

SHORT ABSTRACT – TEPS Project

In these years the aviation sector is in ferment and is experiencing a moment of expansion that all forecasts indicate as lasting. This applies to both General Aviation and the more recent UAVs (Unmanned Aerial Vehicles or drones). The thrust of this market comes from new innovative applications such as, for example, the next shared aero-taxi services or the providing of services through equipment installed on remote controlled aircraft for telecommunications, data collection, territorial monitoring and so on.

The market demand for innovative aircrafts, manned and unmanned, is strong and destined to grow enormously in the near future. Robby Moto Engineering fits into this context with TEPS (patented). It is an aeronautical engine project for General Aviation and UAV (Unmanned Aerial Vehicle) aircrafts for medium and long-range missions, where electric aircrafts are not useful due to their less autonomy. TEPS covers a very consistent market demand, but without competitors: Otto-cycle engine with two independent but integrated units.

The two integrated units are its main feature: redundancy in the event of a failure. Normally they work together. But if one of the two units has a failure, the other one that remains functional automatically supplies the power needed to land safely or to continue the service as long as necessary. The same result would be achieved by installing two single engines on the aircraft, but this means enormous complication, weight, volume and much more purchase and management costs. Another TEPS feature, not less important, is that it integrates the most modern engine technologies coming from the automotive sector to reduce fuel consumption and pollutant emissions.

The goal of Robby Moto Engineering with the TEPS project is to contribute to the growth of the aeronautical and aerospace industry because it is a strategic asset for Europe with important repercussions on many sectors, both European and global.