Ontario – Québec
Smart Corridor | Corridor Intelligent

Concept of Operations
Webinar #1: The ITS Architecture to Support the Concept of Operations
January 12, 2012

IBI GROUP ROCHE CAMBRIDGE SYSTEMATICS

Québec Canada

Agenda

- Introduction/Background
- Progress to Date
- User Views/Operational Concepts
- Stakeholder Roles and Responsibilities
- Project Website/Offline Review and Comment

INTRODUCTION

Introductions

- Project Team

Ontario Québec Canada

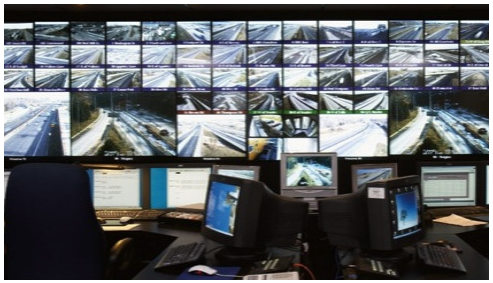
IBI GROUP ROCHE CAMBRIDGE SYSTEMATICS ConSysTec

What makes a Corridor "Smart"?

- *Applying new and emerging technologies to improve operational efficiency.*
- *Sharing information among systems to achieve benefits of coordinated operations*

Opportunities

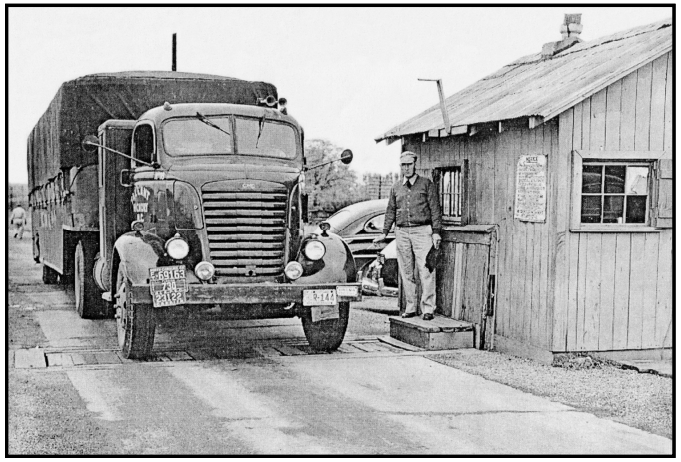
- Electronic filing of credentials/reporting
- Automated means of inspection
- Automated authentication of vehicles, cargo, and personnel
- Seamless electronic transactions/payments
- Terminal reservations
- Dangerous goods tracking
- Readily accessible current/predictive travel conditions information



Why are you here?

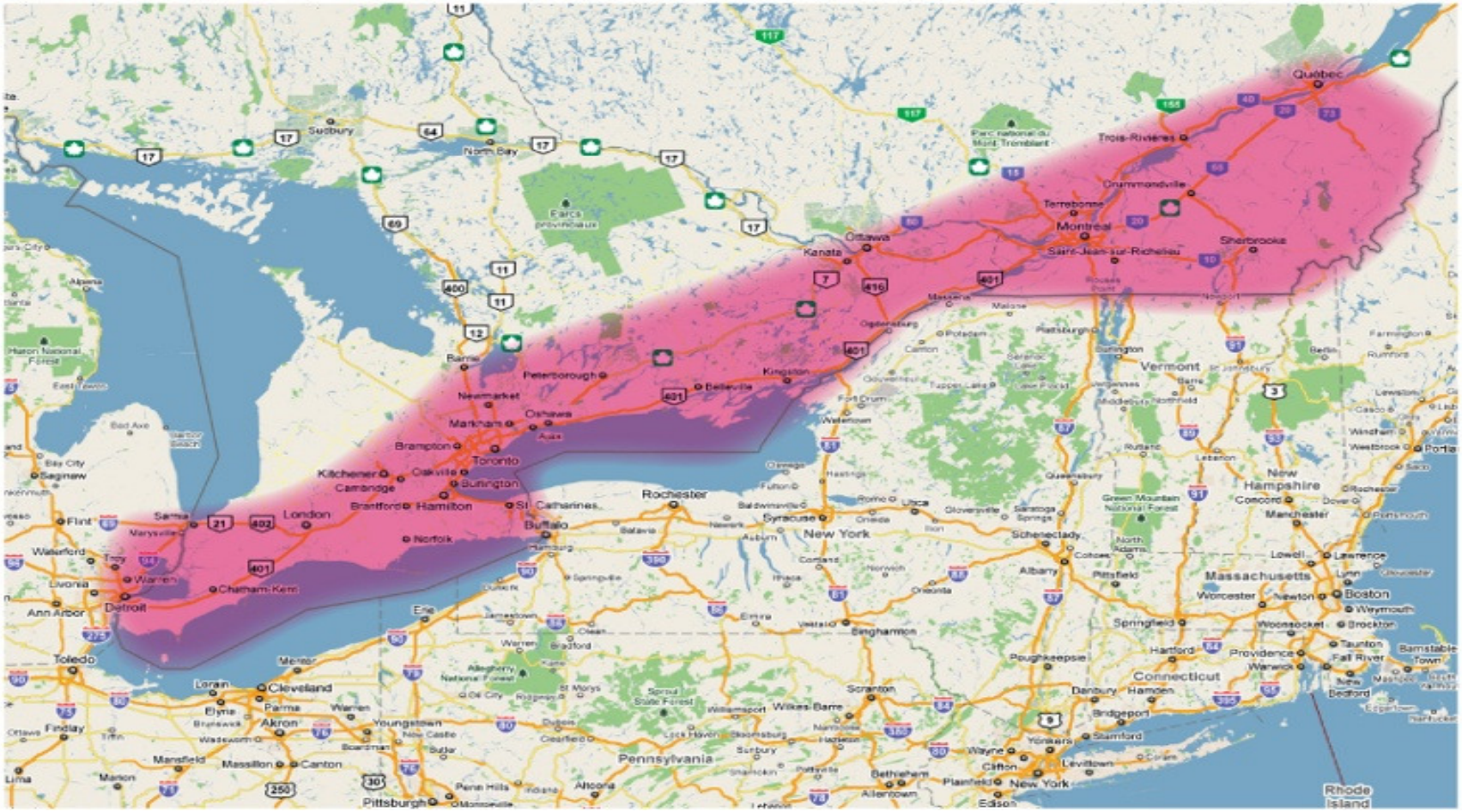
The Smart Corridor will help guide a coordinated approach to technology investment in the corridor

- Management of investment risks
- Prioritization of deployment in coordination with public and private sector stakeholders
- Respective of security and commercial interests



What is the Ontario-Québec Corridor?

- The corridor covers the region from Windsor to Québec City and south to the Canada/U.S. border



What is the Ontario-Québec Corridor?

Goods movement across all modes

Includes intermodal terminals, highways and border crossings

With the objectives of:

- *Sustainable, secure and efficient multimodal transportation*
- *Competitive, attractive for investment, and essential for trade*

Stakeholder Outreach

- *Concept of Operations and underlying Regional ITS Architecture will be developed through stakeholder consultation to represent a consensus roadmap for how various system elements can work together*

Sectors included in outreach:

- Carriers, shippers, logistics providers, terminal operators
- Public sector transportation authorities
- International border authorities
- Information service providers
- Academia

What is the Objective of Today's Webinar

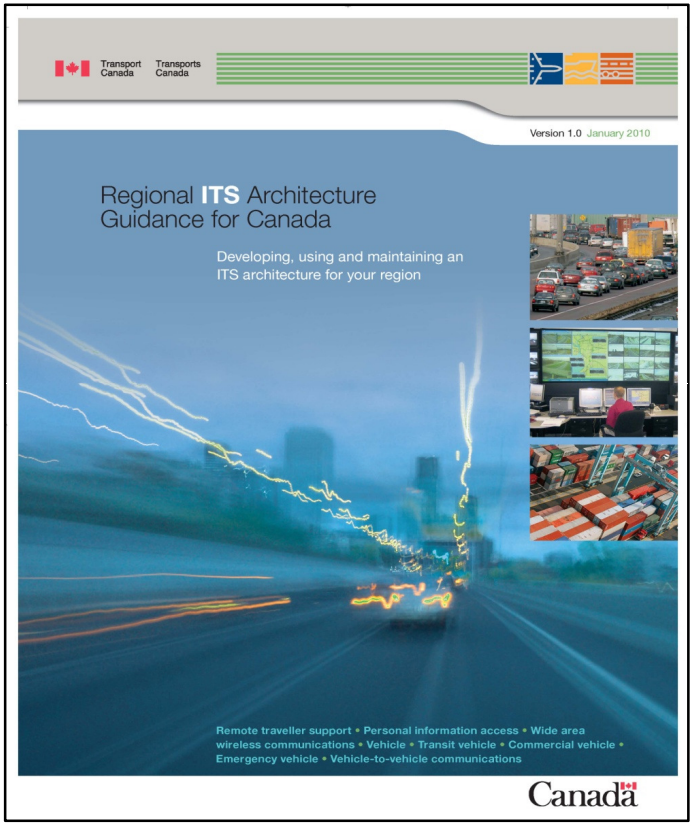
- Explain how the Smart Corridor Concept be documented
- Provide a summary of what we have heard so far
- Provide guidance on how stakeholders can help review draft material
- Information on next steps
- Orientation on project web site navigation

Project Documentation/Results

- Concept of Operations
  - "User Views" of corridor operations from the perspective of various corridor stakeholders
- Regional ITS Architecture
  - Framework for integration
- Project Planning
  - Identify priority projects

- ITS Architectures
  - *A powerful tool for planning the regional development and integration of transportation systems*

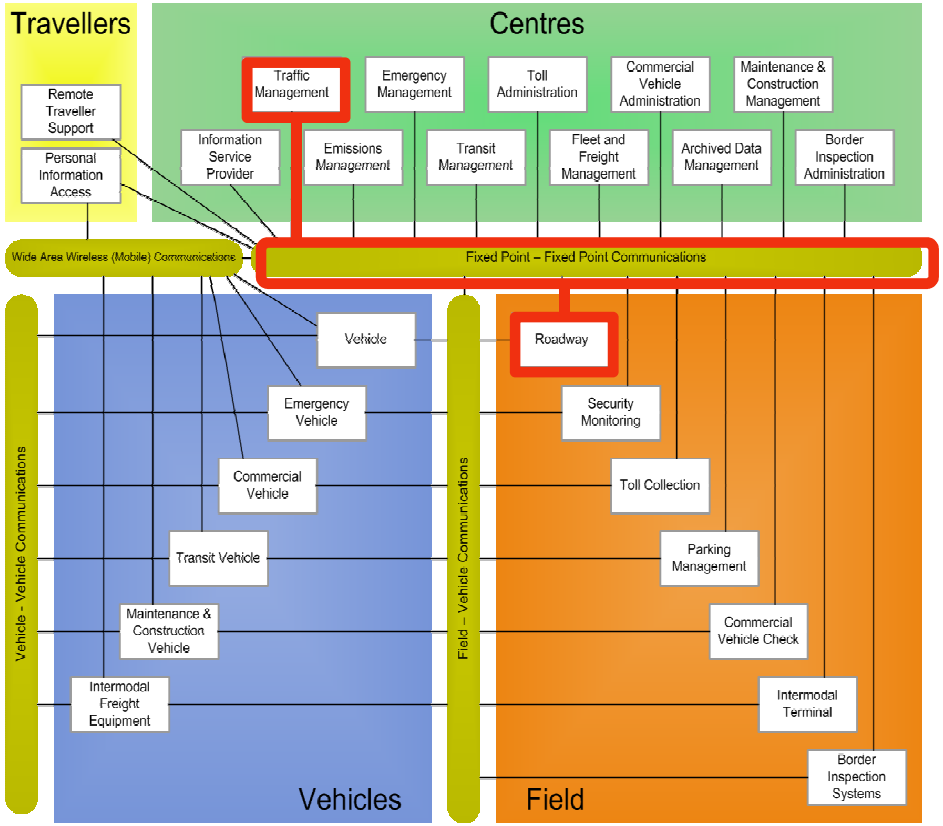
- **Architecture helps to define what the elements of the system do and the information that is exchanged between them**
- **Transport Canada has published a guidebook and software tool to assist stakeholders in developing Regional ITS Architectures.**
- **This methodology will be applied to in order to develop the Smart Corridor Concept of Operations**

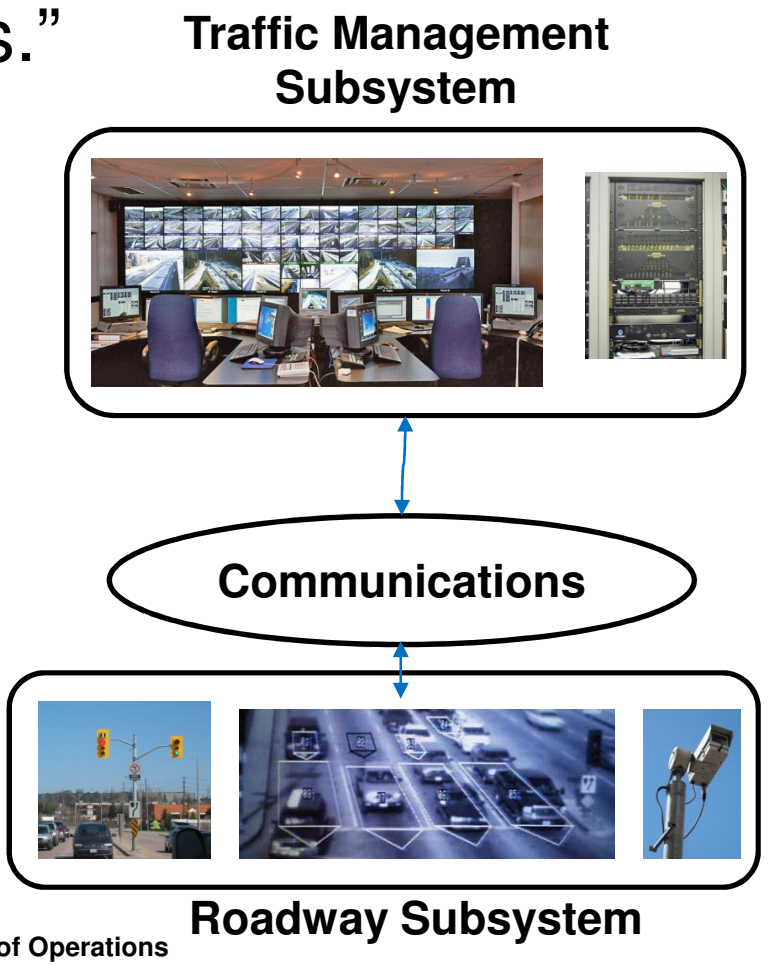


Website: http://www.tc.gc.ca/eng/innovation/its-architecture.htm

What is an ITS Architecture?

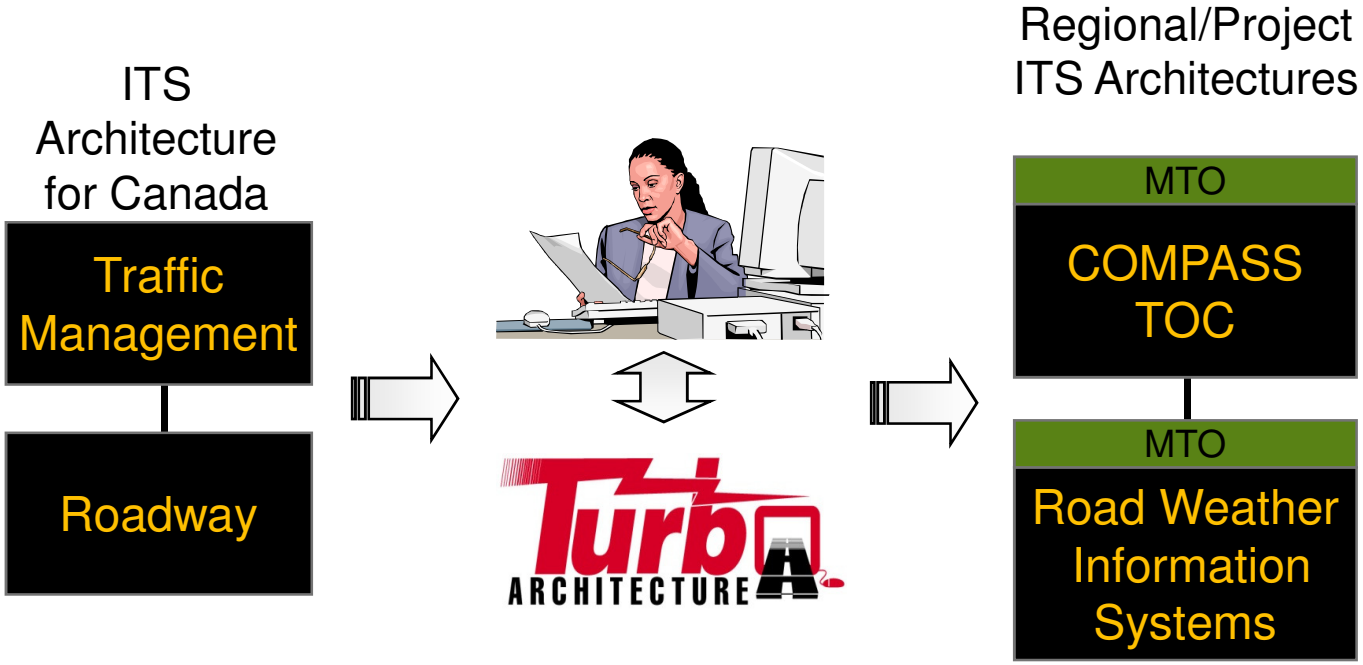
"a common framework for planning, defining, and *integrating* intelligent transportation systems."





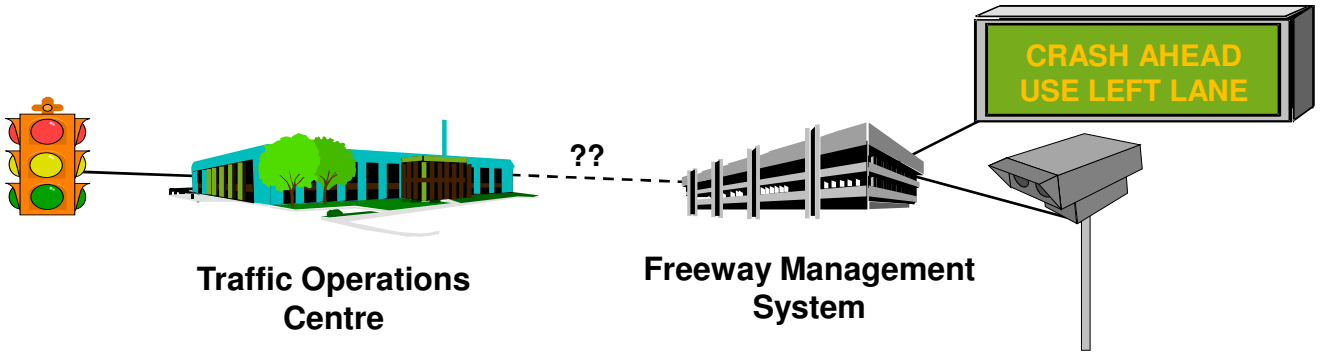
What is a Regional ITS Architecture?

A *regional framework* for ensuring *institutional agreement* and *technical integration* for the implementation of ITS projects in a particular region

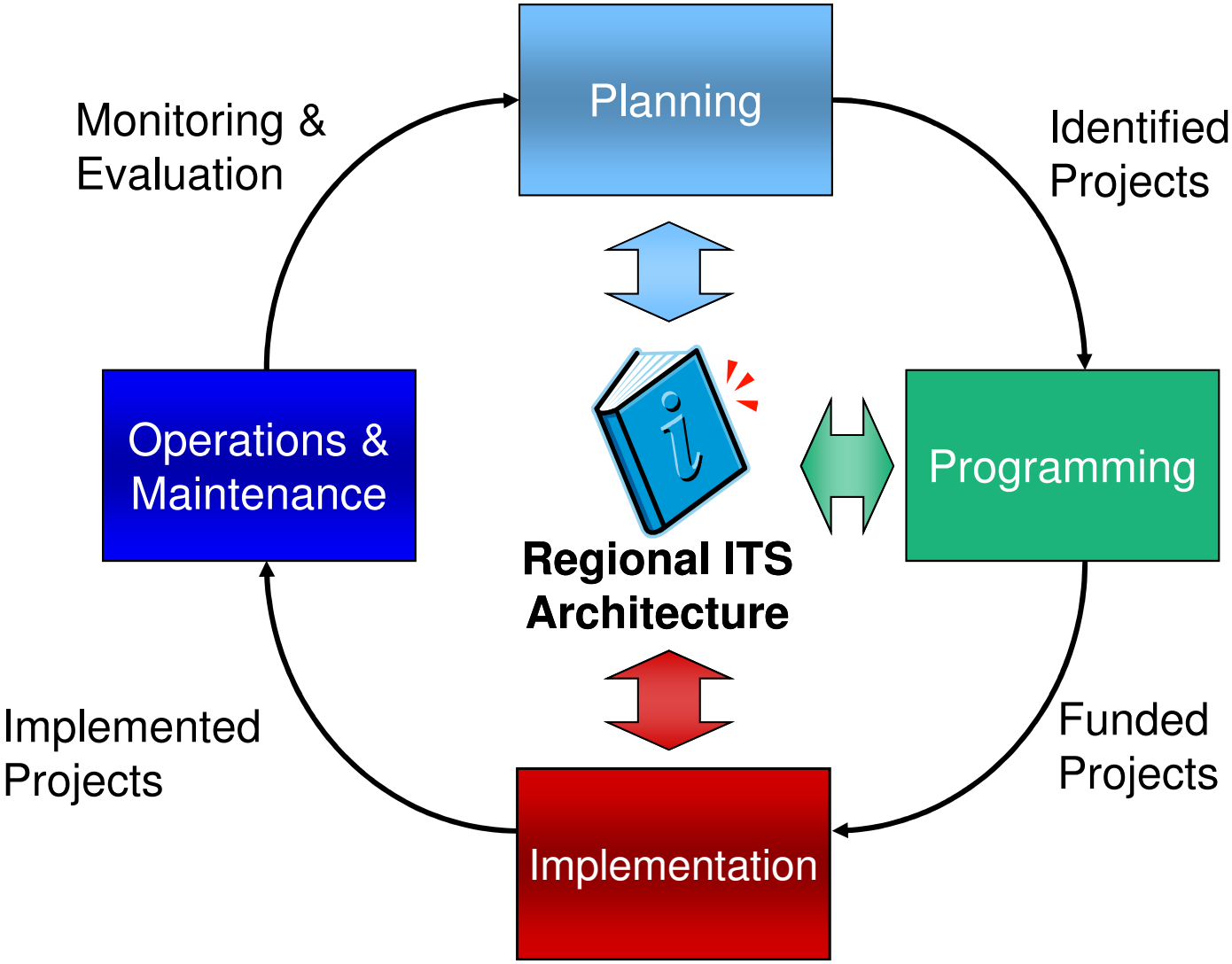


Why Develop a Regional ITS Architecture?

- Identify integration opportunities
- Efficiently structure implementations
- Incorporate operations & management into decision making
- Encourage stakeholder buy-in
- Identify gaps in existing services



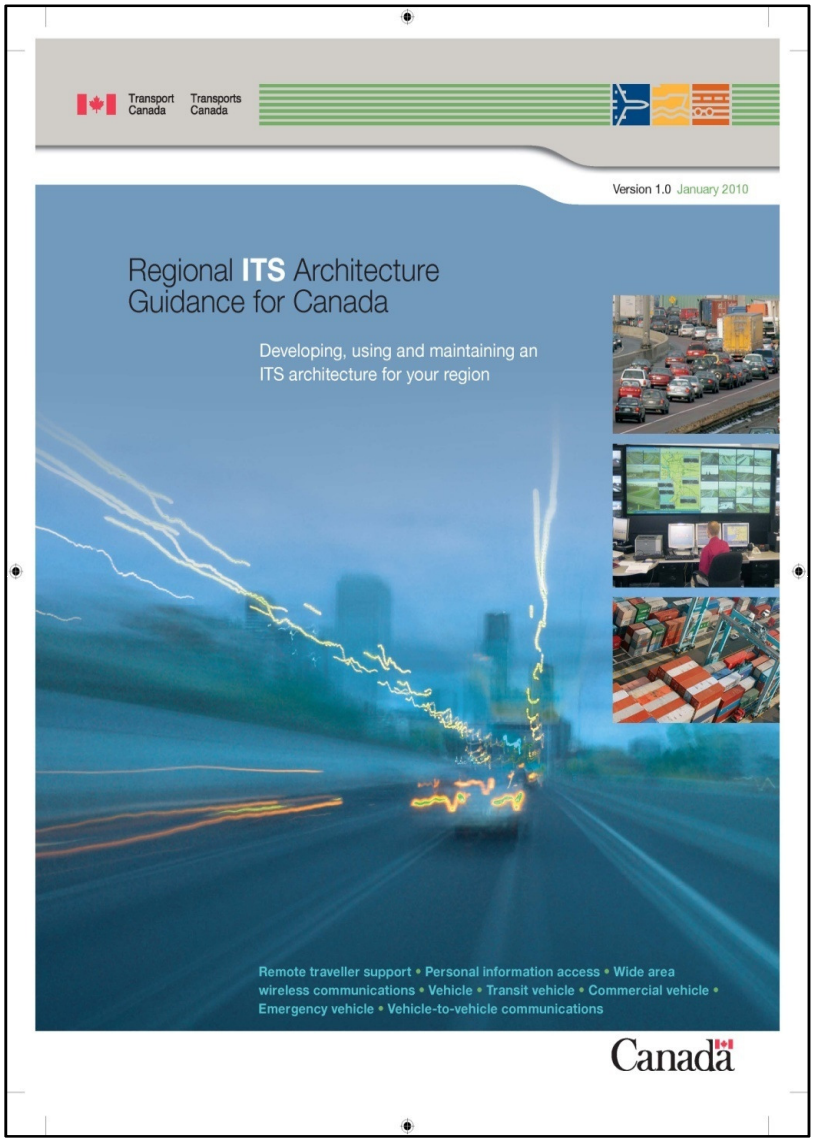
Regional ITS Architecture Use is the Key

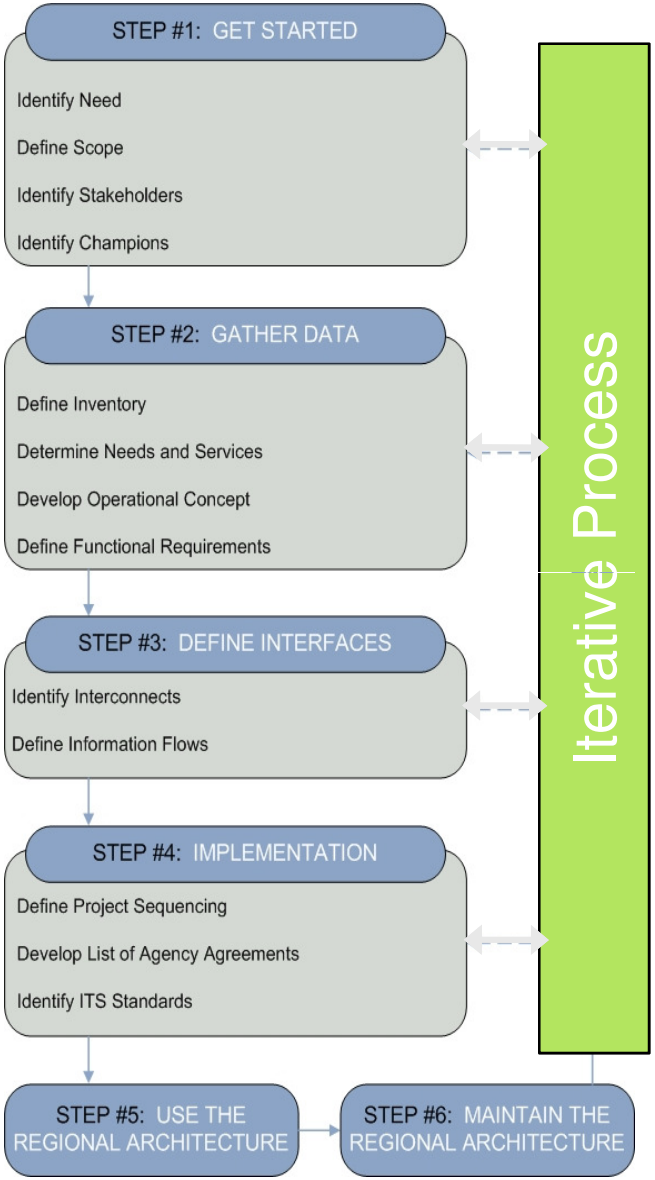


PROGRESS TO DATE

Upcoming consultations and final presentation

Development Process



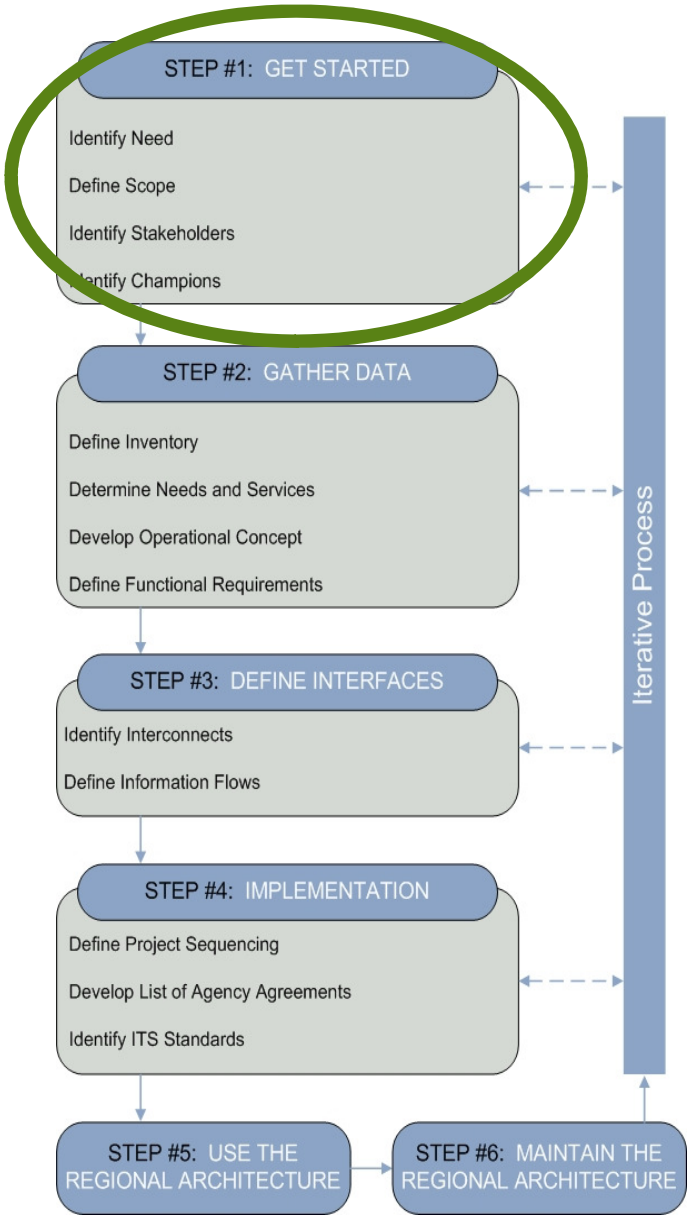


Get Started

Need

Scope

Stakeholders



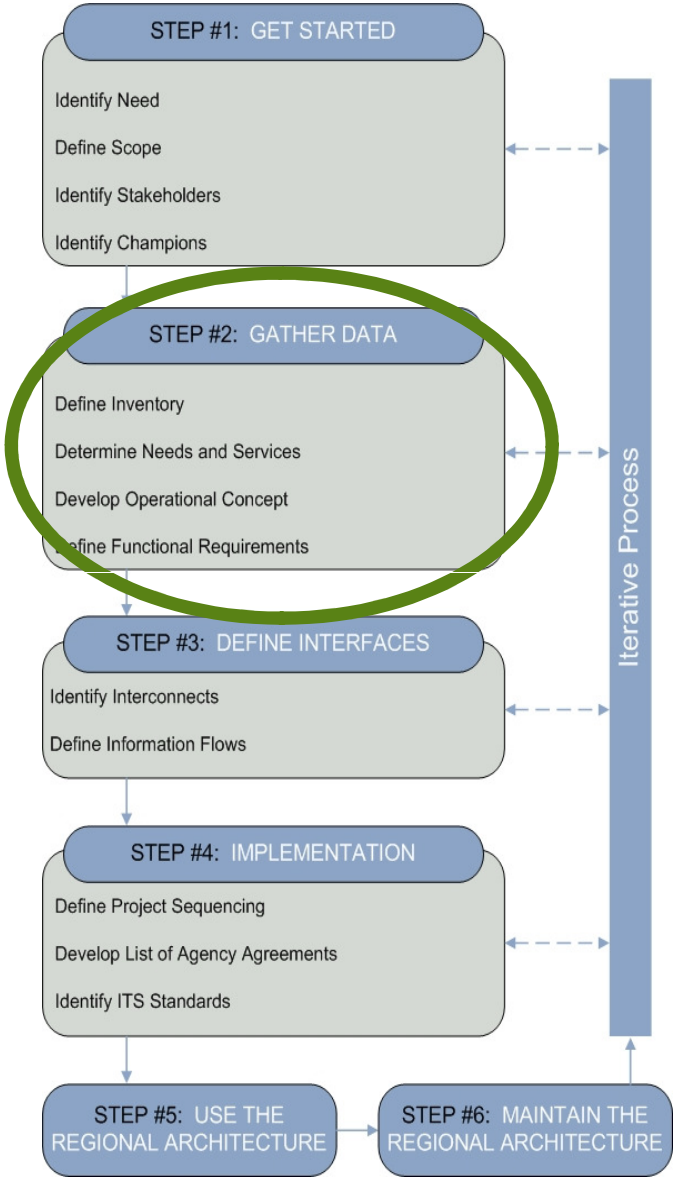
Identify Stakeholders

- ***Stakeholders*** – Actors (owners, operators and maintainers of ITS elements, as well as agencies that influence policy)

- Aggregation
  - Goods Movement Related
    - by function (e.g. shipper, carrier, broker)
    - one organization may be responsible for multiple functions (e.g. Walmart)
  - Provincial Ministries of Transportation
    - key departments/offices that relate directly to ITS
  - Common Stakeholders
    - e.g. Municipal Transportation Agencies
    - represent common agencies with similar elements and responsibilities
    - minimizes duplication simplifies framework diagrams

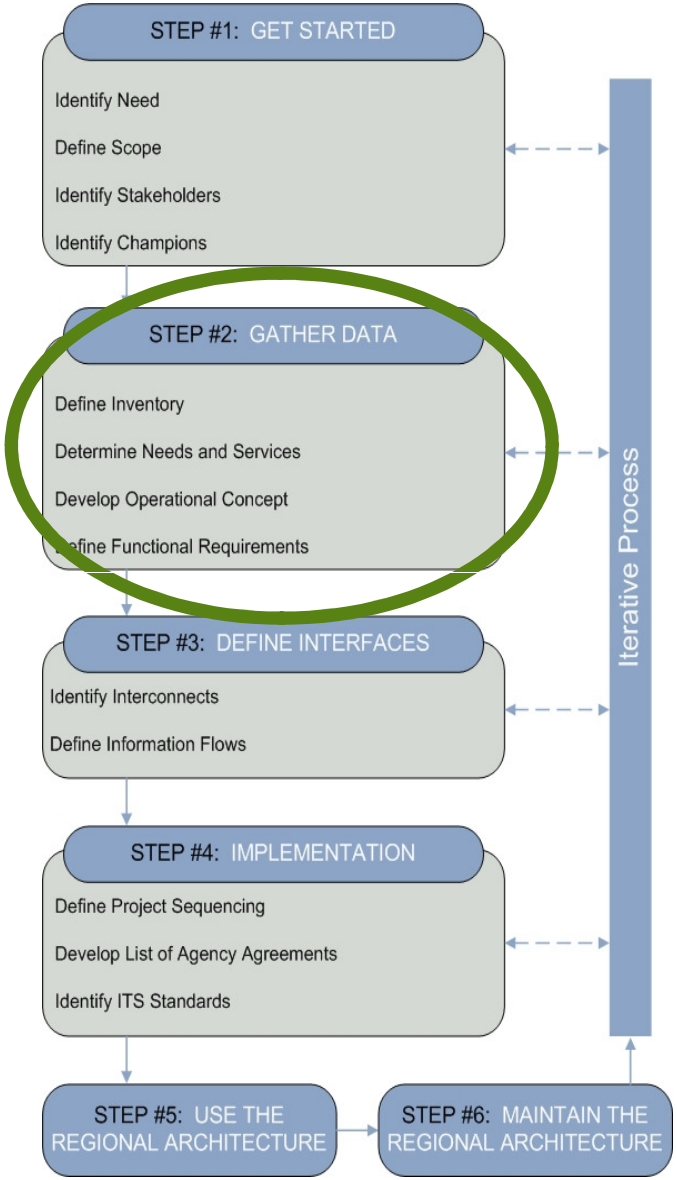
Gather Data

- Inventory
  - ITS elements (centres, systems, devices)
  - Owned/operated/ maintained by stakeholders
  - Status



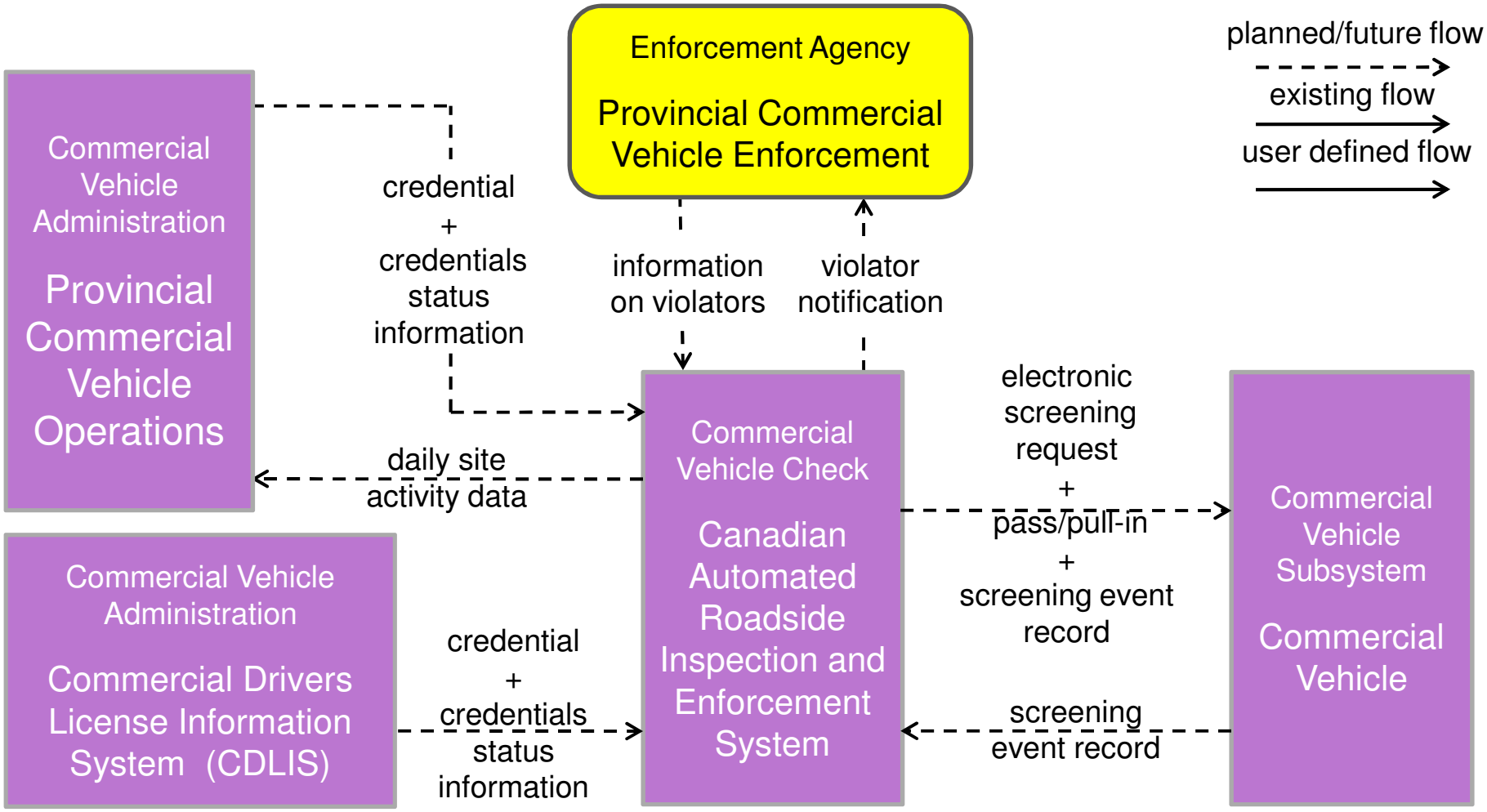
Gather Data

- Needs and Services
  - Identified in workshops



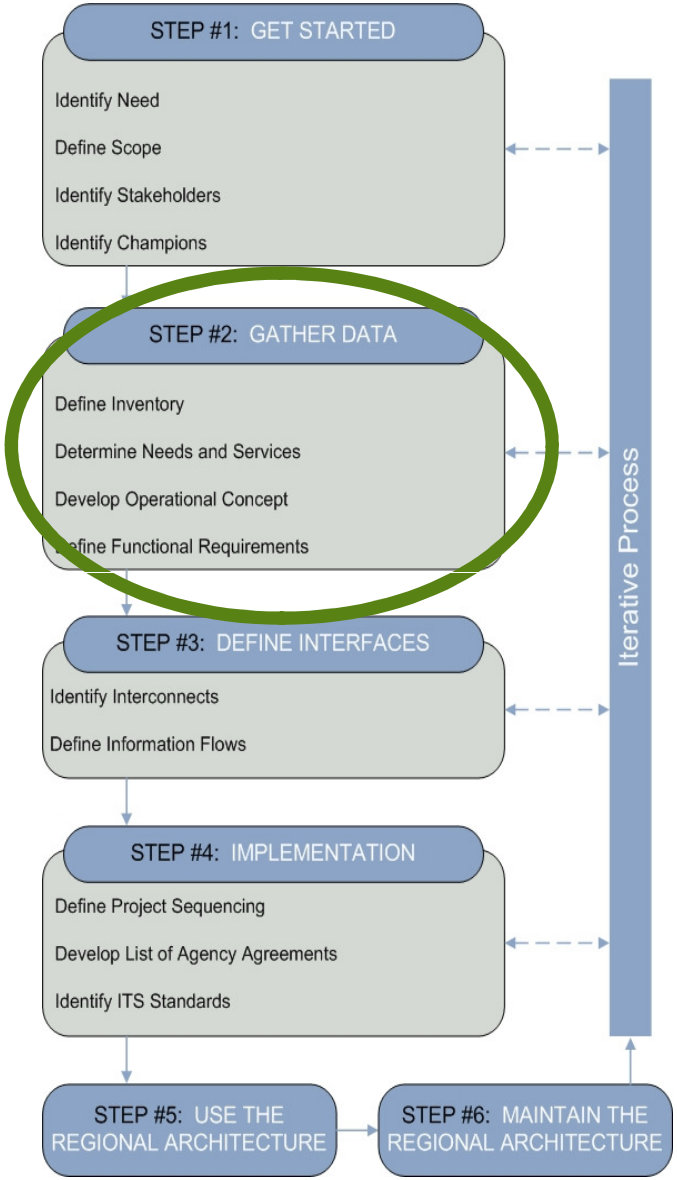
Service Packages

CVO03 – Electronic Clearance Provincial CVO-Roadside Interfaces



Gather Data

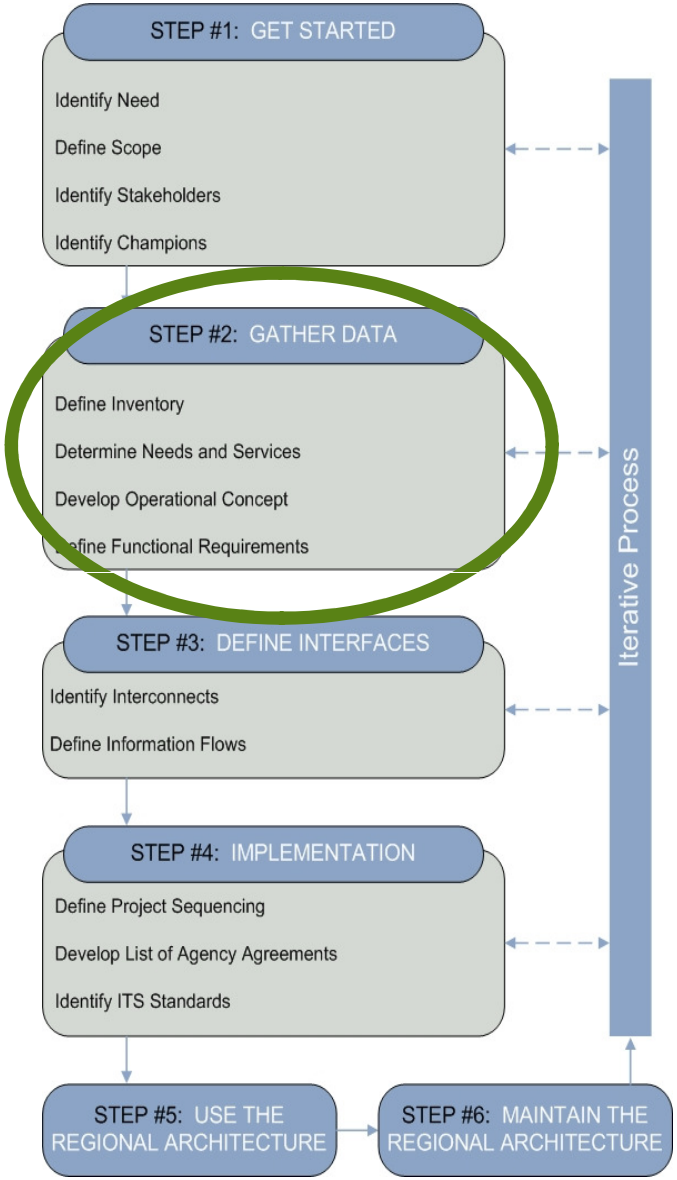
- Operational Concepts
  1. User Views



USER VIEWS/OPERATIONAL CONCEPTS

Gather Data

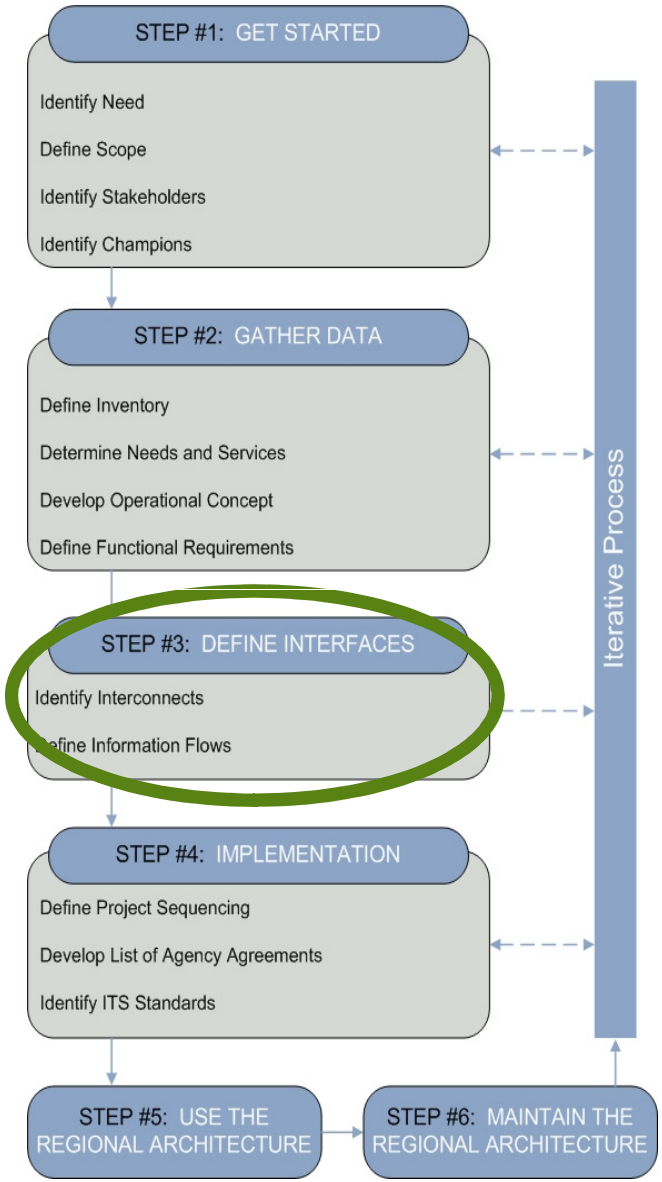
- Operational Concepts
  1. User Views
  2. Roles & Responsibilities



STAKEHOLDER ROLES AND RESPONSIBILITIES

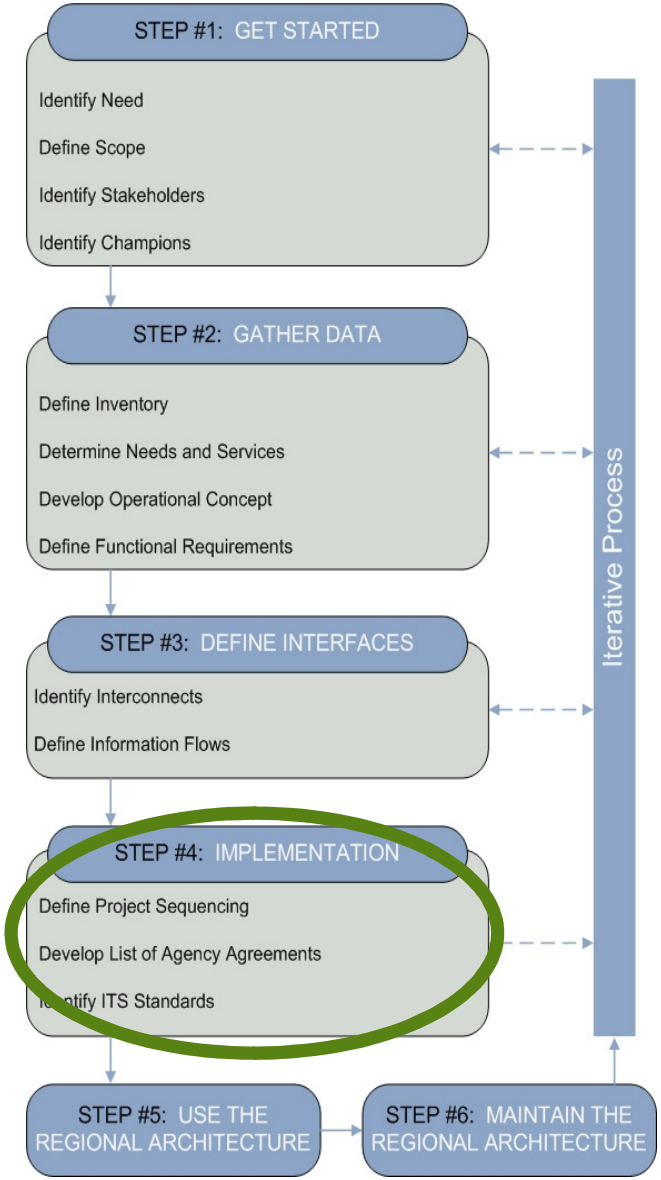
Define Interfaces

- What information is exchanged?
- Information sharing needed to support Services
- Is interface Existing or Planned, etc.?
- Helps identify:
  - opportunities for sharing and economizing
  - relevant standards
  - requirements for planned elements
  - necessary enhancements to legacy elements

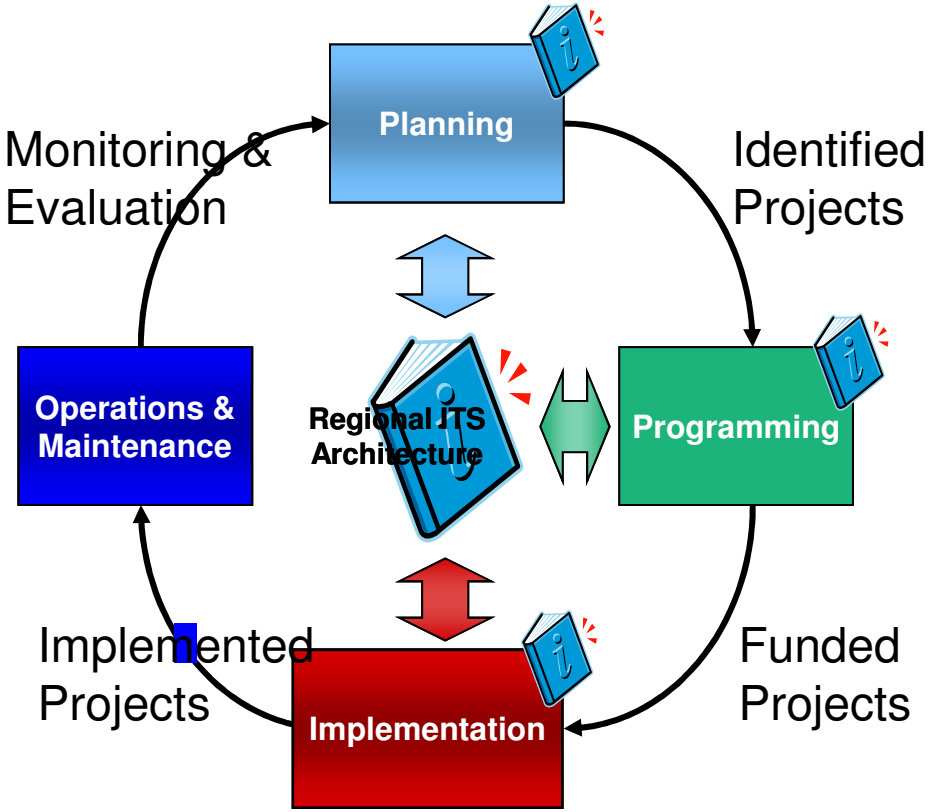


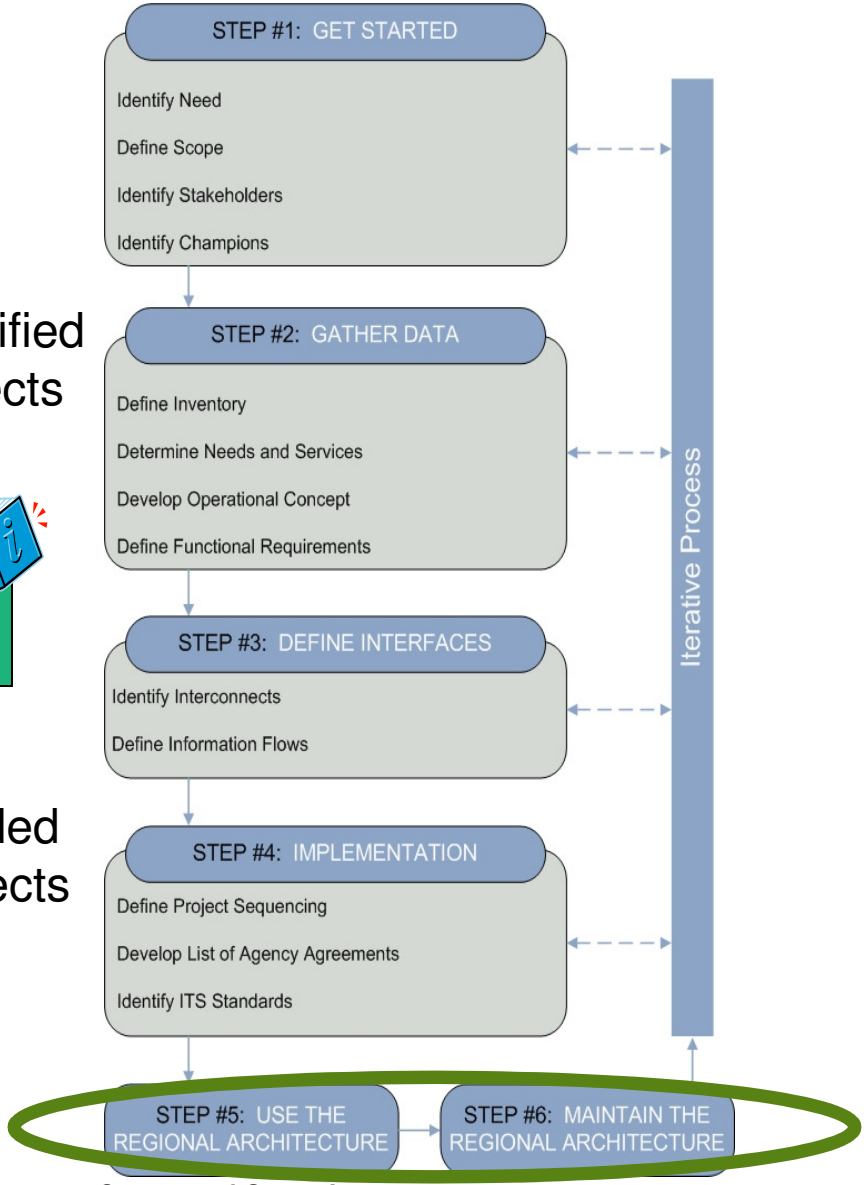
Implementation

- Products to bridge the gap between the architecture and implementation of services/projects
- Next steps and focus of next Webinar



Use and Maintenance of the Regional Architecture





PROJECT WEBSITE/OFFLINE REVIEW AND COMMENT

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THANK YOU

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