

ROUND TABLE

THE ELECTRIC MOBILITY PARADIGM

Looking ahead to the next 5 years

Growing concerns with energy security and dependence on foreign oil, climate change and air pollution are reviving the interest in electric mobility. The emergence of new transport solutions such as carsharing, ridesharing and ridesourcing coupled with future perspectives of autonomous driving and increased mobility also reinforce the interest in shifting to a low carbon transportation paradigm. Indeed, the transportation sector has seen both new entrants and all of the major vehicle manufacturing groups moving rapidly toward electric vehicles (EVs).

The OCDE considers that this decade is a key “make or break” period for electric mobility. Challenges such as cost competitiveness, range of electric vehicles and charging/swapping infrastructure must be addressed collectively by governments, the automotive industry, electric utilities, the research community and other key stakeholders.

Naturally, mass adoption of EVs should first occur in low GHG emission electricity generation. Portugal is such a place. The country has made relevant investment to accelerate the development and diffusion of electric mobility in a recent past and could become a global leader.

This round table will gather a select group of researchers, industry leaders, and policy makers to present and discuss innovative ideas on how to facilitate the transition to electric mobility as quickly and smoothly as possible. The question of how research, technology development and innovation can be geared towards cross-disciplinary and collaborative approaches will be discussed. Cutting edge research projects, innovative business models and public policies will be presented and their significance discussed, both on a global level and in the context of Portugal’s capacity to compete globally.

The goals of the round table will be to help assess Portugal’s positioning in this sector, to identify ideas, research lines and challenges of particular interest for the country and for the participating stakeholders and, ultimately, to give rise to a new roadmap for fast-tracking the deployment of electric mobility and its impact on society and the world.

Date: April 21, 2016.

Venue: Room L119, Department of Mechanical Engineering (L-Building) of the Faculty of Engineering of the University of Porto, Porto (Portugal).

Organizing Committee: João Bigotte (University of Coimbra | CITTA), Manuel Matos (University of Porto | INESC TEC), Nuno Arantes-Oliveira (University of Lisbon | IN+), Jorge Pinho de Sousa (University of Porto | INESC TEC).



UNIVERSIDADE DE COIMBRA

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Program

9:45 - 10:15	<u>Welcoming Coffee and Registration</u>
10:15 - 10:45	<u>Opening Session</u> <ul style="list-style-type: none"> • Manuel Matos (FEUP) • João Bigotte (FCTUC)
10:45 - 12:30	<u>Session 1: Challenges and Opportunities going forward (5-year perspective)</u> <i>Introduction to Electric Mobility (Global and National context).</i> <ul style="list-style-type: none"> • Nuno Boneville (Mobi.E) – “The Mobi.E network” • Pedro Silva (EFACEC) – “Electric mobility at Efacec” • Hugo Maio (EDP) – “Electric Mobility and the role of EDP MOP” • Frederico Henriques (EMEL) – “Promoting Electric Mobility in Lisbon: EMEL Contributions” • Manuel Reis (UVE) – “Challenges and opportunities for users” • Moderator: João Bigotte (FCTUC)
12:30 - 14:00	<u>Lunch and Networking</u>
14:00 - 15:30	<u>Session 2: Research and Technology Development</u> <i>Presentation of cutting edge R&D projects.</i> <ul style="list-style-type: none"> • Douglas Hart (MIT) – “Range extension for EVs” • André Madureira (INESCTEC) – “Smart Grids and EVs: Results from Research” • Andreas Würsig (Fraunhofer) – “High Power Lithium Batteries for the E-Mobility” • Diego Gimenez (FCTUC) – “Optimal location of charging stations in urban areas” • Moderator: Manuel Matos (FEUP)

(continued)

15:30 - 17:00	<p><u>Session 3: Business Models, Public Policies and Incentives</u> <i>Presentation of innovative frameworks for deploying electrical mobility systems.</i></p> <ul style="list-style-type: none"> • <i>Filipe Araújo (CM Porto) – “Sustainability in Cities”</i> • <i>Rene Bohnsack (UCP) – “Business Models for Electric Mobility”</i> • <i>Gil Ribeiro (Bewegen) – “Bike Sharing Systems and Electric Mobility”</i> • <i>André Dias (CEiiA) – “Challenges in the deployment of integrated smart electric mobility initiatives in cities”</i> • <i>Moderator: António Pais Antunes (FCTUC)</i>
17:00 - 17:45	<p><u>Closing Session</u></p> <ul style="list-style-type: none"> • <i>Carlos Rodrigues (Executive Council of the Faculty of Engineering of the University of Porto)</i> <i>Key note: José Mendes (Deputy and Secretary of State for the Environment)</i>
17:45 - 18:30	<p><u>Coffee and Networking</u></p>

Registrations

Registrations are free but required. Registrations are open until April 15 but are limited to the capacity of the auditorium. To register, please send an e-mail to jbigotte@dec.uc.pt.