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**Project Duration**
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What is ALIVE

ALIVE is an EU collaborative research project that aims to develop key vehicle lightweighting technologies based on advanced metal and hybrid materials. ALIVE aims for application in near-future electric vehicles (EV) to be introduced into the market from 2020 and at a level of technology readiness that would enable mass production.

The key objective is to achieve affordable solutions for vehicle weight reduction, targeting a 45 - 50 % weight reduction of the Body-in-White (BiW) comparing to benchmark state-of-the-art EVs recently introduced to the market, as well as a 25 - 30 % weight saving in the hang-on parts, chassis and main interior sub-systems.

Motivation

Affordable weight reduction is one key factor for a more intensive market introduction of electric vehicles. For an EV with 200 km range (and with battery capacity of 200 – 300 Wh/kg) the allowable costs of weight saving would be round 8 $/kg [ECK10].

For above mentioned 8 $/kg (= 10 $/kg) more than 40 % of lightweighting seem to be obtainable [HOF12]. However, further weight reduction leads to an exponential cost increase. Avoiding such cost increase is the main challenge of the ALIVE project.

Sources:

Project Objectives

- Achieve a **significant reduction in weight of electric cars destined for** mass production with minimal additional costs:
  - BiW with integrated battery housing: approx. 45 % (i.e. from 355 kg to 200 kg)
- **Chassis**: approx. 25 % (i.e. from 260 kg to 200 kg)
- **Hang-on parts**: approx. 25 % (i.e. from 100 kg to 75 kg)
- **Interior components**: approx. 30 % (i.e. from 100 kg to 70 kg)

SEAM

ALIVE is part of the SEAM cluster of automotive EU R&D projects.

In order to coordinate and harmonise the four projects SafeEV, ENLIGHT, ALIVE and MATISSE, the SEAM cluster has been established.

Main purpose of the SEAM cluster is to realise and monitor synergies between the four projects on RTD and demonstration level and to execute joint dissemination and exploitation activities.

The joint dissemination and exploitation activities are coordinated by the SEAM cluster office, which is hosted by the Fraunhofer LBF and Bax & Willems Consulting Venturing.