



NUMANA

Catalyseur d'écosystèmes technologiques

Activity Report



A Different 2020

It's no secret that 2020 was difficult for all industries and companies that experienced it. However, with the popularization of remote work, this year was also very conducive to accelerating the digital transformation and promoting tighter collaboration.

These circumstances were the perfect catalyst for the shift that we had predicted. By actively communicating with our members, we have increased the company's reach and transformed its intervention mechanisms.

All of this has led to an identity shift.

To be more human, but just as technological. TechnoMontréal has become Numana



Strategic Direction 1

Accelerate the industry's innovation and growth through digital transformation and technology development

Strategic Direction 2

Mobilize all players in the ICT ecosystem to ensure continuity

Strategic Direction 3

Increase the influence, promotion and visibility of the industry and the cluster

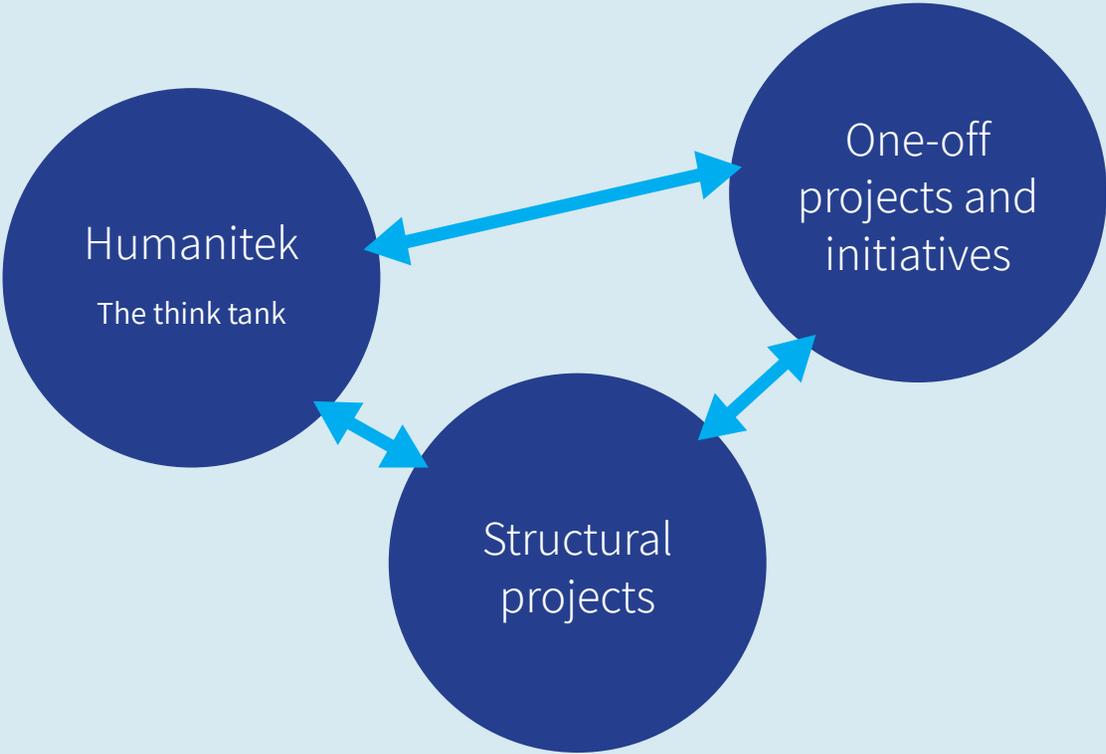
Strategic Direction 4

Generate new sources of income

Strategic Direction 5

Increase the company's expertise and agility

A New Organization

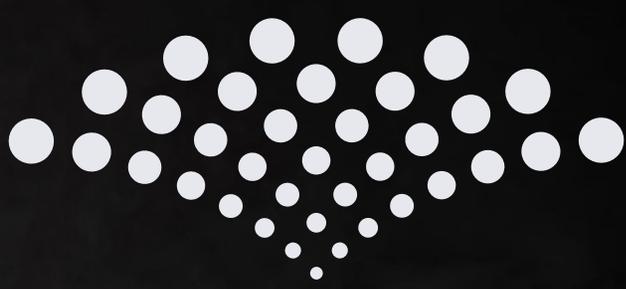


Public Policies

Talents

Promoting the Industry





A Word from the Chairman of the Board of Directors



“Innovation, the engine of economic growth and of the social evolution of our society.”

This pandemic has created such a turbulent period and encouraged us to reinvent ourselves at all levels by changing business models, working practices, social relations, etc. Changes that place more emphasis on innovation and the digital within our lives.

Despite these disturbances, the old TechnoMontréal took this opportunity to reposition itself as a catalyst for the provincial technology ecosystem by becoming NUMANA. A colossal effort from the whole team and all administrators in the organization. In this regard, the administrators/observers of the board of directors join me in extending our thanks to the leadership of François Borrelli, CEO of NUMANA, and to the whole team for their unwavering dedication to successfully carrying out this major transformation during this turbulent year.

The pandemic has certainly created chaos that has impacted us all, but it has also given us an incredible window of opportunity for several sectors, especially that of technology, one of the most sensitive sectors when it comes to economic growth and the evolution of Quebec. In this respect, innovation becomes essential, and NUMANA will concretely help position Quebec as an innovative and leading society in the ICT sector through its role as a catalyst of the ICT ecosystem. The main objective is to promote innovation in emerging technologies in Quebec, all while promoting our local manufacturers more than ever through the mobilization of Quebec’s technology sectors.

Understandably, new business models supported by the technology will promote the local economy and social economy even more, with more collaboration, even competition, between industry players big and small! As such, the whole ecosystem of the technology industry needs to mobilize, now more than ever, for a stronger Quebec economy and society! NUMANA will be at the centre of this mobilization and innovation!

Together, let’s innovate, accentuate and create!





A Word from the CEO

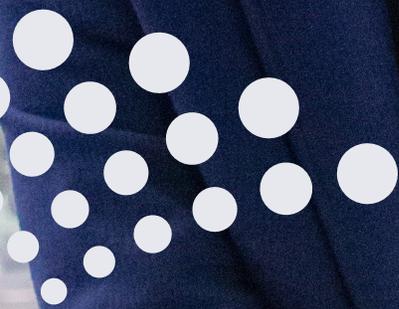
2020, a year that will remain carved in our minds forever. . . Early in the year, while we were getting ready to start our big transition from TechnoMontréal to Numana, we, like all other companies in the world, were hit by the pandemic and had to adjust some of our activities and projects at short notice in order to support our industry, all while trying to adapt to remote work. However, we have made this positioning shift by formalizing our new initiatives, all while keeping the solid bases we had already made.

Among the activities quickly implemented to help counter the effects of Covid-19, we are particularly proud of the “Wall of Technological Innovations of Quebec,” which currently showcases more than 300 local tech companies, and of the “Numana Circles” that address the issues of mental health within our society and our businesses.

As well as our responsiveness to the pandemic, we have been able to validate the relevance of our new initiatives and approaches implemented in late 2019 and early 2020. Among other things, our work through HUMANITEK, which is the Think-Tank of Quebec technologies, has allowed us to refine our approach and better lay the groundwork for 2021.

More than ever, we are convinced that NUMANA and its activities can have a big impact on the social and economic development surrounding information and communication technologies. We have all the necessary resources in Quebec to meet this objective. . . All we need to do is work together!

At NUMANA, we believe that humanity is what will make a difference, and I want to take this opportunity to thank the whole Numana team for their positivity, flexibility and sustained efforts to help us release several strategic projects for the future of our company and industry.





Industry Mobilization

In 2020, the mobilization of the industry had to be done mainly through following up on recommendations presented in the White Paper of Technology released in November 2019. However, the Covid-19 pandemic has forced us to quickly change our tune, and we have had to expend our own efforts to help our members looking for help and information, and we have worked with other companies in order to help support and relaunch the industry.

A New Plan

From the start of the pandemic, we have had to survey our members in order to find out their state of mind and understand their struggles. Following this survey, we have pursued 3 objectives:

1/ Help entrepreneurs communicate their issues.

We quickly held **3 webinars** in the form of **discussion and communication groups for the available programs**. These seminars allowed entrepreneurs to convey to us their short- and medium-term issues and concerns.

2/ Reinforce collaboration between Quebec entrepreneurs

In the face of certain issues affecting Quebec businesses (such as the crashes due to the client base accrued by websites or difficulties following up with clients across platforms), we have organized 6 webinars (3 with our members and 3 in partnership with the MMC) in order to present useful solutions to overcome the issues of the crisis to Quebec traders and entrepreneurs.

3/ Inform the levels of government

Finally, we have collaborated with all levels of government throughout the crisis in order to make them aware of the reality that businesses face.

This has resulted in **3 webinars** at the beginning of summer:

- On April 21, **Présentation des programmes fédéraux de soutien aux entreprises** (Presentation of the Federal Support Programs for Businesses) with Mrs. Elizabeth Brière, Member of Parliament for Sherbrooke and Parliamentary Secretary to Mélanie Joly.
- On May 28, **Discussion sur la situation que vivent les entreprises du Québec touchées par les effets de la Covid-19 et sur les mesures d'aide déployées pour en minimiser les répercussions** (Discussion on the Experiences of Quebec Businesses Affected by Covid-19 and on the Aid Measures Deployed to Minimize Repercussions) with Mr. Pierre Fitzgibbon, Minister of Economy and Innovation and Minister Responsible for the Lanaudière Region.
- On June 16, **Comment attirer, former et retenir des talents en technologies pendant la pandémie de Covid-19** (How to Attract, Train and Retain Talent in Technology During the Covid-19 Pandemic) with Mr. Jean Boulet, Minister of Labour, Employment and Social Solidarity.

But also through several meetings with political bodies at all levels, as well as with the local chambers of commerce, including the Chamber of Commerce of Metropolitan Montreal. **We have also participated in the organization of the “Relaunch Montreal” event** for IT businesses on December 7, which attracted nearly 250 IT business owners.



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Humanitek

Launched at the end of 2019, our think tank has not been involved in a large event for health reasons, but our efforts to produce studies have not stopped.

What is it?

Humanitek is a think tank with the objective of developing studies with a socio-economic impact allowing people to identify opportunities linked to emerging technologies, human and societal impacts, and power all Numana initiatives.

The studies approach two aspects of information technologies:

- Emerging (or disruptive) technologies
- Emerging business models (like those of Netflix, Airbnb, Uber, etc.)

In 2020, 3 studies were performed in collaboration with the Observatory on the Societal Impacts of AI and Digital Technology:

- Connected health (AI)
- Empathic buildings
- The quantum information industry

These 3 studies were performed with the support of advisory committees made up of influential players from the ecosystem.

Board— **Connected health:** 12 members

Board— **Empathic buildings:** 12 members

Board— **Quantum information:** 5 members



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Empathetic Buildings

While conversations often address the subject of emphatic building, it seems to us that intelligence all too often puts human beings in last place. When our experts talk about emphatic buildings, they mean a service that aims to measure and implement the best possible experience for the end user.

The board set up this year to explore the future of these technologies and the steps necessary to their implementation in Quebec has noted the following repercussions:

- **The opening of an “Empathic and Smart Building” Living Lab at LEMAY.** This process is currently under development with the new Vice President of Innovation at LEMAY
- Collaboration with JLL through **participation in Numana and CQIC panels with Dr. Marie Puybaraud, Head of research at JLL** and of the Montreal office. These exchanges were pursued within the framework of the objectives for developing digital services in order to integrate artificial intelligence into the buildings in development by the JLL group.
- **International collaboration project in development with HALTIAN to open an office in Montreal** and give access to their IOT platform to Quebec businesses. Following the presentations within the board, LEMAY and BIM Quebec have asked Haltian to present within their own teams.



- Research and development project for **electronic signatures of 3D files to authenticate 3D plans** in collaboration with Notarius, ÉTS and BIM Quebec.
- Thanks to this committee, the Numana team has found an excellent opportunity to start a discussion on sustainable technologies and development in its ecosystem. While these conversations do not, at this time, have their own committee, **an approach promoting reflection was launched within the framework of the “Empathic Building” committee on the subject of “Sustainable Building” in partnership with the international organization GESI.**



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Connected Health

Numana's connected health activities cover several different activities. On the one hand, there are the activities of the connected health project and its committee, and on the other hand, there are the initiatives like Conscio Alliance (formerly Aging Well at Home) and the Numana Circles launched in 2020.

The list of businesses who participated in the Connected Health projects is available in the appendix "DEC Presentation—List of Businesses.xlsx"

In addition, 2 webinars were organized within the framework of the partnership with ECH Alliance and their series "Pop-up Ecosystems"



Connected Health Project

The activities of the project in 2020 were mainly to coordinate the efforts started in 2019 to collaborate with the European Union within the process of the Horizon 2020 project.

The businesses participating in this project have been able to see several remarkable successes:

- **Hospitalis has become a partner of the CommunityCare consortium** through a project proposed as part of the European Union's appeal for H2020 impact projects
- **Things Factory is currently deploying a fever detector** at the connected health living lab Conscio Alliance/Berthiaume-Du-Tremblay
- The Ixia cooperative was inspired by the commercial business model of the Domus Laboratory and the Université de Sherbrooke, and is a partner of the Conscio Alliance/Berthiaume-du-Tremblay Foundation project. Its main project is to develop a technical and clinical consulting service for implementing connected technologies adapted to home care. Its objective is also to identify technological solutions to meet the need for autonomy and security at home for individuals and their loved ones, as well as the installation and maintenance of technological equipment, and finally, to support care teams when assessing home care needs.



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Connected Health

Numana Circles

The consulting webinars held by Numana at the start of the crisis quickly highlighted a question that currently concerns a consistent portion of governments and media: mental health issues. Today, these issues have evolved to also address overall health.

What is it?

The Numana Circles are an initiative dedicated to helping tech business owners to speak about overall health (mental and physical) in a safe environment. This initiative is conducted in collaboration with Mangrove.

How does it work?

Each cohort is made up of 8 workshops of one hour and a half for 8 business owners in the form of a talking circle.

Each workshop is led by 2 hosts and a guest expert who presents their topic and invites participants to explore it through conversations and exercises.

The objective of these workshops is to:

- Allow participants to speak about their issues
- Teach participants to use safe dynamics within their businesses

The first cohort began in October 2020 and ended in early 2021 with success (assessed on the basis of a satisfaction survey and the testimonies given).





The Wall of Innovations

The Wall of Technological Innovations of Quebec is a pilot project that Numana launched at the beginning of the pandemic with two objectives:

- Allow providers of Quebec technological solutions to promote their solutions to the crisis
- Allow Quebec businesses to find solutions to their challenges related to the crisis

Secondly, the objective of this project is to become a larger centralizing tool and make a list of:

- Quebec technological **solutions**
- Quebec technological **services**
- Quebec **patents** in technology
- Quebec **businesses** in the industry
- **Appeals for solutions** and projects relevant to Quebec tech businesses

This tool could be used as a window into the ecosystem through:

- Major clients
- Investors
- Quebec promotion agencies

In order to support businesses in their digital transformation, we have also organized 4 webinars in partnership with the Montreal Metropolitan Community (CMM)

The Wall of Technological Innovations of Quebec has currently surveyed over **240 businesses on the platform.**

We have also seen success that led to the creation of a reusable and environmentally responsible N95 mask, made through a collaboration between Supermax/Aurelia Canada and Shapeshift 3D, who met through the Wall of Innovations. The project will soon be marketed on this website:

<https://mybeyondmask.com/>



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Quantum

In 2020, Numana launched a project centred on quantum technologies, especially quantum information, in order to support Quebec in its positioning strategy in the face of these emerging technologies.

This support has taken several forms:

- The production of **several webinars** and partnerships with specialized events **in order to allow the technology industry to familiarize itself with the concepts surrounding quantum information**
- The production of a **quantum chart** in Canada and Quebec
- **Participation in the Québec Quantique initiative** bringing together several organizations from the technology ecosystem that wish to support the creation of a quantum ecosystem in Quebec.

Webinars and events

Numana organized two series of webinars in fall 2020:

The basics of quantum information (in partnership with INTRIQ)

- 4 webinars presented by Quebec researchers
- 412 enrolments
- 202 unique participants

Quantum photonic (with INTRIQ, COPL, Optonique)

- 3 webinars
- 198 enrolments
- 152 unique participants

Furthermore, Numana has also forged a partnership with international events **Inside Quantum Technology (IQT) New York and Europe, proposing a preferential rate for Quebecers wanting to participate in online editions.**

In total, about **137 organizations** participated in these activities.

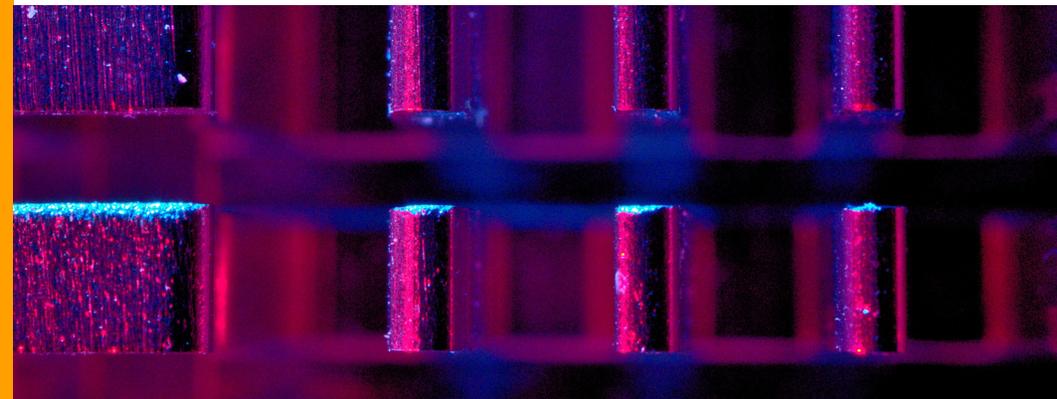
Quantum ecosystem mapping

This document draws a **detailed portrait of the current quantum ecosystem, its issues and its opportunities.**

The study was shared with the partners of the Québec Quantique project but has not yet been officially published.

Study on Intellectual Property

We have collaborated with ROBIC to produce a **study on the subject of intellectual property in quantum information in Quebec and Canada.**



NUMANA



The CQIC was in high demand by traders throughout the crisis in 2020 and reviewed its operation and objectives to be able to better support retail, notably by launching Cercle Achetons Plus Ici (api).

What is it?

The Cercle api (Achetons plus ici) aims to enrich the experience of buying locally using technology. The objective is to support retailers in their digital transformation by allowing them to discover the latest technological innovations dedicated to them, while highlighting Quebec innovations.

How does it work?

The Cercle api proposes three activities aimed at retailers that highlight technological solutions:

- **The Orientation numérique (Digital Orientation)**— A personalized support program that traders can sign up for to receive advice tailored directly to their needs
- **The Espace vivant (Living Space)**— A physical space intended to highlight the products of local traders and connect traders with digital tools through demonstrations
- **The Coffre à outils (Toolkit)** — A directory made up of Quebec solutions and useful resources for retailers

<https://cercleapi.ca/>

The impact of the CQIC in numbers

More than **1,300** traders near Laval surveyed and met as part of the **Orientation numérique api**, notably including members of the OBNL **Orijin Village and their 330 entrepreneurs in the black community.**

More than **140** local Quebec retailers highlighted in the **product showcases** of the Cercles api through the **Panier Bleu** and the **Espaces Vivants.**

30 retailers supported in the **Espace Vivant** of Laval or guided in their first live-shopping session

28 Quebec technological solutions intended for traders included in the **Coffre à outils** and shared with all traders affected by the Cercle api





Talents

Despite the pandemic and layoffs in certain businesses, talent remains a concern for the industry. That's why Numana has continued to get involved in order to increase the interest of young Quebecers in careers in technology.

Given the pandemic, the initiatives that Numana led in the last few years, Parcours Techno and Teknotek, couldn't be maintained because they involve gatherings.

However, at the beginning of 2020, Numana had already forged a strategic partnership with the MCI group in order to organize a Campus Party event in Montreal.

What is Campus Party?

Campus Party is the biggest technology event aimed 16–30 year-olds in the world. Organized each year in nearly 30 countries, no Campus Party event had taken place in North America yet.

Campus Party is a celebration of technology and innovation aimed at young geeks, innovators and entrepreneurs, allowing them to get in contact with world leaders and the local ecosystems.

In 2020, Montreal and Detroit were meant to mark the occasion by being the first in North America.

How does it work?

Traditionally, Campus Party has brought together between 2,000 and 5,000 young people over 3 days, offering them a place to sleep at the event location.

With the pandemic, they had to innovate.

Therefore, the 31 countries gathered together to organize Campus Party Digital Edition, an online edition.

Campus Party Digital Edition is:

- 3 24-hour event days
- 31 countries gathered over these 3 days
- 2,613 speakers of 120 different nationalities
 - Including 62 Canadian speakers for the Canadian edition
 - Including 32 male speakers and 32 female speakers
 - Including several speakers representing minorities (Indigenous, trans, etc.)
- 1,421,401 participants in the live events
- 1 job platform
- 1 appeal for ideas about solutions to employ to restart the planet
- 2,668 donations to the Doctors Without Borders COVID-19 crisis fund

<https://fr-canada-digital.campus-party.org/>



NUMANA



International Agreements

Numana always aims to reinforce the influence of Quebec's technology industry internationally. That's why we have forged several partnerships with foreign organizations in order to position the province.

European Connected Health Alliance ([ECHAlliance](#))

An association bringing together more than 78 countries, 750 organizations and 16,500 experts, and facilitating multiparty connections around the ecosystems, promoting sustainable change and an upheaval in the provision of health and social care.

Global Enabling Sustainability Initiative (GeSI)

In collaboration with members of large information and communications technology (ICT) businesses and organizations from every country, [GESI](#) is a major source of impartial information, resources and good practices to attain social and environmental sustainability which is integrated using digital technologies.

[Université Laurea](#) (Finland) and ProVa Health project

Agreement aiming to discuss good Living Lab practises, as well as to stimulate industrial partnerships. The [ProVa Health](#) project stimulates cooperation between health labs in the Baltic Sea region, testing new products and technologies in real contexts in the connected health sector.



NUMANA



Our Private Partners

Numana wishes to thank its public, private and institutional partners for their financial support, contributions and participation

in our activities. The Numana team also wants to highlight the involvement of the administrators sitting on the board of directors and in the committees. A special thank you goes out to the whole permanent team for their work.



Our Partners



Our Ecosystem Partners



Le génie pour l'industrie

Our Public Partners



Communauté métropolitaine de Montréal



Our Corporate Partners



Espresso communication





NUMANA

Catalyseur d'écosystèmes technologiques

Thank you!

Numana would like to thank the government of Canada and the government of Quebec, the Montreal Metropolitan Community and the private businesses for their financial support.

Canada 

Québec 



Communauté métropolitaine
de Montréal

 conseil
emploi
métropole



Appendix—List of committees

Board of directors

- David Bertrand, Chief Executive Officer, Hospitalis—President of the BOD
- France Bigras, Associate Vice-President of Information Systems and Chief Information Officer (CIO), Concordia University
- Paul Baptista, Head of ENCQOR and Ericsson Montreal site leader, Ericsson
- Serge Beaudoin, Director of Business Partnerships, Université de Sherbrooke
- François Borrelli, Chief Executive Officer, Numana
- Charles Despins, Dean of Research, ÉTS
- Sylvie Giguère, Industry Director—Government, Quebec and Atlantic, Microsoft
- Stéphane Godbout, Executive Director, RCM
- Louis-Sébastien Guimond, Vice-Rector of Information Systems, UQAM
- Sylvie LaPerrière, Program Manager, Peering & Content Distribution, Google
- Eric Larochelle, President, Larochelle Groupe Conseil
- Jean-Philippe Paradis, President, Bell Technical Solutions, Bell
- Benoit Simard, Vice-president, Marketing, TELUS
- Stéphane Rouleau, Chief Executive Officer and Co-founder, Spiria
- Jean-François Bouliane, Technology and Cloud Director, Oracle
- Roch Tremblay, COO, Radio IP

Observers

- Julie Insley, Director—Quebec Region, Industry Canada
- Gilles Savard, Director of Research and Innovation, Polytechnique Montréal
- Sylvain Simard, Advisor—ICT Management, MÉI,
- Antoni Cormier, Consultant, Operations and Partnerships Department, Secretariat for the metropolitan region, Ministry of Municipal Affairs and Housing
- Louis Arsenault, Vice-Principal, Communications and External Relations, McGill University



Appendix—List of committees

Executive Committee

- David Bertrand, Chief Executive Officer, Hospitalis
- Sylvie Giguère, Industry Director—Government, Quebec and Atlantic, Microsoft
- Eric Larochelle, President, Larochelle Groupe Conseil
- Benoit Simard, Vice-president, Marketing, TELUS

Governance and Nominating Committee

- Stéphane Godbout, Executive Director, RCM
- Louis-Sébastien Guimond, Vice-Rector of Information Systems, UQAM
- Sylvie LaPerrière, Program Manager, Peering & Content Distribution, Google

Advisory Committee—Humanitek—Empathic Buildings

- Ben Lipowitz, Vice President, Business Development, JLL
- Jean-Marc Demeo, Chief BIM Manager, LEMAY
- Loïc Angot, M.Sc, MBA, pa leed bd+c, env sp, Director, LEAD | Sustainable Strategies, LEMAY
- Stephane Chayer, Vice-President, Smart Infrastructure, Siemens Canada
- Matthieu Nicolas, Chief Executive Officer, Smart Infrastructure, Siemens
- Sébastien Lapointe, Director of Sales, Smart Infrastructure, Siemens
- Nicolas Marier, Architect, Division de la transition écologique, Service de la gestion et de la planification immobilière, City of Montréal
- Simon Brodeur, Chief Executive Officer, BIM Quebec
- Mathieu Lachaine, CEO, SENTIOM
- Nicolas Morency, CEO, Prevu3D
- Ursula Eicker, Professor, Building, Civil, and Environmental Engineering, Concordia University
- Nawel Lafioune, Construction Engineering Department, ÉTS
- Erik Poirier, Construction Engineering Department, ÉTS



Appendix—List of committees

Advisory Committee—Humanitek—Connected Health

- Annie Martin —Canadian Space Agency
- Pierre-Alexandre Fournier —Hexoskin
- David Bertrand—Hospitalis
- Jacques DeGuise—ÉTS—Laboratory on Imaging and Orthopedics Research
- Marc-Antoine Pelletier —HOPTech
- Jean-Noé Landry —OpenNorth
- Nathalie Bier—University of Montréal—CRIUGM
- Stéphane Létourneau —MILA
- Pascale-Mylène Beauregard — MÉI
- Christine Vilcocq—McGill University—Centre of Excellence on Longevity (CEEXLO)
- Marie-Josée Paquet — Assistant Director, CHUM Centre de coordination de la télésanté, MSSS. CHUM
- Pascal Beauchesne — Numana

Advisory Committee—Humanitek—Quantum

- Vincent Aimez, Vice-President, Partnerships and Knowledge Transfer, Université de Sherbrooke
- François Borrelli, CEO, Numana
- Richard Bruno, Guest CIRANO Fellow, Technological Entrepreneur
- André Fougères, Vice President, Innovation and Technology, INO
- Charles Lespérance, AVP, Développement de l'écosystème capital-risque, BDC
- Shibl Mourad, Engineering and Project Management Lead, DeepMind
- Daria Riabinina (Observer), Director— Technology Transfers, Ministère de l'Économie et de l'Innovation du Québec (MÉI)
- Natalie Richard (Observer), Ministère de l'Économie et de l'Innovation du Québec (MÉI)



Appendix—List of committees

Governance Committee— Conscio Alliance (formerly Aging Well at Home)

- Maxime Lussier — Université de Montréal (Institut universitaire de recherche en gériatrie)
- Romy Martinez — Videotron
- Kevin Bouchard — Université du Québec à Chicoutimi (LIARA Laboratory)
- Charles Vallerand - Université de Sherbrooke (DOMUS Laboratory)
- Hélène Pigot — Université de Sherbrooke (DOMUS Laboratory)
- Hubert Kenfack.Ngankam - Université de Sherbrooke (Research Centre on Aging)
- Carolina Bottari - Université de Montréal
- Sylvain Giroux — Université de Sherbrooke (Co-founder and Director, DOMUS Laboratory)
- Sebastien Gaboury — Université du Québec à Chicoutimi (LIARA Laboratory)
- Franck Laigle — Videotron
- Mélanie Couture — Université de Sherbrooke
- Guy Paré— HEC Montréal
- Marc Ashton—Public Health and Social Services
- Annie Poirier —Public Health and Social Services
- Christine Vilcocq—McGill University—Centre of Excellence on Longevity (CEEXLO)
- Nathalie Bier—Université de Montréal—CRIUGM
- Annie Gauvin —Executive Director, Berthiaume-Du Tremblay Foundation (Quartier des générations)
- Pascal Beauchesne — Numana