



International Conference on Mobility Challenges

December 9-10, 2021
online

Audience: Researchers, industry experts, and policy makers from public, private, and civil society are invited to expose their view and analysis on current potentials, new windows of opportunities and discuss policy options based on cutting-edge research.

The conference is jointly sponsored by:

- Armand PEUGEOT Chair (CentraleSupélec & ESSEC Business School)
- Chair Energy and Prosperity (Fondation du Risque)
- Climate Economics Chair (Paris Dauphine University PSL)

The conference also benefits from a partial financial support from ADEME, under contract CELTE n°19 ES C 0043, 25/08/2019.

Coordinators: Marc Baudry (University Paris Nanterre), Anna Creti (University Paris Dauphine PSL), Jan Lepoutre (ESSEC), Guy Meunier (INRAE), Marc Petit (CentraleSupélec), Yannick Perez (CentraleSupélec), Jean-Pierre Ponssard (CNRS & Ecole Polytechnique).

Program of the conference

Thursday December 9/12/2021

9h-18h30

<https://essec.zoom.us/j/93626682538?pwd=UIZBamdXTUIGZUswbXhJeUE1aU55UT09>

9h-10h30 Infrastructures and electric mobility

Chairman : **Damien-Pierre Sainflou** (Stellantis)

- **Bassem Haidar** (LGI CentraleSupélec and Armand Peugeot Chair) More public charging stations or more powerful batteries in vehicles?
- **François Detroux** (ENGIE) Complementarity and competition between technologies
- **Pierre de Firmas** (ENEDIS) Charging infrastructure deployment : theory and practice

10h30-11h00 : Coffee Break

11h-12h30 Panel on Financing the transition towards a greener mobility

Chairman : **Pierre Sedze** (Journaliste et consultant médias)

- **Augustin Derville** (Electra)
- **Guillaume Kosman** (Mobilize Power - Groupe RENAULT)
- **Raphaël Lance** (Mirova)
- **Pierre Etienne Franc** (FiveT Hydrogen)
- **Maxime Ledez** (I4CE)

12h30-14h00 : Lunch and Networking

14h-16h Analysis of regional initiatives

Chairwoman : **Elodie Lecadre Loret** (ENGIE)

- **Philippe Boucly** (France Hydrogène) A roadmap for an ambitious hydrogen strategy
- **Markus Kaufmann** (Roland Berger) Hydrogen Valleys: Insights into the emerging hydrogen economies around the world
- **Benjamin Wolff** (Element Energy, UK) Review of pilot projects in Europe and the role of public funding (CEF, FCH JU, IF, Ademe, etc.)
- **Sophie Legras** (INRAE Dijon) Taxation with inter-jurisdictional commuting and pollution

16h00-16h30 : Coffee break

16h30-18h30 Mitigating GHG Emissions and fairness issues

Chairwoman : **Anna Creti** (Climate Economics Chair)

- **Yves Crozet** (IEP LAETS Lyon) Decarbonizing Transports: "quoi qu'il en coûte"?
- **Corinne Bach** (Carbometrics) Emission in Transport: how to measure them?
- **Mathilde Niay** (Ministère de la Transition Ecologique, CGDD) Bonuses for the conversion of private vehicles in 2019: A socio-economic analysis
- **Emmanuelle Taugourdeau** (CNRS, CREST) Multi-tier tax competition on Gasoline (with Marie Laure Breuillé)

Friday December 10/12/2021

Parallel sessions

9h-10h30

Session 1 : Electric charging infrastructures

<https://essec.zoom.us/j/97123933496?pwd=OC8rOUFudFZ5V1NDZFRWRHBPUkdhdz09>

Chairman : **Marc Petit** (GeePs-Chaire Armand Peugeot CentraleSupélec)

1. **Marc Olivier Metais** (LGI CentraleSupélec and VEDECOM) Déploiement spatio-temporel d'une infrastructure de recharge
2. **Anastasia Popiolek** (CentraleSupélec, GeePs) Electric mobility for long distance trips : which services for fast charging?
3. **Wassim Kabbara** (GeePs and Renault), "Wireless charging system for an in-motion EV"

Session 2 : modeling futures scenarios for mobility

<https://essec.zoom.us/j/99670482826?pwd=M3c4VnRYYmFSOEkdG1blZMbE1NUT09>

Chairman: **Jean-Pierre Ponssard** (CNRS-Ecole Polytechnique and chair Energy and Prosperity)

1. **Albin Kasser** (Chair Energy and Prosperity) The deployment of hydrogen in the heavy-duty transport sector: an economic competition
2. **Ariane Bousquet** (Chair Energy and Prosperity) The Assessing an electric mobility initiative to decarbonize transport out of dense areas
3. **Mohamed Bahlali** (Climate Economics Chair) A model for the spatial distribution of jobs, housing and traffic-related air pollution

Session 3 : Automated vehicle services

<https://essec.zoom.us/j/94645266047?pwd=c3pPUEdRcm16YWtONWtSZ1NxcnZtUT09>

Chairman: **Fabrice Vidal** (Stellantis)

1. **Ines Jaroudi** (LGI & Avenue Project) Externalities and shuttles deployment scenario
2. **Felix Carreyre** (Vedecom & LVMT) An economic appraisal methodology for automated vehicles mobility services.
3. **Eliane Horschutz-Nemoto** (LGI & Avenue Project) Sustainability assessment of the deployment of automated minibuses in urban mobility of European cities.

Friday December 10/12/2021

Parallel sessions

11h-12h30

Session 4 : Electric Vehicles to Everything

<https://essec.zoom.us/j/99669518771?pwd=TUtXcGI3WTkxdk5sakV3WDdGWXhZUT09>

Chairman: **Jan Lepoutre** (ESSEC BC and Armand Peugeot chair)

- **Diego Cebreros** (LGI CentraleSupélec and Armand Peugeot Chair) Where to leverage scale? A Network Analysis of Vehicle-to-Grid.
- **Francisco-Jose SANTOS ALONSO LASTRAS** (LGI CentraleSupélec) Stakeholder Value Network for the modeling of innovative business models in the EV ecosystem
- **Rémi Lauvergne** (LGI CentraleSupélec and RTE) Integration of electric vehicles into transmission grids: a case study on the economic impacts in Europe in 2040

Session 5 : Behavior and regulations for mobility

<https://essec.zoom.us/j/94136210369?pwd=SGg3SGpPWnZvYkdlaTE1ZE1mciVZZz09>

Chairman: **Yannick Perez** (LGI CentraleSupélec and Armand Peugeot Chair)

- **Quentin Hoarau** (LGI CentraleSupélec and Armand Peugeot Chair) An assessment of the European regulation on battery recycling for electric vehicles
- **Isac Antonio OLAVE CRUZ** (Université Paris Dauphine) Regulations of electric scooters in Paris
- **Sai Bravo** (Climate Economics Chair) Greening public fleets: Evidence from California

Session 6 : Energy management for mobility

<https://essec.zoom.us/j/91078776847?pwd=TIIRTHFBUGp3YkpiT2E2c2VSdVI5UT09>

Chairman: **Francisco Ramos Real** (Universidad de la Laguna)

- **Mohsen Dini** (CentraleSupélec, GeePs) Energy management system by deep reinforcement learning approach in a building microgrid
- **Khadim Jan** (CentraleSupélec, GeePs) Energy management of the decommissioned vehicle batteries in low-power rural microgrids
- **Wale Arowolo** (LGI CentraleSupélec and Armand Peugeot Chair) EV-PV in 2030 in Paris Lyon and Marseille : what economic contributions