PARTNERSHIP FOR THE ORGANISATION
OF INNOVATION AND NEW TECHNOLOGIES

Policies, Processes and Practices for Performance of Innovation Ecosystems (P4-IE) Conference

Call for paper

May 11-13, 2020

Hilton Garden Inn

Ottawa, Canada

Conference website: fourwav.es/p4ie

Context

Numerous countries have realised that while their science and technology (S&T) performance is outstanding, their innovation performance ranks well below what would be expected. In those countries, this has been deemed a paradox that is puzzling policy-makers and industry decision-makers. In addition to having difficulty translating S&T performance into commercial success, most countries also have to face discontinuous and potentially disruptive technologies such as big data analytics, cloud computing, artificial intelligence, Internet of things, and 3-D printing, which are drastically changing the way firms are designing, prototyping, testing and manufacturing new products. Most firms are not equipped to overcome the challenges that stem from such creative destruction forces, and innovation policy frameworks need to be redesigned to accommodate new ways of organizing and governing innovation. Innovation ecosystems that are well-coordinated and well-supported in terms of “Policies, Processes and Practices for Performance”, hence the title of the conference, may act as the proverbial “missing link” between S&T and successful commercialization.

Background and Objectives

The common characteristic of discontinuous and potentially disruptive technologies is the extensive combination of knowledge and technologies that spans widely across numerous sectors and disciplines. In this context, governments need to co-develop new, adapted and targeted public policies as well as appropriate regulations with the right stakeholders to ensure innovation success. Breaking down disciplinary and sectoral silos within ecosystems will be crucial. In line with these public policies and government programs as mechanisms of their implementation, industrial processes and practices will need to be put in place to benefit from this multiplicity of discontinuous technologies that will soon be available to a vast array of sectors.

Research must equip organizational actors with frameworks for thinking, public policies, decision-making tools, means of action and indicators to bring about the necessary transformations in ecosystem innovation. Work is needed to understand the organisational structures of innovation ecosystems and how these are managed in order to accelerate and improve the innovation process and lead to better economic development and wealth creation. The goal of the conference is therefore to provide a critical review of the past and current innovation policies and practices within and outside of innovation ecosystems in order to assess their appropriateness and effectiveness.

The conference

Organised by the Partnership for the organisation of innovation and new technologies (4POINT0)[1], the conference will bring together graduate students, postdoctoral fellows[2], academic and non-academic researchers, practitioners, policy- and decision-makers to discuss about the technologies, practices, processes and policies currently in place, and on their impact on innovation ecosystems, as well as initiate a dialogue about how to best design those foreseen for the future. During the event, participants, presenters and invited speakers will mobilize knowledge on innovation ecosystems, including Canada's Innovation Superclusters, and on how to measure and improve their performance. The event will be preceded by one-day pre-conference Summer School, on 11 May 2020 to offer the opportunity for graduate students, postdoctoral fellows, and other interested participants to learn more about the use big data analytics for decision-making. The conference will also comprise a co-creation workshop to design sandboxes for experimenting with new ways of co-constructing regulations and IP regimes to ensure that they foster rather than hinder innovation.

The event has several complementary key goals, some of which are:

1. Review current innovation indicators and collectively establish a wish list for new metrics, more appropriate for measuring innovation within ecosystems;
2. Disseminate scientific knowledge among policymakers and business leaders;
3. Disseminate applied innovation ecosystems knowledge that stem from the expertise of policymakers and business leaders among the scientific community;
4. Update the community on the research projects undertaken on innovation and ecosystems;

[1] 4POINT0 is funded by the Social Science and Humanities Research Council of Canada, and the Fonds de recherche du Québec – Société et culture. The Partnership comprises academics, business leaders and policy makers in a collaborative research approach that is breaking down disciplinary and sectoral silos. Its aim is to propose, help put in place and evaluate innovation ecosystem models that accelerate and improve the trajectory of discontinuous and potentially disruptive technologies, from science and technologies to innovation, to foster strong economic development. The research undertaken tries to devise what new adapted public policies, innovation support mechanisms and collaborative processes and practices are needed to foster innovation ecosystems. The team combines big data analytics, qualitative and quantitative methods to achieve its goal.

[2] The best papers from graduate students and postdoctoral fellows will be presented orally in the panel or parallel sessions, while others will be presented via posters (for which there will be a prize selected by non-academics for their policy and practical relevance).

The conference is organized along 8 complementary tracks (listed below) anchored in several sectors and innovation ecosystems, but we are open to proposals for others to be considered. Each track will be the focus of either panel or parallel sessions and poster presentations.

Innovation Ecosystem	Co-organisers
Advanced manufacturing, Automotive & Aerospace	Fabiano Armellini (Polytechnique Montréal) Elicia Maine (Simon Fraser University)
Urban Mobility & Infrastructure	Mario Bourgault (Polytechnique Montréal) David Wolfe (University of Toronto)
Entrepreneurship & Innovation Ecosystems	Shiri Breznitz (University of Toronto) Sophie Veilleux (Université Laval)
Scaling up Innovation Ecosystems: Best Practices, Indicators & Policies	Catherine Beaudry (Polytechnique Montréal) Pierre Therrien (Innovation, Science and Economic Development Canada)
Ecosystems in Rural Regions	Brian Wixted (University of Saskatchewan) Laurette Dubé (McGill University)
Healthcare Innovation Ecosystems	Patrick Cohendet (HÉC Montréal) Thierry Burger-Helmchen (Université de Strasbourg)
AI & Innovation Ecosystems	Laurent Simon (HÉC Montréal) Majlinda Zhegu (Université du Québec à Montréal)
New Approaches for Innovation Measurement	Jan Youtie (GeorgiaTech) Philip Shapira (Manchester Business School)

Research Topics

Conference papers submitted may include topics and questions related but not limited to:

Institutions and policies for successful innovation ecosystems

- Are ecosystems self-emerging or the result of specific initiatives (public or private)? Which model is more appropriate/sustainable and in what circumstances?
- What public policies, innovation policies in particular, facilitate the emergence of these ecosystems?
- How to co-develop these policies, including the regulatory framework, alongside industrial practices and processes to ensure innovation success?
- How to anticipate the commercialisation trajectories of research being performed within universities, firms and the ecosystem in general?
- As the speed at which new technologies are being developed continues to increase, how to ensure that all stakeholders are involved from the get-go in well-coordinated entities, such as innovation ecosystems?

Transformation and sustainability of innovation ecosystems

- How do ecosystems evolve and remain agile as new technologies are developed, diffused and adopted?
- What new configurations, spaces and networks are required for the successful evolution of innovation ecosystems?
- Who are the instigators of these transformations, within firms, institutions and ecosystems? What drives their evolution?
- How do multiple point of views aggregate to ensure the sustainability of the ecosystems?
- What are the commonalities and divergences of the ecosystems as they emerge, transform or evolve?
- How does public policy need to change/adapt to foster the necessary transformations?
- How sustainable is the ecosystem once it has emerged, or has evolved?
- How to scale up ecosystems? And is this an alternative or a complement to scaling up firms?

Governance of innovation ecosystems

- What organizations/individuals (at the core of the network) are the convenors and/or facilitators of innovation ecosystems?
- How are innovation ecosystems managed/governed?
- How integrated are the formal and informal processes within innovation ecosystems?
- What new practices, platforms, roles and functions are required to operationalize and govern innovation ecosystem?
- How to co-develop the policy/regulatory framework and innovation practices/processes that will enhance innovation rather than slow its progress?

Relation between collaboration, innovation and economic performance

- How do we measure success in collaboration within ecosystems?
- What role does open innovation play within ecosystems to foster greater innovation and economic performance?
- What is the socio-economic impact of intersectoral/interdisciplinary collaboration on innovation and economic development?
- Does the ecosystem facilitate/accelerate innovation production?
- What are the key performance indicators (KPIs) for measuring success of collaboration and innovation, of firms within ecosystems, of innovation ecosystems?

Submission guidelines

We encourage authors to submit abstracts that span multiple approaches and literature. Submissions can take many forms:

- Quantitative or empirical papers
- Experimental papers
- Theoretical papers (including models and simulations)
- Literature reviews
- Qualitative or case study-based papers

Submissions in PDF format should be single-spaced, using at least 12 pt size fonts on US Letter paper, should include all four elements below:

- Names of all authors
- Affiliations of all authors
- Extended abstract (1000-1500 words) will have to be submitted (how)
- List of up to 5 keywords
- Topic(s)
- Innovation ecosystem(s)

Important deadlines

- Submissions of extended abstracts due by 25 February, 2020
- Acceptance notification by 10 March 2020

Registration

- Early-bird registration: 10 March 2020 – 10 April 2020
  - Graduate students and postdoctoral fellows: 150$
  - All other participants: 250$
- Registration: 11 April 2020 – 4 May 2020
  - Graduate students and postdoctoral fellows: 250$
  - All other participants: 350$

Preliminary program (subject to change)

Monday 11th May [Pre-conference Summer School]	
9h00-12h00	**Training session** 9h00-10h00 Introduction to AI (e.g. Machine learning) – inspired from IVADO 10h00-11h00 Introduction to Natural Language Processing (NLP) 11h00-12h00 Introduction to qualitative and quantitative mix with big data analytics
12h00-13h00	**Lunch**
13h-13h45	**Plenary: Keynote speaker on New data analytics** *Josep Domènech - Universitat Politècnica de València, Spain*
13h45-16h30	**Big data analytics in practice** Short pitches of user cases to present how to and for what purpose use big data analytics for research, monitoring and analysis. A very dynamic approach including a lot of discussion is planned
18h00	Registration and Welcome cocktail for the conference & dinner at hotel (for those who want)

Tuesday 12th May	
9h00-9h15	**Plenary: Opening remark** *Catherine Beaudry (Polytechnique Montréal) – PI of 4POINT0 & Pierre Therrien (ISED)*
9h15-10h15	**Plenary: Keynote speaker(s) on Innovation ecosystems** *Michael G. Jacobides (London Business School), Maryann Feldman (University of North Carolina) & Chair: Maureen McKelvey (University of Gothenburg)*
10h30-12h00	**Parallel sessions (1)**
12h00-13h30	**Lunch + Student posters**
13h30-15h00	**Parallel sessions (2)**
15h15-16h45	**Plenary: Panel on Innovation ecosystems and regulated industries** *Paulo Carlos Kaminsky (U. São Paulo), Kathy Malas (CHUM) & Marc St-Hilaire (CAE)*
18h00	**Pre-dinner drinks + Student posters (competition)**
19h00	**Conference Dinner**

Wednesday 13th May	
9h00-10h30	**Parallel sessions (3)**
10h45-12h15	**Plenary: Panel on Data, key performance indicators (KPI) for policy and practice** *Josep Domènech (Universitat Politècnica de València, Spain), Denis Faubert (CARIC & Scale.AI) and Barbara Gibbon (Supercluster DG – ISED)*
12h15-13h30	**Lunch**
13h30-15h00	**Plenary: Keynote speaker(s) on Data challenges to measure innovation** *Kaye Husbands Fealing (Georgia Tech)* **Closing remarks and farewell –** *Catherine Beaudry (Polytechnique Montréal) – PI of 4POINT0*