

NYSMART

FACT SHEET

Project Acronym: NYSMART

Project Full Name: Novel dual-fuel system for modernization of air-polluting diesel locomotives to clean and efficient gas operation

Beneficiary: DiGas Ltd (Latvia)

Funding source: European Union's Horizon 2020 research and innovation program under grant agreement No 784620

Project Start: 01.12.2017

Duration: 24 months

Funding: 1 342 993,75 EUR

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DiGas is a pioneer in dual-fuel systems for diesel engines. **NYSMART** - patented dual-fuel technology that is tailored for modernization and upgrade of air-polluting diesel locomotives, to ensure their **clean and efficient operation**. Due to its modular form, **NYSMART** can be quickly and simply installed onto any diesel engine type. Once installed, our advanced intelligent engine management system ensures **30% reduction of fuel costs**, delivering **rapid payback** for the customer; provides torque & performance similar to that of a diesel engine; and delivers and fine Particulate Matter (PM) and NOx **emissions reductions of 90% and 30%** respectively. The modernization and upgrade of the locomotive is done by installing equipment, which is designed to store, transport, prepare and deliver natural gas into combustion camera while injecting smallest possible diesel fuel quantity with regards to emissions level, **engine safety** and traction performance.

The **NYSMART** project objective is to finalize, certify and pilot the **NYSMART** dual fuel system for **5 most used in Europe locomotive types** and achieve ready to market product with the actual dual fuel system proven in an operational environment. In order to achieve this objective, the work plan spans a duration of 24 months, consists of 7 working packages (WP) and its overall structure follows a logical flow to take the **NYSMART** technology from TRL6 to **TRL9** - compliance testing, field demonstration, and certification - the precursors for full market entry.

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