The Boris Mints Institute
for Strategic Policy Solutions to Global Challenges
The Gershon H. Gordon Faculty of Social Sciences
Tel Aviv University

THE BORIS MINTS INSTITUTE
FOR STRATEGIC POLICY SOLUTIONS TO GLOBAL CHALLENGES

10th ANNUAL REPORT **2025**

http://www.bmiglobalsolutions.org

Members of BMI's Advisory Board and Academic Committee: Armenia, Bulgaria, Czech Republic, Finland, Germany, Kenya, Luxembourg, Montenegro Russia

BMI Research: California, India, Kenya, OECD, Rwanda, Nepal, Tanzania

BMI Conferences: Armenia, Finland, France, Georgia, Italy, Malta, Montenegro

CONTENTS

LETTER FROM FOUNDER AND PRESIDENT, DR. BORIS MINTS

Dear colleagues, partners, and friends of the BMI Institute,

This year marks the 10th anniversary of our institute. Over the past decade, we have consistently pursued the strategic goals set at the time of BMI's founding. A pivotal role in the establishment and ongoing development of the institute has been played by our leader, Professor Itai Sened. Thanks to his leadership, academic reputation, organizational talent, and tireless efforts to attract outstanding scholars, we have achieved a high level of academic excellence and carried out significant research across key areas.

I would like to express my sincere gratitude to Prof. Hadas Mamane, Prof. Boaz Hameiri, Prof. Vered Blass, Dr. Roe Levy, and Dr. Oren Danieli for their substantial contributions to the institute's growth and mission.

Training the next generation of scholars remains one of our highest priorities. Since the institute's inception, 60 master's and doctoral students, along with 24 early-career researchers, have completed their theses and research projects with the academic and financial support of BMI, contributing meaningfully to the research agenda we have built.

Over the past decade, we have hosted nearly 30 international conferences, welcoming leading scholars from top universities around the world, including Nobel laureates. The research presented and the concluding statements adopted at these events have received broad recognition within the global academic community and have helped to advance scholarly dialogue on key global issues.

Today, more than ever, we are aware of the fragile state of the post-World War II institutional order — one that upheld liberal democracies, promoted social welfare policies, and enabled stable economic growth. In light of these challenges, we have revised our strategic plan for the next five years, shifting our focus toward developing practical policy solutions to today's most pressing global problems.

We have also restructured our research labs and updated our selection processes for students and researchers. Building strong international partnerships remains a top priority, and we are proud to collaborate with institutions such as the Archimedes Center, IIASA, the Blavatnik Interdisciplinary Cybersecurity Research Center, the Eilat-Eliot Renewable Energy Initiative, Sciences Po Paris, Link Campus University, and the University of Donja Gorica.

Despite the rise in anti-Israel sentiment around the world, we remain confident that the number of our academic partners will continue to grow. We stand on the side of reason, knowledge, and collaboration — and we believe that these values are more important than ever.

Dr. Boris Mints
Founder and President of the Boris Mints Institute for Strategic Policy Solutions to Global Challenges

LETTER FROM HEAD OF BMI, PROF. ITAI SENED

Internal and international conflict in Israel and around the globe have made the mission of BMI all the more significant. For many years BMI has dedicated significant resources, thanks to the generosity of Dr. Boris Mints, to study and develop policy solutions to global challenges. The challenge of internal and international conflict has currently taken central stage in our research and other activities.

In order to put at the center of our activities the most pressing one of growing civil, economic and international unrest, we have restructured the center's vision and goals around four main themes:

1. Keeping our old commitment to sustainable development we have shifted the focus of that activity to a structure of collaboration with two national centers which whom we work in close collaboration – Archimedes and Eilat Eilot - and one international center – IIASA. Together we continue to look for innovative policy solutions for mitigating the international concern emanating from the evidence of global warming.
2. In Economics, we have added the internationally renown economist, Sebastian Galliani, the Mancur Olson Professor of Economics at the University of Maryland, to our team comprising of Roee Levi and Oren Danielli from Tel Aviv University – together they engage in significant frontier research on patterns and determinants of distribution biases and other challenges currently facing the global and local markets.
3. In Conflict Resolution we have added Professor Eran Halperin from the Hebrew University and Professor Nurit Shnable of TAU's School f Psychology to our team of Professors Boaz Hameiri and Nimrod Rosler to enhance our research on the most pressing issues of the moment, the growing number and intensity of internal and international conflict that burst right now in almost every corner of the world one can think about.

4. Finally, to better delve into the issue of liberal values and why they all of a sudden seem to lose popularity around the globe, we have started a new research group headed by Professor Udi Sommer of the Department of Political Science at Tel Aviv University that will be dedicate to the study of this new phenomenon together. With my own work on the subject that resulted in two publications in leading journals in Europe and forthcoming book with Lexington written with Dr. Karen Umansky, a graduate of the Institute and as a result f years of research supported by the institute.

We are now in the process of reviewing numerous applications for the new round of Ph.D. stipends. 16 such stipends will be awarded this fall to 16 of the applicants in the four main areas of our newly demarcated vision and set of commitments.

Another major event that we are all looking forward to, is the fall conference of 2025, that will take place in Vienna in collaboration with our partner institute IIASA, on the subject of research diplomacy regarding the water scarcity in the middle east, a critical global arena that is running out of this vital resource while engulfed in a major new round of extreme international hostilities

Professor Itai Sened
Dean Emeritus of the Gershon H. Gordon Faculty of Social Sciences
Head of the Boris Mints Institute for Strategic Policy Solutions to Global Challenges

BMI MISSION

Founded in 2015, The Boris Mints Institute for Strategic Policy Solutions to Global Challenges at Tel Aviv University encourages innovative thinking, research and planning to promote a significant positive change in the world. We focus on designing innovative, multidisciplinary and sustainable strategic and operational plans to enhance welfare around the globe.

The Institute brings together top-tier academics, world leaders, and talented and passionate researchers from Tel Aviv University and other leading universities to;

- Analyze pressing issues from an interdisciplinary, broad systemic perspective;
- Draw on TAU expertise, across various faculties, confronting contemporary challenges of inequality, democracy, economics, human development, environmental engineering, sustainability and welfare;
- Formulate novel and practical solutions backed by rigorous scientific methodology;
- Deliver strategic policy recommendations and detailed blueprints for implementation to decision-makers worldwide.

The Institute currently operates six research labs, conducting collaborative research involving technological, social, and policy factors.

A significant part of our research is based on a Startup-like methodology, including a "hands-on" approach, creating economically logical, sustainable, and fair policy solutions.

Starting 2022, the Institute has aimed to confront two significant global challenges that pose a substantial threat to global stability and sustainability: The Structure of Democratic and Economic Institutions.

BMI STRUCTURE | Steering Committee

Dr. Boris Mints, President

Dr. Mints has been one of the most influential businessmen in Russia in the 2004 – 2017. Currently Boris Mints is the Vice President of the World Jewish Congress, which is one of the largest and most significant organization that represents Jewish people from over 100 countries, representing their pluralism. He is also the Chairman of the Council of Patrons of the Conference of European Rabbis (CER), which is the primary Orthodox rabbinical alliance in Europe. Awarded the Dashkova's Prize "Philanthropist of the Year" and Honorary Fellow of Tel Aviv University.

Prof. Milette Shamir, Vice President, International Affairs, Tel Aviv University

Milette Shamir's research focuses on U.S. literature and culture in the nineteenth century. She is the author of Inexpressible Privacy: The Interior Life of Antebellum American Literature (Penn University Press, 2005) and the editor of Boys Don't Cry? Rethinking Narratives of Masculinity and Emotion in the US (with Jennifer Travis, Columbia University Press, 2002). Her work appeared in several journals and essay collections devoted to the study of American literature and cultural history. Shamir is the editor-in-chief of the journal Poetics Today (with Irene Tucker of UC Irvine). From 2015 to 2019 she served as Vice Dean of the Humanities for Academic Affairs. She co-founded TAU's American Studies program in 2006, and served as its head for thirteen years.

Prof. Tami Ronen-Rozenbaum, Dean Emeritus of the TAU Faculty of Social Sciences, Founding Head of the MA program for Sustainable Development

A researcher in the field of the Cognitive Behavioral approach and Positive Psychology. Her research focuses on the function of self-control skills, positive emotions and social support as a way of overcoming stress and developing happiness. In her work, Prof. Ronen-Rozenbaum links a complex theoretical model of understanding human strengths and coping abilities to techniques for developing useful interventions in the field.

Ms. Natalia Borovik, Advisor to the Committee

Previously, Ms. Borovik has worked as deputy director of the Institute for Complex Strategic Studies, directly under Prof. Oleg Vikhansky. Gathering many years of high-level professional experience in strategic consulting to research bodies and various non-governmental organizations - she advises the steering committee to make sure that the decisions taken correspond with the long-term vision of the Institute in addressing global challenges.

Prof. Itai Sened, Head of BMI, Dean Emeritus of the Gershon H. Gordon Faculty of Social Sciences

Prof. Sened is the Dean of the Gershon H. Gordon Faculty of Social Sciences at Tel Aviv University. He returned to TAU after serving for 12 years as director of the Institute for New Institutional Social Sciences at Washington University, which was established by Nobel Laureate Douglass C. North. He is the founding head of the Boris Mints Institute for Strategic Policy Solution to Global Challenges and the founding Head of the School of Social and Policy studies at TAU.

BMI STRUCTURE | International Academic Committee

Prof. Yossi Rozenwaks, Dean Emeritus of the Faculty of Engineering, Tel Aviv University

Prof. Rozenwaks is a leading researcher in various fields, including nanotechnology, electrostatic force microscopy, atomic force microscopy, nanoscale charge injection in memory devices, solar cells, organic semiconductor devices, biological field effect transistors, charge carrier dynamics in semiconductors, and recombination processes.

Prof. Miranda Schreurs, Professor of Environment and Climate Policy, Bavarian School of Public Policy, Technical University of Munich

Previously the director of the Environmental Policy Research Center and professor of Comparative Politics at the Freie Universität in Berlin and an associate professor in the Department of Government and Politics at the University of Maryland. Prof. Schreurs' focuses on comparative environmental politics and policy in Europe, the United States, and East Asia. She is a member of the German Advisory Council on the Environment.

Dr. Segenet Kelemu, Director General of the International Center of Insect Physiology and Ecology (ICIPE) Nairobi, Kenya

Dr. Kelemu is the Director General of the International Center of Insect Physiology and Ecology (ICIPE) in Nairobi, Kenya. She is a molecular plant pathologist whose work focuses on the elucidation of molecular determinants of host-pathogen interactions, development of novel plant disease control strategies–including genetic engineering–biopesticides, pathogen population genetics and dynamics, and endophytic microbes and their role in plant development. She has first-hand experience with both the challenges and successes associated with African agriculture, from tending to fields to directing world-class laboratories.

Prof. Itai Sened, Head of BMI, Founding Chair School of Social and Policy Studies at TAU and Dean Emeritus of the Gershon H. Gordon Faculty of Social Sciences

Prof. Sened's specializes in the study of institutions and how they affect policy at all levels. These institutions include not just formal institutions at the national and local level, but also the informal institutions which determine social norms and cultural habits and may enhance or impede economic development and social prosperity. In recent years his research has become less technical and more applied to the fields of renewable energy and institutions that protect the growing inequality in income and assets around the globe.

BMI STRUCTURE | International Advisory Board

Mrs. Joelle Aflalo, Co-Founder of the Matanel Foundation

In 2006, she founded, together with Mr. Gad Boukobza, the Matanel Foundation. This charitable institution encourages social entrepreneurship and is a testament to Mrs. Aflalo's sense of responsibility, spirituality, dedication to philanthropy, and constant desire to help create a better world.

Prof. Armen Darbinyan, Chairman of the Board, Rector of the Russian – Armenian University, Yerevan, Armenia

Prof. Darbinyan is an initiator of economic and political reforms in Armenia, including the development of the private sector and the formation of new governmental institutions. He led important reforms in the fields of telecommunication, agriculture, infrastructure and tourism. In addition, he is the author of national legislation regarding banking, stock companies, anti-trust provisions, and state regulation of public services. He is renowned as an international expert on transition economies and was granted the Young Global Leader award by the World Economic Forum.

Dr. Simeon Djankov, Senior Fellow, Visiting Professor, London School of Economics

Dr. Djankov was deputy prime minister and minister of finance of Bulgaria from 2009 to 2013. Prior to his cabinet appointment, Djankov was chief economist of the finance and private sector vice presidency of the World Bank, as well as senior director for development economics. In his 17 years at the Bank, he worked on regional trade agreements in North Africa, enterprise restructuring and privatization in transition economies, corporate governance in East Asia, and regulatory. Dr. Djankov was declared "Bulgaria's Most Successful Politician" and awarded the President's Award of the World Bank.

Prof. Jacob A. Frenkel, Chairman, TAU Board of Governors, former Governor of the Bank of Israel

Prof. Jacob A. Frenkel serves as the chairman of the TAU Board of Governors and chairman of JPMorgan Chase International. In addition, he serves as Chairman of the Board of Trustees of the Group of Thirty (G-30), a private, non-profit, consultative group on international economic and monetary affairs. In addition to filling executive positions for international investment and financial services companies, Prof. Frenkel is also the former head of the Bank of Israel.

Hon. Václav Klaus, Former President of the Czech Republic, Head of the Václav Klaus Institute

An economist by training, Prof. Klaus was forced out of the Czechoslovak Academy of Sciences after the Soviet invasion in 1968. He returned after the Velvet Revolution of 1989 as one of the founders of the Civic Forum Movement. He was the country's first non-Communist Finance Minister and served from 1992 to 1997 as Prime Minister of the Czech Republic. In 2003 Klaus was elected President of the Czech Republic and won reelection in 2008. Since 2012 he has headed the institute which bears his name, a think tank based in the Czech Republic. He is a member of the Mont Pelerin Society, has published more than 30 books, and is the recipient of numerous honorary degrees and international awards.

Prof. Igor Luksic, University of Donja Gorica, Former Prime Minister of Montenegro

Prime Minister of Montenegro 2010-2012, Deputy Prime Minister and Minister for Foreign Affairs and European Integration 2012-2016, Minister of Finance 2004-2010, Member of Parliament of Montenegro 2001-2003, Member of Parliament of Serbia and Montenegro 2003-2006. A candidate for the UN Secretary General in 2016 advocating more efficient and effective UN in response to the SDG agenda and peace operations. He also advocated a stronger voice for youth. World Economic Forum's Young Global Leader 2013 class. He holds a PhD in economics transition and is a full professor of the University of Donja Gorica Podgorica. Luksic is a Senior Peace Fellow at the PILPG Washington DC and the Nizami Ganjavi International Centre.

BMI STRUCTURE | International Advisory Board

Prof. Itamar Rabinovich, Founder and President of the Israel Institute, Former Ambassador of Israel to USA and President Emeritus of TAU

Prof. Itamar Rabinovich is the president of the Israel Institute (Washington and Jerusalem), Israel's former Ambassador to the United States and the former president of Tel Aviv University (1999-2007). He is professor emeritus of Middle Eastern History at Tel Aviv University, Distinguished Global Professor at NYU and a Distinguished Fellow at the Brookings Institution. Prof. Rabinovich has been a member of Tel Aviv University's faculty since 1971 and served as the Ettinger Professor of the Contemporary History of the Middle East, chairman of the Department of Middle Eastern Studies, director of the Dayan Center for Middle Eastern and African Studies, Dean of the Humanities Faculty, and Rector. Prof. Rabinovich's book "Syrian Requiem" was recently published by Princeton University Press: https://press.princeton.edu/books/hardcover/9780691193311/syrian-requiem

Seppo Remes, Co-Founder and Chairman of the Board, EOS Russia

Mr. Remes is a Finnish citizen and holds a Licentiate of Economics degree from the Turku School of Economics. Working in Russia from 1993-2015, he is the former CEO of the Investment Company Vostok Energo and director of Vostok Nafta, both of which operate in the Russian energy sector. He was selected as the Director of the Year in 2013 by the Independent Directors' Association and the Russian Council of Industrialists and Entrepreneurs. In 2007 he was among the founders of the EOS investment firm and has been company chairman since its inception. He was awarded an honorary Doctorate from the Plekhanov Academy of Economics in Moscow and Turku School of Economics in Finland. He was member of Boards of UES, Rusnano, Rosseti, OMZ, Sollers and Sibur Holding.

BMI STRUCTURE | Management

Prof. Itai Sened, Head of BMI, Dean Emeritus of the Gershon H. Gordon Faculty of Social Sciences

Prof. Sened is the Dean of the Gordon Faculty of Social Sciences at Tel Aviv University and founding head of the Boris Mints Institute for Strategic Policy Solution to Global Challenges and the Academic Institute for Structural Reforms.

Dr. Alexander Pesov, Representative of BMI President

Dr. Pesov hold a Ph.D. in biology and is the author of several scientific publications. Dr. Pesov has previously worked as a journalist, writer, and editor of several top journals and newspapers and served as vice president of the International Press Center in Moscow. From 1998 to 2012 Dr. Pesov was an advisor to the prime minister of the Russian Federation Eugene Primakov, chief of staff of the Ministry of Agriculture of the Russian Federation and vice governor of the Voronezh region.

Dr. Haim Ben-Yaakov, Representative of TAU President

Ben-Yaakov is a senior executive for regional development and public affairs at Tel Aviv University. He served as CEO of the Euro-Asian Jewish Congress, head of the Jewish Agency for Israel in Russia and the Baltic States and as an educational adviser for the Jewish Agency for Israel.

Petr Pesov, Director of BMI

Petr received his dual MA degree in International Affairs from Johns Hopkins University and Conflict Resolution at TAU. He is currently the director of BMI and a PhD candidate at the Social Sciences faculty of the university. He specializes in creating, developing, and managing interdisciplinary education and research projects with a particular focus in security and international relation. Petr is also a strategic consultant at the Blavatnik Interdisciplinary Cyber Research Center.

RESEARCH

Each of our research labs is comprised of a Lab Leader – a senior TAU faculty member who is an expert in the relevant field, and a group of research students under his/her supervision. BMI labs are the operative channel of co-operation with BMI's partners, both within TAU and international partners. The research seeds BMI has sown have grown into academic and policy publications, international academic collaborations and additional funds from several foundations and sources.

CLIMATE & ENERGY LAB

Lab Heads:

Prof. Hadas Mamane
Head of the Environmental Engineering Program, Faculty of Engineering

Prof. Vered Blass
Department of Environmental Studies

Our experts from diverse disciplines work together to confront urgent climate change challenges and ensure sustainable development in the energy field; our research focuses on sustainable development through renewable, hydrogen, and energy, investigating the various applications of water, planning food security in times of uncertainty and climate crisis, and exploring the nuances of future cities. Our work is geared towards ensuring a greener future for future generations. The work is a strategic partnership between BMI and the Archimedes Institute.

Water

Ronny Erdan, BMI Fellow

Academic Advisor: Prof. Hadas Mamane, Faculty of Engineering

Research project: Integrated Assessment of Water Quality in Sewage Ponds

This year, building directly on the foundations of her master's research, Ronny focused on developing tools to identify high-risk wastewater ponds in Patiala, India. Her work expanded the field dataset significantly and introduced methods for estimating pond surface area using satellite imagery and GIS software, enhancing the spatial resolution of the analysis. In parallel, she began exploring the environmental impact of floating solar (FPV) systems on effluent reservoirs, laying the groundwork for a new chapter in my research. Additionally, she served as a mentor to two master's students, supporting their work on data modeling and sustainable water infrastructure. At the beginning of the year, Ronny expanded and refined the wastewater pond dataset in Patiala, India, continuing the work from her MSc research. She developed a semi-automated method for identifying wastewater ponds using satellite imagery, combining spectral indices with visual analysis. This enabled detection of more than 350 ponds. To support spatial risk analysis, Ronny implemented three methods for surface area estimation based on satellite data: circular approximation, rectangular bounding box, and geodetic polygon interpolation. These were validated against QGIS based field measurements. This allowed the incorporation of each pond's surface area into broader environmental assessments. In the next stage, she turned to enhancing the Water Quality Index (WWQI), which traditionally requires a complete set of seven parameters. Recognizing that many field samples lack full data, she developed a dynamic WWQI calculation method that redistributes the relative weights of available parameters while preserving their original proportions. Recognizing that large wastewater ponds with moderate pollution may contribute more significantly to environmental and health risks than smaller, highly polluted ones, she introduced a spatial risk perspective into the assessment framework. After estimating surface areas using satellite imagery, she multiplied each pond's WWQI score by its surface area to compute a composite risk index. This allowed the identification of ponds that may not appear critical based on WWQI alone but represent substantial cumulative risk due to their size. To explore physical and operational factors influencing water quality, she conducted a comparative statistical analysis between ponds with and without mechanical pumps. The findings indicated that Ponds with active pumping tend to show higher turbidity, likely due to sediment resuspension. Ponds with higher surrounding vegetation (as measured via NDVI) showed notable differences in nutrient concentrations, particularly nitrate and ammonium. As part of a broader remote sensing analysis, she proposed a novel proxy metric, the Pond Health Index (PHI), calculated as the product of NDVI × MNDWI at the center of each pond. This index was correlated with field-measured parameters such as dissolved oxygen (DO) and ammonium levels, providing an indirect indicator of pond quality via satellite imagery.

Water

Halefom Tesfey Welehaweirat, BMI Fellow

Academic Advisor: Prof. Hadas Mamane, Faculty of Engineering

Research project: Assessing nitrogen dynamics within the Yesodot secondary effluent reservoir

At the beginning of 2024, he identified the Yesodot wastewater reservoir in Israel, partially covered by a floating photovoltaic (FPV) system and used for irrigation. Finding no existing models to simulate nitrogen dynamics under varying FPV coverage ratios, he developed an integrated simulation framework using BioWin and Python. The model incorporates historical reservoir records, meteorological inputs, and seasonal data to evaluate nitrogen transformation, dissolved oxygen (DO) dynamics, and evaporation rates under different FPV scenarios.Comparative simulations for summer and winter conditions indicate that increased FPV coverage reduces solar radiation, lowering DO levels and altering nitrogen cycling, while pH and ammonia remain stable. Higher FPV coverage improves water conservation but raises total nitrogen concentrations. The model, to be validated with field-calibrated data, provides a decision-support tool for optimizing FPV deployment to balance renewable energy generation, water quality, and conservation. This research offers a novel approach to integrating FPV systems with wastewater management, highlighting their potential to enhance nitrogen removal, reduce evaporation, and generate sustainable energy. The findings support informed policy-making and encourage FPV adoption in water reuse systems, contributing to ecological resilience and global climate objectives.

Water

Roman Belykh, BMI Fellow

Academic Advisor: Prof. Hadas Mamane, Faculty of Engineering

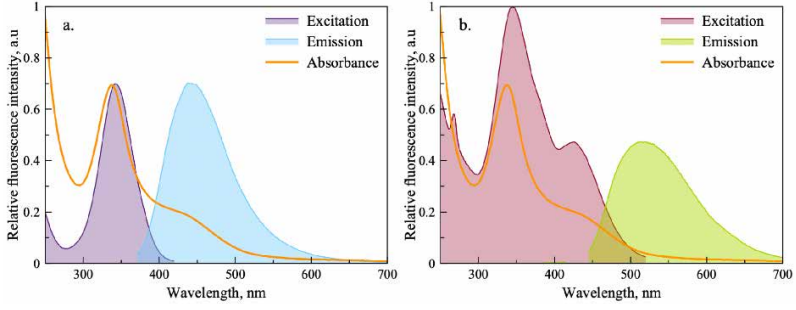
Research project:

In 2024, Roman began research to address the challenge of real-time monitoring of disinfection and pharmaceutical removal in wastewater treatment, as required under the updated EU Urban Wastewater Treatment Directive (EU 2024/3019). The directive mandates at least 80% removal of certain pharmaceutical residues during quaternary treatment, with most costs covered by pharmaceutical and cosmetic producers through Extended Producer Responsibility. Current actinometric methods, such as ferrioxalate dosimeters, are unsuitable for in situ monitoring in advanced oxidation processes (AOPs) due to photosensitivity, incompatibility with reactive oxygen species, and complex post-analysis requirements.

To overcome these limitations, he developed a novel UV-dose measurement method using carbon quantum dots (CQDs) as nanostructured actinometric probes. CQDs offer high fluorescence sensitivity, broad UV absorbance, and stability in oxidative environments. His work focused on synthesizing and characterizing CQDs, revealing that citric acid–derived CQDs are agglomerates of citrazinic acid rather than conventional carbon-core particles. He identified distinct fluorescence bands at 420 nm (monomer) and 540 nm (agglomerate), each exhibiting different photoreaction mechanisms under UV irradiation in the presence or absence of hydrogen peroxide.

By examining pH effects, ion interactions, and oxidative conditions, he established mechanistic insights into CQD photochemistry relevant to AOP systems. These findings form the basis for developing Lagrangian, micron-sized CQD-based probes to provide spatially and temporally resolved UV-dose data, enabling optimization of UV reactor design and treatment efficiency.

Future plans include publishing the current results, exploring a top-down approach by linking graphene oxide nanoparticles to fluorescent dyes, depositing CQDs into mesoporous silica to increase particle size, and integrating CQDs into polyacrylamide microspheres for enhanced probe performance.



Relative fluorescence excitation and emission spectra of the two main bands in CQD water solution, named 420 nm (a) and 540 nm (b)

Sustainable Development – Joint Lab with Archimedes Center | Future of Cities

Eyal Sasson, BMI Fellow

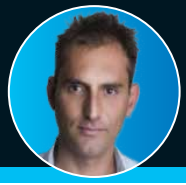
Academic Advisor: Prof. Itai Sened, Head of BMI, Faculty of Social Sciences

Research project: Optimization of the electricity grid: long-term planning for 2030-2050

In 2025, he advanced his Ph.D. research on optimizing Israel's electricity grid for 2030–2050, focusing on the integration of renewable energy within a decentralized market structure. His study develops an economic framework based on a linear programming optimization model for multi-period transmission network planning, accommodating diverse generation locations, demand patterns, and technological and social constraints. The model is applied to the Israeli electricity market under three scenarios for achieving a zero-carbon competitive grid by 2050: (1) a centralized market with a market operator, (2) a decentralized wholesale market with an independent system operator (ISO) managing electricity exchange between suppliers and retailers, and (3) a decentralized market incorporating microgrids as substitutes for expanding traditional transmission infrastructure.

Over the past year, he completed a new chapter analyzing the European energy crisis, highlighting the vulnerabilities of fossil fuel dependency and the resulting urgency for resilient, renewable-based grids. He also began a section on electricity network pricing, compiling construction and operational cost data essential for modeling the optimal integration of future solar fields. In February 2025, he co-authored and published a paper in the *Sustainable Energy Research Journal* on social acceptance of energy storage systems, identifying economic incentives and targeted education as key drivers for public adoption.

Plans for the next year include completing a comprehensive database on solar field locations, grid construction costs, and demographic projections; developing extended models for interconnected regional grids in Israel; and gaining practical experience with Python to implement and test the optimization model under multiple scenarios. These efforts aim to produce a robust decision-support tool for long-term grid planning, balancing renewable integration with economic and operational efficiency.



Future of Cities

Aviram Ohad, BMI Fellow

Academic Advisor: Prof. Itai Sened, Head of BMI & Prof. Asher Tischler, Coller School of Management

Research project:

In January 2025, Aviram presented his Stage B Ph.D. research proposal to a committee comprising Prof. Itai Sened, Prof. Asher Tishler, Prof. Vered Blass, and Dr. Bat Chen Nachmias Biran. The research addresses three interlinked challenges of the climate crisis in the energy sector: improving energy flow, reducing vehicle maintenance costs, and lowering greenhouse gas emissions, while providing the electricity sector with a readily available solution for temporary energy shortages.

The concept involves utilizing half-charged batteries from vehicles parked for extended periods in large commercial parking lots. By integrating these batteries into the grid as temporary storage, both vehicle owners and parking lot operators can profit, while enabling load regulation, reducing the need for peak generation, and supplying energy during sudden demand spikes or supply drops.

His methodology combines mathematical modeling with empirical analysis, the latter based primarily on multivariate regression. The main challenge lies in balancing model realism with solvable complexity, ensuring it captures the dynamics of all relevant stakeholders. The next stage aims to: (1) refine the literature review to highlight the research gap more clearly and provide empirical justification for its significance; (2) define the model's players and long-term focus in contrast to existing literature; (3) present initial proof-of-concept results from the updated model; and (4) establish a revised timetable for completion.

The Stage B research process will be iterative—running simulations, evaluating results, and refining the model. Special attention will be given to the relationship between long-term parking arrangements and revenue distribution among aggregators and participants, recognizing that long-term models depend more on certainty than on stochastic variation.

HUMAN DEVELOPMENT LAB

Lab Heads:

Prof. Isaac Sasson
Department of Anthropology and Sociology

Prof. Boaz Hameiri
School of Social and Policy Studies

Demography

Dr. Yan Zheng, BMI Postdoctoral Fellow

Academic Advisor: Dr. Isaac Sasson, Department of Anthropology and Sociology

In the 2024–2025 academic year, she advanced her research on mortality, health expectancy, and lifespan inequality across global contexts, presenting her work at the 36th REVES Conference (Tampere, Finland, May 2025). Her poster, *"Living longer in poorer health: Health expectancy in Israel in cross-national comparison, 2013–2022"*, examined trends in Israel's health expectancy relative to other high-income countries.

Her first ongoing project, *"Slowdown in mortality improvements and trends in lifespan inequality across high-income countries: The role of changing causes of death, 2010–2020"* (submitted for peer review), shows that most high-income countries experienced declining life disparity before 2019, driven largely by reductions in premature mortality from cardiovascular diseases and cancers. Post-2019, COVID-19 mortality among older adults became a key driver of life disparity trends, with variations between countries such as Canada and the USA.

Her second project, *"Changes in life expectancy across selected countries in the Western Pacific Region and their underlying risk factors, 1990–2021"* (under revision), finds that life expectancy gains in high-income Western Pacific countries were primarily linked to reduced cardiovascular and cancer mortality among adults and the elderly, while lower-middle-income countries benefited mainly from reduced mortality in children under five and declines in communicable diseases, maternal, and neonatal disorders.

Her third, ongoing study compares health expectancy in Israel to peer nations from 2013–2022. Results indicate that between 2013 and 2019, Israel achieved improvements similar to European countries, due to reductions in mortality and disability indicators (ADL, IADL). However, since 2019, while ADL-free life expectancy continued to improve, self-perceived health expectancy declined, underscoring the need to enhance the quality of life for older adults in Israel.

Inequality

Dr. Oren Danieli, BMI Senior Fellow

Research project: Skill-Replacing Technology and Bottom-Half Inequality

In 2024–2025, he advanced six major research projects spanning labor economics, political economy, and social policy. His paper *"Revisiting U.S. Wage Inequality at the Bottom 50%"*—now under a second Revise and Resubmit at the *Review of Economic Studies*—develops a theoretical framework linking skill-replacing, routine-biased technological change to shifts in wage inequality. Empirical evidence shows that in the 1990s, this mechanism reduced inequality among the bottom half of earners, but since 2000, compositional workforce changes have reversed the effect. The work was presented at NBER Labor Studies and CEPR Labour. His co-authored paper *"Negative Control Falsification Tests for Instrumental Variables"* (with Daniel Nevo, Itai Walk, Bar Weinstein, and Dan Zeltzer), also under a second Revise and Resubmit at the *American Economic Review*, critiques and refines common IV placebo test practices. The project, supported by a Google AI grant, was presented at the NBER Summer Institute. In political economy, he revised *"Decomposing the Rise of Populist Radical Right"* (with Noam Gidron, Shin Kikuchi, and Ro'ee Levy) for the *Journal of Political Economy*. Using decomposition methods from labor economics, the study finds that the European populist surge stems primarily from behavioral shifts among voters holding similar political views, rather than opinion changes themselves. The work received Israel Science Foundation funding and was presented at NBER and CEPR Political Economy meetings. With BMI funding, he advanced *"Getting Beneath the Veil of Intergenerational Mobility"* (with Tanaya Devi and Roland Fryer), which uses newly collected data and novel econometric tools to identify psychological skills as a key determinant of escaping poverty—informing targeted policy interventions. In collaboration with Eran Yashiv, his paper *"Modernity and Female Labor Force Participation"* examines the influence of social norms on Arab women's labor supply in Israel, applying an innovative econometric ranking method to identify high-impact policy levers, with modernity emerging as a critical driver. Finally, *"The Long-Term Consequences of Programs for Gifted Students"* (with Niv Brosh, David Maagan, Ran Shorrer, and Noam Zussman) uses a regression discontinuity design to show that early participation in gifted programs boosts educational attainment, marriage rates, and academic publication output in later life.

Conflict Resolution

Noy Calif, BMI Fellow

Academic Advisor: Dr. Boaz Hameiri, School of Social and Policy Studies

In 2025, she advanced multiple research projects at the Conflict Resolution Lab led by Boaz Hameiri, focusing on predictors of political violence, intergroup relations, and the psychology of victimhood. In the *Predictors of Political Violence Project* (with Rebecca Littman, UIC, and seven global collaborators), she developed study materials, tested models among Democrats and Republicans in the United States, and expanded data collection to diverse international contexts to examine the roles of trait victimhood, collective victimhood, competitive victimhood, and inclusive/exclusive victim beliefs. She also progressed the *IPM Interventions Tournament*, building on prior studies in Israel and Cyprus that demonstrated the Intergroup Paradox Model's (IPM) effectiveness. The new study compares IPM to alternative media-based interventions through a controlled "intervention tournament" design, assessing their relative impact on message deliberation, attitude unfreezing, openness to alternative information, and policy support. In an exploratory study on *Attitude Network Structure and Intergroup Relations in Israel*, she applied network analysis to survey data collected after the 2021 mixed-city clashes. Comparing Jewish participants from mixed cities and Arab participants from Arab cities, she found distinct network structures and central attitudes: Jewish networks emphasized delegitimization, physical threat, hatred, and group malleability, while Arab networks centered on competitive victimhood, collective angst, and meta-feeling thermometers. These differences highlight divergent cognitive organization of intergroup perceptions. Finally, in *Trait Victimhood and Willingness to Help*, she conducted four studies showing that individuals with high trait victimhood are more likely to view help-seekers as victims, respond more positively, and perceive them as more deserving of assistance—particularly when victim signals are clear. However, when help-seekers act in self-interest at the expense of high-victimhood individuals, positive perceptions diminish, revealing a competitive or vengeful dimension of trait victimhood. These findings underscore its nuanced influence on prosocial behavior.

Conflict Resolution

Andres Casas, BMI Fellow

Academic Advisor: Prof. Boaz Hameiri, School of Social and Policy Studies

In 2024–2025, he advanced an interdisciplinary research agenda at the intersection of behavioral science, neuroscience, and conflict resolution, focusing on Colombia as a case study for transitional justice, political polarization, and environmental peacebuilding. As a Boris Mints Institute Research Fellow at Tel Aviv University, he designed and led multi-method projects combining experimental fieldwork, neurocognitive protocols, and digital storytelling interventions. His work produced multiple publications in progress, including studies on immersive virtual reality for reconciliation in Colombia, indirect contact effects in rural conflict zones, and media interventions to promote prosocial behavior. He also contributed a forthcoming chapter to the *Elgar Encyclopedia of Latin American Politics*. Key experimental activities included: (1) a randomized controlled trial (N = 600) testing VR storytelling's impact on peace attitudes in Bogotá and Medellín; (2) *Echoes of the Jordan*, an immersive documentary exploring climate diplomacy and environmental cooperation in the Jordan River basin; and (3) the design of a pilot neuroscience study using fNIRS imaging and psychophysiological measures to assess cognitive flexibility among civilians, ex-combatants, and security personnel. He also coordinated Neuropaz IV, an international seminar series he founded that has engaged over 3,000 global participants. He developed the THAW framework—Trigger awareness, Humanize the other, Adjust the environment, and Warm the heart and mind—as a structured intervention model to reduce cognitive rigidity. His contributions included high-profile presentations at BMI's 10th Annual Conference, Beyond Conflict workshops in Nigeria, and an academic symposium at the University of Athens.

Planned priorities for 2025–2026 include presenting his Ph.D. proposal, expanding the THAW framework to post-conflict contexts such as Ukraine, formalizing international collaborations, and scaling Neuropaz as a global platform for applied peace science. His work advances BMI's mission by integrating behavioral and brain sciences into practical tools for policymakers, practitioners, and communities navigating fragile transitions.

Conflict Resolution

Petr Pesov, BMI Fellow

Academic Advisors: Prof. James Wertsch, Anthropology, University of Washington, St. Louis & Prof. Udi Sommer, Department of Political Science, TAU

Research project: Conflicts as Processes: An Attempt at an Interdisciplinary Modern Conflict Typology

In 2025, he advanced a comparative research framework for understanding the structural and dynamic factors underlying violent intergroup conflicts, applying it to case studies of Nagorno-Karabakh, Israel–Palestine, and India–Pakistan. His model integrates five conceptual pillars: (1) structural causes, such as unmet human needs, inequalities, and cleavages; (2) social identity processes reinforcing in-group/out-group perceptions; (3) narratives that shape collective realities in times of uncertainty; (4) elite-level decision-making as the political driver of war; and (5) mobilization mechanisms transforming tensions into organized violence. Based on field interviews, the framework was applied to specific conflicts. In Nagorno-Karabakh, perceived threats to safety and autonomy, coupled with ethnic nationalism and centralized, autocratic decision-making, fueled mobilization through nationalist sentiment and early mass protests. In Israel–Palestine, economic cleavages, ideological nationalism (Zionism vs. Pan-Arabism), and incompatible self-determination narratives—compounded by British colonial legacies—produced locally initiated violence. In India–Pakistan, similar mechanisms operate through historical and ideological divisions. The research also examines conditions under which "frozen" conflicts reignite, identifying deterrence effectiveness, perceptions of defender strength, domestic stability, shifts in foreign support, and persistent hostile narratives as critical factors. The October 7th Hamas attacks on Israel serve as a case study in deterrence failure, where domestic political instability, U.S.–Israel relations shifts, regional diplomatic developments, and entrenched radical narratives converged to enable escalation. The analysis highlights how cultural values, leadership perceptions, and entrenched propaganda undermine deterrence strategies. The model extends to other recent escalations, such as the Pahalgam crisis and the Syrian conflict, showing that volatile domestic, regional, and global conditions, combined with enduring conflict narratives, can push actors toward radical action. The findings stress the need for national security doctrines and prevention strategies to prioritize narrative monitoring and deradicalization as essential components of conflict management.

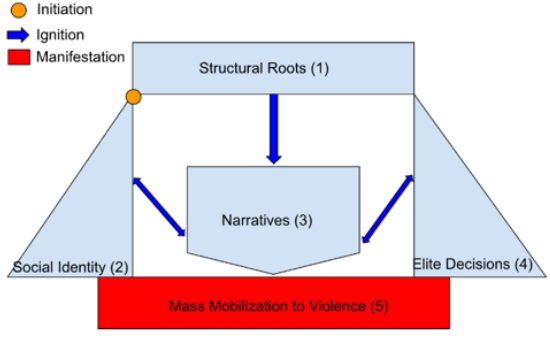


Fig. 1 Process model sample of a conflict

BMI PRIZE

The 2024 BMI Prize Laureate is
Prof. Beatriz Magaloni, Graham H. Stuart Professor of International Relations and Senior Fellow at the Freeman Spogli Institute, Stanford University.

The prize is awarded to Prof. Magaloni for her contribution to the field of the study of authoritarianism and its return as a global challenge. In her research, she explains why autocratic regimes hold multi-party elections. Her work provides a broad comparative framework and is now considered a "classic" in the field. Assigned in most undergraduate and graduate-level seminars on comparative politics, the themes and theories developed in her work set the agenda for conceptualizing multi-party autocracies, which have become the most common form of dictatorship worldwide. Her body of work also provides an understanding of the most insidious threats to democracy in the contemporary period, which do not come from military coups but from civilian leaders ascending to power through elections. Prof. Magaloni's work on autocracies constitutes a key pillar for how subsequent scholars have come to understand and study multi-party autocracies, the role of elections in these systems, what shapes mass support and voting behavior in autocracies, the factors that explain why do autocratic rulers survive or die, when they democratize the electoral institutions and the conditions under which they might cede power to their opponents. Her work has appeared in the American Political Science Review, American Journal of Political Science, World Development, Comparative Political Studies, Annual Review of Political Science, Latin American Research Review, Journal of Theoretical Politics and other renowned journals.

For further information about Prof. Beatriz Magaloni:
https://politicalscience.stanford.edu/people/beatriz-magaloni | https://carnegieendowment.org/experts/2132

BMI CONFERENCES

BMI-UDG JOINT CONFERENCE– A WORLD ORDER UNDER THREAT

University of Donja Gorica, November 25-26th, 2024

The conference titled "A World Order Under Threat," was a collaborative effort by the Boris Mints Institute (BMI) at Tel Aviv University and the University of Donja Gorica (UDG). The event addressed critical global issues, including political, economic, and institutional challenges. With a focus on fostering innovative strategies and collaborations, the conference gathered leading experts from around the world to share insights and explore solutions. The highlight of the opening day was the prestigious BMI Prize Ceremony, honoring Prof. Beatriz Magaloni, the Graham H. Stuart Professor of International Relations and a Senior Fellow at Stanford University's Freeman Spogli Institute for International Studies. The BMI Prize, a hallmark of the institute's commitment to addressing global challenges, recognized Prof. Magaloni for her groundbreaking work on governance and her studies on the dynamics of authoritarianism and the erosion of democratic institutions. During her keynote, titled "Rise of Authoritarianism," Prof. Magaloni provided a compelling analysis of the growing threats posed by authoritarian regimes and their implications for global political stability. She delved into the structural conditions that enable authoritarianism to thrive, emphasizing the need for robust international mechanisms to counteract these trends. The ceremony was introduced by leadership of BMI, TAU and UDG. On the second day, Hon. Vaclav Klaus, Second President of the Czech Republic gave his keynote talk about A

World Order Under Threat. The talk focused on inefficiencies and inaccuracies that national and international institutions oftentimes make and how this is straining the global system, reducing cooperation and increasing risks of catastrophes.

Furthermore three panels summoning the World's leading experts were held on:

1) A panel on globalization, moderated by Amb. Prof. Itamar Rabinovich, this panel explored the successes and failures of globalization in fostering economic interdependence, alleviating poverty, and addressing migration challenges. The discussion focused on reshaping global supply chains and enhancing economic resilience.

2) A session on strategies of war and peace addressed the rise of regional conflicts in an era once thought free of major wars. Moderated by Prof. Itai Sened, the panel examined the complexities of modern warfare, the fragility of peace accords, and the role of international cooperation.

3) Crises in Internal Institutional Orders: Cyber, Economics, and Governance The final panel focused on the vulnerabilities within national institutions, particularly in the domains of cybersecurity, economic systems, and governance. Moderated by Ivan Jovetic of UDG, the discussion provided practical insights into institutional reforms and resilience-building.

The conference underscored the strategic partnership between BMI and UDG, which aims to strengthen academic and institutional exchanges. We at BMI thank our partners at UDG for their hospitality and look forward to continue cooperating with them.

BMI'S 10TH ANNUAL CONFERENCE – ADRESSING CRISIS ON ALL FRONTS

Tel Aviv University May 18th-19th, 2025

We convened for the Boris Mints Institute's 10th Annual Conference at Tel Aviv University under the urgent and timely theme: *Addressing Crisis on All Fronts*. Over two intense and inspiring days, we explored the challenges reshaping our world—from geopolitical conflict and legitimacy in warfare to urban resilience, cultural fault lines, and democratic inequality. The conference opened with a powerful keynote by Mr. Tamir Pardo, former Mossad Director, offering a sobering national security outlook. Discussions quickly deepened into the realities of war and peace in the 21st century, with insights from top scholars and defense experts. Sessions examined how influence operations and the struggle for legitimacy have become central elements of modern conflict. On the second day, we were honored to host Prof. Robert Putnam of Harvard University, who shared a sweeping analysis of long-run societal trends in the United States. Prof. Michael Turner, UNESCO Chairholder, addressed the intersection of heritage and urban resilience in times of polycrisis, while Prof. Miranda Schreurs offered a forward-looking vision for Europe amid multidimensional conflict. Our panels on conflict resolution through culture and the psychology of reconciliation sparked vital dialogue, as did sessions on welfare, inequality, and the future of democracy. As we reflect on this milestone event, we reaffirm our commitment to producing actionable research and policy insight. Together, we continue to seek solutions in an era where crises do not emerge in isolation—but demand understanding across every front.

OTHER BMI ACTIVITIES

BMI CONTINUES SUPPORTING THE "TZAHAI" INITIATIVE

September 5, 2024

During the coming year, BMI will support the "Tzahai" initiative, a program designed to empower Ethiopian women to participate in leadership roles in their communities, societies, and political institutions. Participants in the program will learn about topics such as the political game, power relations, resource distribution, and politics in Israel. Also, ethnicity, economic status, feminism, identity politics, and multiculturalism enable them to acquire critical skills and competencies for effective participation in public life. The institute will assign its researchers to provide training and assistance alongside the program's leaders.

THE 15TH ARAVA SEMINAR ON RENEWABLE ENERGIES

October 21, 2024

As part of a collaboration with Afeka college and the Eilat-Eilot renewable energies organization, the institute is proud to lead the methodological development allowing Social Science students from TAU and future engineers from Afeka college to participate in a one-week intensive seminar devoted to developing interdisciplinary and robust solutions in fields of renewable energies. During the seminar, students are introduced to the diverse renewable energy eco-system in the Arava region and attend numerous lectures and workshops given by top-tier industry leaders and researchers to lay solid foundations for accurate and contemporary work by the students in the future.

THE 16TH ARAVA SEMINAR ON SUSTAINABLE DEVELOPMENT

April 30, 2025

Another cohort of students took part in an inter-disciplinary seminar at the Arava desert. The seminar addressed various issues of sustainable development, including on-hand experiences, lecture from experts and entrepreneurs and much more. The heterogenic group of students from various disciplines – Public Policy, Engineering, Conflict Resolution, Environment and Sustainable Development – worked together to create solution to real-life sustainable development challenges.

BMI RESEARCH TURNED INTO POLICY

June 29, 2025

BMI's longstanding position of investing research and resources in optimizing the use and efficiency of photovoltaic technologies has become the official policy of the State of Israel – where roofs on commercial and residential real estate will feature PV systems as a step towards making the energy demands more self-sufficient, resilient and sustainable. From BMI's founding – it supported countless projects that dealt with engineering and public policy aspects of the use of photovoltaics and solar energy. In addition to the research, BMI conducted the Arava seminars in cooperation with the Eilat Eilot Renewable Energy Initiative and supported the work done by its sister-institute, Archimedes.

BMI LAUNCHES A NEW SCHOLARSHIP CALL FOR PROPOSALS

July 6, 2025

BMI now shifts its primary efforts to address these underperforming areas through four dedicated research labs: (1) Institutions for Equitable Resource Distribution, (2) Institutions Supporting Liberal Values, (3) Sustainable Infrastructure Management (via the Archimedes Center), and (4) Conflict Resolution and Peace. As part of our long tradition, we are launching our annual call for application for BMI, Ph.D. stipend support. 50% scholarships will be awarded to 15 leading Ph.D. students at Tel Aviv University, in the general areas of sustainable development, conflict resolution, democratic values and economics: preference will be given to innovative macro-economic project with direct impact on broad measures of welfare and well-being.

BMI PARTNERS WITH CYBERWEEK 2025

July 9, 2025

BMI is proud to announce its partnership with the Blavatnik ICRC of Tel Aviv University for the 15th International Cyber Week, taking place December 8th-11th 2025. The panel will focus on using narratives and their derivatives as effective means of achieving military and political goals in an armed conflict. As illustrated by the Swords of Iron War, the Russian invasion of Ukraine and other global conflicts – strategic use of disinformation as a tool brought wars in the 21st century into a new arena, where actors are able to spread harmful narratives on social media in order to persuade public opinion. This arena requires a new way of thinking and new tools to combat the threats that arise from malicious narratives. We gather top experts from Israel and the globe to discuss the issue and try to figure out solutions to the emerging challenge.