



National
Energy
Conference

Speakers

OF THE NATIONAL ENERGY CONFERENCE 2022



Opening Session

NELSON LAGE



Mr Nelson Lage has a degree in Political Science - International Relations and an Executive Master in Management and Leadership Development (Católica Lisbon School of Business & Economics). With 15 years of experience in the public sector in energy, innovation, and international relations, served as an adviser in several Portuguese governments and, recently, served as Adviser and Deputy Chief of Cabinet to the Secretary of State for Energy. He is, since July 2020, Chairman of the Board of Directors of ADENE – Agência para a Energia and Chairman of the Board of Directors of OLMC – Energy Logistics Operator Switching and between Feb 2022-2023, President of EnR - the European Energy Network.

YOLANDA GARCIA MEZQUITA



Ms Yolanda Garcia Mezquita holds a Doctor in economics from the Universidad Autónoma de Madrid. From June 2001 to April 2009 she worked as an economic advisor in the Spanish National Regulatory Authority, dealing with regulation and competition issues in electricity and gas sectors. Since May 2009 she has been working for the European Commission in the Directorate General for Energy. She is head of unit in TF2 “Relations with the Member States and the Neighbourhood” in the Energy Platform Task Force.

Session 1

RENEWABLE ENERGY Accelerating the energy transition

MICHAEL SALIBA



Prof. Michael Saliba is a full professor and the director of the Institute for Photovoltaics (ipv) at the University of Stuttgart, with a dual appointment at the Research Center Jülich, Germany. His research focuses on a deeper understanding and improvement of optoelectronic properties of photovoltaic materials with an emphasis on emerging perovskites for a sustainable energy future. Since 2021, Michael is the Speaker of the DFG Graduate School (GRK) 2642 for “Quantum Engineering”. In 2022, he was awarded a Starting Grant by the European Research Council (ERC).

Previously, Michael was at TU Darmstadt, Fribourg University and a Marie Curie Fellow at EPFL with research stays at Cornell and Stanford. He obtained his PhD at Oxford University and MSc degree at Stuttgart University together with the Max Planck Institute for Solid State Research.

Michael has published numerous works in the fields of plasmonics, lasers, LEDs and perovskite optoelectronics. He is listed as ISI Highly Cited Researcher since 2018. He was awarded the Heinz-Mai-er-Leibnitz prize by the German Research Foundation (DFG) and named as one of the World’s 35 Innovators Under 35 by the MIT Technology Review.

ROBERT N. FARRUGIA

Dr Ing. Robert N. Farrugia graduated from the University of Malta as a Mechanical Engineer in 1992 and holds an Engineering Warrant. He was awarded an M. Phil. Degree in 1998 and a Ph.D. in 2016 by the same university for research on wind resources and wind flow behaviour in the Maltese islands. He is a Resident Academic with the University of Malta’s Institute for Sustainable Energy in Marsaxlokk, Malta, where he holds the post of Senior Lecturer.

Research interests include wind energy, solar water heating, energy utilisation, energy storage and energy education. He is currently participating in a number of national and international research projects. Robert has contributed to technical reports, book chapters and has published a number of papers in national and international journals and conferences dealing with energy-related topics.

SAVIOUR FORMOSA

Prof. Saviour Formosa is employed at the Department of Criminology at the University of Malta and consultant to various departments and entities. He was formerly Head of the Department from 2016-2020. He has a PhD in spatio-temporal environmental criminology, having acquired a MSc in GIS and a BA(Hons) in Sociology and a Diploma in Applied Social Sciences. His main area of research in social-sciences relates to social wellbeing on safety and security, access to services and social inclusion across the age groups. Having worked in various fields such as the United Nations Institute on Ageing, the development planning agency and the University of Malta, he serves as consultant to various Ministries and the public sector and public service on innovation, policy and intervention.

His expertise is based on spatio-temporal analysis of social and physical relationships using spatial information systems. His expertise lies in the implementation of cross-thematic approaches and uses to the data cycle and management with emphasis in the thematic and spatial data structures and their affect on well being and inclusion, spatial analysis of social data, integrative and horizontal systems that are pivotal for social change.

Prof. Formosa has published extensively in various social and technological domains. He is currently involved in the creation of virtual and immersive worlds as an investigative tool for social interaction-ism as a potential future scenario construct analysis that would affect the different age cohorts and how they interact with the societal milieu.

RYAN BUGEJA

Ing. Ryan Bugeja is an electrical and electronics engineer by profession. He is currently the Senior Systems Engineer of the University of Malta Institute for Sustainable Energy's Solar Research Laboratories. He is also reading for his PhD on the optimisation of offshore photovoltaic installations. Ing. Bugeja is experienced in photovoltaic system design and is part of the Solaqua team and co-inventor of a PV cooling system (IPCoSy).

Session 2

ENERGY EFFICIENCY

The cheapest form of energy

MAURIZIO CELLURA



Prof. Maurizio Cellura is a full professor of Building physics and Building Energy Systems since 2011 at the University of Palermo, his scientific activity is mainly oriented towards energy and environmental topics, with focus on energy efficiency in buildings, technologies powered by renewable energy technologies and decarbonization strategies of systems and processes. Director of the Centre for Sustainability and Ecological transition of the University of Palermo since March 2022.

Representative for the University of Palermo to the “Sustainable Solutions Development Network – a global initiative for the United Nations” since 2014, he was national vice president of the “Italian Life Cycle Assessment Network” since 2012, becoming president in October 2015. He is member of the Italian consultation board of the Italian Ministry for Education for the challenge “Secure, Cleaner and Efficient Energy” of the EU program Horizon 2020 (from October 2013). He is the national representative of the SETPLAN IWG 5 “Energy Efficiency in Buildings”. Since 2020, he has been the Italian representative member of the Bureau of Research and Innovation of the Union for Mediterranean. He authored more than 380 scientific publications.

DANIEL MICALLEF

Dr Ing. Daniel Micallef is an academic at the University of Malta forming part of the department of Environmental Design at the Faculty for the Built Environment. He is also an associate member of the Institute for Sustainable Energy at the University of Malta. Daniel graduated in Mechanical Engineering from the University of Malta in 2008 with first class honours. He started his professional career in the public sector with the Malta Resources Authority as an energy analyst. During this time he started pursuing a career in academia. He read for a joint PhD with the Delft University of Technology in the Netherlands where he formed part of the DUWIND wind energy research group and the University of Malta. His research focused on furthering the understanding of wind turbine flow phenomena close to the tip using various approaches including vortex codes and particle image velocimetry. Following the attainment of his PhD in 2012, he furthered his post-doctoral research career on the HILDA

FP7 project where he was responsible for the development of advanced computational models used to study welding processes. Following this he became resident academic at the University of Malta where he lectures in both undergraduate and post-graduate courses. Daniel published in high quality peer reviewed journals and conferences worldwide.

His current major interests are in the fields of fluid mechanics, wind energy, wind engineering and building physics. He is currently reviewing editor in engineering of the Cambridge University Press' Experimental Results journal and section editor of the journal Energies by MDPI.

He was former president of the Chamber of Engineers of Malta. Daniel has secured an extensive portfolio of research funding from both local and EU funding schemes and he is currently the principal investigator on the Horizon 2020 project VARCITIES and co-investigator on the Horizon 2020 project JustNATURE, both large projects having multi-million budgets.

ANTOINE GATT

Mr Antoine Gatt completed his Bachelor's and Master's degree in Landscape architecture at the University of Gloucestershire in the UK. Over the past 22 years he has worked on various projects related to garden design, urban design, design of public open spaces and habitat conservation both locally and abroad.

He is currently employed as a Research Support Officer at the Faculty for the Built Environment, University of Malta, where he lectures and tutors students on landscape architecture related subjects. He is currently reading for a Doctorate degree in green roof performance.

For the last nine years he has been researching green roofs for their benefits in rendering urban spaces more liveable and sustainable. For four years he managed the LifeMedGreenRoof project, an EU funded project aimed at understanding the potential of green roofs in the local scene and pushed towards the introduction of this technology. He has also managed other EU funded projects.

Apart from green roofs, his interests also lie in sustainable urban design, sustainable landscapes, green infrastructure and ecosystem services. He is also interested in the design of sensory landscapes.

He is the author of a number of articles on landscape architecture, green roofs and green infrastructure.

OLAF ZAHRA

Mr Olaf Zahra joined Toly Products in 1987 and covered several roles in quality management until 1998 when he switched to operations. He occupied the post of Chief Operations Officer for the Toly Group between 1998 and 2018 during which Toly expanded into new markets and opened manufacturing locations in China, India and Korea. As of January 2019, he took up the post of Chief Officer Technology and Sustainability.

Session 3

BATTERY STORAGE

Scaling up Storage

GERT MEYLEMANS



Mr Gert Meylemans joined EUROBAT - the Association of European Automotive and Industrial Battery Manufacturers in August 2018. As Communications Director, it is Gert's role to strategically communicate key messages to the available channels and make sure EUROBAT's voice will be better heard in the Brussels arena and across Europe.

Gert, who holds a degree in Marketing and Communications, has more than 30 years of expertise and international experience in automotive PR and corporate communications. He previously worked at Nissan Belux, Bridgestone EMEA and as a freelance communications consultant amongst others at CLEPA, the European Association of Automotive Suppliers.

TONIO SANT

Prof. Tonio Sant is a professor within the Department of Mechanical Engineering at the Faculty of Engineering of the University of Malta. He graduated in Mechanical Engineering from the same University, following which he worked in the local air maintenance and manufacturing sectors. He later pursued his doctoral studies in wind energy at Delft University of Technology in the Netherlands. He lectures Fluid Mechanics, Renewable Energy and Maritime Hydrodynamics.

His main areas of research cover wind energy, offshore energy storage and floating marine structures. He has co-founded the University spin-off company FLASC B.V. which is currently developing energy storage solutions tailored for offshore.

ALEXANDER MICALLEF

Dr Alexander Micallef received the B. Eng. degree in engineering, the M.Sc degree in electrical engineering, and the Ph.D. degree in engineering from the University of Malta, in 2006, 2009, and 2015, respectively. He is currently a senior lecturer with the Department of Electrical Power Conversion (IE-PC), University of Malta, Malta. He is an associate member of the Institute for Sustainable Energy at the University of Malta. Since 2015 he is also a guest lecturer in a PhD course on “Power Quality and Synchronization Techniques in Microgrids” at the Centre for Research on Microgrids, Aalborg University, Denmark.

Dr. Micallef has published more than 25 international peer-reviewed journal and conference papers on microgrids, electrical transportation, zero energy buildings and power quality.

He is an Associate Editor for IEEE Access and IET Smart Grids. He is a senior member of the IEEE, the vice-chair of the IEEE Malta Section and a member of the IEEE P3105 working group. He was involved in the IEEE PES SBLCS Technical Committee where he was the Chair of Smart Buildings and Customer Systems Subcommittee. His research interests include microgrids; maritime microgrids for electric ships, offshore applications and seaports; integration of renewable energy sources; distributed energy storage systems; hierarchical and cooperative control; and energy management systems.

ROBERT CAMILLERI

Dr Robert Camilleri is the lead academic and contact point of the consortium. Robert is a Senior Lecturer within the Institute of Aerospace Technologies at the University of Malta. He graduated with a DPhil in Engineering Science from the University of Oxford, holds a Master’s degree in Gas Turbine Technology from Cranfield University and a Bachelor’s degree in mechanical engineering from the University of Malta.

Robert is involved both in teaching and research. In teaching, he delivers study units on aircraft performance, aircraft design and aircraft powerplants. In research, his interests include aircraft performance, gas turbine technology, hybrid-electric aircraft, flight data monitoring, and heat transfer in electrical machines, electronics and batteries.

Robert has over ten years of experience working within an R&D environment in industry and academia and has successfully attracted over €1.4M in research funding. His research output includes over 35 publications in journals and peer reviewed conferences. He is the inventor of two patent applications on battery cooling and the use of AI in aircraft flight data.

Panel Discussion

PROF. MICHAEL SALIBA
PROF. MAURIZIO CELLURA
MR GERT MEYLEMANS

[See above](#)

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FILIPA NEWTON

Ing. Filipa Newton is the Chair of the Water-Energy Nexus Task Force of the European Energy Network (EnR) and Coordinator of New Systems at ADENE – the Portuguese Energy Agency. Working for more than 15 years on sustainability, water efficiency, water-energy nexus, climate & energy transition bringing together public policy, innovation, citizens, cities and business transformation. Main focus since 2020, at ADENE, is the creation and/or management of new voluntary standards for water efficiency, water-energy nexus and energy efficiency in products, buildings and mobility, towards national and European sustainability, energy and climate goals: AQUA+ (www.aquamais.pt, National EEPa Winner 2021 and European finalist, and shortlisted for the 2022 Financial Times/IFC Awards), CLASSE+ (www.classemais.pt), casA+ (www.portalcasamais.pt) and MOVE+ (www.movemais.pt). Since 2022, working also as Chair of the Water-Energy Nexus task force @ European Energy Network (EnR) within EnR Presidency 2022 team, creating a new working-group and several new studies on water-energy nexus.

LUCIANO MULÈ STAGNO

Prof. Luciano Mulè Stagno is the Director of the Institute for Sustainable Energy and Group Leader of the Solar Research Lab at the University of Malta. He holds a Ph.D in Physics from the Missouri University of Science and Technology. He returned to his native Malta in 2007 from the US where, after his PhD studies, he spent 12 years working with MEMC Electronic Materials (now Global Wafers, formerly SunEdison). His last post there was that of Director of Worldwide Labs with responsibility for labs in Asia, Europe and the US.

His major expertise is in the characterization, engineering and synthesis of semiconductor and solar materials. He has published extensively and holds 10 patents on semiconductor/solar materials. His current research interests are in photovoltaics systems and materials and other renewable energy technologies that could be applicable to Malta. He lead ERDF335 – the 4.2M Euro project to fund the solar research lab and Solaqua an ongoing project to study offshore solar energy and several other projects. Luciano has a passion for heritage and environmental issues. In fact his first post in Malta was that of CEO of Heritage Malta (2007-2009) and he is currently Vice-president of Din L-Art Helwa (The National Trust of Malta). He is also Chairman of the COST (European Cooperation in Science and Technology) scientific committee and has served on the boards of several local companies.