

# Electric Vehicle Workshop

*12 June 2018*

## Summary & Next Steps

By Gemserv



**Gemserv**



# Contents

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Contents .....	2
List of attendees .....	3
Gemserv's EV consumer survey results .....	4
Summary of breakout sessions .....	4
Summary of plenary discussion .....	7
Next steps .....	8



## List of attendees

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The EV Workshop was very well attended by over 20 organisations including energy companies, distribution network operators, National Grid, charging point installers, trade associations, consultancies and innovators. Below is the list of organisations and the individuals in attendance.

*Table 1 Attendees of EV Workshop held on 12 June 2018*

Organisation	Full name
BP Ventures	Ignacio Gimenez
Carbon Limiting Technologies	Jeffrey Beyer
Delta Energy & Environment	Matti Kahola
E.ON	Neil Smith
EDMI	Aran Naidu
eMotorWerks	Mark Walker
ENA	Farina Farrier
Energy Systems Catapult	Bunmi Adefajo
Energy UK	Sam Hollister
Energy UK	Charles Wood
Innovate UK	David Richardson
IPA Advisory Limited	Stefan Konstantinov
Low Carbon Vehicle Partnership (LCVP)	Neil Wallis
Moixa	Harrison Brook
National Grid	Graeme Cooper
Northern Powergrid	Iain Miller
npower	Andy Baugh
Ovo Energy	Tom Pakenham
Pod Point	Natalia Peralta Silverstone
Scottish and Southern Electricity Networks (SSE)	Sara de la Serna
Scottish and Southern Electricity Networks (SSE)	Richard Hartshorn
Shell	Freddie Darbyshire
Shell	Charles Harris
Shell	Nicholas Parkes
UK Power Reserve	Alessandra De Zottis
UK Power Reserve	James Jackson
Upside Energy	Mitchell Curtis
WSP	David Healey



# Gemserv's EV consumer survey results

Gemserv commissioned a YouGov survey on 17<sup>th</sup> May 2018 comprising of a sample of 2050 representative adults in Great Britain. They were asked to select the top three factors most likely to lead to a them buying an EV. The results obtained have been summarised below.

Which three of the following would make you most likely to purchase an electric vehicle (EV)?

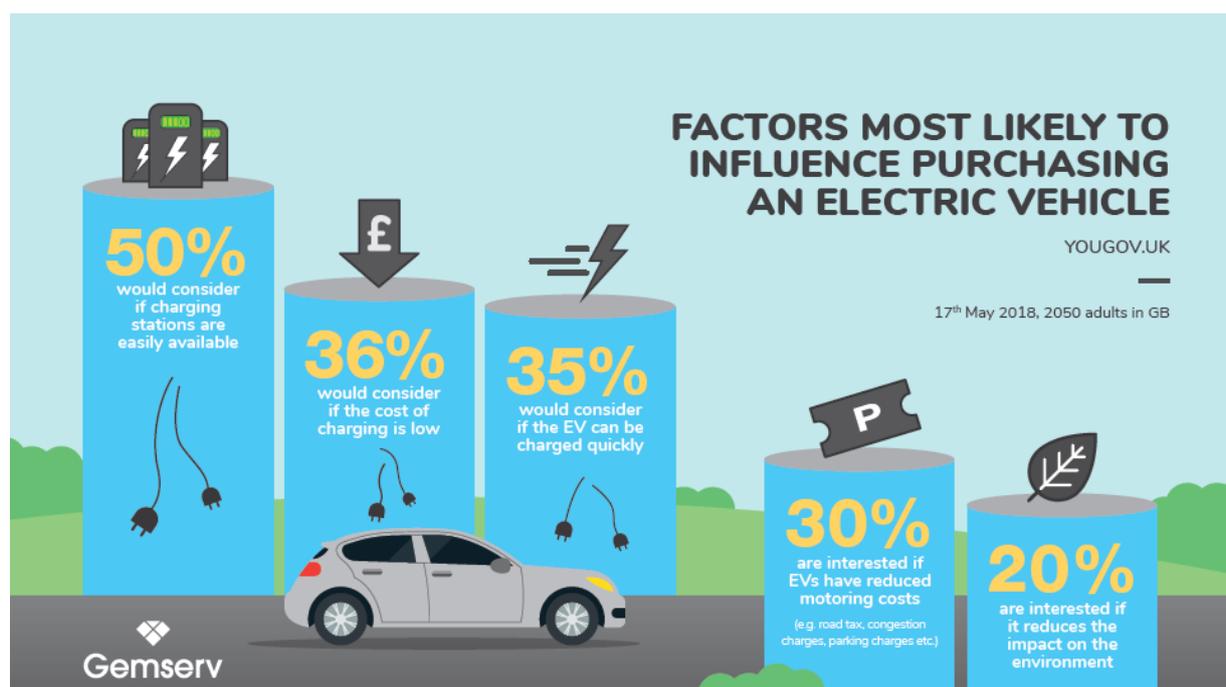


Figure 1 Gemserv commissioned YouGov consumer survey results



## Summary of breakout sessions

The participants of the EV Workshop were divided into four groups during the breakout sessions to discuss the various challenges to EV infrastructure roll-out and then prioritise the three key challenges. A summary of all four discussions and the challenges identified has been shown below.

Most challenges focussed around the customer experience, the charging point infrastructure and the regulation and standards needed to realise interoperability. Please see Figure 2 below.

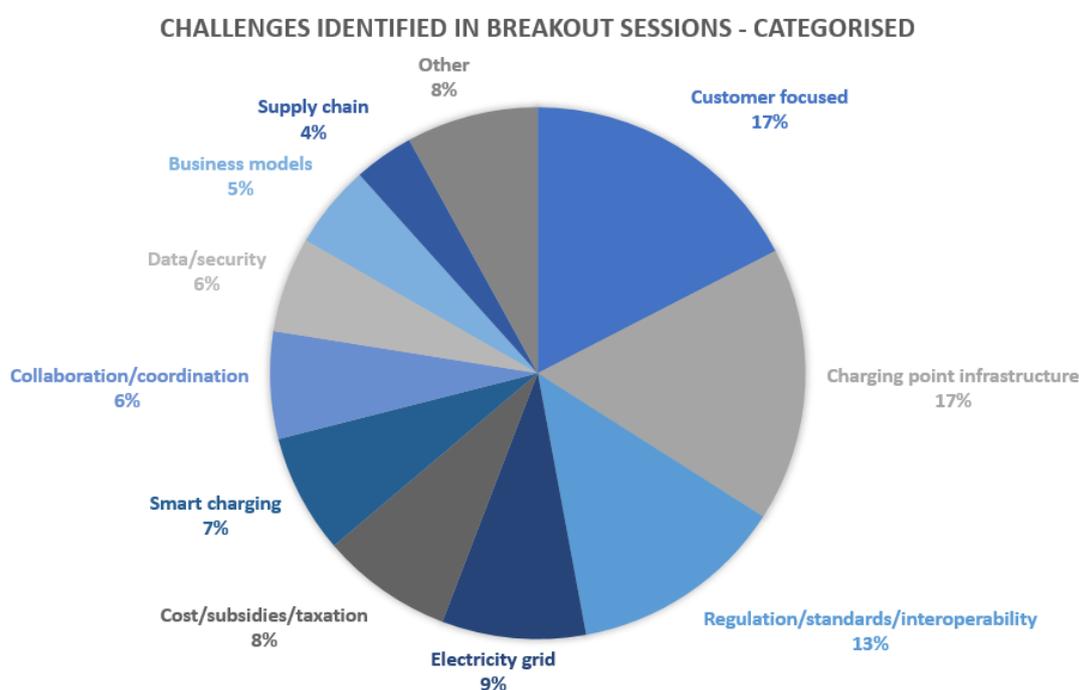


Figure 2 Challenges identified in breakout sessions - categorised

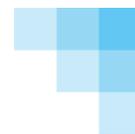
The main challenges identified from a customer's perspective are the cost of vehicles and the need for customer engagement. The four groups identified a wide range of challenges around charging point infrastructure: access, availability and reliability of charging points, and challenges for households with no off-street parking. In the third category the challenges discussed were on the lack of standards, making for a poor customer experience as charging points are not interoperable. Questions were also asked about who should regulate, with the EV charging infrastructure touching on the energy, transport and digital sectors.

The four groups were then asked to prioritise the three key challenges, and potential solutions. As expected, there was overlap between them as summarised in Table 2 below.



Table 2 Key challenges and solutions identified in breakout sessions

Challenges		Solutions
<b>1</b>	<b>Charging infrastructure</b> <ul style="list-style-type: none"><li>Improving customer experience of and confidence in charging infrastructure</li><li>Realise a strategic and coordinated roll-out of charging points</li><li>Achieving charging point interoperability (hardware and software)</li><li>Network and data security of charging points</li></ul>	<ul style="list-style-type: none"><li>Develop regulations/obligations for customer protection and improved experience</li><li>Develop and implement national strategy and roll-out, particularly for rural areas, learning from other infrastructure roll-out (e.g. broadband, 3G)</li><li>Develop mandatory standards, including data communication protocols and rules of access</li><li>Develop standards and protocols, learning from smart meter roll-out (and other examples)</li></ul>
<b>2</b>	<b>Excessive demand on local networks</b>	<ul style="list-style-type: none"><li>Build a market for smart charging together with backstop safeguards and governance</li></ul>
<b>3</b>	<b>Lack of coordination and collaboration between market actors</b>	<ul style="list-style-type: none"><li>Map out current landscape and establish working groups to fill gaps, ensuring coordination across existing EV task forces/groups</li></ul>



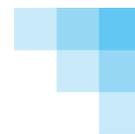
## Summary of plenary discussion

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The breakout sessions were followed by a plenary discussion with participation from all the attendees to discuss the key challenges identified and ideate the next steps going forward. The three key challenges from each of the breakout groups showed that there are similar concerns across the groups.

### **A summary of the discussion is provided below:**

- Charging infrastructure interoperability and smart charging will require rules, governance and standards for efficient implementation.
- Coordination between different players is needed, as the market becomes more developed and to drive efficiencies. Self-regulation may be the way forward, but it would only be achievable through collaboration with companies and markets willing to participate.
- Regarding interoperability, without a regulatory intervention companies would need a commercial incentive to give access to charging points and their data to competitors, as there needs to be a business case for them.
- European car manufacturers and EU standards and regulations will likely impact charge point roll-out in the UK.
- The commercial case for charging point placement (for example in rural areas) is likely to require cross-subsidy/ socialisation of costs across the wider network.
- Targeted financial incentives and government funding is needed to accelerate collaboration and kick-off projects.
- Support for this group to work through the issues and feed into the government's EV taskforce.
- Who will be a regulator for EVs and charging points? There are cross-overs between energy, transport and digital.
- There was discussion on whether smart charging capability would eventually end-up in the car, or at the charging points. For consumers to obtain the full advantage of EVs in terms of Time of Use tariffs and lower energy bills, smart metering would be needed.
- Charging points would need to monitor and communicate real-time data which leads to concerns about cyber security and data protection.



## Next steps

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The next steps were discussed as a group with the following steps being proposed:

- Publish insights from the workshop
- Creation of a draft governance framework
- Creation of smaller and more targeted groups on specific topics
- Workshop 2 in September 2018
- Workshop 3 in November 2018

A lot of very interesting points were brought up during the workshop with key themes being around the need for governance and standards for addressing the challenges, as well as the need for industry wide collaboration. There was agreement on future meetings and it was also suggested that we could learn from other industries where challenges of interoperability were faced and overcome such as the telecommunications industry. There was also consensus within the group to proactively develop a paper/future governance framework for EV infrastructure, keeping consumers in mind, which would then be proposed to government and/or considered by industry as a basis for self-regulation. We would learn from the Smart Energy Code for smart metering roll-out which is analogous in many respects.

We have incorporated this feedback and:

- **We will be organising EV Workshop 2 on the afternoon of 17<sup>th</sup> September** with representation from
  - ◆ adjacent industries such as telecom, as well as,
  - ◆ automakers, Ofgem, BEIS and OLEV to ensure we bring together all key stakeholders to take this forward.
- **We will be working with Energy UK on developing a strawman/outline for an EV governance system.** This will comprise of the following two principles:
  - ◆ Coordinated agreement from all stakeholders on minimum requirements from the industry to develop a governance framework
  - ◆ Ensure the framework will allow innovation to flourish
- **We will also be developing an EV landscape chart to map out all the different EV forums,** taskforces and working groups (at the industry, governmental and technical levels). And we will use our workshops to see how the existing framework can be used to inform the EV taskforces.

To find out more please contact:  
[transformation@gemserv.com](mailto:transformation@gemserv.com)

[www.gemserv.com](http://www.gemserv.com)

London Office:  
8 Fenchurch Place  
London  
EC3M 4AJ

Company Reg. No: 4419878

