



## Dutch Israeli Mini-Symposium on Energy System Integration

Tuesday 15 February 2022 11:00-13:00 IL time 10:00-12:00 NL time

Webinar through zoom

YouTube Live

Registration: <https://www.eventbrite.com/e/dutch-israeli-mini-symposium-on-energy-system-integration-tickets-208082288727>

### Objective

Stimulate information exchange and explore opportunities for collaboration ranging from R&D to market application between IL and NL on the topic of energy system integration.

### Background

This symposium focuses on the coordinated planning and operation of the energy system across multiple energy carriers, infrastructures, and consumption sectors, for a more efficient, circular, and reliable energy system. The system as a whole is central here, not specific parts. Energy systems integration is characterized by decentralization, electrification, new market mechanisms (such as peer-to-peer trading and active market participation of prosumers) and is driven by digitization. Relevance of this topic has increased dramatically in recent years due to the rapid phasing out of old and introduction of new energy sources, carriers, and consumers into the energy system, leading to concerns regarding the resilience and reliability of our energy system.

### Target audience

Energy providers, grid operators, policy makers, (academic) researchers

## Program

- Moderator:** Dr. [Mark Boneschanscher](#), Managing Director, Eindhoven Institute for Renewable Energy Systems (EIRES), Eindhoven University of Technology, the Netherlands
- 11:00-11:10 ***Welcome note and intro to parallelism between System Biology and Energy System Integration***  
Dr. [Racheli Kreisberg](#), Innovation Attaché, Netherlands Embassy in Israel, and Israeli Dutch Innovation Center ([IDIC](#))
- 11:10-11:25 ***System Integration: the foundation of energy transition policy***  
Mr. [Mart van Bracht](#), Director program system integration, top sector Energy, the Netherlands

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Innovation Attaché  
Netherlands Innovation Network  
Ministry of Economy and Climate Policy

[Israeli Dutch Innovation Center](#) (IDIC)  
Netherlands Embassy in Israel  
Abba Hillel 14, Ramat Gan, Israel



- 11:25-11:40 ***Local energy management and its advantages for Israel***  
Dr. [Gideon Friedman](#), Chief Scientist Officer, Israeli Ministry of Energy
- 11:45-12:00 ***The Energy System of the Future - To a carbon neutral energy system in the Netherlands in 2050***  
Dr. Jarig J. Steringa, Senior Advisor Energy System Integration, Gasunie
- 12:00-12:15 ***Energy Resilience in Eilat and in the Arava: Implementation of Projects and Innovation in Practice***  
Ms. [Dorit Davidovich Banet](#), CEO and cofounder, Eilat Eilat Renewable Energy Initiative
- 12:15-12:30 ***Reliable Power Electronics for the Energy Transition***  
Prof. [George Papafotiou](#), Eindhoven University of Technology, the Netherlands
- 12:30-12:45 ***System integration aspects and GenCell's technology approach***  
Mr. [Jan- Hendrik Ernst](#), Manager Europe Sales, GenCell
- 12:45-13:00 ***Discussion***  
moderated by Dr. [Mark Boneschanscher](#), Managing Director, Eindhoven Institute for Renewable Energy Systems (EIRES), Eindhoven University of Technology, the Netherlands



# Biosketches lecturers

## **Mart van Bracht**



Mart van Bracht is a highly experienced energy and innovation expert with a large network in the energy sector in the Netherlands and Europe. Over the past two decades, he has held various senior management positions in this field, for example as Managing Director of TNO Energy; one of TNO's knowledge centers (TNO is the largest public Dutch Research and Technology organisation) and as managing director of the Dutch national Geological Survey. Mart is one of the initiators of systems thinking in the energy sector. At present he holds the position of Director System Integration at the Top Sector Energy and various advisory and supervisory positions related to the energy transition.

## **Dorit Davidovich Banet**



Dorit Davidovich Banet co-founded and CEO of Eilat-Eilat Renewable Energy Initiative for the last 14 years. The company demonstrates a model for solving the energy crisis by advancing all necessary components while generating sustainable regional development. The activities include: Leading the process of construction the largest decentralized power station in Israel, which includes 17 solar power stations of various sizes that provide 100% of the electricity demand around all year long, implementing storage for reaching clean energy independence in the region, founders and shareholders in VC "Capital Nature" , Leading implementation of innovative technologies projects, promoting a unique project for developing, demonstrating and implementing clean "off grid" Israeli technologies in Africa. Prior to this position Dorit was the founder and the head of the environment unit at the Eilat Regional Council and Eilat town for eight years. Among her activities were, supervising, advising and policy designer regarding urban planning, swage, marine ecosystem, hazardous materials in industry, education, public awareness, massive recycling infrastructure in the whole region and creating an interface regarding open areas in the Arava and in the Eilat coastal region. Dorit holds a master's degree in Geomorphology from Ben-Gurion University, focusing on stratigraphic issues and earthquakes. She holds a BA in Geography from Haifa University.



### **Jan- Hendrik Ernst**



Dipl.- Engineer Jan Ernst is an energy professional and is specialized on technologies that support the decarbonization of our power sector. He is currently responsible for the Sales activities of Gencell Energy Ltd for Europe. Jan Ernst has been holding various technical, strategic, and commercial roles in the battery energy storage and hydrogen fuel cell industry. He holds a Diploma for Electric Engineering of the HTWK in Leipzig in Germany and brings a profession of 15 years to the subject. Jan Ernst is a member of the European Technology and Innovation platform for the Smart Networks for the Energy Transition (ETIP-SNET).

### **Gideon Friedman**



Stanford Physics Ph.D. graduate with recent years' experience in the energy industry, the electricity market and energy efficiency. Strong emphasis on policy. Excellent communications and leadership skills. Almost 20 years of industry experience in program management, system engineering management and business development, with strong emphasis on computer vision and image processing. Worked in the energy, medical instrumentation, semiconductor metrology and biotechnology industries. In the last 15 years strong emphasis on the business and economic aspects. Experience in running a small startup, with focus on business development. Experience in setting up from scratch a new development project, as well as running it. Excellent system view and understanding of complex multi-disciplinary systems involving deep techno-economic implications. Hands-on, practically oriented with emphasis on taking the initiative and using innovation to achieve results.

### **Georgios Papafotiou**



Georgios Papafotiou obtained his PhD in Electrical Engineering, focusing on Automatic Control and Power Electronics Systems, from the Aristotle University of Thessaloniki (Greece) in 2002. Afterwards, he joined ETH Zurich (Switzerland) for a postdoctoral position, where he worked on the application of Model Predictive Control (MPC) for Power Electronics Systems. Papafotiou built most of his career with ABB. There, he held various positions, starting from Scientist and Principal Scientist to Group Leader of the Power Electronics team in the Swiss Lab of ABB Corporate Research, to Global R&D Manager for SW and Control HW with Medium Voltage (MV) Drives and finally Quality and Customer Experience Manager for the System Drives Division. Since 2021, Papafotiou is a professor in the Department of Electrical Engineering, and the Head of the Power Electronics Lab at TU/e.



### **Jarig J. Steringa**



Jarig Steringa is a senior advisor in energy system development and optimization at Gasunie in Groningen, the Netherlands. He has over 20 years of experience in network simulation and supply/demand modelling and has also been involved in industrial burner research. Jarig has a PhD in Theoretical Physics from the University of Groningen.

## **Biosketches organizers**

### **Dr. Mark Boneschanscher**



Mark Boneschanscher is the managing director of the Eindhoven Institute for Renewable Energy Systems (EIRES). He believes that both science and industry have a crucial role to play in the energy transition. He is therefore actively involved in setting up both scientific as well as public-private collaborations in EIRES. His goal is to speed up the energy transition by industrialization of innovative renewable energy systems.

### **Dr. Racheli Kreisberg**



Dr. Racheli Kreisberg serves since January 2016 as the Innovation Attaché of the Netherlands Innovation Network, Ministry of Economic Affairs and Climate Policy, at the Netherlands Embassy in Israel. She is responsible for developing R&D and business collaborations between Dutch and Israeli companies, universities and research institutions. Her work addresses and implements the innovation of the Netherlands (i.e., Dutch societal challenges, mission driven innovation policy, Key Emerging Technologies) as well as the UN societal development goals (SDGs). Prior to this position she managed her own consultancy company that specialized in the initiation and management of collaborative EU research projects (i.e., Horizon2020) and she serves as an evaluator of the European Commission. Dr. Kreisberg was the Head of the Bioinformatics Unit of Tel Aviv University between 1998-2005. She holds a PhD in Biotechnology and Molecular Microbiology from Tel Aviv University (TAU), an Executive MBA from TAU, an MSc in Chemistry (summa cum laude) from the Technion Israel Institute of Technology, and a B.Sc in biology from the Hebrew University in Jerusalem. Racheli was born in the Netherlands and immigrated with her family to Israel.

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