

# Integrating Performance Measurement and Evaluation

Challenges and Opportunities



# Michel Laurendeau

- B.Sc. and M.A. Psychology (Research)
- Studies in economics and public management
- Career background:
  - Departmental evaluation (30 years)
  - 2001 TBS Evaluation Policy – Results-based Management and Accountability Framework (RMAF) approach
  - Since 2007, independent consultant concentrated on
    - Evaluation
    - Performance Measurement
  - Public sector clients include Canadian federal and provincial (Ontario) governments, as well as some NGOs



# Recent Update from TBS on Resource Management

## Policy on Results (2016)



### > Planning for centrally-led evaluations

- Additional arms-length perspective
- Greater experimentation and the testing to support ongoing evaluation and reviews
- Performance measurement evolution through work with partners and the development of analytical tools

1

### > Continuing work on **resource alignment reviews**

- Departmental reviews
- Horizontal reviews

2

Working towards **performance budgeting**

**HUGE!!!**

*Source: TBS Presentation at PPX 2018 Symposium (May 2018)*

# Players and Perspectives

- Chief Science Officer
  - Strategic Analysis
- Privy Council Office
  - Priority Setting
  - Approval of MC (and Funding)
- Senior Management and Parliamentarians
  - New Programs (TB Sub.)
  - Resource (re)allocations
- Operational Manager
  - Monitoring and Oversight, Budgeting
- Corporate Services
  - Periodic Analysis and Reporting

# Permanent vs New Programs

## Permanent programs (90%)

- Respond to ongoing demand of programs/clients
- Seeking gains by lowering costs and/or increasing benefits
- Rely on the monitoring of program delivery (economy and efficiency) and allocative efficiency
- Need experimentation and testing of alternative approaches and pathways to program delivery

## New programs/initiatives (10%)

- Respond to emerging public/societal issues
- Seeking to achieve expected results (or targeted outcomes)
- Rely on the assessment of program impacts (effectiveness and cost-effectiveness)
- Need experimentation and testing of alternative program designs

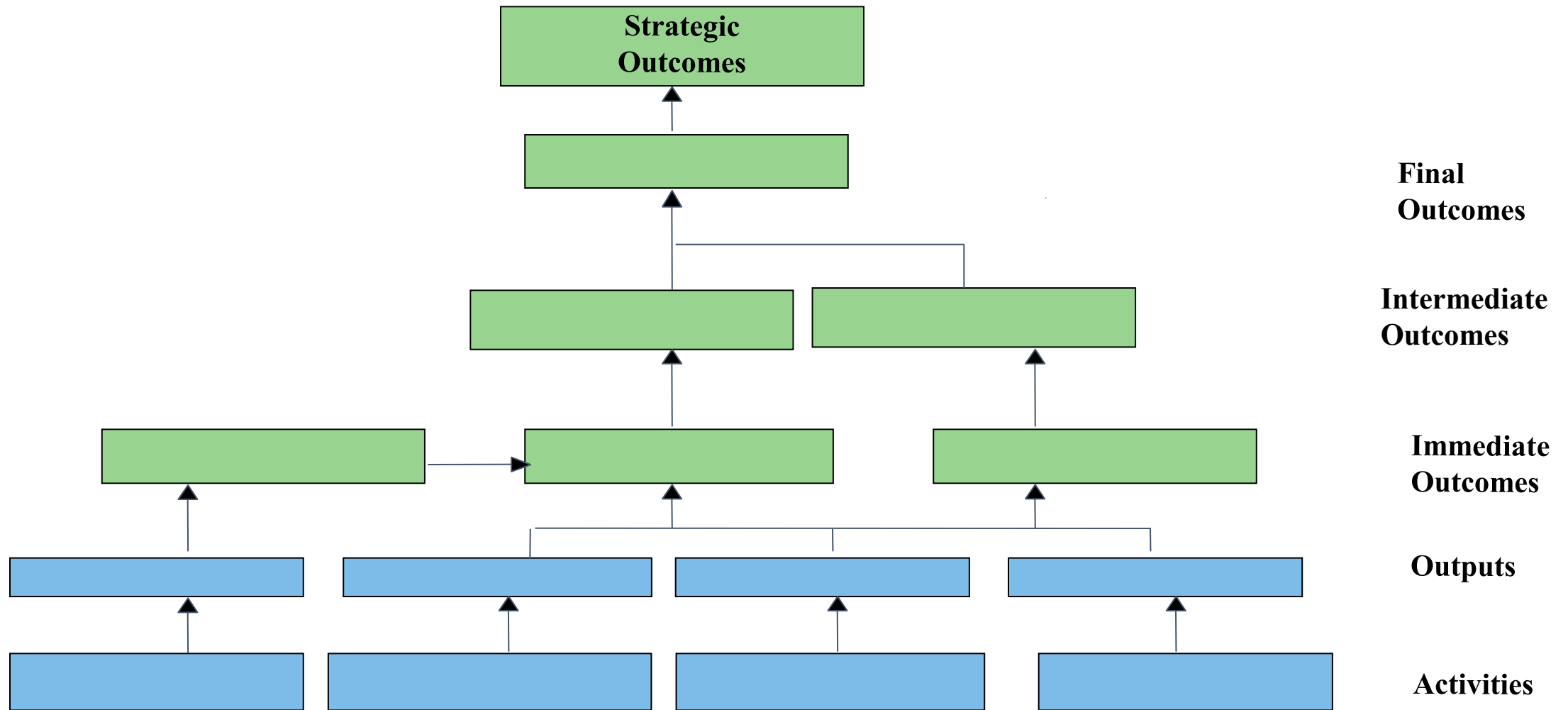
# Requirements for Resource (Re)Allocation

- Aligning financial (*capacity*) and non-financial (*performance*) information
- Determining performance to be achieved (*'What'*):
  - Defining strategic objectives (expected results)
- Designing successful program intervention (*'How'*):
  - Logic models clarifying underlying assumptions of program intervention
  - Assessing performance in a way that supports program improvements and resource (re)allocation

# Addressing Allocative Efficiency

- Need techniques/tools to understand:
  - The strategy developed by the program to achieve intended results
  - The assumptions on which the program intervention was built
  - What results need to be monitored and evaluated in order to demonstrate the efficiency and cost-effectiveness of programs as a basis for budgeting and resource (re)allocation

# Theory of Change (Program Design Approach)

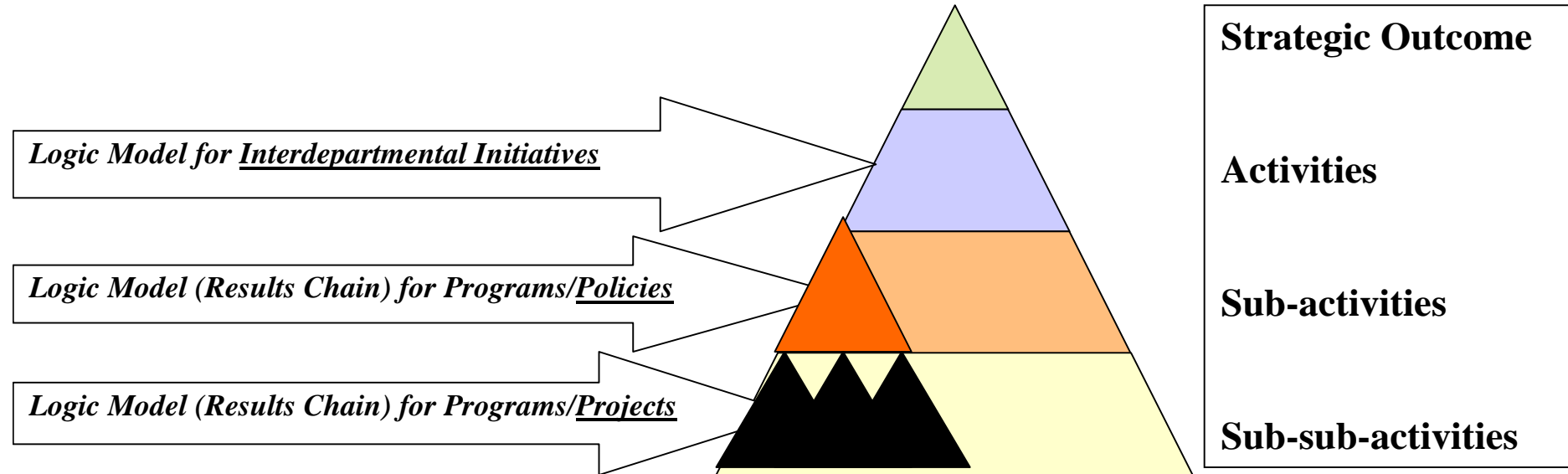




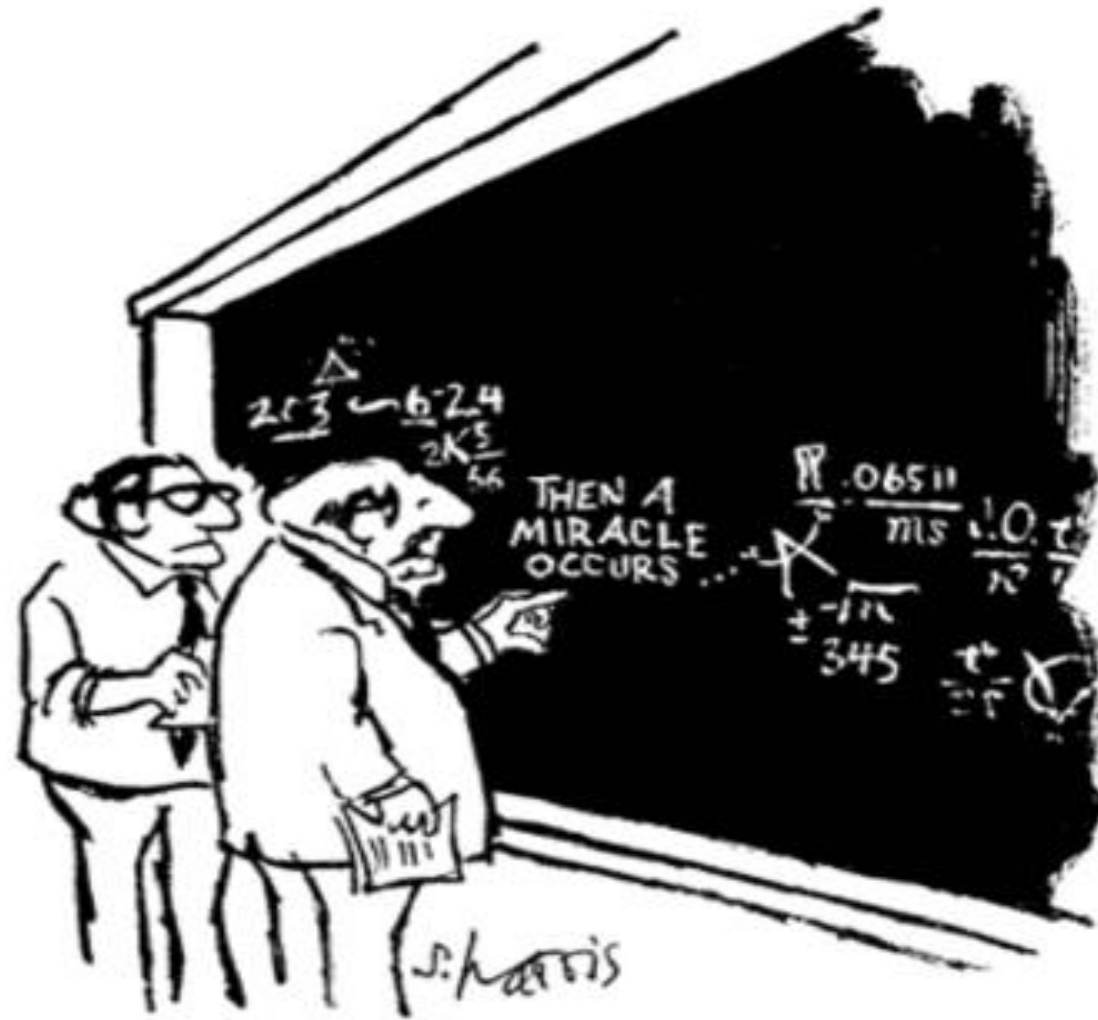
# Relationship of Logic (Flow) Models to Program Alignment Architecture (Structural Model)

## Logic Models

## Program Alignment Architecture



# On Beliefs...



"I think you should be more explicit here in step two."

# Modeling Issues/Pitfalls

- Confusing structural and flow models
- Models often based on unclear assumptions (e.g. miracles) or beliefs/ideology
- TOC focusing on the creation of sufficient sets of (pre)conditions
- LM/TOC usually excluding external factors that created the issue and that still influence results
- Using a table approach and overcrowding LM with detailed list of program activities and outputs
- Including management issues that confuse delivery (efficiency) and outcomes (effectiveness) – e.g. good management, access to products, program sustainability, protection of system
- Assuming all strategic results are ultimate outcomes

# Improved Modeling Approach

- Using a limited number of ways to map program intervention:
  - 19 common activity/output groupings
  - 5 types of strategies (or *Chains of Results*)
- Organizing the *Chains of Results* to clarify the program intervention strategy
- Using a *Seven (7) Step approach to Performance Measurement* (see the 7 consecutive AEA365 Posts in January 2018)

# Common Activity/Output Groupings

There is a limited number of activities/services Canada's three orders of government can to deliver outputs (products and services) to target groups:

- |  |  |
|--|--|
| 1. Acquire and/or provide financial resources  | 11. Create collaborations, negotiate agreements, settle disputes           |
| 2. Provide resources such as goods, equipment, accommodations (apart from funds and human resources) | 12. Regulate, license, permit, certify, identify, authorize                |
| 3. Conduct research  | 13. Inspect and investigate  |
| 4. Provide care and rehabilitation to people and things  | 14. Apply rules and dispense justice                                       |
| 5. Provide educational and training experiences / opportunities                                      | 15. Enforce compliance, mete out punishment, penalize                      |
| 6. Provide recreational and cultural experiences / opportunities                                     | 16. Monitor, warn, guard, store, eliminate threats, reduce risks           |
| 7. Move people and things  | 17. Intervene, respond to threats and emergencies, give aid, restore order |
| 8. Provide information and advice  | 18. Create and change rules  |
| 9. Broker, refer, connect, match   | 19. Change existing organizations, practices, systems                      |
| 10. Influence, advocate, persuade, promote awareness   |  |

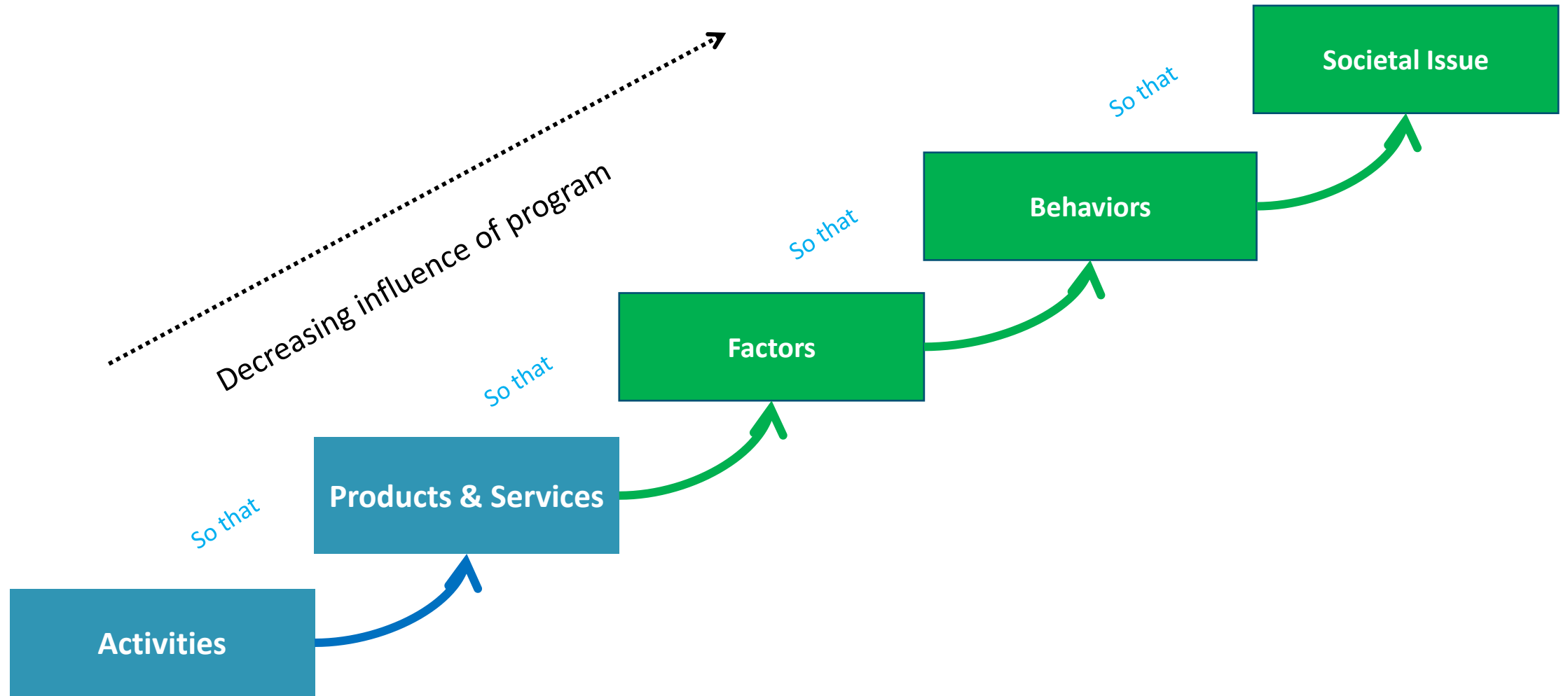
*Adapted from the service output types described in the 2004 Business Transformation Enablement Program (BTEP) Handbook.*

# Common Program Impact Groupings

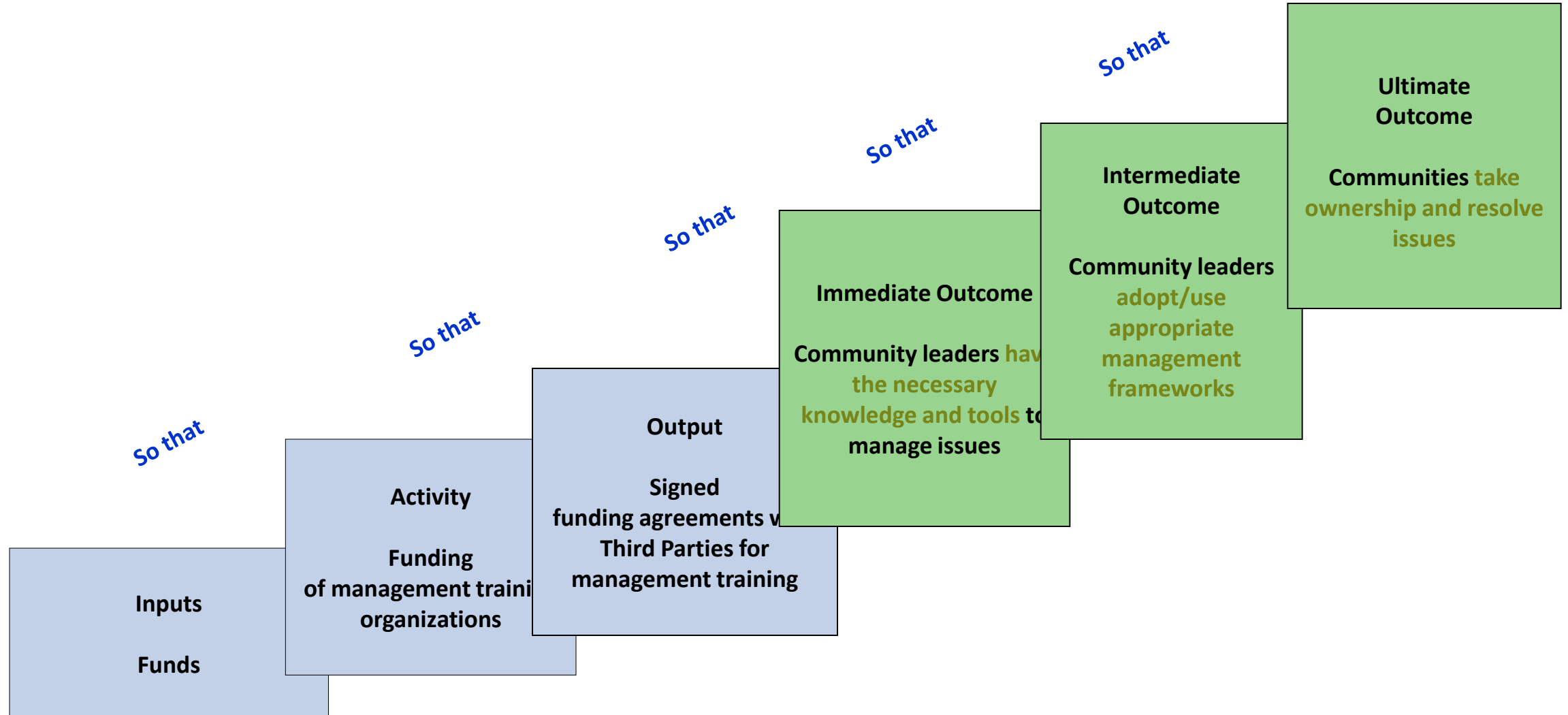
The activities/services of Canada's three orders of government can be structured into five impact groupings by the type of output they produce:

1. Supply the capacity to act
2. Enhance the capability to act
3. Facilitate and influence action
4. Regulate action
5. Create rules

# 'How' – Causal Approach to Chains of Results



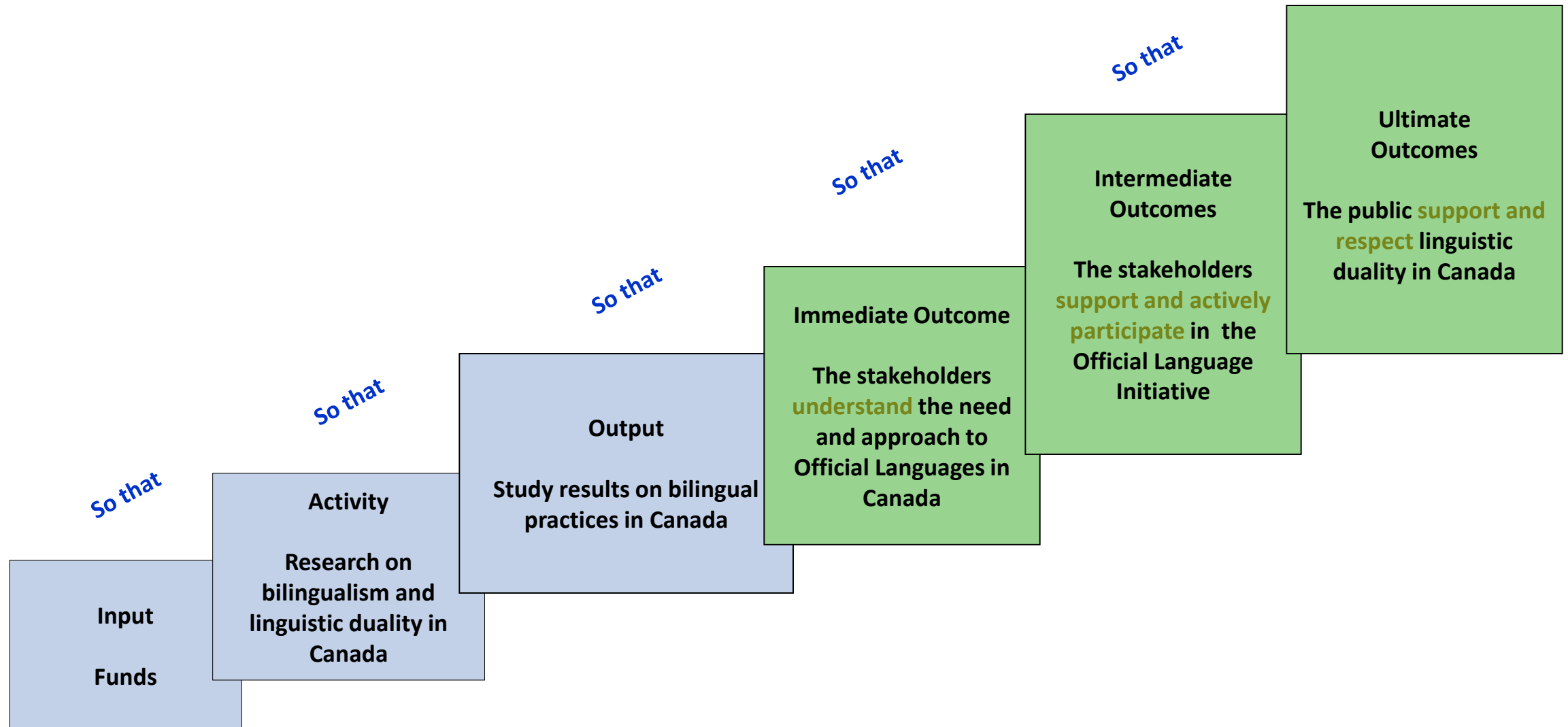
# Supply the Capacity to Act Logic/Causal Flow



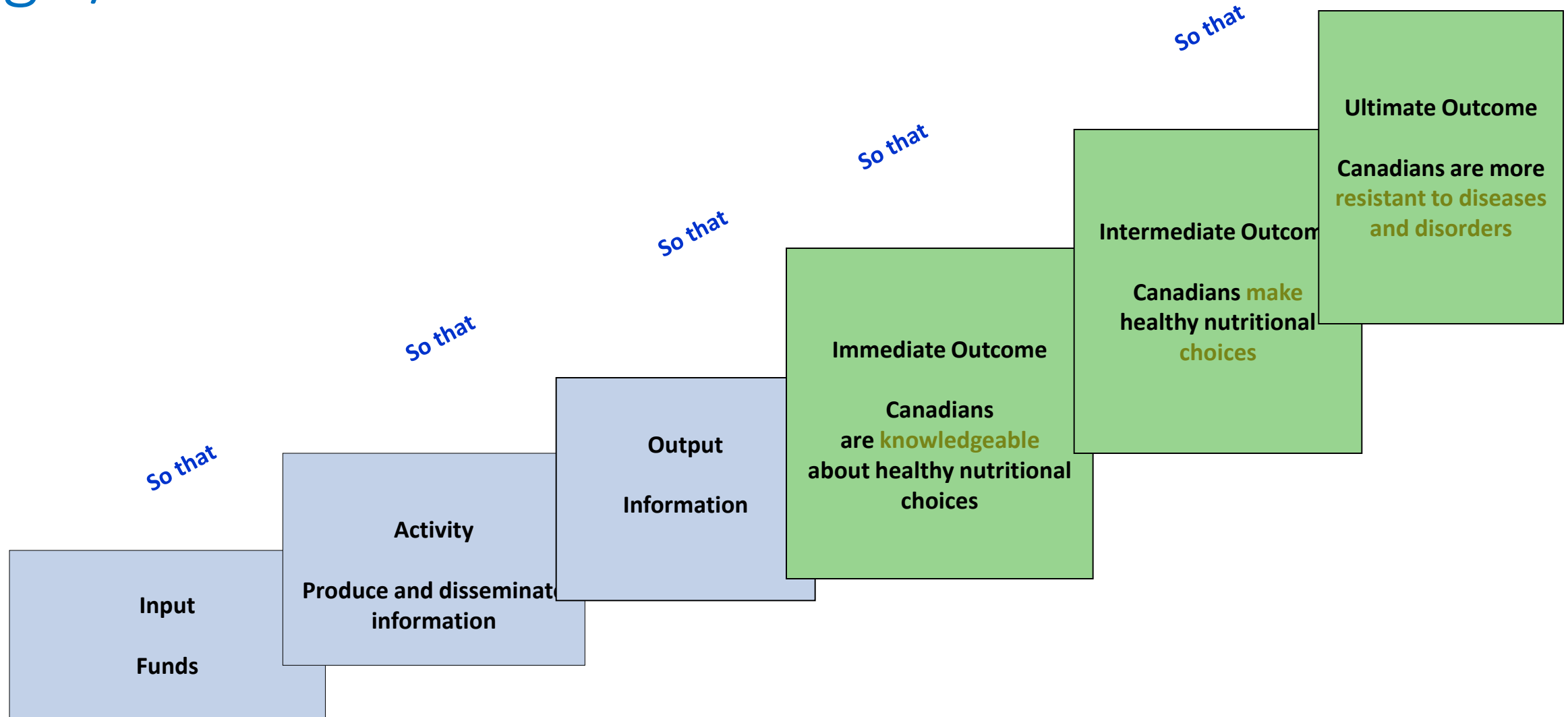


# Enhance the Capability to Intervene

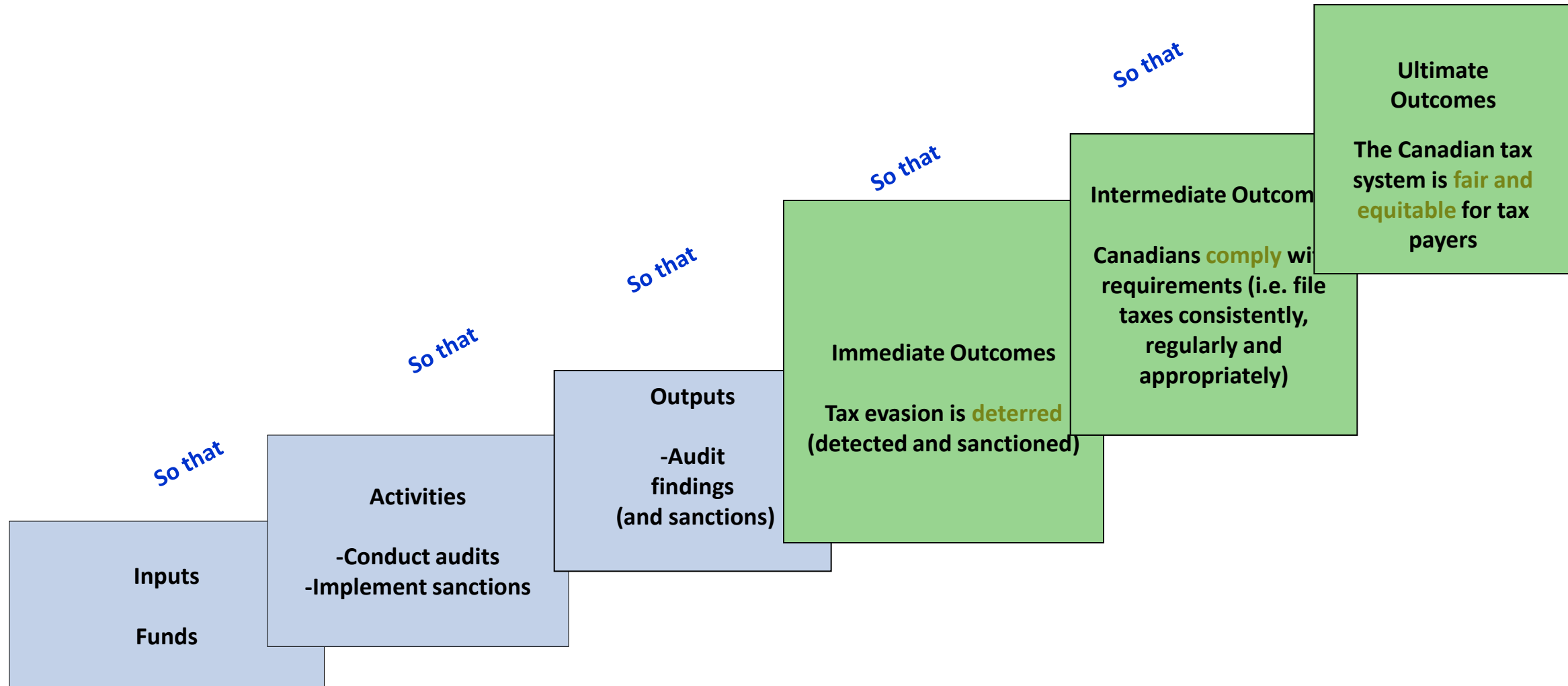
## Logic/Causal Flow



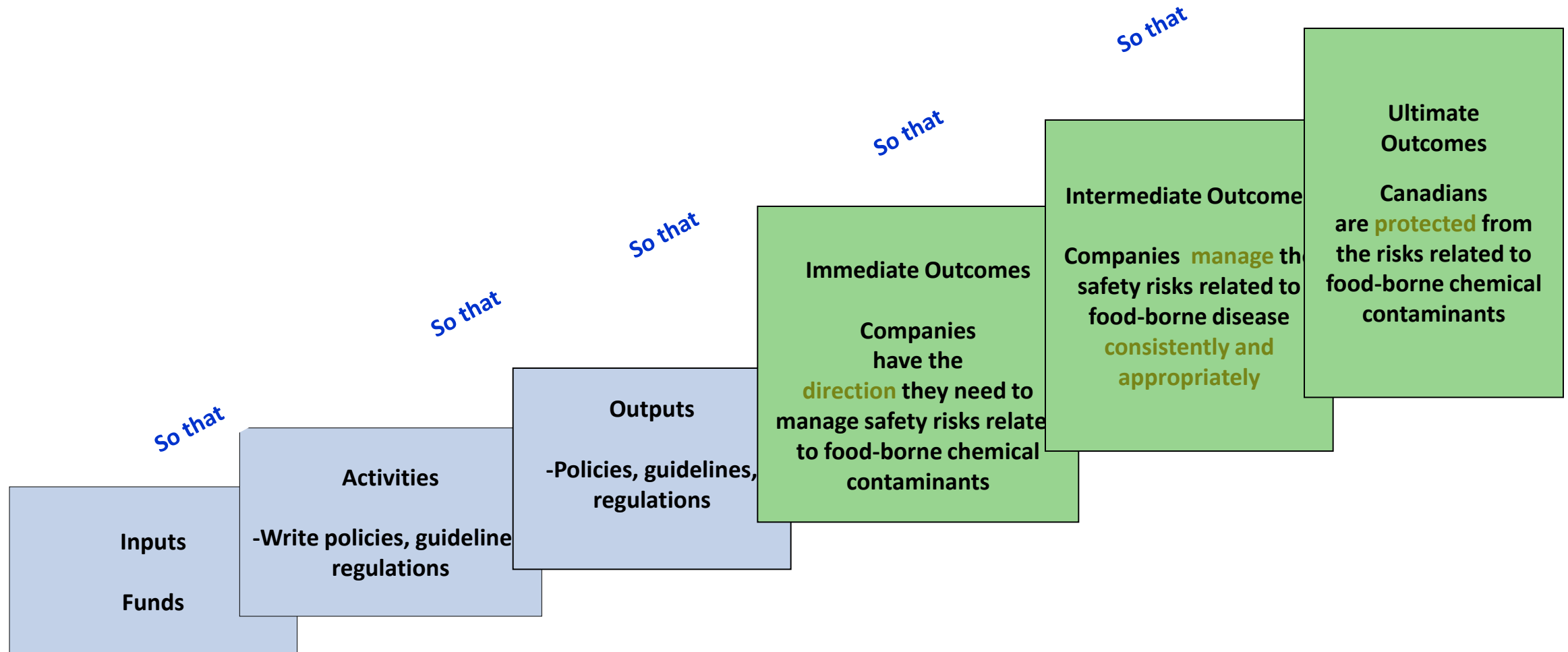
# Facilitate and Influence Action Logic/Causal Flow



# Regulate Action Logic/Causal Flow



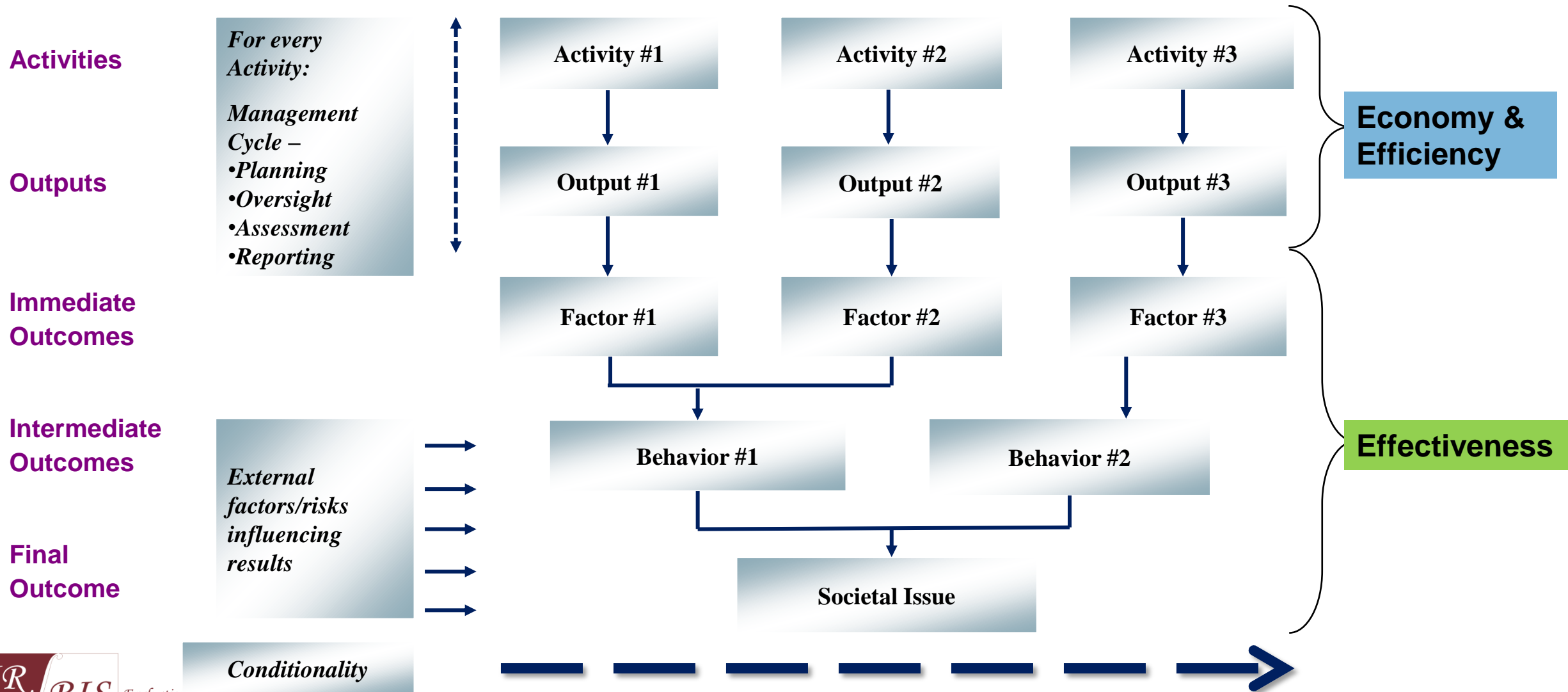
# Create Rules Logic/Causal Flow



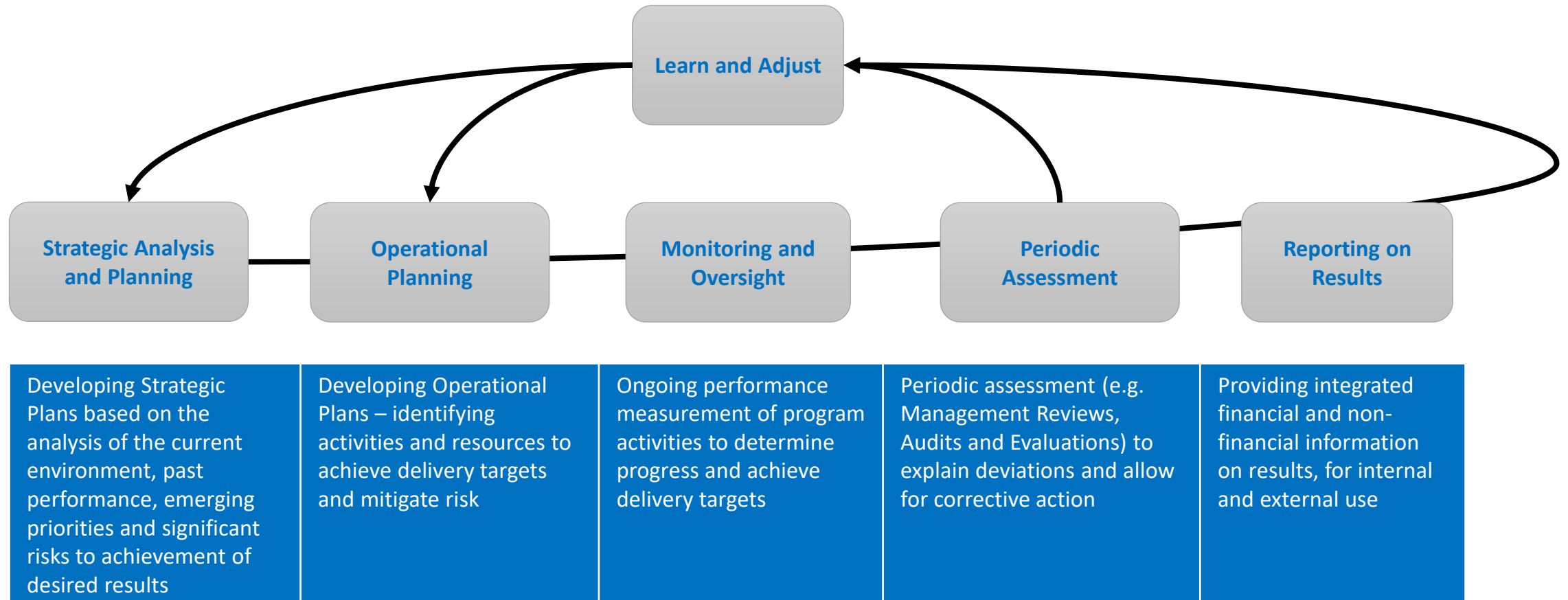
# Seven (7) Step approach to Performance Measurement

1. Identify all influencing factors (assumptions)
2. Determine which factors/risks are being 'managed' under the program intervention
3. Link activities/outputs to outcomes
4. Define the delivery process models
5. Separately identify management issues (if any)
6. Determine relevant indicators for all above
7. Create a database with micro-data on all relevant indicators (including external factors)

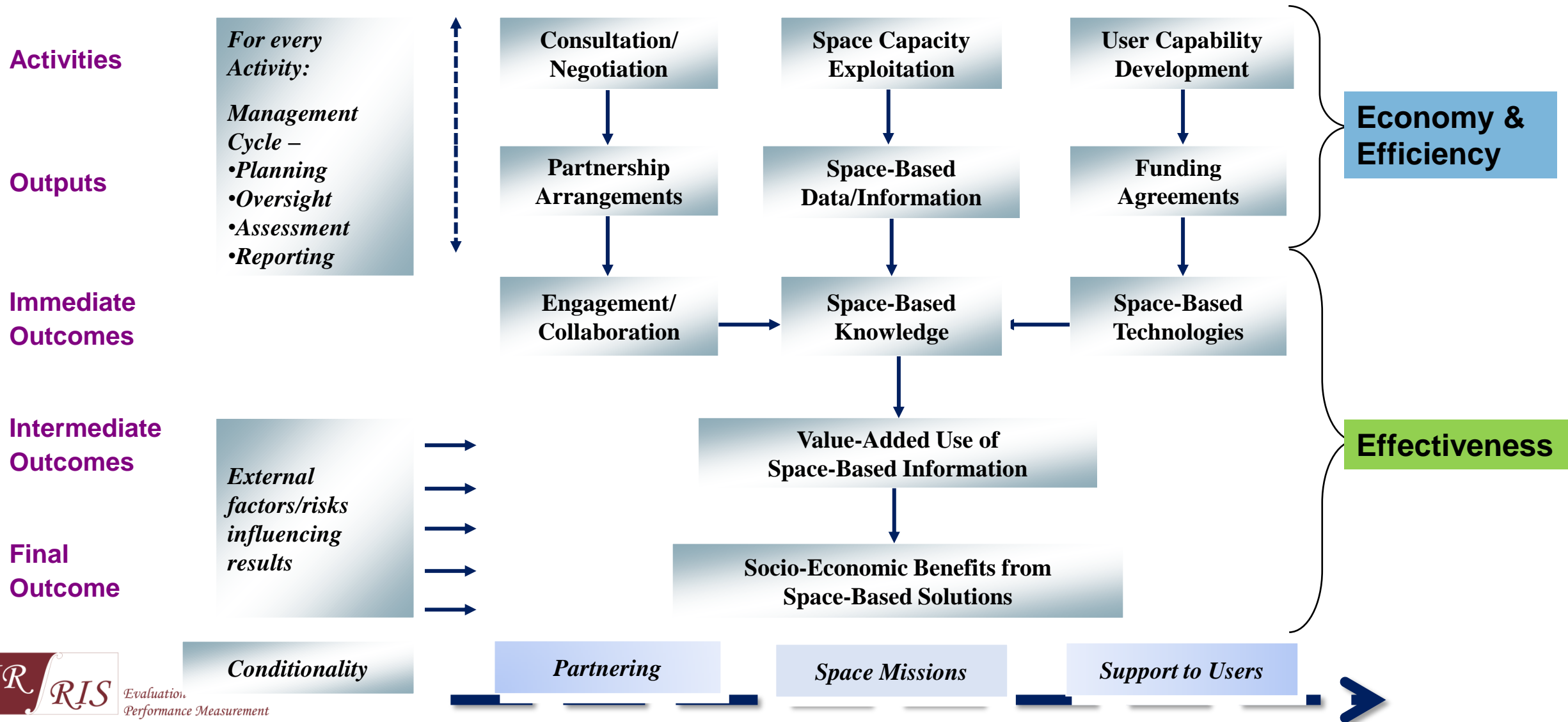
# A. Approach to Combined LM/TOC



# Results-based Management Practice



# Proposed Logic Model – Space Utilization Program





# Issues Resolved with Combined LM/TOC

- Clear depiction of chains of results and underlying assumptions from a program perspective
- Inclusion of external influences (control variables)
- Program outputs as products\* reaching target populations
- Separate attention to management issues
- Comprehensive set of indicators supporting performance measurement (monitoring) and evaluation
- Subset of best indicators for reporting purposes

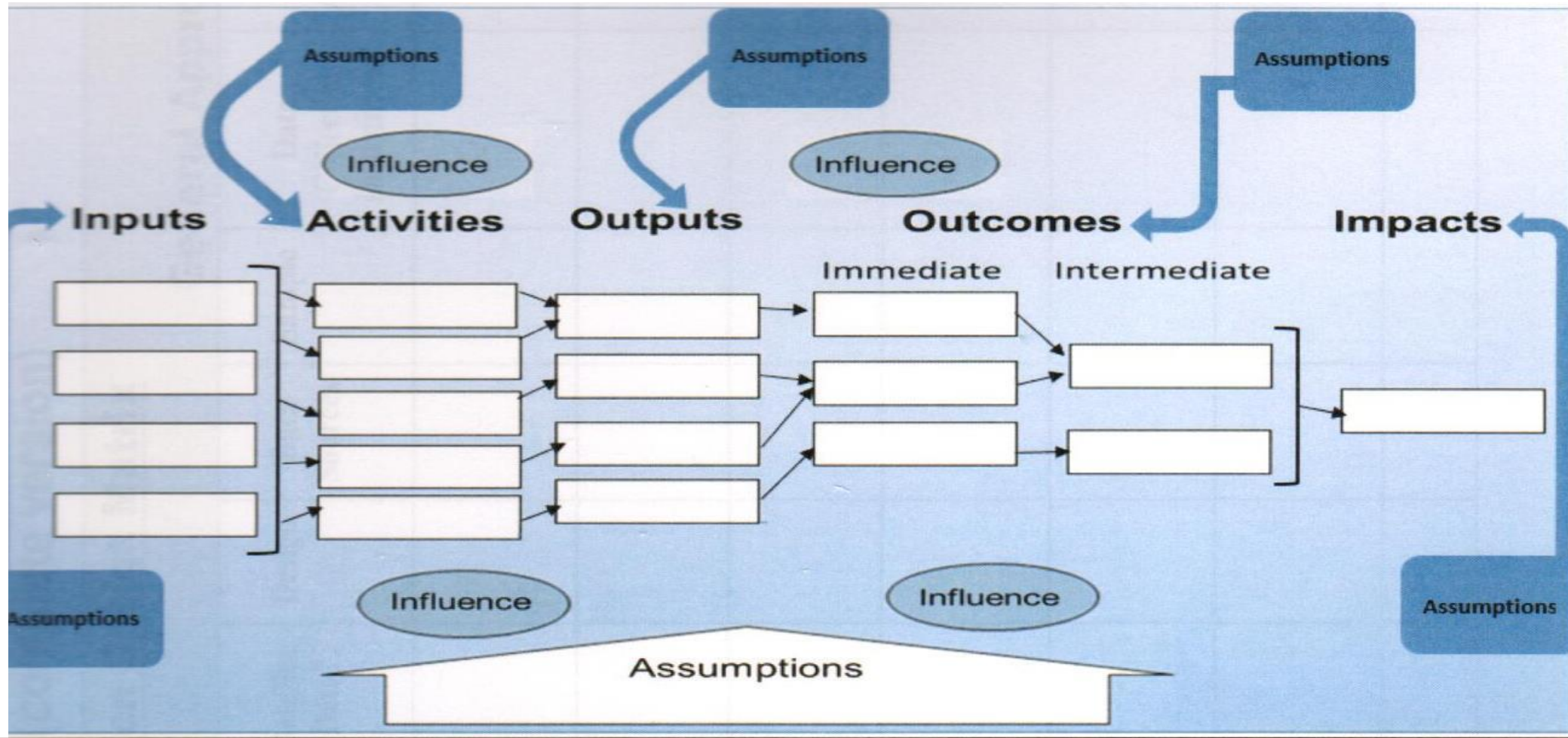
\* As well as services through push-pull approach

# Remaining Issue with Combined LM/TOC

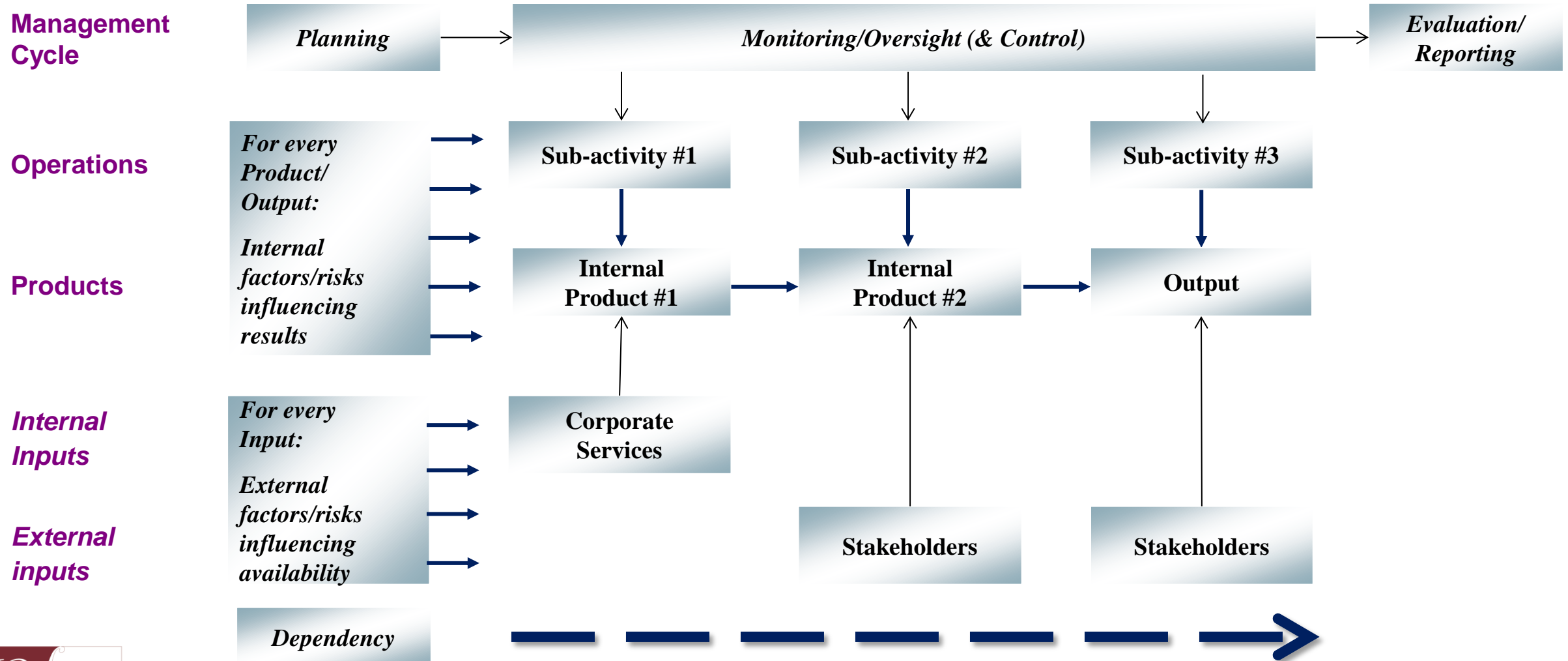
Need to eliminate confusion with approach to *influences* and *assumptions*:

- *Logic Model (Program Theory)*: working ***assumptions*** or hypotheses about (i.e. salient causal links of) the program intervention
- *Influences*: ***assumptions*** about external (support) factors/risks that are salient and influencing program outcomes a regular basis
- *Other assumptions*: Contextual (threshold) conditions for unfolding of Theory of Change – redefine as *risks* or *latent influences* (using probabilistic approach)?

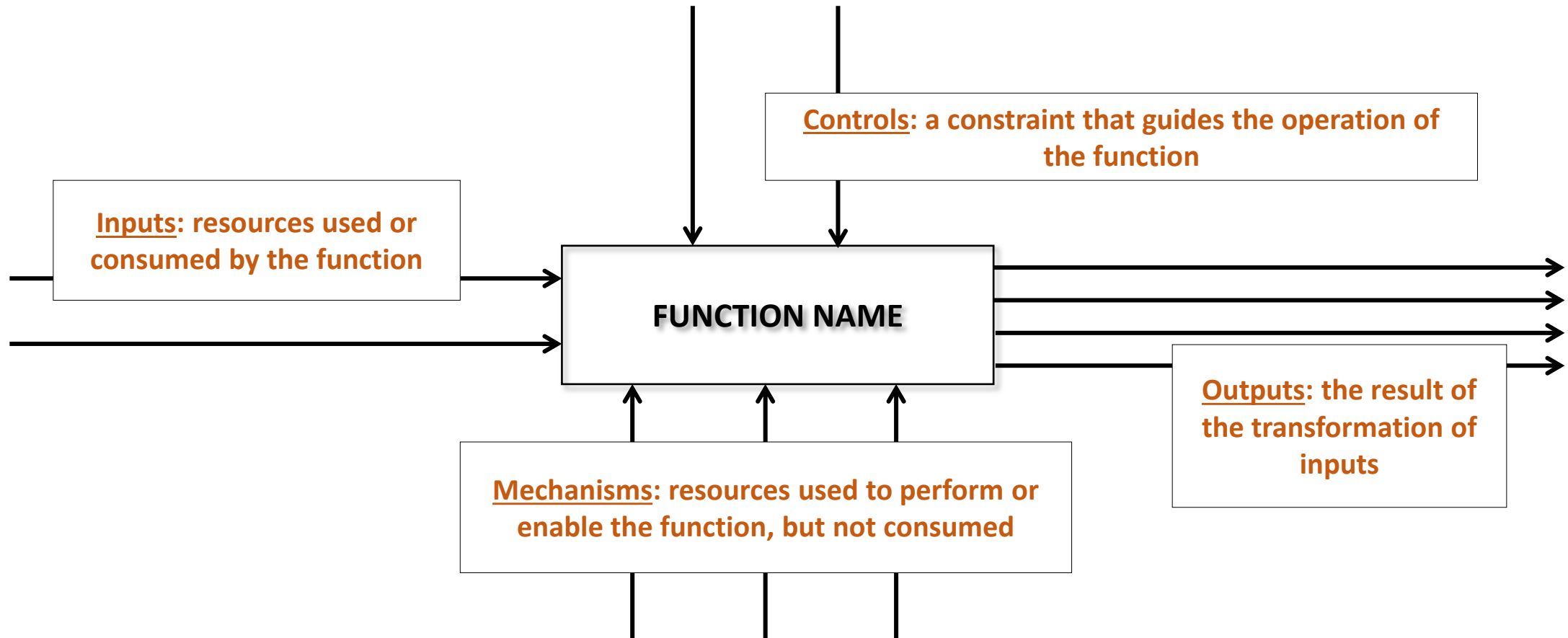
# Influences and Assumptions in LM/TOC



## B. Approach to Delivery Process Models

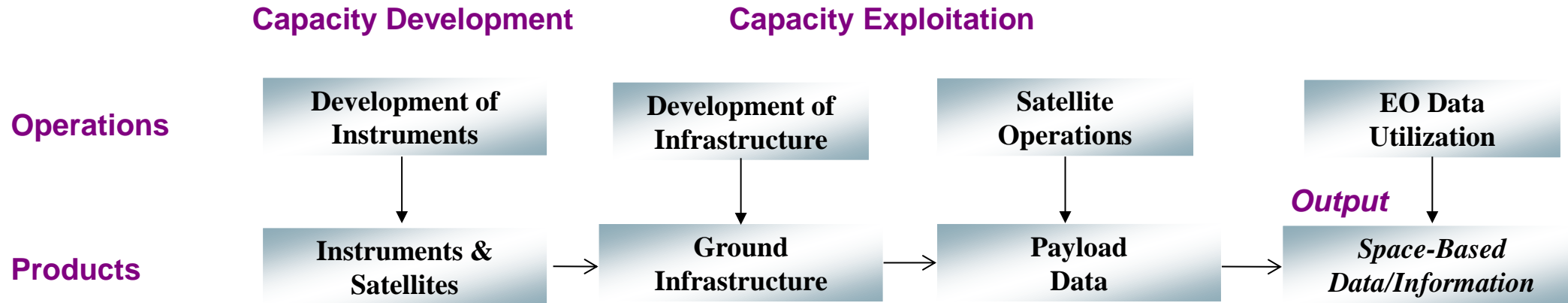


# Based on 'Integration Definition for Function Modeling' (IDEF 0)



Source: Draft Federal Information Processing Standards Publication 183 (1993) - adjusted

# Proposed Delivery Process Model – Space Capacity Exploitation



# Issues addressed by Delivery Process Models

- Clear depiction of stepwise approach to delivery
- Comprehensive set of indicators supporting the monitoring of delivery
- Identification of internal (capacity) and external (resource) factors/risks for production
- Identification of required management controls (Control Frameworks)
- Possibility to develop scorecards that include parameters for decision-making
- Possibility to link with individual performance measurement
- Provide the basis to measure economy/efficiency against targets and address capacity for performance budgeting



# Performance Indicator Report Example

## Indicator 1.3.1-12 (July 28, 2006) – Workshop Attendee Satisfaction

### Reporting Area:

1.3.1: Occupational Health and Safety Program in the Program  
Alignment Architecture

### Indicator Purpose:

Capture attendees' views on whether the information provided is the highest possible quality, is relevant and meets all other user needs.

### Indicator Description:

Attendees are e-mailed within one week of appearance. They are asked to rate, on a scale of 1 to 5, their experience with the training and administrative arrangements surrounding their workshop attendance (i.e., scheduling, physical comfort, guidance, quality of training materials/instructor, follow-up). Replies are logged automatically.

**Target:** 80% at 4/5 on scale of 5; 20% at 3; 0% at 1/2

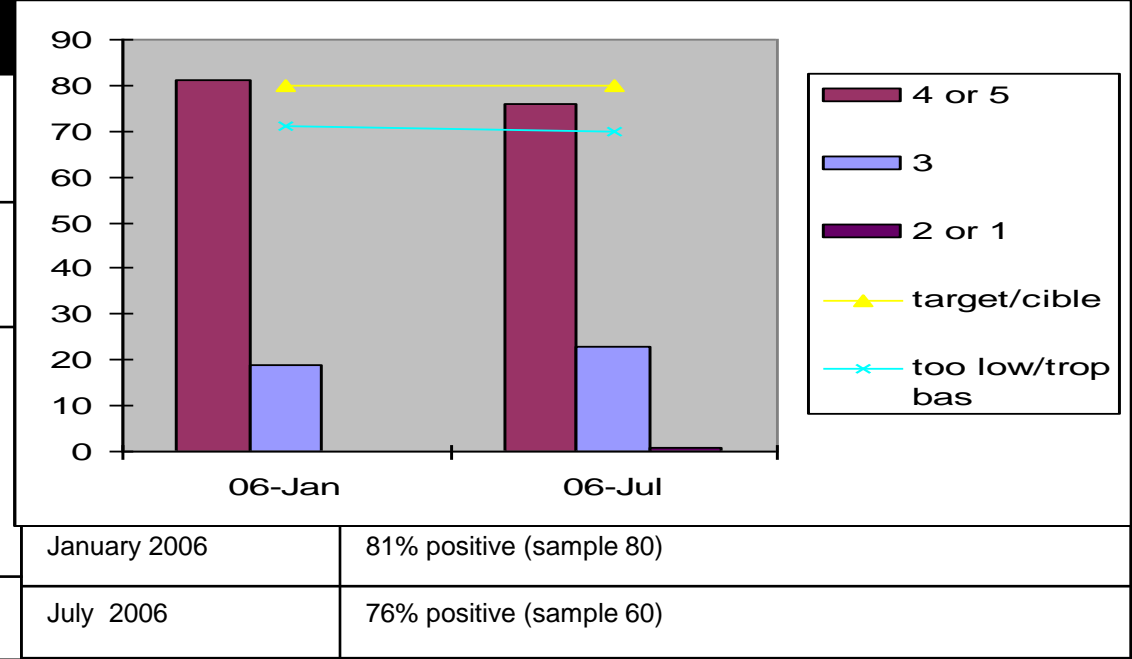
### Results of Analysis (“so what”):

Although the latest performance results are lower than the target, the difference is not significant. Assuming that the opinions of those responding do not differ significantly from the opinions of those not answering, the results of a survey of about 80 attendees should be within about 9% (plus or minus) of the true overall satisfaction rate 19 times out of 20. That is, changes of less than 9% between surveys are not significant. If fewer attendees are surveyed, the results must be even farther from the target to reliably portray dissatisfaction.

### Next Steps (“now what”):

Although the latest measurements are not significantly below target, opportunities for improvement were provided by attendees and these are being addressed.

**Next Update:** January 2007.





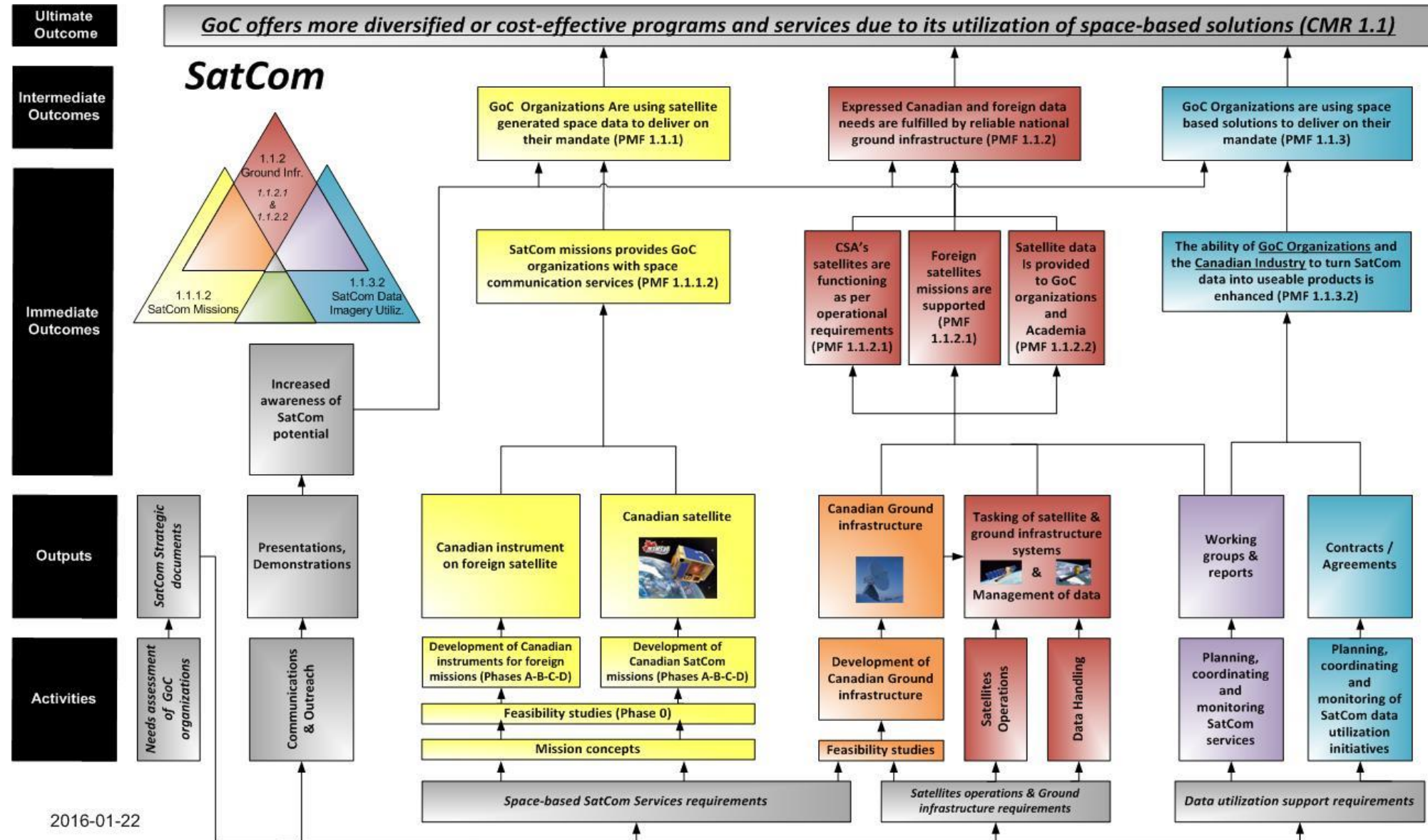
# Expected Benefits of Integrated Approach to PM

- Clarity of assumptions (explanatory power)
- Structuring capacity (management, delivery process, outcomes)
- Selection of relevant indicators (and reporting cards and/or scorecards) for program and staff performance assessment
- Communication tool (with clients/stakeholders)
- Credibility/reliability of evidence for:
  - *Improving delivery (Efficiency)*
  - *Increasing levels of outcomes/impacts (Effectiveness)*
  - *Validating predictive indicators (e.g. Delivery standards)*
  - *Supporting (re)allocation decisions (Cost-effectiveness, Cost-Benefit/Utility)*

# Evolving Practices with Integrated Approach

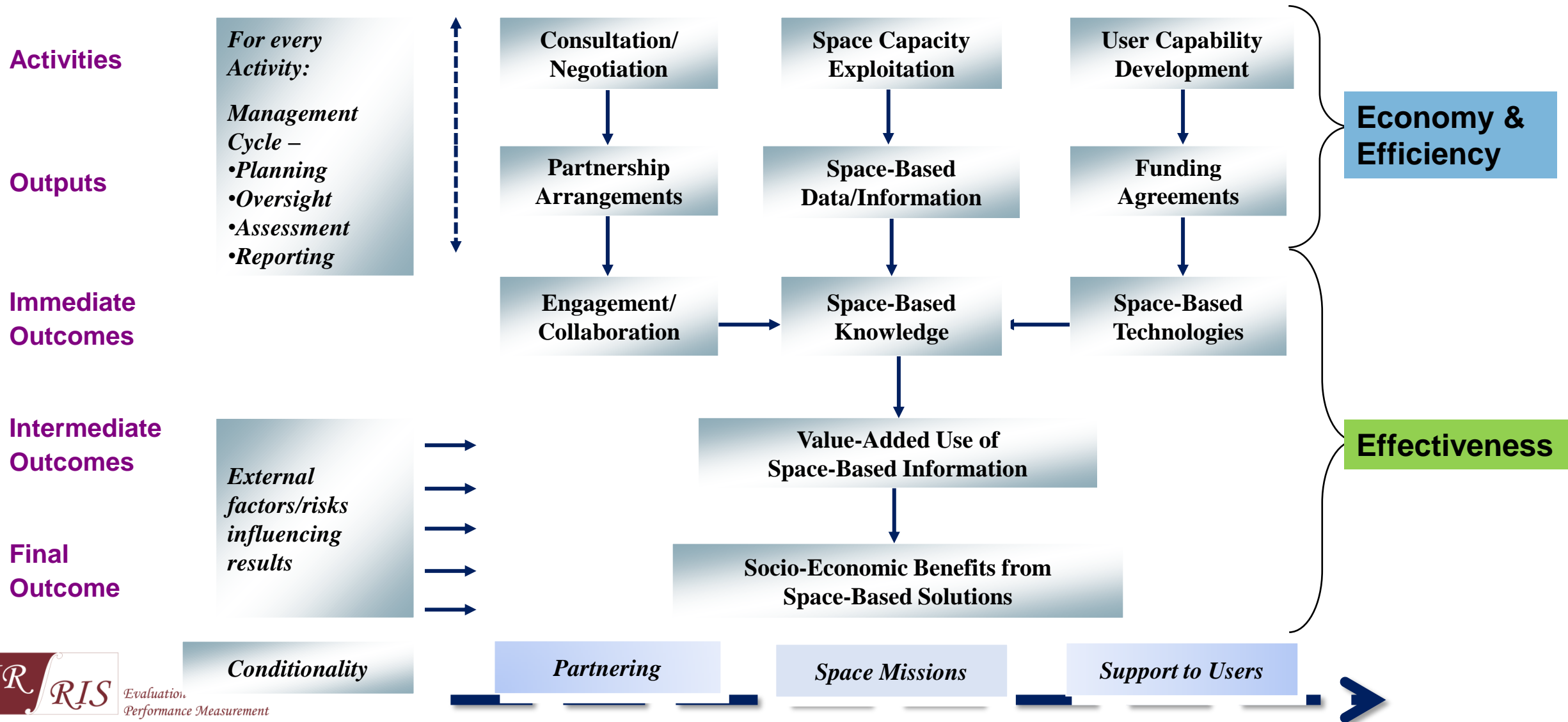
- Streamlined LM/TOC, but many unclear assumptions remaining about causal relationships to multiple strategic results
- Reporting indicators often limited to high-level requirements imposed by TBS or other funding organizations
- No integration of Performance Measurement (Monitoring) and Evaluation Frameworks
- Databases not supporting ongoing monitoring of delivery and evaluation needs/requirements
- No proper linkages between financial and non-financial information for performance budgeting and resource (re)allocation

# Canadian Space Agency – Space Utilization LM (original)

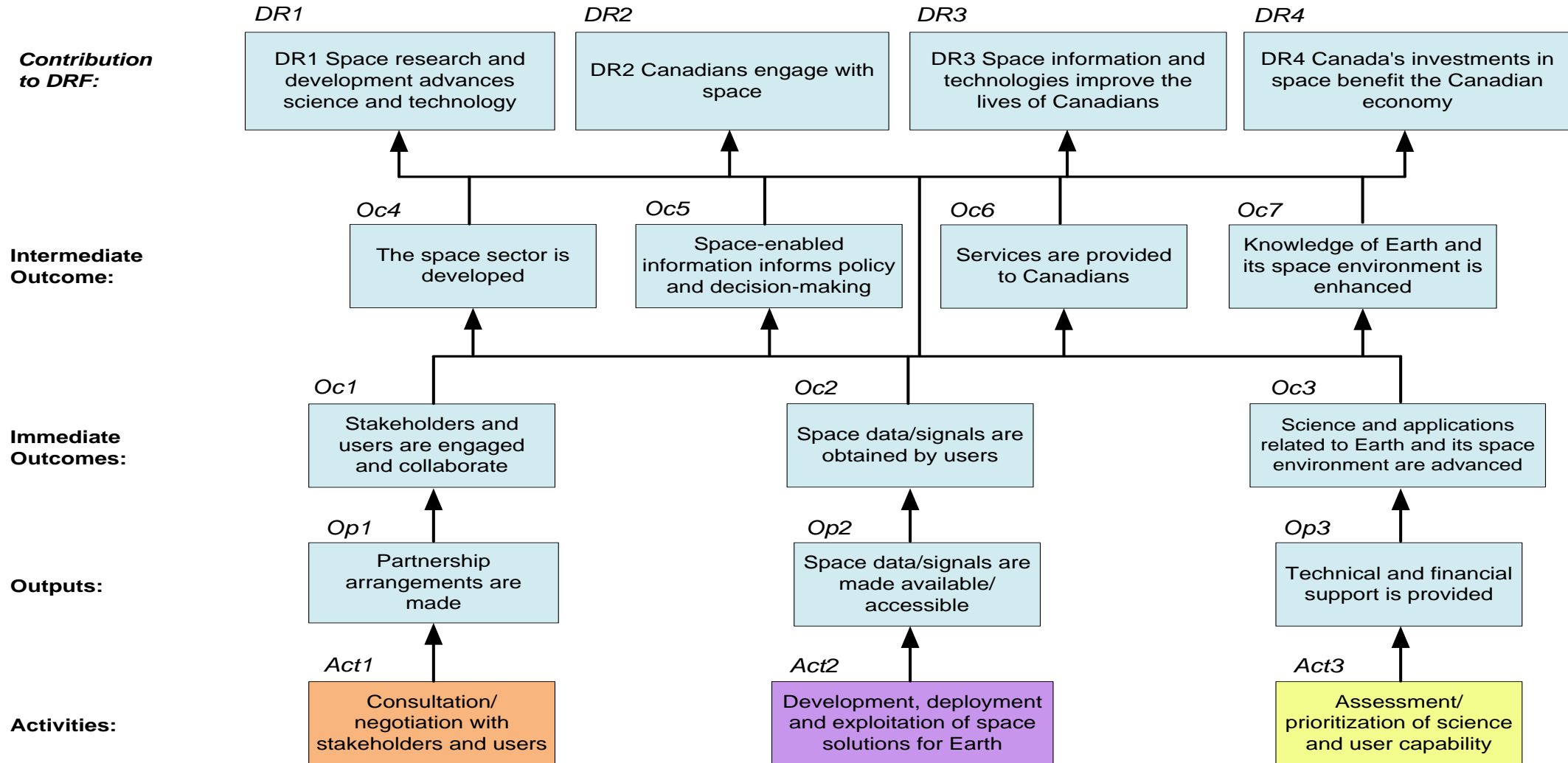


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# Proposed Logic Model – Space Utilization Program



# Canadian Space Agency – Space Utilization LM (revised)



# Remaining Issues

- Establishing proper linkages (i.e. causal assumptions) to strategic results
- Going beyond reporting requirements to support performance budgeting:
  - Developing an exhaustive *Performance Measurement Strategies* that include integrated Performance Measurement and Evaluation frameworks
  - Ensure collection of data on external factors to enable the assessment of program effectiveness using multivariate analysis
  - Developing high level *reporting cards* (on outcomes) and more operational *scorecards* (on delivery) that clarify approaches to data collection, analysis and interpretation for decision-making
  - Using indicators from delivery process models to assess individual performance
- Adjusting to experimentation needs with program design and/or delivery
- Ensuring management buy-in with the overall approach

# Questions?

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