



**TITLE OF THE PANEL:** Quebec and Emilia-Romagna Triple Helix Dialogue to Empower Innovation Ecosystems through Big Data and Artificial Intelligence: the case of smart mobility

**PROPONENT:** Emilia-Romagna Region and Province of Quebec/Delegation of Quebec to Italy

**CHAIR:** Prof. Maurizio Sobrero, Bologna Business School, University of Bologna

**MAIN TOPIC/SCOPE:** Digital transition is undoubtedly recognized as a key objective all over the world with reference to any aspect of economy and society. It requires the adoption of enabling technologies such as artificial intelligence and big data, which promise a high transformative power with significant impacts on all aspects of life.

However, technologies are 'only' the basis, a kind of pre-condition or baseline to build upon, on which scientists and technologists are providing daily advancements with a broad range of possible applications. In fact, to deploy their potential, technologies need a coordinated engagement of a number of different actors: not only the aforesaid scientific and technological experts (research side), but also the business community, to incorporate them in products and services (industry side), and policy-makers that set up a framework that regulates and promotes them at different levels and within which they operate (policy-making side). Such 'dialogue' among those three spheres ought to take into account the society, which, ultimately, is the context where the benefits of new technologies touch down. The collaboration among all actors, who has an essential role to play, is therefore essential both for full exploitation of those technologies and for the empowerment of innovation ecosystems.

The present panel deals with the dynamics that occur among the triple helix actors of each territory, Emilia-Romagna and Quebec. It has the objective to highlight each actor vision (long term), experience (practices) and perspective (short-medium term), and the way they dialogue when it comes to promote technologies at the service of society. Also, this will be an opportunity to investigate the potential of shared visions and perspectives and to understand how international collaboration may add value to what each one is doing and planning. The dialogue will be focused on AI applied to the smart mobility industry, i.e. Artificial Intelligence solutions to ease the resolution of economic, social and environmental issues related to the mobility in urban areas.

## **GREETINGS**

Marianna Simeone, Quebec Delegate to Italy

## **DISCUSSION**

### **PANELISTS (NAME, SURNAME, AFFILIATION):**

FOR EMILIA-ROMAGNA

*Prof. Rita Cucchiara*, Full Professor at UNIMORE and Director of National Laboratory AIIS (CINI)

*Marco Fainello* (Engineer at Danisi Engineering), Modena Automotive Smart Area (MASA)

FOR QUEBEC

*Prof. Dr. Remi Quirion*, Chief Scientist of Quebec

*Prof. Emma Frejinger*, Scientific Advisor, IVADO Labs

**Moderator:** *Prof Maurizio Sobrero*, Full Professor Bologna Business School, University of Bologna

### **SHORT BIO AND PASSPORT-PHOTO OF CHAIR AND PANELISTS** (In alphabetical order):



#### **Rita Cucchiara**

Rita Cucchiara (MS in Electronic Engineering 1989, PhD in Computer Engineering 1992 from the University of Bologna, Italy) is full professor at the University of Modena and Reggio Emilia, Italy, where she heads the AlmageLab group. Since 2018 she is Director of the CINI National Laboratory of Artificial Intelligence and Intelligent Systems, with the support of the Italian Presidency of the Council of Ministers. She is a member of the Board of Directors of the Italian Institute of Technology. From 2016 to 2018 she has been president of Italian CVPL Computer Vision, Pattern Recognition and Machine Learning association, the Italian chapter of IAPR. She is IAPR Fellow since 2006 and ELLIS fellow since 2019. She has been on the Governing Board of IAPR and is a member of the Advisory

Board of Computer Vision Foundation. She is Area Chair of several conferences (Neurips, CVPR, ICCV, ECCV, ECCAI, ICPR), Program Chair of ICCV2017, CVPR2024, General Chair of ICPR2020, ACM MM2020, ECCV2022. She published more than 400 papers on pattern recognition and computer vision and multimedia, and in particular in human behavior understanding, surveillance and visual-language human-robot interfaces as well as in vision for automotive and multimedia data.



### **Marco Fainello**

Marco Fainello is a mechanical engineer. He has been working in the automotive industry since 1990, mainly on high performance cars and motorsport racing, research and development and new technology applications. With Ferrari he has been Performance and Simulation Director winning 8 F1 Constructor World Championships and 3 World GT Championships. In his last years in Ferrari he has been project manager of Ferrari FXX-K, 458 GTE LeMans 2014, 488 GTE/GTLM and 488Challenge. During these thirty years he has also collaborated in different projects with Alfa Romeo, Dallara Automobili, Porsche, Lamborghini and others. He is now Chief Technical Officer at Danisi Engineering (automotive engineering and constructions) and Partner and Executive Director of Addfor (artificial intelligence applications). He is advisor of different international companies in different industrial sectors, member of the Advisory Board of Mechanical Engineering at the Politecnico of Milan, technical reference of Smart Mobility Agency and member of scientific committee of MASA (Modena automotive Smart Area). For his professional achievements has been honored by Italian President with Cavaliere al Merito della Repubblica.



### **Emma Frejinger**

Emma Frejinger (Ph.D. in Mathematics, École Polytechnique Fédérale de Lausanne, Switzerland) is a Scientific Advisor at IVADO Labs, a leading AI solution provider that effectively drive the transfer of advanced AI technologies from academia to industry. She is an expert in demand forecasting and develops models and algorithms that combine methods from machine learning and optimization to solve large-scale decision-making problems. She is Associate Professor in the Computer Science and Operations Research Department at Université de Montréal. She holds two research chairs: the Canada Research Chair in Demand Forecasting and Optimization of Transport Systems and the Canadian National (CN) Chair in Optimization of Railway Operations. Her scientific and applied work has been recognized by several international awards. She has realized numerous projects in collaboration with public and private actors.



### **Rémi Quirion**

On September 1, 2011, Rémi Quirion, OC, CQ, PhD, FRSC, became Québec's first chief scientist. As such, he chairs the boards of directors of the three Fonds de recherche du Québec and advises the Minister of Economic and Innovation on research and scientific development issues.

Until his appointment as chief scientist, Rémi Quirion was the vice-dean for science and strategic initiatives in the faculty of medicine at McGill University and senior university advisor on health sciences research. He was the scientific director of the Douglas Mental Health University Institute Research Centre, a full professor in the department of psychiatry at McGill University and the executive director of the International Collaborative Research Strategy for Alzheimer's Disease of the Canadian Institutes of Health Research. Professor Quirion was the first scientific director of the Institute of Neurosciences, Mental Health and Addiction (INMHA), one of Canada's 13 health research institutes. His work helped to elucidate the roles of the cholinergic system in Alzheimer's disease, of neuropeptide Y in depression and memory and of the calcitonin gene-related peptide (CGRP) in pain and opiate tolerance. Rémi Quirion earned his PhD in pharmacology from Université de Sherbrooke in 1980 and carried out his postdoctoral training at the National Institute of Mental Health in the United States in 1983. He has over 750 publications in prominent scientific journals and is one of the most extensively cited neuroscientists in the world. He has received several awards and honours, including the Ordre national du Québec (Chevalier du Québec, CQ) in 2003, the Prix Wilder-Penfield (Prix du Québec) in 2004 and the Order of Canada (OC) in 2007. Mr. Quirion is a member of the Royal Society of Canada and was also inducted into the Canadian Medical Hall of Fame. In 2015, he was appointed Officer in the Order of Academic Palms of the French Republic, a distinction awarded by the French government that recognizes its contribution to the development of French-Québec relations in research.



### **Marianna Simeone**

Marianna Simeone is the Quebec Delegate to Italy. She joins the Ministère des Relations internationales et de la Francophonie after a brilliant career in communication, broadcast journalism and international business development.

From 1986 to 2000, Marianna directed the Italian Chamber of Commerce in Montreal. Under her leadership, the local organization grew to be one of the most performing in the ICC's world network. From 2000 until her nomination Marianna made her mark in media on the major Canadian networks. Host, commentator and reporter, she worked both in radio and

television, in English, French and Italian.

Marianna has been a board member of the Canadian Museum of Civilization in Ottawa and a Member of the Building Committee of the New Canadian War Museum. In Montreal she was a Member of Concordia University's Board of Governors, a Cabinet Member of the university's first Capital Campaign and a board member of the Montreal Port Authority.

In recognition of her exceptional work in journalism, her service to the community and her contribution to Canada-Italy relations, Marianna was inducted "Knight" of the Order of Italy, invested "Golden Gladiator" of the Province of Benevento, received the Queen Elizabeth II Golden Jubilee Medal and named YWCA Woman of Distinction.



### **Maurizio Sobrero, Full Professor / University of Bologna & Bologna Business School**

Maurizio Sobrero is a Full Professor of Innovation Management at the University of Bologna. He received his PhD in Technology Management and Innovation at MIT (Massachusetts, USA) and currently chairs the Department of Management of the University of Bologna. He is the Senior Advisor for Next Production Revolution at Bologna Business School, where he coordinates the School interdisciplinary programs and events. He served as member of the University of Bologna Executive Committee and chaired the Departments Heads Council.

Between 2012 and 2015 he contributed to found the Skolkovo Institute of Science and Technology in Moscow as Distinguished Faculty Fellow for Innovation and Entrepreneurship.

He has published 6 books and over 30 articles on the economics and management of innovation and serves in the Editorial Board of the European Management Review and the Journal of Technology Transfer. He has taught in many programs for executives in South America, China and several European countries. He consulted for various companies and institutions and served in the board of different listed and non listed companies.