



The Rapid Charge Network

www.rapidchargenetwork.com

The RCN project is co-financed by the European Union's Ten-T programme.



Co-financed by the European Union
Trans-European Transport Network (TEN-T)



The development of an EU-funded multi-system charger corridor project

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The European Union
has a target of a
60% reduction of
CO² emissions from
transport **by 2050.**

Background

- ESB in Ireland: the first project to be successful in applying for TEN-T funding for an EV infrastructure programme.
- Nissan: wanted to take the learnings from this project and develop a consortium of like-minded organisations.
- The UK Government: had made a huge financial commitment to EV infrastructure since 2010 through the £30 million Plugged in Places programme.
- Nissan: huge industrial stake in the UK – both in terms of vehicles and infrastructure.
- CHAdEMO: was the rapid charge protocol of choice in the UK at that time.
- With the introduction of Combo charging protocol by BMW and VW and the rapid AC protocol by Renault, charging requirements needed to change.

Therefore the four major EV manufacturers responsible for these protocols came together to begin discussions.



Industry Partners



Supporting Partners



**Zero Carbon
Futures**

Innovative Transport North East England



**Newcastle
University**



Why multi-standard?

- It was unrealistic to expect investors to deploy separate charge points for each connector.
- One charge point with multiple connectors was the solution, capable of delivering power to all battery EVs on the market.
- From a driver's perspective, this is what is needed for vital reassurance and to avoid confusion on what make and model to buy.
- So the first objective of the project was born.



Electrifying connections across the UK and into Ireland



74 CHARGE POINTS

A network of multi-standard charge points across the UK and Ireland.

THE RIGHT CONNECTIONS

Linking five seaports and five airports.



1,100km

COVERAGE

Covering 1,100km of major spine roads.



4 LEADING MANUFACTURERS

The support of four major vehicle manufacturers.

The Rapid Charge Network project will support the uptake of electric vehicles by developing a network of 74 multi-standard, interoperable EV rapid charge points. The project is funded by the European Union's Ten-T programme.

This is the first time major car manufacturers have joined forces with Member States, universities and major utilities to deploy a fully multi-standard and interoperable fast charging network.

The project aims to break down one of the major barriers to the uptake of electric vehicles and increase the adoption of electric vehicles along its route.

The project began at the start of 2014, formally launched in September 2014 and is running until 2015.



Project strands

- 1) Develop the multi-standard rapid charge point: combining CHAdeMo, AC and Combo into one charge point.
- 2) Design a rapid charge point station: to investigate the feasibility of an EV station structure that could also incorporate sustainable technologies such as solar PV.
- 3) Installation of all 74 multi-standard rapid chargers along the European Union's Priority Projects road axes 13 and 26.
- 4) Network operation: to consider the evolving needs of drivers.
- 5) Study: driver and charger behaviour to understand the impact that such a network will have on driver behaviour.
- 6) Develop a comprehensive strategy: with a detailed roadmap, appropriate guidelines and recommendations for the development of an interoperable EV rapid charge network to support other EU countries and cities to develop similar networks and disseminate the findings of the study widely locally, nationally and across Europe.



Helping EV drivers, drive further



EV owners in the UK and Ireland will be able to drive further, secure in the knowledge that they will never be far from a rapid charge point.

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The challenges:

- The TEN-T routes are fixed – specified by EU and UK Governments – so finding good locations and site owners has been challenging.
- The route covers some rural areas, with less developed infrastructure and insufficient power capacity
- Ports and Airports ensure cross-border however difficult to engage with.
- Four major OEMs – traditionally competing manufacturers now working together to create an infrastructure - which benefits all drivers - is not without its challenges.
- Plus the legal implications of this relationship have been complex.
- Accessing good quality data which will inform the study element of the project.

But we are now motoring ahead.



The de-carbonisation of transport will only succeed if a full, harmonised European network is in place in the coming years and if the major investors are convinced about the economic sustainability of the recharging business.

FIND OUT MORE
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Project Cost: €7,358,000

Percentage of EU support: 50%

Maximum EU contribution: €3,679,000