

ALLIANCE

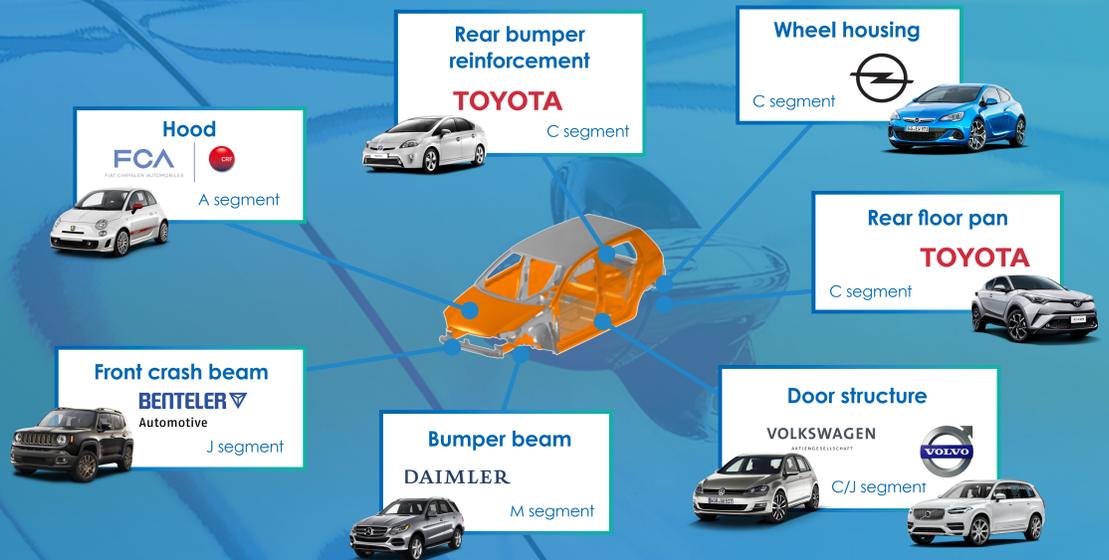
www.lightweight-alliance.eu

Effective and affordable automobile lightweighting

ALLIANCE brings together six European car makers, four suppliers, and eight knowledge partners in a coordinated effort from EUCAR to develop innovative materials and their respective manufacturing technologies in a holistic framework.

The ultimate goal of the project is to decrease the environmental impact of automobility by **reducing average vehicle weight by 25%, vehicle energy consumption by 10% and GWP by 6%**, at a cost of no more than **€3/kg saved**.

To further accelerate adoption, the developed technologies will be demonstrated on existing vehicles.



EUCAR's continuous drive for lighter cars

Lightweighting enables a reduction in emissions, energy savings and better driving behaviour.

SEAM cluster

(47 partners, 10 countries)
Chairman: David Storer, CRF

ENLIGHT



Oct '12 – Sep '16
Coordinator: Thilo Bein, Fraunhofer
Budget: € 10.9M
High cost; medium volume
Volume: >50k/year
Cost target: <10€/kg saved
Weight reduction: -35%
Materials: FRP
Single vehicle model
Proprietary architecture
Applicability horizon: 8-12 years

ALIVE



Oct '12 – Sep '16
Coordinator: Jens Meschke, Volkswagen
Budget: € 13.1M
Low cost; high volume
Volume: >100k/year
Cost target: <8€/kg saved
Weight reduction: -40/50% (BIW)
Materials: Al, HSS
Single vehicle model
Proprietary architecture
Applicability horizon: 4 years

ALLIANCE



Oct '16 – ongoing
Coordinator: Sama Mbang, Daimler

Budget: € 9M
Low cost; high volume
Volume: >100k/year
Cost target: <3€/kg saved
Weight reduction: -25%
Materials: Al, HSS
Multiple existing vehicle models
Applicability horizon: 2-4 years

MATISSE



Oct '12 – Sep '15
Coordinator: Roland Wohlecker, fka
Budget: € 3.3M
Prediction and optimisation of crash behaviour of FRP structures for alternative powered vehicles.

Safe-EV



Oct '12 – Sep '15
Coordinator: Andreas Teibinger, Virtual Vehicle
Budget: € 3.1M
Definition of advanced test scenarios and evaluation criteria for VRUs, occupant safety and compatibility with SEVs.

EPSILON



Nov '13 – Feb '17
Coordinator: Kristian Seidel, fka
Budget: € 3.4M
Development of innovative EV concepts designed for urban areas.

Urban-EV



Aug '13 – ongoing
Coordinator: Klaus Lipp, Fraunhofer LBF
Budget: € 3.6M
Demonstration of the feasibility of key vehicle lightweighting technologies for the manufacturing of light urban electric vehicles with new standards of mechanical performance and occupant safety.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 723893

DAIMLER



TOYOTA

VOLKSWAGEN

FCA



BATZ

BENTELER Automotive

swerea

inspire

Fraunhofer

ika

KIT

UNIVERSITA DEGLI STUDI FIRENZE

BAX & COMPANY

RICARDO

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