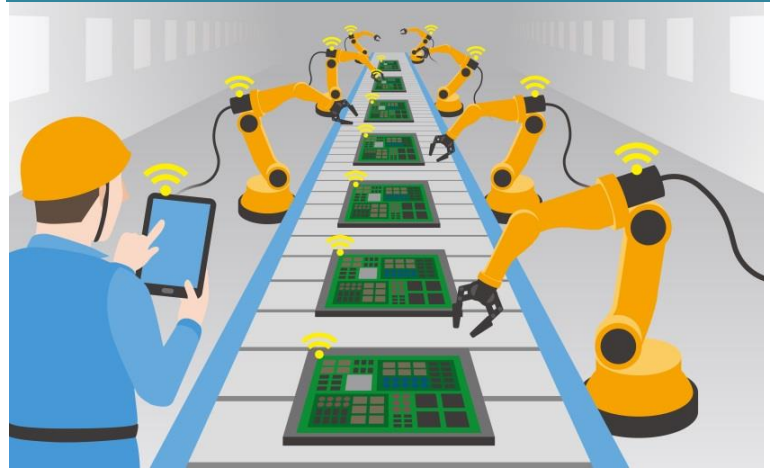


# FIRST INTERNATIONAL INNOVATION 4.0 FORUM

November 6<sup>th</sup>, 2019  
Palais des congrès de Montréal



## ***A National and Global Perspective of Industry 4.0 Technology and Training***

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The fourth industrial revolution, branded as "Industry 4.0" by the Germans in 2011, is characterized by the digital transformation, automation and robotics, optimization and asset management, sharing and security of big data, tracking parts from cradle to grave (the "digital thread"), data analytics, the Internet of Things (IoT) and Artificial Intelligence (AI). Compared to the previous three revolutions, it is characterized by real-time connectivity, the speed of implementation, a profound change of culture and the development of new competencies.

In response to government strategy and industry needs, the "Réseau Innovation 4.0 Network" is an inter-university collaboration for research, development and training of highly skilled workforce for Industry 4.0. Participating Québec universities are : Concordia University, École de technologie supérieure (ÉTS), Université Laval, McGill University, Polytechnique Montréal, Université de Sherbrooke, Université du Québec à Montréal (UQAM) and Université du Québec à Trois Rivières (UQTR).

Innovation Network 4.0 will reach all business sectors and present an important showcase to diffuse the achievements and the existence of a critical mass of expertise in Industry 4.0. This is a way of meeting a growing demand from all business sectors for Industry 4.0 in terms of R&D and training. There is a strong need to train skilled 4.0 workforces to integrate into centers of excellence and small and medium enterprises (SMEs). Network 4.0 will be an important platform that will foster collaboration between universities and industry in research and training.

The [First International Innovation 4.0 Forum](#), a first major activity of the "Réseau Innovation 4.0 Network", will cover the global landscape of Industry 4.0 technologies and training initiatives at large and small companies, at academic institutions and at various research consortia and clusters. It will be held this year in partnership with the 32nd edition of "Les Entretiens Jacques-Cartier" (EJC2019). The Forum will address the various technologies of Industry 4.0 and how they are implemented at various business sectors such as: manufacturing, transport, aerospace, energy, health, construction, forestry, logistics, etc. The Forum will have 31 speakers: 15 from industry, 9 from academia and 7 from associations and clusters. The program includes a keynote speech from Eric Schaeffer, a well-known author of two books on Industry X.0 and Reinventing the Products, and key note presentations by senior executives from Bombardier Transport, Airbus, Siemens, General Electric, Microsoft, Ciena, Festo and Fraunhofer addressing their factories of the future and digitization in their enterprises. The Forum will have various sessions on: smart manufacturing, IoT, AI and big data, workforce, SMEs Industry 4.0 projects and financing of Industry 4.0. In addition, there will be various exhibits of the latest Industry 4.0 technologies.

On behalf of "Réseau Innovation 4.0 Network" and our partners, we look forward to having you at our first Innovation 4.0 Forum.

Sincerely yours,



Hany Moustapha, Ph.D.  
Fellow ASME, CAE and CASI  
Professor and Director of Innovation 4.0 Hub  
Siemens Chair on Industry 4.0 Technology Integration  
Pratt & Whitney Canada Chair on Propulsion System  
École de technologie supérieure (ÉTS)  
Président, Ambassadeurs Club, Montréal Congress Center  
[Hany.moustapha@etsmtl.ca](mailto:Hany.moustapha@etsmtl.ca)

[First International Innovation 4.0 Forum](#)

2019.11.06 | Palais des congrès de Montréal

Leaders of "Réseau Innovation 4.0 Network"

*Georges Abdul-Nour, Université du Québec à Trois-Rivières*  
*Ygal Bendavid, Université du Québec à Montréal*  
*Luis Antonio De Santa-Eulalia, Université de Sherbrooke*  
*Yaoyao Fiona Zhao, McGill University*  
*Jean-Marc Frayret, Polytechnique Montréal*  
*Jonathan Gaudreault, Université Laval*  
*Hany Moustapha, École de technologie supérieure*  
*Rolf Wuthrich, Concordia University*  
[reseauinnovation4network.com](http://reseauinnovation4network.com)

# First International Innovation 4.0 Forum

## 2019.11.06 | Palais des congrès de Montréal

TIME	TOPIC
7:00 – 8:00	Registration – Breakfast Networking
8:00 – 8:15	<b>Welcome Speech</b> Marco Blouin, <i>Director, Science and Innovation Sector</i> <i>Ministry of Economy and Innovation - Quebec (MEI)</i>
Global Perspective  8:15 – 9:30	<b>Session Chair: Hany Moustapha, Professor and Director, Innovation 4.0 Hub, Siemens Industry 4.0 Chair, École de technologie supérieure (ÉTS)</b>  <b>Industry X.0 and Digital Reinvention of Products</b> Eric Schaeffer, <i>Senior Managing Director, Global Industrial &amp; Products Industry X.0, Accenture, France</i>  <b>Bombardier Mobility Digitization</b> Jim Vounassis, <i>Chief Operating Officer, Bombardier Transport</i>  <b>Digital Design, Manufacturing and Services “DDMS” at Airbus</b> Thierry Chevalier, <i>DDMS Chief Technologist, Airbus</i>
Smart Manufacturing  9:30 – 10:30	<b>Session Chair: Yaoyao Fiona Zhao, Associate Professor and Head of Additive Design and Manufacturing Laboratory (ADML), McGill University</b>  <b>Next Gen Manufacturing Industrial Cluster</b> Jayson Myers, <i>CEO, NGen Industrial Cluster, Canada</i>  <b>Challenges and Opportunities of Implementing Big Data in the Production System</b> Ljiljana Stojanovic, <i>Head, Smart Factory, Fraunhofer, Germany</i>  <b>Future Skills and Training for Digital Manufacturing</b> Michael Nager, <i>Business Development Manager, Festo Didactic</i>
10:30 – 11:00	Coffee Break and Exhibit
Internet of Things, Big Data and Artificial Intelligence  11:00 – 12:20	<b>Session Chair: Ygal Bendavid, Professor, Director of Internet of Things (IoT) Lab, UQAM</b>  <b>Self-Optimizing Corridor; an ENCQOR Co-Discovery</b> Kaniz Mahdi, <i>Vice President Advanced Architectures, CIENA</i>  <b>Cloud Computing and Industry 4.0</b> Michaël Gardiner, <i>Manufacturing Industry Solution Executive, Microsoft Canada</i>  <b>Cloud Manufacturing AI : Challenges Specific to SMEs</b> Vincent Thomasset-Laperrière, <i>Coordonator R&amp;D, Productique Québec</i>  <b>The Innovation 4.0 at Mont-Blanc Industries</b> Jean-Marc André, <i>CEO, Mont-Blanc Industries</i>
Financing 4.0  12:20 – 12:40	<b>Session Chair: Luis Antonio De Santa Eulalia, Associate Professor, Co-Director, IntelliLab, Université de Sherbrooke</b>  <b>Financing Initiaves on Industry 4.0</b> Sylvain Durocher, <i>Director Advanced Manufacturing, Investissement Québec</i>
12:40 – 13:30	Lunch and Exhibit

TIME	TOPIC
<b>Factories of the Future</b>  <b>13:30 – 14:15</b>	<p><b>Session Chair: Jonathan Gaudreault, Professor and Director, Consortium de recherche en ingénierie des systèmes industriel 4.0 (CRISI), Université Laval</b></p> <p><b>Siemens Digital Factory: Implementation for Aero-Derivative Gas Turbines Division</b>  Katherine Schmidt, Head of Materials and Advanced Manufacturing Innovation  Claude Carmel, Manager, Siemens Software  Siemens Canada Aero Derivative Gas Turbines, Montréal</p> <p><b>General Electric Brilliant Factory: Automation and Additive Manufacturing</b>  Alain Ouellette, Executive Director, Operations and Manufacturing Innovation, General Electric Aviation, Québec</p>
<b>Innovation 4.0 in Various Industrial Sectors</b>  <b>14:15 – 15:45</b>	<p><b>Session Chair: Jean-Marc Frayret, Professor and Director of Poly-Industries 4.0 Lab , Polytechnique Montréal</b></p> <p><b>Digital Technology in Transportation and Logistics</b>  Mathieu Charbonneau, General Manager, Cargo Montréal</p> <p><b>Aero-Engine Design: Technology Enabler for The Digital Twin</b>  Benoit Blondin, Manager, Research and Technology, Pratt &amp; Whitney Canada</p> <p><b>Bridging the gaps between design, manufacturing and construction</b>  Daniel Barbeau, Business Relationship Manager - Engineering and Digital Innovation, Canam Group Inc.</p> <p><b>Past and Future of Industrial Intelligence: Application to a Manufacturing SME and the Food Industry</b>  Martin Landry, CEO, Intelligence Industrielle</p>
<b>15:45 – 16:15</b>	<b>Coffee Break and Exhibit</b>
<b>Workforce in Industry 4.0</b>  <b>16:15 – 17:00</b>	<p><b>Session Chair: Rolf Wuthrich, Professor, Concordia Industry 4.0 Chair and Director of the Center for Advanced Manufacturing, Concordia University</b></p> <p><b>Human at the Heart of the Digital Transformation – Femmes 4.0</b>  Lyne Dubois, CEO, CRIQ</p> <p><b>Digital Technology Addressing Manpower Shortage</b>  Frederic Scherer, President, JIT Base  Pierre Ayotte, CEO, Terranueva, Board member, Alta Precision</p>
<b>SMEs Industry 4.0 Clusters and Projects</b>  <b>17:00 – 18:00</b>	<p><b>Session Chair: Georges Abdul-Nour, Professor and Director, Lead 4.0, UQTR</b></p> <p><b>Industry 4.0 Hub Centers</b>  Michèle Sawchuck, Manager, ADRIQ</p> <p><b>MACHFab 4.0: Supporting 30 Aerospace SMEs</b>  Mélanie Lussier, Vice President, Aéro Montréal  Bernard Boire, Consultant, CEFRIO</p> <p><b>Digital Automation and Integration into Manufacturing</b>  Yves Proteau, President, APN</p>
<b>18 :00 – 19:00</b>	<b>Cocktail and Networking</b>



## Global Perspective



**Eric Schaeffer is Senior Managing Director at Accenture and leads Accenture's Products Industry X.0 practice.** This brings together services across innovation, engineering and product development, manufacturing and digital operations, and product support services optimization. He is also the Global Lead for automotive, industrial equipment and infrastructure companies for digitally reinventing their businesses and creating new levels of innovation and efficiency across the extended connected value chain. He is a well-known speaker at international congresses and author of two books on Industry 4.0: *Industry X.0* and *Reinventing the Product: How to Transform your Business and Create Value in the Digital Age*.



**Jim Vounassis, Chief Operating Officer, Bombardier Transport.** He is responsible for Transportation's global operations, quality and procurement functions. His priorities notably include leading the industrial strategy to enhance competitiveness across all ecosystems, driving operational excellence within Bombardier's rail segment, and delighting customers with improved quality and delivery performance. Mr. Vounassis joined Bombardier in June 2015 as Vice President, Operations Strategy. In this position, he conducted detailed reviews of the company's operations and implemented strategies to increase value creation across the organization. Mr. Vounassis started his career at Kraft Canada before moving to Pratt and Whitney, where he spent nine years and fulfilled various management roles, including Vice President, Strategic Sourcing from 2007 to 2009. Prior to joining Bombardier, Mr. Vounassis was Vice President, Global Operations at Pharmascience, a pharmaceutical company supplying generic and branded products in Canada and around the globe. Jim Vounassis holds a Bachelor of Science in Mechanical Engineering from the University of Waterloo and an Executive MBA from Queen's School of Business in Kingston, Canada.



**Thierry Chevalier is the Head of Digital Design Manufacturing & Services, Airbus.** He was previously in charge of Airbus Commercial Aircrafts research portfolio on processes, methods & tools as well as ground & flight test means. He joined Airbus in 2001 and successively led Aerodynamics methods & tools, then from 2007 to 2009 supported the creation of the Airbus Engineering Center India in Bangalore, and then took charge of the overall architecture of engineering methods & tools before moving to research in 2014. Before joining Airbus, Thierry spent 15 years at Dassault Aviation, largely focused on industrial multi-disciplinary simulation integration, addressing scientific, computational, security & methodological aspects of it.

## Smart Manufacturing



**Ljiljana Stojanovic, Head of the "Smart factory systems" group at Fraunhofer IOSB.** Additionally, she heads the WG "Big Data", which forms the interface to the Fraunhofer Big Data & AI Alliance. She also represents Fraunhofer IOSB in the VDI/VDE GMA WG 6.12 and in the AutomationML association. She holds a PhD in Computer Science from KIT, Germany. Her primary domain of research is at the intersection between semantic technologies, event processing and Industry 4.0. She has had the opportunity to approach these topics in over ten European projects, serving mainly as a project or a technical coordinator. She has acted as a grant evaluator and external reviewer in programs funded by donors such as the European Commission. She published around 50 scientific papers and organized various workshops and tutorials.



**Michael Nager, Business Development Manager for Festo Didactic Solution Center**, is an electrical engineer by training and for 20 years has been employed by leading manufacturers of industrial controls and electrical components that used in every manufacturing and utility industry. He is a senior member of the IEEE and the ISA professional societies and has held leadership positions in both as well as the Material Handling Industry Association. Michael has presented and published several papers such as “The Four Organic Growth Sales Strategies” in the ISA Management newsletter, “Hot Tips on Thermocouples” in Machine Design, “Understanding Surge Suppression” in Plant Engineering, “Lightning Protection for Water Treatment Plants” at the Water Environment Federation Conference, “You’re Not in Kansas Anymore! The Strange Physical World of Industrial Ethernet” at the BiCSI Winter Conference, and “The Internet of Industrial Things” at the IEEE/ACM Conference. Michael also works with the SAP University Alliance bringing the message of advanced manufacturing advances directly to the business, IT and engineering education networks. He promotes the technologies coming together in the “Cyber Physical Factory” as a paradigm shift that promises to bring great opportunities (and threats) to manufacturing operations in the future.

## Internet of Things, Big Data and Artificial Intelligence



**Kaniz Mahdi, Vice President Advanced Architectures, Ciena**, is responsible for Ciena’s technology vision, architecture, discovery and verification with industry and academia to drive new growth opportunities for Ciena. Her current area of focus is self-learning systems and AI. Kaniz spent the last seven years as VP/Head of Architecture at Ericsson driving multi-faceted transformation of telecommunication industry with Cloud, SDN, and 5G. Prior to joining Ericsson, she headed Communications Services Standards Research at Huawei Technologies, and held various roles in Systems Architecture and Product Design at Nortel Networks. Kaniz has a stellar record of continuously pushing the envelope on new technologies with 45 patent grants and over 90 publications on Multimedia Broadband and Software Defined Systems. She is inventor of essential technologies underpinning current Voice over LTE systems and has been passionately shaping the 5G era landscape with disruptive technologies, e.g. ORAN and OMEC.

## Factories of the Future



**Katherine Schmidt, Head of Materials and Advanced Manufacturing Innovation at Siemens Canada Aero-Derivative Gas Turbines**. Started her career in lean manufacturing in serial production before joining Rolls-Royce where she held several roles in R&D, supply chain and production in gas turbine in Europe. After the Siemens acquisition of the Rolls-Royce energy division in 2014, she returned to her hometown of Montreal to manage the factory, which is where she got introduced to Digitalisation. Recently, she have moved to a technology and innovation role with the Siemens Power and Gas division, driving materials and advanced manufacturing technologies.



**Alain Ouellette, Executive Director of Operations and Manufacturing Innovation for GE Aviation, Bromont, Quebec**. He was named Executive of the GE Aviation Global Automation R&D Center in the Fall of 2011. He was previously involved with Operations and New Production Introduction (NPI) at the GE Bromont Aviation manufacturing site. The Automation site was officially opened in July of 2013. This organization, co-located with the manufacturing operations has a mandate of deploying automation solutions for the eighty plus sites located in twenty-one countries worldwide. Alain started with GE in 1989, taking on multiple assignments in operations, manufacturing and quality. He had previously worked for two years at Bell Helicopter.

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