

MIT Industrial Liaison Program Faculty Knowledgebase Report

2023 MIT Melbourne Symposium

July 4, 2023 8:30 am - 4:45 pm

8:30 AM Registration

9:00 AM Introduction
Ash Richter
Principal, Innovation & Ventures: Strategy & Integration
[BHP](#)

9:01 AM Welcome to Country
Wurundjeri Man Colin Hunter Jnr

9:10 AM Welcome to Conference
Ron Spangler
Director, [MIT Corporate Relations](#)



Ron Spangler
Director
[MIT Corporate Relations](#)

Ron Spangler serves as the Director of Corporate Relations, managing a diverse portfolio of companies in the mining, energy, aerospace, and defense sectors. Before joining MIT Corporate Relations, Ron dedicated two decades to an industry career, primarily focusing on various MIT-connected startup companies. In 1994, he earned his doctorate in Aeronautics and Astronautics from MIT, and his extensive contributions include numerous publications and patents. Notably, Ron is also an FAA-licensed pilot with a glider rating.

Paul Perry
Vice President –Innovation & Ventures Portfolio Strategy & Development
[BHP](#)

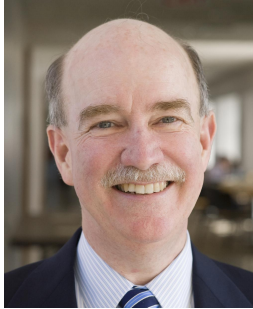
9:25 AM Opening Keynote
Laura Tyler
Chief Technical Officer
[BHP](#)

9:45 AM

Panel Discussion: Mine of the Future – Challenges and Opportunities

Harshita Gupta
BHP Innovation MinAu
[BHP](#)

Robert Armstrong
Chevron Professor of Chemical Engineering
Director, [MIT Energy Initiative \(MITEI\)](#)



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[MIT Energy Initiative \(MITEI\)](#)

Professor Robert C. Armstrong directs the [MIT Energy Initiative](#), an Institute-wide effort at MIT linking science, technology, and policy to transform the world's energy systems. A member of the MIT faculty since 1973, Armstrong served as head of the Department of Chemical Engineering from 1996 to 2007. His research interests include polymer fluid mechanics, rheology of complex materials, and energy.

Armstrong has been elected into the American Academy of Arts and Sciences (2020) and the National Academy of Engineering (2008). He received the Founders Award for Outstanding Contributions to the Field of Chemical Engineering (2020), Warren K. Lewis Award (2006), and the Professional Progress Award (1992), all from the American Institute of Chemical Engineers. He also received the 2006 Bingham Medal from the Society of Rheology, which is devoted to the study of the science of deformation and flow of matter,

Armstrong was a member of MIT's [Future of Natural Gas](#) and [Future of Solar Energy](#) study groups. He advised the teams that developed MITEI's most recent reports, [The Future of Nuclear Energy in a Carbon-Constrained World](#) (2018) and [Insights into Future Mobility](#) (2019), and is co-chairing the new MITEI study, [The Future of Storage](#). He co-edited [Game Changers: Energy on the Move](#) with former U.S. Secretary of State George P. Shultz.

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Christine Gibbs Stewart
CEO
[AustMine Limited](#)

Katie Hulmes
Head of Transformation and Think & Act Differently
[BHP](#)

Gavin Yeates
Mining Futurist
[Copper for Tomorrow](#)

10:45 AM

Coffee & Networking

11:00 AM

Keynote: Decarbonizing the Energy and Mining Sectors

Robert Armstrong

Chevron Professor of Chemical Engineering

Director, [MIT Energy Initiative \(MITEI\)](#)



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11:30 AM

MIT's Program of Corporate-Startup-Academic Engagement

Catarina Madeira

Director, [MIT Startup Exchange](#)



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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.

11:45 AM

Startup Lightning Talks

Daniel Stack
Co-Founder and CEO
[Electrified Thermal Solutions](#)

Edward Cubero
Strategy and Business Development
[Amogy](#)

Joel Jean
CEO and Co-Founder
[Swift Solar](#)

Ralph Wiser
Director of Product Development
[Mantel Capture](#)

James Benetatos
Head of Business Development
[Quaise Energy](#)

Braden McGrath
Founder
[Prism Neuro](#)

Joe Kenrick
Trailblazer Project Manager
[Lunar Outpost](#)

Keaton Okkonen
Co-Founder & CEO
[Black.ai](#)

Ian McCulloch
Auric

Wilco Volwerk
ANZ Energy & Mining Industry Manager
[Mathworks](#)

Dave Sammut & Afsha Awramenko
Founder & Managing Director
[Loop Hydromet](#)

12:45 PM

MISTI-Australia
Sean Gilbert
Managing Director, [MIT-Australia & New Zealand Program](#)



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Managing Director
[MIT-Australia & New Zealand Program](#)

Sean Gilbert is the Managing Director of the [MIT-China Program](#), [MIT-Singapore Program](#), and the [MIT-Australia & New Zealand Program](#).

Sean is responsible for developing projects across this Asia Pacific region with MIT students, faculty, and institutional partners. Key programs include the MIT Greater China Fund for Innovation; the Fung Scholars Program; the MIT Hong Kong Innovation Node-MISTI Collaboration, the MIT-China Educational Technology Initiative (CETI); and the MIT-China Forum. Sean founded the Singapore (2002) and Australia & New Zealand (2013) programs and is working on expanding MISTI Southeast Asia initiatives. Gilbert also manages the MIT Department of Electrical Engineering and Computer Science / MISTI partnership: EECS International/MISTI.

Prior to arriving at MIT in 2000, Sean co-founded EcoTrends International Co., Ltd in Taipei, importing environmental technologies and products for Taiwan construction sites (1997-2000); and worked for the Panvest Group's Offshore Investment Department, supervising Taiwanese-owned hotels in Hawaii and automotive and data processing joint ventures in Jinan, Shandong Province (1993-1997). Gilbert has also worked in New York as a reinsurance broker at Guy Carpenter & Company, placing European facultative and East Asian treaty risks with international reinsurance companies (1984-1986).

Sean holds a Master of Arts in Chinese Studies and a Princeton-in-Asia Teaching Certificate from Princeton University and a Bachelor of Arts in East Asian Studies & Chinese, with a Minor in Southeast Asian Cultural Anthropology, from New York University. He learned to speak Chinese initially through two years of language studies at National Taiwan Normal University (Mandarin Training Center) and Taipei Language Institute. Born in Shrewsbury, England; early childhood in Indooroopilly, Queensland, Australia; grew up in Sea Cliff, New York; studied and worked for 10+ years in East Asia.

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12:50 PM

Lunch with Startup Exhibition

2:05 PM

Role of Accelerators and Corporate Ventures in Innovation Ecosystems

Scott Stern

Professor, Technological Innovation, Entrepreneurship, and Strategic Management

David Sarnoff Professor of Management of Technology, [MIT Sloan School of Management](#)



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[MIT Sloan School of Management](#)

Scott Stern is the *David Sarnoff Professor of Management* at the MIT Sloan School of Management.

Stern explores how innovation and entrepreneurship differ from more traditional economic activities, and the consequences of these differences for strategy and policy. His research in the [economics of innovation and entrepreneurship](#) focuses on [entrepreneurial strategy](#), [innovation-driven entrepreneurial ecosystems](#), and [innovation policy and management](#). Recent studies include the impact of clusters on entrepreneurship, the role of institutions in shaping the accumulation of scientific and technical knowledge, and the drivers and consequences of entrepreneurial strategy.

Stern has worked widely with practitioners in bridging the gap between academic research and the practice of innovation and entrepreneurship. This includes advising start-ups and other growth firms in the area of entrepreneurial strategy, as well as working with governments and other stakeholders on policy issues related to competitiveness and regional performance. In recent years, Stern has developed a popular new MIT Sloan elective, [Entrepreneurial Strategy](#), co-founded the [MIT Regional Entrepreneurship Acceleration Program](#), advised the development of the [Social Progress Index](#), and served as the lead MIT investigator on the [US Cluster Mapping Project](#).

Stern started his career at MIT, where he taught from 1995 to 2001. Before returning to MIT in 2009, he held positions as a Professor at the Kellogg School of Management and as a Non-Resident Senior Fellow at the Brookings Institution. Stern is the director and co-founder of the [Innovation Policy Working Group](#) at the National Bureau of Economic Research. In 2005, he was awarded the [Kauffman Prize Medal for Distinguished Research in Entrepreneurship](#).

Stern holds a BA in economics from New York University and a PhD in economics from Stanford University.

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2:35 PM

Panel Discussion: How Can Corporate Innovation in Mining Break Buzzwords, Silos, and Paradigms to Create Material Value (Social and Financial) for the Mining Sector, Our Entrepreneurial Partners, and Our People?

Maríel Rentería
Principal Innovation
[BHP Innovation Sustainability](#)

Ian Davis
Serial Investor at Epona's Dreams
Agent of Change
[Deloitte](#)

Renee Hakendorf
[CORE Innovation Hub](#)

Paul Perry
Vice President – Innovation & Ventures Portfolio Strategy & Development
[BHP](#)

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3:35 PM

Coffee & Networking

- 3:50 PM Short Talk - Preview the Global Entrepreneurship Congress (GEC)
Warwick Peel
GEC
- 4:00 PM Panel Discussion: How Australia Can Leverage the Space, Defence and Mining Sectors to Accelerate Innovation
- Ash Richter
Principal, Innovation & Ventures: Strategy & Integration
[BHP](#)
- Simon Barraclough
Director - Systems Engineering National Programs
[Australian Space Agency](#)
- Jeffrey Bourne
Director Innovation Strategy & Development
[Defense Australia](#)
- Michelle Keegan
Deputy Chair Resources Advisory Board
Program Director
[AROSE](#)
- Joseph Kenrick
Project Manager
[Lunar Outpost](#)
- 5:00 PM Closing Remarks
- Ash Richter
Principal, Innovation & Ventures: Strategy & Integration
[BHP](#)
- 5:10 PM Reception With Canape & Drinks