

FUNDACIÓN
RAFAEL DEL PINO



Madrid, June 20 - 22, 2022

FIE 2022

Frontiers of Innovation and Entrepreneurship Ecosystem

Meeting of the FIE cohorts 2016-2022

in collaboration with

**MIT SLOAN
SCHOOL OF MANAGEMENT**



Frontiers of Innovation and Entrepreneurship

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Monday June 20, 2022

Rafael del Pino Auditorium, Madrid

- 15:45 **Welcome**
María del Pino, President of Rafael del Pino Foundation
- 16:00 **Introductory Remarks**
Mercedes Delgado, Associate Professor of Strategy and Innovation, Copenhagen Business School, and Research Scientist, MIT and **Emilio Castilla**, NTU Professor of Management, Co-Director of the Institute for Work and Employment Research, and Professor of Work and Organization Studies, MIT Sloan
- 16:30 FIE Session 1: **Scott Stern**, David Sarnoff Professor of Management, MIT Sloan
Innovation for Social Progress: A New Agenda for an Inclusive Spanish Entrepreneurial Ecosystem
- 18:30 Group photo & Break
- 19:00 Keynote: **Vladimir Bulovic**, Director, MIT.nano and Professor Office of the Vice President for Research, MIT
Frontiers of Innovation and Entrepreneurship in Nanotechnology
- 20:30 End of day

Tuesday June 21, 2022

Rafael del Pino Auditorium, Madrid

- 09:00 FIE Session 2: **Jessika Trancik**, Professor, Institute for Data, Systems, and Society, MIT
Technology Innovation for a Clean Energy Transition
- 11:00 Coffee Break / Networking
For the last 6 years, FIE seminars have brought together the most innovative Spanish thinkers and leaders, thus forming a community dedicated to analysing the latest developments in the field of innovation and entrepreneurship from a multi-sectoral perspective and, in particular, to share their experiences and knowledge with MIT's best professors and experts, allowing to understand the challenges faced by companies and institutions operating at the frontier of innovation.
- 11:30 FIE Session 3: **Martha L. Gray**, Professor, Electrical Engineering & Computer Science and Institute for Medical Engineering & Science, MIT
An Entrepreneurial Paradigm to Accelerate the Translation of Science to Impact
- 13:30 Networking Working Lunch: FIE Community and Speakers
- 14:30 Break
- 15:00 FIE Session 4: **Roberto Fernandez**, William F. Pounds Professor in Management, Professor, Work and Organization Studies, MIT
Perspectives on Organizational Change
- 17:00 End of day

Wednesday June 22, 2022

Rafael del Pino Auditorium, Madrid

- 09:00 FIE Session 5: **Emilio Castilla**, NTU Professor of Management, Co-Director of the Institute for Work and Employment Research, and Professor of Work and Organization Studies, MIT Sloan
[AI and People Analytics: New Approaches for Improving Talent Diversity and Work Outcomes](#)
- 11:00 Coffee break / Networking
- 11:30 [FIE Panel of Startups: Sustainable Business Models to Scale Up Startups](#)
Mercedes Delgado, Associate Professor of Strategy and Innovation, Copenhagen Business School, and Research Scientist, MIT Innovation Initiative
- Ángel Agudo, VP of Product and Member of the Board at Clarity AI
 - Robert Miller, Co-Founder and CEO of Skydweller Aero Inc
 - Pablo Rivas, CEO & Founder - Global Alumni
 - Ana Villanueva, Co-Founder and CEO Iberia of Tiko
- 13:00 Next Steps for the FIE Ecosystem and Closing Remarks
Mercedes Delgado, Associate Professor of Strategy and Innovation, Copenhagen Business School, and Research Scientist, MIT, **Emilio Castilla**, NTU Professor of Management, Co-Director of the Institute for Work and Employment Research, and Professor of Work and Organization Studies, MIT Sloan, and **Ana M.ª Cebrián del Pino**, Vice-President of Rafael del Pino Foundation
- 13:30 End of the event

LECTURERS



VLADIMIR BULOVIĆ

Vladimir is a Professor of Electrical Engineering at the Massachusetts Institute of Technology, holding the Fariborz Maseeh Chair in Emerging Technology. He directs the Organic and Nanostructured Electronics

Laboratory, co-leads the MIT-Eni Solar Frontiers Center, leads the Tata GridEdge program, and is the Founding Director of MIT.nano, MIT's nano-fabrication, nano-characterization, and prototyping facility. He is an author of over 250 research articles (cited over 50,000 times and recognized as the top 1% of the most highly cited in the Web of Science). He is a fellow of the National Academy of Inventors and an inventor of over 120 U.S. patents in areas of light emitting diodes, lasers, photovoltaics, photodetectors, chemical sensors, programmable memories, and micro-electro machines, majority of which have been licensed and utilized by both start-up and multinational companies. The start-up companies Bulović co-founded jointly employ over 350 people, and include Ubiquitous Energy, Inc., developing nanostructured solar technologies, Kateeva, Inc., focused on development of printed electronics, and QD Vision, Inc. (acquired in 2016) that produced quantum dot optoelectronic components. Products of these companies have been used by millions. Bulović was the first Associate Dean for Innovation of the School of Engineering and the Inaugural co-Director of MIT's Innovation Initiative, which he co-led from 2013 to 2018. For his passion for teaching Bulović has been recognized with the MacVicar Fellowship, MIT's highest teaching honor. He completed his Electrical Engineering B.S.E. and Ph.D. degrees at Princeton University.



EMILIO CASTILLA

Emilio is the NTU professor at the MIT Sloan School of Management, where he teaches courses in human resource management and employment practices. He joined MIT after being a faculty member in the Management

Department at the Wharton School of Business. He is the head of the Work and Organization Studies Group and co-director of the Institute for Work and Employment Research at MIT; he is also a research Fellow at the Center for HR at the Wharton School. He received his post-graduate diploma degree in business from the Management School in Lancaster University (UK) and his PhD in Sociology from Stanford University. His research focuses on the organizational aspects of work and employment. He is particularly interested in investigating how social and organizational processes influence key employment outcomes over time, and he tackles his research questions in a variety of empirical settings. Recently, his

work has focused on the role that merit and merit-based work practices play in shaping employees' careers in today's workplace. He has published chapters in several books as well as articles in a number of scholarly journals: "Gender, Race, and Meritocracy in Organizational Careers," *American Journal of Sociology* (2008), "The Paradox of Meritocracy in Organizations" (with S. Benard), *Administrative Science Quarterly* (2010), and "Bringing Managers Back In: Managerial Influences on Workplace Inequality," *American Sociological Review* (2011). His last book is titled *Dynamic Analysis in the Social Sciences*. He was awarded the W. Richard Scott Award for Distinguished Scholarship in 2001 and the Outstanding Publication in Organizational Behavior Award in 2011.



MERCEDES DELGADO

Mercedes is Associate Professor of Strategy and Innovation at Copenhagen Business School and Research Scientist at MIT. Delgado's research focuses on the relationship between the regional business

environment and the performance of inventors, firms, regions, and countries. She examines the role of regional clusters—geographic concentrations of related industries, firms, and supporting institutions—in job creation, innovation, entrepreneurship, inclusivity, and resilience. Delgado has developed new methods for defining and mapping industry clusters and the supply chain economy, providing tools to help firms, practitioners, and policymakers create regional and national strategies. In recent work, she explores the interaction between firm location choices through the value chain and firm performance. Delgado's work has been published in top economic, policy, and strategy journals. She has received a number of prestigious fellowships and research grants, including a Ph.D. fellowship from Fundación Rafael del Pino and a recent National Science Foundation grant on Mapping the Inventor Gender Gap. She recently served as a lead researcher on the US Cluster Mapping Project: Mapping a Nation of Regional Clusters. Delgado earned a PhD in Business Economics from the Universidad Complutense de Madrid and completed postdoctoral fellowships at Harvard Business School and the National Bureau of Economic Research's Innovation Policy and the Economy Group.



ROBERTO FERNANDEZ

Roberto is the William F. Pounds Professor in Management and a Professor of Organization Studies at the MIT Sloan School of Management. Fernandez currently serves as the co-director of the Economic

Sociology PhD Program and served as the head of the Behavioral and Policy Sciences area from 2008-2010. His research focuses on the areas of organizations, social networks, and race and gender stratification. Fernandez has extensive experience doing

field research in organizations, including an exhaustive five-year case study of a plant retooling and relocation. His current research focuses on the organizational processes surrounding the hiring of new talent using data collected in 14 organizations. He is the author of more than 50 articles and research papers published in top academic journals in his field. Fernandez holds a BA in sociology from Harvard University and an MA and a PhD in sociology from the University of Chicago.



MARTHA L. GRAY

Martha is the J. W. Kieckhefer Professor of Health Sciences and Technology, and Professor of Electrical Engineering and Computer Science at MIT. She has a multifaceted career in which she has built

programs to drive biomedical technology innovation, conducted research to better understand and prevent osteoarthritis, led a preeminent academic unit, and served the profession through work with organizations and institutions. Trained in computer science and electrical and biomedical engineering, and serving as an MIT faculty for three decades, she has held numerous leadership positions. For 13+ years, she directed the Harvard-MIT Division of Health Sciences and Technology (HST), an academic unit with multiple research and training programs for careers in medicine, business, and research. Dr. Gray currently directs MIT linQ which operates several multi-institutional ventures focus on accelerating and deepening early-career researchers' potential for impact. Over the course of these efforts, she and her team have established a principled methodology for needs identification and opportunity development, and an organizational model that fosters a vibrant multi-stakeholder community necessary for sustained local and global impact.



SCOTT STERN

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



JESSIKA TRANCIK

Jessika is a professor in the Institute for Data, Systems, and Society at the Massachusetts Institute of Technology. Her research examines the impacts of technologies and the reasons behind technological

change. She has developed theory and predictive models to understand why some technologies improve faster than others, and what technology features enable rapid innovation. Trancik has developed models for forecasting technological change, which inform engineering design, public policy, and investment portfolios. Several of her theories and models have been applied to new and developing energy technologies, such as solar energy and batteries, and to electricity and transportation systems. Her models have also been used to inform government innovation policy, and applied in diverse industries, including finance, manufacturing, software, and consumer products. Her work has been published in journals such as Nature, Proceedings of the National Academy of Sciences, Nature Energy, Nature Climate Change, and Environmental Science and Technology, and has been featured by news outlets such as the New York Times, Washington Post, Financial Times, and NPR.

PANEL OF STARTUPS



ÁNGEL AGUDO



Ángel is the VP of Product and a Member of the Board at Clarity AI. He joined the company in 2017, when it was founded, as the Head of Research. Clarity AI is headquartered in New York, and has received funding from SoftBank, BlackRock, Deutsche Börse, and other leading VCs. Clarity AI has won industry awards including special recognition from the World Economic Forum in 2020 as a Tech Pioneer. Prior to his role at Clarity AI, Ángel helped develop disruptive methodologies for firm impact measurement as aligned to the UN SDG. Before joining the corporate world, Ángel worked in academia, contributing to dozens of conferences, books and publications and serving as a visiting fellow at the Harvard University Center for Climate, Health, and the Global Environment. He also served as the youngest professor at the Polytechnic University of Madrid (UPM). He received a degree in Telecommunication Engineering and Business Administration, MSc in Innovation Management, and PhD in Economics from UPM. Ángel completed post-graduate programs in Entrepreneurship at Harvard and MIT Sloan.



ROBERT MILLER



Robert Robert is the CEO of Skydweller Aero, developing the world's largest solar powered aircraft (72 meter wingspan) in Albacete. Robert is an experienced aerospace executive with a history of successfully executing one of a kind projects, prototypes, and development programs from clean sheet design thru flight test. Experience with developing and executing business strategies in aerospace and defense industries. Previous roles include CTO, Vice President, Program Manager, Chief Engineer/Technical Director, and IPT lead. Extensive technical expertise in flight controls, algorithm development, flight software development, system identification, safety/reliability and vehicle management systems. Military and commercial aerospace experience. Experience in aircraft and space systems.



PABLO RIVAS



Having completed his undergraduate degree in Spain, Pablo continued his professional education in the US (at UC Berkeley, Loyola University Chicago, and Harvard). After obtaining an MBA, he embarked on a journey to discover what is necessary to transform higher education, and how to do it. He founded Global Alumni six years ago, in response to this challenge. Today, despite still having a long way to go, he can assure you that our steps have so far led us along the correct path. At Global Alumni, they work with some of the world's best universities. They convey their culture and knowledge by overcoming language and geographical barriers. Thanks to them, thousands of professionals have updated their skills to meet the requirements of the Fourth Industrial Revolution.



ANA VILLANUEVA



Ana is co-founder and CEO Iberia of Tiko, a proptech that is simplifying the way that people buy and sell their house offering, among other things, iBuying services (sell your house in just one week - hassle free).

Tiko currently operates in 10 markets across Spain and Portugal.

RAFAEL DEL PINO FOUNDATION

MARÍA DEL PINO



María holds a Bachelor in Economics and Business Administration (Universidad Complutense de Madrid); Management Development Program (IESE). Director of Ferrovial since 2006. Chairman of the Rafael del Pino Foundation. Legal representative of Menosmares, S.L. that holds the positions of rotating Chairman / Vice-Chairman of the Board of Directors of Casa Grande de Cartagena, S.A.U. and Vice-Chairman of the Board of Directors of Pactio Gestión, SGILC, S.A.U. Member of the Board of Trustees of the Princess of Asturias Foundation. Former member of the Governing Board of the Asociación para el Progreso de la Dirección and trustee of the Codespa Foundation and of the Fundación Científica de la Asociación Española contra el Cáncer. Ms. María del Pino is majority shareholder of the shareholder Menosmares, S.L.

ANA M.^a CEBRIÁN DEL PINO



Ana is the Vice-President of the Rafael del Pino Foundation. She holds a degree in Business Administration and Management (Comillas Pontifical University). She furthered her studies at Northeastern University (Boston); she obtained an MBA from McGill University-Desautels Faculty of Management. She has been the Director of the Online Business Channel at El Ganso S.A.; previously, she has worked as a Foreign Trade Technician at the Economic and Commercial Office of the Spanish Embassy in Warsaw, as an analyst in the Private Equity Department at Pactio Gestión Asset Management, and as a Senior Research Analyst at Brandywine Global.

VICENTE J. MONTES GAN



Vicente is the Director (CEO) of the Rafael del Pino Foundation, Vicepresident of the Spanish Association of Foundations, Founder and President of the NGO Liberdóm, member of the Board of Trustees of the NGO Flying Doctors AMREF HEALTH AFRICA, and member of the Editorial Boards of the academic magazine Información Comercial Española. Previous positions include: Vicepresident of the UN Global Compact Spanish Network; President of the Spanish State Economists & Trade Specialist Association; Economic and Commercial Counsellor at the Embassy of Spain in Angola, Namibia, Congo, DR Congo, Sao Tome and Principe and Zambia; Director at ICEX; and Deputy Director General of the Spanish Court of Competition. He has also been Professor of Economic Analysis (Carlos III University of Madrid) and Chairman of the Department of Economics of the Ateneo de Madrid. He holds a Bachelor in Economics (Autonoma University of Madrid), a Doctorate of Philosophy (School of Law, Complutense University of Madrid) and is Member of the European Academy of Sciences and Arts. He is member of the Spanish State Economist and Trade Specialist Corps, Officer of the Royal Order of Isabel La Católica, Leao de Oro of the Republic of Angola (AIA) and I Essay Prize Casa Africa.

CARLOTA TABOADA



Carlota is the Research & Online Programmes Director at the Rafael del Pino Foundation, being responsible for developing and testing new in-person and virtual formats for seminars, courses, and programmes that engage dynamic audiences in in-depth, meaningful experiences around the institution. Prior to this, she worked as Cultural Manager at Casa del Lector-GSR Foundation being responsible for disseminating the institution's philosophy with a strong commitment to collaboration and impact. Previously, she worked at Instituto Cervantes and Mumbai University (India). She holds a Bachelor's Degree in English Studies (University of Santiago de Compostela), an MPhil in Culture Studies (Carlos III University of Madrid), and an MPhil in Modern Languages & Education Research (University of Murcia).



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