

## **OCE Discovery - GCIF Panel**

### **Intelligent Cities and Sustainable Infrastructure Panel - May 27, 2013 - Toronto**

#### OVERVIEW OF SESSION

Cities are a convergence of systems: transportation, housing, communication, technical, mechanical, ecological, economic, political and social. The evolving complexity of urban environments, advancing technologies, aging infrastructure and rapid urban population growth creates challenges and opportunities for city environments that are currently the result of 20th century planning and development. The stress on city infrastructure will grow in the short term, as some 200,000 people on average will be added to the world's urban population each day between now and 2015.

This session will examine cities globally and the need for informed cities capable of intelligent infrastructure investment. More informed cities can lead to transformative decision-making; the adoption of strategic technology and innovations; cost-effective solutions for infrastructure investments; and, smarter, healthier futures for citizens.

#### FRAMEWORK / OBJECTIVES

- What opportunities for innovation and new products does combined aging infrastructure and increased stress from population growth present
- How can these challenges be addressed while also building toward a safer and healthier city system and future
- How can analysis of big data assist with these challenges
- What are the opportunities for collaboration
- How are cities globally addressing the same stresses we have here at home

#### KEY TAKE HOME MESSAGES

- Time sensitive challenge
- Opportunities for domestically produced and exportable solutions
- Convergence of systems - need for collaboration cross-sector and research cross-discipline

#### SAMPLE QUESTIONS

- How can these challenges be addressed in a manner that's economically feasible
- What makes a city intelligent?
- What are examples of technologies that are needed/are currently being implemented towards a solution
- What are the opportunities for supply chain? How do I become part of the solution?

#### PARTICIPANTS

##### **Host**

- John MacRitchie, Regional Director, Central Ontario, Ontario Centres of Excellence

##### **Moderator**

- Senator Art Eggleton

##### **Panel (in speaking order)**

- Professor Patricia L. McCarney, Director, Global City Indicators Facility  
John H. Daniels Faculty of Architecture, Landscape and Design, University of Toronto
- Lucy Casacia, Vice President, Low and Medium Voltage Division, City Manager, GTHA and 2015 Pan/Parapan Am Games Program Manager, Siemens Canada Limited
- Carl Bodimeade, Senior Vice President, Strategy and Business Development, Canada, Hatch Mott MacDonald
- Chris Kennedy, Associate Professor, Department of Civil Engineering, University of Toronto
- Daniel Hoornweg, Professor and Jeff Boyce Research Chair, University of Ontario Institute of Technology, Advisor and Fellow, Sustainable Development Network, World Bank

## BIOGRAPHIES

### **Senator Art Eggleton**

Art Eggleton has served the people of Canada and the city of Toronto in elected office for over 40 years.

For 22 years he was a member of Toronto City Council and the Metropolitan Toronto Council, most of those years on the Executive Committees. From 1980 to 1991 he was Mayor of Toronto, the longest serving Mayor in the City's history. In 1992 he received Toronto's highest honour, the Civic Award of Merit.

Art Eggleton served 11 years in the Parliament of Canada as the member for York Centre in the City of Toronto. First elected in 1993, he was appointed several Cabinet positions, including President of the Treasury Board & Minister Responsible for Infrastructure, Minister for International Trade and Minister of National Defense.

In 2005, he was appointed to the Senate of Canada. He currently serves as Deputy Chair of the Standing Committee on Social Affairs, Science and Technology and is a member of the Standing Committee on Transportation and Communications.

He is Chair of the Global City Indicators Facility (GCIF) operating from the University of Toronto, and is a volunteer honorary member, or member, of several non-profit boards and advisory committees.

**Professor Patricia L. McCarney**, Director, Global City Indicators Facility  
John H. Daniels Faculty of Architecture, Landscape and Design, University of Toronto

Professor Patricia McCarney received her Ph.D. in International Development and Planning from M.I.T. in 1987. She is currently a Professor of Political Science and Director of the new Global Cities Institute, just being launched at the University of Toronto.

She is also Director of the Global City Indicators Facility (GCIF) - a program initiated by the World Bank which is positioned to gather and retain the definitive and authoritative, validated, self-reported urban data from across the globe. GCIF tracks progress on 115 indicators across more than 250 cities worldwide.

Before joining the University of Toronto Professor McCarney worked for a number of international agencies, including the International Development Research Centre (IDRC) in Ottawa, the World Bank in Washington, and the United Nations Centre for Human Settlements (UN-HABITAT) in Nairobi.

In addition to seven books including *Cities and Global Governance: New Sites for International Relations* (2011), Patricia McCarney is the author of numerous articles and papers on these subjects. Her two newest books nearing completion (2014) are tentatively titled, *Global Cities, Global Prosperity: Measuring Risk and Opportunity*; and, *Building Resilient Cities: Planning, Management and Governance*.

**Lucy Casacia**, Vice President, Low and Medium Voltage Division, City Manager, GTHA and 2015 Pan/Parapan Am Games Program Manager, Siemens Canada Limited.

As the Vice President, Low and Medium Voltage, Ms. Casacia leads over 400 people across the Canada providing critical power solutions for various customers across industrial, oil, gas, healthcare, cities and infrastructure. As the City Manager for the Greater Toronto and Hamilton Area (GTHA) and the 2015 Pan/Parapan Am Games Program Manager, Ms. Casacia is responsible for all related activities for Siemens in the GTHA in regards to sustainable city solutions. Specifically, she is responsible for providing support and strategic advice to city mayors, manager, councilors, administration and other key stakeholders regarding the development of infrastructure solutions towards prosperity and sustainability based on Siemens' experience around the globe.

Siemens' unique environmental portfolio has helped major urban centres worldwide reduce their share of CO2 emissions, while helping increase productivity and competitiveness.

Ms. Casacia brings to Siemens extensive experience in the areas of engineering, construction management and commissioning of capital expansion projects. She is a graduate of McMaster University and has a Masters Certificate in Strategic Leadership from the Schulich School of Business in Toronto.

**Carl Bodimeade**, Senior Vice President, Strategy and Business Development, Canada, Hatch Mott MacDonald

Carl has 30 years of experience in project management and engineering for a wide range of projects in the water supply and wastewater treatment, urban infrastructure and brownfield development, power and industrial sectors. He is a Senior Vice-President of Hatch Mott MacDonald responsible for strategy and business development of the Canadian business unit. Carl is also the Water & Wastewater Practice Leader for HMM's Canadian operations. Carl presently serves as the Chair of the Ontario Coalition for Sustainable Infrastructure (OCSI), a group of six professional organizations committed to promoting Safe and Sustainable Infrastructure in Ontario.

**Chris Kennedy**, Associate Professor, Department of Civil Engineering, University of Toronto

Christopher Kennedy is a Professor in the Department of Civil Engineering at the University of Toronto, where he teaches courses in Infrastructure Economics, Engineering Ecology, and the Design of Infrastructure for Sustainable Cities. His work involves applying principles of Industrial Ecology to the design of urban infrastructure, including buildings, water systems, and urban transportation. Amongst his publications are studies of urban metabolism, greenhouse gas emissions from global cities and processes for developing sustainable urban transportation systems. His wider work includes contributions to probability theory, regional economics and engineering education. His book *The Evolution of Great World Cities: Urban Wealth and Economic Growth* was published by University of Toronto Press in 2011.

**Daniel Hoornweg**, Professor and Jeff Boyce Research Chair, University of Ontario Institute of Technology, Advisor and Fellow, Sustainable Development Network, World Bank

Dan Hoornweg was a lead urban specialist in the World Bank's central Urban Advisory Unit prior to moving back to Ontario in 2012. While at the World Bank, during almost twenty years, Dan worked with more than 400 cities in all of the Bank's six geographic regions. Dan managed teams overseeing more than \$3 billion in investments in some 100 projects in a diverse range of countries, including Indonesia, China, India and those in Sub-Saharan Africa and South and Central America.

Dan was lead author on Canada's first municipal Green Plan and started the first local government round table on sustainable development (City of Guelph). He is on the Board of Waste Diversion Ontario and a member of the Urban Strategy Council of GDF Suez and of the Philips Livable Cities Think Tank. Dan's research at University of Ontario Institute of Technology focuses on energy systems, the role of natural gas as a transportation fuel, and sustainable cities, especially the Greater Toronto Area and its place in the world.

## ABOUT DISCOVERY

About Discovery:

Discovery is Canada's leading innovation-to-commercialization conference. Hosted by the Ontario Centres of Excellence (OCE), Discovery brings together key players from industry, academia, government, the investment community as well as entrepreneurs and students to pursue collaboration opportunities.

Garnering close to 2,600 attendees and more than 330 exhibitors, Discovery is a showcase of leading-edge technologies, best practices and research from sectors such as health, manufacturing, digital media and cleantech, including energy, environment and water.

Renowned keynote speakers and panels ignite discussion, knowledge-sharing and new perspectives. Networking opportunities feature key influencers from government, academia, industry and leading sectors.

Discovery facilitates the exchange of ideas and encourages new ways to collaborate and push the boundaries of research and innovation through to demonstration and development. Creating a strong innovation economy is key to Ontario's future.

Discovery was named Canada's Best Trade Show in 2010 and 2011.

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