

PROJECT

DiGas Dual fuel

A novel dual fuel system for diesel locomotive modernisation to CNG or LNG operation

Funding: European (Horizon 2020)

Duration: Dec 2016 - Mar 2017

Status: Complete

Total project cost: €71,429

EU contribution: €50,000



[CORDIS RCN : 206826](#)

Background & policy context:

In recent years methane is receiving high attention from transport companies, investors, and government in rail sector with US leading the market development. Opportunity is being seized by GE, CAT, EMD and few smaller companies by piloting and testing their dual fuel products. EU is clearly lagging the rest of the world in the adoption of methane as the next gen fuel for locomotive applications. Being European company DiGas is bringing to market dual fuel product dedicated for locomotive sector out competing all similar products on a global scale. With today's average cost of locomotive dual fuel retrofit 500k EUR, the proprietary game changing innovation enables multiple times decrease of locomotive retrofit costs combined with high diesel fuel substitution rate (60-80%) of the system allowing for commercially attractive payback periods (4 y for shunter and 2 y for main-lines) for rail operators.

Objectives:

The company is developing proprietary state-of-the-art dual fuel technology and has designed low-cost, scalable, installable at minimum cost and lead time dual fuel system tailored for locomotive sector. The project will accelerate diesel locomotive market transition from oil based diesel fuel to cheaper, cleaner and much more sustainable alternative and bio fuel - methane either in form of Liquefied (LNG) or Compressed (CNG) methane. Switching the fuel enables locomotive sector to strengthen the advantage railroads hold over trucks in long-haul shipping, comply with tougher environmental and exhaust standards and decrease fuel costs in the same time.

Methodology:

In project Phase 1 DiGas strives to investigate project risks and potential hurdles of the product commercialization kick-off in Phase 2, for example certification and homologation routes, rail rolling stock and customer for various countries as well as commercialization path for various markets delivering a solid business plan. Based on feasibility study, a strategy TRL raise from 6 to 9 and market-rollout will be defined.

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:

Sabiedriba Ar Ierobezotu Atbildibu Digas

Address:

TALSU SOSEJA 31 K-17-34
JURMALA 2016
Latvia

EU Contribution: €50,000

Technologies:

Alternative fuels
Emissions evaluation of renewable diesel in rail

Development phase: Research/Invention

STRIA Roadmaps: Low-emission alternative energy for transport

Transport mode: Rail transport

Transport sectors: Passenger transport, Freight transport

Geo-spatial type: Other