

Future European Fuel Cell Technology: Fit for Automatic Manufacturing and Assembly

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Publishable Executive Summary

This document describes the conceptual work for the integration and testing of the fuel cell system (FCS) into an electrical delivery vehicle of UPS with a strong impact on the delivery vehicle and hence on the complete Fit-4-AMandA project.

As a one of the main activities of work package 6 before the final integration of the fuel cell system with all necessary components into the vehicle can be started, the elaboration of a feasibility study has to be carried out. Scope of this investigation was to determine a strategy how such a system can be implemented into a vehicle that fulfills all demands of a UPS delivery vehicle in daily preparation.

Therefore first basic specification had to be defined such as:

- i. Vehicle type itself,
- ii. Power demand,
- iii. Dimensioning of the fuel cell (Space and power),
- iv. Dimensioning (and type) of the battery system (Space and power),
- v. Required tank capacity and pressure,
- vi. Position of the modules inside the vehicle
- vii. Control strategy
- viii. Power electronic strategy

The comprehensive strategy will ensure a smooth integration of the FCS into the vehicle and an operation of this vehicle as intended.

This document describes the definition of the specifications above and the further implementation and testing strategy as agreed in the Fit-4-AMandA Consortium Agreement.

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