

Call for Papers

Against the background of the International Hybrid and Electric Vehicles Technology Collaboration Programme (IEA-HEV) the German Aerospace Center is pleased to invite paper proposals for an edited book on small electric vehicles (SEV). Authors from science, industry, public institutions and similar are welcome to submit proposals.

The book aims for a comprehensive international view on chances and obstacles for small electric vehicles as well as new research and developments in the area.

With a growing number of electric vehicles worldwide the EV stock of passenger cars reached 5.1 million in 2018 with battery electric vehicles (BEV) holding 64 % (IEA 2018). Especially the sales numbers and models available on the market of larger vehicles i.e. large cars, SUVs or pick-ups grew significantly in the past years. In general they use more energy than small and light vehicles and become less efficient. Besides the benefits that come with the deployment of BEVs, SEVs furthermore require less critical raw materials for the production of batteries and overall emit less greenhouse gases (GHG) than large electric vehicles or vehicles with internal combustion engines (ICE). SEVs are an alternative especially in urban areas. Due to their small size they occupy less space and could therefore help in the development of attractive city centres. In this connection, it is important to consider which means of transport are substituted.

While China has a growing number of SEVs with 50 million electric three-wheelers and an estimated 5 million low speed electric vehicles (LSEV) other countries show by far smaller numbers. Especially considering world markets such as the United States and Europe SEVs have only limited success. Different rules for homologation complicate a comparison of world markets and the introduction of vehicle models into new markets.

The edited book should give a comprehensive overview of these types of vehicles with an international scope. The present status of SEV technologies, the market situation and main hindering factors for market success as well as options to attain a higher market share including new mobility concepts will be highlighted.

Topics of interest

The term *small electric vehicle* comprises three and four wheel locally emission free vehicles. Depending on the regional background they are classified differently, e.g. as low- and medium-speed vehicles, low-speed electric vehicle or kei cars. According to EU regulation (No. 168/2013) they belong to one of the L-categories L2e, L5e-L7e. Additionally vehicles of categories M1 or N1 which do not exceed 3.5 m, a maximum drive power of 55 kW and an unladen weight of up to 1,200 kg are in the scope. Areas of interest for this book include, but are not limited to, the following topics:

- Vehicle concepts and technologies
- Homologation and regulations
- International markets
- Mobility concepts
- Infrastructure for SEV (e.g. road infrastructure or charging)
- Effect on traffic and urban development
- Research projects

Guide for authors

1. Authors are invited to submit an abstract (3,000-5,000 characters, spaces included) in English, stating which questions they want to address in their contributions. The contribution must also include a short CV of no more than 350 characters (including spaces) and the affiliation. It should be sent in an electronic format (PDF file) to Amelie.Ewert@dlr.de. The deadline to submit abstracts is **31.10.2019**.
2. The editorial board will inform authors of the pre-selection results by 30.11.2019.
3. The authors of the pre-selected proposals should send their articles (approx. 8 pages) to the review's editorial department no later than 31.04.2020. They will be evaluated by the editorial board in line with its usual standards.

Editorial Board

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Sincerely,

Dr. Stephan Schmid

Operating agent of Task 32: SEV; IEA Technology Collaboration Programme on Hybrid and Electric Vehicles (HEV TCP)