MIT Industrial Liaison Program Faculty Knowledgebase Report

2023 MIT Santiago de Chile Symposium

March 23, 2023 9:00 am - 12:30 pm

8:30 AM - 9:00 AM Registration

9:00 AM - 9:05 AM Welcome

9:05 AM - 9:10 AM Opening Remarks From AMSA

Ivan Arriagada President

Antofagasta Minerals S.A.

9:10 AM - 9:15 AM Remarks From Local Authority (TBD)

9:15 AM - 9:20 AM Introduction to MIT Klaus Schleicher

Director, MIT Industrial Liaison Program



Klaus Schleicher Director MIT Industrial Liaison Program

Klaus Schleicher joined the Office of Corporate Relations in 2013. He has a Global Operations and Technology background that has delivered rapid profitable growth in the imaging systems, speech recognition, IT security and consulting, digital printing & media industries. He has executive experience in Sales, Marketing, Product Development, Strategy and Business Development and has held senior positions at Universal Wilde, Presstek Inc., Consul Risk Management B.V. (IBM), Lernout & Hauspie (Nuance), Agfa (Bayer Corp.) and Honeywell Inc. He holds a Master Degree in Computer Science and Engineering, from the Technical University of Giessen in Germany.

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9:20 AM - 10:00 AM Innovation at Antofagasta Minerals S.A.

Alan Muchnik Vice President Strategy and Innovation Grupo Antofagasta Minerals Harnessing the Power of Innovation Ecosystems Michael Davies Chairman, Endeavour Partners Senior Lecturer, MIT System Design and Management



Michael Davies Chairman, Endeavour Partners Senior Lecturer MIT System Design and Management

Michael A M Davies teaches the engineering and business elements of the Integrated Design and Management (IDM) program at MIT

Michael A M Davies is the founder and chairman of Endeavour Partners, a boutique business strategy consulting firm that enables leaders in high-tech businesses and businesses being affected by technology worldwide to create value and drive growth through innovation. Endeavour Partners helps its clients anticipate, navigate, and innovate through insight and foresight in order to make better strategic decisions.lts clients include nearly all of the top-tier device vendors, network operators, service providers, and semiconductor businesses. Beyond high-tech, its clients include some of the world's leading e-commerce, information services, oil and gas, packaging and logistics businesses, along with world-class sports teams.

He is an expert on the connections between technology, innovation, product development, consumer choice and behavior, the adoption and diffusion of new products, intellectual property, and the emergence and evolution of platforms and business ecosystems. Michael has spent his career helping top management make strategic decisions and drive innovation. Nowadays, he is focused on the rapid shift toward smartphones, cloud services, the Internet of Things, artificial intelligence, and robotics, particularly the forces driving this shift and its impact and implications over the next few years.

Michael also runs the New Technology Ventures program at the London Business School. Additionally, he is an Advisor to the Department of Systems Engineering at the United States Military Academy at West Point.

He also is a co-founder and the Chairman of silverthread, Inc., and angel-baked business commercializing research on software engineering from MIT and Harvard Business School, a member of the Board of the Kendall Square Association, the business group for this world leading innovation hub, the Chairman of the Mobile Cluster for Massachusetts Technology Leadership Council and an advisor to several other companies on digital business.

The value of open innovation, harnessing the power of innovation ecosystems, is well known. Academic research and empirical evidence establish, however, that the key to maximizing return on investment from participation in innovation ecosystems is what you do inside your own business, investing in absorptive capacity, organizing for ambidexterity and building acuity.

10:40 AM - 11:10 AM

Coffee Break

MIT Startup Exchange, Supporting the Innovation Ecosystem Catarina Madeira



Catarina Madeira
Director
MIT Startup Exchange

Catarina has been working with the Cambridge/Boston startup ecosystem for over 10 years and joined Corporate Relations with a solid network in the innovation and entrepreneurial community. Prior to MIT, she was part of the team that designed and launched the startup accelerator IUL MIT Portugal, which was later rebranded as Building Global Innovators. She was based in Lisbon and worked in direct relation with the Cambridge team. She held positions including Operations Coordinator, Program Manager, and Business Developer. The accelerator soon achieved steady growth in large part due to the partnerships that Catarina led with regional and global startup ecosystems. After that, she worked at NECEC, leading a program that connects cleantech startups and industry. In this role, she developed and built a pipeline of startups and forged strong relationships with both domestic and European companies. She has also held positions in Portugal and France, including at Saboaria e Perfumaria Confiança and L'Oréal as Technical Director and Pharmacist. Catarina earned her bachelor's in chemistry and pharmaceutical sciences in Portugal. She went on to earn her Master of Engineering for Health and Medicines in France.

MIT has a thriving community of entrepreneurs and innovators. According to a 2015 report, living MIT alumni had launched 30,200 active companies, employing 4.6 million people and generating roughly \$1.9 trillion in annual revenues. The report, *Entrepreneurship & Innovation at MIT: Continuing Global Growth and Impact*, placed that revenue figure in the league of the world's largest national GDPs.

MIT-connected startups and entrepreneurs are supported by a strong ecosystem including many groups and programs across campus. Sitting at the intersection of startup innovation and industry, MIT Startup Exchange offers access to over 1,000 MIT-connected startups. Each year, Startup Exchange facilitates hundreds of targeted introductions between MIT-connected startups and our corporate ILP members. Why and how do these corporates engage with startups at MIT? How does Startup Exchange effectively support corporates and startups? What are the success stories?

11:50 AM - 12:30 PM

Inventing and Building Technology Organizations Systematically - From Deep Tech to Impact Starting With What You Already Have Luis Perez-Breva Rafael del Pino Chair Innovator, Educator, Author, Al Problem Solver MIT Faculty Director, MIT Innovation Teams



Luis Perez-Breva Rafael del Pino Chair Innovator, Educator, Author, Al Problem Solver MIT Faculty Director MIT Innovation Teams

Luis Perez-Breva, PhD (http://linkedin.com/in/lpbreva) is an innovator, entrepreneur, educator and the author of <code>Innovating: A Doer's Manifesto</code> (The MIT Press, 2017). He is an expert in technology innovation, venture labs, taking deep tech to impact, and applying artificial intelligence to solve real-world problems. He has enjoyed success with inventions and new companies in security, telecom, fintech, and genetics to name some. Chiefly among them is the Al-based system to locate 911 calls in case of emergency deployed worldwide. His work has been featured by the Wall Street Journal, Bloomberg News, BBC, Wharton Business Radio, Entrepreneur, Zdnet, Quartz, Epsilon Theory and several other national and international media.

Currently, Luis is the Faculty Director of Innovation Teams (iTeams http://iteams.mit.edu), MIT's flagship joint enterprise between MIT Engineering and MIT Sloan to put the Institute's deep tech advances to work to solve real-world problems. Through iTeams, he has helped nearly 200 MIT technologies find a path to impact leading to the formation of some 40 new, enduring deep tech companies across all industries from mining to telecommunications.

Luis has worked with venture capital and numerous corporations and adapted his work to develop innovating factories. Currently, Luis is developing a technology repurposing fund to rescue, recycle, and, in essence, turn around technologies analogous to how private equity seeks to turn around companies.

Dr. Perez-Breva holds a PhD in artificial intelligence from MIT and degrees in chemical engineering, physics, and business from leading universities in Spain (Institut Quimic de Sarrià), France (Ecole Normale Supérieure), and the United States (MIT). In 2011, the Spanish government recognized his career achievements by awarding him the Order of Civil Merit of the Kingdom of Spain.

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Contrary to popular belief, building a robust technology organization doesn't hinge on having a good (exponential?) idea but on surviving all your bad ones – systematically.

Most would rally behind the belief that technology ought to change the world for the better—solve problems that matter! Innovation!. That is all fine and well except that the last two decades of innovation methods don't explain how to do any of that. And yet, using technology to level the playing field, doing good and doing well, and learning to invent and innovate with what you have are the kind of superpowers many hope for when the word innovation is invoked.

I've spent the last two decades wrestling with the question of how to do innovation, not just how it happens, or how it threatens what you do, but what it means and how do you do it. Along this time I've shepherded over 200 technologies from MIT (Deep tech!) to impact; educated thousands at MIT and worldwide across all disciplines from policy to business and engineering on how to innovate; helped translate research into societal meaning; built factories of innovation in industry and venture capital where we systematically invent and create new organizations; and have built technology companies myself using artificial intelligence to derive new uses from existing large scale infrastructures.

I'd very much like to engage you in a conversation about what about innovation, if anything, may be useful to you as we start the post-pandemic reconstruction—we've had enough disruption already. I'll draw from my experience at MIT and building innovation factories to discuss how to innovate efficiently with technology; that is, how to conceive diversified technology organizations, how to meaningfully de-risk them, and what it takes to scale up a robust organization. To make the conversation lively, I'd like to ask you to entertain three ideas that I believe should be straightforward but that the way we went about innovation before the pandemic has made look contrarian:

- 1. The organizations that survive are the ones that fail to fail. Failing fast does not prepare you for that.
- 2. Spending little by little is a tried and tested method to waste money without