PROJECT

WHIITE

Waste Heat Integrated Industrialised Trucks and Tractors Engine

Funding: European (Horizon 2020)

Duration: Oct 2017 - Sep 2019

Status: Complete

Total project cost: €1,989,271

EU contribution: €1,392,489

Call for proposal: H2020-SMEINST-2-2016-2017

CORDIS RCN : 213215

Objectives:

In a combustion engine, 60% of the fuel energy is lost into heat mainly through exhaust gases. Vehicles such as heavy-duty trucks and tractors will still use these combustion engines in the next 20 years. Therefore, WHR technology (with its efficient results) is integrated into the 2020 “product plan” of major constructors (OEM) and suppliers (Tier1).

WHIITE is the most promising WHR technology because:

- It is a small additional engine designed with major constructors to be integrated easily into existing engine environments (trucks and tractors).
- It creates additional mechanical power without gas emission.
- It reduces fuel consumption and CO2 emissions by 8-10%.
- It does not increase vehicle weight nor its number of components, as it replaces air compressors and EGR coolers.
- It is built with conventional materials without electronics needs. Furthermore, WHIITE is maintenance free for 1,000,000 km. Cost price will allow a payback period shorter than one year to End Users (transport operators...)
- Its principle is protected by worldwide delivered patents with a freedom to operate. An independent expert has validated the demonstration of the engine at the TRL6 level.

Truck and tractors represent a potential market of 450,000 vehicles in Europe. Our ambition is to become the worldwide reference in WHR for heavy vehicles with a target turnover of 243 M€ in 2023 and 286 direct employees. We already have a solid sales pipeline with VOLVO Trucks, AGCO-Massey-Ferguson, CONTINENTAL, FAURECIA and WABCO.

We previously applied for the SME Instrument funding and received twice a Seal of Excellence. Now, we are reapplying for the European funding with an updated version based on new technical and reliability results, but moreover after our first equity fundraising of 2 M€ (signed in February), and an additional bank loan of 600 k€ for equipment. This gave us the opportunity to increase our team up to 16 people and get our first own test centre.

Parent Programmes:

H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Lead Organisation:

H2P Systems

Address:
10 RUE LOUVOIS
75002 Paris
France

EU Contribution: €1,392,489

Technologies:

Energy efficiency
Waste heat recovery system

Development phase: Demonstration/prototyping/Pilot Production

STRIA Roadmaps: Vehicle design and manufacturing

Transport mode: Road transport

Transport sectors: Freight transport

Transport policies: Environmental/Emissions aspects, Decarbonisation

Geo-spatial type: Other