First 4POINT0 Conference on

Policies, Practices and **Processes** related to the **Performance** of Innovation Ecosystems –

1st P4IE Conference

Virtual conference
10-13 May 2021

PARTENARIAT POUR L'ORGANISATION DE L'INNOVATION ET DES NOUVELLES TECHNOLOGIES

PARTNERSHIP FOR THE ORGANISATION OF INNOVATION AND NEW TECHNOLOGIES

It is our great pleasure to welcome you to this first ''Policies, Processes and Practices for Performance of Innovation Ecosystems" (P4IE) international virtual conference. Organized around seven highly relevant tracks, the conference offers participants the opportunity to discuss the impact of various technologies, practices, processes and policies, on innovation ecosystems, and the best means by which to design collaborative environments. The goal of the conference is to explore ways to strengthen innovation through innovation ecosystems.

4POINT0 is a partnership that seeks to build a common knowledge mobilization (KM) channel between knowledge experts, policy- and decision-makers. The conference will bring together stakeholders from government, academia, industry and the public to create a rich environment for coordinating industrial practices, public innovation policies, university S&T diffusion, disclosure and commercialization strategies. Audiences will include:

- Industry decision makers, from SMEs to large corporations, involved in innovation ecosystems and interested in improving their innovation performance;
- University technology transfer office staff and academics wishing to commercialize their research;
- Government policy-makers, including senior officials in ministries, departments and agencies charged with devising and implementing innovation policies;
- Academic community, including students and postdoctoral fellows;
- Research and innovation intermediaries, bridging academia and industry stakeholders to facilitate collaborative research.

Although we cannot see each other in person this year, we have worked with a highly innovative online event firm, Tractus (https://www.tractus.ca/), to ensure that the conference experience is as real and engaging as an in-person event. We hope that you enjoy the conference!

Big data analytics in practice

This one-day pre-conference Summer School offers the opportunity for interested participants to learn more about the use big data analytics in applied social science. The Summer School's is held in collaboration with the Institut de valorisation des données (IVADO).

Monday May 10 [Pre-conference]: Big data analytics in practice	
10h00-10h30	**Plenary: Tools to start data analytics project in humanities** Useful AI tools (e.g. Machine learning) Jean-François Connolly, IVADO
10h30-10h45	**Break**
10h45-11h45	**Plenary: Use cases** (20 min x 3 cases) <u>Chair</u>: Davide Pulizzotto • Josep Domenech, Universitat Politècnica de València • Benjamin Zweig, Revelio Labs • Pierre-Samuel Dubé, Irosoft
11h45-12h30	**Break or break-out rooms** 11h45-12h30 Break out Chat room (optional) 11h45-12h00 Yoga
12h30-14h00	**Workshop Data analytics in practice (1h25)** *How can we identify innovative firm?* • Presentation of workshop and problem to solve (20 min) • Breakout rooms (30 min.) • Plenary (30 min.)
13h55-14h00	**Closing words** Catherine Beaudry, Polytechnique Montreal

* Time zone: EDT

PARTNERSHIP FOR THE ORGANISATION OF INNOVATION AND NEW TECHNOLOGIES

MONDAY MAY 2021, 10H45 – 11H45 – BIG DATA IN PRACTICE

Plenary – Use cases

Chair: Davide Pulizzotto, Polytechnique Montréal

Using Workforce Data to Uncover Social Trends

Benjamin Zweig, Revelio Labs

Ben Zweig is the CEO of Revelio Labs, a workforce intelligence company. Revelio Labs leverages the latest advances in AI research methods to create structured and accurate representations of raw labor data contained in millions of resumes, online profiles, and job postings. Revelio Labs' mission is to provide unique insights and uncover trends in Human Capital, empowering businesses and Investors. He also teaches Data Science at NYU Stern. Prior to starting Revelio Labs, Ben has worked as a Managing Data Scientist in the IBM Chief Analytics Office and as a Quantitative Strategist at an Emerging Market hedge fund. He holds a PhD in Economics from the CUNY Graduate Center and has done research in Occupational Transformation and Social Mobility.

Predicting company defaults with webscraping data

Josep Domenech, University of Valéncia

Josep Domenech received a B.S., M.S. and Ph.D. in Computer Science from the Universitat Politècnica de València (UPV), and a B.S. and M.S. in Business Administration and Economics from the Universitat de València. Since 2009, he is an associate professor at the Department of Economics and Social Sciences of the UPV. He is the general chair of the CARMA and HEAd conferences since 2016 and 2015, respectively. His research interests are focused on multidisciplinary approaches to internet systems and digital economics, including web economic indicators, internet economics and web performance characterization.

IROSOFT, AI products and services adapted for legal documents

Pierre-Samuel Dubé, Irosoft

Pierre-Samuel Dubé has more than 15 years of experience in project management and software product management, and 10 years in the development of software systems and IT solutions. Mr. Dubé joined Irosoft in February 2016 as Senior Director of the Legal business area, and holds the positions of product manager and project manager for Irosoft's LIMS solution, a legal documentary production chain designed specifically to support the processes of drafting, amending, translating and publishing legislative documents in governmental or municipal jurisdictions. Mr. Dubé holds a bachelor's degree in electrical engineering and an MBA from Laval University in Quebec City as well as a master's degree in software engineering from the École de Technologie Supérieure in Montreal.

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Tuesday 11 May 2021	
9h30-10h00	**Coffee/tea together**
10h00-10h10	**Opening remark (plenary)** *Catherine Beaudry (Polytechnique Montréal) – PI of 4POINT0* *Lori Kibbee (Sr Dir, Performance and Partnership at ISED)*
10h10-11h15	**Plenary: Keynote address on *Innovation ecosystems*** Michael Jacobides, London Business School <u>Chair</u>: Maureen McKelvey, University of Gothenburg
11h15-11h30	**Break (and overtime from Plenary)**
11h30-13h00	**Co-creation workshop on Innovation Indicators (part 1)**
13h00-13h15	**Yoga for all**
13h15-14h00	**Chat rooms**: the fringe of the workshop, speed meeting, impromptu chats, and poster viewing (possibility to jump from one to another)
14h00-14h45	**Student posters** (Live chat with the students)
14h45-15h00	**Speed meeting** (can continue after 15h)

Wednesday 12 May 2021	
9h30-10h00	**Yoga for all**
10h00-11h00	**Parallel sessions (1)**
11h00-11h30	**Chat rooms**: the fringe of the workshop, speed meeting, impromptu chats, and poster viewing (possibility to jump from one to another)
11h30-13h00	**Co-creation workshop on Innovation Indicators (part 2)**
13h00-13h15	**Break**
13h15-14h15	**Panel 1: *Innovation ecosystems and regulated industries*** Marc St-Hilaire, CAE Kathy Malas, CHUM Elizabeth Toller, Health Canada <u>Chair</u>: Annie Martin, Canadian Space Agency
14h15-14h45	**Student posters** (Live chat with the students)
14h45-15h00	**Speed dating** (can continue after 15h)

Thursday 13 May 2021		
9h30-10h30	**Parallel sessions (2)**	
10h30-10h45	**Break**	**Panel 3: *Gouvernance et Leadership au Féminin dans les écosystèmes d'innovation***
10h45-11h45	**Panel 2: *Drones for Good...for good...But how?*** Charlotte Laramée, Aéro-Montréal Frank Matus, Thales Marc Moffat, Centre d'Excellence sur les Drones (CED) <u>Chair</u> : Alain Aubertin, CRIAQ	Louise Guay, Living Lab de Montréal Lise Déziel, Cordé Électrique Rose-Marie DiRosa, Comptoir Lamnex Danielle Lafond, Labplas Lahou Keita, Keitas Systems Nesrine Zemirli, SCiiĜO <u>Chair</u>: Sâadia Lakehal, Emperia Industrie Connect
12h00-12h15	**Break**	
12h15-13h45	**Workshop: *Cooking with a chef!*** *Includes time to eat and document the process (see prize below…)*	
13h45-14h45	**Plenary: Keynote address & Discussion on *Data, key performance indicators (KPI) for policy and practice*** Josep Domenech, University of Valéncia <u>Chair</u>: Kaye Husbands Fealing, GeorgiaTech	
14h45-15h00	**Closing remarks** *Presentation of co-creation workshop selected results – creation of a community of practice* *Best poster prize* *Best paper prize* *Best culinary prowess prize* **And possibility to chat/speed dating after 15h**	

* Time zone: EDT

CONFERENCE PROGRAM
11-13 MAY 2021
VIRTUAL

TUESDAY 11 MAY 2021, 9H00 – 10H00 – KEYNOTE ADDRESS

Keynote address on Innovation ecosystems

In this plenary keynote speech, Prof Jacobides will disentangle the concepts of systems and ecosystems, from that of clusters, regional and sectoral systems of innovation. He will describe the roles of the various ecosystem members and how these have changed in ecosystems. He will then highlight what is easier and offers advantages in ecosystems, but also what is more difficult in ecosystems, in addition to explaining how firms are changing their strategies and business models to adapt to their ecosystems environment and how ecosystems are governed.

<u>Keynote</u>: Michael Jacobides, London Business School

Michael G Jacobides (www.jacobides.com) is the Sir Donald Gordon Professor of Entrepreneurship & Innovation and Professor of Strategy at London Business School. He is the Lead Advisor of Evolution Ltd, an Academic Advisor of the Boston Consulting Group, and the Chief Digital Economy Advisor of the Hellenic Competition Commission. His work, which has received the Sloan Foundation Award, has appeared in the top academic journals such as SMJ, AMJ, AMR, OrgSci and Industrial & Corporate Change, where he is a co-Editor. He studies industry evolution, value migration, firm boundaries and organization design. His recent work has shed light on the emergence and development of digital platforms and ecosystems and has looked at the strategic and policy issues this raises.

<u>Chair</u>: Maureen McKelvey, University of Gothenburg

Maureen McKelvey is the Swedish Research Council's Distinguished Professor in Entrepreneurial Ecosystems, and Professor in Industrial Management and Economics at the Institute of Innovation and Entrepreneurship, Department of Economy and Society, School of Business, Economics and Law, University of Gothenburg, Sweden. Over the past two decades, Professor McKelvey has acted in several Scientific Boards and Advisory Committees for the most important scientific communities both within the field of Innovation Studies, as well as in interdisciplinary fields, particularly towards engineering and business studies. She has served on DIME, DRUID, Imperial College Business School Innovation, Manchester Institute of Innovation, GEM in Grenoble, among others through her career.

WEDNESDAY 12 MAY, 13H15 – 14H15 – PANEL 1

Panel on Innovation ecosystems and regulated industries

This panel will explore how different innovation ecosystems stakeholders in regulated industries develop a culture of innovation, and how they adopt agile methods to improve their performance. Members of the panel will provide concrete examples on how their organizations used agility to navigate challenges during the pandemic and will explore how to address challenges of the future.

<u>Chair</u>: Annie Martin, Canadian Space Agency

Annie works at the Canadian Space Agency with the Operational Space Medicine group. She is the portfolio manager for the Health Beyond initiative, which aims at identifying and developing innovative health solutions for deep space missions as well as establishing partnerships that engage on the synergies between terrestrial and space healthcare challenges for the benefit of all Canadians, especially medically-isolated populations. She is involved in strategic and management activities such as engagement with the innovation ecosystem and remote health stakeholders, collaboration with international and national partners, technology development and demonstration. Annie holds a PhD in Industrial Engineering from Polytechnique Montreal.

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Panelists : Marc St-Hilaire, CAE
Kathy Malas, CHUM
Elizabeth Toller, Health Canada

Marc St-Hilaire, CAE

Marc St-Hilaire, CAE Marc St-Hilaire is currently Chief Technology Officer and Vice President, Technology & Innovation at CAE. He leads the development of CAE's global technology vision and strategy, and works closely with all divisions to bring the latest advancements to the market. Mr. St-Hilaire holds a Bachelor's degree in Mechanical Engineering from Montreal's École Polytechnique and a Master's degree in Science (Majoring in Aerospace) from England's Cranfield Institute of Technology. He also holds a Master's degree in Business Administration from HEC Montréal. In 2014, Mr. St-Hilaire received the Technological Innovation award from the École Polytechnique Alumni Association.

Kathy Malas, CHUM

Kathy Malas is passionate about innovation and knowledge management as a vector of transformation of the healthcare system. Associate to the President and Chief Executive Officer and responsible of the Pole of innovation and artificial intelligence in Health at the Hospital Center of the University of Montreal CHUM, Kathy is a dedicated manager in fostering the integration of care, teaching, research, innovation in partnership with patients and employees. She also encourages open innovation with partners of all horizons to better respond to the health needs of patients and their families. Having obtained a graduate certificate at McGill University in Health Management and obtained her Master degree in Speech-Language Pathology at Université de Montréal, Kathy implements a strategy of innovation and IA, is a professional research in health innovation management research projects and facilitates community practices in this field. She deploys concrete mechanisms to foster a culture, an organization and open ecosystem of innovation to create value: improving health and well-being for all!

Elizabeth Toller, Health Canada

Elizabeth Toller is an experienced policy specialist and public sector leader with over eleven years' experience working in the Government of Canada. Her passion for health issues and social policy has seen Elizabeth split her time in government between Health Canada, Immigration, Refugees, and Citizenship Canada, and the Privy Council Office. Elizabeth currently serves as the Executive Director for Regulatory Innovation in Health Canada's Health Products and Food Branch, driving the modernisation of Canada's food and drug regulations in support of innovation and competitiveness. Outside of work, Elizabeth is a mother of two and garden enthusiast.

THURSDAY 13 MAY 2021, 10H30 – 11H45 – PANEL 2

Panel Gouvernance et Leadership au Féminin dans les écosystèmes d'innovation / Panel on Governance and Leadership in Women in Innovation Ecosystems

[Presented in French]

Les écosystèmes d'innovation interpellent des comportements, des usages et des espaces souvent familiers aux femmes. La participation accrue des femmes dans tous les secteurs accroît leur prospérité. Celles qui ont réussi ont toutes en commun d'avoir osé être elles-mêmes, d'avoir cru en elles et d'avoir pris les moyens pour réaliser leurs ambitions. Elles sont des actrices importantes de l'économie et une force déterminante de l'innovation sociale.

Le panel vise à dynamiser le leadership au féminin à l'ère de la quatrième révolution et à donner la parole aux femmes qui ont un rôle à jouer pour le développement de l'industrie intelligente et sensible.

Innovation ecosystems challenge behaviors, uses and spaces that are often familiar to women. The increased participation of women in all sectors increases their prosperity. Those who have succeeded all have in common

the fact that they dared to be themselves, to have believed in themselves and to have taken the means to achieve their ambitions. They are important players in the economy and a determining force in social innovation.

The panel aims to energize female leadership in the era of the Fourth Revolution and to give voice to women who have a role to play in the development of intelligent and sensitive industry.

En collaboration avec Emperia Industries Connect inc. Et Living Lab de Montréal

Chair: Sâadia Lakehal, Emperia Industrie Connect

Sâadia Lakehal improves the competitive positioning and the level of competitiveness of the manufacturers she supports thanks to her strong experience in industrial networking and knowledge of the sector. She contributes to the development and creation of the manufacturing industry of the future which aims to be intelligent, visionary and connected to the current socio-economic, human, environmental and technological challenges of our modern society. She initiated the Global Women in Manufacturing and AgTech Summit and the magazine to promote diversity and inclusion in the connected industry. Currently, she is collaborating with several partners who oversee more than 200,000 women.

Sâadia Lakehal améliore le positionnement concurrentiel et le niveau de compétitivité des industriels qu'elle accompagne grâce à sa forte expérience en réseautage industriel et sa connaissance du secteur. Elle contribue au développement et à la création de l'industrie manufacturière du futur qui se veut intelligente, visionnaire et connectée aux défis socio-économiques, humains, environnementaux et technologiques actuels de notre société moderne. Elle a lancé le Global Women in Manufacturing and AgTech Summit et le magazine pour promouvoir la diversité et l'inclusion dans l'industrie connectée. Actuellement, elle collabore avec plusieurs partenaires qui supervisent plus de 200 000 femmes.

Panelists : Louise Guay, Living Lab de Montréal
Lise Déziel, Cordé Électrique
Rose-Marie DiRosa, Comptoir Lamnex
Danielle Lafond, Labplas
Lahou Keita, Keitas Systems
Nesrine Zemirli, SCiiĜO

Trois thèmes : Une entrepreneure 4.0 et une technologue sur chacun des thèmes.

La Gouvernance

Danielle Lafond, Présidente, Labplas

Danielle Lafond holds a law degree from the University of Montreal. In 1993, she acquired all of the voting shares of Labplas Inc and pivoted its focus on research and development in order to position itself as a leader in the manufacture of sterile sampling products that meet specific needs. cutting-edge analysis of safety and composition on the agri-food, environmental and pharmaceutical markets. At the same time, she is involved in the business community and is a member of the "Groupement québécois des chefs d'entreprises".

Danielle Lafond est détentrice d'un diplôme en droit de l'Université de Montréal. En 1993, elle fait l'acquisition de la totalité des actions votantes de Labplas Inc et met l'accent sur la recherche et le développement afin de positionner l'entreprise comme leader dans la fabrication de produits d'échantillonnage stérile qui répondent à des besoins pointus d'analyse de salubrité et de composition sur les marchés agroalimentaire, environnemental, et pharmaceutique. Parallèlement, elle s'implique dans la communauté d'affaires et elle est membre du Groupement québécois des chefs d'entreprises.

Nesrine Zemirli, Présidente, SCiiĜO; Directrice générale, AIoT Canada; Professeure, Collège de Bois-de-Boulogne.

Nesrine Zemirli holds a Ph.D in search engine personalization from Paul Sabatier Toulouse 3 University and a master's degree in technological project management from Toulouse - Jean Jaurès University. She has held various positions, as business developer, applied AI expert, data scientist, professor and researcher. Through her expertise, she has developed a proactive, holistic innovation approach, adapted to the market needs and trends, to support companies in their digital transformation and was in charge of several large-scale AI projects applied in several industrial fields. She founded SCiiĜO, a firm specialized in AI strategies and End-To-End solutions. They help companies apply AI in their digital transformations.

Nesrine Zemirli est titulaire d'un doctorat en personnalisation des moteurs de recherche de l'Université Paul Sabatier Toulouse 3 et d'un master en gestion de projets technologiques de l'Université Toulouse - Jean Jaurès. Elle a occupé divers postes, en tant que business developer, experte en IA appliquée, data scientist, professeure et chercheuse. Par son expertise, elle a développé une démarche d'innovation proactive et holistique, adaptée aux besoins et tendances du marché, pour accompagner les entreprises dans leur transformation digitale et a été en charge de plusieurs projets d'IA à grande échelle appliqués dans plusieurs domaines industriels. Elle a fondé SCiiĜO, une entreprise spécialisée dans les stratégies d'IA et les solutions de bout en bout. Ils aident les entreprises à appliquer l'IA dans leurs transformations numériques.

La Plateformisation

Rose-Marie DiRosa, Présidente, Comptoir Lamnex

Rose-Marie DiRosa is the president of Comptoir Lamnex, an innovative Quebec manufacturer with high expertise in production of versatile and distinctive countertops and surface designs in the institutional, commercial and residential sectors. We passionately mold and manufacture Corian antibacterial solid surfaces and other brands. Our designers conceptualize your ideas in order to achieve original surfaces, enhanced with your personalized signature. We are also committed to sustainable development in order to reduce our ecological footprint.

Rose-Marie DiRosa est la présidente du Comptoir Lamnex, un manufacturier québécois novateur possédant une grande expertise dans la production de plans de travail et de surfaces polyvalents et distinctifs dans les secteurs institutionnel, commercial et résidentiel. Nous moulons et fabriquons avec passion des surfaces solides antibactériennes Corian et d'autres marques. Nos designers conceptualisent vos idées afin de réaliser des surfaces originales, rehaussées de votre signature personnalisée. Nous nous engageons également en faveur du développement durable afin de réduire notre empreinte écologique.

Louise Guay, Directrice générale, Living Lab de Montréal

Louise Guay is Executive Director of the Living Lab in Montreal. A serial entrepreneur, she has never stopped innovating by creating several start-ups putting the user at the heart of the action. She is interested in seamless mobility through the future of work, its relocation and flexible workspaces. The platform imagined by the Living Lab in Montreal, access management interfaced to iPaaS and Blockchain, takes up the challenge of interoperability and data sovereignty. With its Finnish partner SPACENT, platform and application allow the sharing of inventories of flexible workspaces and the management by the user of a flexible, adapted, personalized schedule.

Louise Guay est directrice générale du Living Lab de Montréal. Entrepreneure en série, elle n'a cessé d'innover en créant plusieurs start-ups mettant l'usager au cœur de l'action. Elle s'intéresse à la mobilité sans rupture par le futur du travail, sa délocalisation et les espaces de travail flexibles. La plateforme imaginée par le Living Lab de Montréal, gestion d'accès interfacée à iPaaS et Blockchain, relève le défi de l'interopérabilité et de la souveraineté des données. Avec son partenaire finlandais SPACENT, plateforme et application permettent le partage d'inventaires d'espaces flexibles de travail et la gestion par l'usager d'un horaire souple, adapté, personnalisé.

La Performance

Lise Déziel, Présidente, Cordé Électrique

Lise Déziel is President and CEO of Cordé Électrique, a Canadian electrical harness manufacturer that meets the highest industry standards, serving international markets in the automotive, transportation, electric vehicle, medical industry and appliance fields. She has received several awards, such as WEConnect International in Canada WBE of the year and the Business Women of Quebec Award.

Lise Déziel est présidente et chef de la direction de Cordé Électrique, un fabricant canadien de harnais électriques qui répond aux normes les plus élevées de l'industrie, desservant les marchés internationaux dans les domaines de l'automobile, du transport, des véhicules électriques, de l'industrie médicale et de l'électroménager. Elle a reçu plusieurs prix, tels que WEConnect International au Canada WBE de l'année et le prix Femmes d'affaires du Québec.

Lahou Keita, Co-fondatrice et Directrice des opérations, Keitas Systems

Lahou Keita began his aeronautical career at Paris Charles de Gaulle airports, in the aircraft weight and balance department. She continued in Customer Support for maintenance management at Dassault Falcon Service at Le Bourget airport, and in Switzerland in the maintenance workshops, becoming an aircraft inspector specializing in maintenance engineering. In 2011, she co-founded with her sister Fatou Keita, Keitas Systems, an aerospace company.

Lahou Keita a commencé sa carrière aéronautique aux aéroports de Paris Charles de Gaulle, dans le département de masse et centrage des avions. Elle a poursuivi au Support Clients pour la gestion de la maintenance chez Dassault Falcon Service à l'aéroport du Bourget, et en Suisse dans les ateliers de maintenance, devenant une inspectrice d'aéronefs spécialisé dans le génie de maintenance. En 2011, elle a cofondé avec sa sœur Fatou Keita, Keitas Systems, une entreprise aérospatiale.

THURSDAY 13 MAY 2021, 10H45 – 11H45 – PANEL 3

Drones for Good... for good... But how?

The panel will be an opportunity for a conversation on the challenges of the development and integration of drones into airspace and the need for a close coordination of many players between industry, research and innovation networks, regulatory bodies and other stakeholders such as territories.

Chair :   Alain Aubertin, CRIAQ

Alain Aubertin holds a Ph.D. in Innovation Management from Polytechnique Montreal, and is the President & CEO of the Consortium for Research and Innovation in Aerospace in Quebec (CRIAQ). Committed and innovative, he is passionate about the development of collaborative approaches to innovation and business aimed at creating lasting benefits for the partners involved and the society. Mr. Aubertin has a keen interest in emerging technologies, innovation systems of many countries, business, international development and research partnerships. He has notably managed more than 150 case studies of private and public organizations in North America, Europe, Russia, Japan and South America.

Panelists : Frank Matus, Thales
                Marc Moffatt, Centre d'Excellence sur les Drones (CED)
                Charlotte Laramée, Aéro Montréal

Frank Matus, Director, ATC Digital Aviation Solutions, Americas – Thales Airspace Mobility Solutions

Frank Matus has over 20 years of experience establishing strategy/development initiatives for emerging air traffic management concepts and solutions in the global aviation market. As Director, Matus leads this emerging part of the Thales Airspace Mobility Solutions business serving as a system-of-systems integrator combining sensor technology with cloud-native, digital tools to modernize and facilitate the integration of Unmanned Aircraft Systems (UAS) globally.

Marc Moffat, Strategic advisor, UAS Centre of Excellence/Centre d'excellence sur les drones

Mr. Marc Moffatt served for twenty years in the Canadian Forces as an Air Combat Systems Officer where he accumulated over 3,500 flying hours. After leaving the Air Force in 2007, he was employed by General Dynamics Mission Systems as a Program Director for the Maritime Helicopter Project (MHP). In the spring of 2012, Marc joined the Centre d'excellence sur les drones as the executive director where he has coordinated multiple RPAS operations. Marc has been presiding the AERO Montreal Chantier RPAS since 2016, where his focus has been to organise and mobilize a growing Quebec RPAS community.

Charlotte Laramée, Vice-president, Operations, Aéro Montréal

Charlotte Laramée joined Aero Montreal in November 2015 and is currently Vice-president, Operations for the organization. She holds a Business School Master and has completed a microprogram in corporate finance at the HEC Montreal in 2019. Prior to joining Aero Montreal, Charlotte had various functions of business development for SMEs in aerospace, which gave her a good sense of the supply chain dynamic and a good understanding of international markets; experiences she uses every day to support Aero Montreal members.

THURSDAY 13 MAY 12H15 – 13H45 – FUN WORKSHOP: COOKING WITH A CHEF!

Middleground potatoes

What you will need:

List of ingredients
- 1 bunch / 15g fresh chives (see recipe this needs to be prepared a day ahead)
  (or skip the process and buy dried chives ready made in the store then grind it)

For the potatoes:
- 10pcs. baby potatoes
- 1 sprig of thyme
- 1 pc dried bay leaf
- 6 cups sunflower oil

For garlic cocoa soil:
- ½ cup salted butter
- 1/3 cup brown sugar
- ½ cup almond powder
- ½ cup flour
- 3 tbsp cocoa powder
- 3 tbsp fine chopped garlic
- 3 tbsp fine chopped shallot

For the tomato puree:
- 3 tbsp extra virgin oil
- 5 cloves garlic
- 200g peeled dice tomato (in can)
- ½ tbsp sugar
- 2 tbsp chili oil
- 1 tbsp tomato paste
- Salt & pepper to taste

For the aioli:
- ½ cup mayonnaise
- 1 clove garlic, fine chopped
- 1 tbsp lemon juice
- ¼ tsp kosher salt
- 2 tsp olive oil
- ¼ tsp white pepper

Et votre bonne humeur / And your good mood!

THURSDAY 13 MAY 2021, 13H45 – 14H45 – CLOSING KEYNOTE ADDRESS

Keynote address and Discussion on Data, key performance indicators (KPI) for policy and practice

Short abstract TBD

Keynote: Josep Domenech, University of Valéncia

Josep Domenech received a B.S., M.S. and Ph.D. in Computer Science from the Universitat Politècnica de València (UPV), and a B.S. and M.S. in Business Administration and Economics from the Universitat de València. Since 2009, he is an associate professor at the Department of Economics and Social Sciences of the UPV. He is the general chair of the CARMA and HEAd conferences since 2016 and 2015, respectively. His research interests are focused on multidisciplinary approaches to internet systems and digital economics, including web economic indicators, internet economics and web performance characterization.

Chair: Kaye Husbands Fealing, GeorgiaTech

Kaye Husbands Fealing is Dean of the Ivan Allen College of Liberal Arts at the Georgia Institute of Technology, formerly the Chair of the School of Public Policy Georgia Tech. She holds a Ph.D. in economics from Harvard University, and a B.A. in mathematics and economics from the University of Pennsylvania. She specializes in science of science and innovation policy, the public value of research expenditures, and the underrepresentation of women and minorities in STEM fields and workforce. Husbands Fealing was recently elected to the American Academy of Arts and Sciences, she is an Elected Fellow of the National Academy of Public Administration, an Elected Fellow of the American Association for the Advancement of Science (AAAS), and serves on the AAAS Executive Board. She was awarded the 2017 Trailblazer Award from the National Medical Association Council on Concerns of Women Physicians.

THE FRINGE OF THE WORKSHOP ON INNOVATION INDICATORS

Missed the deadline to register to the workshop? Had something else to do at the time? It is not too late to contribute! Join this chat room to catch up on the work performed by the teams that will have the task to destroy innovation indicators before embarking in the difficult task of reconstructing them… with the philosophy of building back better indicators as tools for governance and incentives to ensure that Policies, Practices and Processes are targeted towards the Performance of Innovation Ecosystems (P4IE).

Animator: Catherine Beaudry

Tuesday 11 May   13h15 – 14h00
Wednesday 12 May   11h00 – 11h30

TO BE OR NOT TO BE… AN INNOVATION ECOSYSTEM

Following up in Prof. Jacobides' keynote address, this chat room will be where we will informally discuss, debate, argue, explore what is an innovation ecosystem compared to industrial clusters / grappes industrielles, industrial districts, regional systems of innovation, pôles de compétitivité, zones d'innovation, Superclusters, etc.

Animator: TBD

Tuesday 11 May   13h15 – 14h00
Wednesday 12 May   11h00 – 11h30

DATA SCIENCE FOR INNOVATION MEASUREMENT

With the latest machine learning techniques, the boundary between the qualitative and quantitative data is even more fuzzier than ever. This chat room where we discuss how to turn data into indicators. Bring your wildest ideas to this space!

Animator: Davide Pulizzotto, Mikaël Héroux-Vaillancourt

Monday 10 May   11h45 – 12h30
Tuesday 11 May   13h15 – 14h00
Wednesday 12 May   11h00 – 11h30

NEW IDEAS FOR NEXT YEAR'S P4IE CONFERENCE

As we are already planning next year's event that will take place on 9-13 May 2022 in the beautiful Hilton Garden Inn in downtown Ottawa, we would love to hear your ideas for must have topics to discuss.

No Animator: This is a written chat only

Tuesday 11 May   13h15 – 14h00
Wednesday 12 May   11h00 – 11h30

OVERTIME AND CONVERSATIONS WITH THE SPEAKERS FROM THE PREVIOUS EVENT

Too shy to ask your question in the Chat (Q&A) section? Did not have the time to ask your question? Your comment was not addressed by the Chair or the speakers? Do not despair, this space is for you! Chairs and speakers from the event that just finished will stay on a little for you to have the time to ask your questions and discuss with you.

Animator: the Chair and support team of the previous event

During the 15 minutes after each Plenary, Panel or Parallel Session.

Wednesday 12 May 2021 – 10h00-11h00				
Parallel sessions 1 (A, B, C, D, E)				
1A Advanced manufacturing, processes and technology adoption	**1B Health ecosystem 1**	**1C Artificial intelligence ecosystems, knowledge transfer, and responsibility**	**1D Drivers of policy change: From student entrepreneurs to scaled up firms**	**1E New approaches to agrifood innovation ecosystems**
<u>Chair</u>: Fabiano Armellini, Polytechnique Montréal	<u>Chair</u>: Patrick Cohendet, HÉC-Montréal	<u>Chair</u>: Jean-François Connolly, IVADO	<u>Chair</u>: Catherine Beaudry, Polytechnique Montréal	<u>Chair</u>: TBD
Does geographical proximity matter for technology adoption? A case study of automotive and aerospace firms in North West England Tausif Bordoloi, Alliance Manchester Business School, University of Manchester	*Inter-organizational data sharing during COVID-19 health emergency: Lesson learnt from the Veneto Region bio surveillance system* Valeria Maria Urbano, Politecnico di Milano	*University-industry knowledge transfer: The case of the godfathers of artificial intelligence* Margaret Dalziel, University of Waterloo	*Changing Innovation Policy Mixes: Understanding the Interplay of Agency and Inertia* Travis Southin, University of Toronto	*Modelling stakeholder inclusion in Canadian digital agriculture ecosystem* Hassan Ebrahimi, University of Ottawa
Comprendre les enjeux de planification stratégique des PME(s): un levier pour la conception d'une méthodologie de planification agile qui intègre l'évaluation de l'écosystème d'innovation. Zahida Benrais, Polytechnique Montréal	*Investigating corporate response patterns to COVID-19 – Twitter and Web analyses* Ye Zhu, University of Ottawa	*Interpretable link prediction based approach for scientific collaboration prediction using machine learning* Shahab Mosallaie, Concordia University	*The stakeholders of student entrepreneurial ecosystems: roles and specificities* Pauline Brunner, Université de Strasbourg	*Exploring new approaches to understanding innovation ecosystems* Sandra Schillo, University of Ottawa
Is innovation in advanced manufacturing different? Shayan Fahimi, The University of British Columbia	*To reveal or not to reveal? Open innovation mechanisms within an emerging personalized medicine innovation ecosystem* Andrew Park, Simon Fraser University	*Identifying driving factors to acquire influential roles within the fast-evolving AI ecosystem* Anihita Hajibabaei, Concordia University	*Canada's innovation program suite: Impacts overlap and complementarity* Ryan Kelly, Innovation, Science and economics Development Canada	*Technological innovation and the transition toward smart, safe and sustainable agriculture ecosystems* Majlinda Zhegu, UQAM
Effect of social and personal characteristics of innovators on the economic performance: The study of patent commercialization in Canadian nanotechnology innovation ecosystem Mahdi Rad, Concordia University	*Stability and change in academic engagement: Collaborative PhD projects in biomedical engineering at Chalmers University of Technology 1948-2018.* Rögnvaldur Saemundsson, University of Iceland	*AI strategies of the UK and Canada: Embedding responsible innovation in policy and practice?* Andrew Watkins, Alliance Manchester Business School	*New business intelligence: Moving from a predictive era to an empirical era* Marie-Andrée Roger, Fabrique_A	*Analyzing customers' attitudes toward new food products – A Twitter analysis* Caiyi Zhao, Telfer School of Management, University of Ottawa

Thursday 13 May 2021 – 9h30-10h30			
Parallel sessions 2 (A, B, C, D)			
2A Sustainable mobility ecosystem	**2B Health ecosystem 2**	**2C Advanced information and communications technologies for digital transformation**	**2D IE shared value, common good, social and sustainable innovations**
<u>Chair</u>: Laurent Simon, HÉC-Montréal	<u>Chair</u>: Thierry Burger-Helmchen, Université de Strasbourg	<u>Chair</u>: Philip Shapira, Alliance Manchester Business School	<u>Chair:</u> Pierre Therrien, Employment and Social Development Canada
Toward new urban mobility: the politics of transit technology diffusion in Ontario Elena Goracinova, University of Toronto	*Telepresence mobile robot for health assistance: conception of a tool and pretest* Julie Rochefort, Université de Sherbrooke	*Which factors matter for the scientific contributions of professors' publications with industry? A study of the impact and quality of publications between university and industry in electrical engineering in Sweden* Viktor Ström, University of Gothenburg	*One or more innovation ecosystem(s) for shared value creation? Uncovering heterogeneity and configuring archetypes* Giulia Piantoni, Politecnico di Milano
Using text mining tools to extract relevant information on sustainable mobility Ricardo H Da Silva, Polytechnique Montréal	*Challenges in digital health technology development and the role of technology support ecosystems* Sylvain Moreno, SFU | Digital Health Circle	*Collaborative network in Canada's 5G innovation ecosystem.* Anas Ramdani, Polytechnique Montréal	*Canadian digital platforms for the common good: The transformation of social and sustainable innovation ecosystems* Louise, Guay, LivingLab de Montréal Majlinda Zhegu, UQAM
Open innovation as a Lever to rethink the use of curb space: Montreal CurbLR Map case study Elsa Bruyère, Fabmob Québec	*Numerical transformation in the "health ecosystem". A bibliometric analysis, 1994-2021* Diego Mahecha, Polytechnique Montréal	*Bridging the gap in digital transformation dialogue: Business and technology sides* Amir Taherizadeh, McGill University	*The management control tool - a boundary object reconciling tensions between control, creativity and societal and environmental challenges* Marion Neukam, Sophie Bollinger, Université de Strasbourg
		The industry productivity and the link with the adoption of advanced technologies – A case study in Quebec Philippe Molaret, Thales Digital Technologies	

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PARTNERSHIP FOR THE ORGANISATION
OF INNOVATION AND NEW TECHNOLOGIES

INSTRUCTIONS FOR THE PARALLEL SESSIONS

Unless the chairs of the sessions chose otherwise, each speaker will have about 10-12 minutes to present so as to leave enough time for discussion after the papers have been presented.

After the 60-minutes time period allocated, the session will automatically go into overtime, so no need to worry about being removed from the session mid-sentence.

WEDNESDAY 12 MAY 2021, 10H00 – 11H00

Session 1A – Advanced manufacturing, processes and technology adoption

This session will explore the factors that influence technology adoption and innovation in advanced manufacturing, including strategic planning and the personal traits and characteristics of inventors.

Chair: Fabiano Armellini, Polytechnique Montréal

Does geographical proximity matter for technology adoption? A case study of automotive and aerospace firms in North West England

Tausif Bordoloi[1], Philip Shapira[1], Paul Mativenga[2]

[1]Manchester Institute of Innovation Research, Alliance Manchester Business School, University of Manchester, [2]Department of Mechanical, Aerospace and Civil Engineering, University of Manchester

Abstract: The influence of geographical proximity on innovation adoption is under-researched. This paper fills the gap by theorising and operationalising five proximity dimensions (cognitive, organisational, social, institutional and geographical) in the context of adoption. A case study is then conducted to investigate their relative influence on the adoption of digital technologies by automotive and aerospace users in North West England. The findings indicate that geographical proximity is not the leading factor in adoption. Rather, a sense of institutional closeness, primarily relayed by national and transnational customers, serves as the main reason in why users adopt these technologies.

Comprendre les enjeux de planification stratégique des PME(s) : un levier pour la conception d'une méthodologie de planification agile qui intègre l'évaluation de l'écosystème d'innovation.
[will be presented in French]

Zahida Benrais[1], Fabiano Armellini[1], Sophie Veilleux[2]

[1]École polytechnique de Montréal , [2]Université Laval

L'objectif de cette communication est de présenter un essai sur les défis de la planification stratégique pour les PME, afin d'identifier les facteurs qui, très souvent, mènent l'exercice de planification stratégique à l'échec et déconnectent l'entreprise de la réalité de son écosystème. Une revue de la littérature sur le thème a été menée, ainsi que quelques discussions informelles avec des dirigeants de PME, afin de guider la recherche pour bâtir l'argumentaire présenté dans ce document. En guise de conclusion, quelques résultats préliminaires sont présentés ainsi que les prochaines étapes de ce projet de recherche.

Is innovation in advanced manufacturing different?

Shayan Fahimi[1], Janna Fabris[2], Anoush Poursartip[1, 2], Elicia Maine[3]

[1]Composites Research Network, [2]Composites Knowledge Network, [3]Beedie School of Business

Innovation is crucial to a company's success in advanced materials and manufacturing technologies. However, prolonged high technological and market uncertainties constrain innovation in this sector. Previous studies recognized the interdependency of products and processes in specific industries, such as manufacturing composite products in the aerospace sector, and argued that producing sophisticated end-products repeatably and robustly is a form of process-driven innovation. In this paper, we presented the results of two recent surveys to study the effects of IP strategy, firm size, and open innovation partnerships on the innovation performance of composite manufacturing companies in Canada.

Effect of social and personal characteristics of innovators on the economic performance: The study of patent commercialization in Canadian nanotechnology innovation ecosystem

Mahdi Rad[1], Saeed Sarencheh[1], Andrea Schiffauerova[1], Catherine Beaudry[2]

[1]Concordia University, [2]Polytechnique Montreal

Innovation helps companies to keep their competitive advantages and enter new markets. Therefore, many companies invest in research activities to increase their knowledge level and achieve new ideas and information. In this research, the impact of social and personal characteristics of inventors on economic performance in the Canadian nanotechnology innovation ecosystem has been investigated. The results showed that the inventors with more connections to other inventors and central positions in the collaboration network have better performance in commercialization. In terms of personal characteristics, the results indicated engineering education, industrial affiliation, and working in small companies positively affect patent commercialization.

Session 1B – Health Ecosystem 1

This session will look at Health Ecosystems from two different points of view. First, how data and information are managed over a longer period in public or private organization. Second, on how different organizations react during the covid-19 health emergency. Those topics are appealing to a wider audience considering the importance of data sharing and the problems cause by COVID.

Chair: Patrick Cohendet, HÉC-Montréal

Inter-organizational data sharing during COVID-19 health emergency: Lesson learnt from the Veneto Region bio surveillance system

Valeria Maria Urbano[1], Marika Arena[1], Giovanni Azzone[1]

[1]Department of Management, Economics and Industrial Engineering, Politecnico di Milano

Revealing the necessity of data integration between organizations to cope with the health emergency, the current pandemic COVID-19 has shed light on the complexity of inter-organizational data sharing practices. The aim of this research study is to investigate factors influencing data sharing initiatives put in place to deal with the emergency. Through the analysis of the Veneto case study, the hypothesis put forward by previous research are tested determining organizational and policy factors that hindered data sharing practices in the context of the COVID-19 emergency and the actions put in place by authorities to foster the implementation of this system.

Investigating corporate response patterns to COVID-19 – Twitter and Web analyses

Ye Zhu[1], Louise Earl[1], Sandra Schillo[1]

[1]University of Ottawa

The spread of Covid-19 across the globe has produced global and possibly persistent economic disruption. This study is based on data from corporate websites and Twitter accounts, and qualitative and quantitative analysis of company responses to COVID-19. The results show the breadth of responses, and relationships between the communication of corporate responses and their reception among social media users. The findings will help academic researchers, business leaders and policymakers understand corporate responses and subsequent reactions better. Notably, the methods presented may also form a component of future research on the extent of COVID-19 disruptions to innovation and entrepreneurship ecosystems.

To reveal or not to reveal? Open innovation mechanisms within an emerging personalized medicine innovation ecosystem

Andrew Park[1], Elicia Maine[1]

[1]Simon Fraser University

We propose a relationship between the use of Open Innovation (OI) by Personalized Medicine firms and their value outputs. We test our hypothesis by quantifying the use of OI by each of the firms in our sample, categorized by level of uncertainty, and comparing them to the value output of each of these firms. We find OI activities have a positive effect on value outputs and firms who operate in environments of high uncertainty enjoy higher value outputs. We argue that OI plays an important role in stimulating the economic performance of science-based ecosystems.

Stability and change in academic engagement: Collaborative PhD projects in biomedical engineering at Chalmers University of Technology 1948-2018.

Rögnvaldur Saemundsson[1], Maureen McKelvey[2]

[1]University of Iceland, [2]Gothenburg University

The concept of academic engagement stresses the importance and the variety of knowledge networks between university and industry in contrast to the commercialization of research results in the narrow sense of patents and start-ups. Drawing on a longitudinal mixed-methods study of collaborative PhD projects in biomedical engineering over seventy years at one university, we explore the evolution of academic engagement to improve our understanding of its sources of stability and change. Based on our finding we conclude that many factors incite change in the evolution of academic engagement, but organizational routines are the main source of its stability.

Session 1C – Artificial intelligence ecosystems, knowledge transfer, and responsibility

This session will look at the origins and collaboration networks in the emergence of artificial intelligence technologies. The papers in this session apply novel measures of concepts such as research pioneers, knowledge transfer, scientific collaboration, and ecosystems. The session closes with a discussion of how responsible research and innovation can be embedded into artificial intelligence research practice.

Chair: Jean-François Connolly, IVADO

University-industry knowledge transfer: The case of the godfathers of artificial intelligence

Margaret Dalziel[1], Mimosa (Xiao) Zhao[2]

[1]University of Waterloo, [2]Universiry of Toronto

Though university-industry knowledge transfer is two-way sharing, in terms of breakthrough research, the path from scientific discovery to commercial application is of primary interest. The central question is whether knowledge can be codified and disseminated in disembodied form, or if engagement with knowledge creators, either engagement through collaborative relationships or potential engagement made possible by geographic proximity, is required. We consider the case of the godfathers of artificial intelligence, Geoffrey Hinton, Yoshua Bengio and Yann LeCun. We find knowledge transfer is more likely given geographic proximity, previous co-inventor or co-author relations between the godfather and inventors, and high absorptive capacity.

Interpretable link prediction based approach for scientific collaboration prediction using machine learning

Shahab Mosallaie[1], Ashkan Ebadi[2], Andrea Schiffauerova[1]

[1]Concordia University, [2]National Research Council Canada

Scientific collaboration facilitates dealing with complicated problems requiring researchers with different backgrounds. Thus, it is essential not only for researchers to find the right co-authors but also for research organizations and policymakers to facilitate the decision-making process and develop better strategies to form interdisciplinary teams. In this study, we leveraged machine learning and link prediction techniques to predict future collaboration and interpret driving factors for collaboration of researchers with the focus on Artificial Intelligence applications in cancer diagnosis and treatment. Some types of topological-based and attribute-based features were observed as the most important predictors for future scientific collaboration.

Identifying driving factors to acquire influential roles within the fast-evolving AI ecosystem

Anahita Hajibabaei[1], Ashkan Ebadi[2], Andrea Schiffauerova[1]

[1]Concordia University, [2]National Research Council Canada

As science has become more complex, scientists are inclined to adopt more collaborative behavior, enabling them to benefit from diverse knowledge sources and address perplexing problems. Given the evolutionary nature of AI, it is of paramount importance to identify influential researchers' characteristics as they can accelerate knowledge/innovation diffusion and form efficient collaborations. In this work, we applied social network analysis and machine learning techniques to investigate the influence of various factors on achieving strategic positions. We found that higher research productivity, number of collaborators, and seniority level are driving factors to acquire influential roles within the fast-evolving AI ecosystem.

AI strategies of the UK and Canada: Embedding responsible innovation in policy and practice?

Andrew Watkins[1], Philip Shapira[1], Margaret Dalziel[2], Barbara Ribeiro[1]

[1]Manchester Institute of Innovation Research, Alliance Manchester Business School, [2]Conrad School of Business and Entrepreneurship, University of Waterloo

The transformative promise of artificial intelligence (AI) for both the economy and society has prompted many countries to pursue specific policies and initiatives that, while different in emphasis and scope, all aim to harness AI's perceived benefits while limiting its potential harm. As such, these respective policies can be seen as attempting to both develop and innovate AI in a 'responsible' way. This paper looks at the recent AI strategies of the United Kingdom (UK) and Canada, analysing the extent to which these very different policy frameworks embed 'responsibility' into formal AI policy and practice.

Session 1D – Drivers of policy change: From student entrepreneurs to scaled up firms

This session will look at policies and programs in place in Canada and abroad, helping entrepreneurs to start their business to innovate and to grow.

<u>**Chair**</u>: Catherine Beaudry, Polytechnique Montréal

Changing Innovation Policy Mixes: Understanding the Interplay of Agency and Inertia

<u>Travis Southin</u>[1]

[1]University of Toronto

This paper highlights the political tensions inherent in the process of reorienting innovation policy mixes, as illustrated through a case study of Canadian innovation policymakers' efforts since 2015 to reorient their innovation policy mix towards direct grants and demand-side procurement. Qualitative interviews with 59 participants in this policy process illustrate the strategies employed by bureaucratic change agents in navigating resistance from entrenched institutional silos, each with their own distinct ideological traditions and constellations of stakeholders. This paper highlights the need for innovation policy mix studies to take seriously the interplay of agency and context-specific barriers to policy change as determinants of the evolution of innovation policy mixes.

The stakeholders of student entrepreneurial ecosystems: roles and specificities

<u>Pauline BRUNNER</u>[1]

[1]University of Strasbourg

Student entrepreneurs become a significant part of university entrepreneurship however, studies on the nature and effectiveness of their linkages with universities is lacking. The aim of this paper is to fill this gap. We develop and test a theoretical framework that aims to explain diverse stakeholders supporting student entrepreneurs and understand the factors determining their involvement. Our empirical analysis is based on student entrepreneurs involved in French student's centres program. This research strengthens theoretical knowledge about student entrepreneurial ecosystem, highlight these specificities and the involvement of student entrepreneurs in a regional dynamic.

Canada's innovation program suite: Impacts overlap and complementarity

<u>Ryan Kelly</u>[1], Kaleigh Dowsett[1]

[1]Innovation, Science and Economic Development Canada

Canadian businesses face numerous obstacles throughout the innovation process, e.g., securing financing, finding talent, and entering new markets, among others. Accordingly, the government has followed a multi-faceted approach, including several forms of support for various stages of innovation. In this paper, we leverage data on the value and timing of public support to describe how firms interacted with Canada's innovation support policy suite -– i.e., which types of businesses used which programs or combinations of programs. We then assess whether key programs or program combinations were associated with better economic or innovation performance.

New business intelligence: Moving from a predictive era to an empirical era

<u>Marie-Andrée Roger</u>[1]

[1]CEO of Fabrique_A

The traditional evaluation criteria for granting a pre-established budget or funding for innovative, complex and risky projects have become obsolete and, in most cases, hinder the successful performance of the innovation. Making a feasibility study or projecting the potential progress of a complex project requires empiricism and business experimentation. Based on the progress of an innovation research project that seeks to demonstrate the importance of changing the use of traditional criteria for funding projects, this conference aims to present a measurement framework that facilitates decision-making when granting financing for innovation.

Session 1E – New approaches to agrifood innovation ecosystems

This session will explore two complementary aspects of the agrifood innovation ecosystem. First, it will examine the role of stakeholder engagement in the digital agriculture ecosystem and in its transition towards a sustainable agriculture ecosystem. Second, given the use of news data and methods, the session will examine what these can contribute to our understanding of the agrifood innovation ecosystem, including the perceptions of customers.

Chair: TBD

Modelling stakeholder inclusion in Canadian digital agriculture ecosystem

Hassan Ebrahimi[1], Sandra Schillo[1]

[1]University of Ottawa

Despite much research on stakeholder inclusion and engagement, identifying relevant stakeholders in academic and policy practice remains largely unsystematic and driven by professional networks and their implicit biases. We use the case of digital agriculture in Canada to propose a systematic model comprised of individuals, industrial and ecosystem stakeholders, with both direct and supportive roles in digital agriculture. We plot these groups against micro, meso and macro levels of their impact. Our model allows academia and policy to design inclusive stakeholder interactions, reflecting the fast evolution of digitalization of this sector and its vast economic and social implications.

Exploring new approaches to understanding innovation ecosystems

Jan Youtie[1], Robert Ward[1], Phillip Shapira[1, 2], Sandra Schillo[3], Louise Earl[3]

[1]Georgia Institute of Technology, Atlanta, Georgia USA, [2]University of Manchester, UK, [3]University of Ottawa, Canada

The ability of a firm to innovate depends on its connections into its ecosystem. Most research on innovation ecosystems uses methods such as interviews or science and technology data sets. Our study uses media sources to identify ecosystem links, and applies this novel method to the agri-food ecosystem in Winnipeg, Canada. We extract organizational actors from news articles, link co-occurring actors in social networks, and use modularity partitioning to detect communities. Our results show small and medium-sized protein firms vary in their links with their ecosystem and in the innovation orientation of their networks.

Technological innovation and the transition toward smart, safe and sustainable agriculture ecosystems

Majlinda Zhegu[1], Xavier Olleros[1], Ingela Sölvell[2], Kra Kouadio Kouassi[1]

[1]UQAM, [2]Uppsala University

This paper investigates the transition toward sustainability of the traditional meat production ecosystem. Given the already negative impact of conventional meat production on environmental deterioration, the transformation of the current system is an urgent matter. Through the lenses of the theory of ecosystem transition, the paper: (i)

sketches out the emerging cultured meat ecosystem; ii) identifies the focal actors and their orchestrating role in the alignment among traditional and emerging ecosystems. By examining the intricate interdependence between emerging technologies, business models, competences and new institutions, this research emphasizes the dynamics of agriculture transformation toward smarter, safer and more sustainable ecosystems.

Analyzing customers' attitudes toward new food products – A Twitter analysis

Caiyi Zhao[1], R.Sandra Schillo[1]

[1]Telfer School of Management, University of Ottawa

This paper studies consumers' attitudes towards food innovations by analyzing different features of tweets posted by companies and all the responses from customers to companies' tweets. Sentiment analysis and regression analysis are applied using python coding. This study aims to find out if there is correlation between the number of likes, retweets, and replies to companies' tweets and different independent variables including month in which the tweets are posted, whether urls, hashtags, photos, videos are included, whether specified positioning claims and how many of them are included, length of the tweets, and the numerical sentiment value of the tweets.

THURSDAY 13 MAY 2021, 9H30 – 10H30

Session 2A – Sustainable mobility ecosystem

This session will present three case studies on sustainable mobility ecosystems and open innovation: one focuses on how the ICT sector has changed transportation, the second, on the way standards in the development of street signs will lead to better use of curb space, and the third will explore how the main automakers are adapting to this new servitization of transport using new text mining tools.

Chair: Laurent Simon, HÉC-Montréal

Toward new urban mobility: the politics of transit technology diffusion in Ontario

Elena Goracinova[1], David Wolfe[1]

[1]Innovation Policy Lab, University of Toronto

Dynamic transportation systems are a core pillar of equitable and sustainable communities. But cities face service delivery challenges for which technology is part of the solution. In this context, innovations in the information and communication technology sector have begun to transform transportation supply and demand in cities worldwide. And new ecosystems of urban governance—or innovations in the institutional mode of interaction between actors in the urban context—have emerged to introduce these new mobility services. This paper analyzes multi-level governance innovations in Ontario and the extent to which they address the complex transit challenges cities have to deal with.

Using text mining tools to extract relevant information on sustainable mobility

Ricardo H. Da Silva[1, 2], Fellipe Balieiro[3], Fabiano Armellini[1], Catherine Beaudry[1], Paulo Kaminski[2]

[1]Polytechnique Montreal, [2]University of São Paulo (USP-Brazil), [3]IHS-Markit

Computer text analysis has expanded to several areas of human knowledge and its application in these areas can be very diverse. The main objective of this work is to analyze in an exploratory way, using text mining tools,

if the main automakers are adopting initiatives that favor 'sustainable mobility' within their strategies. Once the analysis is complete, it can be inferred that the frequency of the terms 'mobility' and 'sustainable' increases considerably, demonstrating the consolidation of this concept among automakers and, at the same time, demonstrating the application of the text mining tool in the field of innovation research.

Open innovation as a Lever to rethink the use of curb space: Montreal CurbLR Map case study

Elsa Bruyère[1]

[1]Fabmob Québec

Sustainable mobility itself represents a complex problem, mainly due to the number and variety of actors that are part of it. In this reality, experimentation and innovation emerge as tools to face current problems in mobility. Encouraged by the victory in the 2019 smart cities competition, Montreal is testing solutions in this field. The standardization of street parking signs represents a first step to dynamize the use of this space. Under an open innovation approach, the Montreal's CurbLR map has been the product of collaborative work between different actors in the city that have been nurturing the standard's database.

Session 2B – Health ecosystem 2

Digital technologies, robotics and more generally technological innovations are consubstantial to health ecosystems. In this session, researchers explore how those technologies impact the health ecosystems and improve the effectiveness of existing practices.

Chair: Thierry Burger-Helmchen, Université de Strasbourg

Telepresence mobile robot for health assistance: conception of a tool and pretest

Julie Rochefort[1], Johanne Queenton[1], Sophie Veilleux[2]

[1]Université de Sherbrooke, [2]Université Laval

Les robots de téléprésence et de télésanté attisent la curiosité par leur potentiel relationnel entre les professionnels de la santé et les personnes âgées. Ils représentent une solution pour pallier certains défis du système de santé, mais comment favoriser l'implantation d'un robot mobile de téléprésence auprès des parties prenantes? C'est la question qu'Aging Gracefully across environnements using technology to support Wellness, Engagement and Long Life, une chaire multidisciplinaire visant l'intégration des technologies pour soutenir le vieillissement en santé de la population, s'est posée. L'objectif était de développer un outil et de le tester pour permettre la poursuite du projet.

Challenges in digital health technology development and the role of technology support ecosystems

Gregory Christie[1], Sylvain Moreno[1, 2], Azadeh Forghani[2], Evgueni Loukipoudis[3], Elicia Maine[2]

[1]Digital Health Circle, [2]Simon Fraser University, [3]Digital Technology Supercluster

Digital health technologies (DHTs) promise to deliver effective, affordable, and patient-centered care, while reducing barriers to treatment and improving health outcomes for those with chronic diseases. However, the development of DHTs is often disconnected from health stakeholders and end users, resulting in solutions that ultimately fail to address core needs. This issue is especially common for small, innovative companies, as they often lack resources required for product success. We review common issues confronting DHT creators, discuss

how regional innovation ecosystems can resolve these issues, and explore how these ecosystems lead to better product, economic and health outcomes.

Numerical transformation in the "health ecosystem" – A bibliometric analysis, 1994-2021

Diego Mahecha[1], Catherine Beaudry[1], Carl-Éric Aubin[1], Fabiano Armellini[1]

[1]Polytechnique Montréal

The analysis of collaborative and conceptual networks allows creating a frame of reference to interpret the evolution of "health ecosystems" throughout the world. Using data taken from the Web of Science Core Collection, characteristic elements of the knowledge ecosystem were found, as well as emerging works on topics such as: Fog computing and COVID-19. One characteristic of collaboration networks is that they do not have many nodes, usually they do not transcend national borders, remaining related to internal collaborations.

Session 2C – Advanced information and communications technologies for digital transformation

The papers in this session assess the advance of advanced information and communication technologies, with a special focus in two of the papers on 5G technologies. The results track the development of collaborative networks and ecosystems involving scientists, technologists, and industry. Gaps in the ability of digital technologies to transform business and lead to improved industry productivity are highlighted.

Chair: Philippe Shapira, Manchester Institute of Innovation Research, Alliance Manchester Business School, University of Manchester

Which factors matter for the scientific contributions of professors' publications with industry? A study of the impact and quality of publications between university and industry in electrical engineering in Sweden

Viktor Ström[1], Maureen McKelvey[1], Ethan Gifford[1]

[1]University of Gothenburg

Although universities and industry have different incentives and institutional logics for developing new knowledge, a vast literature suggests that they interact, especially through academic engagement. We focus upon an important but neglected aspect, namely the factors which matter for the scientific contributions of collaborative research. We do so by studying the impact and quality of publications by professors in Electrical Engineering in Sweden and their collaborators over decades, using generalized linear negative binomial and probit models, with author-clustered standard errors. Our initial findings suggest these publications have a wider impact and similar quality as only academic publications.

Collaborative network in Canada' s 5G innovation ecosystem

Anas Ramdani[1], Catherine Beaudry[1], Mario Bourgault[1]

[1]Polytechnique Montréal

This study provides a current overview of 5G research collaboration in Canada, and how it has evolved over time. Findings shows that networks (researchers' network and researchers-firms network) display small-world properties. It is important to note that the addition of industries to the network of researchers is accompanied by an increase in the small world variable. This study is a first step towards a deeper understanding of the 5G

innovation ecosystem in Canada. This study can serve as a guide and reference for any individual or group wishing to learn about the evolution of 5G-related research in Canada.

Bridging the gap in digital transformation dialogue: Business and technology sides

Amir Taherizadeh[1], Catherine Beaudry[2], Gunjan Syal[3], Hobivola Rabearivelo[4]

[1]McGill University, [2]Polytechnique Montréal, [3]GoEmerald, [4]BI Expertise

In Canada, 90,849 manufacturing establishments account for more than 10% of the national GDP, representing 68% of all Canada's merchandise exports, and 1.7 million full-time jobs (ISEDC, 2020). However, only 10% of our manufacturers have implemented at least one fully operational AI project (Capgemini Research Institute, 2019), compared to 28% in the USA, our largest trading partner. This appears paradoxical considering specialized AI companies have multiplied in the country during the last decade. This paper identifies and discusses some caveats in AI-focused digital transformation prevalent in SMEs - i.e. integration and adoption challenges, as well as the means to overcome them.

The industry productivity and the link with the adoption of advanced technologies – A case study in Quebec

Diego Mahecha[1], Philippe Molaret[2], Catherine Beaudry[1], Fabiano Armellini[1]

[1]Polytechnique Montréal, [2]Thales Digital Solutions

The companies' adoption of digital technologies, impact on their business. Through the case analysis of five Quebec companies, three dimensions will be analyzed, the strategic maturity, the digital culture, and the digital business model. The hypothesis of the study focuses on the fact that the economic wealth of the company is positively affected, when there is a coherent strategic alignment with a digital culture that supports the change, and that allows end-user value creation based on adoption of digital technologies.

Session 2D – IE shared value, common good, social and sustainable innovations

This session will look at the management of firms and governance of innovation ecosystems in a digital platform-based economy to ensure sustainable socio-economic development. In particular, it will focus on shared value, common good both in terms of social and sustainable innovation

Chair: Pierre Therrien, Employment and Social Development Canada

One or more innovation ecosystem(s) for shared value creation? Uncovering heterogeneity and configuring archetypes

Giulia Piantoni[1], Marika Arena[1], Giovanni Azzone[1]

[1]Politecnico di Milano

This research studies the relation between shared value and innovation ecosystems, structuring the heterogeneity of the latter. Given the heterogeneity of the innovation ecosystem concept, a key question arises: how can core ecosystem characteristics lead to the emergence of archetypes? The literature identifies some elements of innovation ecosystems (*actors, structure, relations, governance*), whose coherent combination designs three meaningful archetypes, driven by: *a hub and its chain, the place, specific competences*. A multiple case analysis

explores these archetypes: it verifies them and induces some insights on archetype-specific characteristics and shared value creation / capture dynamics, to be further studied.

Canadian digital platforms for the common good: The transformation of social and sustainable innovation ecosystems

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Since 2015, an atypical digital platform cooperativism is emerging . Their ecosystems build on the confluence of social and solidary economy, sustainable economy, local economy, cooperativism, economy of free and open , the global initiatives on AI and Data for Commons. But do these emerging platform cooperativism signal a "virage" or a "mirage"? A combination of organizational and ecosystem causes keeps social and solidarity organizations far from seizing the opportunities of digitization. While portraying Quebec's SSIE and their dynamics on the way toward digitalization, this paper investigates what are and how to overcome the inhibitors of this digital transition.

The management control tool – A boundary object reconciling tensions between control, creativity and societal and environmental challenges

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Our research investigates potential solutions to reconciliate management control mechanisms, creativity, and environmental and societal issues. We identified previous studies either about tensions between management control and creativity or on management control and environmental and social issues; none have explored all three dimensions simultaneously. Based on a qualitative in-depth study within two organisations acting in two very different environments, our aim is to answer to current challenges by creating a virtuous circle that responds to environmental and societal issues, promotes employees' commitment and thereby also creativity, while at the same time providing an efficient management control system..