# SUSTAINABILITY Masterclass

Venue:

**"Ioannis Drakopoulos"** Amphitheatre Main Building of the National and Kapodistrian University of Athens, Propylaea (Panepistimiou St. 30)

# 6 7 8 9 NOVEMBER 2023

This Masterclass is led by world-class scholars and explores contemporary insights and practices in sustainability leadership and change management within organizations. This transformational program offers a co-development space where you can build your knowledge, expertise and confidence. It draws on case studies and insights from best practice examples across industry, higher education, and agriculture.

The 2023 Masterclass offers delegates the opportunity to work directly with peers to explore complex transformation challenges and create pathways for change that lead to actionable solutions. Delegates will benefit from dedicated time to reflect, discuss, and plan – making use of the groups' expertise, that of the faculty and speakers assembled, and the curated learning resources. This is an immersive inperson event that makes best use of the scholarly environment of the university.







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#### FRAMING THE SUSTAINABILITY CHALLENGE

| 09:00-9:30  | Registration, Refreshments & Networking   |
|-------------|---|
| 09:30-10:00 | Welcome & Introductions   |
|             | <ul> <li>Professor Gerasimos Siasos, Rector, National and<br/>Kapodistrian University of Athens</li> <li>Professor Nikolaos Thomaidis, Member of the Council<br/>National and Kapodistrian University of Athens</li> <li>Professor Christiana A. Mitsopoulou, Research Institute of<br/>Energy-Renewable Sources and Transport, University<br/>Center of Research 'Antonis Papadakis", National and<br/>Kapodistrian University of Athens</li> <li>Professor Philip Demokritou<br/>Henry Rutgers Chair and Professor of Nanoscience and<br/>Environmental Bioengineering, Rutgers University &amp;<br/>Adjunct Professor, Harvard University</li> </ul> |
| 10:00-11:30 | Session 1: What is Sustainability: Economic Development,<br>Employment, & the Environment<br>Nicholas Askounes Ashford, PhD, JD<br>Professor of Technology, Policy Director Technology &<br>Law Program, Massachusetts Institute of Technology  |
| 11:30-13:00 | Session 2: Intersections of Planetary & Human Health  |
|             | Sustainability, Planetary and Human Health:<br>Challenges and Opportunities<br>Philip Demokritou, PhD<br>Henry Rutgers Chair and Professor of Nanoscience and<br>Environmental Bioengineering, Rutgers University &<br>Adjunct Professor, Harvard University  |
|             | Helmut Zarbl, D.C.S., Ph.D., ATS Fellow<br>Chair and Professor of Toxicology, Department of Environmental<br>and Occupational Health. School of Public Health,<br>Research Dean Rutgers University  |
|             | <b>The Regulation of Environment &amp; Global Climate Change</b><br>Nicholas Askounes Ashford, PhD, JD<br><i>Professor of Technology, Policy Director Technology &amp;</i><br><i>Law Program, Massachusetts Institute of Technology</i>   |

| 13:00-14:30 | Lunch & Networking  |
|-------------|---|
| 14:30-15:45 | Session 3: Economic Development, Globalization (Trade) &<br>Sustainability<br>Nicholas Askounes Ashford, PhD, JD<br>Professor of Technology, Policy Director Technology &<br>Law Program, Massachusetts Institute of Technology |
| 15:45-16:00 | Coffee Break  |
| 16:00-17:15 | Session 4: Global Megatrends, Sustainability, &<br>the SDGs [By Zoom]<br>Wendy M. Purcell, PhD FRSA<br>Professor, Rutgers University & Academic Research Scholar,<br>Harvard University   |
| 17:15-17:30 | <b>Closing Remarks and Discussion - Day 1</b><br>Philip Demokritou, PhD, N. Ashford, PhD W. Purcell, PhD  |

*Outline of Program* **November 7,** 2023

### INDUSTRIAL POLICY, ENERGY CONSIDERATIONS AND PARTNERSHIPS FOR SUSTAINABILITY

- 09:00-9:30 Refreshments & Networking
- 9:30-9:45 Introduction to Day 2

DAY 2

Philip Demokritou, PhD Henry Rutgers Chair and Professor of Nanoscience and Environmental Bioengineering, Rutgers University & Adjunct Professor, Harvard University

- 9:45-11:15 Session 5: Industrial Policy: Technology, Innovation, & Employment Nicholas Askounes Ashford, PhD, JD Professor of Technology, Policy Director Technology & Law Program, Massachusetts Institute of Technology
- 11:15-11:30 Coffee break

# **11:30-13:00**Session 6: Energy Consideration and Pathways<br/>to Sustainability<br/>Nicholas A. Ashford, PhD, JD<br/>Professor of Technology, Policy Director Technology &<br/>Law Program, Massachusetts Institute of Technology

13:00-15:00 Lunch & Networking

15:00-17:15Session 7: Partnerships for Sustainability – Universities,<br/>Business, & Community

# Introductory lecture: Universities Driving Sustainability in Partnership

Wendy M. Purcell, PhD FRSA (45 mins) Professor, Rutgers University & Academic Research Scholar, Harvard University

**Integrating Public and Ecosystem Health Systems: Challenges and Opportunities to Move from Knowledge to Action** Kathleen Rest, PhD, MPA (20 mins) *Senior Fellow, Institute for Global Sustainability, Boston College* 

## Greening the University Campuses: The University of West Attica Vision

John Kaldellis, PhD (20 mins) Professor, University of West Attica

#### National Strategy on Research, Technological Development and Innovation 2021-2027. Research and Innovation Priorities for the support of Circular Economy and Sustainability

Dr Antonios Gypakis (20 mins) Head of the Policy Planning Department / Planning and Programming for Research and Innovation Directorate, General Secretariat for Research and Innovation

#### **Implementation of Food Waste Management in Greek Municipalities under a Circular Economy Perspective** Lyberatos Gerasimos, PhD (20 min)

Professor, National and Technical University of Athens

#### 17:15-17:30 Closing Remarks and Discussion - Day 2

Wendy M. Purcell, PhD FRSA *Professor, Rutgers University & Academic Research Scholar, Harvard University* 

# SUSTAINABILITY AGRICULTURE AND FOOD SYSTEMS

- 09:00-9:30 Refreshments & Networking
- 9:30-9:45 Introduction to day 3

Philip Demokritou, PhD Henry Rutgers Chair and Professor of Nanoscience and Environmental Bioengineering, Rutgers University

9:45-11:30 Session 8: Sustainable Agriculture and Food systems

**Sustainable Agriculture** Jason White, PhD Director of the Connecticut Agricultural Experiment Station & Clinical Professor of Epidemiology (Environmental Health, Yale School of Public Health)

- 11:30-11:45 Coffee Break
- **11:45-12:30** Sustainable Nanotechnology: Nature-derived sustainable materials for agriculture, food systems, and beyond. Philip Demokritou, PhD Henry Rutgers Chair and Professor of Nanoscience and Environmental Bioengineering, Rutgers University
- 12:30-14:00 Lunch & Networking
- 14:00-15:00 Healthy Diets from Sustainable Food Systems: The Mediterranean Diet Stefanos Kales, MD Professor, Harvard Medical School and TH Chan School of Public Health
- **15:00-16:00 Technological Advances in Food Safety [By Zoom]**Benedetto Marelli, PhD *Associate Professor of Civil and Environmental Engineering, Massachusetts Institute of Technology*
- 16:00-16:30Smart farming Decision Support Systems. A key factor<br/>for sustainability and growth in agriculture<br/>Dimitris Kapnias, Senior manager Large Scale Projects,<br/>NEUROPUBLIC GAIA EPICHEIREIN

| 16:30-17:00 | <b>Global food systems under risk: Are we facing<br/>a permanent crisis?</b><br>Yannis E. Doukas, PhD<br><i>Assistant Professor of Agricultural Economics and Policy,</i><br><i>National and Kapodistrian University of Athens, Greece</i> |
|-------------|--|
| 17:00-17:30 | Closing Remarks and Discussion - Day 3   |
|             | Philip Demokritou, PhD, Jason White, PhD, Stefanos Kales, MD   |

DAY 4

*Outline of Program* **November 9,** 2023

#### SUSTAINABILITY IN VARIOUS SECTORS IN GREECE

| 09:30-10:00 | Refreshments & Networking   |
|-------------|---|
| 10:00-10:15 | <b>Opening Remarks</b><br>Margarita-Niki Assimakopoulos, PhD<br><i>Associate Professor, Physics Department, National and</i><br><i>Kapodistrian University of Athens</i>                |
|             | Maria K. Koukou, PhD<br>Asst. Professor, Department of Agriculture Development,<br>Agri-Food and Natural Resources Management, National and<br>Kapodistrian University of Athens        |
| 10:15-11:15 | <b>Sustainable Buildings</b><br>Margarita-Niki Assimakopoulos, PhD<br><i>Associate Professor, Physics Department, National and</i><br><i>Kapodistrian University of Athens</i>          |
| 11:15-11:45 | <b>Standarisation activities and guidelines to decarbonise</b><br><b>buildings construction and operation</b><br>Alkis Triantafyllopoulos, <i>Mech. Eng. ASHRAE Region XIV SA Chair</i> |
| 11:45-12:00 | Coffee Break  |

| 12:00-12:30 | Sustainability in industrial company WILO            |
|-------------|--|
|             | Panagiotis Stapas, Managing Director Wilo Hellas and |
|             | Vice President ASHRAE Hellenic Chapter               |

- 12:30-12:45 Sustainability & EUROPA. Looking into the future. Dikaiou Eleni, Energy Efficiency Consultant M.Sc., PMP, Europa Profil Aluminium S.A.
- 12:45-13:15 Decarbonization of European Islands. The Scientific Experiment of Tilos John Kaldellis, PhD Professor, University of West Attica
- **13:15-13:45 Sustainable geothermal applications the case of Polichnitos**Maria K. Koukou, PhD *Asst. Professor, Department of Agriculture Development, Agri- Food and Natural Resources Management, National and Kapodis- trian University of Athens*

Michail Gr. Vrachopoulos, PhD Professor, Department of Agriculture Development, Agri-Food and Natural Resources Management, National and Kapodistrian University of Athens

13:45-14:15 Closing Remarks and Discussion - Day 4

Philip Demokritou, PhD, Margarita-Niki Assimakopoulos, PhD

# SUSTAINABILITY Masterclass 6 7 8 9 N O V E M B E R 2023

**Professor Nicholas Askounes Ashford,** *Professor of Technology & Policy and Director of the Technology & Law Program at the Massachusetts Institute of Technology* 

**Professor Philip Demokritou,** Henry Rutgers Chair and Professor of Nanoscience and Environmental Bioengineering, Rutgers University

**Professor Wendy M. Purcell,** *PhD FRSA Professor, Rutgers University & Academic Research Scholar, Harvard University* 

**Professor Michail Gr Vrachopoulos,** Energy and Environmental Research Lab, Department of Agriculture Development, Agri-Food and Natural Resources Management, National and Kapodistrian University of Athens

**Assistant Professor Maria K. Koukou,** Energy and Environmental Research Lab, Department of Agriculture Development, Agri-Food and Natural Resources Management, National and Kapodistrian University of Athens

**Professor Vassileios N. Stathopoulos,** Laboratory of Chemistry & Materials Technology, Department of Agriculture Development, Agri-Food and Natural Resources Management, National and Kapodistrian University of Athens

**Professor Christiana A. Mitsopoulou,** Chemistry Department and Research Institute of Energy-Renewable Sources and Transport, University Center of Research 'Antonis Papadakis", National and Kapodistrian University of Athens

**Associate Professor Margarita-Niki Assimakopoulos,** *Physics Department, Group of Building Environmental Studies, National and Kapodistrian University of Athens* 

#### **ORGANISATION COMMITTEE**

**Professor Michail Gr Vrachopoulos,** Energy and Environmental Research Laboratory, Department of Agriculture Development, Agri-Food and Natural Resources Management, National and Kapodistrian University of Athens

**Assistant Professor Maria K. Koukou,** *Energy and Environmental Research Laboratory, Department of Agriculture Development, Agri-Food and Natural Resources Management, National and Kapodistrian University of Athens* 

**Professor Vassileios N. Stathopoulos,** Laboratory of Chemistry & Materials Technology, Department of Agriculture Development, Agri-Food and Natural Resources Management, National and Kapodistrian University of Athens

**Professor Christiana A. Mitsopoulou,** Chemistry Department and Research Institute of Energy-Renewable Sources and Transport, University Center of Research 'Antonis Papadakis", National and Kapodistrian University of Athens

**Associate Professor Margarita-Niki Assimakopoulos,** *Physics Department, Group of Building Environmental Studies, National and Kapodistrian University of Athens* 



**Nicholas Askounes Ashford** is Professor of Technology & Policy and Director of the Technology & Law Program at the Massachusetts Institute of Technology, where he teaches courses in Environmental Law, Policy, and Economics; Law, Technology, and Public Policy; and Technology, Globalization and Sustainable Development. Dr. Ashford is a Faculty Associate of the Center for Sociotechnical Research in the School of Engineering; the Institute for Work and Employment Research in the Sloan School of Manage-

ment; and the Environmental Policy Group in the Urban Studies Department. He holds both a Ph.D. in Chemistry and a Law Degree from the University of Chicago, where he also received graduate education in Economics. Dr. Ashford is also a visiting scientist at the Harvard School of Public Health and has taught intensive courses in Sustainable Development, and European & International Environmental Law at Harvard University, Cambridge University, UK and at the Cyprus University of Technology.



**Professor Philip Demokritou**'s research interests are primarily in the areas of nano-aerosol science and technology with an emphasis on the interactions of particles with biological and environmental systems and elucidation of health effects. His particle research spans across the exposure-disease continuum and includes the development of personal monitoring (PM) systems for use in exposure assessment and epidemiological studies, methods for the physico-chemical and biological characterization of particles. His

current research focuses on interactions of engineered nanomaterials (ENMs) with biological systems, assessing the nano-bio interface and the role of ENM structure on bioactivity both in terms of nanosafety research and biomedical applications. His nanosafety research has involved development of in-vitro screening approaches for nano-specific effects (DNA damage, epigenetics, translocation of ENMs across biological barriers, etc), "safer-by-design" approaches for families of ENMs, development of advanced tools and framework approaches for in-vitro/in-vivo dosimetry, life cycle specific risk assessment studies for nano-enabled products (NEPs). and the fate of ENMs in the gastrointestinal tract (GIT). His current nanoscience research includes: 1) the synthesis of nanomaterials using flame spray pyrolysis; 2) synthesis of nature-derived biopolymers for agri-food applications such as sustainable food packaging and agri-chemical delivery systems; and 3) environmental nanotechnology applications for pathogen inactivation. Dr. Demokritou is the founding Director of two interdisciplinary research Centers at Harvard University: Harvard-NIEHS Nanosafety Research Center (www.hsph.harvard.edu/nanosafety) and the Center for Nanotechnology and Nanotoxicology (www.hsph.harvard.edu/nano). He is also the founding Program Director for the Harvard-Nanyang Technological University/Singapore Sustainable Nanotechnology Initiative (2016-2022). He is also the founder of the Nanoscience and Advanced Materials Research Center at Rutgers University.

In the past, he served as a co-PI of the Harvard-EPA PM Health Effect Center (1999-2010, US EPA star grant) and the Director of the Harvard-Cyprus International Institute for the Environment and Public Health from 2005-2008. He served as PI, co-PI, or co-investigator on several grants funded by NIH, EPA, NIOSH, NSF, USDA/NIFA, CPSC, and EU research framework (FP7). He holds more than a dozen of international/US patents and inventions. He is a co-author of two books, numerous book chapters, and more than 220 articles in leading journals in nanoscience, particle health effect, and aerosol engineering fields. Dr. Demokritou's innovative research was highlighted in major mainstream media and online magazines, including articles published in the Economist, NanoWerk, Chemistry world, The Scientist, ACS C&EN News, MIT News, Harvard Gazette, and NPR news. Dr. Demokritou is currently the Henry Rutgers Chair and Professor in Nanoscience and Environmental Bioengineering at Rutgers School of Public health, Division Head at the Environmental Occupational Health Sciences Institute (EOHSI) and Vice Chair in the Department of Environmental Occupational Health and Justice at Rutgers School of Public health. Before joining Rutgers, he was a Professor at TH Chan School of Public Health at Harvard University for 25 years. He is also a founding co-editor in chief of NanoImpact (Elsevier), and co-founder of DIETRICS Plc.



**Professor Helmut Zarbl**, serves as the Director of the NIEHS sponsored Center for Environmental Exposures and Disease. He is also the Associate Director For Public Health Sciences at the Cancer Institute of New Jersey. He serves on numerous national research review and advisory panels, and editorial panels.. Dr. Zarbl is known for his work in areas of toxicogenomics, and mechanisms of and genetic susceptibility to chemical carcinogenesis, mechanisms of mutagenesis and toxicity, and technology development.

These research efforts have to date resulted in over 70 scientific papers and book chapters. Research has focused largely on toxicogenomics and functional genomics, carcinogenesis, molecular and cellular biology, and toxicology. Specifically this has included work understand to molecular mechanisms of chemical carcinogenesis and the genetic basis for differential susceptibility to mammary carcinogenesis using animal and in vitro model systems, and then translating the findings to human breast cancer. Studies in the rat model have included analysis of oncogene activation, mechanisms of signal transduction, and genetic linkage analysis to identify mammary tumor suppressor genes. He has also used toxicogenomics to dissect mechanisms of mechanism carcinogenesis, tumor progression and chemoprevention. His studies in the area of toxicogenomics include the development and application of standards for DNA microarray experiments, and phenotypic anchoring of response of human cells, model organisms (yeast) and target organs (rodents) to toxicants, providing insights into dose and temporal responses, as well as mechanisms of action. He is also actively involved in technology development for functional genomics and biomarker screening.



**Professor Stefanos Kales,** MD is a Professor of Medicine at Harvard Medical School, and Professor & Director of the Occupational Medicine Residency at the Harvard Chan School of Public Health (HSPH). He is also Chief of Occupational Medicine/Medical Director for Employee Health at the Cambridge Health Alliance, a Harvard-affiliated hospital system. He organized and hosted the groundbreaking 2014 Mediterranean Diet and Workplace Health Conference and he was the Scientific Chair of the landmark 2017

Mediterranean Diet & Health Conference in Greece. Dr. Kales also organized the "Mediterranean Diet: Promotion and Dissemination of Healthy Eating", a 2019 Exploratory Seminar at Harvard's Radcliffe Institute for Advanced Study.

Dr. Kales has participated in a wide range of medical/public health research, advisory and teaching activities on five continents resulting in over 200 publications and wide recognition nationally and internationally. He serves on the editorial boards of several biomedical journals and is a faculty member in Harvard's Cardiovascular Epidemiology Program, a multidisciplinary heart disease prevention collaboration, and Harvard Medical School's Division of Sleep Medicine. Dr. Kales has received top academic prizes in the field of occupational medicine, including the 2013 Kehoe Award for Excellence in Education and Research and 2014 Harriet Hardy Award for outstanding scientific contributions to the field. He has also received honors from the International Association of Fire Chiefs and was inducted into the Order of Emperor Dom Pedro II by the Federal Corp of Brazilian Military Firefighters. The team's latest initiative is an ambitious Mediterranean Diet Intervention trial ("Feeding America's Bravest: Survival Mediterranean Style) among Midwestern firefighters which is funded by a \$1.5 million grant from the US Department of Homeland Security, which was recently awarded the 2017 Silver Medal for Health Research by the Oleocanthal International Society.



**Professor Benedetto Marelli,** Associate Professor of Civil and Environmental Engineering, Massachusetts Institute of Technology Benedetto (Ben) Marelli's research group works in the area of structural biopolymers, biomineralization and self-assembly. By using biofabrication strategies, the research group designs bioinspired materials that work at the biotic/abiotic interface to prevent or mitigate environmental impact. His interests and collaborative opportunities span widely across the department. He brings

a wealth of experience, and a strong focus on engineering and innovation from a multiple-scale perspective with interests that include mechanical and optoelectronic properties of natural polymers, biocomposites, additive manufacturing, and emerging technologies.



**Kathleen Rest,** PhD, MPA Kathleen Rest, a Senior Fellow at the Boston University Institute for Global Sustainability (IGS) and former Executive Director of the Union of Concerned Scientists (UCS), oversaw UCS's work on clean energy and transportation, climate change, sustainable agriculture, global security, and protecting the integrity of science in public policy. With expertise in public policy, public and environmental health, and worker health and safety, Rest has worked in government, academia, and the nonprofit sec-

tor. Prior to joining UCS, she served as the Acting Director of the National Institute for Occupational Safety and Health (NIOSH) in the U.S. Centers for Disease Control and Prevention and as a faculty member in several medical schools, including the University of Massachusetts Medical School. She has international experience as a researcher and advisor on occupational and environmental health issues, served on several National Academy of Medicine Committees, and authored numerous articles and book chapters on occupational and environmental health issues. Rest holds a PhD in health policy from Boston University and a MPA from the University of Arizona.



**Professor Wendy M. Purcell,** PhD FRSA Wendy's purpose lies in transforming lives through education and research in pursuit of social equity, the knowledge economy and sustainable development. She is a full Professor with Rutgers University Biomedical and Health Sciences, joining the university in Fall 2022 from the Harvard T.H. Chan School of Public Health where she was an Academic Research Scholar 2016-2022. She remains with Harvard University as Lead Faculty Instructor for 'Sustainable Tourism' with

Harvard's Faculty of Arts and Sciences Division of Continuing Education and Affiliate Research Scientist with SHINE Human Flourishing Program at Harvard T.H. Chan School of Public Health. Wendy is also a Visiting Professor with University College London Global Business School for Health and leads the MBA Health module in change management.

Wendy is Emeritus Professor of Biomedicine and was President of a UK university (2007-2015) leading the university to be among the top 1% of world universities and first 'green' UK university. She was awarded the Queen's Anniversary Medal for Excellence in Higher Education. She is a Council Member of the United Nations University, Governing Board Member EELISA European University and Member of the American Association of Universities and Colleges.

Wendy is Editor-in-Chief of the journal Merits, an international journal focused on contemporary research issues related to enabling people at work to thrive and is editing a Special Issue on 'People – The Next Sustainability Frontier' now open. She is also Series Editor for a suite of 17-book on 'Higher Education and the Sustainable Development Goals' for Emerald Publishing. Her most recent book 'The Bloomsbury Handbook of Sustainability in Higher Education' was published in February 2023.



**Dr. Jason C. White** is the Director of the Connecticut Agricultural Experiment Station (CAES), the first AES established in the United States, and has a research program on the use of nanoscale materials to sustainably increase food production. Dr. White is a member of the CT Academy of Science and Engineering and of the European Science Foundation College of Experts. He is a Commissioned Official of the United States Food and Drug Administration. He is the Managing Editor for the International Journal

of Phytoremediation, an Associate Editor for NanoImpact, on the editorial board of Environmental Pollution, ACS Agricultural Science and Technology, and on the Editorial Advisory Boards of Environmental Science & Technology and Environmental Science & Technology Letters. He is a Clarivate Web of Science Highly Cited Researcher (2020-2022). Dr. White received his Ph.D. in Environmental Toxicology from Cornell University and has secondary appointments at Yale University and the University of Massachusetts. He has an h-index of 84 and has published 300 papers with 24,086 citations.



**Margarita-Niki Assimakopoulos is Associate Professor** is an Associate Professor in the Department of Physics of the Department of Applied Physics and Meteorology of the National and Kapodistrian University of Athens. She is Head of the Group of Building Environmental Studies and Director of the Laboratory for Measurements of the Indoor Environment. She graduated from the Imperial College of Science, Technology and Medicine (MEng, Electrical and Electronic Engineer, 1999) in London. Her postgradu-

ate studies as well as her doctoral dissertation were completed at the Ecole National de Travaux Publique de l'État in Lyon (D.E. Génie Civil, Bâtiment et Environnement, 2001 & Doctorat Génie Civil, Bâtiment et Environnement, 2005). She has participated in more than 18 research projects both international and national. Currently she is the scientific responsible of 3 European projects under the framework of HORIZON 2020. Author of more than 80 publications in peer reviewed international journals and conferences. Furthermore, she is a reviewer of several scientific journals on energy efficiency and natural science (Journal of the International Solar Energy, International Journal of Remote Sensing, Journal of Cleaner Production, International Journal of Ventilation, Advances in Building Energy Research). The main research areas she attends to are: Energy Efficiency of Buildings, Indoor and Outdoor Pollution and Environmental Quality, Advanced Building Materials, Building Management technologies. She is a board member for the European Cool Roofs Council and she holds a place on the ELOTs Technical committee for the Energy Performance of Buildings. She is the director of the Postgraduate Study Program in "Applied Physics" and the academic responsible for 3 e-learning courses: 1. Sustainable energy design of buildings and the built environment, 2. Blockchain and Energy, 3. Indoor Environment: Architectural Configuration – Bioclimatic Design – Air Quality.



**Dikaiou Eleni,** Energy Efficiency Consultant M.Sc., PMP, Europa Profil Aluminium S.A. She is Civil Engineer with M.Sc. in Energy Production and Management from National Technical University of Athens (NTUA). Moreover, she is a certified Project Manager Professional (PMP) and certified Sustainability (ESG) Practitioner accredited by Chartered Management Institute (CMI). Her interest in energy audits and energy efficiency in buildings was enhanced by energy production from renewable energy sources and has

evolved into sustainability project management. Currently she holds the position of Energy Efficiency Consultant in Europa at Large-Scale Projects Department managing building projects, the Energy Saving in buildings programmes, whereas dealing with crucial sustainable development issues with the aim of reinforcing corporate sustainability strategy like Environmental Product Declarations (EPDs), Health Product Declarations (HPDs), corporate sustainability reporting (ESG) and carbon footprint. She participates in the Sustainability Committee and Building Sustainability Experts Group of European Aluminium as well as Consultation & Advocacy Committee of Sustainable Building Council (SBC) Greece representing Europa. She is also a member of Technical Chamber of Greece and Project Management Institute (PMI).



**Yannis E. Doukas** is Assistant Professor of Agricultural Economics and Policy at the University of Athens, Department of Agricultural Development, Agri-food & Natural Resources Management. He holds a PhD in the Political Economy of the Reform of the Common Agricultural Policy from the University of Athens. His teaching experience includes courses on Economics, Agricultural Economics and International and European Economics and Policy. His research experience includes the participation in several projects

in the area of EU integration, Agri-food economics and policies and International Political Economy. Currently, he is a member of the Jean Monnet Network "Crisis- Equity- Democracy for Europe and Latin America". Finally, he has worked as a coordinator of several European programs and has served as a special adviser to the Minister for Rural Development and Food. Additionally, he is a member of the Editorial Advisory Board of the scientific review "Region & Periphery".



**Dr. Antonios Gypakis** (PhD. MSc, MBA) Head of the Policy Planning Department / Planning and Programming for Research and Innovation Directorate / General Secretariat for Research and Innovation (GSRI) / Hellenic Ministry of Development. He has worked as a researcher in both Germany and Greece with numerous publications in International Conferences and Scientific Journals. He was a visiting professor at the Technical University of Crete, Department of Environmental Engineering. From 2000 -

2007 he worked as a Scientific Associate of the National Documentation Center of the National Hellenic Research Foundation as a Technology Transfer expert in the fields of Environment and Renewable Energy Sources in the Department of the Hellenic Innovation Relay Centre. He acts as a member of the Sectoral Scientific Council of Environmental Sciences, Energy and Sustainable Mobility. In the framework of his duties, he coordinates the GSRI's Innovation platforms a) "Smart Transport and Supply Chain" and b) "Environment and Circular Economy". He is representative of GSRI in the Monitoring Committees of the Regional Operational Programmes of the Regions of a) Western Macedonia and b) Crete. He is national delegate to the EU FP "Horizon Europe" Cluster 6 (Nutrition, Bioeconomics, Natural Resources, Agriculture and Environment) Programme Committee, as well as National Representative of the EU "Coal and Steel Programme Committee" and Deputy National Representative "Fuel Cells and Hydrogen 2".

He participates as a member in a few Inter-Ministerial Committees as well as EU Committees on Environment, Bioeconomics, Logistics, Energy, Achieving the UN Sustainable Development Goals, Implementing the European Strategy for the Adriatic-Ionian Macro-region (EUSAIR) etc.



**Professor John K. Kaldellis**: PhD Mechanical Engineer and Business Administration Diploma. Professor at Mechanical Engineering Dept, University of West Attica, Director of the Soft Energy Applications & Environmental Protection Lab and Scientific Director of MSc in Energy Systems (collaboration with Heriot-Watt University). In September 2019, he was elected as Vice-Rector of University of West Attica, responsible for Research and Lifelong Education. Since November 2020 is Vice President of Sectorial Scientific Council for

Energy, Environment & Sustainable Mobility, General Secretariat for Research and Innovation, Ministry of Development. During the last years, he serves as Expert for DG-REGIO of EC for GReco-Islands Initiative. He is Scientific Responsible for many research projects, including the well-recognized TILOS-Horizon 2020. He has pub-

lished six books concerning Renewable Energy Applications (4) and Protection of the Environment (2). He is the Editor of the book entitled "Stand-alone and hybrid wind energy systems: Technology, energy storage and applications" and the Editor of the "Wind Energy" Volume of the Comprehensive Renewable Energy Encyclopaedia by Elsevier (1st and 2nd edition). He is currently Subject Editor of the Renewable Energy International Journal (IF=8+), member of the Editorial Board of several International Journals (Applied Energy (IF=9+), Sustainability (IF=3.5), etc.) and reviewer in more than 60 International Journals in the Energy and Environment Sector. He is the author of more than 200 scientific papers in peer reviewed Journals and more than 500 papers in Scientific Conferences and has more than 10000 citations in his research work (Scopus h-index=51). According to the 2020/2021 Jeroen Baas (Elsevier, B.V.), Kevin Boyack (SciTech Strategies, USA) & John P.A. Ioannidis (Stanford) annual (2020 and 2021) list he belongs to the top 1% of most cited researchers and ranks amongst the world's top 250 researchers in the Energy Sector.



**Dimitris Kapnias,** Senior manager - Large Scale Projects, NEURO-PUBLIC – GAIA EPICHEIREIN. He holds an MSc in Surveying Engineering, AUTH and an MSc in Geomatics from University College London, UK. He is also a certified project management professional. Over the last 20 years he held a number of senior technical and managerial positions such as Scientific Officer (MARS unit, JRC/ European Comission), R&D Consultant (Neuropublic), Senior Director and CEO (GAIA EPICHEIREIN). Recently he re-joined Neu-

ropublic as a Senior Manager and Member of the Board with his main focus set on the coordination of corporate large - scale projects in the area of agriculture and smart farming.



**Maria K. Koukou** is Assistant Professor at the Department of Agricultural Development, Agri-Food and Management of Natural Resources of National and Kapodistrian University of Athens (NKUA) in the field of industrial installations. She is Deputy Director (Director Professor Michail Gr. Vrachopoulos) of the research laboratory Energy and Environmental Research Laboratory (E2ReLab) of NKUA. She graduated from Chemical Engineering department, University of Patras in 1991 and she awarded with a PhD degree

in Chemical Engineering in 1997 from the National Technical University of Athens (NTUA) in the field of installations analysis and design. Her research interests focus on the analysis and design of installations and processes with an emphasis on optimization and energy saving. In recent years, she has been working with issues

of Renewable Energy Sources (RES - solar and geothermal energy) installations in combination with thermal energy storage technologies to cover heating, cooling and domestic hot water needs in buildings and other facilities. Dr Koukou has published more than 100 scientific publications in international scientific journals and conferences. She is also author of two books on Renewable Energy Sources (one under editing) and 2 chapters in books related to installations design. She has taught courses in two Postgraduate Programmes (MSc) and she has been member of scientific and organization committees in international conferences and workshops. She is also a member of the Technical Chamber of Greece, American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE - https://www. ashrae.org/), European Technology and Innovation Platform on Renewable Heating & Cooling and other professional and scientific bodies.



**Professor Gerasimos Lyberatos** is currently Professor in the School of Chemical Engineering, National Technical University of Athens and a collaborating faculty member of the Institute of Chemical Engineering and High Temperature Chemical Processes (Foundation of Research and Technology Hellas). He obtained his B.S. at M.I.T. and his M.S. and Ph.D. at CALTECH (USA). His research interests are in Biochemical Engineering and Environmental Technologies for liquid and solid waste treatment and valorization. He

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**Mr. Panagiotis Stapas,** Managing Director Wilo Hellas and Vice President ASHRAE Hellenic Chapter. He studied Mechanical Engineering in Athens followed by postgraduate studies in Automobile Engineering in Italy (Polytechnico di Torino). His interest in Managerial positions in Sales and Marketing came parallel with studies in Business Administration, Managerial Finance and Marketing. He worked as Technical Manager, After Sales Manager and General Manager in the Automotive Industry, as Project Engineer in Food

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**Alkis T. Triantafyllopoulos** is a Mechanical Engineer with MSc in Energy Engineering. He has over 20 years of experience in the field of HVAC and Energy, He works as the Head of Engineering in Menerga Hellas for Greece, Cyprus and Albania. He is an ASHRAE Member and the first ASHRAE Trainer in Europe. He is a member in the Following Technical Committees of ASHRAE:

- Air-to-Air Energy Recovery ASHRAE Technical Committee 5.5
- Mechanical and Desiccant Dehumidification Equipment, Heat

Pipes and Components ASHRAE Technical Committee 8.10

- Evaporative Cooling ASHRAE Technical Committee 5.7
- ASHRAE Passive Building Standard SPC 227p
- Ventilation for Acceptable Indoor Air Quality TC/SSPC 62.1
- TG2.RAST Reactive Air and Surface Treatment

He is also one of the European officers for ASHRAE Region (XIV) in charge of the Student Activities for this Region. Also he is one of the co-authors for the National Legislation for Minimum Energy Requirements in Buildings of the Technical Chamber of Greece.



**Professor Michalis Gr. Vrachopoulos** holds a PhD degree from the National Technical University of Athens and many years of experience in thermal behavior of buildings, design of energy installations and Renewable Energy Sources (RES) installations with an emphasis on solar energy and geothermal. He is Deputy President in the Department of Agricultural Development, Agri-Food and Natural Resource Management and Director of the Energy and Environmental Research Laboratory (E2ReLab) of the National and

Kapodistrian University of Athens, in which research is conducted funded by competitive research programs of the GSRT(COOPERATION, RESEARCH CREATE INNO-VATION, etc.) and the European Commission (HORIZON, INTERREG, etc.) in which he is Scientific Manager. Also, due to his extensive experience, he supports public bodies (eg Municipality of Alexandroupolis, Municipality of Dirfyon Messapia, Municipality of Western Lesbos, etc.) and Private Sector in matters of energy saving and RES. Mr. Vrachopoulos has many publications in international journals and conferences and has authored 6 books on heating cooling air conditioning and RES (one in progress). His scientific work has significant recognition at an international level, while he has participated in Scientific Committees of international conferences and is a member of international organizations (eg ASHRAE). He was an important executive and Scientific Lead together with the Coordinator in the project TESSe2b: Thermal Energy Storage Systems for Energy Efficient Buildings. An integrated solution for residential building energy storage by solar and geothermal resources, Horizon 2020 project, GA680555 which has been characterized as one of the successful projects of the previous Horizon programming period of the European Commission.

