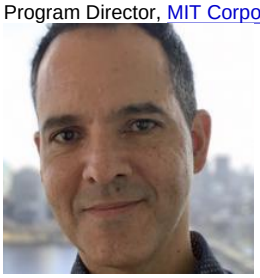
MIT Industrial Liaison Program Faculty Knowledgebase Report

Manufacturing and Supply Chain

May 22, 2025 12:00 pm - 1:00 pm

12:00 PM

Opening Remarks
José Ramos
Program Director, MIT Corporate Relations



José Ramos
Program Director
MIT Corporate Relations

José Ramos comes to CR from OSRAM (R&D), where he was Head of Engineering and Business Development at Innovation Americas. In his role at OSRAM, Ramos was a strong proponent of the ILP, attended many of our events, and experienced first-hand the OSRAM-ILP relationship. Before OSRAM, Ramos was Project Developer at NORESCO/United Technologies in Westborough, MA, where he managed engineering, sales, marketing, financial and legal teams to implement sustainability projects for industrial, commercial, and institutional customers in the US and the Caribbean. Before that, Ramos was an independent technology consultant for many years focused on Spanish-speaking markets. Ramos has also held positions as Lecturer at MIT (Spanish), Engineering Manager (Shooshanian Engineering), and Mechanical Engineer for Central America and Caribbean projects (Stone & Webster).

Ramos earned a Bachelor of Science in Mechanical Engineering at MIT and a Master of Arts in Spanish at Boston College. He also completed a one-year Icelandic language program at the University of Reykjavik.

12:03 PM

Survive or Thrive? The Future of Supply Chains in a Volatile World

Chris Mejía Argueta

Global supply chains are increasingly vulnerable to disruptions like climate change, highlighting the need for a deeper understanding of resilience strategies. During the presentation, Dr. Mejia will present the effect of behavior in making decisions, which often increases waste. We will explore the tradeoffs in taking actions for perishable items and understand the role of Triple-A capabilities—agility, adaptability, and alignment—in mitigating the negative impacts of significant disruptions on corporate performance and guiding capacity improvement after a disruption. Dr. Mejia will present a case study analyzing the movement of agri-food cargo in an international network of ports, which uses millions of data rows to explore how adaptability and alignment strategies can make supply chains more resilient and efficient. Other mitigation strategies will be presented to the audience for reflection.

12:23 PM

Nanostores - Logistics Challenges

Camilo Mora

Nanostores—small, informal grocery outlets—are the backbone of retail in emerging markets, providing essential goods to billions of consumers and serving as a primary source of income for millions of families. However, their integration into modern supply chains presents significant last-mile logistics challenges. This presentation examines the inefficiencies in current distribution models, the impact of curbside availability on delivery productivity, and the economic, social, and environmental benefits of dedicated loading-unloading zones. Drawing on field research and real-world case studies, Mora will explore strategic, tactical, and operational solutions to optimize urban last-mile deliveries for the world's largest retail channel.

Last-Mile Logistics for Nanostores in Emerging Markets:

- Nanostores as the Final Link in Supply Chains
- Operational Challenges in Last-Mile Deliveries to Nanostores
- The Parking Problem: How Curbside Availability Affects Productivity
- The Economic, Social, and Environmental Impacts of Loading-Unloading Zones in Emerging Markets

12:43 PM

MIT Startup Exchange Introduction

12:44 PM

NetaCarbon: Product Packaging Compliance

Mar Velasco

Grace Lam

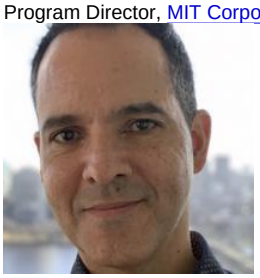
12:51 PM

Helix Carbon: Decarbonizing the Materials Supply Chain

Evan Haas

12:58 PM

Closing Remarks
José Ramos
Program Director, MIT Corporate Relations



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1:00 PM

Adjournment