TRANSPORTS

Rear-view mirrors, blindspots, and roads ahead

The module proposes a deep-dive into the dynamics of the transport sector in France. We will study the (re)construction of transport networks after 1945, the inequalities in mobility trends, as well as forward-looking scenarios for the future of transports.
The transport system is chosen as a prime example of a complex system with significant environmental footprints and major economic and social impacts. The module's objective is to challenge students to consider the future of the transport system and devise strategies to address the climate emergency, while being able to consider other environmental constraints, as well as the technological, economic, social and political forces that shape the transport system.

Content

The module is organized around the triptych of players –the private sector, government and households - sometimes presented as the 'triangle of inaction', to be turned into the 'triangle of action and transformations'. The aim of each session is to provide an understanding of the key orders of magnitude, the important dynamics and the concepts that need to be borne in mind. The sessions are built around data analysis, critical reading of documents, the use of analytical tools (e.g. calculating the carbon footprint of vehicles, socio-economic analysis of public policies, game theory, statistical data analysis) and historical vignettes that provide historical depth to the analysis.

Learning objectives

- Understanding the historical context and dynamics that shaped the transport systems in France
- Understanding current situation of transport systems in France, and differentiated situations depending on territories and households
- Knowing how to analyze statistical socioeconomic data, and characterize evolutions and variability
- Mobilizing analytical methods and concepts (carbon footprint calculation, socioeconomic assessment of public policies, game theory, externalities)
- Using tools to analyze the internal consistency of forward-looking scenarios (eg Kaya decompositions), and knowing their limits

Terms of evaluation

Preparing a short document (in small groups) to present the chosen strategy to decarbonize the transport system, justified in the light of the points covered in the module. Participation during the sessions will also be included in the final grade.