Elad Passi
2nd year PhD student in Economics, Aix-Marseille School of Economics, France
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The letter of recommendation will be submitted by Professor Cecilia García Peñalosa.

February 10, 2026

NBER Innovation Research Boot Camp
Professors Kevin Bryan, Ina Ganguli, and Kyle Myers

Dear Professors Kevin Bryan, Ina Ganguli, and Kyle Myers,

I am drawn to the boot camp because I am eager to strengthen the conceptual and empirical grounding of my work in innovation, especially since I have never had formal training in the economics of innovation. I also hope to learn from the best scholars in the field and build meaningful collaborations with like-minded researchers who are fascinated by innovation.

I believe I am a worthy candidate, having completed both my bachelor's degree at the Open University of Israel and my master's degree at the Aix-Marseille School of Economics (AMSE) *magna cum laude*. My master's thesis, *Sex, Startups, and Success*, received second place in AMSE's Best Master Dissertation Award. These studies have shaped my PhD research to focus on how the entrepreneurial choices of R&D workers and their mobility across sectors - within a network framework - shape innovation and long-run growth, topics that align closely with the themes of the boot camp.

Beyond my academic training, I have gained experience at the intersection of policy, inequality, and innovation-related issues. I interned at Social Finance, an NPO based in Israel and the UK that promotes flows of capital toward solving social challenges, where I contributed to policy analysis and reports on employment programs targeting high-unemployment regions and initiatives to integrate minorities into the tech and startup sector. I later worked as an SAP financial consultant at Deloitte, helping firms implement integrated ERP systems. That experience gave me a practical view of how firms adopt new technologies, why some adopt more easily than others, and how internal frictions can shape the diffusion of technological tools. Before starting my PhD, I worked as an intern and external consultant at the OECD, in the Inequality Team of the Directorate for Employment, Labor and Social Affairs, where I helped draft reports and policies related to jobs and incomes of the middle class in the digital economy. I currently serve as a research-affiliated assistant at Startup Nation Policy Institute, a policy institute promoting a competitive, sustainable, and innovation-driven economy in Israel.

I believe that my background - coming from an innovation hub like Israel and working on projects related to labor, employment and innovation - makes me a strong fit for the boot camp.

Enclosed with this application are my curriculum vitae, a list of completed and current PhD courses, and my one-page research statement. Thank you very much for considering my application.

Sincerely,

Elad Passi

CV - Elad Passi

Marseille, France | eladpassi@gmail.com | +33 663717311 | **Nationality:** Israeli, Portuguese.

Education

PhD in Economics, Aix-Marseille School of Economics. 2024 – present

- Dissertation: "Essays on Innovation Networks"
- Advisors: Yann Bramoullé and Cecilia García Peñalosa.

M.A in Economics, Aix-Marseille School of Economics. *(magna cum laude)* 2024

B.A in Economics and Accounting, Open University of Israel. *(magna cum laude)* 2022

Experience

Start-Up Nation Policy Institute - Tel Aviv | Research fellow 2023 - present

OECD - Paris | Research intern (6 months) & external consultant (2 months) 2024
The Inequalities Team, Jobs and Income Division (JAI) with Sebastian Königs.

Deloitte - Tel Aviv & Marseille | Consultant (full-time) 2021 - 2023

Social Finance - Tel Aviv & London | Seasonal intern 2021

Research Interests

Growth Theory, Labor economics, Network Economics, Innovation.

Working Papers

Innovation networks and labor mobility *(Available upon request)*
Economists have long suspected that ideas travel with people, yet formal growth models typically assume that R&D labor reallocates without frictions, while search-and-matching models of the labor market rarely incorporate innovation. I develop a theoretical model in which scientists move across a network of scientific sectors. The mobility of a scientist to a new sector leads to knowledge diffusion in the economy, but it can simultaneously hurt the sector the scientist leaves, which loses a potentially productive researcher. I show that there exists an optimal level of scientists' mobility and that the structure of the network is crucial for knowledge diffusion and long-run growth. I then relate the model's predictions to the observed differences in the slowdown of productivity and output growth in Europe relative to the United States. In the model, a more flexible labor market with higher turnover (more job switching) can generate faster growth than a more rigid labor market with low mobility. The novel policy implication is to highlight how tools from labor economics—such as training programs, regulations, and contractual arrangements—can be powerful levers for innovation policy.

Work in Progress

- **Peers effect in startup founding**
- **Sex, Startups, and Success: Gender-Based Networks in Entrepreneurship** (2nd best master thesis award)

Awards and Grants

PhD grant, Aix-Marseille University, Aix-Marseille School of Economics 2024 - present

France Master Excellence Scholarship, French Ministry of Foreign Affairs 2022, 2023, 2024

Winner 1, outstanding performances, awarded by SAP and Deloitte as part of the YPP (Young Professional Program) 2022

Teaching

Industrial Organisation, T.A to Prof. Federico Trionfetti, *Aix-Marseille University.* 2025

Introduction to Economics, T.A to Prof. Raouf Boucekkine, *Aix-Marseille University.* 2024

Mathematics, T.A to Prof. Mathieu Faure, *Aix-Marseille University.* 2024

Skills

Programming: Python, R, Stata, SQL
Languages: Hebrew (Native), English (Fluent), French (Fluent), German (CEFR: B1).

Volunteering

UNFCCC - YOUNGO - volunteer as Constituency member Since 2023
Working groups: Climate change and Migration & Finance and Markets.

Middle East Docs - Founder Since 2022
Entrepreneurs and academia network addressing sustainability in the Middle East.

Graduate Coursework

Completed during two years of Master's and PhD-level study:

- Macroeconomics I
- Macroeconomics II
- Econometrics I (Linear Models)
- Econometrics II (Nonlinear Models)
- Labor Economics
- Risk and Incentives
- Methodology I
- Software for Economists I
- Scientific Research Methods
- Microeconomics I
- Mathematics for Economists
- Macroeconomics III
- Macroeconomics IV
- Time Series
- Software for Economists II
- Mathematics for Finance
- Evaluation Methods in Econometrics
- Microeconomics II (Game Theory)
- Microeconomics III (Public Economics)
- Project Management
- Health and Environmental Economics
- Software for Economists III
- Advanced Macroeconomics (For PhD)
- Advanced Microeconomics (For PhD)
- Advanced Econometrics(For PhD)
- Network Economics (For PhD)
- Development Economics
- Labor Economics (For PhD)
- Applied Labor Econometrics (For PhD)
- International Trade
- Public Decision-Making
- Macroeconomic Cycles (For PhD)
- Dimensionality Reduction Methods (For PhD)
- Research Methods in Economics
- Deep Learning (For PhD)
- Econometrics of Networks (For PhD)
- Continuous-Time Methods and Distributional Macroeconomics (For PhD)
- Econometrics of Mixed Causal and Non-Causal Models (For PhD)
- The Economics of Education (For PhD)
- Practical Tools to Evaluate Countries' Macroeconomic Vulnerabilities (For PhD)
- Reading Group on Causal Identification (For PhD)
- Presenting Research in Economics (For PhD)
- Sensitization to Open Science (For PhD)

Current and Future Research

My research examines how labor market frictions, mobility, and human interactions shape the direction and pace of innovation. While much of the literature focuses on how technological change affects workers, we know far less about **how aggregated labor market structure influence technological progress itself**. I study this reverse channel by focusing on workers, scientists, and founders as central agents in the production and diffusion of ideas.

My first project, which is likely to become my job market paper, studies how R&D workers' mobility across a network of scientific sectors generates knowledge diffusion. While mobility benefits the receiving sector, it imposes losses on the sector a worker leaves. The model identifies an optimal level of mobility and shows that network structure is crucial for aggregate growth dynamics. I relate these predictions to the divergence in productivity growth between the United States and Europe, arguing that labor market flexibility—and the turnover it generates—may be an underappreciated driver of innovation and long-run growth. Empirically, I plan to use OpenAlex and administrative R&D mobility data to test the model's predictions.

A second project examines how entrepreneurship spreads through social networks, using rich data from Israel's unique innovation ecosystem. Leveraging quasi-random assignment to elite military technology units, I study peers effect in startup formation: whether exposure to peers who become founders increases, discourages, or reshapes individuals' own entrepreneurial choices. I find that it has a discouraging effect on close peers (1st degree) but has a positive effect on peers of peers (2nd degree). I develop a theoretical model to study the mechanisms of my findings.

In the future: I am motivated by the documented decline in the rate of startup entry and the increasing attractiveness of stable, high-paying jobs in dominant tech firms. I plan to develop a framework in which labor market tightness affects workers' career decisions. On the one hand, a tight labor market can discourage entrepreneurship because attractive employment alternatives become more appealing. On the other hand, it can encourage entrepreneurship by providing a safety net: when jobs are plentiful, individuals know that if their venture fails, they can more easily return to employment.

Across all these projects, the common thread is my interest in understanding how labor market dynamics and human networks feed into the *production function of innovation*—a dimension that is still underdeveloped relative to the vast literature studying the reverse causality. I am particularly drawn to network-based approaches, which I believe can shed light on critical dynamics in modern, digitally connected innovation ecosystems.

Why I want to attend the boot camp. Although I believe I have solid training in economics, I have never taken a formal course in the economics of innovation and want a clearer foundation in this field. I am particularly eager to learn from Chad Jones, whose growth models and idea-based frameworks shape much of my thinking about the macro implications of innovation for my first project; and from Ben Jones, whose research on "The burden of knowledge" influenced the way I think about specialization of scientists in fields and why cross sector mobility can alleviate part of the burden.

Beyond the intellectual benefits, I am eager to join a community of scholars who share my interest in the forces that shape innovation. I see the boot camp as a chance to clarify the foundations of my work, connect with potential collaborators, and develop my research in a meaningful direction. This field genuinely excites me, and I would be grateful for the opportunity to participate.

Cecilia García Peñalosa
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11/02/2026

Objet: Elad PASSI - application to the NBER Innovation Research Boot Camp 2026

To whom it may concern

I would like to support Elad Passi's application for the 2026 Innovation Boot Camp. Elad is in the 2nd year of his PhD (European style, he did a 2-year masters beforehand) under my supervision, with Yann Bramoullé, a colleague and expert on networks, as co-advisor. Elad is working on the relationship between economic growth, innovation and networks.

His main project consists of a theoretical model which combines the paper by Ma and Liu "Innovation networks and R&D allocation" and a paper by Leonard Boquet "The network origin of slow labor reallocation". As in the former, he wants to understand how scientific knowledge networks affect economic growth. In the original paper, the authors take as given the knowledge network across sectors and look at optimal R&D policy given the network. Elad has endogenized the network by arguing that it depends on the flow of researches across R&D sectors. Inspired by Boquet, he uses a search model in which there is exogenous job destruction and hence labour flows across sectors. As unemployed researchers move to other sectors they take with them sector-specific knowledge that then affects productivity in the sector they have joined. The knowledge flows hence become endogenous.

The model is complex and not fully solved yet (the 3-sector model is, Elad is now doing simulations) but interesting results are emerging. First, the growth rate depends on two terms, one reflecting total R&D employment and another capturing the allocation across sectors. Second, features of the labour market become key for R&D and growth. In particular, there seems to be an optimal rate of job destruction as too much implies low employment in R&D and too much results in little knowledge transferability across sectors. The paper is in my view both novel and has policy relevance.

A second project, which he started developing during his masters thesis, consists of asking is social networks encourage entrepreneurship. Elad has put together a database that consists on (i) the universe of Israeli start-ups over the period 2016-19 and (ii) the members of elite units in the compulsory army service. The question he wants to address is the presence of per effects in entrepreneurial choices. He is leveraging the quasi-random assignment to the small units that compose the elite military to create the peer groups. This is a promising project with an original dataset.

Elad is a strong and motivated student with original ideas, as well as a lively participant in academic events. The topics he works on fir perfectly with the Boot Camp. I hence **very strongly support Elad's application.**

Do not hesitate to contact me if I can answer any further questions that you might have.

