

SH2APED PRESS RELEASE #1

Release Date: 20 September 2023

Subject/Title: **The SH2APED project has entered its 3rd year of project duration and begins the prototype production stage.**

Text:

SH2APED (Storage of Hydrogen: Alternative Pressure Enclosure Development) is the European project supported by the European Commission under the European Union's Horizon 2020 Research and Innovation programme, Hydrogen Europe and Hydrogen Europe Research with funding of € 1 993 550,00.

The goal of the SH2APED project is to develop and test a conformable and cost-effective hydrogen 70 MPa storage system with increased efficiency and unprecedented safety performance.

The innovative storage system is composed of the assembly of 9 tubular vessels fitting into a design space of 1800x1300x140 mm used for the battery pack.

This architecture allows a modular system configuration fitting into the flat space of light-duty car underbodies. All the vessel and the system elements are being manufactured using know-how and high-throughput processes. Performance parameters and KPIs are monitored in compliance with the current regulations, codes and standards (RCS) aiming at updating RCS with new knowledge and technological breakthroughs and simplifying certification. Economic assessment for industrial mass manufacturing is in line with the expectations of the automotive industry.

Currently, SH2APED is in the stage of prototypes manufacturing including tubular instrumented vessels for strain measurement during tests, tubular vessels for TPRD- less technology. On component side, the three different types of manifolds designed within the project are under manufacturing. The inlet manifold that will feed the full system with hydrogen, the intermediate manifold that is the one allowing flexibility in the design of such hydrogen system storages and the output manifold that is embedding the delivery module of the system for a connexion to a fuel cell. At system level, the current status of the project is the manufacturing of the frame. All these components manufacturing campaigns will allow the prototype assembly in October 23.

These first manufacturing campaigns will allow the project team to move forward in the coming months on two main axes.

1. Perform a validation plan at vessel and system level
2. Fine tune the costed BOM of the SH2APED storage to determine what evolutions are needed to reach the financial targets defined at beginning of the project.

The consortium is balanced in terms of partner's profiles from 4 countries: Belgium (Plastic Omnium), Italy (OMB Saleri), Germany (BAM), United Kingdom (University of Ulster).

The project implementation has been planned for 36 months.

SH2APED project was officially launched on 01/01/2021

Links:

Visit <https://sh2aped.eu/> to learn more about the project and its technology.

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