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# The Resilient City +PLACEMAKER Outcomes Report

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On April 27, 2017 the Canadian Urban Institute hosted a +PlaceMaker event to discuss the importance of addressing interdependencies in urban resilience planning. The event, moderated by Dr. Anne Kerr of Mott MacDonald, featured a keynote presentation from David MacLeod of the City of Toronto and a panel discussion with experts in:

- Social services (**Daniele Zanotti**, United Way);
- Natural environment (**Rehana Rajabali**, TRCA);

- Transportation (**Dr. Quentin Chiotti**, Metrolinx), and
- Power (**Rob McKeown**, Toronto Hydro).

The panel was asked to respond to questions about the cross-sectoral approaches that are needed to improve the resilience of the Toronto region and how these can be implemented when resilience planning doesn't always align with political boundaries.

# The Issues We Face

**Extreme Heat & Rain:** are Toronto's main climactic risks and are causing increasing disruptions and financial cost. Rehana Rajabali pointed out that flood risk management related to urban overland flooding is increasingly complicated to model and predict.

**Income Inequality:** Daniele Zanotti and David MacLeod both described income inequality as one of the City's biggest resilience risks and how the City's most vulnerable populations tend also to be most impacted by resilience challenges.

**Food Supply Chain:** With only one food terminal serving the City of Toronto, we have, "a lot of eggs in one basket", suggested David MacLeod. He described an analysis the City is embarking on to evaluate the resilience risks to Toronto's food system.

**Political & Geographic Silos:** Rehana Rajabali described how natural systems, such as rivers, do not obey political boundaries and resilience planning must transcend these boundaries. Quentin Chiotti also pointed to the fact that the commuter-

shed for Toronto reaches beyond municipal boundaries and so resilience planning for transit must also take place at a regional scale. The need for financial commitment and leadership at a broader regional level was identified by several participants and audience members.

**Community Attachment:** Daniele Zanotti described how community attachment can take up to 15 years to develop but that it is proven to lift resilience and contribute to improvements in GDP, health, education levels, economic growth and crime reduction.

**High Rise Buildings:** David MacLeod mentioned the growing number of Toronto residents depending on the amenities in tall buildings such as elevators, water pumps and fire suppression, which the City has been attempting to help address through initiatives including the development of new Back-up Power guidelines.

# The Solutions That Exist

The panelists provided many examples of the collaboration already taking place in Toronto, such as through the Toronto Resilient City Working Group.

During his keynote presentation David MacLeod elaborated on the work the City is doing on interdependencies city-wide, including the High Level Risk Assessment (HLRA) that was conducted focusing on Toronto's main climactic risks of extreme heat and rain and involving many public and private sector organizations, including Toronto Hydro, Metrolinx and TRCA.

Some examples of the many planned or current initiatives and approaches to improving urban resilience described by the panelists included:

**Big data modeling of interdependencies** linked to GIS information, identified by David MacLeod as a method of better understanding the City's resilience risks;

**Quantitative risk assessments** to enable decision-makers to quantify potential damages avoided due to resilience interventions, identified by Rehana Rajabali. Quentin Chiotti suggested that a shift in thinking is needed to generate collective discussions about how much risk we are willing to tolerate;

**Local placemaking** described by Daniele Zanotti as the importance of investing in people so that they can solve their own issues, providing space such as community hubs where people can encounter each other and connect, and services, if necessary, but not necessarily;

**Local storm water management** measures, such as planting rain gardens and urban agriculture, highlighted by Rehana Rajabali;

**Climate resiliency standards** needed for inclusion in infrastructure and building technical specifications, guidelines and project agreements. Quentin Chiotti pointed out that national standards and regulations are also needed to standardize resilience approaches;

**Grassroots action** needed to mobilize support and include social services organizations in improving urban resilience, suggested Daniele Zanotti;

**Distributed generation** through solar, wind and energy storage, identified by Rob McKeown as a means of increasing the resilience of our energy system;

**The new Chief Resilience Officer**, identified by many panelists and audience members as a key step forward in Toronto's approach to resilience planning; however, as one participant noted, the expectations for this position are so high, that the new CRO will need to "walk on water", and the fact that the CRO's scope will be limited to the City of Toronto was another issue identified by many; and

**Regional scale planning approaches**, building on the collaborative work being done in Toronto, should be expanded to a broader geographic scale.

# Where We Go From Here

**Leadership** which crosses sectors and political boundaries, was described by the panel as the most critical requirement for implementing available solutions. The panel's message was clear: the process of developing robust resilience strategies in the Toronto region needs to accelerate now and cannot wait for the next disaster. The process must involve benchmarking and learning from other jurisdictions, detailed modeling of interdependencies and risks, broad engagement with and strengthening of our city's communities, and building the capacity for cross-functional and cross-jurisdictional collaboration.



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