

Curriculum Vitae
Dr. Elicia Maine

Current Position

- 2019- W.J. Van Dusen Professor of Innovation & Entrepreneurship
Beedie School of Business, Simon Fraser University,
Vancouver, Canada
- 2017- Board of Directors, Innovation BC's New Ventures BC
Board of Directors, Foresight Cleantech Accelerator
Area Editor, Commercialization, Technovation
- 2016- Professor, Innovation & Entrepreneurship
Academic Director, Science & Technology Commercialization
Invention to Innovation (i2I) graduate program
Beedie School of Business, Simon Fraser University,
Vancouver, Canada
- 2009 - 2016 Associate Professor, Technology Management & Strategy,
Academic Director, Management of Technology MBA program
(2011-2014), Beedie School of Business, Simon Fraser University
- 2001 - 2009 Assistant Professor, Technology Management & Strategy, Faculty
of Business Administration, Simon Fraser University
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Educational Background

- 2001 Ph.D. Technology Management / Engineering, **University of Cambridge**, England
- 1997 S.M. Technology and Policy, **Massachusetts Institute of Technology**, USA
- 1997 S.M. Materials Engineering, **Massachusetts Institute of Technology**, USA
- 1993 B.Eng. Materials Engineering, **Queen's University**, Canada
- 1993 B.A. English, **Queen's University**, Canada
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Other Employment History

- 1996 - present **Technology Management Consultant:** Analyze technology management issues and
advise at the VP and CEO levels.

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- 1993 - 1995 **Strategy Consultant:** The Monitor Company
Helping Fortune 100 companies make corporate and business unit strategic decisions.
Worked mainly with multinational materials manufacturers.
- 1990 – 1993 **Materials Engineer:** Tech Triangle Plastic Wire, DSM, CANMET/MTL
Researching, designing and running experiments on oriented polymers.
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Teaching

I teach BUS 750 (Managing Technological Innovation), the Executive MBA course BUS 646, (Managing Innovation), the interdisciplinary course BUS 790 (Lab to Market), and BUS 796 (Business Plan Supervision). Academic Director of our Management of Technology MBA program from 2011-2014, I am currently Academic Director of our new graduate program in Science & Technology Commercialization, [Invention to Innovation](#). Awarded the 2017 TD Canada Trust Distinguished Teaching Award.

Research:

Selected Publications (Peer Reviewed Journals)

- Thomas, V.J, Bliemel, M., Shippam-Brett, C., and Maine, E., (forthcoming). Endowing University Spin-offs Preformation: Entrepreneurial Capabilities for Scientist-Entrepreneurs, **Technovation**
- Park, A., Steel, D., and Maine, E. (forthcoming). Evidence-Based Medicine and Mechanistic Evidence: The Case of the Failed Rollout of efavirenz in Zimbabwe, **Journal of Medicine and Philosophy**
- Miele, A., Aksen, J., Wolinetz, M., Maine, E., Long, Z., (2020). The Role of Charging and Refueling Infrastructure in supporting Zero-Emission Vehicle Sales, **Transportation Research Part D: Transport and Environment**, 81, <https://doi.org/10.1016/j.trd.2020.102275>
- Thomas, V.J. and Maine, E., (2019). Market entry strategies for electric vehicle start-ups in the automotive industry – Lessons from Tesla Motors. **Journal of Cleaner Production**, 235, 653-663.
- Thomas, V.J., and Maine, E. (2019). The Impact of Regional Systems of Innovation on the Formation of University Spin-offs by Biomedical Star Scientists, **International Journal of Entrepreneurship and Small Business**, 37(2), 271-287.
- Shum, V., Park, A., Maine, E., and Pitt, L., (2019). A Bibliometric Study of Research-Technology Management, 1998-2017. **Research-Technology Management**, 62(1), 34-43.
- Dahabieh, M., Bröring, S., and Maine, E. (2018). Overcoming Barriers to Innovation in Food and Agricultural Biotechnology. **Trends in Food Science and Technology**, 79, 204-213
- Fabris, J., Maine, E., Roughley, D., and Poursartip, A. (2017). Managing the Technological and Market Uncertainty of Composites Innovation: A case study of Composites Manufacturers in Western Canada and Interventions by a Translational Research Centre. **Translational Materials Research** <https://doi.org/10.1088/2053-1613/aa9487>

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- Maine, E. and Thomas, V.J. (2017). Raising Financing through Strategic Timing. **Nature Nanotechnology**, 12(2), 93-98.
http://www.nature.com/nnano/journal/v12/n2/fig_tab/nnano.2017.1_T1.html
- Maine, E. and Seegopaul, P. (2016). Accelerating the Commercialization of Advanced Materials. **Nature Materials** 15(5), 487-491.
http://www.nature.com/nmat/journal/v15/n5/fig_tab/nmat4625_T1.html
- Maine, E., Soh, P.H., Dos Santos, N. (2015). The Role of Entrepreneurial Decision-Making in Opportunity Creation and Recognition, **Technovation** 39-40 (May-June), 53-72.
<http://www.sciencedirect.com/science/article/pii/S016649721400025X>
- O'Donnell, L. and Maine, E. (2015). Assessing Development and Commercialization Priorities for a Novel Hydrogen Production Process through Technical-Economic Cost Modeling, **Translational Materials Research**, 2(1), 016001 (21 pages) <https://doi.org/10.1088/2053-1613/2/1/016001>
- Bliemel, M., McCarthy, I., and Maine, E., (2015) Levels of Multiplexity in Entrepreneur's Networks: Implications for Dynamism and Value Creation. **Entrepreneurship Research Journal** ,
<http://dx.doi.org/10.1515/erj-2015-0001>
- Maine, E., Thomas, V.J., Bliemel, M., Murira, A. and Utterback, J., (2014). The Emergence of the Nanobiotechnology Industry, **Nature Nanotechnology**, 9(1), 2-5.
<http://dspace.mit.edu/handle/1721.1/97116>
- Maine, E., Thomas, V.J., and Utterback, J. (2014). Radical Innovation from the Confluence of Technologies: Innovation Management Strategies for the Emerging Nanobiotechnology Industry, **Journal of Engineering and Technology Management (JET-M)**, 32(April - June), 1-25.
<http://summit.sfu.ca/item/15017>
- Malek, K., Maine, E., and McCarthy, I. (2014). A Typology of Clean Technology Commercialization Accelerators, **Journal of Engineering and Technology Management (JET-M)**, 32(April – June), 26-39.
- Taleb, A., Maine, E., and Kjeang, E. (2014). Technical-Economic Cost Modeling as a Technology Management Tool: A Case Study of Membranes for PEM Fuel Cells, **Journal of Manufacturing Technology Management**, 25(2), 279-298.
- Maine, E. (2013). Scientist-Entrepreneurs as the Catalysts of Nanotechnology Commercialization, **Reviews in Nanoscience and Nanotechnology**, 2(5), 301-308.
http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2609592
- Maine, E. Lubik, S., and Garnsey, E., (2013). Value Creation Strategies for Science-based Business: A Study of Advanced Materials Ventures, **Innovation: Management, Policy & Practice**. 15(1), 35-51.
- Maine, E., Lubik, S., and Garnsey, E., (2012). Process-Based vs. Product-Based Innovation: Value Creation by Nanotech Ventures, **Technovation** 32(3/4), 179-192.
- Maine, E., Shapiro, D., and Vining, A., (2010). The Role of Clustering in the Growth of New Technology-Based Firms, **Small Business Economics: An Entrepreneurship Journal** 34(2), 127-146.
- Maine, E., (2008). Radical Innovation through Internal Corporate Venturing: Degussa's Commercialization of Nanomaterials, **R&D Management**, 38(4), 359-371.
- Maine, E., and Garnsey, E. (2006). Commercializing Generic Technology: The Case of Advanced Materials Ventures, **Research Policy**, 35(3), 375-393.
<https://www.sciencedirect.com/science/article/pii/S0048733306000345>

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Selected Publications (Books, Book Chapters, Cases, and Refereed Non-Journal Publications)

De Baere, B, and Maine, E. (2017) We Need a National Overhaul of University IP Policies, **University Affairs**. <http://www.universityaffairs.ca/opinion/in-my-opinion/canada-needs-national-overhaul-university-ip-policies/>

De Baere, B, and Maine, E. (2017) A Perfect Storm: The Case for an Entrepreneurial Postdoctoral Framework in Canada **Canadian Science Policy Centre** Editorial
<http://www.sciencepolicy.ca/news/perfect-storm-case-entrepreneurial-postdoctoral-framework-canada>

Bliemel, M., and Maine, E., (2016) “Solar Power Venturing - Market Entry Decisions Under Uncertainty” **IVEY** <https://www.iveycases.com/ProductView.aspx?id=68997>

Maine, E. (2016). Overcoming Nanotechnology Commercialization Challenges: Case Studies of Nanotechnology Ventures, in Bawa, R., Audette, G., and Rubinstein, I. (Eds) **Handbook of Clinical Nanomedicine: Law, Business, Regulation, Safety and Risk**, Pan Stanford Publishing, Singapore.

Maine, E., Soh, P.H., Dos Santos, N. (2012). Decision-Making Processes in Biotech Commercialization: Constraints to Effectuation. **Technology Management for Emerging Technologies (PICMET), Proceedings of PICMET '12**, IEEE Explore, pp. 611 – 616.

Maine, E.M.A. and Ashby, M.F. (2002). **Succeeding with New Materials: A Comprehensive Guide for Assessing Market Potential**. Centre for Technology Management, University of Cambridge. ISBN 1-902546-11-3

F Simancik, HP Degischer, C Körner, RF Singer, J Banhart, F Baumgärtner, G Rausch, M Arnold, M Thies, C San Marchi, A Mortensen, O Andersen, G Stephani, MC Hahn, R Braune, A Otto, T Bernard, HW Bergmann, F Heinrich, W Seeliger, C Beichelt, B Kriszt, U Martin, U Mosler, E Maire, A Kottar, R Pippan, C Motz, B Zettl, H Mayer, S Stanzl-Tschegg, J Kovacic, FG Rammerstorfer, T Daxner, HJ Böhm, M Seitzberger, B Foroughi, C Haberling, Th Hipke, R Neugebauer, R Kretz, EMA Maine, MF Ashby (2002). **Handbook of Cellular Metals: Production, Processing, Applications**. Wiley-VCH Verlag GmbH & Co. KGaA. ISBN 9783527303397

Maine E.M.A. (2000). **Innovation and Adoption of New Materials**. PhD thesis from Materials Engineering & Technology Management at the University of Cambridge, Cambridge, UK.
<https://www.repository.cam.ac.uk/handle/1810/251754>

Graduate Student Supervision

I have co-supervised five PhD students, over 100 MBA students, three interdisciplinary Master's students and two post-doctoral fellows.

Engagement

My research area is Innovation & Entrepreneurship. As an international expert in the fields of science commercialization and innovation policy, I give keynote speeches and expert commentary to

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a broad range of innovation policymakers, venture capitalists, engineers, scientist entrepreneurs and senior executives. I have also presented my innovation research at the American Academy for the Advancement of Science and at the Academy of Management, and have given invited lectures at the Massachusetts Institute of Technology and at the University of Cambridge. My research has been covered in the popular press, including Canada's national newspaper, the Globe and Mail. I serve on many expert panels, juries, and selection committees in the areas of innovation & entrepreneurship.

Selected Conferences and Presentations

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| June 21, 2019 | Maine, E., Lubik, S. and Park, A. Creating the Conditions for Impact from Science Based Ventures. Workshop for R&D Management 2019 , Ecole Polytechnique, Paris, France. |
| June 19, 2019 | Park, A and Maine, E. Open Innovation Practices of Firms within an Emerging Personalized Medicine Innovation Ecosystem. R&D Management 2019 , Ecole Polytechnique, Paris, France. |
| June 18, 2019 | Maine, E. Accelerating Advanced Materials Commercialization. Educational webinar and Q&A for the ADM of NRCan and the Mining Innovation Steering Committee |
| May 27, 2019 | Maine, E. Accelerating Advanced Materials Commercialization. Educational seminar and mentoring for Finalists of Women in Cleantech Challenge (run by MaRS Cleantech and NRCan), Vancouver, BC https://www.womenincleantech.ca/semi-finalists/ |
| May 17, 2019 | Maine, E. Accelerating Advanced Materials Commercialization. Keynote speaker for the Advanced Materials and Process Engineering Laboratory (AMPEL) Synergy Day, UBC , Vancouver, BC |
| May 13, 2019 | Maine, E. Accelerating Advanced Materials Commercialization. Educational seminar and mentoring for Finalists of IDEO's NextGen Cup Challenge , conducted international webinar for six finalists https://www.openideo.com/content/nextgen-challenge-top-ideas |
| April 9, 2019 | Maine, E. What Will it Take to Reach BC's Cleantech Potential? Four diverse Perspectives. Keynote Panelist for ACG's BC Middle Market Growth Conference , Vancouver, BC, http://www.acgbcevents.com/news/what-will-it-take-to-reach-bcs-cleantech-potential-four-diverse-perspectives-at-bc-middle-market-growth-conference/ |
| Sept 18, 2019 | Judge and Mentor for Women in Cleantech Challenge , MaRS Cleantech, Toronto, Ontario |
| August 22, 2018 | Maine, E. "Invention to Innovation: The Role of Scientist-Entrepreneurs." Keynote Speaker for PICMET , Honolulu, Hawaii https://www.picmet.org/new/Conferences/18/keynotes.aspx |
| May 29, 2018 | Maine, E. Opportunities for Innovation: Precision Medicine. Interface Health , Precision Health Workshop, Vancouver, Canada |
| May 17, 2018 | Maine, E. A New Take on Innovation in Canada: Boosting the Demand Side. Institute for Research on Public Policy , Ottawa, Canada |
| May 3, 2018 | Maine, E. Innovation & Entrepreneurship at Canadian Universities. Invited presentation to the MITACS Research Council , Vancouver, Canada |
| March 16, 2018 | Maine, E. Attracting Foreign Direct Investment: Leveraging Canadian Capacity in a Globally Competitive Market. GLOBE , Vancouver, Canada. https://www.globeseries.com/forum/speakers/maine-elicia/ |

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- March 1, 2018 Maine, E. Invention to Innovation. Keynote speaker for JLABS event at CDRD, Vancouver, Canada. <https://jlabs.jninnovation.com/events/vancouver-bc-turning-invention-innovation>
- Dec 6, 2017 Maine, E. Scaling up for science-based ventures. Borden Ladner Gervais LLP (BLG), Canada. <https://www.eventbrite.ca/e/scaling-up-for-science-based-ventures-tickets-40168007592#>
- Nov 16, 2017 Maine, E. Leveraging and financing science excellence. **Innovation and the Future of Canada Summit**, Toronto, Canada. <https://innovationsummit.mcmaster.ca/>
- Oct 30, 2017 Maine, E. Disrupt - or be Disrupted. **Innovate Now Canada**, Vancouver, Canada. <https://innovate.cityage.org/agenda/session/208898>
- Sept 1, 2017 Thomas, V.J., Bliemel, M, Shippam-Brett, C., and Maine, E. The Role of Star Scientists in University Spin-off Emergence. **West Coast Research Symposium**, University of Alberta, Edmonton, Canada. <https://thewcrs.wordpress.com/>
- August 30, 2017 Maine, E. How Can Canada Excel in Materials Innovation? Keynote speaker. **Enabling Innovation Symposium, COM 2017**, Vancouver Canada. <http://web.cim.org/com2017/conference/symp-enabling-innovation-in-metallurgy.cfm>
- August 30, 2017 Maine, E. Innovation in Canada. **Women of Innovation, COM 2017**, Vancouver Canada. http://web.cim.org/com2017/conference/Schedule_WOI2017.pdf
- June 15, 2017 Maine, E. Canada's climate change moonshot: BC-made solutions and clean tech breakthroughs. Invited Panelist. **Pacific Institute for Climate Solutions**, Robson Square, University of British Columbia, Vancouver Canada. <https://goo.gl/images/MgPBg5>
<http://pics.uvic.ca/events/canadas-climate-change-moonshot-bc-made-solutions-and-clean-tech-breakthroughs>
- June 10, 2017 Maine, E. Commercializing Technology: Patents and Licenses, Invited Speaker. **IC-Impacts**, Faculty of Applied Science, University of British Columbia, Vancouver Canada. <http://ic-impacts.com/wp-content/uploads/2017/06/2017-ic-impacts-research-conference-3.pdf>
- April 28, 2017 Maine, E. Innovation and Entrepreneurship Trends in Canada. Keynote speaker. **Canada China Open Innovation Forum**, Vancouver Canada. <http://live-wavefrontac.time.ly/event/2017-canada-china-open-innovation-forum/>
- March 27, 2017 Thomas, V.J., Bliemel, M, Shippam-Brett, C., and Maine, E. The Role of Star Scientists in University Spin-off Emergence. Invited academic lecture. **Conrad Business, Entrepreneurship and Technology Centre**, Waterloo Canada.
- March 23, 2017 Maine, E. Turning Invention into Innovation **JLABS at MARS DD**, Toronto Canada. Keynote speaker at an event hosted by JLABS, part of Johnson & Johnson Innovation, in collaboration with MaRS Discovery District, on strategies for scientist-entrepreneurs to commercialize biomedical discoveries. <https://www.eventbrite.com/e/turning-invention-into-innovation-tickets-31429653941>
- March 15, 2017 Maine, E. Pulling Cleantech Innovation into the Market **BC TECH Summit 2017**, Vancouver, Canada. Invited panelist for the cleantech stream of the BC TECH Summit. <http://bctechsummit.ca/speakers/elicia-maine/>
- Nov 12, 2016 Maine, E. MIT as a Laboratory for Studying Entrepreneurship **MIT 50th Anniversary of Entrepreneurship**, Sloan School of Management, MIT, Cambridge, Massachusetts. Invited presenter and panelist for the Academic Colloquium of the MIT 50th Anniversary of Entrepreneurship celebration. <http://mitsloan.mit.edu/alumni/events/2016-cambridge-eship-50-full-weekend/>
- Nov 8, 2016 Maine, E. Strengthening the Interplay between Discovery and Innovation **Canadian Science Policy Conference 2016**, Ottawa Canada. Invited panelist for Innovation policy session hosted jointly by NSERC, SSHRC, CIHR, Genome Canada <http://sched.co/7knr>

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- Oct 25, 2016 Maine, E. **BCIC Ignite Awards**, Telus World of Science, Vancouver, BC. Panelist discussing how to accelerate the commercialization of Natural Resource and Applied Science research in BC. <https://www.picatic.com/bcicignite>
- July 6, 2016 Maine, E., and Lubik, S., Turning Invention into Innovation: Strategies for Scientist-Entrepreneurs and Universities. **R&D Management Conference**, Cambridge, UK. <http://www.rnd2016.eng.cam.ac.uk/workshopinfo/inventionintoinnov>
- July 6, 2016 Thomas, V.J., Bliemel, M, Shippam-Brett, C., and Maine, E. (2016). The Role of Star Scientists in University Spin-off Emergence, **R&D Management Conference**, Cambridge, UK. <http://www.rnd2016.eng.cam.ac.uk/sessiondescriptions/Session9>

Media coverage:

- [Initiatives Aimed at Unleashing More Innovation at Universities](#) **Business in Vancouver**
- [SFU Beedie's MBA Programs Taking the Lead in Technology](#) **BC Business**
- [Timing is Everything for Science-Based Startups Seeking Funds](#) **Globe and Mail**
- [Taking Breakthrough Ideas to the Masses.](#) **50 Years of Research & Innovation at SFU**
- [Innovation Management and the Emergence of the Nanobiotechnology Industry](#) **Kurzweil: Accelerating Intelligence**
- [Bio + Nano = A Whole New Sector](#) **Globe and Mail**

Public lectures:

- President's Faculty Lecture "[Turning Invention into Innovation](#)"
- IRMAC's 10th Anniversary research day "[Commercializing Science](#)"
- CIM 2017: "[Women of Innovation](#)"