E-mobility International Workshop 2026:
challenges and opportunities

Introduction to the e-mobility international workshop

by IEEE VPP TechCom & CUMIN programme

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Chair of VPPC steering committee
Coordinator of CUMIN programme

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Chair of IEEE VPP technical committee

Dr. Clément MAYET
L2EP / Univ. Lille
Vice-Chair of IEEE-VPP technical committee

IEEE Vehicle Power Propulsion technical committee

Pr. Ta Cao MINH

Dr. Clement MAYET

IEEE VTS Connecting the Mobile World

IEEE

IEEE Vehicular Technology Society

IEEE - Institute of Electrical & Electronics Engineers

- **Non-profit professional organization**
  for advancing technological innovation and excellence
- **530,000 members from 190 countries** (30 % students)
- **39 societies on technical interest**
- **Activities!**
  - scientific workshops, conferences (2,000), journals (250), standards
  - database ***IEEE Xplore***, 7 millions documents, etc

IEEE – Vehicular Technology Society (VTS)

- **Technical topics**
  - land, airborne and maritime services
  - mobile communication, vehicle electro-technology
- **3 journals and 4 annual conferences**
- **Distinguished Lecturer Program**

IEEE
Advancing Technology for Humanity

IEEE VTS – Vehicle Power Propulsion technical committee

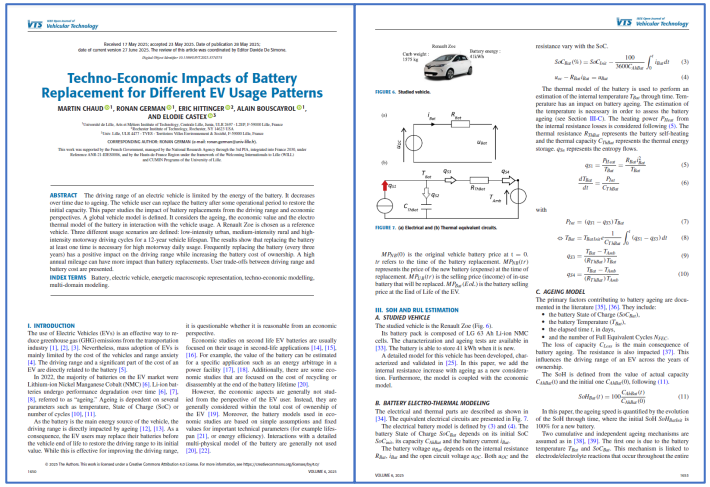
VPP TechCom

Coordination of activities on power propulsion on innovative vehicles

Chair: Pr. Ta Cao MINH (Univ. Sherbrooke, Canada)

Co-Chair: Dr. Clement MAYET (Univ. Lille, France)

- **IEEE Vehicle Power Propulsion Conference**
  - Annual international conference, rotation between America, Asia and Europe



- **Special issues in VTS publications**
  - E.g., special issue VPPC'26 on OJVT (43 submission, 13 accepted)

- **IEEE VTS Motor Vehicles Challenges**
  - Annual challenge for students on design/control/energy management of e-vehicles

- **International workshops and summer school**
  - Annual EMR international summer school,, e-mobility workshop, etc.

IEEE Vehicular Power Propulsion Conference

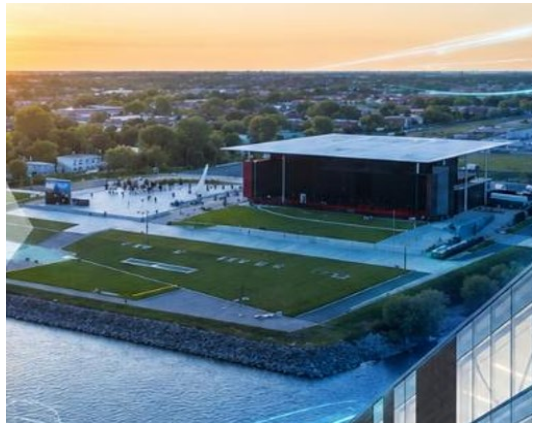
IEEE VPPC'25
Hangzhou
China

ASIA

IEEE VPPC'26
Lyon
France

EUROPE

IEEE VPPC'27
Trois-Rivières
Canada



AMERICA

3-6 October 2026
235 papers
300 attendees from 31 countries

IEEE VTS publications

IEEE transactions on Vehicular Technology

- Impact Factor 7.5, Quartile Q1
- Access by subscription

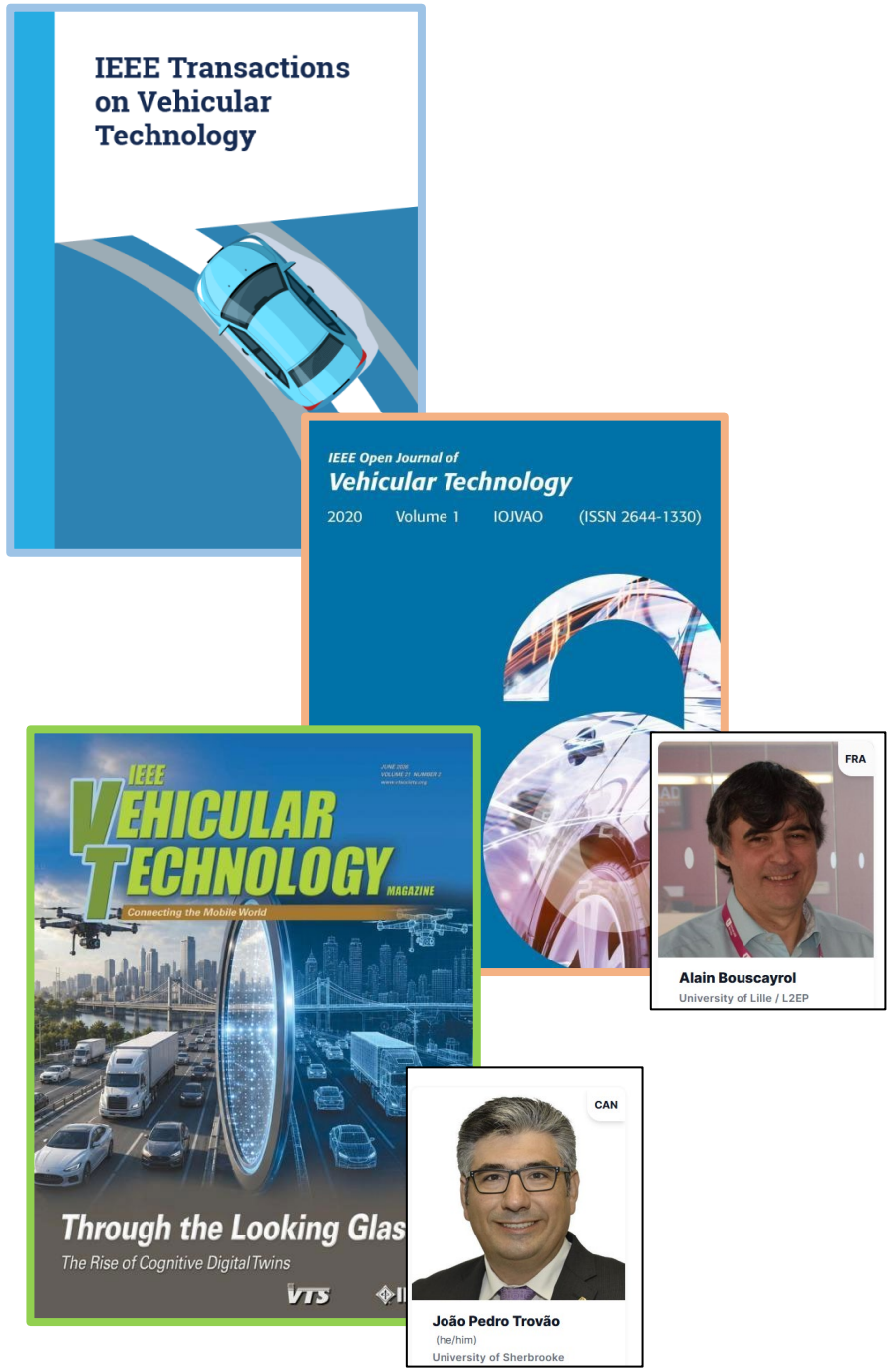
IEEE Open Journal of Vehicular Technology

- Impact Factor 6.6, Quartile Q1
- Open Access, APC $2,075 USD (-20% for VTS member)
- **A. Bouscayrol (VPP TechCom) editor-@-large**

IEEE Vehicular Technology Magazine

- Impact Factor 8.5, Quartile Q1
- Access by subscription
- **J. P. Trovao (VPP TechCom) senior editor**

Available @ https://ieeexplore.ieee.org/ IEEE Xplore® Digital Library

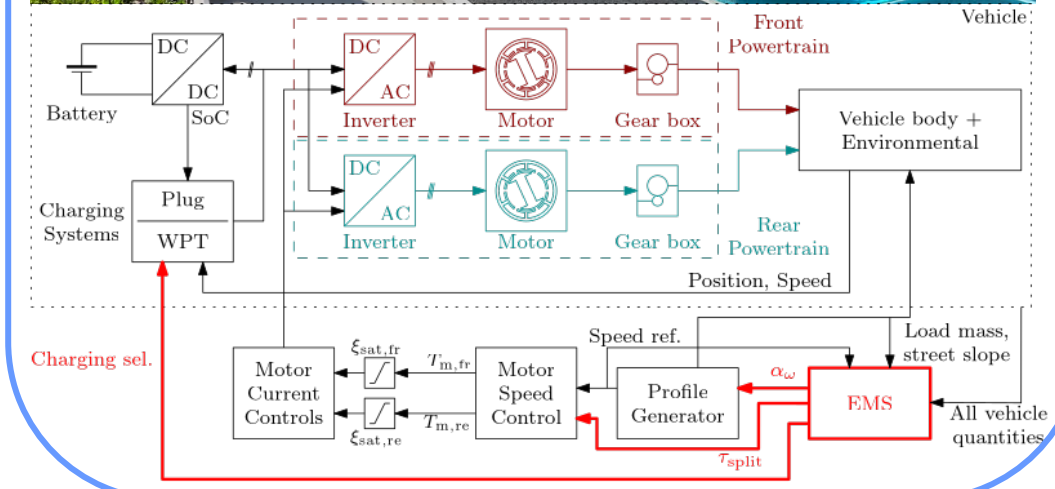


IEEE VTS Motor Vehicle Challenge

Motor Vehicle Challenge 2026 (10th edition)

- **Design of powertrain and energy management strategy for a refrigerated lorry**
- 83 teams (240 inidviduals) from 24 countries
- First price: $3,500 USD
- **Winners: student team from**

Hanoi University Sciences and Technology (Vietnam)

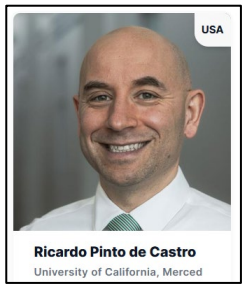


Motor Vehicle Challenge 2027

- **Energy management and operation for electric vehicles on wireless charging road**

- [https://github.com/VTSociety/MVC_2027]
- Registration deadline: 31 January 2027
- Submission: 1 March 2027
- Results: 31 March 2027

MVC chair



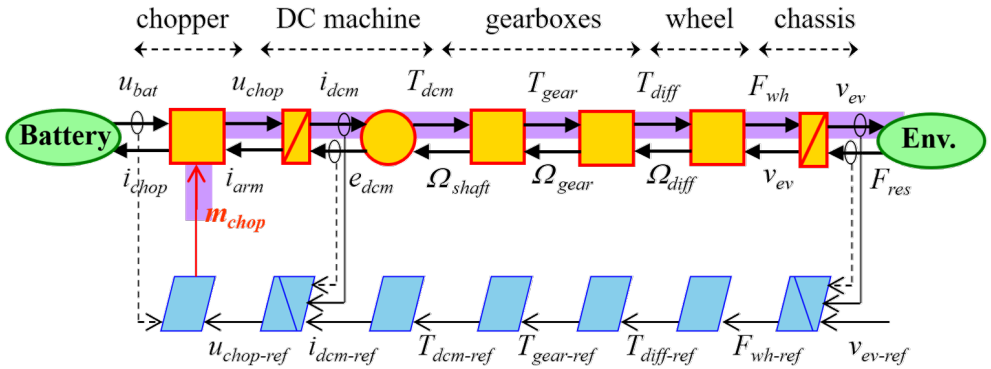
EMR'26 annual summer school

Energetic Macroscopic Representation Summer school
(since 2012, odd year in France, even year abroad)

Modena, Italy (1-3 July 2026)

- General Chair: **Davide TEBALDI**
  (Univ. of Modena and Reggio Emilia)

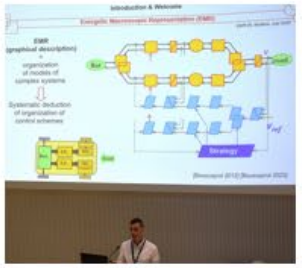
Davide Tebaldi
University of Modena & Reggio Emilia



Hybrid mode:

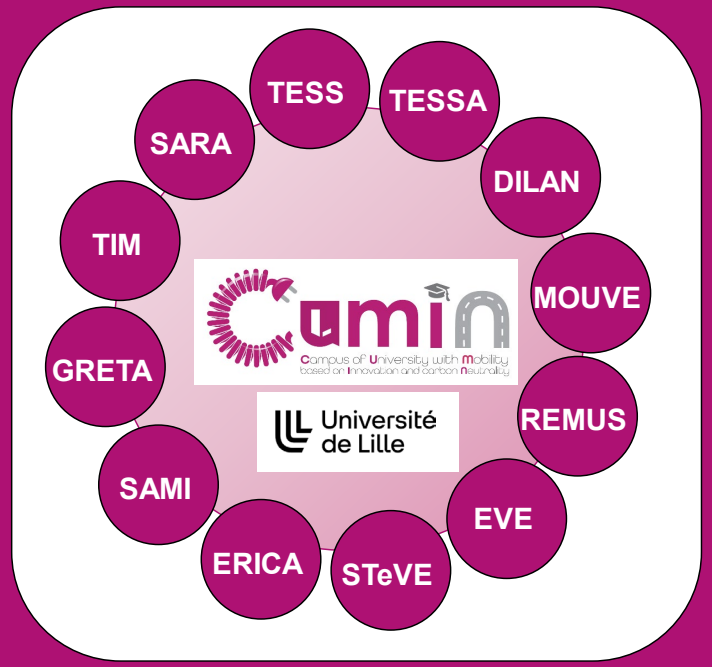
6 lectures on concepts, 21 lectures on research applications, 3 simulation sessions

53 attendees (25 in-presence, 28 on-line) from 12 countries



https://cumin.univ-lille.fr/

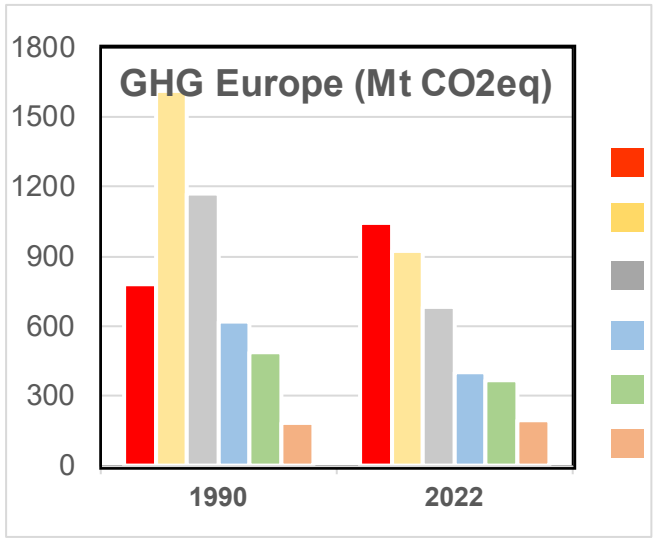
Campus of University with Mobility based on Innovation and carbon Neutrality

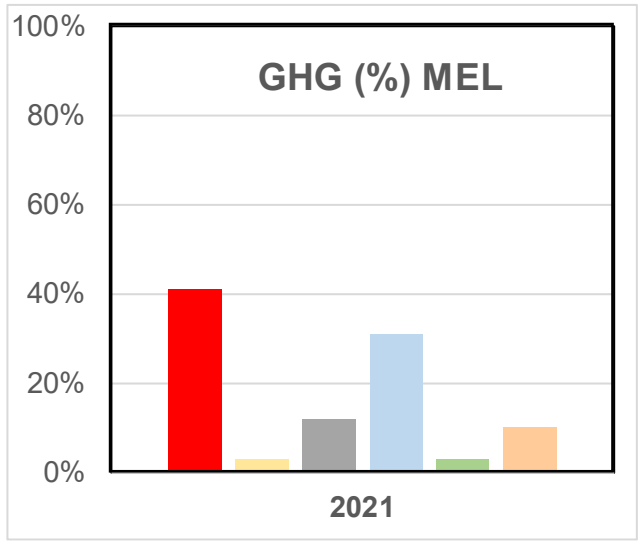


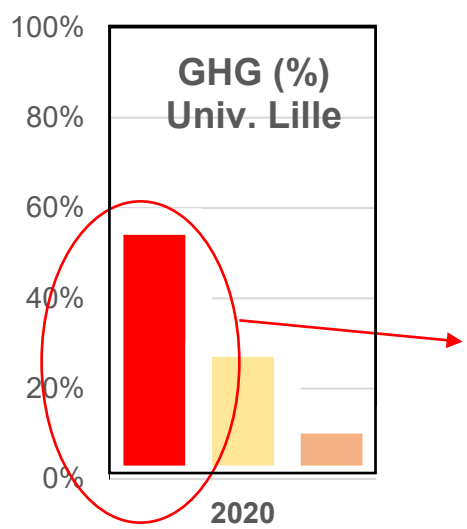
Pr. A. Bouscayrol
(ST, L2EP)

Pr. E. Castex
(SHS, TVES)

Mobility carbon footprint







Thermal vehicles
- 24% of the trips
- 81% of the GHG

Transport, only sector still increasing [EEA 2023]

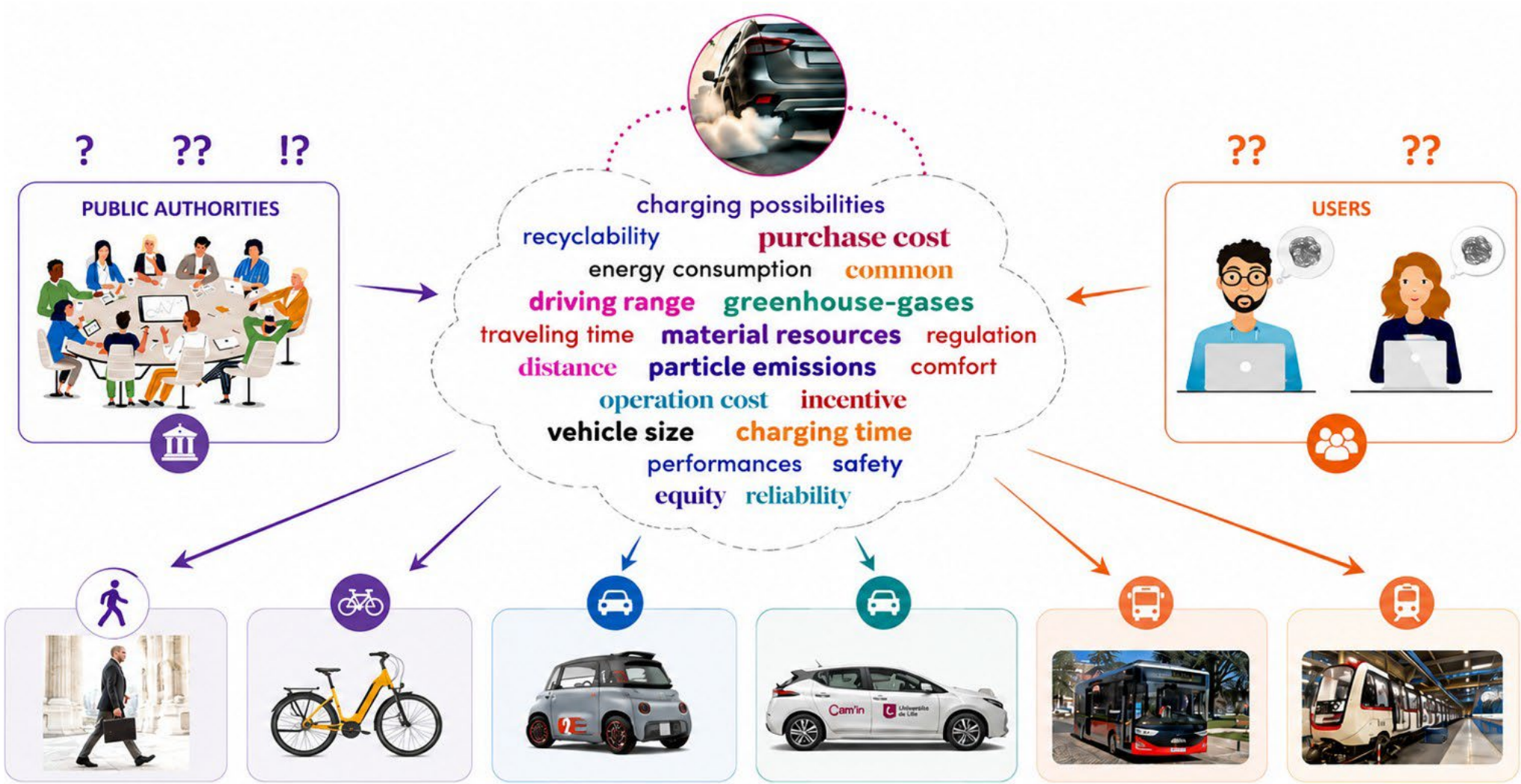
needs of low-carbon mobility

electro-mobility (e-mobility) as key lever?

https://www.eea.europa.eu/en/analysis/maps-and-charts/

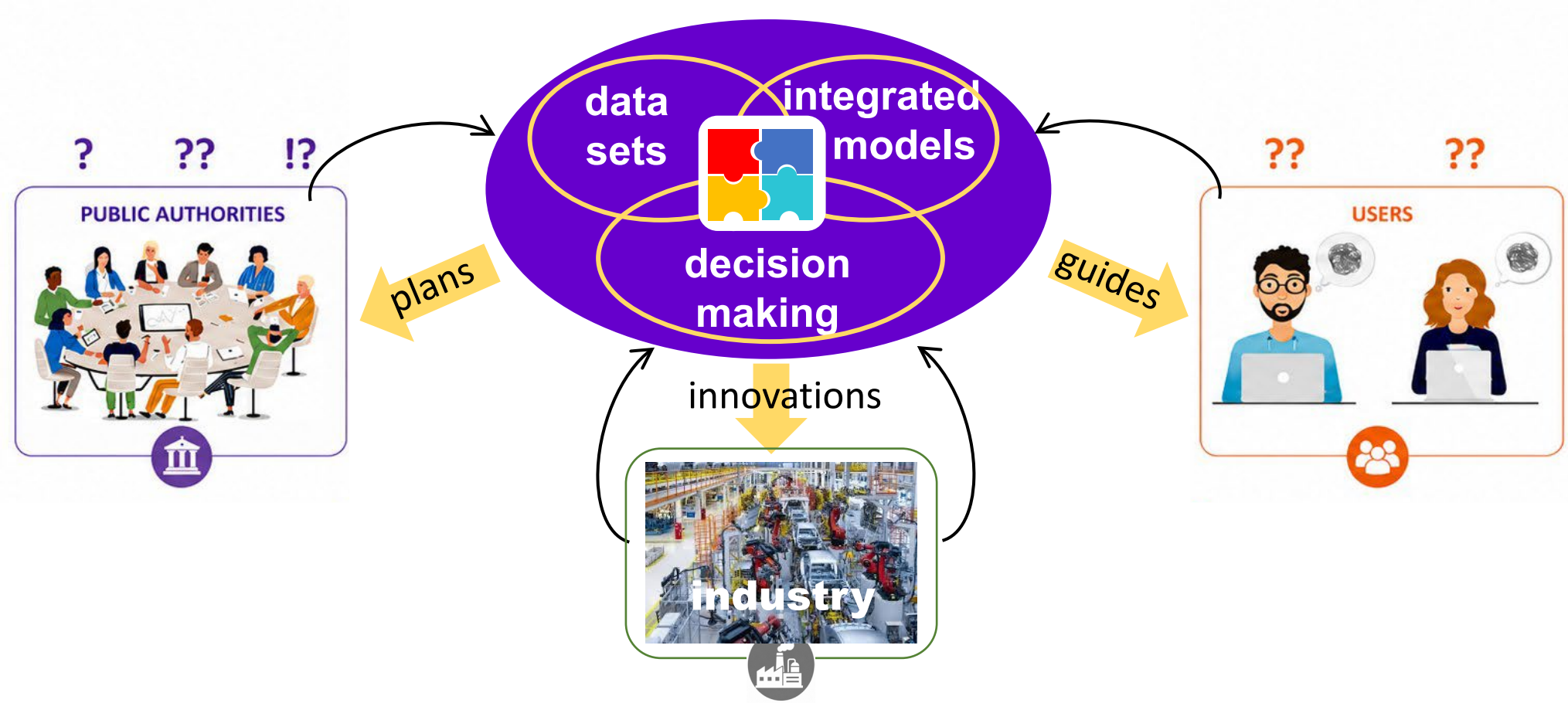
https://bilans-ges.ademe.fr/bilans/consultation/

Complexity of the sustainable mobility transition



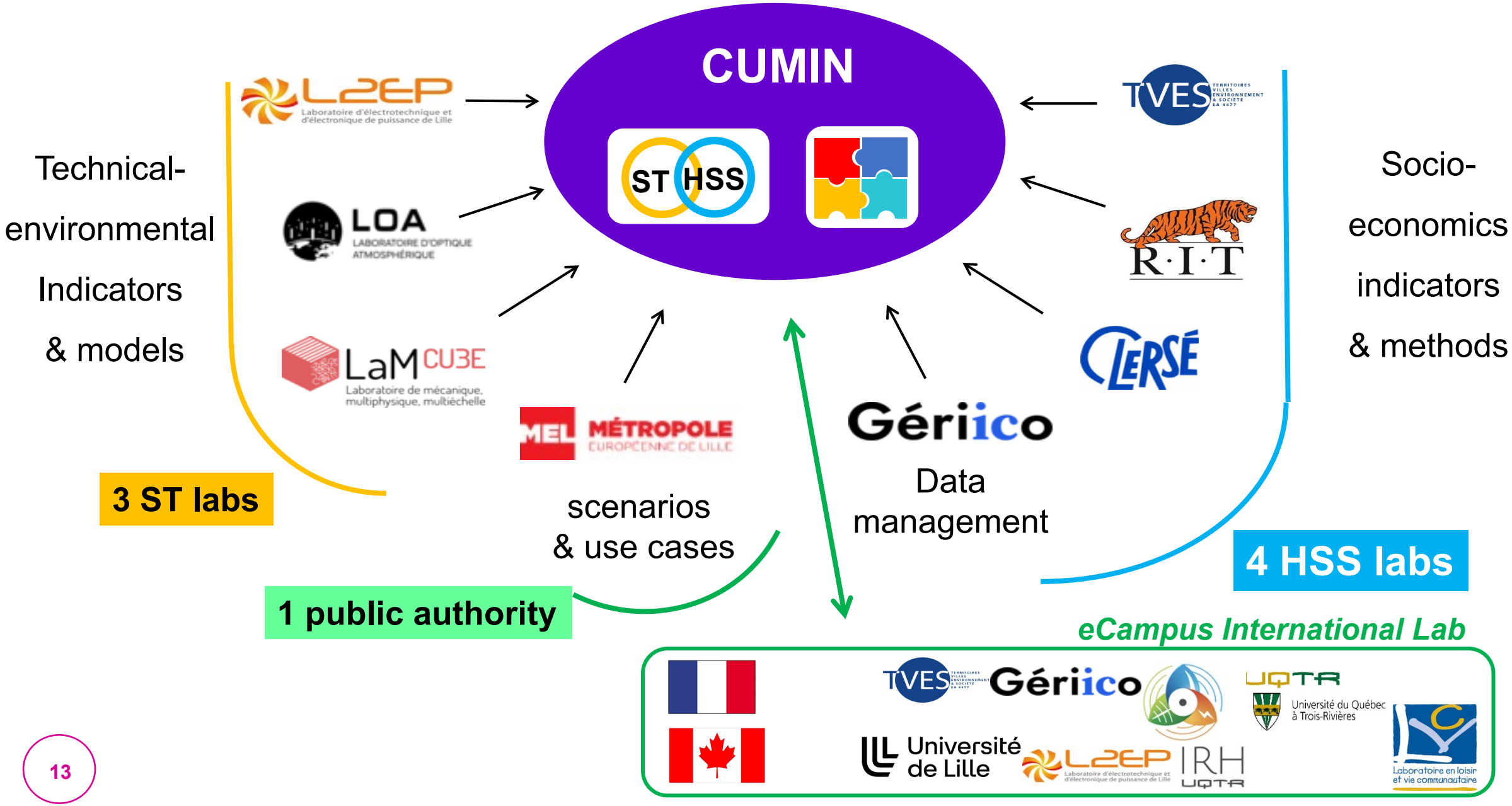
Custom solutions?

Ambition: interdisciplinary framework for e-mobility

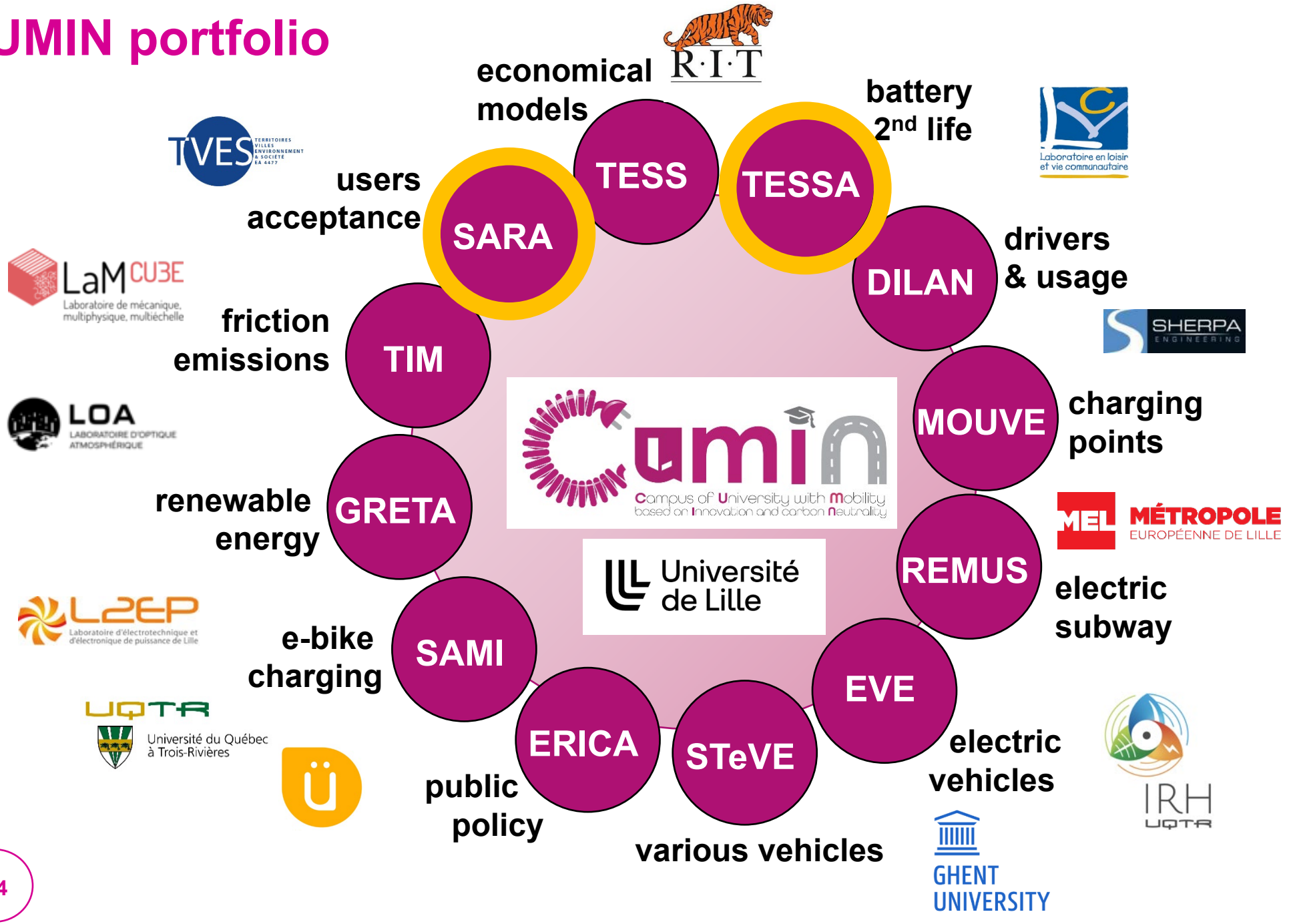


CUMIN : development of interdisciplinary flexible methods and tools for e-mobility transition as an alternative to thermal cars with the campus « Cité Scientifique » as living lab

Interdisciplinary consortium



CUMIN portfolio



Funding

I-SITE Université Lille Nord-Europe
Université de Lille
MESHS Lille Nord de France
MEL Métropole Européenne de Lille
Région Hauts-de-France
l'Europe s'engage en Hauts-de-France avec le FEDER
Liberté • Égalité • Fraternité République Française
bpifrance
Agence Nationale de la Recherche ANR
Investir l'avenir
Union Européenne

Supports

MEGEVH French network on HEVs
COMASUS Continuum de l'énergie
Panda
ce2i convertisseur d'énergie Intégré Intelligent
ELSAT2020

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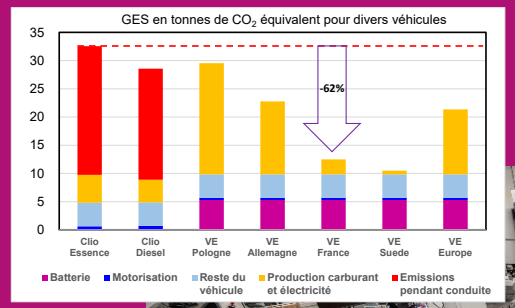
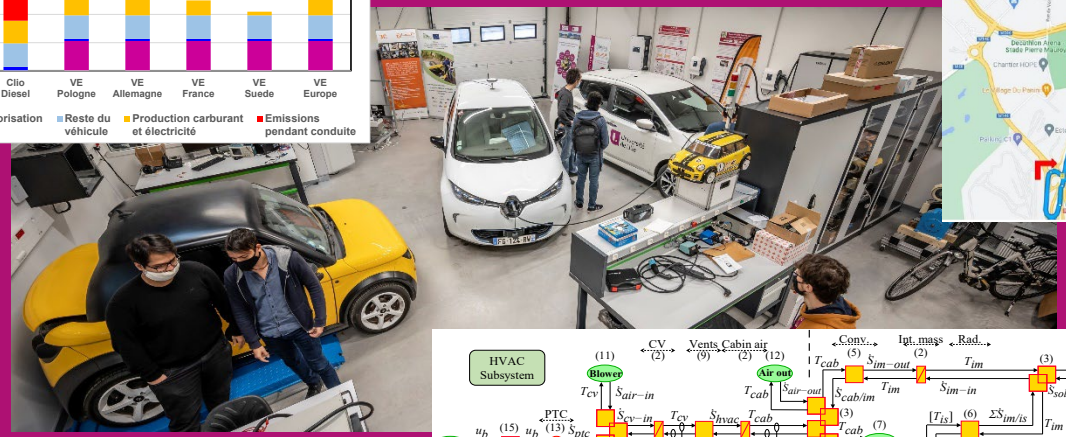
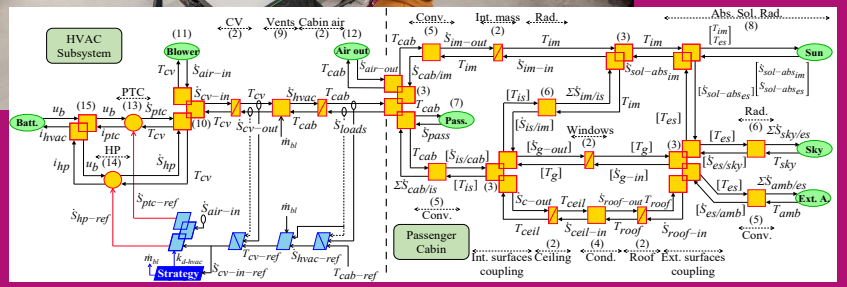
CUMIN







Our university as an exciting living lab towards eco-cities through an innovative transdisciplinary framework !