

Title: **Car-sharing system based on a light vehicle for Setúbal city**

Topic: **Smart and Sustainable Regions**

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Though the concept isn't exactly new, there's been a lot of difficulties in the implementation of car sharing systems. Maybe the price of the vehicles associated with a mind set of car possession together with the associated maintenance and usage cost distribution problem are the main factors limiting the implementation of such systems.

It seems however that people understand and recognize the advantages of sharing vehicles which have an impact in sustainability by reducing the number of cars parked in a city, overall cost and mobility improvement. By the people point of view, the possibility of using a shared vehicle by comparison with the alternative (buying a car) may result in a savings advantage reducing the amount of money needed for investment or the need for credit which can impact quality of life.

Under these considerations we'd like to propose to study the viability and to implement a car sharing system in Setubal based on a fleet of light vehicles by creating a consortium integrating local government, companies and the Setúbal Polytechnic Institute as well as other interested partners.

We also propose to design a prototype of a light solar powered electric vehicle (low power, light weight and low maintenance) based on the premisses of reusing old batteries from normal electric vehicles reducing waste by giving it a second life.

