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Advanced Electric Vehicle Architectures

Fact Sheet

Project Information

ELVA

Grant agreement ID: 265898

[Project website](#) 

Project closed

Start date
1 December 2010

End date
31 May 2013



Funded under
Specific Programme "Cooperation": Transport
(including Aeronautics)

Total cost
€ 4 823 714,00

EU contribution
€ 2 899 398,00

Coordinated by
RHEINISCH-WESTFAELISCHE
TECHNISCHE HOCHSCHULE
AACHEN
 Germany

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Objective

Increasing energy costs and stringent CO₂ emission targets drive the growing market opportunity (and societal need) for fully electric vehicles (EVs). The ELVA project focuses on electric cars for city passengers and urban delivery where traffic volume is high and the impact on the local environment is most significant. Knowledge transfer to other vehicle types will be facilitated by a novel design approach to be developed by ELVA.

The change in propulsion technology from internal combustion engines (ICE) to electric powertrains will lead to the integration of new components and systems, while others undergo changes or become obsolete. This opens up new freedom in design and clears the way for new vehicle concepts. ELVA is to deliver results that allow for full exploitation of this new freedom, while responding to changing future market demands.

To achieve this key objective, the ELVA project generates, investigates and analyzes innovative design concepts for EVs. It delivers a wide range of advanced modular architectures which enable at least the same high level of intrinsic safety as known from current best in class conventional vehicles at minimal weight, maximised energy efficiency, optimized ergonomics & loading space at affordable costs as well as acceptable levels of comfort and driving performance.

In particular ELVA delivers best practices and evidence based design rules for modular lightweight and safe architectures specific to EVs. These practices and design rules will feed into and partially replace existing experience-based design methodologies, which have been developed over more than a century of vehicle design around the internal combustion engine.

ELVA will achieve a substantial impact with regard to a greener road transport system and a competitive car industry due to the strong involvement of leading industrial partners including 3 car makers that together are expected to produce a substantial part of all EVs sold in Europe in the next decade.

[social sciences](#) > [social geography](#) > [transport](#) > **[electric vehicles](#)**

[social sciences](#) > [psychology](#) > **[ergonomics](#)**



Programme(s)

[FP7-TRANSPORT - Specific Programme "Cooperation": Transport \(including Aeronautics\)](#)

Topic(s)

[GC-SST.2010.7-5. - Advanced electric vehicle concepts](#)

Call for proposal

FP7-SST-2010-RTD-1

[See other projects for this call](#)

Funding Scheme

[CP-FP - Small or medium-scale focused research project](#)

Coordinator



RHEINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN

EU contribution

€ 533 000,00

Total cost

No data

Address

TEMPLERGRABEN 55

52062 Aachen



Germany



Region

Nordrhein-Westfalen > Köln > Städteregion Aachen

Activity type

Higher or Secondary Education Establishments

Links

- [Contact the organisation](#)
- [Website](#)
- [Participation in EU R&I programmes](#)
- [HORIZON collaboration network](#)

Participants (6)



CONTINENTAL AUTOMOTIVE GMBH

Germany

EU contribution

€ 373 330,00

Address

VAHRENWALDER STRASSE 9
30165 Hannover

Region

Niedersachsen > Hannover > Region Hannover

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

- [Contact the organisation](#)
- [Website](#)
- [Participation in EU R&I programmes](#)
- [HORIZON collaboration network](#)

Total cost

No data



CENTRO RICERCHE FIAT SCPA

Italy

EU contribution

€ 516 069,00

Address

STRADA TORINO 50
10043 Orbassano

Region

Activity type

Research Organisations

Links

- [Contact the organisation](#)
- [Website](#)
- [Participation in EU R&I programmes](#)
- [HORIZON collaboration network](#)

Total cost

No data



IDIADA AUTOMOTIVE TECHNOLOGY SA

Spain

EU contribution

€ 250 200,00

Address

L ALBORNAR
43710 Santa Oliva

Region

Este > Cataluña > Tarragona

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

- [Contact the organisation](#)
- [Website](#)
- [Participation in EU R&I programmes](#)
- [HORIZON collaboration network](#)

Total cost

No data



RENAULT SAS

France

EU contribution

€ 392 269,00

Address

122-122B AVENUE DU GENERAL LECLERC
92100 Boulogne Billancourt 

Region

Ile-de-France > Ile-de-France > Hauts-de-Seine

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

- [Contact the organisation](#) 
- [Website](#) 
- [Participation in EU R&I programmes](#) 
- [HORIZON collaboration network](#) 

Total cost

No data



CHALMERS TEKNISKA HOGSKOLA AB

 Sweden

EU contribution

€ 334 519,00

Address

-
412 96 Goteborg 

Region

Södra Sverige > Västsverige > Västra Götalands län

Activity type

Higher or Secondary Education Establishments

Links

- [Contact the organisation](#) 
- [Website](#) 
- [Participation in EU R&I programmes](#) 
- [HORIZON collaboration network](#) 

Total cost

No data



VOLKSWAGEN AKTIENGESELLSCHAFT

 Germany

EU contribution

€ 500 011,00

Address

BERLINER RING 2

38440 Wolfsburg 

Region

Niedersachsen > Braunschweig > Wolfsburg, Kreisfreie Stadt

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

No data

Last update: 1 August 2019

Permalink: <https://cordis.europa.eu/project/id/265898>

European Union, 2025