



Open Tender

Mecaprom srl (www.mecaprom.com) is looking for a **technical partner** for the following task: “Electromagnetic design of an surface Permanent magnet e-motor for in-wheel-motor applications, scaling from actual design with electromagnetic dimensioning and geometrical adaptation”

. The scope of the activity is:

- Development and calibration of an electromagnetic mathematical model on an existing 17inch-rim motor-in-wheel prototype.”
The model will be analytic and 2d FEM;
- Design of electromagnetic structure (radial flux external rotor) for a 15-inch-rim motor-in-wheel in order to maximize the available torque according to the maximum axial clearance available inside rim. Particular care will be used to reduce the parasitic cogging torque and related frequency increase in order to reduce the acoustic noise.
- Scalability of a new 15-inch-rim motor-in-wheel design to 13..17 inch rim case.
- Evaluation of available performances in case of liquid cooling.

The activity is carried out within the European Project **LIFE-SAVE** (Solar Aided Vehicle Electrification, LIFE16 ENV/IT/000442), financed by European Commission within the LIFE Programme (<http://ec.europa.eu/environment/life/>). The aims and the general aspects of the LIFE-SAVE project are available on the project website www.life-save.eu. The project description, in terms of Background, Objectives, Expected Results, Beneficiaries and Administrative Data, is available on the official page of the project, at the following link: <https://goo.gl/1qcjsu>.

The work, to be carried out under the coordination of the technical staff of Mecaprom, must be completed before March 31st, 2019. The potential applicants are private or public institutions, including universities and research centres, belonging to a Member state of the EU.

To apply, please send a proposal **before Sep 24, 2018**, including the following information:

- Name and description of the institution.
- Previous experience in electromagnetic modelling and design of surface permanent magnet motors.
- Previous experience in motor-in-wheel design
- Declaration of the proposer that none of the exclusion criteria listed below applies.
- The cost of contract.



The proposal must be sent in PDF format to mecapromtcosrl@legalmail.it. The tender procedure will be awarded based on the principles of absence of conflict of interest and of “best value for money”, accordingly to the LIFE Grant Agreement Financial and Administrative Guidelines available at the page <https://goo.gl/K1ok3o>. In particular, award criteria will consider:

- Scientific qualification and scientific titles of the proposers (25%).
- Previous experience in the area of modelling and design of electric motor and motor-in-wheel for electric and hybrid vehicles (50%).
- Cost of the contract (25%).

The result of the tender procedure will be communicated via certified email.

Evaluation of the exclusion criteria

According to the “Guide for tenderers” available at http://ec.europa.eu/oib/doc/tenders-submission-guide_en.pdf, candidates or tenderers are excluded from participation in procurement procedures if:

- (a) they are bankrupt or being wound up, are having their affairs administered by the courts, have entered into an arrangement with creditors, have suspended business activities, are the subject of proceedings concerning those matters, or are in any analogous situation arising from a similar procedure provided for in national legislation or regulations;
- (b) they have been convicted of an offence concerning their professional conduct by a judgment which has the force of res judicata;
- (c) they have been guilty of grave professional misconduct proven by any means which the contracting authority can justify;
- (d) they have not fulfilled obligations relating to the payment of social security contributions or the payment of taxes in accordance with the legal provisions of the country in which they are established or with those of the country of the contracting authority or those of the country where the contract is to be performed;
- (e) they have been the subject of a judgment which has the force of res judicata for fraud, corruption, involvement in a criminal organisation or any other illegal activity detrimental to the European union's financial interests;



LIFE SAVE

Solar Aided Vehicle Electrification

LIFE16 ENV/IT/000442



(f) following another procurement procedure or grant award procedure financed by the Community budget, they have been declared to be in serious breach of contract for failure to comply with their contractual obligations.

Torino, Sept 14, 2018

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