

Emissions on the life cycle of a vehicle: what does Europe want?

Europe continues the reports and studies on the impact of "green" vehicles throughout their life cycle, arguing most often for a carbon-free production, especially at the battery level. Europe says it: the solution will lie in the adoption of a light vehicle, modest and somewhat independent from certain raw materials. Yes. Which?

Beware of the supply of rare materials.

In a document dated February 2018, the European institution is concerned about the risks of supplying materials to produce battery cells and the subsequent recycling of these rare materials.

The supply of rare earths is a major problem in the manufacture of batteries. Ores or materials for which availability uncertainties exist have been listed in a planned context of take-off of electric mobility.

Europe has listed those used in NCM lithium-ion batteries (nickel, cobalt and manganese) with a real risk.

The most exposed: lithium and cobalt, enter respectively 1 and 3.1% in the components. In contrast, aluminium (34.5%) has the least worrying situation. Between the two extremes, moderately sensitive materials at the supply level: manganese (2.8%), iron (9%), nickel (3.1%), copper (9.2%) and natural graphite (8.2%).

The risks are diverse: depletion of resources, concentration of deposits in a small number of countries, political decisions of heads of state, etc.

Opt for energy sobriety.

The European reports recall that it is the manufacture of the battery that has the effect of the electric cars on the level of CO₂ emissions, compared to a thermal model, and to specify: "Electric cars do not have unconditional climate advantages over thermals: these advantages only exist in certain circumstances".

Among Europe's recommendations for carbon-free individual mobility is the need to adopt smaller vehicles with reasonable autonomy. "The tendency to increase the size and autonomy of electric or thermal vehicles is unfavourable, both from the point of view of climate change mitigation and the use of resources".

Common sense is in compressed air.

These logical and common sense statements align with MDI's long-standing position to produce light-duty vehicles based on the real need of the motorist:

Although the bulk of trips are short trips involving a single person, motorists mobilize vehicles weighing a ton and a half of metal and can carry 4 to 5 people with a range of a thousand kms. By wanting to do everything with the same tool, you end up doing it badly or inappropriately.

Why absolutely want to have seating for 5 when you know that the occupancy rate of a vehicle is 1.08 people per trip on average?

From its conception, the Air-Pod 2.0 was conceived around the resource of 'energy': this model is a new way of thinking about eco-mobility.

MDI has monitored the weight of the vehicle, which determines its autonomy and cost. The heavier a vehicle is, the more expensive it is, directly related to the material expended to build it.

The Air-Pod 2.0 is lightweight, and so is its cost.

With two front seats and a large trunk, most of the daily trips are made in relation to the admitted need.

Do not give in to the Panurge effect.

The systemic thinking that Europe wants is common sense.

Paradoxically, current trends are moving towards the widespread introduction of electrical solutions, which sooner or later will come up against the reality of commodity markets, of their price, as well as of the corresponding pollution that populations do not want anymore.

Anticipating these pitfalls by offering a place of choice to the compressed air vehicle will prove to be a relevant alternative.