Swedish Electromobility Centre

Elna Holmberg
Director
Swedish Electromobility Centre is...

...a national Centre of Excellence for research and development of electric and hybrid vehicles and charging infrastructure. It is an arena where Sweden’s automotive industry, universities and government agencies meet and collaborate to generate new technology, insights and competence for the future.
PARTNERS

INDUSTRIES
- AB Volvo
- Autoliv Development AB
- Vattenfall AB
- Volvo Car Corporation
- Scania CV AB

UNIVERSITIES
- Chalmers (hosting univ.)
- KTH Royal Inst. of Technology
- Linköping University
- Lund University
- Uppsala University

AUTHORITY
- Swedish Energy Agency

OTHER
- Mariestad municipally
PARTNER

INDUSTRI
- AB Volvo
- Autoliv Development AB
- Vattenfall AB
- Volvo Car Corporation
- Scania CV AB

UNIVERSITET
- Chalmers (värd)
- Kungliga Tekniska Högskolan
- Linköpings universitet
- Lunds universitet
- Uppsala universitet

MYNDIGHET
- Energimyndighetens

SOCIETY
- Mariestads kommun
The partner universities are linked by the thematic areas:

- System studies and methods
- Electrical machines and drives
- Energy storage
- Vehicle analysis
- Fuel cells
PURPOSE OF THE CENTRE

- Knowledge reference centre for electromobility
- The Swedish meeting point for academia and industry across disciplines and organisations
- Stimulate joint research and coordinate a mutual research agenda at a precompetitive stage within Sweden
- Provide competence to society by promoting and engaging in electromobility graduate education and training
- Bridge and promote knowledge transfer
RESEARCH AREAS & ACTIVITIES

Research themes
- System studies & methods
- Electrical machines & drives
- Energy storage
- Vehicle analysis
- Fuel cells

Vehicle perspectives
- Vehicle technology, from complete drive train to components
- Connection to infrastructure
- Vehicle-infrastructure-transport
- Vehicles in society & user perspectives

Research projects
- Senior research projects
- Post doc projects
- PhD projects
- Shorter studies, position papers and investigations

International advisory board
- Scientific relevance and quality of the research in an international context
- Feedback on Centre’s organisation, general activities and management of the Centre
INTERNATIONAL COLLABORATION

- Swedish Electromobility Centre has decided to start up long term strategic collaboration with three international research organisations similar to the Centre. The first step includes an exchange within three PhD projects
  - CATARC in China - Cost-effective drivetrains for fuel cell powered Electric Vehicles
  - UC Davis in USA - Charging behaviour and infrastructure need for plug-in electric vehicles
  - IFPEN in France - Collaboration platform to Strengthen the Control and Optimization of Hybrid Electric Powertrains –IFPEN

- International collaboration and competition is a natural part of all researchers working environment

- The majority of Swedish Electromobility Centre’s industrial partners are global companies with a well established international network
In our themes

- Fast and easy insights into Sweden’s activities
- Awareness of international research
- Geeky technology discussions and workshops with specialists from academy and industry

Overview and future research

- Regular overview of Swedish research projects
- Identify challenges and gaps
- Road map for future research

Cross technology seminars and workshop

- Exchange of expertise and knowledge transfer
  - Knowledge-deep, exploring
  - General, complete picture
- Strengthening the network

Centre conferences

- Open to the public
- International keynote speakers
- Invited experts
- Research within the Centre
STRATEGIC COMPETENCE

Industry collaboration
- Industrial council
- Promote collaboration academy & industry
- Affiliated researcher from industry associated to the Centre
- Industry connected PhD students

Doctoral network
- Open for all PhD students within the field in Sweden
- Shortcut to talents for industry
- Support knowledge building on road vehicle electrification
- Connects PhD students from different fields

Newsletter
- Hosts a daily newsletter with analysis of electrical and hybrid vehicles (technology and market)

Education
- Two PhD courses open for all PhD students and industrial engineers
- Specially designed seminars and courses for industry
WELCOME TO CONTACT US