself? (Implementation strategy)
What will it be like when we are there?	Design	Blueprints
Is it worthwhile making the trip?	Business Case	Mortgage application
Which roads are we taking and when?	Implementation Plan	Schedule for construction and move-in
How will we know when we get there?	Performance Management	Occupancy permit



We are Here

Work Product Linkages
- to complete 31- March Vision Phase deliverables





Why Is The Vision Phase So Important?

***The results of the Vision phase
provide the foundation for the
strategic design and plan for
the GC IM Program***





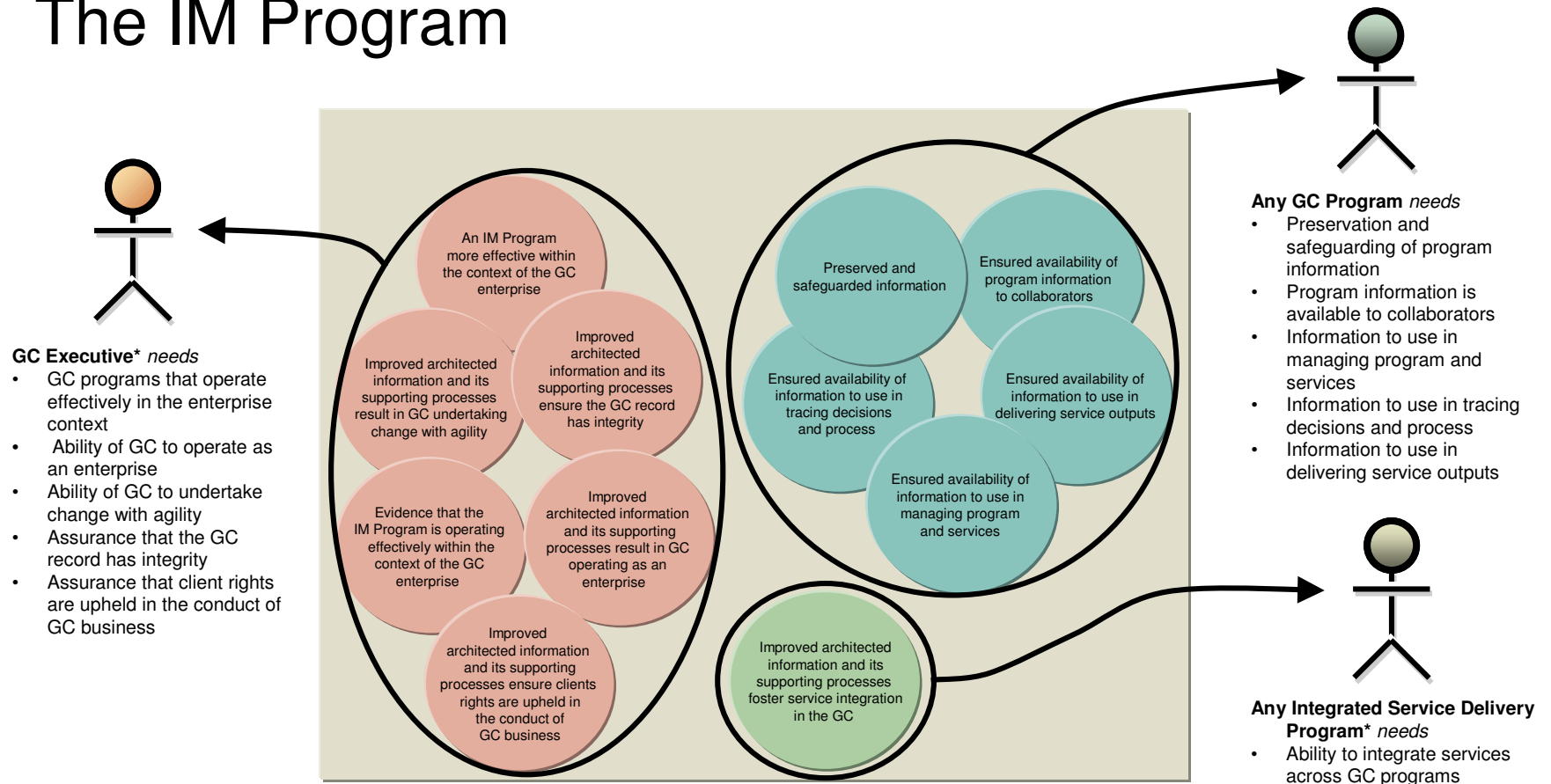
Vision, Strategy & Design Phase Results to Date

- Refined description of a GC Information Program
- Draft Business Problem Analysis
 - Preliminary results of root cause analysis
- Draft Vision Statement
 - A description of a target end state for information management in the GC addressing identified problems and proposing a way forward



Description of “The Business”

The IM Program



*PLUS the needs and outcomes of Any GC Program



The 3 Target Groups & Their Needs

1. Any GC Program

- **Program information is available to collaborators.**
- **Program information is preserved and safeguarded.**
- **Information to use in managing program and services.**
- **Information to use in tracing decisions and process.**
- **Information to use in delivering service outputs.**

2. GC Executive

- **GC programs that operate effectively in the enterprise context.**
- **Ability of GC to operate as an enterprise.**
- **Ability of GC to undertake change with agility.**
- **Assurance that the GC record has integrity. Assurance that client rights are upheld in the conduct of GC business.**

3. Any Integrated Delivery Program

- **Ability to integrate services across GC programs.**





IM Program Strategic Objectives

- 1. Availability of information to achieve program outcomes**
- 2. Responsible management of the resources of the IM program**
- 3. Responsible stewardship of information assets**
- 4. Compliance with information rules**
- 5. Support transparency decision and process**





Business Problem Assessment

- Initially over 400 IM Problems were identified
- These were rationalized and ranked to 54 & grouped into 7 problem areas (BPA)
- Root Cause Analysis carried out to:
 - determine where IM initiatives will have the greatest impact
 - identify patterns which will inform opportunity planning
 - serve as a reference point for assessing impact of current initiatives (IM Inventory)





7 Areas to improve Information Management

- 1. Optimized Information Handling**
- 2. Sound IM Practices**
- 3. IM Program Management**
- 4. Mature IM Capability**
- 5. Sustained IM Capacity**
- 6. Mature IM Culture**
- 7. Demonstration of IM's Relevance and Value**





Areas for Improvement

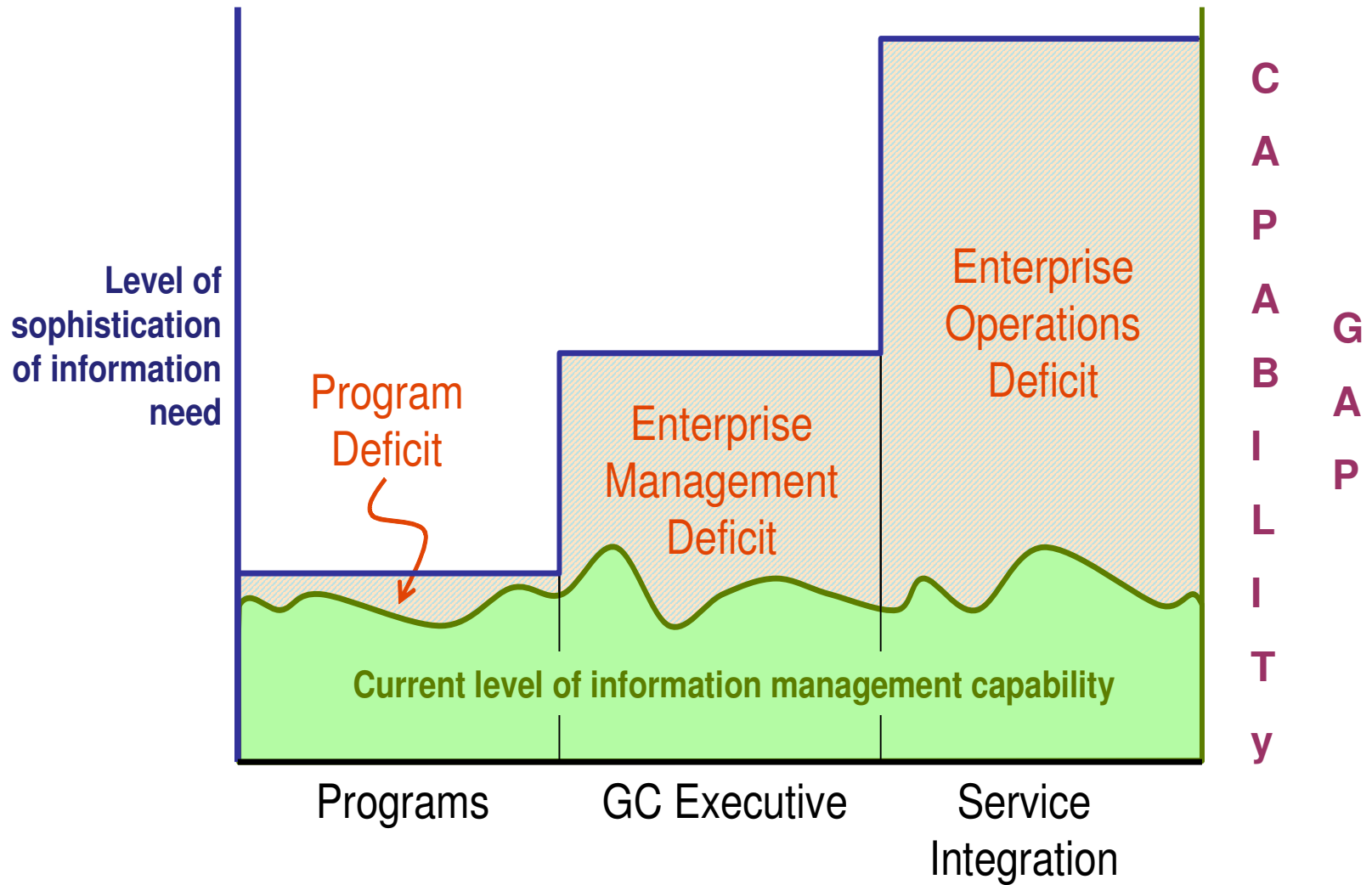
30 'innovations' identified that would address the IM problems and achieve program outcomes

Top Contenders:

1. Enterprise information architecture
2. Integrated policy and legal framework for information assets
3. Information standards for business interoperability
4. Business need-driven information delivery service
5. Embedded IM training
6. IM Community Management
7. Enterprise IM strategic design and planning
8. Measuring IM performance in the GC



The IM Deficit





End State Vision Statement

*to treat information as a strategic asset
and to manage it as a public trust*

At the day-to-day operational level:

Programs have the information to manage & deliver on mandates. Information is preserved & safeguarded & made available as appropriate.

At the government-wide, executive level:

Rules, standards & guidelines are used for structuring & handling information which enables integrated operations/agile change. Reports have integrity. Clients' rights are upheld in the collection, storage and use of information.

At the transformational level:

Horizontal initiatives benefit from information infrastructure designed to support sharing and integration across programs.





What Will It Look Like?

- **Consistently available accurate, timely & complete information for service delivery, program management and tracing decisions and processes.**
- **Appropriate access & reduced loss, corruption, and misuse of information.**
- **Confidence of the integrity of government reports.**
- **Information interoperability across programs and jurisdictions and with collaborators**
- **Significantly reduced cost and time for information integration & handling processes across services.**
- **The ability, across government, to view and easily aggregate information assets on demand.**
- **Significantly reduced cost and time required to effect changes to information holdings and associated processes.**
- **Program clients/Canadians can easily realize their information-related rights when doing business and interacting with the government.**





How Will We Get There

Formal rational understanding of

- What the problems really are Root Cause Analysis
- Contribution of current IM initiatives to achieving the strategic outcomes IM Inventory & Alignment
- Key investment opportunities

IM by design



A Rational Approach (Example)

Applying Problem and Root Cause Analysis

Identified Problems → Rationalized Problems → Pivotal Root Cause

62 source problems:

- Departments (e.g. DFAIT) cannot fully comply with legislative requirements for managing information, including ATIP and Privacy
- Some programs are so poorly documented that an audit could not even be completed by the Auditor General
- Program management does not provide Parliament with sufficient information to facilitate program scrutiny and accountability
- The public cannot challenge government processes because of poor record keeping
- Advances in information technology (proliferation in non-paper information invisible to departmental records managers) have an adverse impact on government accountability
- Electronic information produced by government workers is often not captured in organized repositories, making the associated metadata inaccessible to information management specialists and consumers
- At Pearson International Airport, there was a lack of information management co-ordination among agencies, which could hamper investigations
- ...

1. Poor availability of government record information reduces government accountability
2. There are cultural barriers to information sharing across government
3. Poor availability of information increases the risk to programs and government of litigation and failure to meet legislative requirements
4. Information sharing is limited
5. Some information that should be captured is not always captured
6. Some information that should be created is not always created

Lack of accountability and consequences for NOT contributing to GC information needs





Solving the Right Problem

Pivotal Root Cause

Lack of accountability and consequences for NOT contributing to GC information needs

Key IM Improvement

To ensure a mature IM culture within GC, include:

IM incentives for government employees

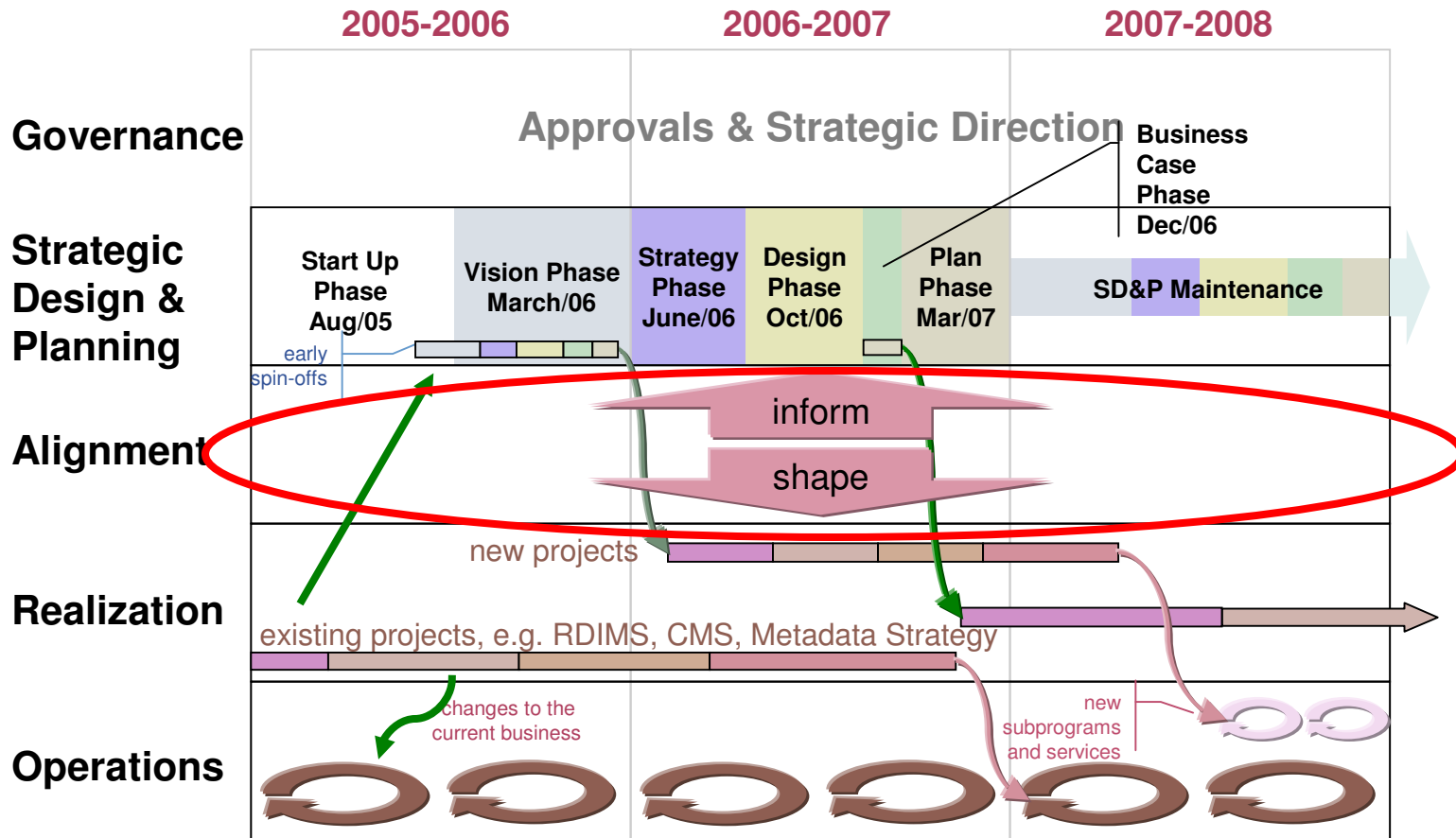
GC employees will be rewarded for their contribution to improved IM outcomes and good IM practises through **the establishment of a comprehensive and sustainable incentive program.**

The incentives will be linked to their PMAs, reflected in DM accountabilities and meet accepted standards of IM performance.

All projects or initiatives will not be successful without this improvement



Alignment



Alignment

Objective: a cohesive fit of current and planned IM investments against outcomes and target end state for IM by ensuring they

- address priority root IM problems and
- contribute to achieving IM program outcomes

Approach

- Identify candidate IM initiatives for alignment – IM inventory
- Examine existing and planned IM initiatives - alignment
 - to determine degree of alignment to outcome value chain
 - To identify gaps or opportunities to leverage efforts/investments

Analysis may recommend changes to initiatives in order to achieve closer alignment to IM program outcomes

Or

recommend changes to Program objectives to incorporate experience of investment





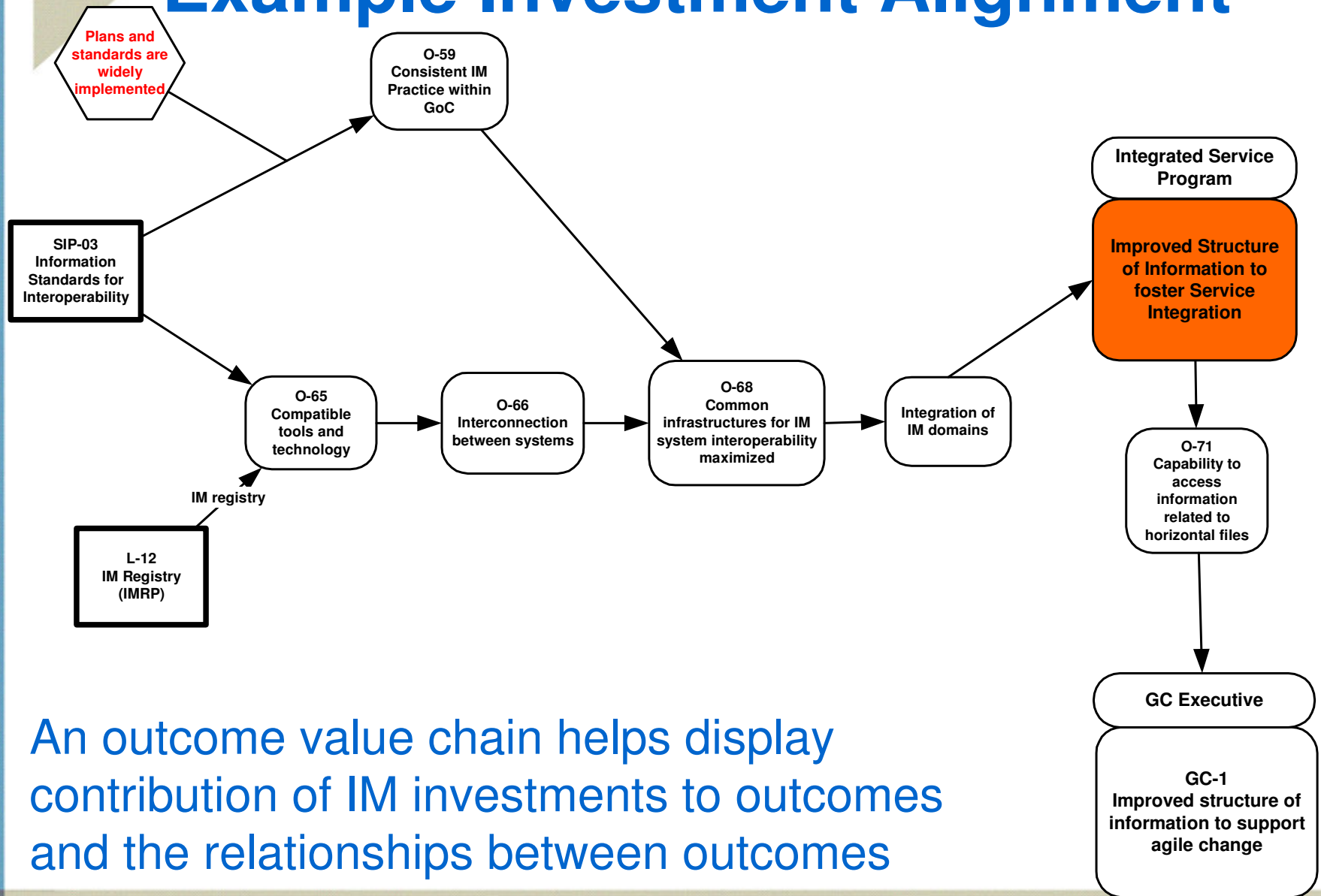
IM Initiatives Inventory

Where are we now?

- Goal is to include current, planned and ongoing (and still relevant) IM initiatives
 - Pilot: information collected on projects identified by TBS, LAC; also MGI Projects, IM in Business
 - supports the selection of initiatives for alignment assessment
- Alignment Selection Criteria
 - Being developed for confirmation with IMC working group



Example Investment Alignment



An outcome value chain helps display contribution of IM investments to outcomes and the relationships between outcomes





The Look Forward – Next Year

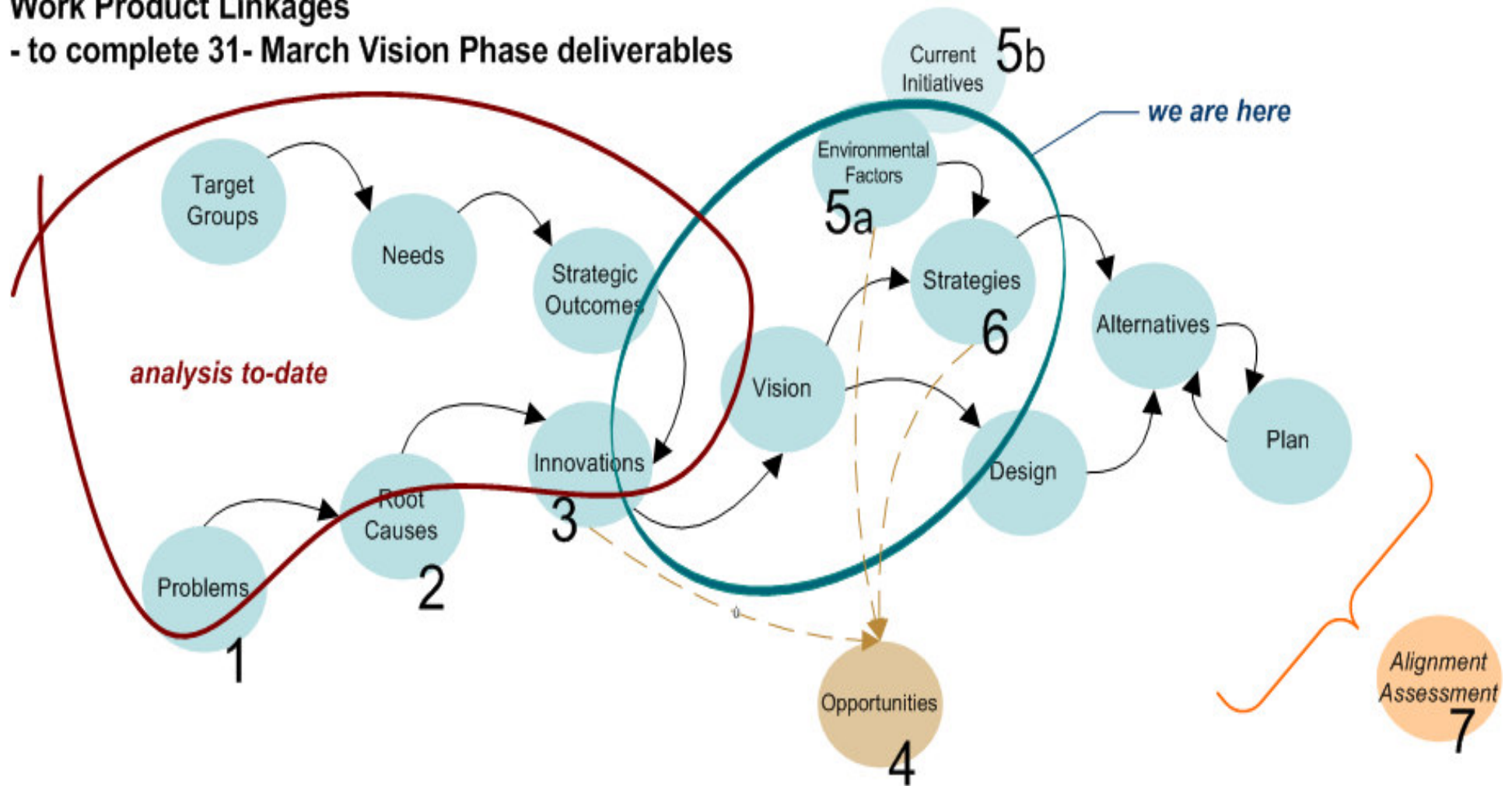
- 1. Complete the strategy, design, business case and implementation plan for the IM Program**
- 2. Expand alignment and assessment**
 - to support integration of IM investments
 - to carry out priority assessments of current IM investments
 - to recommend priority areas for investment
- 3. Focus on Strategic Opportunities**
 - **Information Standards & Architecture**
 - complete & test metadata standards in support of information interoperability and reuse
 - release of Information Reference Model & support departments in its use



Next Steps

Work Product Linkages

- to complete 31- March Vision Phase deliverables





***We Already Know What the
Problem Is ...***

Why not just get on with it?

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Canada