

Ultra light-weight, foldable, electric scooter

Our partner, a Hungarian SME has developed an ultra light-weight, foldable, electric scooter called MOVEO which can revolutionize urban traffic. It meets the increased needs for mobility and extends it even in crowded urban traffic. The client is looking for an investment to finish the R&D activities, to start production and/or finding suitable license partners.

Background information

Nowadays, environmentally conscious and economical, individual transport is becoming increasingly important. This is particularly facilitated by a foldable bicycle-weight scooter that becomes an everyday commodity by its flexibility, its simple storage, security, comfort, aesthetics or its ease of recharging. It is easy to use, it is efficient even in crowded urban traffic. It operates silently, with minimum energy consumption and does not pollute the environment directly.

Our partner aims to manufacture and bring to market the state-of-the-art innovation, the ultra-light weight foldable scooter, named MOVEO. The unique eco product is addressing market niche where 22% annual growth is expected, with 16% increase realized in 2010. Its high-tech features and mid-range pricing offers a great value proposition to customers and a strong market position for the launch.

With the product reaching market-ready-status and the relevant technology plans in place the Company is now targeting to take MOVEO from current prototype (C) phase to mass production within one and a half year.



Innovation of the technology

MOVEO is a light-weight foldable electric scooter, produced on the basis of a brand new concept. The monocoque body is made of a high-tech composite material, i.e. no traditional frame is required. This is an advantage in terms of reaching a very low weight and foldability. The max. speed the scooter is capable to operate with is 45 km/h, and its range with a single charge is approximately 35 km (with double battery pack 70 km). It has in-wheel-motors in both wheels (two-wheel drive). Its folding can easily be mastered. In its folded state the scooter is the size of a large suitcase and it can be pulled similarly. Its weight is less than 25 kg, without the saddlebag that can be used as a back-pack. It requires no parking space; in a folded state it can be stored anywhere and no dirt will be released from the tyres or the drum. It is unique, no such compact solution scooter is available on the market today.



All similar vehicles contain only some of the main features of MOVEO. In addition to the uniqueness, so far unseen innovative solutions -such as the monocoque body, the compact and dirt-free folding -, the product offers a wide range of positive features at the same time (light weight, comfortable sitting position, two-wheel drive, etc.). Its consumption is much lower than the recent state-of-the-art electric scooters: 2-2.5 kWh/100 km. The batteries can be charged from standard electric network as in the case of any household appliance. As such, it will be feasible in the near future, with a small investment, to ensure the operation of the scooter from renewable energy sources (solar, heat, wind energy) only: The MOVEO would therefore be autonomous, independent from the electricity network.

The design of MOVEO must be highlighted, in which functionality and the organic approach resulted in a unique and clean shape. We consider the unique appearance of the scooter essential to attract the buyers of such price category and meet the sophisticated expectations attached.

Specification:

- carbon-composite monocoque body
- Li-ion batteries
- electronic in-wheel-motors in both wheels
- performance: 2x600 W (durable)
- speed: 45-50 km/h
- weight: under 25 kg (without the saddlebag)
- range: 35 km (70 km with a double battery pack)



Main advantages

- environment-friendly product (quiet and free from emissions) with the performance of a scooter
- foldable to the size of a suitcase
- it requires no parking space (security)
- chargeable from the mains (or from the car's cigar-lighter)
- minimum energy needs (2-2.5 kWh/100 km)
- quick-charge option (parameters depend on the model chosen, but causes a decrease in the battery life-span)
- long battery life (depending on the model chosen)
- quickly foldable and unfoldable



- completely closed in folded state (no dirt)
- safe operation due to its two-wheel drive
- generator mode when going down-hill
- energy-saving recuperating breaks

Potential areas of use

Urban transportation, recreational purposes.

Stage of development

Research phase completed. Development of prototype is finished.

Intellectual property status

There are valid HU, EU and PCT patents. National phases of PCT are going to be started in 2013.

The PCT examination regarding the technical solution of Moveo (self-supporting monocoque body and details of folding mechanism) is completed and it's IP protection has been approved under PCT No. WO 2012/110836 A1.

Type of collaboration

Our partner is looking for an investment to finish the R&D activities and start production, and/or finding suitable license partners.

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