

## MIT Industrial Liaison Program Faculty Knowledgebase Report

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2021 MIT Paris Symposium

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November 3, 2021 8:00 am - 1:00  
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8:00 AM

Welcome Café + Croissants

8:15 AM

Welcome and Introduction  
Christophe Lienard  
Group Chief Innovation Officer, [Bouygues](#)



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Group Chief Innovation Officer  
[Bouygues](#)

Christophe Lienard joined the Bouygues Group in 2011 and was appointed Chief Innovation Officer for Bouygues SA in September 2017. From 2013 to 2017, he was Chief Innovation Officer at Colas, one of the world leaders in mobility infrastructures, and created and ran the Colas Innovation Board. In October 2015, Colas announced the launch of Wattway to produce photovoltaic energy from roads, which won the climate solution trophy at COP21. Previously, Lienard was Deputy CEO and Director of the Anovo Group from and earlier started his career with the Swedish group Atlas Copco. Lienard is a graduate from "Arts et Métiers ParisTech," a National Graduate Engineering School engineer, has an advanced degree from UPMC Paris on energy conversion, and an Executive MBA from ICG. He is cofounder of the think tank Futura Mobility, cofounder and Vice President of IMPACT-AI, and a member of the Scientific Committee of the Global Center for the Future.

Karl Koster  
Executive Director, MIT Corporate Relations  
Director, Alliance Management  
MIT Office of Strategic Alliances & Technology Transfer



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Karl Koster is the Executive Director of MIT Corporate Relations. MIT Corporate Relations includes the MIT Industrial Liaison Program and MIT Startup Exchange.

In that capacity, Koster and his staff work with the leadership of MIT and senior corporate executives to design and implement strategies for fostering corporate partnerships with the Institute. Koster and his team have also worked to identify and design a number of major international programs for MIT, which have been characterized by the establishment of strong, programmatic linkages among universities, industry, and governments. Most recently these efforts have been extended to engage the surrounding innovation ecosystem, including its vibrant startup and small company community, into MIT's global corporate and university networks.

Koster is also the Director of Alliance Management in the Office of Strategic Alliances and Technology Transfer (OSATT). OSATT was launched in Fall 2019 as part of a plan to reinvent MIT's research administration infrastructure. OSATT develops agreements that facilitate MIT projects, programs and consortia with industrial, nonprofit, and international sponsors, partners and collaborators.

He is past chairman of the University-Industry Demonstration Partnership (UIDP), an organization that seeks to enhance the value of collaborative partnerships between universities and corporations.

He graduated from Brown University with a BA in geology and economics, and received an MS from MIT Sloan School of Management. Prior to returning to MIT, Koster worked as a management consultant in Europe, Latin America, and the United States on projects for private and public sector organizations.

Eduardo Garrido  
Program Director, [MIT Industrial Liaison Program](#)



8:30 AM

Succeeding in Periods of Non-Linear Change  
Steven Spear  
Senior Lecturer, MIT Sloan School of Management  
Senior Fellow, Institute for Healthcare Improvement  
Principal, See to Solve LLC



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How some organizations generate value faster than others, with rewards for all stakeholders, is the focal question for Steve Spear (DBA MS MS), senior lecturer at MIT, author of *The High Velocity Edge*, and patent holder for the See to Solve Real Time Alert System. Winners create new knowledge and skills faster—ideally, everyone discovering something new always. These ideas have been expounded across *Harvard Business Review*, *Annals of Internal Medicine* and *Academic Medicine*, *School Administrator*, and *Proceeding of the US Naval Institute*. Proofs in practice include Pratt and Whitney's winning the F-35 engine contract, the Pittsburgh Regional Healthcare Systems "Perfecting Patient Care System," standing up the Alcoa Business System, and development/promotion of the Navy's High Velocity Learning initiative.

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Even before the social and economic disruptions of the pandemic, we were already in a period of non linear changes—huge advances in data sciences for retrospective (machine learning) and predictive (artificial intelligence) modeling and a revolution in biotech to name but a few all in the context of an international order trying to reconfigure its multipolarity and domestic situations being buffeted by once in a generation social fluxes. Non-linear change is particularly vexing; our past is abruptly a poor predictor of our future yet we still have to navigate ourselves and our organizations so they maintain a high degree of social relevance.

Fortunately, even if we cannot extrapolate experience into prediction, we can discover where we need to go and how to get there by building mechanisms for fast and frequent exploration and prospecting of unfamiliar situations. Done rigorously and reliably enough, we can push out quickly the frontiers of where we are comfortable and confident operating.

These points about why and how to discover our paths forward in highly unfamiliar times will be illustrated by examples drawn from various sectors—high-tech, services, governmental and public sector operations, and others. The objective is that participants will be exposed to a number of useful frameworks, the use of which in their own situations will offer clarity on how to manage in situations that are otherwise unfamiliar.

9:00 AM

Inventing and building technology organizations systematically

Luis Perez-Breva

Rafael del Pino Chair

Innovator, Educator, Author, AI Problem Solver

MIT Faculty Director, [MIT Innovation Teams](#)



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Luis Perez-Breva, PhD (<http://linkedin.com/in/lpbreva>) is an innovator, entrepreneur, educator and the author of *Innovating: A Doer's Manifesto* (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 AI-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.

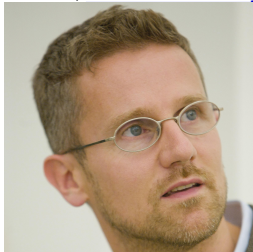
I've spent the last two decades wrestling with the question of how to **do** innovation, not just how it happens, or how it threatens what you do, but what it means and how do you do it. Along this time I've shepherded over 200 technologies from MIT (Deep tech!) to impact; educated thousands at MIT and 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.

Join us for a conversation about what it takes to conceive, invent, design, plan, de-risk and ultimately build organizations that use technology as a tool to solve problems that matter sustainably. That is doing well and doing good.

9:30 AM

Senseable Cities  
Carlo Ratti  
Director, [MIT Senseable City Lab](#)



Carlo Ratti  
Director  
[MIT Senseable City Lab](#)

An architect and engineer by training, Professor Carlo Ratti teaches at the Massachusetts Institute of Technology (MIT), where he directs the Senseable City Lab, and is a founding part-ner of the international design and innovation office Carlo Ratti Associati. He graduated from the Politecnico di Torino and the École Nationale des Ponts et Chaussées in Paris, and later earned his MPhil and PhD at the University of Cambridge, UK.

A leading voice in the debate on new technologies' impact on urban life and design, Car-lo has co-authored over 500 publications, including "The City of Tomorrow" (Yale University Press, with Matthew Claudel), and holds several technical patents. His articles and interviews have appeared on international media including The New York Times, The Wall Street Journal, The Washington Post, Financial Times, Scientific American, BBC, Project Syn-dicate, Corriere della Sera, Il Sole 24 Ore, Domus. His work has been exhibited worldwide at venues such as the Venice Biennale, the Design Museum Barcelona, the Science Museum in London, MAXXI in Rome, and MoMA in New York City.

Carlo has been featured in Esquire Magazine's 'Best & Brightest' list and in Thames & Hud-son's selection of '60 innovators' shaping our creative future. Blueprint Magazine included him as one of the '25 People Who Will Change the World of Design', Forbes listed him as one of the 'Names You Need To Know' and Fast Company named him as one of the '50 Most Influen-tial Designers in America'. He was also featured in Wired Magazine's 'Smart List: 50 people who will change the world'. Three of his projects – the *Digital Water Pavilion*, the *Copenhagen Wheel and Scribit* – have been included by TIME Magazine in the list of the 'Best Inventions of the Year'.

Carlo has been a presenter at TED (in 2011 and 2015), program director at the Strelka Insti-tute for Media, Architecture and Design in Moscow, curator of the BMW Guggenheim Pavilion in Berlin, and was named Inaugural Innovator in Residence by the Queensland Government. He was the curator of the Future Food District pavilion for the 2015 World Expo in Milan and chief curator of the "Eyes of the City" section at the 2019 UABB Biennale of Architecture and Urbanism of Shenzhen. He is currently serving as co-chair of the World Economic Forum's Global Future Council on Cities and Urbanization.

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The way we live, work, and play is very different today than it was just a few decades ago, thanks in large part to a network of connectivity that now encompasses most people on the planet. In a similar way, today we are at the beginning of a new technological revolution: the Internet is entering the physical space – the traditional domain of architecture and design – becoming an "Internet of Things" or IoT. As such, it is opening the door to a variety of applications that – in a similar way to what happened with the first wave of the Internet – can encompass many domains: from production to citizen participation, from energy to mobility to public hygiene, all of which requiring new insights due to the changes brought forth by the ongoing COVID-19 pandemic. The contribution from Prof. Carlo Ratti will address these issues from a critical point of view through projects by the Senseable City Laboratory, a research initiative at the Massachusetts Institute of Technology, and the design office Carlo Ratti Associati.

10:00 AM

Q&A

10:20 AM

Networking Break

10:40 AM

[Panel Discussion] Hands-on approach for innovation to improve our societies: A combined perspective: Corporations, Academics, Startups

Vincent Maret

Innovation Director, [Bouygues SA](#)



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Innovation Director  
[Bouygues SA](#)

Vincent Maret is Open Innovation Director with Bouygues SA, where he focuses on open innovation, business development, and business transformation consulting across the whole group, with an emphasis on digital transformation, energy, and smartcities. Maret has experience as Marketing Manager, Deputy R&D Director with Bouygues Telecom, and previously as a Project Executive with IBM Global Services. He was the founder and CEO of the US Office of Bouygues Telecom (now Winnovation). Maret serves on the board of directors of Bouygues Asia, is also a board member of Cap Digital, serving as president of its Membership Committee, and sits on the board of ESPCI alumni. Maret is a graduate of ESPCI ParisTech with a master's in physics and a master's in chemistry and holds a master's in electronics from UPMC Paris.

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Senior Lecturer, MIT Sloan School of Management  
Senior Fellow, Institute for Healthcare Improvement  
Principal, See to Solve LLC



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Luis Perez-Breva, PhD (<http://linkedin.com/in/lpbreva>) is an innovator, entrepreneur, educator and the author of *Innovating: A Doer's Manifesto* (The MIT Press, 2017). He is an

11:20 AM

## Startups Lightning Talks

**[Gataca](#)**: Building a new identity layer for the Internet

**[Boundless Digital](#)**: Bringing efficiency to enterprise IT network management through automation

**[Interpretable AI](#)**: Bridging the gap between performance and interpretability

**[Dawex](#)**: Facilitate and accelerate secure data circulation between economic stakeholders, institutions and private organizations.

**[Geoflex](#)**: Hypergeolocalisation everywhere, 4cm positioning on land, at sea and in the air

**[Mobilus](#)**: Full-stack voice and data solution to enable teams of any size, to connect at any distance, from any environment

Irene Hernandez

Founder & CEO

[Gataca](#)

Sidney Burks

Founder and CTO

[Boundless Digital](#)

Maxime Amram

Research Scientist

[Interpretable AI](#)

Ludovic Verdier

Senior Account Executive

[Dawex](#)

Romain Legros

CEO and Founder

[Geoflex](#)

Jordan McRae

Founder & CEO

[Mobilus](#)

11:50 AM

Closing Remarks  
Olivier Roussat  
Chief Executive Officer, [Bouygues](#)



Olivier Roussat  
Chief Executive Officer  
[Bouygues](#)

Olivier Roussat is a graduate of INSA – Lyon. He began his career in 1988 at IBM, where he occupied a number of positions in data network services, service delivery and pre-sales. He joined Bouygues Telecom in 1995 to set up the network management centre and network processes. He then became head of network operations and telecoms and IT service delivery. In May 2003, he was appointed network manager and became a member of the Executive Committee of Bouygues Telecom. In January 2007, Olivier Roussat took charge of the performance and technology unit which groups Bouygues Telecom's cross-disciplinary technical and IT departments, including networks, information systems, process engineering, purchasing, corporate services and property development. He was also given responsibility for Bouygues Telecom's headquarters and Technopôle buildings. Olivier Roussat became Deputy Chief Executive Officer of Bouygues Telecom in February 2007 and was appointed Chief Executive Officer in November 2007. He was then Chairman and Chief Executive Officer of Bouygues Telecom from May 2013 to November 2018, before being appointed Chairman of the Board of Directors of Bouygues Telecom on 9 November 2018. On 1 October 2019, he was appointed Chairman of the Board of Directors of Colas SA. On 30 August 2016, Olivier Roussat was appointed Deputy CEO of Bouygues and on 17 February 2021, he was appointed Chief Executive Officer of Bouygues.

12:00 PM

Networking Lunch with Startup Exhibit