

Future propulsion systems for off-road vehicles, electric or endothermic?

How the energy storage constraints steer the development.

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The technology of mobile vehicles equipped with internal combustion engines powered by fossil fuels is undergoing significant turmoil and transformation. After nearly two decades focused on reducing the polluting emissions of diesel engines, companies are now working on future propulsion systems for agricultural tractors, which are used both in fields and on roads. The aim is to develop new systems, not necessarily completely electric, that can ensure a gradual, effective, and acceptable ecological transition for the industry and end-users. The work that will be presented provides an overview of the technologies in development, highlighting their advantages as well as their limitations. It also aims to illustrate a medium-term endpoint where multiple technologies will coexist, rather than relying on a single solution as is the case today.