

# Research topic: Integration of second life electric vehicles at municipal scale (DIG2)

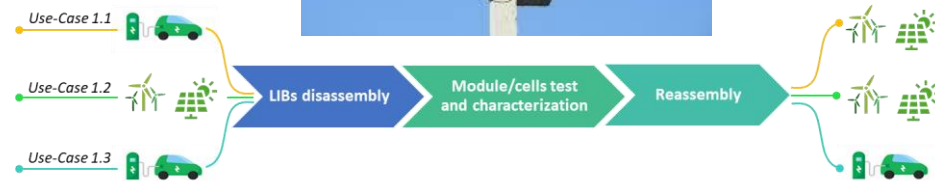
- Research line: Resource management for a Circular Economy
- Research group: Sostenipra

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## Giving batteries a second life around us

Proper end of life management of electric vehicle batteries is seen as a key step to ensure the sustainability of a massive roll-out of electric vehicles. Many studies in the literature have proposed use cases and reuse scenarios but there is still a gap at identifying and quantifying potential users.

In this Master thesis, the student will analyze data from a recent survey on household energy use patterns from Cerdanyola del Vallès, relate it to open data and obtain focused information from selected interest groups to craft battery use scenarios for a medium-sized city. The use profiles will be contrasted by real use data of second life batteries from the DigiPrime project.

**Main goal: Research the potentials and limitations of reusing electric vehicle batteries in our cities.**

## MAIN TASKS:

- 1) analyze survey data related to Cerdanyola's household energy pattern
- 2) explore and interview key potential adopters of batteries
- 3) propose integration schemes of second life batteries
- 4) Study the environmental performance of proposed integration schemes
- 5) To write a peer-review paper for submission in a peer-review journal.