



Marie-Christine Therrien is a full professor of management at the **Ecole nationale d'administration publique** (National School of Public Administration (Montreal, Canada)). Her research interests are in resilience governance, complex organizations and crisis management. Her research focuses on the issues of coordination of networks, analysis of organizational failures, knowledge transfer, organizational resilience and crisis management. She has trained and supervised more than 20 doctoral and master's students through her research. In addition to her academic experience Dr. Therrien worked for agencies like the City of Montreal's Resilience Center, Science Applications International Corporation, the Quebec Government and the Canadian Red Cross, which enabled her to develop a strong network of partners in the public and private sectors. Through this work, she helped successfully the City of Montreal in their demand for joining the program of 100 resilient cities of the Rockefeller Foundation. She carried out several interventions and evaluation mandates during her career such as working as an analyst for the public Commission following the Quebec Ice storm in 1998. She also worked with the Public health department of the Ministry of Health to evaluate their intervention following the influenza A (H1N1) pandemic. She has published article in the *Journal of Contingencies and Crisis Management*, *Resilience: International Policies, Practices and Discourses*, *International Journal of Risk Assessment and Management*, etc. She is the author of more than twenty articles and book chapters on resilience and crisis management governance. She is Editor-in-chief of the *International Journal of Emergency Management*.

- **Therrien, M.-C.**, J.-M. Normandin and J.-L. Denis (2017). "Bridging Complexity Theory and Resilience to Develop Surge Capacity in Health Systems", *Journal of Health Organization and Management*. Vol.31, Issue 1, p. 96-101.
- Comeau-Vallée, M., Denis, J.-L. J.-M. Normandin and **M.-C. Therrien** (2017). Pluralism, Hybridity and paradox in organizational complexity, In M. Lewis, W. Smith, P. Jarzabkowski and A. Langley (eds.). *Handbook of Organizational Paradoxes*, Oxford: Oxford University Press, p. 197-215.
- Normandin, J.-M., **Therrien, M.-C.**, Pelling, M. and S. Paterson (2017), The Definition of Urban Resilience: a negotiated transformation path towards collaborative urban governance. In *Urban Resilience for Risk and Adaptation Governance: Theory and Practice*. Grazia Brunetta et al. eds. Resilient Cities Springer Book Series. Springer, p. 16-29.
- **Therrien, M.-C.**, A. Valiquette-L'Heureux, J.-M. Normandin and P. Smits (2016). "Tightly coupled governance for loosely coupled wicked problems: the train explosion in Lac-Mégantic case". *International Journal of Risk Assessment and Management*. Vol. 19, No. 4. p. 260-277.

- Normandin, J.-M. and **M.-C. Therrien** (2016), "Resilience factors reconciled with complexity: The Dynamics of Order and Disorder", *Journal of Contingencies and Crisis Management*. Vol. 24, No.3, p. 107-118.
- **Therrien**, M.-C., Beauregard, S. and Valiquette-L'Heureux, A. (2015). Iterative factors Favoring Collaboration for Interorganizational Resilience. *International Journal of Disaster Risk Science*. Vol. 6, No. 1, p. 75-86.
- **Therrien**, M.-C., Tanguay, G. and Beauregard-Guerin, I. (2015). Fundamental Determinants of Urban Resilience: a Search for Indicators Applied to Public Health Crisis". *Resilience: International Policies, Practices and Discourses*. Vol. 3, No 1, p. 18-39.
- Valiquette L'Heureux, A. and **M.-C. Therrien**, (2013). "Interorganizational Dynamics and characteristics of Critical Infrastructure Networks: the study of three critical infrastructures in the Greater Montreal Area". *Journal of contingencies and crisis management*, Vol 21, no 4. p. 211-224.



LIVINGLAB URBAN RESILIENCE GOVERNANCE

Marie-Christine Therrien PhD.

marie-christine.therrien@enap.ca

2017

THE STARTING POINT

- Cities face the greatest risks from catastrophes such as extreme weather phenomena
- They are also where ideas are emerging on how to confront these risks.
- This explains the development, over the past few years, of initiatives aimed at increasing resilience.

Table 1: Total economic and insured losses in 2016 and 2015

USD billion (in 2016 prices)	2016	2015	annual change	10-year average
Economic losses (total)	158	94	68%	175
Nat cat	150	82	83%	163
Man-made	8	12	-33%	12
Insured losses (total)	49	37	33%	53
Nat cat	42	28	51%	46
Man-made	7	9	-23%	7

Source: Swiss Re Economic Research & Consulting and Cat Perils.

NEW CHALLENGES

- As well, a number of municipal actors have committed to the transformative principles that resilience represents, and many see in these efforts a means of transforming urban governance.
- Moving from ideas to action raises a number of challenges that call for a transdisciplinary approach: horizontal management, network governance, citizen participation, stakeholder management, use of social capital, integration of new technologies, etc.

WHAT IS URBAN RESILIENCE?

- Urban resilience is defined as "the ability of an urban system — and all its constituent socio-ecological and socio-technical networks across temporal and spatial scales — to maintain or rapidly return to desired functions in the face of a disturbance, to adapt to change, and to quickly transform systems that limit current or future adaptive capacity" (Meerow *et al* 2016).

THE OPPORTUNITY

- The discussion around resilience reaches beyond political discourse and is being taken seriously by a great number of urban actors.
- Resilience offers a positive and engaging approach to the future development of cities as it emphasizes, among other things, the need to promote current strengths.
- It also offers opportunities to profoundly transform urban practices to account for changes reflective of the world's growing complexity: **climate change, terrorism, migration, population health, changing demographics, social inequalities, protection of essential infrastructures, etc.**

THE IDEA

- We are developing a LivingLab on urban resilience governance.
- The LivingLab provides a collaborative space to bring together urban resilience actors, from city managers to private organizations to citizens and university researchers.
- The goal is not only to fill a void but to become an incubator for the emergence of new inter-sectoral approaches to developing knowledge and innovative practices.

MISSION, CHALLENGES AND ACTIVITIES

- The LivingLab serves as a knowledge exchange (data, processes, best practices, popularization, theory) that facilitates inter-sectoral collaboration between researchers and knowledge users, such as public decision-makers.
- It enables different stakeholders to exchange, request, or contribute solutions. The LivingLab is structured around two poles:

- *Problem Solving Stakeholder Teams*: To answer needs expressed by practitioners, the LivingLab will put in place collaborations between researchers and practitioners to develop solutions that are based on best evidence and respond to local particularities. Interactive sessions (co-construction workshops) will be used to support the design of innovative solutions and new approaches to complex problem
- *Learning from Resilience Teams*: To identify useful lessons from events or practices, and formalize learning with a feedback method we developed and have used a number of times.

PROJECTS WILL ENABLE THE LIVINGLAB TO BE:

- An open environment where people (citizens, municipal actors, private sector actors, provincial and federal actors) can submit complex problems, and the LivingLab can assemble people to contribute to the development of solutions.
- An applied research environment where researchers, students and stakeholders have access to a space and centre of expertise on complex urban issues related to resilience.
- A teaching environment where researchers and students have access to a space to experiment projects. It will develop teaching via traditional platforms, but also through the establishment of an e-learning platform.

RECENT RESULTS

- A workshop on co-constructing Knowledge around the enabling strategies and impeding factors of urban resilience implementation
- A scoping review:
 - *A Growing Importance of Networks*
 - *Trending Towards Trade-Offs*
 - *A Clear Absence of Institutional Factors to Support Implementation*
 - *A Clear Absence of Longitudinal Studies*

