

Introducing shared electric car fleets: case studies from project eBRIDGE.



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Cardiff University

POLIS conference, 02 December 2016, Rotterdam



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Introduction



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eBRIDGE - Urban Mobility 2020: empowering electric fleets in European cities

Mobility is a universal need and a driver of economic development. European cities have to allow for thousands of people and goods moving in and around them on a daily basis, making urban life an exciting, but challenging experience. Traffic jams, bad air quality, noisy environments and constant delays are part of our common routines as urban dwellers, clearly reducing quality of life and increasing our costs. But in eBRIDGE we think there are smarter ways to move around cities, and we call them Urban Mobility 2020.

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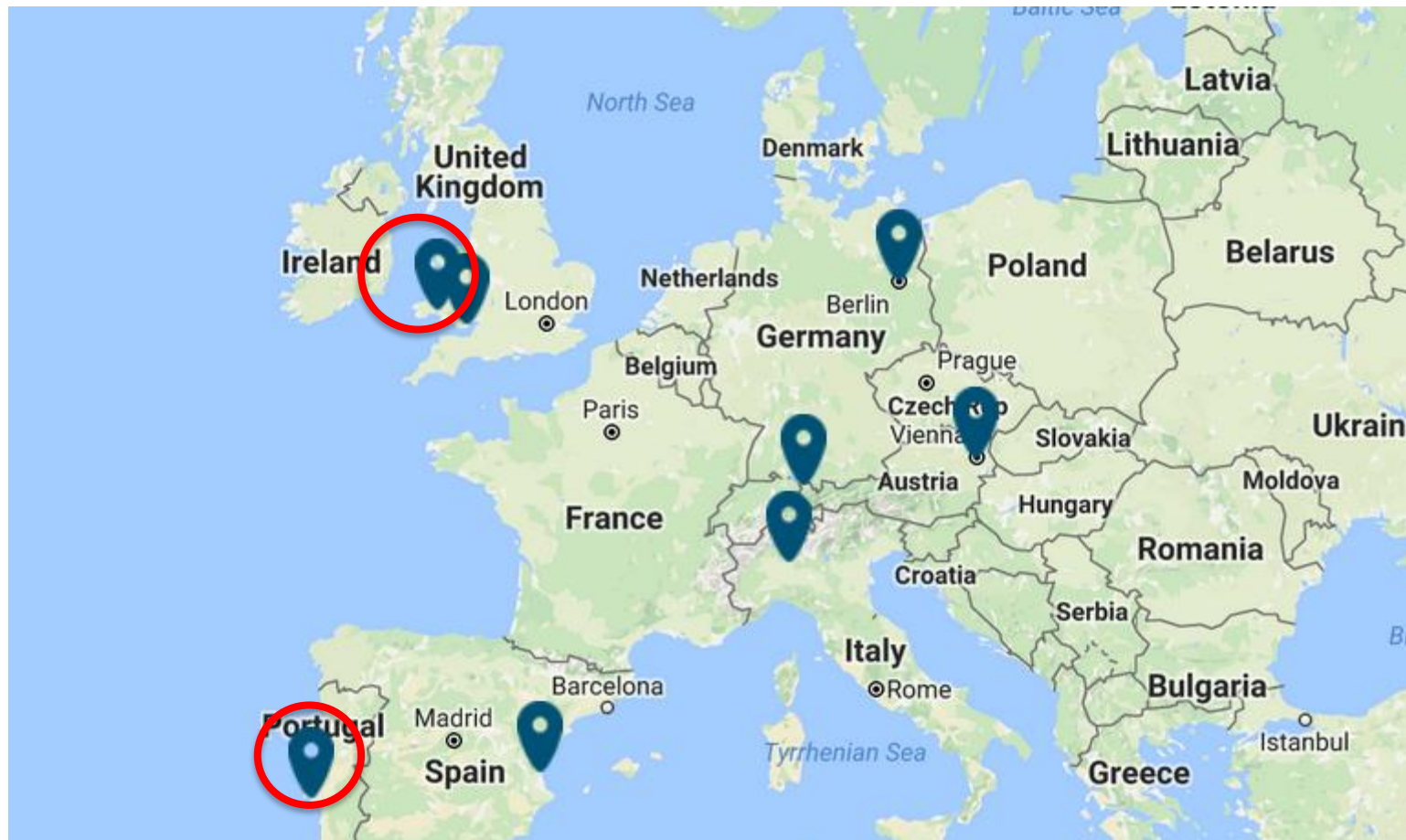
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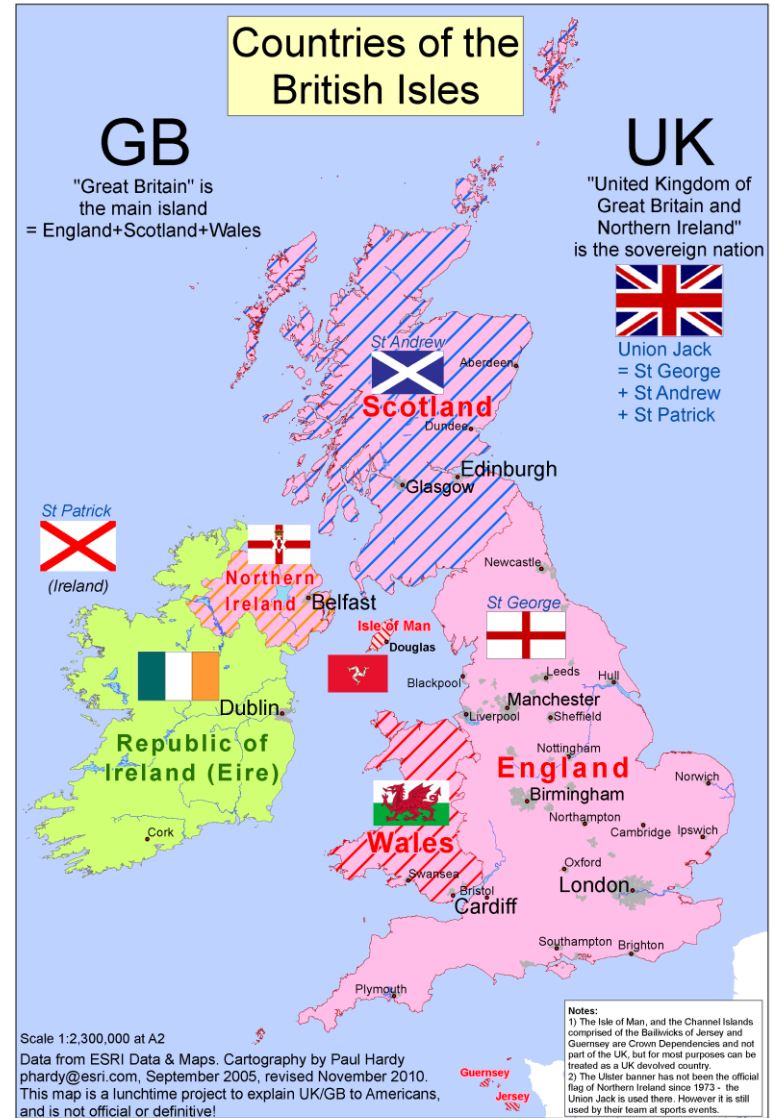
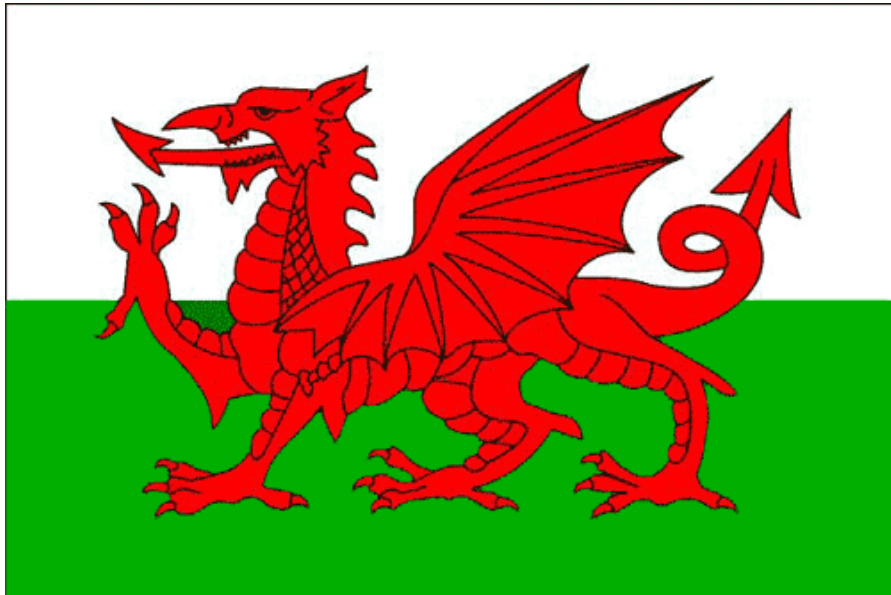
Engage fleet managers and car users with electric mobility

- Help key actors with the **implementation** of electric vehicles in their fleets
- Reach **decision makers** at companies, local authorities, and institutions interested in introducing electric vehicles to their fleets and/or starting an electric fleet.
- Make car users more **confident** in the use of electric vehicles and introduce electric mobility in their daily travel.

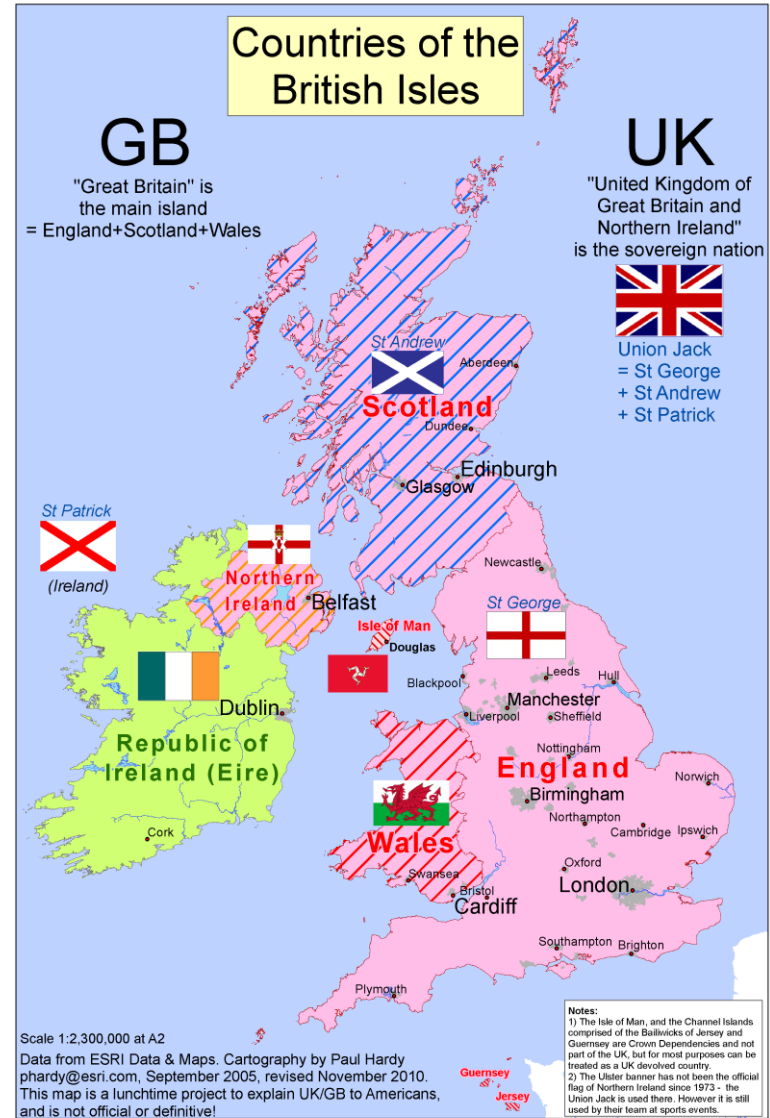
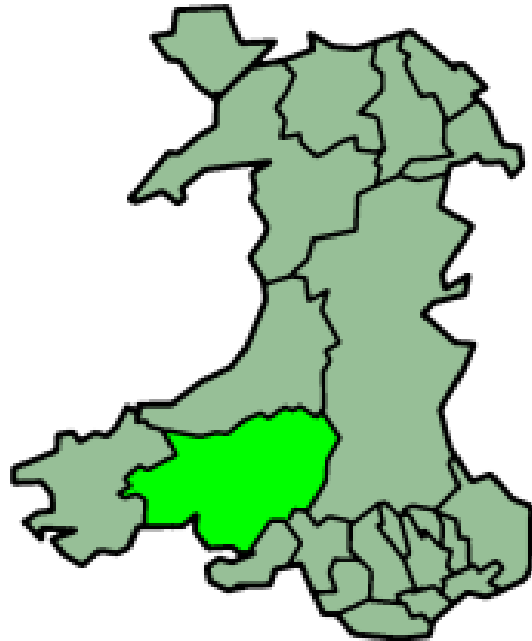
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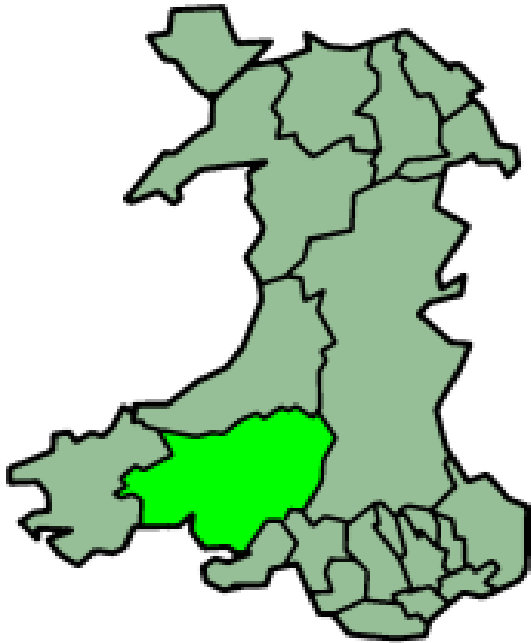
LOCATIONS



LOCATIONS

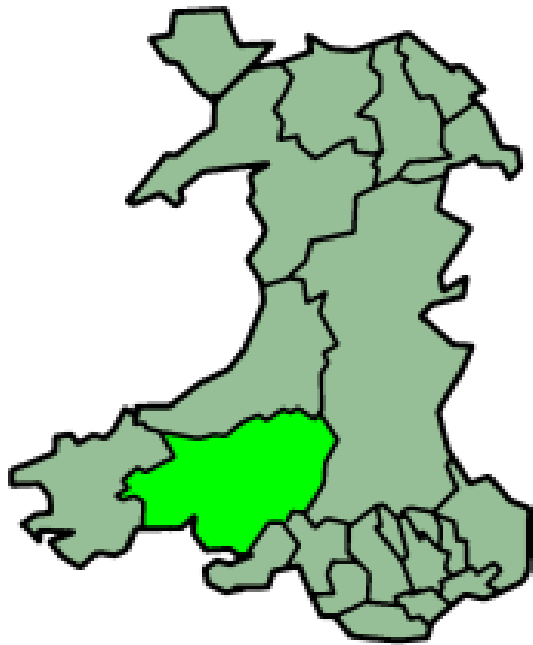


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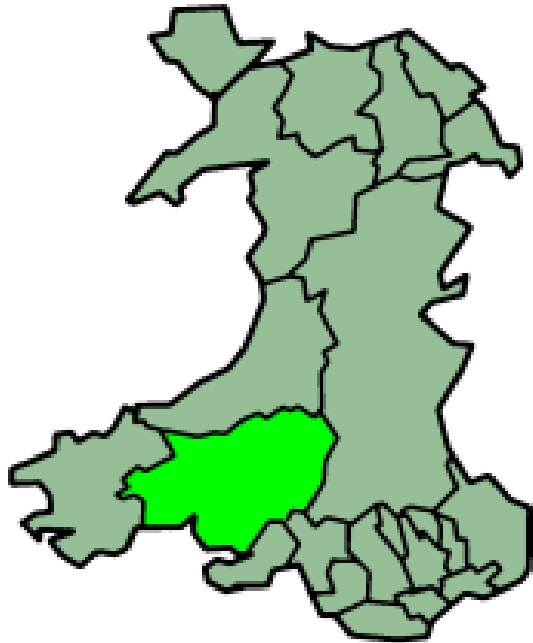


Rhys Thomas

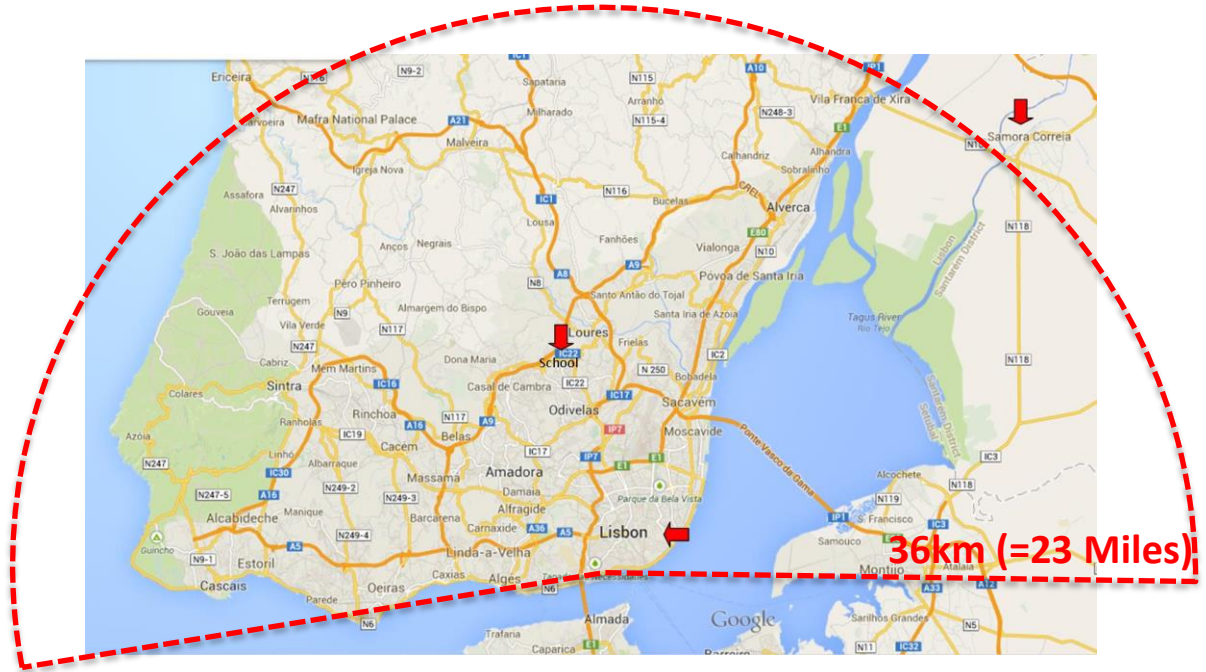
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AIMS

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NEED FOR MONITORING!!!



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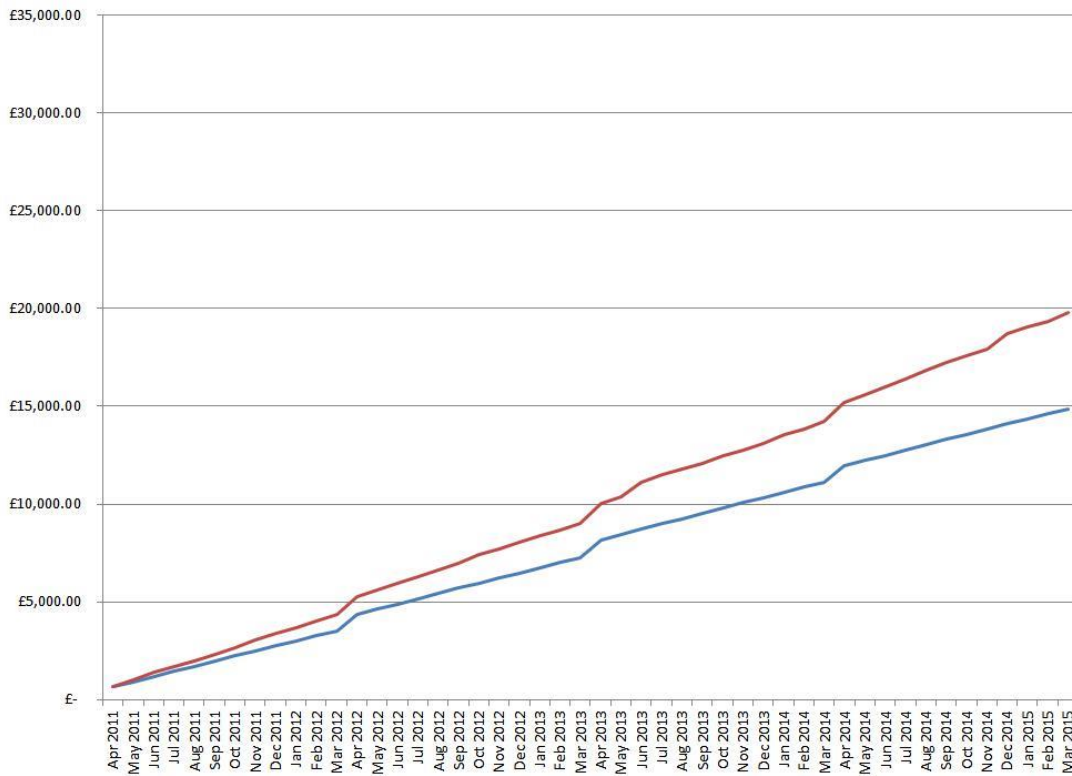


Common issue with policy and interventions:

Little or no monitoring,
Little or no follow up

Cannot judge effectiveness of intervention!

COSTS SAVINGS



2011

2014

2017

2019

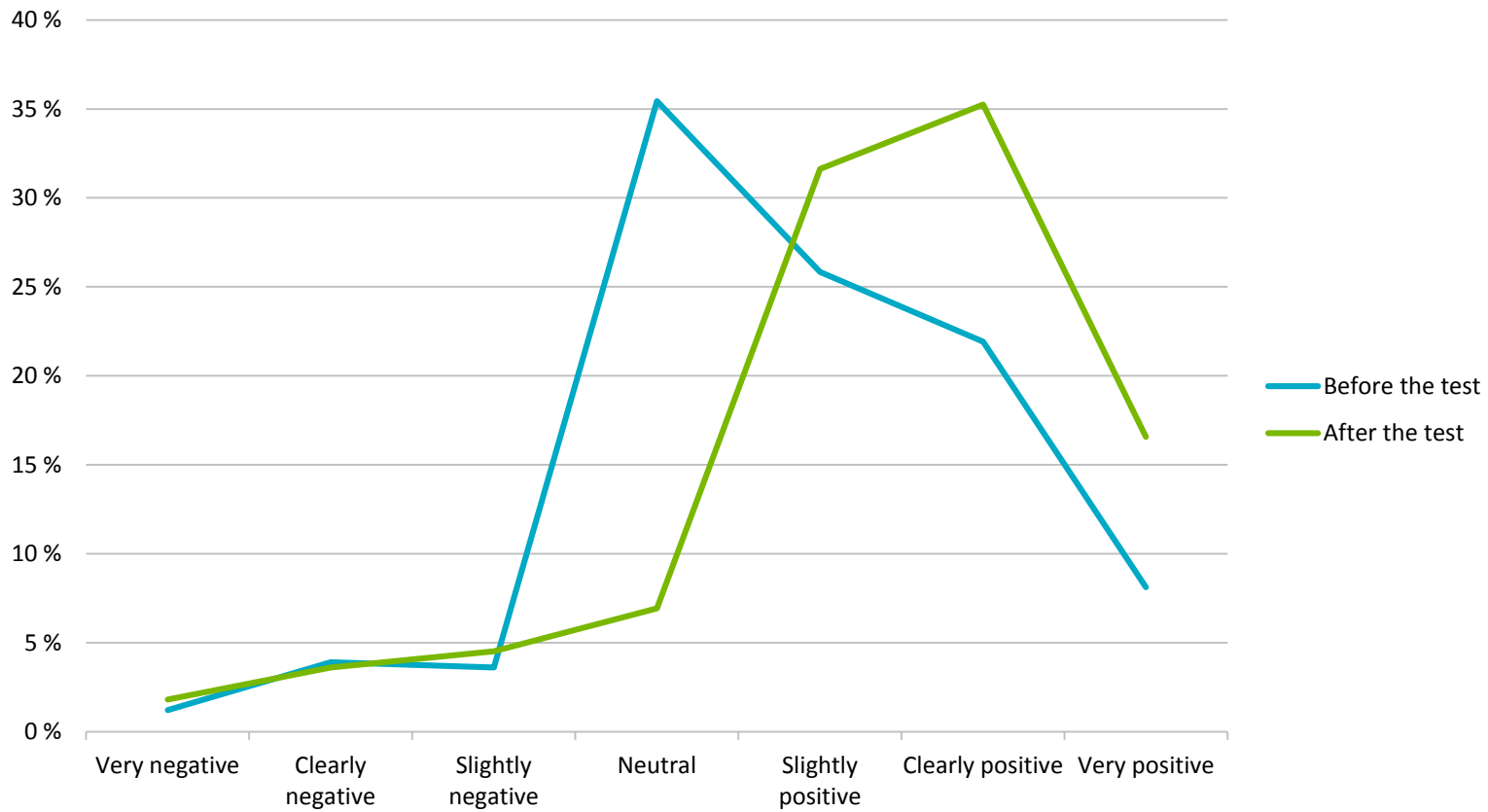
FAMILIARISATION



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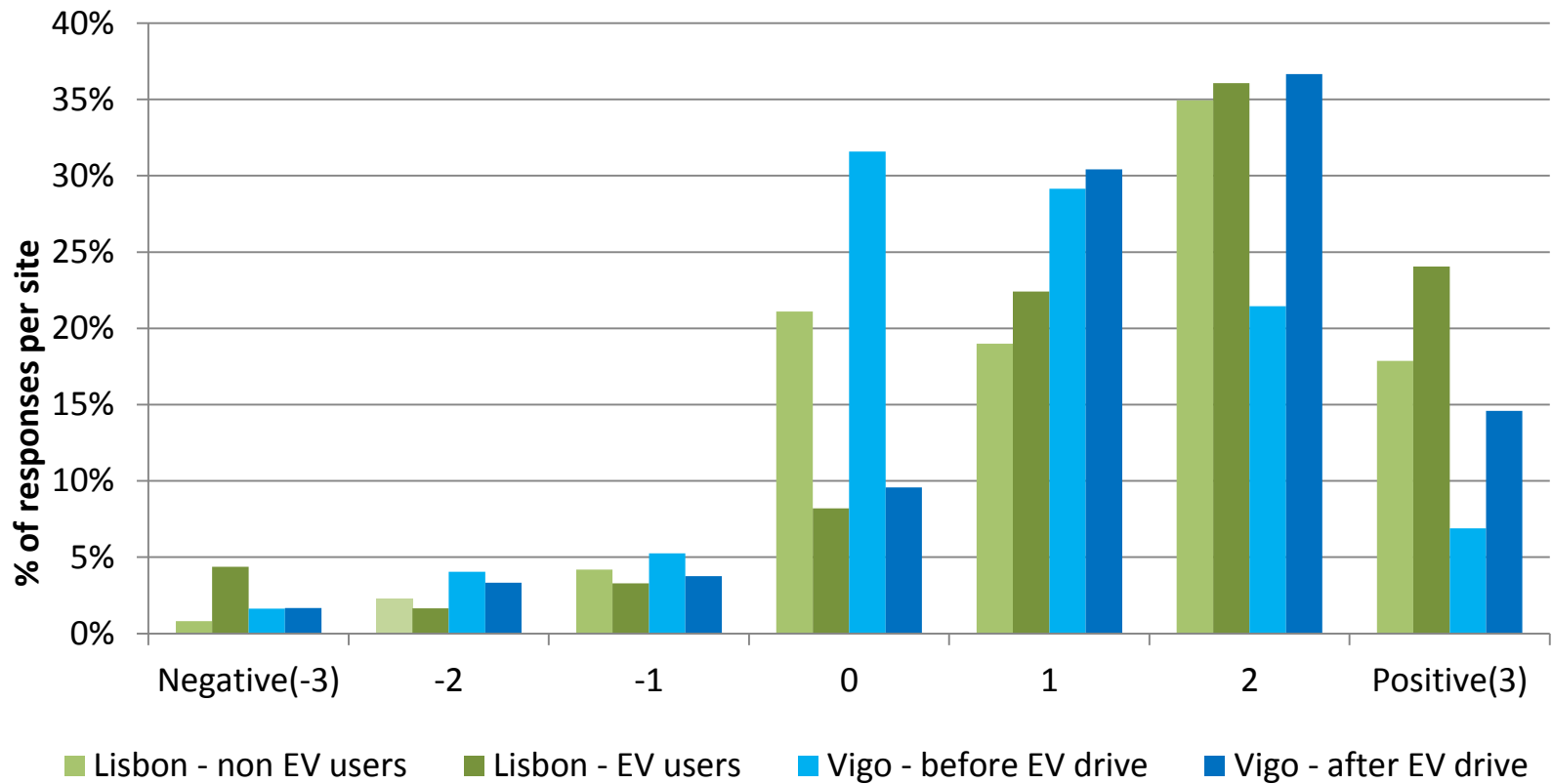
VIDEO

FAMILIARISATION



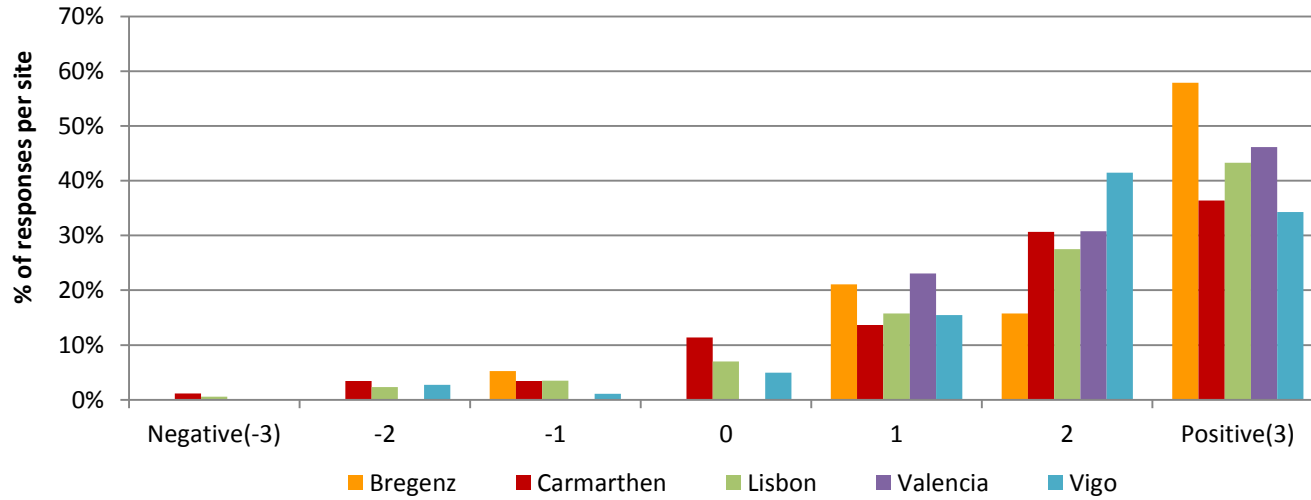
FAMILIARISATION

Overall attitude towards EVs - users vs non users

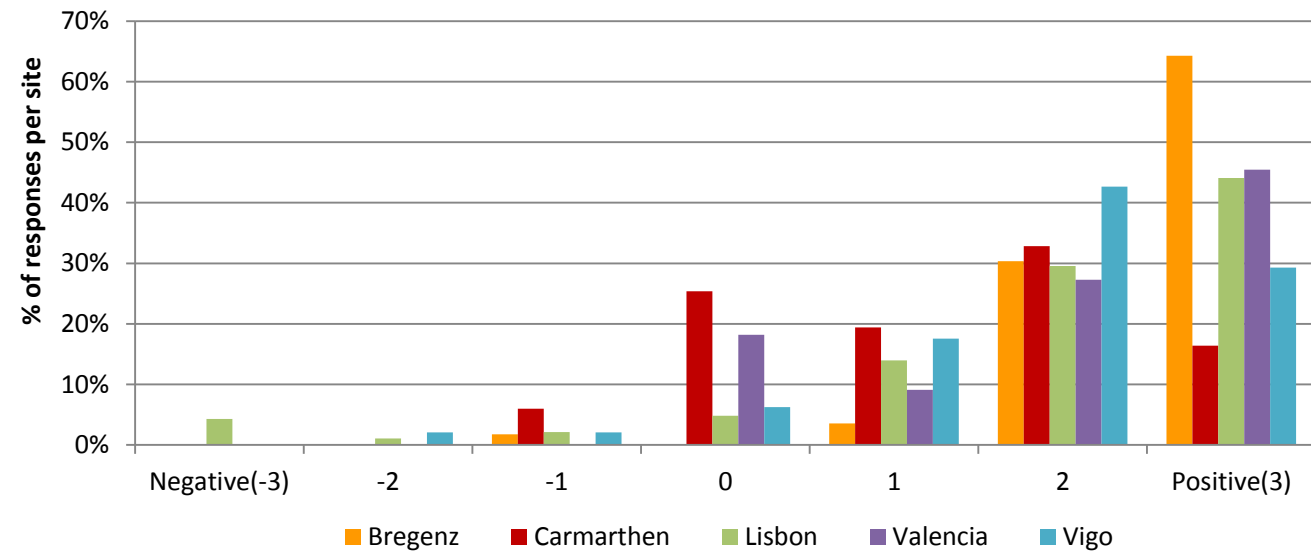


IMPROVED EXPERIENCE

General experience with the vehicle - 2013



General experience with the vehicle - 2015



INTERVENTIONS

I'm Driving Electric!



- ☺ I can go to most places in Carmarthenshire: **most recorded trips are over 40 miles without recharge. Our record holding trip is 70 miles!**
- ☺ Trips cost less so the Council can use funds where needed.
- ☺ Car is charged at the car park - no need for petrol station trips.
- ☺ Electric cars are more fun to drive!
- ☺ No exhaust - no local pollution
- ☺ Quiet and Quick!



Next time consider Driving Electric!



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INTERVENTIONS

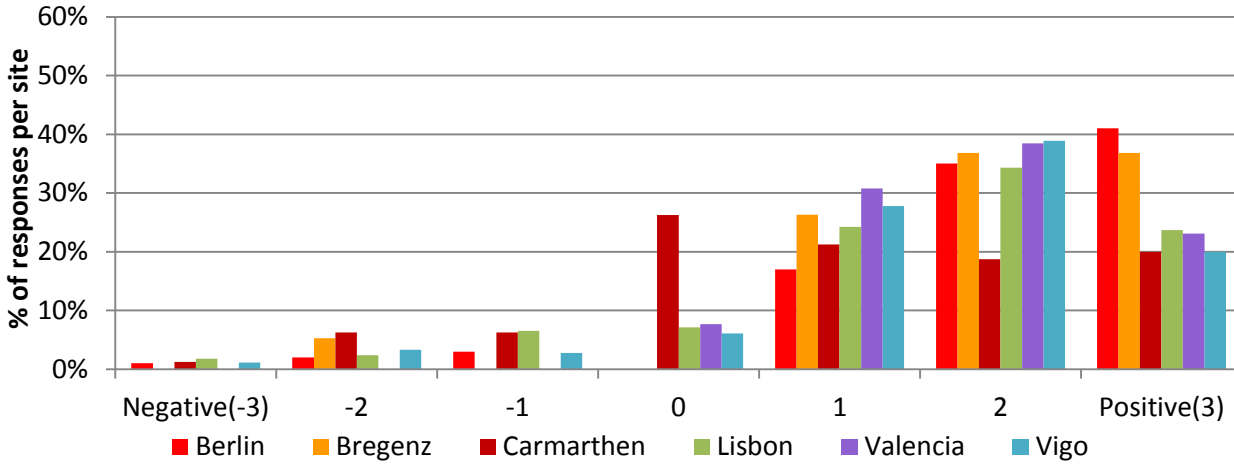


INTERVENTIONS

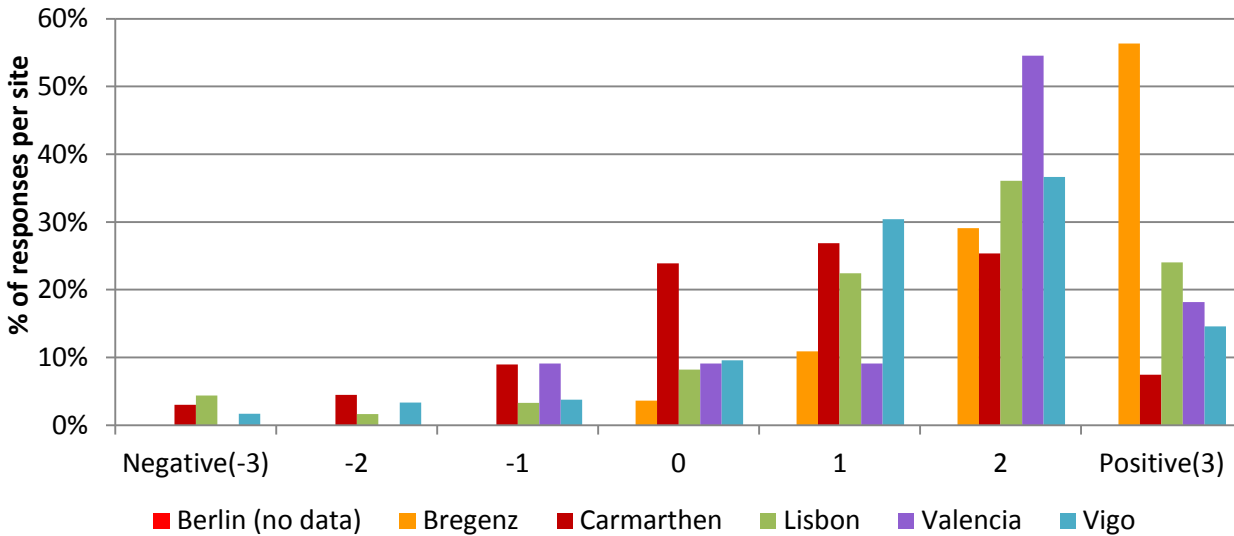
Normative messaging incl. emails

ATTITUDE CHANGE

Overall attitude towards EVs - 2013



Overall attitude towards EVs - 2015

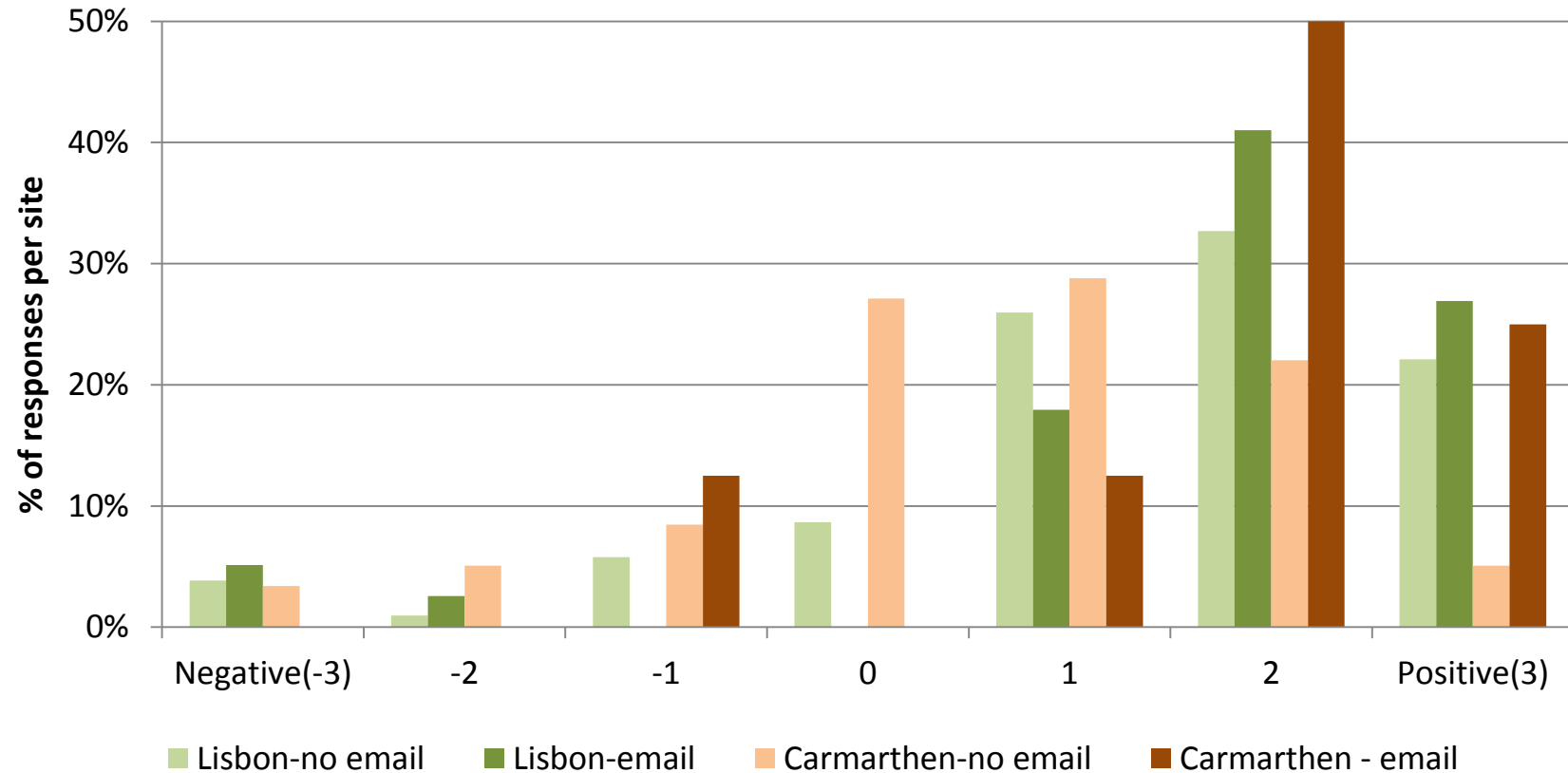


INTERVENTIONS

Normative messaging incl. emails

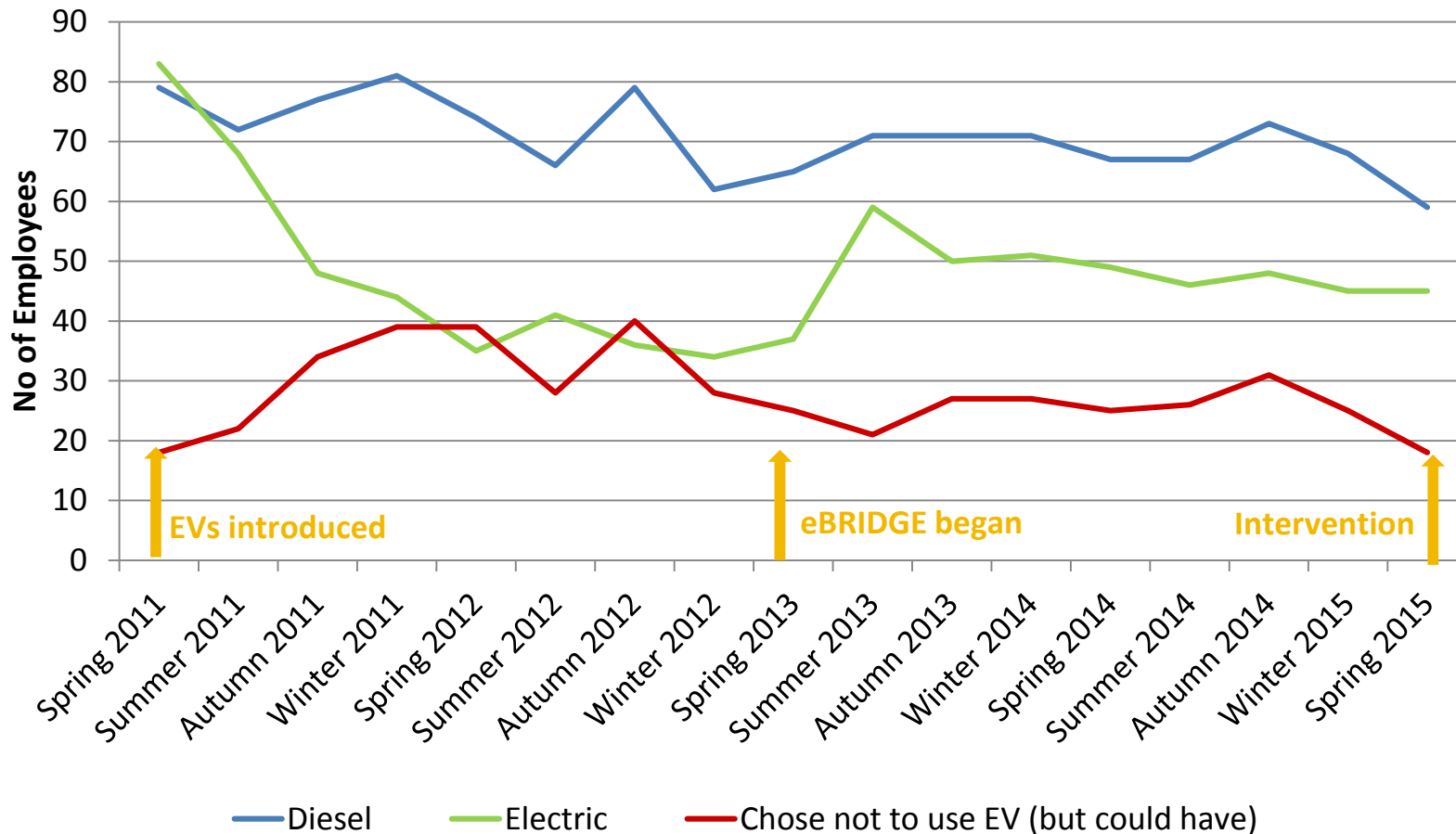
INTERVENTIONS

Overall attitude towards EVs - email intervention



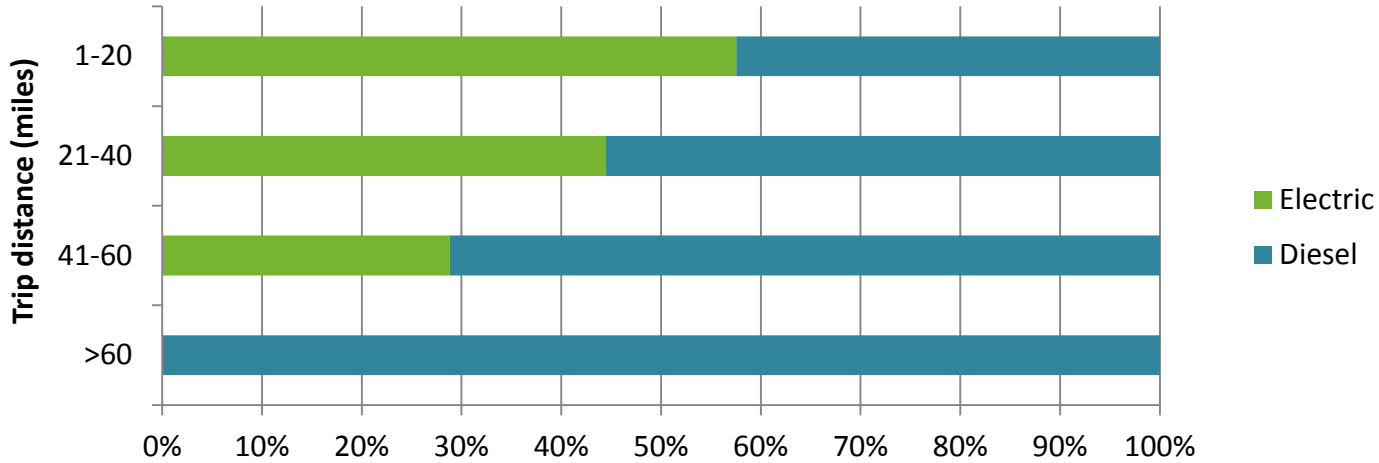
INTERVENTIONS

Employees who have used Pool Cars per Quarter

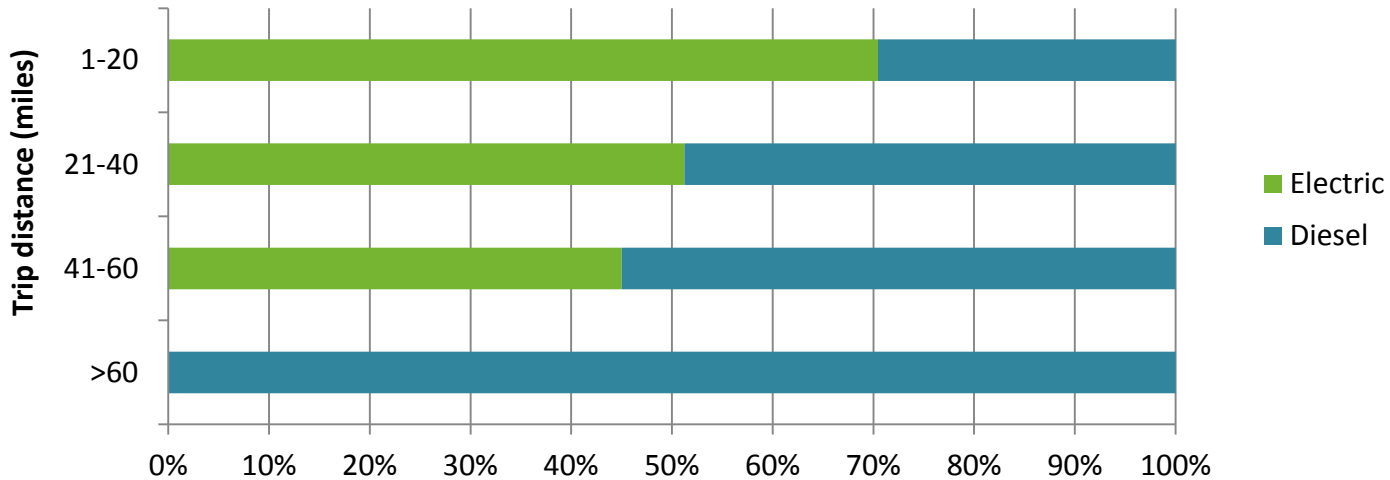


INTERVENTIONS

All trips - June 2013



All trips - June 2015



FINDINGS

- (a) potential for further use and expansion of EVs is **positive**;
- (b) mitigating **cost** would **decisively** help EV adoption;
- (c) EV use is more likely to remain in **cities** or **limited geographic areas**, due to limited battery range and recharging infrastructure;

(d) infrastructure needs to be **interoperable** -not all types of charger can serve all types of EV currently;

(e) psychologically informed **interventions** can have small but tangible effects on user perception of Evs

(a) + (b) + (c) suggest that viable EV solutions should involve:

- **shared** (rather than private) ownership of EVs;
- in areas with **dense recharging infrastructure** (e.g. cities) rather than areas with sparse recharging network;
- **for personal or very light goods/equipment** (rather than heavy goods/equipment) transport.

FINDINGS

EVs are **not 'one size fits all'** vehicles, but operate better within targeted uses;

Car sharing schemes are necessary if EV use is to be broadened and increased in the short- to mid-term;

Individual ownership is hampered by **high costs**, and this is likely to continue in the future.

OUTPUTS

- **eBRIDGE Start Up Kit**: Guidelines + Toolkit to assist key actors with the implementation of EVs in their fleets, and optimise measures to increase overall performance.
- **Increased** number of decision makers at companies, local authorities, institutions and further stakeholders interested in introducing EVs to their fleets and/or starting an electric fleet.
- **Improved** attitude towards electric mobility: car users were be more confident in the use of EVs and introduce electric mobility in daily travel decision-making.
- More free materials, videos and reports at <http://www.ebridge-project.eu>

Thank You for your attention.



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