



### Abstract

**Start-up company from Slovenia, specialized in developing propulsion system, has developed a new innovative propulsion system called NEPS- Novative Ecological Propulsion System based on photo-detonation engine. Motor Engine can be used for land, air and sea transport and also for generators. Company has developed motor engine to a prototype level. SME seeks partners from R&D companies, institutions for the further development to the pre-production stage for all types of collaboration.**

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For further information (including IPR status)

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### Description

Photo-detonation engine has advantages instead of traditional internal combustion engine with high combustion efficiency and producing high power density for small dimensions of motor engine. Motor engine reaches practical efficiency of 50-60%, low exhaust rate and there is also no need for catalytic converter. Renewable fuels (95% Ethanol, bio oil) are used for straight running gasoline motor and other affordable fuels (even wooden powder) for large sized engines. The motor with small dimensions has a high power density and it is 4-times smaller than existing motor with piston engine for the same power.

#### Technical Specifications / Specific technical requirements of the request

NEPS system is based on 3 main bases:

1. Cycle (It can work like 2 stroke, 3 stroke or 4 stroke engine but it have compression approximately expansion ration up to 100/1). Lean fuel air mixtures under stach. ratio, so approximately 30/1-45/1.
2. Ramcharger (ramcharger can use exhaust energy for: charging, cooling the engine and anticavitation effect for ships and boats).
3. Engine body without connecting rod.