

## ROUND TABLE ON “THE ELECTRIC MOBILITY PARADIGM”

April 21, 2016 | Faculty of Engineering of the University of Porto (Porto, Portugal)

### PARTICIPANTS



**Anabela Ribeiro** currently holds the office of Assistant Professor in exclusive dedication in the Department of Civil Engineering, University of Coimbra (Faculty of Science and Technology). Completed her PhD at February 20, 2009, date she obtained the degree of Doctor in Civil Engineering, specializing in Urban Design, Planning and Transport. Before she worked as Lecturer for 10 years in the same University. After completion of the PhD defined a set of lines of research, presently related with the development of the PhDs and Masters theses under her supervision (6 PhD and several master thesis), which presently include Sustainable Transport Mobility and Sustainable Modes (Including Electric Mobility, Bicycle sharing, Bicycle mobility); Territorial Analysis and Econometrics; Modelling of Transport Systems; Urban Design and Traffic Calming; Sustainable Development and Urban Mobility. These lines of research have resulted in the publication of scientific articles with peer review, books, book chapters, and papers in conference proceedings, supervision of doctoral and master theses, and participation in various conferences. There is also a strong involvement in European Projects in the period before finishing the PhD. This experience led to the development of applications for FCT projects, and for Horizon 2020 projects, as leading researcher or as member of the team. She is also responsible for teaching three disciplines in the Integrated Master of Civil Engineering in the University of Coimbra and for teaching another three disciplines in the doctoral programs of Transportation Systems and Spatial Development. She is also cooperating in the elaboration of two new master programs in the areas of sustainable transport modes, with colleagues from the universities of Porto and Lisbon. Also develops consultancy work in her research areas with City Councils and other enterprises.



**Andreas Würsig** is vice head of the department for Integrated Power Systems at the Fraunhofer Institute for Silicon Technology (ISIT) in Itzehoe, Germany. He has more than 14 years of experience in the development of advanced lithium batteries including materials, manufacturing processes and testing. Dr. Würsig started his career with Fraunhofer in 2006 developing lithium-polymer batteries and adapting them to a broad spectrum of applications ranging from medical to automotive. His current research focuses on new LTO anode materials for high power applications, post lithium-ion technology and water-based binder systems. Dr. Würsig has a diploma in chemistry from the Technische Universität in Freiberg, Germany and obtained his Ph.D. from the ETH Zürich, Switzerland for his work on „Differential electrochemical mass spectrometry and X-ray diffraction for characterization of electrodes for lithium ion batteries“. Prior to his position with Fraunhofer Dr. Würsig performed a one year postdoctoral research at the University of Basel. He holds 2 patents and has more than 20 published works.



**André Dias** is Head of Intelligent Systems – Mobility Business Unit, at CEiiA, where he coordinates the development of ICT-based products focusing on advanced smart mobility concepts, from physical devices (vehicles and infrastructure) to the award-winning mobi.me cloud-based management platform. His team is currently involved in the deployment of several intelligent electric mobility initiatives across Europe and Brazil. Prior to joining CEiiA in 2012, he worked for INTELI on the MOBI.E electric mobility program, covering areas from business and process design, concept development and technical and operations management. He holds Master of Science degrees in Aerospace Engineering both from IST – Instituto Superior Técnico, in Lisbon, Portugal, and SUPAERO – Institut Supérieur de l’Aéronautique et de l’Espace, in Toulouse, France. He developed his masters’ thesis in the subject of embedded systems as a research engineer at the University of California at Los Angeles (UCLA), with previous research experience at Airbus Defence and Space.



**Andre G. Madureira** was born in Oporto, Portugal, in 1980. He earned his licentiate degree (5-year program), a M.Sc. (2-year program) and a Ph.D. in electrical and computer engineering from the Faculty of Engineering of the University of Porto (FEUP), Portugal in 2003, 2005 and 2010, respectively.

He is currently a Senior Researcher at the Centre for Power and Energy Systems of the INESC Technology and Science (INESC TEC) and Assistant Professor at the Lusófona University of Porto in Oporto, Portugal. He is author of more than 30 papers published in international journals and conferences with peer-reviewing, as well as author of a book (PhD thesis edition) and co-author of three book chapters. His current research interests include integration of distributed generation in MV and LV networks, voltage and frequency control and microgrid and smart grid deployment. Dr. Madureira is a member of the Engineers' Association of Portugal.



**António Pais Antunes** obtained his degree in Civil Engineering from the University of Coimbra (1978) and his PhD in Applied Sciences from the Catholic University of Leuven (1994).

He is currently an Associate Professor with Aggregation at the Department of Civil Engineering of the University of Coimbra, where he teaches a number of courses on Urban and Regional Planning and Transportation. His main research interests are facility location and transport planning.

Previously, he has served as Director of Planning at “Comissão de Coordenação da Região Centro” (1984-1986).

Among many other responsibilities at the University of Coimbra (UC), Antonio has served as Coordinator of the Degree in Civil Engineering (2002-2003) and President of the Department of Civil Engineering (2007-2009). He is currently a member of the Assembly of the Faculty of Sciences and Technology, Coordinator at the CITTA research center, Coordinator of the Spatial Planning and Transportation areas, and Coordinator at the UC doctoral program on Spatial Planning and the MIT Portugal doctoral program on Transportation Systems.



**Carlos Jesus** is the CEO of ZEEV – mobility for people, a specialized Portuguese company offering electric mobility solutions, as well as Bright Solar the group company that delivers renewable energy and charging systems.

With more than 10 years of experience in this sector, he has created and participated in other sustainability projects and companies in other countries, like in Italy and Senegal. Having a 15 years background of IT & Telecom where he worked for the engineering and project management, allowed him to develop management and innovation skills as well as the capability to work in very competitive markets where constant innovation is key to success. He aims to contribute for a better environment, creating the necessary conditions and affordability for each person or company.



**Diego Alejandro Giménez** is currently a researcher and PhD candidate in transportation systems at the University of Coimbra.

He has more than 12 years of experience combined between the private industry and the academia. He worked for more than 7 years in two multinational private industries as an industrial engineer. Its main working areas were planning, logistics, management and development. In those areas, the improvement of efficiency and effectiveness were the main objectives of all its developed projects.

After that, he returned to the academia to specialize in transportation systems and develop research projects on sustainable transportation. Its thesis subject is the optimization of supporting infrastructures for the implementation of sustainable electrical mobility, with particular applications to private electric vehicles, battery electric buses and e-bikes. Its main research fields were also in the promotion of active modes, mainly bicycling and pedestrians.

Diego has already presented part of its academic work in several congresses and has already a publication in a top scientific journal and more in the publication process.

He aims to keep up to day about new technology and operation developments related with transportation, energy and sustainability. The final objective is to forecast what the possible near and mid-term changes are, and try to develop supporting tools to foster its implementation.



**Douglas Hart** is a MIT Professor of Mechanical Engineering at the Massachusetts Institute of Technology and co-founder of three venture backed biotechnology companies that include Brontes Technologies, Inc., a MIT Deshpande Center spinout that developed the first video rate intraoral scanner and was acquired by 3M. Doug serves as an advisor for numerous companies and professional organizations and has been involved in the commercial development of technologies ranging from satellite propulsion to surgical robots. Doug received his BSc degree in aeronautical/astronautical engineering from the University of Illinois, his S.M. degree in mechanical engineering from the Massachusetts Institute of Technology and his Ph.D. in mechanical engineering from the California Institute of Technology.

He worked as a research engineer for EML Research, Inc. (now Kaman Electromagnetics Corp. a subsidiary of Kaman Corp.) and as a senior systems engineer for Northrop Corp. (now Northrop Grumman Corp.) before joining the faculty in the MIT Department of Mechanical Engineering. Doug is the entrepreneurship and innovation, E&I, faculty lead for the MIT Skoltech program in Russia and for the MIT Portugal program and he is the lead for the MIT institute minor in E&I and the department of mechanical engineering E&I education track. Doug teaches and conducts research in the areas of fluid mechanics, design, and instrumentation.



**Fausto Freire** is assistant Professor (tenured) at the University of Coimbra, Portugal, with research and teaching focusing on the emerging field of Industrial Ecology. He is researcher at ADAI-LAETA (Portuguese Associated Laboratory) and coordinates the Center for Industrial Ecology. Member of the coordination committee of the Energy for Sustainability initiative. Faculty at the MIT-Portugal program. Member of the International Society for Industrial Ecology, of the Ecoinvent Editorial Board, executive committee of the Ibero American Life-Cycle network (Portugal representative).

Fausto Freire's research and teaching focuses on the development and application of life-cycle models to enhance the sustainability of products and energy systems. He has developed a novel approach (LCAA) integrating LCA and economic optimization models. He has studied several product and energy systems, including bioenergy, biofuels for transportation, buildings, renewable energy, food and agricultural systems. Senior Member and expert in Energy of Portuguese Engineers Association (Ordem dos Engenheiros). Fausto Freire is co-author of more than 200 publications (book chapters, ISI articles and conference papers, Scopus H index=12).

Fausto Freire's research in Electric mobility focused on extended Life Cycle approaches to assess electric and conventional vehicles (cars, heavy trucks, trains, ...) together with the assessment of electricity generation (addressing also the evolution of the Portuguese mix, as well as temporal variability) and other energy supply systems (e.g. Natural Gas).



**Filipe Araújo** is currently the City Councillor for Innovation and Environment at the City of Porto.

He obtained his degree in Electrotechnical Engineering from the Faculty of Engineering of the University of Porto and his master degree in Telecommunications from the University of Manchester Institute of Science and Technology.

Previously, he has worked for a multinational telecom company and has been an Invited Professor at the the Faculty of Sciences of the University of Porto (2007-2011).

He has also been a Member of the Board at "Fundação da Juventude" and has been an elected representative at the Municipal Assembly of Porto (2005-2009).



**Frederico Henriques** is currently working at EMEL – Lisbon Mobility and Parking Municipal Company - and his main tasks are focused on promoting urban mobility policies, including shared mobility and electric mobility.

Between 2007 and 2014, he has developed his professional activity in both consultancy and research areas and participated in many urban and regional mobility related studies as well as urban mobility road safety research projects.

Regarding his background studies, Mr. Henriques has a master's degree (2008) in territorial engineering (transport and urban planning field) from the Technical University of Lisbon, Instituto Superior Técnico, in Portugal. Currently, and motivated by learning new skills, he is attending the Advanced Management Program for the Transportation Sector at Católica Lisbon School of Business and Economics.

Frederico is keen on developing integrated and well-designed policies towards smart urban mobility in order to increase the attractiveness and competitiveness of cities as well as their citizens' quality of life.



**Gil Ribeiro** is an architect and urban planner, whose main interests and areas of work are structure design, urban design, active mobility, bike sharing systems and land use. He is a member of the collective Parqur.com (architecture) and ordenaracidade.pt (town planning). He is currently a researcher at the Bike Technology Platform of the University of Aveiro and an architect / planner at Bewegen and Jorge Carvalho Urbanistas.



**Hugo Maio** is an Electric Engineer, currently working at EDP MOP, company of the EDP Group, created to Operate the Portuguese Electric Mobility Pilot Network – “MOBI.E”.

The main activities are Operation, Installation and Maintenance of the Electric Vehicle Charging Stations in the MOBI.E network.

The MOBI.E project is connected with the EDP Smartgrid network – “InovGrid” – where he assures that the operation between these two systems is online and updated.

In the Smartgrid and Smartcities context, he has participated in several initiatives and programs, and at the moment is involved in two European Projects – the “SusCity”

and “SharingCities” projects.

Hugo has a great interest in innovation solutions related to Energy and IT, and to increase knowledge in this area he is currently attending a Postgraduate Course in Systems and Information Technology – “POSI-E3” - at IST/INESC.



**Joao Bigotte** is currently an assistant professor of Innovation and Technological Change at the University of Coimbra, within the scope of the MIT Portugal Program.

He has more than 12 years of experience in innovation, having performed a wide range of activities both within academia and the industry – from research and technology transfer to innovation management and science park management.

Joao obtained his PhD degree in Spatial Planning and Transportation from the University of Coimbra in 2009 and has published in top scientific journals in these fields. As an innovation manager, Joao has led the creation of a new business unit for a niche market in the construction sector and built an international partnership for joint business growth. He is also familiar with the transportation, energy, and IT industries.

Joao is very active in building up and promoting an innovation ecosystem in Portugal. Besides being a mentor in several entrepreneurship and startup acceleration programs such as 3DS and INEO Start, he is also the founder of Choose Coimbra – the portal about the innovation ecosystem of the Coimbra region – an author at INEO Blog and a member of the editorial board at i9 Magazine.

Joao is very much interested in creating more livable cities, in developing innovation ecosystems and in fostering university-industry collaborations.



**Jorge Saraiva** is currently the General Manager at TULAMOVE (Portugal) and TulaIT (Estonia) and also at OKS and Scorpion Arrow.

Jorge possesses more than 20 years of experience as international senior manager in general industry, energy, electronics and telecommunications.

As a senior engineer and entrepreneur, Jorge had the opportunity to structure organizations to meet global aspirations. Fascinated to inspire people and follow their ideas growing up with long term Entrepreneur license.

Jorge can be best described as “Entrepreneur addicted on scientific research”.



**Manuel Matos** was born in Porto (Portugal) in 8 April 1955. He graduated in Electrical Engineering in the Faculty of Engineering of the University of Porto - FEUP (1977), and completed his PhD in Power Systems in 1988, also from the University of Porto. In 1978 he joined the Department of Electrical Engineering of FEUP, where he is Full Professor since 2000. He is presently the director of the PhD program in Sustainable Energy Systems, integrated in the MIT-Portugal program. He also collaborated with the Management School of the University of Porto, where he lectured MSc courses on Decision-Aid. He is a member of the Senate of the University of Porto since October 2009.

In 1985 he joined INESC (now INESC TEC). Since 1996 he coordinates the Centre for Power and Energy Systems of INESC TEC, leading around 60 researchers (including 20 PhD). He is presently the President of the Scientific Council of INESC TEC. He was involved in several national, EU and international RTD projects and in development contracts and consultancy for utilities, TSO, industrial partners, government agencies and for the Regulatory Authority for the Energy Services of Portugal.

His research interests include classic and fuzzy modeling of power systems, reliability and optimization and decision-aid, with application to renewables’ integration, electric vehicles’ deployment and smart grids. He is presently the principal investigator of project Suscity - Urban data driven models for creative and resourceful urban transitions, in the framework of the Testbed projects of MPP.



**Manuel Reis** is an Electrical Engineer, currently General Manager of NIBBLE, a company of Electronics Engineering Project Management and Development with internal R&D. He is also president of the fiscal board of UVE, Associação de Utilizadores de Veículos Elétricos, a Portuguese association of users of electric vehicles, and administrator of an Internet forum related to the electric mobility, the NissanLeafPT forum.

Manuel has more than 15 years of experience with electronics projects development and management, with a constant focus for innovation. He has projects in the fields of geo location, security, GSM communications, LED illumination, fire protection devices, interactive white boards, and others.

In the electro mobility field he has more than five years of experience being an owner and daily user of an electric vehicle (Nissan Leaf) and administrator of an internet forum. As the president of the fiscal board of UVE he seeks to protect the interests of users of electric vehicles and also to create ideas and solutions for a faster adoption of electric mobility in Portugal.



**Nuno Arantes-Oliveira** is a serial entrepreneur with an interest in technological innovation, particularly in healthcare. Among other ventures, Nuno was the founding CEO of ATGC Portugal, which became a leading tech-transfer company in the Country (sold in 2005), of Alfama, Inc., a drug development company voted best start-up in Europe in 2005 (based in Cambridge, MA and Lisbon), and of Coimbra Genomics S.A., named Europe’s second biggest promise in e-Health in 2015. Nuno was President of P-BIO – Portugal’s Biotechnology Industry Organization (2011-2015, now Chairman) and sat on the board of Health Cluster Portugal (2008-2013). He has had multiple board and advisory roles in the US, the UK and Portugal. Currently Nuno is an invited assistant professor of the MIT-Portugal Program and a partner of VIVA Health Fund.

Nuno obtained his PhD in Genetics with work performed at the University of California San Francisco (UCSF) and published in very high impact journals.



**Pedro Nunes**, currently working on PRIO Energy, performs functions in energy sector, energy efficiency, electric mobility and PRIO fleet cards.

With an experience of over 10 years, he always worked in innovative business areas. He began working in the area of renewable energy, with special attention to the area of biomass and biogas power plants, and then microgeneration and solar production.

With the growth of renewable energies worldwide he specialized in wind energy where he participated in various projects in several countries.

At the start of electric mobility in Portugal accepted the challenge of PRIO to start this project. He knows in detail the sector in Portugal and internationally, including:

equipment, policies, law, players, business models and industry trends.

With formation in electrotechnical engineering, post-graduate in Energy Efficiency and Renewable Energy and an MBA, is an entrepreneur and co-founder in two start-ups, is interested in innovative business especially in the area of sustainable mobility, energy, tourism and organic products.



**Pedro Silva** is currently the CEO of Efacec Electric Mobility, S.A.

Previously he develop a wide range of activities within the Efacec Group, namely Chairman of Efacec USA, Vice-President of Power Solutions Brasil, Vice-President of the Board of Transport and Logistics BU of Efacec Group, Member of the Board of Efacec Brasil and Member of the Board of Efacec Sistemas de Electrónica.

Pedro has an MBA in Business Management from Instituto Empresarial Portuense. He earned his degree in Electrotechnical and Computer Engineering from The Faculty of Engineering of the University of Porto.

Pedro is considered a Specialist in Transportation and Transport Infrastructure by Ordem dos Engenheiros de Portugal (the Portuguese Association of Engineers).



**René Bohnsack** is combining sustainability and business models in research and practice. On the one hand, he is Assistant Professor for Strategy and Innovation at Católica Lisbon School of Business & Economics where he conducts research in sustainable mobility and smart cities, trying to understand how to bring sustainable technologies successfully to the market. René is coordinator, work package leader and consultant respectively in several European research projects that focus on e-mobility and smart cities (e.g. H2020 “EMPOWER”, TKI Net “Vehicle to Grid”, JPI Urban Europe “me2”, JPI AAL “wellbeing”). He is also adjunct faculty at the University of St. Gallen and at Manchester Business School in the Global Executive MBA programme.

On the other hand, René has been Co-Founder of three ‘sustainable-oriented’ companies (e.g. Fitbase GmbH, a company that provides innovative preventive eHealth solutions for employees of some of the largest companies in Germany; an online platform for social-car-sharing (discontinued) and an online service for flight refunds (sold to Greenclaim B.V.)). Recently, Rene has launched the online platform [www.businessmodelcomposer.com](http://www.businessmodelcomposer.com), a joint initiative with the University of St.Gallen, which allows to develop, test and communicate business models in novel ways.

René has published his research in the top innovation journals (Research Policy, Journal of Product Innovation Management, Technological Forecasting & Social Change, Energy Policy, Environmental Innovation and Societal Transitions) and in the popular press, presented his research at numerous international conferences, institutions and invited talks, received the 3rd price for the best innovation management paper 2013, the Best Paper Award in Sustainable Entrepreneurship in 2016, and won the Science Park New Idea Competition in 2011. He obtained his doctorate from the University of Amsterdam and holds an MLitt in International Business (distinction) from the University of St. Andrews, School of Management, Scotland. Prior to his PhD and entrepreneurial endeavours, René worked as a strategic controller for the GEA Group AG, responsible for business units in Poland and China.



**Rui Bica** is currently the BMWi Coordinator at BMW Portugal – BMW Group. He is responsible for development and implementation of mobility services in the portuguese market.

Rui has earned his degree in Mechanical Engineering from Instituto Superior de Engenharia de Lisboa.

He possesses consultant and technical experience in automotive market since 1992, having worked in several areas including Operations, Product Development, Pricing, Quality and Sales.

He has a Product Development approach, with heavy emphasis on Customer focus, electric mobility and fleet management.

Rui has also been a Brand Representative at APVE – Portuguese Association for the electric vehicle.