

PROJECT

Gybrid

EKUPD

Funding: European (Horizon 2020)

Duration: Sep 2016 - Nov 2016

Status: Complete

Total project cost: €71,429

EU contribution: €50,000



[CORDIS RCN : 205043](#)

Objectives:

Existing large off-road power train applications are dominated by diesel power train solutions. These applications are large fuel consumers and massive CO₂, NO_x and particulate emitters. Natural Gas reduces CO₂ emissions by 20%, NO_x by 90% and particulate emissions are removed. Moreover, Natural Gas prices are consistently at a fraction of diesel (25% in 2015). EKU's proprietary control methods solve the technical barriers that natural gas engines have (e.g., sluggish performance restricted operation ranges), to replace diesel engines. GYBRID is an intelligent, natural gas-electric hybrid solution to facilitate electrification in off-road industrial applications (e.g., tug-boat, trucks, pressure pumps...). It uses natural gas or biomethane as its primary fuel and is supplemented for higher efficient power performance with a smart high energy dense battery array and sophisticated control technology. EKU GmbH develops hybrid industrial power at the leading edge of clean energy, electric motor technology, industrial battery assembly. EKU's personnel has a strong track record in the development and commercialization of radically new horsepower concepts. GYBRID addresses the most important key buying criteria; reduction of operating costs (50%), reduction of downtime (by 80%) and reduction of emissions. For example, for hydraulic pumping trucks, customers save fuel costs of around €1.2M per unit annually, reducing their production expenditures up to 50 % and additionally increasing four times the lifetime of their power drive equipment. The customers can expect a payback within two years EKU, amongst others, was awarded first place in the 2014 Munich Cleantech Innovation Award which recognizes and rewards the best European clean technology venture. The jury rewarded EKU's innovation that directly reduces the costs and emissions of energy transition from diesel to natural gas/electric motor power providing superior performance gains in efficiency and productivity.

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:

Eku Power Drives Gmbh

Address:

NOBELSTRASSE 15
70569 STUTTGART
Germany

EU Contribution: €50,000

Technologies:

Alternative fuels
Natural gas-electric hybrid solution for electrification in off-road applications

Development phase: Implementation

STRIA Roadmaps: Transport electrification, Low-emission alternative energy for transport

Transport mode: Multimodal transport

Transport sectors: Passenger transport, Freight transport

Geo-spatial type: Other