Alain Paul Martin, 2012 Harvard Fellow, Advanced Leadership

Harvard-MIT Trained Strategist in Governance, Innovation, Buy-ins & Execution of Large-Scale Transformations Praised by Corporate and Government Clients for Saving Thousands Lives and Adding \$ Billions to Sustainable Growth

Meta-Innovation Scientist: Ideation, Intelligence, GenAl, Creativity, Buy-ins, Execution • Inventor, Harvard University Global System™



With utmost humility, I coach teams to excel in leadership, innovation, enduring-transformational change and seamless integration with culture. My experience is in large-scale change in a multipolar unstable world: Aerospace, biotech, defence, education, energy, finance, health, infrastructure, mining and software.

- Craft, validate, differentiate & integrate mission, governance, goals, strategy, plans, funding, execution...
- Empower every team member to act as co-elevating, accountable and mission-driven player and leader.
- Build & retain allies (reliable suppliers, demanding repeat customers...) within and beyond the value chain.
- Upgrade collaborative creativity, stakeholders' buy-ins through shared benefits, productivity and resilience!
- Leverage non-catastrophic risk and AI with collective intelligence + advances in science, technology, arts...
- Advance nation building with Veritas, healthy citizens' dynamics, compatible and reliable partnerships...

1. Patents, Awards and Applied Research in Science, Engineering and Social Innovations

For upcoming innovations, see page 6: Section 9. Current Intellectual-Property Pipeline: Meta-Innovation Support Tools".



- Patent owner: Canada, Japan, USA Productivity-innovations' inventor (Peugeot. France)
- Recipient of two aerospace productivity and quality-assurance engineering awards from Canadair (now Airbus) for improving the manufacturing of GD electric boats, multirole fighter jets, amphibious aircrafts (water bombers), plant safety and reducing cost and waste.
- Canada's Awards for Excellence's Certificate for The Professional Development Institute[®]
- Created resilient and sustainable organizations (in business, the Federal government and NGOs) and practical tools for innovators, decision-makers and other professionals (see below).
- Recognized for my 11-year "Leadership, Vision and Service" to Harvard community

by the presidents of both Harvard University and Harvard Alumni Association.

- Recognized for "outstanding contribution to the state-of-the-art of project management" by the Project Management Institute (PMI)
- Harvard University Global SystemTM used in small as well as multi-billion dollar decisions (projects, policies...). We invent and built it in Canada at The Professional Development Institute PDI Inc.! I led this system's design and its software version applying the Global MethodTM in collaboration with our European anchor Skanska, which used it, for years, to manage projects, (size: from \$1M to multi-billions). Then, we created a public application, which Skanska distributed, for 5 years, in Finland, Germany, Norway, Sweden and the UK. Features: Full-team participation (leaders, users, support staff) in innovation and decision-making, applying complexity reduction, progress transparency, communication across languages and rapid acquisition of critical-creativity skills. I was honored to partner with Skanska, the world's leading iconic laboratories' builder (Harvard's Biology Research facility, Lund's European Spallation Source, the most-modern research facility), Stockholm's National Museum, Harvard Art Museum, New York's

2nd Ave. Subway, the World-Trade-Center Transportation Hub, Robert F. Kennedy Bridge-deck replacement, The Gherkin and Heron Tower in London, eBay's Topaz data centre, MetLife Stadium which opened on budget 5 months ahead of schedule...

2. Private Sector's Innovations in Large Firms on Leadership, Strategy & Execution

- Banking and Other Financial Institutions
 - (a) Designation conglomerate: 12-year main strategic advisor to President John Harbour, both at Designations and the SAAO. On YouTube at 8'12" in French, Mr. Harbour praised my contribution in crafting the vision and strategic direction of Desjardins, ranked by Bloomberg among the world's strongest banks for over 20 years. He highlighted, how I coached the executive team to turn the general-insurance firm from a laggard into a leader, leapfrogging Zurich and ING, through strategic alliances (Crédit Mutuel), innovation, high-quality services, user experience and bundled technical support at affordable and competitive prices. See: "North-America's fastest-growing general insurer in 5 years", quadrupling sales; raising profit tenfold.
 - (b) National Bank of Canada: I advised the Exec. VP Human-Resources & Audit. Bank's chairman's praise at eharvard.org/intelligence.
- (c) **Pro-bono initiative to strengthen Canada's banks** in the free-trade context; See Change Agent & Research Sponsor (Section 3 below)
- Mining Sector
 - (a) Alcan Rio Tinto: I led workshops, focusing on mission-critical projects' acceleration, resource allocation and risk mitigation
 - (b) Teck, Canada's largest resource firm: For 12 years, I provided strategic advice on innovation and execution, to Applied Research &



Technology's (ART) directors, scientists and engineers. I led advanced project management workshops. Following is the feedback of both Dr. Stephens and Mr. Higginson who led Teck's ART:

"Alain Paul Martin has a long and valued association with Teck Metals LtdTM. We believe that Alain's teachings go far beyond the typical project management focus on scope, schedule, cost, and, sometimes, quality. Alain delves into topics that project managers working with complex issues or program managers dealing with multiple complex and often inter-related projects need to know about and must become skilled at to be successful. These teachings are supported by tools that we and our teams use on a regular basis to move ideas and concepts into well-defined projects that can be managed with conventional project-management tools."

Energy Sector

- (a) Nuclear-Project & Risk-Management at Ontario Power Generation, Iled for 4 years, advanced tailor-made workshops, for 200 nuclear-power executives, scientists and engineers. Client's executive feedback:
 - "Alain [Martin] delivered, over a 4-year period, 'Advanced Project and Risk-Management' workshops to our nuclear project managers and executives at Ontario Power Generation... These sessions covered the complete project-management cycle from project and risk incubation to stakeholder analysis and strategy formulation to operational planning including estimating, resource allocation, budgeting, earned-value planning and progress control. Including myself, the sessions were taken by approximately 200 OPG project managers, senior engineers and executives. Feedback from all sessions were excellent. Course materials and instruction exceeded all of the requirements established by OPG."

 Mark Arnone, Vice-President, Nuclear Refurbishment, Ontario Power Generation
- (b) E.ON Group Wind Power & Energy (Denver, CO): I led an advanced principled-negotiation workshop for 30 participants.
- (c) Atomic Energy of Canada (AECL): "Breakthroughs in Project & Risk Management" for AECL executives and project leaders
- (d) Petroleos de Mexico (PEMEX, Houston, TX): I led a strategic negotiation workshop for the major-acquisition negotiators.
- (e) China Association for Science & Technology (CAST): Nuclear-Power Project-Risk Mitigation workshops in Beijing, Dalian, Guangzhou and Shenzhen. Following my project management leadership work with Atomic Energy of Canada (AECL) and publishing in PMI's Project Management Journal, I was invited to participate in this pro-bono initiative led by PMI with the support of the U.S. Secretary of State's Department. My personal motivation was to educate the CAST scientists and engineers to prevent another Chernobyl and much worse.

Manufacturing Sector

- (a) <u>Volkwagen's AG, Research</u> (Berlin): Member of VW's Futures in Motion Roundtable. Members are invited for their "strategic expertise and insights into global trends, in particular from an international perspective".
- (b) <u>Canadair (now Airbus)</u>: I started as principal investigator for the clients' (USAF and RCAF) quality-assurance review committees. My role was to evaluate the safety and cost benefits of accepting, reworking or scrapping non-compliant parts and subassemblies, rejected in quality control. My unwavering commitment to venture beyond my job description to question the engineering, design, logistics and machine tools' reliability led to innovations and a promotion to system analysis, design and automated programming of machine tools, applying APT and EXAPT numerical-control software.
- (c) <u>DuPont</u> and <u>Domtar</u>: Our operations-research teamwork led to higher productivity, cost savings and better quality of life for workers.
- (d) GE Jet Engines: I led workshops on team synergy and productivity in Bridgeport (CT), Bromont (QC) and Paris (France).
- (e) MDA Robotics (<u>Canadarm</u> maker), <u>Brazilian Space Agency</u> (AEB), and <u>Japan's ENAA</u>: Strategic Project Management (f) <u>Procter & Gamble</u> (Chicago & Manhattan) and <u>OCP Group</u> (Morocco): Strategic Leadership: Innovative Tools & Practices

3. My Modest Contribution to Canada's Sustainable Economy, Health, Environment & Saving Lives

- Coached the <u>SAAQ</u> executives whose decisions saved thousands lives in 5 years, improving safety on Québec-highways: 35% less deaths; 43% less bodily-injury; despite 15% traffic growth; while turning \$489 million debt into \$20 million surplus. Mr. Harbour confirms, in French at 8'12", my modest contribution to <u>Desjardins growth and saving thousand lives in Québec</u>.
- Cofounder with <u>Dr. Brian Morrissey</u>: "<u>Canada Food Inspection Agency</u>" to better "safeguard food, plants and animals"; thus, enhancing the health and well-being of Canada's people, environment and economy. See <u>Dr. Morrissey's praise</u>.
- Therapeutic Drug Directorate: Formative evaluation (with Dr. A. Potworovski) to enhance the knowledge-management process.
- Airports' Inspection: Led projects to improve security and protect Canada from illicit imports, epizootics and other pathogens
- Pro-bono initiative to Prevent & Mitigate BSE & vCJD: I invited Dr. Brian Morrissey, upon retirement, to probe the UK's BSE and vCJD incubation and evolution, applying our Harvard[®] framework. Dr. Morrissey and I built on the findings, led prompt strategy sessions on preparedness and risk management at Health Canada (HPB) 9 months before a BSE case was diagnosed in Canada.
- Ad-hoc Strategic Advisor, Creation of Ouébec Financial-Markets' Regulator (Autorité des marchés financiers)
- Non-partisan Pro-Bono Executive Member of the Prime Minister's Committee on Government Reform.

I was honoured to join this Committee, at the invitation of Mr. Marcel Massé, Privy Council's President. In our deliberations, I built on my knowledge and work, first as an assistant to Prof. Richard Beckhard (MIT), then Herbert Shepard (Yale) in Cold Lake 1.0's graceful exit. Years later, I acted as a governance advisor on large-scale renewals; then, as a scholar studying serious crises in organizations, beginning with IBM, which provided insights for this work; and much later, Apple, GE and Nortel. Each firm had teams of brilliant scientists, engineers and other professionals for decades, the quintessence of the impossible, on innovation. Yet they all sorely lacked, as did some agencies we reviewed, the strategic-change maestros to lead high-knowledge workers; craft the navigation corridor and spark the "quiet revolution" with the principled buy-ins and the resilience to excel, across the value chain, including, the details that count, in logistics, execution, marketing, sales, client retention and communications, all with empathy and evidence, without misrepresenting or "manufacturing consent".

Note: In 1993, IBM board contacted Louis Gerstner, an engineer with Harvard MBA, who led American Express' and Nabisco's turnarounds, but was inexperienced in IBM technology. Given his integrity and strategic know-how, Gerstner teamed-up with leaders, with current intelligence and skills on IBM leadership, technology and markets, to sketch IBM's potential; and probe whether his achievements could be replicated at IBM. He invested months before agreeing to lead IBM from a near disaster to a bold and stunning revival (1994-1997) focused on execution, aptly narrated by Mr. Gerstner in "Who Says Elephants Can't Dance?"².

Pro Bono Initiative Advising the Prime Minister to Appoint an Epizootics Expert to Restore Canadian Meat Export in Asia



Following the discovery of mad-cow disease (BSE) case in Canada and the embargo of Canadian meat by Japan, China, Taiwan, South Korea and the Philippines, I studied the stakeholders' dynamics from the perspectives of Japan and China; and advised P.M. Jean Chrétien to appoint one among four scientists and principled negotiators. Dr. Norman Willis was selected. He is an epizootic scientist and a world authority on accidental release and deliberate use of biological agents affecting food and agriculture. He designed, built and ran the groundbreaking Level IV biocontainment laboratory in Winnipeg. A former director general, now lifetime president emeritus, of the World Organization for Animal Health³ in Paris, Dr. Willis is esteemed worldwide. Armed with evidence-based BSE/vCJD expertise and principled-negotiation diplomacy, he played a critical role in lifting the bans, restoring Canadian beef exports. Details in my memo to P.M. Chrétien, in which I also suggested the appointment of a permanent science advisor to the P.M.'s Office; much like the foreign affairs advisor.

• Building Together a Principled, Caring and Productive Great Nation
At Harvard; then in Canada, I researched the kernel of value in nation building; created a dialogue-primer and a workshop on a co-elevation culture of purpose and leadership with moral-compass habits, worth adopting by all (scientists, educators, influencers, leaders...), across sectors. Focus: education (not indoctrination), inclusive solidarity, positive-sum mindset, team synergy, daring innovation, responsible free will, impactful vocation and oversight to ensure impartial accountability, resilience to disproportional influence and impartiality threats.

I am grateful to P. M. Jean Chrétien, whose altruistic support raised our learning effectiveness; the National Liberal Caucus members for their constructive critique, and Mr. Jean-Marc Carisse, whose photos, immortalized, the humble beginnings of our dialogue on pragmatic nation building. Jean-Marc Carisse, © 1998. carissephoto.com



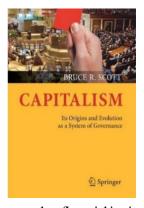
• Change Agent & Research Sponsor: Zeckhauser-Thompson: Canadian Financial Institutions' Current & Emerging Trends



I invited Harvard Profs. Richard Zeckhauser and Mark Thompson to independently research and publish the emerging opportunities and threats, for Canadian financial institutions. The authors interviewed 36 academic experts, politicians, financial professionals and government officials. They and Finance Ministers Fortier and Wilson acknowledged "my substantive contribution to the research", which actually was more modest.

After both free-trade negotiations, I assisted Canadian community banks to innovate; nurture mission-driven alliances (with clients, staff, supply chains and other strategic allies) and excel in transactional differentiation. I invented the "COOP", a global credit card and, with the support of Desjardins, initiated a debate for a global consortium with Desjardins, Crédit Agricole (France), Caixa (Spain) and Japan's Shinkin. I alas failed by underestimating the resistance of established credit-card competitors.

• Can Canada Eschew the Emerging U.S. Recession, after the Housing Bubble and the Financial Crisis?



To celebrate HBS Centennial (2008), Harvard Club of Ottawa, which I led, invited Prof. Bruce Scott to debate with our policy-makers the above question and the relevance to Canada of his upcoming book "Capitalism: Its Origins and Evolution as a System of Governance (©Springer). Prof. Scott was among the first critics of unregulated derivatives and subprime mortgages, which, as he said, were misunderstood, and "Isidestepped] consideration of externality, social costs, long-term unknowns..." He sounded the alarm, before the Feds alerted about the 2006 U.S. housing bubble bursting, the 2007 global financial crisis and 2008 recession.

In a follow-up event, we discussed with Prof. Scott the role played by David Dodge and subsequently Mark Carney and their teams by quickly providing liquidity to mitigate the socioeconomic calamities that hit the US and other countries. Mr. Carney worked to prevent the RBC-BMO and TD-CIBC mergers, given the systemic "too-big to fail" risks that such M&A consolidations would entail. Years later, his track record earned him the opportunity to tackle such systemic risks on the world stage, as head of the Financial Stability Board and also the unprecedented opportunity to lead the Bank of England to, among others, prevent a run on the pound sterling, should Britain exit from the E.U. Messrs. Dodge and Carney guided Cabinet and Parliament

to regulate financial institutions. They maintained a low profile as central bankers, while the politicians dealt with the acceptance issue, as illustrated in the "Simplified Equation..." in Section **9. Current Intellectual-Property Pipeline**. Further details in my notes: "Harvard Professor Bruce Scott "Made a Major Contribution to Our Society".

- Environment Canada: Project Mgt. & Leadership Workshops for 300 team leaders & scientists
- Formative risk evaluation to prevent and mitigate disasters in the Northwest Territories (NWT) from oil & gas and mine exploration, operations and remediation

 For this purpose, Ms. Carla Conkin led expert teams from the Federal and NWT governments. This video is a testimonial to the positive impact of our advisory and skills-development teamwork, as well as the strategic-negotiation tools used to plan her stakeholders' buy-ins. She applied stochastic modeling (Monte-Carlo simulation) to strengthen the analytic legwork. Ms. Conkin's quiet work is a tall order with an immense impact on ecosystems and the quality of wild and human lives.



4. Contribution to Rescue, International Cooperation and Impartial News Delivery

- Led Canada's large flood rescue in Central Africa. I negotiated with WFP in Rome, a procurement in a neighboring African country to minimize delays and secure, for victims, a habitual diet rich in fiber, antioxidants and proteins. Our aid arrived first.
- Coached Arctic-Circumpolar Leaders (First Nations, NWT Government, Russia's Sakha Republic): Principled negotiation skills workshop and strategic tools to create constructive options and peacefully resolve intra and intergovernment issues. Case studies were discussed in housing, endangered permafrost ecosystems, cultural capital, food security, healthcare and sustainable economic development.
- Co-invented tripartite cooperation to expand, beyond foreign aid, Canadian expertise, with petro-dollars, to benefit poor countries.
- Pivoting Dominica's agriculture to high-value export markets starting with "low-hanging fruits": While delivering a workshop to
 teams of leaders, executive assistants and other professionals, I briefly surveyed the cost-benefits of pivoting selected sustainable eco-friendly
 produce, from cheap to high-value exports, caracterized by a growing foreign demand. My host took over the findings for a pilot project.
- Advised the UNESCO's Director General on Structural-Agility Needs, Technological Reform and Strategic Funding through public and private partnerships. I also authored the report: "Overhauling the UNESCO and Strengthening Its Essence"
- Led the Detailed Engineering of Capital Projects: CIDA Funded Telecommunication and IBRD Funded Highway

 The first project was a World-Bank's funded 660km highway with multi-use bridges (vehicles, pedestrians, livestock). The

 2nd project was a 2800km wireless. The corridor was drawn with the support of Monte-Carlo simulation software; fed with data from
 three helicopters, one for management and two fitted with stroboscopic beams to simulate, during night shifts, optimum pylones' position
 and height, antennas' and reflectors' direction, considering regulations, signal strenght, Fresnel interference, wind resistance, access to
 power and roads for maintenance and repair, technicians' safety, system security and the project's aggregate cost.
- <u>CBC-SRC</u>: Impartial & Timely News Delivery Across 5 Time Zones: Iled the creation of Radio Canada's (SRC) news and public-affairs evaluation system, which was tested during elections, when accuracy and timely reporting are pre-requisites for the public-broadcaster's transparency, impartiality and effectiveness. The hybrid (digital and human analytics) system enhanced quality assurance; strengthened SRC non-partisan mission, independence and protection against frivolous suits.

5. Examples of my Modest Contribution to Education and Public Speaking on Four Continents

- Harvard University: Led a seminar on my research in co-elevating leadership at the Ivy-League's Leadership Summit.

 I also shared my research with faculty and MBA students on stakeholders' dynamics, issue incubation and meta-innovation.
- MIT Systems Engineering: Presented my frameworks, equations, algorithms and templates for strategic thinking, risk mitigation and project management to MIT fellows and graduate students in **Prof. Olivier de Weck**'s System Project Management.
- Mohamed VI Polytechnic University (Morocco): Led a virtual session on breakthroughs in strategic leadership
- United-Nations University (Tokyo): Led an advanced workshop on breakthroughs in strategic management of change
- Université du Québec (2 years): Delivered graduate M.Sc. full-credit courses on management of change.
- Forum of Excellence in Spain and Horasis in Portugal: Led expert-panel discussions and delivered on innovation and risk
- Framingham State University: Following a pilot experiment hosted by <u>Dr. Irene Porro</u>, Director, <u>Christa McAuliffe Center for Integrated Science & Learning</u> attended by leaders of Massachusetts' school boards & schools, I led debates, with educators and policy makers, focused on system-thinking applications in the education of science, technology, engineering, arts and mathematics (STEAM), enhanced by an interdisciplinary decision-literacy module ("STEAM+D"). Among the new module's benefits to students:
 - (a) Learning to build trust and consensus by validating goals, facts, perceptions and biases; making assumptions explicit; increasing the science capital (Pierre Bourdieu); and reducing complexity.
 - (b) Opting for rational decisions by seeking evidence and logic, as close as possible to both users and the sources of expertise.
- (c) Learning to develop empathy for all stakeholders; seeking sustainable and just solutions, on the high moral ground; addressing the ever-changing risks and resistance to change inherent in complex issues;
- (d) Before seeking approvals, plan with rigor, equity, mindfulness, candor, humility and constructive arguments that resonate with, and inspire the trust of decision-makers, and other constituencies with vested interests in the issues, from those with the power to veto controversial decisions to the poor and voiceless parties, including minorities and people with a disability.

Thus, teachers can now gradually prepare K-12 learners to acquire invaluable skills in project planning, organizational and execution skills with a pragmatic and proven framework and instruments superior to traditional project-management techniques.

6. Pro-Bono Innovations on 5 continents to Eradicate Poverty and Advance Education

I strive to eradicate poverty and advance education, through a unique NGO creation innovation, complexity reduction, governance, coelevating leadership, principled negotiation, novel partnerships to funding, content-rich conferences on current & emerging issues.

- I served for 10 years as a director of two Harvard clubs. Elected for 6 years, as a HBS club president, I helped Harvard select a HBS dean
 twice, once in a dyadic team with Prof. B. Scott. I helped to mobilize governors, with cutting-edge competence, and a moral compass for
 the universities of Guelph and Ottawa. I led public-private partnerships and educational events that funded public-health research, highschool students, Japan's tsunami victims and the poor (Africa, Canada, Haiti). I mobilized global trailblazers, from leading
 universities, to share with Canadian counterparts the lessons learned in degree-granting education blending virtual and onsite courses.
- I initiated and organized leadership events on cutting-edge issues to fund <u>CHEO children's hospital research</u>, <u>Canada without Poverty</u>, <u>food banks Canada</u> and teamed-up with the <u>French Embassy</u> and Washington's alumni (Chicago, Harvard and Wharton) to support the <u>American Red Cross</u>. I also coached the leaders of the first quinquennial <u>Acadian World Congress</u>; and actively participated in the strategic foundations, funding and marketing of this enduring historic and cultural celebration of Acadian communities worldwide.

- Inspired by Drs. Paul Farmer and Jim Kim, I led a Harvard-alumni team that created Partners In Health Canada to harness Canadian generosity, bringing excellent health care to the poor. To enable tax-deductible donations, we incorporated a charitable PIH Canada to surf on pih.org field skills, while subjecting Canada-funded projects to independent Canadian auditing. Thus, we proved to the regulator (CRA) the merits our differentiation-integration partnership: minimizing admin costs and leveraging PIH-proven strategic and field expertise, to maximize impact on the beneficiaries, by delivering the finest healthcare to the poor; all in compliance with Canada's tax laws. We also built a fuel truck with military-grade suspension and tires for Haiti 's mountainous-unpaved roads to feed rural hospitals' power generators.
- I edited: Herbert Shepard's "Resilient Self-Leadership for the Life of Your Choice" Please share (through a hyperlink only).
- Our team's project-scheduling method was successfully used, pro-bono, for the Pope John Paul II visit to Canada (across Québec).

7. National-Defence Experience

- Oversaw the quality-assurance for the design and delivery to DND of the CF18's library of monographs on project management, integrated systems engineering (ISE), logistics support (ILS) and configuration management (CM).
- Communications Security Establishment: Designed and delivered Advanced Project-Management Workshops.
- **Defence Production:** Page 2 illustrates my contribution to aerospace quality-assurance engineering. See Canadair (now Airbus) in section 2. **Private Sector's Innovations in Large Firms on Leadership, Strategy & Execution.**
- Author: Harnessing the Power of Intelligence, Counterintelligence & Surprise Events

"Alain Paul Martin has produced a book that allows decision-makers to improve their ability to understand how intelligence professionals link the dots between collection, analysis and interpretation."

Ray R. Henault, General and Chief of the Defence Staff Canadian Forces

"This book has a range of excellent concepts that are useful to DOD organizations to improve their awareness of internal and environmental factors. This increased awareness could help leaders anticipate emerging issues and concerns to DOD at large. Mid-level leaders should know that the book is really about how an organization can gather and manipulate information that is relevant to their organizations and not get caught in the trap of thinking the book is primarily about intelligence in a military sense. As we operate in increasingly complex environments, information gathering, synthesizing, filtering, and distributing are incredibly important organizational tasks. This book helps people think about and approach the complexity and uncertainty organizations face today."

Col. Robert J. D'Amico Office of the Chairman of the Joint Chiefs of Staff US Department of Defense

"At present, one of the most important strategic management challenges is understanding and enhancing the process of transforming vast amounts of information into useable knowledge. Alain Martin's book is an excellent guide to meeting this challenge. He provides a structure and format that enhances our understanding and creates useable knowledge. I highly recommend that all managers and leaders read this book with a view to gaining informational insights and practical knowledge that can be applied to either everyday or crisis situations."

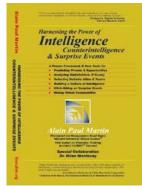
George Kolisnek, Director Strategic Intelligence Department of National Defence

"I sincerely hope incumbent members of the Defence Department will read this book, and that it be used in the instruction of all at military staff colleges, so that application of its guidance will assist all levels of national-defence management in "harnessing" the powerful intelligence factors. Not only will the lessons be instructive for all, but also, the book will be an invaluable resource for its research references."

Brigadier-General Lloyd Skaalen

NORAD Regional Deputy Commander (retired)

More praise from CEOs (finance, biopharma, NGOs), economists, educators, engineers, scientists and government' leaders



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8. Experience in Design and Delivery of Executive-Development Workshops and Retreats

I trained 30,000 scientists, engineers, project leaders and C-suite executives at Airbus, Asian Productivity Organization (APO) on behalf of Japan's MITI, APOC (union), Atomic Energy of Canada (AECL), Bell Textron, Boeing, Brazilian Space Agency (AEB), CBC-Radio Canada, Canadian Space Agency, Desiardins, Dominica's Government, Engineering Advancement Association of Japan (ENAA), E.ON Group Wind Power & Energy (USA), First Nations (Dene, Haida, Inuit), GE Aviation (Jet Engines in Canada, European Union, USA), Leader of the Official Opposition (Canada), MD Robotics, OCP Group (Morocco), OPG Nuclear Power, Parliament of Mexico, Procter & Gamble, SAAQ, Teck Metals, NGOs and the provincial (British Columbia, Ontario, Québec, NWT) and federal governments (Agriculture & Foods, Canada's Correctional Service, Employment & Social Development, Environment & Climate Change, Global Affairs & International Trade, Health, Innovation, Science & Economic Development, National Capital Commission, National Defence, Parks Canada, Public Service & Procurement Canada, Statistics Canada, Transport, Veterans Affairs). Illustration:

"I enjoyed acquiring new ideas in strategy formulation, negotiation skills and leadership. The exercises and simulations gave a good hands-on practice."

Savi Sachdev, Director General, Space Systems Canadian Space Agency

- Principled Negotiation Workshops and Coaching: for Export Developmment Canada's team leaders and professionals
- Principled Negotiation Skills: for lawyers, executives teams and parliamentarians in North and Latin Americas
 with strategic thinking, anthropological stakeholders' dynamics and resilience in difficult situations. Approved in Québec Bar
- Principled Negotiation Skills; Trained Haida leaders in to secure a historic agreement reconciling BC's and their Nation's laws
- PDI: Technical Leadership and Collaborative-Hybrid Innovation: Preparing for the Avalanche of Social Robots
- Led Workshops in Governance, Strategic Thinking, Co-Elevating Leadership, Project, Risk & Change Management: I delivered workshops in London and Amsterdam for Cap Gemini, in-house sessions in Paris (Bertelsmann), Stockholm (Skanska, Boliden, Confederation of Swedish Enterprises), Barcelona (with José Ramon Calvo), The Hague (Finance Ministry) and Lisbon (Horasis debates).

9. Current Intellectual-Property Pipeline (2026-2030): Meta-Innovation Support Tools

- The Complete Framework: Vision, strategy, policy formulation and project management, and practical templates

 This framework and road maps are genuine performance-improvement instruments. To accomplish your goals and mission, they offer a practical methodology and proven templates for preparing business plans, formulating a strategy, undertaking M&A due diligence and managing projects, risks and personal and team time. Templates for specific tasks such as responsibility charting, management of change, collaborative innovation and risk mitigation are also available.
- Innovation Ecosystem Universe: A work in progress to bring to light innovation complexity and opportunities.



Harnessing the Power of Innovation Science: 2026 monograph series; content covered in my 2025 meta-innovation workshops



A deep dive into the art and science of innovation, this monograph series describes our practical framework (at the publisher, not yet displayed here) on the full innovation cycle. It builds on teamwork synergy, intelligence (human, physical and multimodal Gen agentic risk-mitigated AI), and enduring innovation success and failure lessons from inspiring innovators (from the teenager Louis Braille to Nobel, Pritzker, Fields and Turing medalists), science, technology, arts, culture, diplomacy, and business.

• Simplified Equation Illustrating the Critical Variables to Maximize the Value of Your Policy, Decision or Innovation Quality (substance), Acceptance (authority & stakeholders' buy-in), Execution and Risk tasks (equation below)

Simplified Equation of the Value of a Decision, a Policy or an Innovation

For complexity-reduction purposes and synergy via full-team participation (inclusion), we excluded both integrals and transform calculus. Let's postulate that a decision (an innovation or a policy) value depends, at least, on the 4 variables below, subject to Timing and explicit Assumptions, i.e. conditions, along the value chain, beyond specific leaders' control; which must prevail for value attainment. Each must be risk mitigated with contingency plans (e.g. insurance) for residual risks. The frequency of control should be calibrated for each task's risk, stakeholders' dynamics and context. The critical mass is the least number of people (e.g. influencers) whose active or tacit support is required to prevent a veto. The dominant coalition can, but rarely will, veto the decision.

Excerpt from: Harnessing the Power of Innovation Science: Leveraging generative Al, co-elevating team leadership, and great innovators' and your team's failure and success lessons. © 2012 Alain Paul Martin, Meta-Innovation Scientist & Chief Architect, Harvard University Global System™ (HUGS). HUGS was developed, mostly in Canada at The Professional Development Institute® PDI Inc. with an international team (Canada, EU, Mexico, USA), independently of Harvard University and is under trademark license. www.eharvard.org/pdi

- Harvard® Complete Risk-Management Roadmap & Practical Templates: proven in addressing original, residual and systemic risks and contingency plans, from stakeholders' adversity (Incl. systematic obstruction) to nuclear power risks
- Framework & Tools for Strategic Negotiators: Built to address client needs; and validated with my peers (lawyers, diplomats, executives...) in one of the 6 Harvard Law School's seminars I took including "Teaching Negotiation in the Corporation".
- Harvard[®] Practical Time Management: The Complete Roadmap for what matters most, including a life worth living
- Harvard® Planners: This patented and affordable innovation outperforms the competition in space and timesaving. Users
 can reschedule without rewriting details about tasks; and plan up to 10 events/hour without cluttering the next time line, in the
 pocket-sized version, and much more in larger Planners. From our sales, we remit a royalty to Harvard University, which goes
 exclusively to fund student scholarships. Thus, our clients contribute indirectly to Harvard University's scholarships.
- Stakeholder-Dynamics' Framework: Identifying, understanding and engaging the stakeholders (incl. those invisible but ubiquitous) is a frequent challenge in orchestrating large-scale transformation and change. Since perceptions are a reality in most people's minds, the first task is to apply anthropology to capture the myriad of vested-interest perceptions, without omitting those blurred by the fogs of knowledge deficit, disinformation, and extreme surprise events (be they favorable or tragic). The next task is to analyse (e.g. psychographics) and probe the driving forces (e.g. 10F Stakeholders' Dynamics' driving forces), before formulation your stakeholders' interaction strategy, often revealing a rich panorama of engagement and graceful-exit options.
- Multipurpose Mechanisms to Maximize & Fast-Track Creativity: With the clients' and peers' support, for over 15 years, We
 fine-tuned a novel framework and templates, to understand the issues at hand and stakeholders' dynamics; probe creative options with
 clarity for strategic thinking and innovation. We now explore Generative AI to improve creativity throughout innovation cycle.
 Our creativity-improvement and complexity-reduction tools enable everyone in a team to promptly share and probe plans and
 progress reports, across language boundaries. Thus everyone can master the finest details in projects and pilot-experiments
 (definition, estimating, scheduling, scarce-resource allocation, budgeting, earned value and progress management).

In countless firms, hard-working front-line workers and administrative assistants are among the high-potential professionals often left behind in innovation and management skills development. Users' experience with our instruments demonstrates that investing in this cohort is fair and economically viable to address human-resource scarcity and enhance full-team participation, informed collaboration, performance and competitiveness (user-testimonies video: www.eharvard.org/EA).

10. My Education and Co-op Internships

- Harvard Fellow, Advanced Leadership, Dec.. 2011- Dec. 2012 and Member, Harvard University ALI Coalition, 2017-Present Inter-faculty fellowship of six schools: Medicine, Public Health, Law, Business, Government and Education.
 I lectured on exemplary and co-elevating leadership; led value-incubation research in innovation science and strategic thinking. I led the Ivy-League Summit's Leadership Seminar, focusing both on self-leadership and leading knowledge teams Harvard Advanced Leadership Coalition's Ongoing Professional Development, 2012-2014 and 2017-Present Note: I was honored to be admitted as Harvard University's senior fellow (ALI) on the condition of terminating my pro-bono work with Dr. Paul Farmer's at PIH and Dean Julio Frenk (Public Health). I respectfully declined the offer on conscience grounds. My commitment to the University's mission and esteem for the students, faculty and my peers (ALI Fellows) has never wavered.
 - **a.** Deep Dive into Generative AI and Technology for Harvard ALI Fellows and ALI-Coalition Members, October 2024 Led by Harvard faculty members. Generative AI advantages and risks: how to use it, inner workings of Large Language
 - **b.** Three-Day Deep Dive into Technological Innovation: Digital Platforms, AI and Quantum Technologies, 2021 Profs. Anand, Doshi-Velez, Finney, Glassman, Hu, Keung, King, Meng, Reddi, Smith and Sweeney Models, e.g. ChatGPT, apps in several contexts, including the future of work and effective policy solutions.
 - C. MBA 2nd-Year Elective Courses on Leadership at Harvard Business School, as ALI Fellow's Cross-registrant (2012) Acting in Time against Disasters: Strategy and Leadership: Prof. Herman A. (Dutch) Leonard (2012) Power and Influence: Prof. Julie Battilana
 - **d.** Macroeconomic Policy; Financial Markets: Options for Deep Change; Recognizing & Managing New Risks in Supply Chains
 - **e.** Evolution of Democracy in Europe (up to the E.U. era) by Prof. Peter A. Hall, as ALI Fellow's cross-registrant
 - **g.** Seminar on Governance and Democracy featuring Soft Power by Prof. Joseph Nye (Kennedy School)

- **f.** Stéphane Bancel: Pivoting Research and Operations at Moderna. Harvard Business School, 2020 This was an excellent refresher on leadership in crisis and building resilient organizations in turbulent times
- Harvard Business School (HBS), OPM (Entrepreneurial Leadership, 27th Alumni Class), 1997-1999 Part Time
- "A transformative learning experience that boosts leadership skills and the value of participants' enterprises", as described by HBS. The opportunity to gain advanced business entrepreneurial skills; team up with peers; nurture friendships and become a member of both HBS and Harvard University alums' communities is a lifelong-learning privilege to advance professionally and give back, both in proximity and far away, in education, public health, environment, innovation, poverty eradication and world peace. I am grateful to my mentors and friends F. Warren McFarland, John Sviokla and the late Bruce Scott, who is sorely missed.
- Concordia University, Montreal: B. Commerce in Quantitative Methods (Operations Research), 4 years full time
- Advanced Technology (Technique supérieure) in France: Montbéliard (one year), Lille (2 years): full time in French Specialization in the manufacturing-processes design and quality-assurance engineering for mass production. Internships at:
 - a. Co-op Student, Peugeot France: I created innovations that improved the productivity and the ergonomic quality of work
 - **b.** TV Studio Acoustics' Quality-Assurance Engineering Intern at **Sender Freies Berlin** (now "Rundfunk Berlin-Brandenburg").
 - c. Mechanical/Aerospace High-Precision Technologist, Carleton University's Engineering Faculty
 - **d.** Cyclotron-Team Technologist, **University of Ottawa**, **Nuclear and Particle Physics Lab**, Built advanced targets for students and faculty. Also assisted graduate students and faculty in low-temperature physics experiments.

11. My Professional Development and Continuous Learning

- Ongoing Webinars on Generative, Predictive and Agentic AI, 2023-Present. See also all Section 8 (Previous page)
 - a. Re-Humanize: How to Build Human-Centric Orgs in the Age of Algorithms, INSEAD Prof. Phanish Puranam, June 2025
 - b. Generative & Transformative AI in finance, health, education and ecology: Mines Paris Tech, Manifold & Harvard University
 - **c.** Agentic SuperAI Catastrophic Risks: Nobel & Turing from Bengio (1, 2, paper), Hassabis, Hinton, Lecun and Kasirzadeh
- Negotiation and Mediation for Lawyers, Harvard Law School, Cambridge (MA)
 - **a.** Teaching Negotiation in the Organization, Prof. Roger Fisher, and MIT Prof. Lawrence Susskind
 - **b.** Negotiation for Senior Executives, Harvard-MIT-Tufts Inter-Faculty led by Profs. Roger Fisher and William Ury
 - **c.** Advanced Negotiation for Sr. Executives: Dealing with Difficult People and Difficult Situations, Bill Ury
 - **d.** Negotiation for Lawyers, Emeritus Prof. Roger Fisher; **e.** Advanced Negotiation for Lawyers, Prof. Bruce Patton
 - **f.** Mediation (Harvard Law School) and Strategic Negotiation (Harvard-ALI), both with Prof. Robert Mnookin
- Massachusetts Institute of Technology (MIT), Cambridge
 - a. 2012 Harvard cross-registrant and Case Presenter for Prof. Olivier de Weck, MIT Engineering, System Project Management
 - **b.** Managing Complex Product Development Projects, MIT Sloan School of Management
 - C. Change Management (5 workshops), Sloan School, Profs. Richard Beckhard, John Carroll, Richard Larson and Ed Schein
 - d. Government Programs' Evaluation, MIT Sloan School, Profs. Arnold Barnett, Martin Rein and Mark Thompson
- Strategy: Building and Sustaining Competitive Advantage, Prof. Michael Porter, Harvard Business School
- Advanced Risk Assessment, Simulation and Real Options, Palisade, Ithaca, NY
 - a. Real Options Valuation (ROV) in Business-Strategy by Dr. Michael Rees (Oxford, Wilmott Award)
 - **b.** Risk and Decision Assessment using @Risk and the Decision Tools Suite, Dr. Michael Rees
- Gestalt Institute of Cleveland: 8 seminars: Gestalt psychology (theory, methods, organization development, group dynamics, change theory, intimate systems) by Richard Beckhard (2), John Carter (1), Elaine Kepner (1), C. Lukensmeyer (1) and Herbert Shepard (3)
- American Psychological Association: Cognitive-Behavior Modification & Therapy: B.F. Skinner & Donald Meinchenbaum (Waterloo)
- 2020-21 University of Miami's Business School: Participant in the Knight Venture Leaders' Lectures, featuring influential forces in business, technology, arts and ecosystem sciences, including Nobel laureates, CEOs, trailblazers and cultural icons

12. Professional Societies' Memberships

- Société de mathématique de France (SMF): Member
- The American Association for the Advancement of Science (AAAS): Member
- Harvard University's Advanced-Leadership Coalition (ALI): Permanent Member

Past Memberships (to be renewed in the future with time permitting)

- Canadian Operation Research Society (CORS): Member & Conference Speaker (Toronto)
- Institute for Operations Research and the Management Sciences (<u>INFORMS</u>): Member
- Evaluation Research Society (ERS): Member & Conference Speaker (Washington)
 - Note: ERS and The Evaluation Network merged to form the American Evaluation Associations (AEA): See the next line.
- American Evaluation Association (AEA): Member
- Association of Computing Machinery (ACM): Member
- International Federation of Information Processing Societies (IFIP): Conference Speaker in Chicago, Las Vegas, Los Angeles, "Recognized by United Nations and other world bodies"
- American Evaluation Association (AEA)
- Project Management Institute (PMI): Member and Speaker (Atlanta, Boston, Washington)
- Harvard Faculty Club (HFC): Member
- Japan-Canada Trade Council, now with the Canadian Chamber of Commerce): Member
- Brazil-Canada Chamber of Commerce (CCBC): Member
- Jeunesses musicales de France (JMF): Member and Pro-bono concert organizer Montbéliard's (Doubs, France) youth
- Les Jeunesses Musicales Internationales (JMI): Summer volunteer (part time) in Berlin, Montreal, Paris and Vienna

References

- ¹. Skanska exited the software market to focus on its century-old general-construction core mission and related innovations. It closed Datech, its software-distribution subsidiary; ending our partnership. Subsequently, German and Skandinavian users requested and were provided PDI project-management and software support. Boliden, a distinguished Swedish mining company, sought a partnership with PDI; but our main contact, Mr. Rölf Olsson, went on early retirement, before sealing the accord. The system is now under Harvard University's trademark licence, in research mode to ethically and cautiously leverage predictive, generative and agentic AI. Our goal is to digitize, as an open-ended element of HUGS network, each roadmap with its templates, algorithms and equations, as outlined here in Section 6. "Current Intellectual-Property Pipeline". In the meantime, we harness the synergistic power of these tools, AI iterations and the meta-innovation lessons learned from trailblazers and practioners.
- ² Louis V. Gerstner Jr, Edward Herrmann, et al.: Who Says Elephants Can't Dance? ISBN: 978-0060523800. Harper 2003.
- ³ The designation "World Organization for Animal Health (WOAH)" to replace "Office of International Epizootics (OIE)" was Dr. Norm Willis' suggestion to fit the OIE's broader mission. Confirmed in my call June 2, 2026 to Dr. Willis, who wrote it OIE Strategic Plan (2000).

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