

Richard Boudreault

P.Phys., B.Sc., M. Eng., MBA, FRSC, HFRCGS, FCMOS, FlinstP, FCASI, FWAAS, FCAE, FIAA, AFAIAA, SMIEEE,
Adj. Prof. Full (É. Polytechnique and U. of Waterloo), Visiting Scholar (McGill)

Polymath and audacious serial STEM entrepreneur, innovative C-level general & innovation management, product development, sustainability, and commercialization executive with a 40-year track record of achievements in leadership roles. Created and managed 13 successful science-based corporations. 6 acquired by multinationals, 6 more became publicly traded entities. Established 6 int'l scale research centers. Passioned teacher and coach.

Education, Preparation and Accreditations:

- 2021 Doctoral micro-program in Strategic Sustainability, U of Sherbrooke, QC
- 2020 Graduate certificate in Quantum computing, MIT
- 2020 Certificate in Medical Device Development, MIT
- 2017 Graduate certificates, Sustainability and Environment, Université de Sherbrooke, QC
- 2017 Programs on innovation mgmt, governance, sustainability and Big Data, Harvard, MIT
- 2017 Governance, Crown Directorship, IAS and Public Service School
- 2016 Professional Physicist Accreditation
- 1999 Adm.A. Professional Administrator Accreditation
- 1998 MBA, Finance & Innovation Management, Université de Sherbrooke, QC
- 1981 M. Eng., Cornell University, Ithaca, NY
- 1979 B.Sc. (hon.) Physics and Earth Systems, Université de Montréal, QC

Recent Career Highlights: *10 last years*

- 2020 - present CEO, Dymedso, Medical treatment devices for SARS, Acute Respiratory Disease Syndrome.
- 2018 – present Professorship, École Polytechnique Montréal and U. of Waterloo, Adjunct
- 2018 – present Visiting Scholar, McGill U.
- 2016 – present Chairman and CEO, Awn Nanotech
- 1991 – present CEO and Consultant, Technologies Aérospatiale Inc.
- 2015 – 2020 Chairman, Anyon, Quantum Computer
- 2005 – 2014 CEO, Orbite Aluminae Inc.

10 Publications and published patents *out of 100:*

1. Boudreault et al., US 15/356,001, System, device and process for pulmonary treatment, Dymedso inc, P2163US00
2. Boudreault, R. Methods and apparatuses for harvesting water from air, WO EP US IL IL274600D0, Awn Nanotech, Priority 2017-11-13 • Filed 2020-05-12 • Published 2020-06-30
3. Boudreault R., Heat transfer fluid comprising a molten salt and graphene, WO WO2016074092A1, Sigma Energy Storage Inc., Priority 2014-11-11 • Filed 2015-11-12 • Published 2016-05-19
4. Boudreault, R., Metal-carbon nanostructures and method of manufacturing thereof US CA US20200248324A1 Dimartech Fabrication Inc., Priority 2019-01-31 • Filed 2020-01-31 • Published 2020-08-06
5. Boudreault, R., Electrical power generation system, WO US CA US20190107280A1 Richard Boudreault Sigma Energy Storage Inc., Priority 2016-04-01 • Filed 2017-04-03 • Published 2019-04-11
6. Boudreault, R., Fournier, J., Primeau, D., & Labrecque-Gilbert, M. M. (2019). U.S. Patent No. 10,174,402. Washington, DC: U.S. Patent and Trademark Office.
7. Boudreault, R., Fournier, J., Simoneau, R., Garcia, M. C., Krivanec, H., Primeau, D., & Dittrich, C. (2018). U.S. Patent No. 9,945,009. Washington, DC: U.S. Patent and Trademark Office.
8. Boudreault, R., Fournier, J., Dumont, H., Samuel, J. F., Bouffard, J., Lepage, S. & Labrecque-Gilbert, M. M. (2017). U.S. Patent No. 9,534,274. Washington, DC: U.S. Patent and Trademark Office.
9. Boudreault, R., Fournier, J., Labrecque-Gilbert, M. M., Dumont, H., Bouffard, J., & Arguin, D. (2016). U.S. Patent Application No. 15/024,199.
10. Boudreault, R., Primeau, D., Labrecque-Gilbert, M. M., & Dumont, H. (2016). U.S. Patent Application No. 15/163,070.
11. Boudreault, R., Fournier, J., Simoneau, R., Garcia, M. C., Primeau, D., Krivanec, H., & Dittrich, C. (2016). U.S. Patent No. 9,410,227. Washington, DC: U.S. Patent and Trademark Office.

Current Governance Appointments:

- 2019– present Exec. Chairman, Dymedso, Medical device innovation, SME
- 2020 – present Institut National de la Recherche Scientifique, Research Inst.& Grad School University
- 2018 – present Future Skills Center, Ryerson U. and Conference Board, 1/2G\$ Federal Crown project.
- 2017 – present Governor, First Nations University of Canada
- 2002 – present Chairperson, S&T oversight, National Optical Institute
- 2014 – present Board and Executive Board member, International Director, Sigma Xi.
- 2005 – present ITSMAX (Intelligent highway technology for public transport), SME

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- 1999 – present Géomax (Remote Sensing), SME

Recent Past Board Appointments: *More than 30 appointments in career, hereby list of less than 10y. old*

- 2015 – 2020 Chairperson, Polar Knowledge Canada
- 2014 – 2018 Chairperson, Sigma Energy Storage
- 2014 – 2018 Board Member, Create Committee, NSERC
- 2014 – 2016 Board Member, Canada's Space Advisory Board, ISED
- 2015 – 2017 Chairperson, Anyon Quantum Systems
- 2005 – 2014 Board Member, Orbite Aluminae, ultrapure green chemistry
- 2008 – 2013 Board Member, Audit and Technology committees, Atomic Energy of Canada Ltd
- 2001 – 2013 Board Member, Mechtronix, Flight Simulators
- 2004 – 2012 Board Member, Raymor, nanomaterials
- 2002 – 2004 Board Member, National Optics Institute, Montreal's Airports, etc.

Languages:

- English (fluent), French (fluent), German (elementary), Japanese (elementary), Inuktituk (basic)
- Native American, Mohawk- Haudenosaunee, Innu
- Multicultural, he lived and worked in France, Germany, Japan, Sweden, and USA

Recent External Research Funding: *recent*

- 1M\$ for Atmospheric water Generation, Awn Nanotech, École Poly. & McGill U., (2017-2020)
- 1.5M\$ for Quantum Chemistry Simulation of carbon water adsorption at nano scale, Awn Nanotech, 1Qbit, (2019-2021)
- 2M\$ for SARS Medical Device Development, Dymedso (2020)
- 170M\$ Green Mining Processes, Orbite (2012)
- 100M\$, High Speed Biophotonics medtech, ART (2000-2006)

Major and International Research Equipment Funding:

- Canadian High Arctic Station, Polar Agency, 1/2G\$, 2015-2020
- Radarsat constellation, 1/2G\$, 2015
- Space Station Mission extension, 1G\$, 2015
- 30 m. TMT Telescope, Mauna Kea, 0.25 G\$, 2015
- Canadian Nuclear Laboratory, Chalk River 1G\$, 2010
- Canadarm Space Robotic Arm, 2G\$, 1980
- Dexter, ambidextrous two-arm manipulator, ISS, 1985
- Quantum Computing System, 1G\$

Awards:

- International Stevie Award for the best consumer product 2016, for Awn Nanotech, Atmos. Water Generation
- Fellow, Royal Society of Canada, 2019, for intl. science diplomacy and large science infrastructure
- Fellow, Canadian Academy of Engineering, 2010
- American Physics Society, George E. Pake Award, 2018, for innovation management.
- Royal Canadian Geographics Society, Gold Medal, 2018 and Honorary Fellow, for Arctic sci. and explo., sci. diplomacy
- Canadian Association of Physicists, Applied Photonics Award, 2016
- IEEE-EMBS, Medicine & Biological Engineering Professional Career Award, 2017
- Queen Elisabeth II Diamond Jubilee Medal, 2015
- Knight of the Ordre des palmes académiques, France, 2017
- National Research Council, National Innovation Award, 2008
- Green Chemistry Award, Quebec's Government, 2006
- Photonics Spectra journal, Beacon of the industry award, 2016
- Fellowships of learned societies: UK Inst. Phys., Can. Met. And Ocean. Soc., Can. Aero. And Astro. Institute, Int'l. Academy of Astronautics; Associate Fellow Am. Inst. Aero. & Astronaut., Sr. Member IEEE.

Coaching and mentoring:

More than a thousand engineers and scientists within the 13 STEM corporations. Dozens of Post-docs in industrial and university settings. Multiple M.S. students did their thesis in science and finance with me. A dozen of faculties in different universities work on his industrial projects