Powering global zero-emission mobility for the happiness of future generations

Part I: CHAdeMO at a glance

CHAdeMO Association was founded in 2010 to accelerate the electrification of transport and to reduce CO2 emissions.

Today, the CHAdeMO DC charging protocol has become a global standard using an identical connector all over the world.

The Association continues to pursue its mission of bringing safe, affordable and interoperable charging to all EV drivers, along with its over 500 members.

CHAdeMO story
Key facts about CHAdeMO

**Truly global standard**

Published under IEC & EN (61851-23, 61851-24, 62196-3), and IEEE (2030.1.1)

**Flexible and extensible**

Adaptable to all levels of power and all categories of vehicles

**Over 40K charge points in 96 countries**

Cambodia and Vietnam installed their first CHAdeMO chargers in 2021

**Over 1 million**

EVs are equipped with a CHAdeMO inlet (another million EVs can be charged with CHAdeMO chargers via an adapter)

**Over 500 members**

of which 160 members in Europe

Enabling over 500kW of charging, aiming at 900kW (600A x 1.5kV) to 1.8MW
CHAdEMO certification system

CHAdEMO certified means the charger conforms to the highest safety standards mandated by CHAdEMO and is fully compatible with all CHAdEMO EVs. Our certification tests are performed by the accredited third-party certification bodies.

CHAdEMO products

Recent CHAdEMO chargers

First-generation CHAdEMO chargers hit the global market in 2010. Since then, the portfolio of certified chargers has grown to 260. All leading charger manufacturers as well as a broad range of SMEs providing fast charging infrastructure are our members, testimony to the Association’s reach and global recognition.

The full list of CHAdEMO certified chargers is available at: https://www.chademo.com/products/chargers/
Examples of CHAdeMO compatible EVs

CHAdeMO chargers are compatible with numerous plug-in vehicles, including PHEVs and Tesla EVs.
Ultra-high-power charging enabling over 500kW of power and using the next-gen plug ‘ChaoJi’ (published in April 2021).

High power charging (up to 400kW), enabling large commercial vehicles, compatible with plug-and-charge functionality.

Allowing for 200kW, with protection against over-temperature; overload/short-circuit current protection and coordination.

Dynamic change of the current during charging enabled, emergency stop button made optional and a smaller cable diameters for V2H included.

The vehicle protection, compatibility and reliability enhanced.

Most CHAdeMO chargers deployed worldwide work according to the 0.9 protocol.

ChaoJi is the next-generation ultra-high-power DC charging standard designed to ensure backward compatibility with CHAdeMO, GB/T and CCS. V2G and PnC functions are also ready to be made available. ChaoJi is a breakthrough solution to harmonise charging standards and accelerate the transition towards our common climate goals.
VGI/V2G: enabler of a carbon neutral society

Standardised bi-directional charging is only possible with CHAdeMO. Robust and flexible, CHAdeMO enables scalable VGI/V2G services. Making the total cost of ownership of EVs lower and accelerating EV adoption, while providing grid support to integrate more renewable energy sources, VGI/V2G can help reduce GHG emissions from the transport and the energy sectors.

Recent CHAdeMO VGI/V2G products

- ABB
- AME
- Ampere Energy
- Delta
- Enel X
- eNovates
- Indra
- Magnum Cap
- Nichicon
- Tsubakimoto
- Wallbox

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VGI/V2G projects and commercial applications

Recent demonstration and commercial projects have proven that the adoption of VGI/V2G can create new values to stakeholders.

Source: CHAdeMO website, https://www.v2g-hub.com
**Key figures from the recent VGI/V2G projects**

The technical demonstration phase is already surmounted and recent trials and projects demonstrated that financial gain for EV users and saved costs for grid operators can be achieved, quantifying social and environmental impacts such as CO2 emission reduction.

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**Parker Project (DK)**

- Demonstrated the commercial viability of EV fleets
- Total 13,000 hours of demanding FCR services
- An average revenue of 1,860 Euros car/year

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**Johan Cruyff ArenA Pilot (NL)**

- Demonstrated the real-life economic potential of bi-directional EVs
- Energy autonomy increase of 1.2%
- CO2 Reduction: 2,012t CO2 yearly (ref. Y2017)
- Peak reduction of 0.3MW (10%)

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**Sciurus Project (UK)**

- The world’s largest residential V2G project
- £360 (£411) Annual bill savings
- 750MWh of energy offset through V2G
Ecosystem of Members

Members of CHAdeMO Association represent a set of diverse partners from multiple sectors of the industry who share the same vision.

What we do

As an ecosystem of companies offering CHAdeMO related products and services, the Association provides a platform for its members to work together to promote and enable electric mobility on a global scale.

- **PROTOCOL DEVELOPMENT**
  - Enable the evolution of the CHAdeMO protocol, adapting it to changing market demand and stakeholders’ requirements

- **CERTIFICATION**
  - Provide third-party certification of chargers to ensure safety and interoperability

- **PR**
  - Promote e-mobility through various PR activities such as the publication of position papers and lobbying

- **OUTREACH**
  - Give visibility to our members and their products via on- and off-line communication tools including shared exhibition booths at trade fairs
**Member benefits**

1. Access the CHAdEMO protocol and develop your own products*
2. Get your product certified and gain market advantages*
3. Participate in the making of future charging technologies though the WGs*
4. Join the CHAdEMO shared exhibition booths and expand global market access
5. Connect with other industry professionals and increase your business opportunity
6. Access the latest news and information about CHAdEMO developments and events

*Regular member only

**Membership category**

The Association has three classes of membership, all your company needs to do is to choose the most appropriate category and email the application form to the Secretariat (info@chademo.org; info@chademoeu).

The membership application is reviewed by CHAdEMO’s Executive Board, and if it is accepted, we send out the invoice for membership dues*. Once the payment is made, you officially become our member.

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Joining the Association is very easy - email us at info@chademo.eu or visit www.chademo.com for more details!

The full list of members available at: https://www.chademo.com/membership/members/