Agenda

Canada in the World Context
Alberta in the World Context
State of Asset Management
National Initiatives
Current State
Where Are We Going?
Innovative Initiatives
Conclusion
Questions
Canada in the World Context

- 3 levels of government: Federal, provincial, municipal
- Population: 33 million
- World’s second-largest country (9,970,610 km²)
- 7% of the world's land; 9% of its fresh water
- 3rd largest ecological footprint in the world
- Canadian energy consumption twice that of European countries
- Large areas of low density, habitable land
- 2nd largest oil reserves after Saudi Arabia
Canada in the World Context

- Europe developed pre-automobile resulting in compact, densely populated cities
- Canada developed post-automobile resulting in sprawling, low population density cities
- Relatively cheap energy and land
- Reasonable supplies of coal, hydropower, natural gas-coal bed methane
- Expectation of the “right” to cheap resources
- Have not done a good job of managing infrastructure assets
Calgary in the World Context

- Low population density
- Highest ecological footprint in Canada
- 9.86 hectares/person consumed in Calgary vs. 1.9 hectares available in the world
- Urban form largely determines ecological footprint
- Major issues around managing infrastructure
State of Asset Management

• Asset management emerges in the 1990s
• Little progress until 5 years ago – utilities
• Public policy report:
  ▪ No systems or structures
  ▪ No understanding of the magnitude of the problem
  ▪ No strategy
• Growing awareness of issues and problems
• Still major barriers and governance issues
• Canadian infrastructure deficit: $123 billion
State of Asset Management

National organizations

National Research Council
Municipal Infrastructure Investment Planning
Canadian Public Works Association
Technical Road Map
National Roundtable on Sustainable Infrastructure
Intelligent Sensing for Innovative Structures (ISIS)
Federation of Canadian Municipalities
National Infrastructure Executive forum
Canadian Network of Asset Managers
National Initiatives

• NRC workshop on life cycle performance & management of core public infrastructure

• InfraGuide: the national guide to sustainable infrastructure

• Governance structure for infrastructure asset management

• Asset management standards

• Tangible capital assets
  - Public Sector Accounting Board financial and condition information
  - Required January 1, 2009
Current State

Canadian case study: The City of Calgary

- Developing corporate asset management program aligned with Triple Bottom Line criteria: economic, social, environmental
- Strategic and operational
- Performance measures (Infrastructure Status Report)
- Silo mentality has characterized development of infrastructure
- Have not looked at infrastructure as complete systems
- Must consider whole life costs
# Current State

## The City of Calgary

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## Courtesy of CH2M Hill Consultants
Where Are We Going?

- ImagineCALGARY
- Corporate asset management program
- plan it Calgary
- Integrated infrastructure strategy
- Ecological footprint strategy
- Performance measures
- Develop a sustainable urban form based on Triple Bottom Line criteria
- Focus on people!

Level of Service
Innovative Initiatives

Urban Alliance

• 24-year strategic partnership with the University of Calgary
• Aligns research with City and community priorities
• Produces solutions to real issues facing Calgary
• Focuses on 9 key result areas:
  • Social fabric & security
  • Living spaces
  • Natural environment
  • Consumption & disposal
  • Mobility
  • Infrastructure
  • Management & industry
  • Governance
  • Workplace / workforce
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University
City
Innovative Initiatives

People and Place
- Homelessness Digital Story Telling
- Project Gateway: Child-Youth Services

Infrastructure
- Optimal Shelter Design
- Transit Safety

Ecological Footprint
- Reducing Greenhouse Gas Emissions
- Urban Disaster Resilience
Conclusion

• Awareness of the issues and magnitude of the problem is growing
• There are still major systems barriers
• Building consensus is a challenge
• Worldwide standards are required
• Approaches are fragmented, unaligned and effort is duplicated
• Lack of leadership
• Focus on people!
• Support workshop objectives
Questions

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