

KEY

TOOT

Successful operation
and promotion of electric fleets
in Europe: an insider's guide



eBRIDGE
Power to urban fleets



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1

THE eBRIDGE TOOLKIT

If you are wondering whether electric vehicles (EVs¹) might be an option for you, we recommend having a look at this Toolkit. It might change the way you think about electric mobility.

The eBRIDGE (Empowering e-fleets for business and private purposes in cities) project is the joint effort of 7 pioneering pilots to demonstrate that EVs can effectively contribute to a more sustainable mobility in European cities and towns. It aims to bring innovation and new technologies to make mobility cleaner and more efficient.

The 7 pilots, also known as Drivers of Change, carried out actions to optimise the operational fleet performance, test and launch solutions to increase the convenience and ease of use of car sharing offers and finally, raise awareness among fleet managers and car users on the suitability of electric mobility for daily transport and commuting.

This Toolkit provides a series of recommendations based on the key findings and knowledge gathered by the eBRIDGE pilots, with the goal of serving as inspiration and example of best practice to any actor interested in electric mobility and active in the field of transport and mobility, especially public administrations, mobility providers and public transport authorities, car sharing operators, companies, organisations, to name a few.

1.1 How to Use this Toolkit

The Toolkit is structured in 3 sections, namely BASE, SHARE and CHANGE, according to the type of fleet and its usage, and it presents a series of suggestions for activities suitable for the fleet profile.

BASE provides measures and actions oriented to support companies and local administrations where the carpool is used mainly for business trips. You may refer to the BASE tool if you are a public administration, company or organisation aiming to start your own electric fleet or bring EVs in your carpool to provide your employees with EVs for business trips.

SHARE will help fleet managers identify measures to boost up fleet performance on the basis of a mixed fleet use. The combination of private and business trips offers potential to significantly increase the vehicles usage rates, for instance, offering suitable tariffs for businesses during the working hours and extending service for private use during the off-hours. If you are interested in the possibilities of shared electric fleets such as electric car sharing (e-car sharing) and peer-to-peer e-car sharing (P2P e-CS), refer to the SHARE tool.

CHANGE will provide you with useful insights into the user behavioural aspects and a selection of successful measures that will help overcome user barriers to, and misperceptions of, EVs. Consult the CHANGE tool if you are a fleet manager dealing with users' reluctance to use EVs. We also recommend consulting this tool if you would like to initiate an electric fleet, or if you already manage one. Our tips might ease your way to improved attitudes towards EVs.

1. EV is used as a general term, including battery electric vehicles (BEVs), range-extended electric vehicles (REEVs), plug-in electric vehicles (PHEVs) and hybrid electric vehicles (HEVs).



THE ADVANTAGES OF ELECTRIC MOBILITY AND EVS FOR...

LOCAL GOVERNMENT

- Improved quality of life in your city through reduced greenhouse gases (GHG), local air pollution and noise.
- Improved image as a proactive administration that advocates innovation and sustainability.
- Strengthened competitiveness through a favourable policy framework for the development of electric mobility, stimulating local economy with new business opportunities and attracting investors and start-ups.
- Energy independence from fossil fuels, endorsing energy security and paving the path towards future alternative energy sources.

COMPANIES

- Reduced fleet running costs due to organised, optimised travel management and tracking costs, and lower fuel costs.
- Reduced asset costs in the case of car sharing use.
- Becoming a reference on Corporate Social Responsibility, sustainability and innovation for other companies, improving your competitiveness and securing potential gains.
- Benefiting from policy incentives, e.g. tax reductions, purchase incentives, access to environmental/restricted zones, and parking and driving privileges.
- Users improve driving styles and rationalise routes, as EV drivers tend to reduce speeding and adapt routes to battery capacity.
- Reduced GHG emissions, in line with your company climate and energy efficiency commitments.

USERS

- Positive driving experience: quiet running, swift acceleration.
- No purchasing and running costs in case of car sharing use.
- Access to Low Emission Zones (congestion, noise).
- Less parking pressure: dedicated parking bays for EVs, parking privileges.
- Green lifestyles are promoted and environmental concerns are met.

1.2 The eBRIDGE Tools

BASE

The BASE fleet vehicles are used only for business and corporate trips during the day and returned to the pool at the end of working hours. The users are employees driving for business purposes.

- Are you a company, organisation, or local administration?
- Would you like to learn how to make the most of the advantages of electric mobility?
- Would you like to reduce the impacts of your business travel?
- Are you thinking about electrifying your existing carpool?

Table 1 • BASE fleets and their activities

BASE electric Fleets	Goal	Target Groups	Actions
Galician Automotive Cluster (CEAGA - Cluster de Empresas de Automoción de Galicia) CEAGA e-Car Sharing (Vigo, Spain)	To test the suitability of EVs for business travel of the CEAGA companies	Companies of CEAGA Local stakeholders	Development of required framework for vehicle cession and pilot monitoring Exploration of EV potential for business use Facilitation measures to increase the use of EVs Companies reporting on vehicle monitoring and user surveys and interviews
Lisboa City Council Fleet (CML - Câmara Municipal de Lisboa) (Lisbon, Portugal)	To optimise the fleet configuration of a municipal carpool of conventional cars and EVs To test the suitability of the new electric models and match them with concrete municipal tasks/activities	Lisboa City Council employees Local businesses Citizens	Definition of fleet renewal plan Usage monitoring and validation Optimisation of fleet energy efficiency Assessment of environmental impact of EVs
Carmarthenshire County Council Fleet (Carmarthen, UK)	To reduce economic (mileage costs) and environmental (CO ₂ emissions) impacts of staff travel	Carmarthenshire County Council employees Other Local Authorities Other Public Sector Organisations	Fleet monitoring and comparison of vehicle performance of diesel and EVs in a municipal carpool Assessment of barriers and potential for expansion of EVs in conventional municipal fleets Stakeholder knowledge transfer

SHARE

The SHARE fleet vehicles can be booked for business and private trips. The e-car sharing users are employees and individuals. Companies and organisations can include e-car sharing in their business mobility portfolio and individuals can benefit from mobility on demand and avoid car ownership inconveniences.

- Are you a mobility provider, car sharing operator, or local administration interested in or already running an e-car sharing fleet?
- Are you planning to include e-car sharing in your business mobility portfolio?
- Are you planning to initiate a small P2P e-CS scheme?
- Are you thinking about providing e-car sharing to business customers?
- Are you a local administration interested in creating a multi stakeholder alliance to promote electric mobility in your region?
- Would you like to explore the potential of e-car sharing in the urban context?

Table 2 • SHARE fleets and their activities

SHARE electric Fleets	Goal	Target Groups	Actions
e-Flinkster (Berlin, Germany)	To analyse potential of e-car sharing to complement business mobility	Companies of the EUREF campus Other companies Private users	E-car sharing concepts for business purposes Assessment of potential for behavioural change of e-car sharing users Business mobility management Marketing concepts for e-car sharing
E:Sharing (Valencia, Spain)	Optimisation of the E:Sharing model	Professionals Private users	Vehicle monitoring Optimisation of the E:Sharing business model Integration of e-car sharing into public transport
Regional Government of the Balearic Islands (Palma de Mallorca, Spain)	To create a proper policy framework for the promotion of electric mobility in the Balearic Islands	Local and regional stakeholders	Setting up the Electric Car Sharing Committee of the Balearic Islands
GuidaMi (Milan, Italy)	To promote e-car sharing and EVs among the GuidaMi customers	Businesses Private users	Fleet usage monitoring On-line surveys for user feedback
Caruso Carsharing (Austria)	To address the lack of working concepts and business models for P2P e-CS fleets	Employees (business, private trips) Citizens Other municipalities and organisations	Assessment of intermodal mobility concepts with a focus on combined usage Marketing and information campaigns for internal and external stakeholders Usage monitoring and adaptation measures Survey among users to assess barriers and drivers

CHANGE

The marketing and promotional measures carried out by the pilots are gathered in the CHANGE tool. The activities were oriented to promote the use of electric fleets among target groups as well as to disseminate the work of the pilots at a local level.

- Are you a mobility provider, car sharing operator, or local administration targeting existing and potential EV users?
- Would you like to increase the overall awareness and knowledge about EVs?
- Would you like to attract new business and private users?
- Would you like to support your customers or employees in using EVs more efficiently?
- Would you like to inform a wider audience about your activities in the field of electric mobility?

Table 3 • CHANGE measures

CHANGE measures	Goal	Target Groups	Actions
e-Flinkster (Berlin, Germany)	To analyse potential of e-car sharing to complement business mobility	Companies of the EUREF campus Other companies Private users	Marketing concepts for e-car sharing Business mobility consulting and marketing to companies
Caruso Carsharing (Austria)	To address the lack of working concepts and models for electric fleets	Employees (business, private trips) Citizens Other municipalities and organisations	Marketing and information campaigns for internal and external stakeholders
CEAGA e-Car Sharing (Vigo, Spain)	To encourage e-car sharing for business travel through promotion and marketing measures	Employees of CEAGA companies Human Resources Managers of the cluster companies	Measures and incentives to increase EVs usage User surveys Interviews with managers
E:Sharing (Valencia, Spain)	To promote e-car sharing among local authorities, professionals and private users	Businesses Private users	User surveys and interviews Promotion activities
GuidaMi (Milan, Italy)	To test digital communication to engage the user	Businesses Citizens	Marketing concepts and awareness raising campaign using digital tools and Web 2.0 communication
Lisboa City Council Fleet (Lisbon, Portugal)	To promote electric mobility among local business, citizens and further municipalities	Employees Businesses Citizens	Communication activities to engage citizens and local businesses
Carmarthenshire County Council Fleet (Carmarthen, UK)	To engage employees and further councils with electric mobility	Employees Other Local Authorities Other Public Sector Organisations	Promotion of EV use for work and private travel Stakeholder knowledge transfer

2

THE BASE TOOL

The BASE electric fleets are corporate and municipal fleets for employees' use and business trips. The eBRIDGE pilots running BASE fleets are Vigo, Lisbon and Carmarthenshire.

Promoters of the BASE fleets are companies and municipalities.

2.1 CEAGA e-Car Sharing: Helping Companies to get to know EVs

CEAGA was created in 1997 by a small group (cluster) of vehicle equipment manufacturers in Vigo. The number of cluster companies has grown since then to 106. CEAGA e-car Sharing is a corporate electric fleet of 4 BEVs (Citroën C-Zero and Peugeot iOn) managed by the eBRIDGE project partners CEAGA Foundation and the technological consultancy INOVA (I Nova Consultores en Excelencia e Innovación Estratégica).



EV of the CEAGA e-car Sharing fleet. Source: CEAGA

PROJECT ACTIVITIES

The Vigo eBRIDGE pilot explored the potential of EVs for business travel among 35 companies of CEAGA, in which 82 % of the employees had never driven an EV before. The overall goal of the testing pilots was to cover this gap, helping companies to learn about the benefits and advantages of EVs for business trips. Companies of the cluster applied as testing partners and the cars were reserved more than 6 months in advance, which shows the high interest in this new technology. The testing companies received supporting documents and guidance on the coordination tasks needed for the autonomous operation of the vehicles. The vehicles could be booked for business trips during the working day at no cost, and vehicle cession was free. The vehicles were usually parked and charged after the day at the company parking facilities.

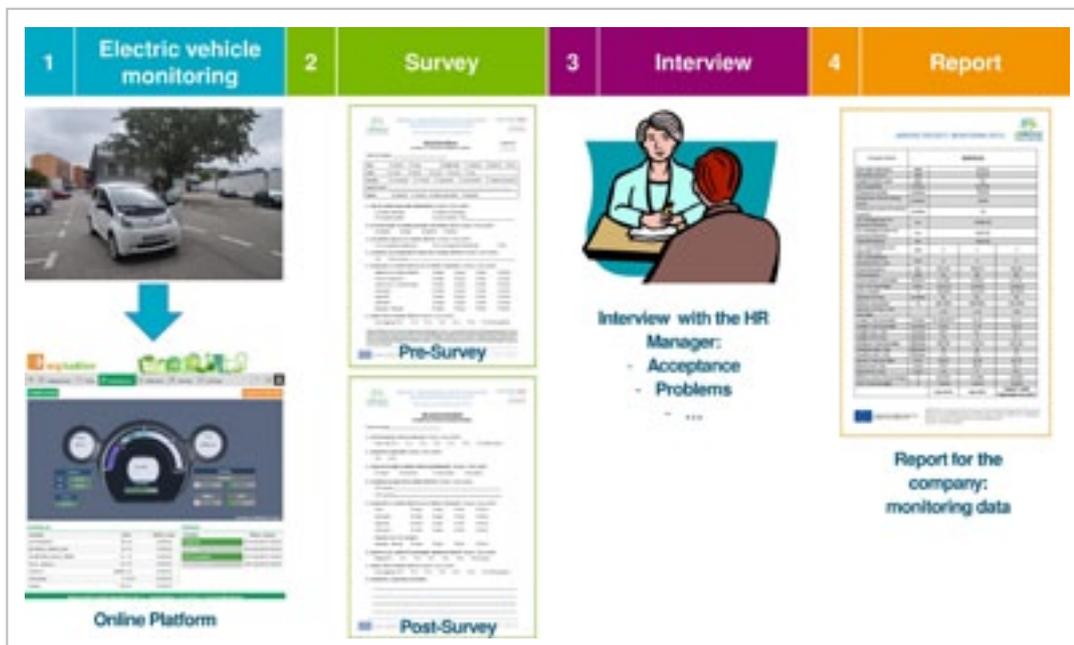
Vehicle use was monitored monthly and the employee surveys and interviews helped assess the driving experience and main barriers to vehicle acceptance. Based on this, measures and incentives to increase vehicle usage were developed in collaboration with the companies. The results were complemented with an analysis of the impacts of the use of shared EVs in terms of CO₂ emissions and economic savings. All this information was communicated to the companies in a findings report. The pilot has successfully contributed to raising awareness about EVs among employees and stakeholders of the automotive cluster, increasing the number of companies and employees familiarised with EVs, reducing the private car mileage of business travel and increasing the number of companies that have tested EVs.



The following templates are available in Spanish and English and can be downloaded on www.ebridge-project.eu:

- Contract of vehicle cession with the testing company
- Brief guide for using and charging EVs
- Bookings register
- User survey

Figure 1 • Steps for the implementation of a corporate e-car sharing pilot. *Source: INOVA*



RECOMMENDATIONS

The results of the Vigo pilot show that the business trips of the participating companies can be perfectly accommodated with EVs, with additional economic and environmental benefits in terms of fuel cost savings and reduced emissions.

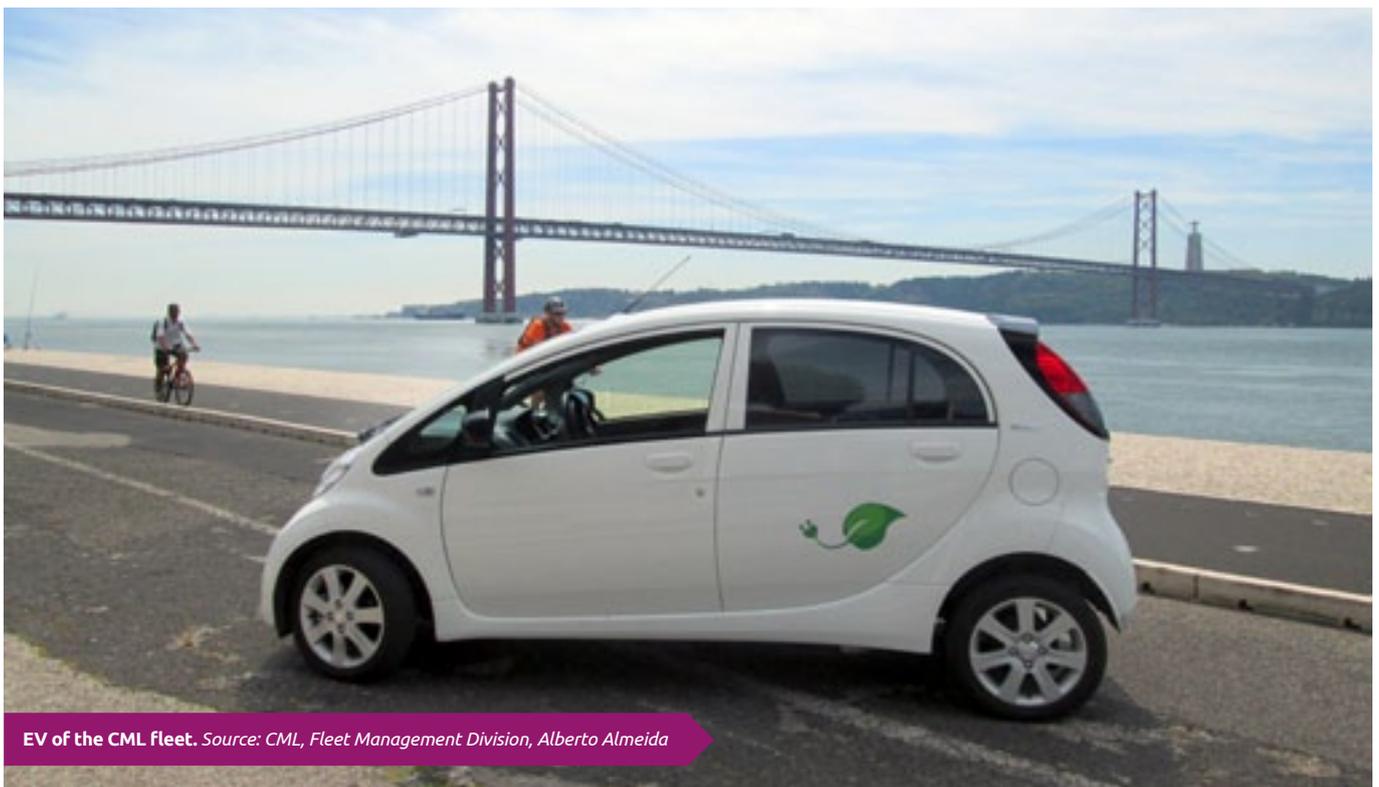
Based on this, the eBRIDGE conclusions are:

- An initial analysis of number and type of EVs, available charging points and data collection (selection of monitoring indicators and online platform) contributes to gain an understanding of the company needs.
- An illustrative “Guide to EV Use” is a useful tool for after the training sessions, and includes technical information supported by pictures on how to operate and charge the vehicle.
- The barrier of long charging times can be reduced by providing charging stations at the company premises (and perhaps include fast charging) as well as allowing employees home-charging. This would imply that the EV can be used for private trips.
- EVs bring economic fuel savings and reduce the emissions of business travel, especially when the charging network is provided, and supplied with renewable energy.

2.2 Lisboa City Council: Greening a Local Administration Fleet

The Lisboa City Council is determined to lead by example in the way to electric mobility and green procurement. With this purpose, the city council committed to the introduction of at least 20 % of all newly purchased vehicles as EVs.

The municipal electric fleet includes 57 passenger EVs (Peugeot iOn, Renault



EV of the CML fleet. Source: CML, Fleet Management Division, Alberto Almeida

Fluence, Mitsubishi iMiEV, and Fiat Seicento Elettra) of a total 834 vehicles. The EVs are used by approx. 200 employees of several municipal divisions as well as the management board.

PROJECT ACTIVITIES

The local eBRIDGE partners CML and Occam explored the potential of EVs to perform municipal services and how this contributed to promoting EVs beyond the municipality, facilitating the market penetration and supporting decision-making towards electric mobility.

The pilot is integrating EVs in the municipal carpool successfully. From 2011 onwards CML has progressively been increasing the number of EVs replacing conventional cars, whose total number has dropped by 17 %. The municipality pushes its strategy forward with a new tender for the acquisition of additional BEVs and PHEVs that is currently under development.

Two different fleet configurations (e.g. pool of vehicles versus vehicle allocation to a single user) were developed in order to determine the most effective scheme and its relevant impacts. The best configuration scheme had to meet the requirements of the activities intended for the vehicles. Due to the operational needs of the municipality, the vehicles were mainly used in a pool.



EVs have proved to be reliable and effective for the development of municipal operations and services. The municipality installed 105 additional single-phase sockets (AC) in the premises of different departments, ensuring that the charging events do not interfere with the vehicle task performance.



Municipal EV charging station. Source: CML, Department of Marketing and Communication

The activities developed to test the suitability and the optimal function of the vehicles led to the increase of the overall energy efficiency and the reduction of CO₂ emissions of the fleet. The economic savings arose from the lower fuel costs of EVs

and the improved driving styles and rationalised routes of the users. The behavioural and attitudinal aspects were evaluated through user surveys and fleet manager interviews to better understand users' opinions about EVs as well as the suitability to fulfil the municipal daily activities. In terms of user acceptance, the employees' confidence on the new technology improved during the pilot and typical usage barriers such as range anxiety were effectively overcome.

RECOMMENDATIONS

The eBRIDGE Lisbon pilot clearly shows the successful integration of EVs into a municipal fleet and its positive results contributed to promoting EV uptake.

Based on these experiences the eBRIDGE recommendations are:

- A “leading by example” approach increases confidence in EV technology among the public, and inspires other public institutions to introduce EVs in their carpool as well.
- The problem of limited battery range, which is especially problematic for 24 hour demand services, can be tackled through the installation of fast charging points and the usage of PHEVs.
- Driver training is highly recommended to familiarise the users with a driving style suitable for EVs. This contributes to avoiding fast battery depletion, less aggressive driving styles, lower top speeds and more rationalised routes and business trips.
- Knowledge transfer and information events are effective means of clarifying specific user concerns and gathering suggestions for improving the service.

2.3 Carmarthenshire County Council: Leading the Transition to Electric Fleets in Local Government Carpools

Carmarthenshire County Council was the first Welsh local authority to implement EVs in its carpool in 2011.



Charging an EV at Parc Myrddin. Source: Cardiff University, Dimitrios Xenias

The mixed carpool includes 6 BEVs (Mitsubishi iMiEV and Peugeot iOn), which enjoy high rates of utilisation, achieving significant environmental as well as economic savings for the council. Centrally located at the premises in Parc Myrddin in Carmarthen, the vehicles can be used by the Council employees for their day-to-day duties and have proved suitable for almost all purposes.

PROJECT ACTIVITIES

In close cooperation with the local eBRIDGE partner Cardiff University, the council worked towards 3 main goals:

- a. Gaining insights into the performance of EVs, compared to diesel cars, through fleet monitoring and driving experience monitoring.
- b. Promoting the use of the carpool and especially the EVs among the employees.
- c. Assessing the overall experience and sharing their knowledge with other public authorities.

The analysis of the fleet performance showed that EVs are preferred for shorter trips up to 20 miles (32 km). This relationship inverted as trip distance increased with almost no electric trips at all for distances longer than 60 miles (96 km) – although this should be feasible within the battery range in realistic conditions.

Many employees chose the EVs as their predominant means of transport for in-county trips ahead of the diesel cars, and were generally satisfied with the experience. Others seemed to be reluctant to adopt EV. User surveys and interviews were carried out to identify the potential barriers to EVs adoption: range anxiety, the unsuitability of the vehicle for some work purposes (e.g. carrying heavy equipment) and purchase price were cited by most of the users. In addition, one important barrier for the expansion of the electric carpool was the lack of charging infrastructure in the region. In order to alleviate some of these perceived barriers, an intervention was planned and executed in April 2015: an information card was placed in the pool cars outlining the advantages of driving an electric instead of a diesel car, and particularly focusing on the true battery range in realistic conditions.

The Carmarthenshire carpool experience attracted the interest from other local authorities who aspired to establish similar initiatives. Formal and informal contact between interested parties culminated in a knowledge transfer event in November 2014, in collaboration with CarPlus, a leading UK charity on car sharing and sustainable transport.



Find out more
about the findings
of the knowledge
transfer event [here](#)

Figure 2a • Distribution of trips by vehicle type and distance (June 2013).

Source: Own work based on Carmarthenshire County Council

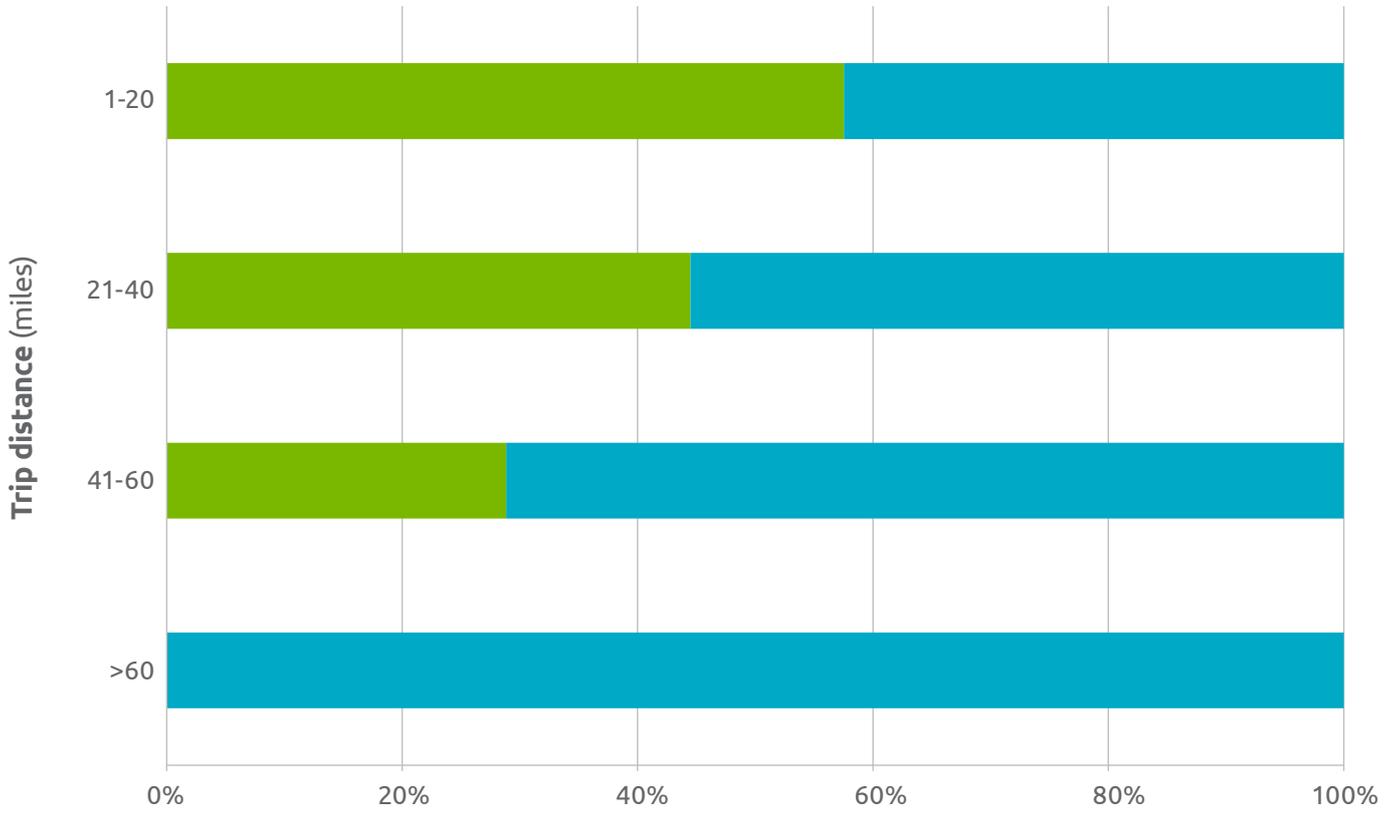
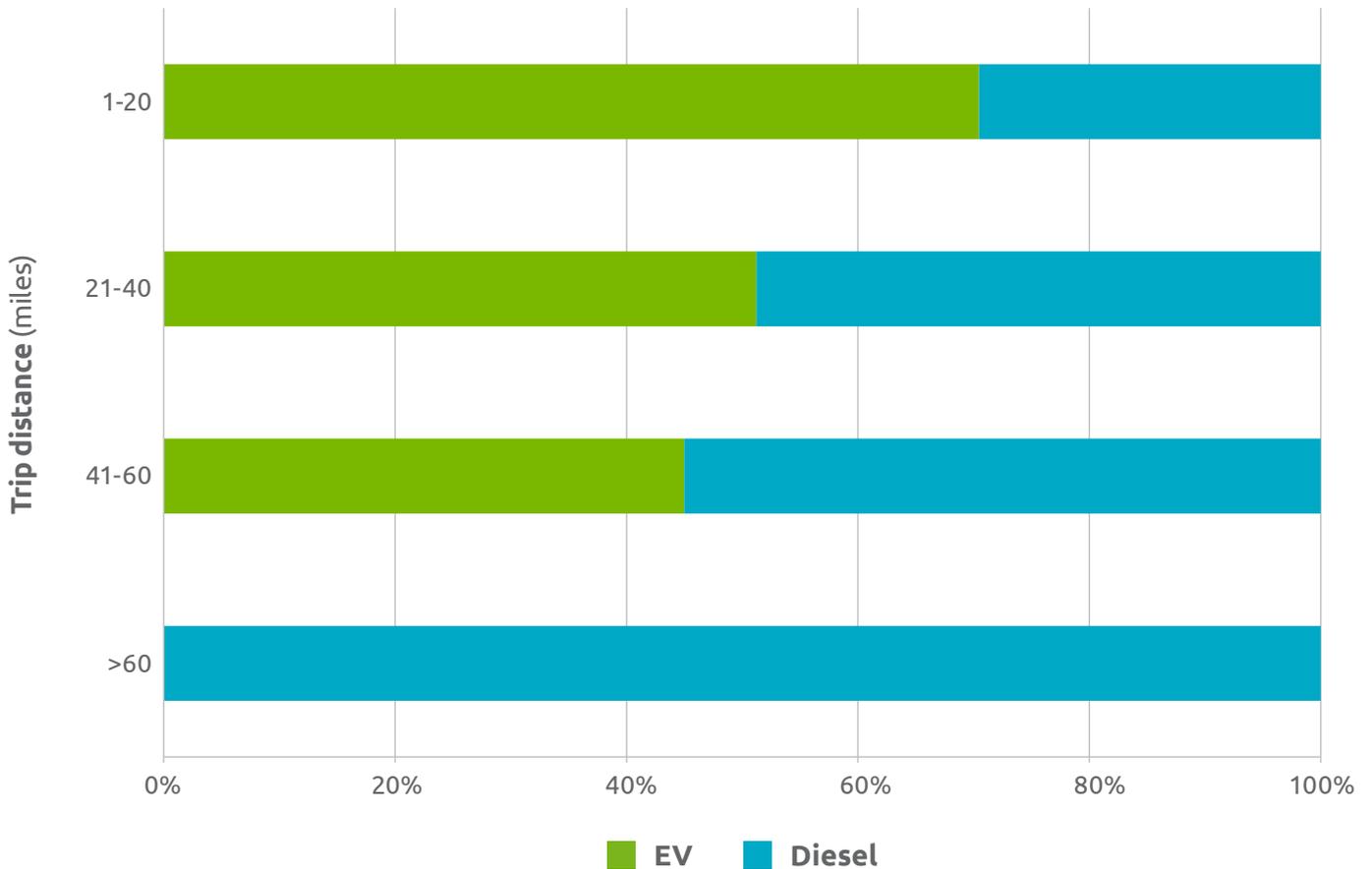


Figure 2b • Distribution of trips by vehicle type and distance (June 2015).

Source: Own work based on Carmarthenshire County Council



RECOMMENDATIONS

The Carmarthenshire County Council pilot shows that the carpool expansion with EVs has brought economic and environmental savings and that EVs are suitable for the use in a municipal fleet.

Based on this, the eBRIDGE recommendations are:

- The introduction of EVs into a municipal carpool can lead to substantial financial (e.g. fuel costs, servicing) and environmental savings (e.g. CO₂ emissions).
- A sound understanding of needs and mobility behaviour of employees as well as usage patterns of EVs and conventional cars are key in order to allow a better planning of future charging investments and the assessment of the financial impacts.
- Driver training with a professional trainer on a rolling basis proved to be a good way to familiarise employees with the EVs before booking them the first time.
- Specifically targeted information helps to address user barriers and misperceptions directly.
- EU funded projects (e.g. the Clean Fleet project) provide information about funding opportunities for local authority procurement, in addition to national sources.

3

THE SHARE TOOL

The SHARE Tool includes electric fleets for business and private use, specifically car sharing and P2P e-CS. The eBRIDGE pilots running SHARE fleets are Berlin, Valencia, Milan and a selection of Austrian municipalities. Promoters of the SHARE fleets are car sharing operators, municipalities and companies who would like to initiate shared electric fleets for all trip purposes and users.



Electric mobility for everyone. Source: Caruso Carsharing



BENEFITS AND OPPORTUNITIES OF E-CAR SHARING

FINANCIAL

- Organised, optimised travel management and costs tracking
- Saving of fixed costs (acquisition, taxes, parking space, insurance)
- Saving of fuel costs (km or time-based billing)
- Free access to Low Emission Zones (congestion, noise) in many cities

OPERATIONAL

- Fewer maintenance tasks
- Fewer management tasks
- Overall driving experience: no gear-shifting, quiet running, swift acceleration

ENVIRONMENTAL

- Zero-tailpipe GHG emissions (BEV) and reduced emissions (PHEVs/HEVs)
- Improved sustainability image
- Reduced mileage due to a more multimodal travel
- Less parking pressure: dedicated parking bays, parking allowances and improved accessibility to company premises

SOCIAL

- Motivated, less stressed, healthier employees
- Contribution to Corporate Social Responsibility
- Few cars on the road, more urban space available

3.1 e-Flinkster: Integrating e-Car Sharing into the Business Mobility Portfolio

Flinkster is the station-based car sharing offer of DB FuhrparkService. The Berlin eBRIDGE pilot focuses on the e-Flinkster fleet located at the EUREF campus, a business and research cluster of 50 companies and institutions with more than 2,000 employees. The EUREF electric fleet has 6 BEVs and 4 PHEVs (Citroën C-Zero, Smart ed, and Opel Ampera).



PROJECT ACTIVITIES

During eBRIDGE, the local partners DB FuhrparkService and choice assessed the potential of e-car sharing to complement business mobility and generate spillover to private use.

With the aim of improving the e-car sharing product and create a competitive offer for companies, an analysis of user expectations, user behaviour, and mobility management requirements was carried out, feeding into the development of an overall marketing and communication strategy for business customers. Additionally, the continuous vehicle monitoring and a fleet consolidation led to the optimisation of the fleet.

A survey among employees on the EUREF campus with rather short urban trips indicated favourable conditions for the use of e-car sharing. Attitudes towards car sharing were also largely positive and over the half of the car drivers reported having driven an EV at least once.

The most important perceived barriers for electric mobility were the charging network, limited range of EVs and long charging times. Many of these barriers can be avoided when providing employees with e-car sharing access for business use, a measure appreciated by employees as indicated in the survey.

Based on the findings generated during the first 2 years of eBRIDGE, an integrated marketing and communication approach was developed, including on-site demonstration, demand assessment and mobility management support. This approach aimed at not only promoting e-car sharing to companies but consulting them along the way to optimised business travel plans.



In contrast to owning and operating EVs in a corporate fleet, the use of e-car sharing reduces the users' perceived barriers which are similar to those of private users. Companies are provided with EVs at a station with a charging opportunity. Operators purchase the vehicle and make it available to the company at any time.



E-car sharing station at the EUREF campus. Source: InnoZ GmbH, Kai Abresch

RECOMMENDATIONS

The results of the Berlin pilot indicate that e-car sharing has the potential to complement business travel helping reduce the costs and environmental impacts of travel.

Based on this, the eBRIDGE recommendations are:

- As part of a multimodal transport system, e-car sharing develops its full potential when combined with public transport and “soft modes” (walking and cycling). This can be encouraged by placing e-car sharing stations close

to intermodal transport hubs. Expanding the network of stations to business hot spots or major commuting destinations in the neighbouring cities can be crucial to consolidate the success of a car sharing offer.

- Operators should assess the willingness-to-pay of the potential customers for (e-)car sharing. If this willingness is marginal, car sharing fleets made exclusively of EVs are challenging to operate efficiently compared to mixed and conventional fleets.
- An operator should strive to partner with the company in defining and implementing a travel plan, which requires a solid methodology, useful tools and sales staff trained in the direction of consultants.
- Providing e-car sharing for business travel familiarises employees with EV use; spillover to private trips is likely.

3.2 E:Sharing: the New Mobility

E:Sharing in Valencia is a commercial e-car sharing offer, operated by the company Sustainable Urban Mobility (MOVUS - Movilidad Urbana Sostenible). It is designed to meet the mobility needs of companies and private users with an added value for the environment as it can be used in combination with public transport. The number of cars and users has increased significantly during the pilot. The fleet has currently 9 BEVs (Think City, Renault Fluence and Peugeot iOn) shared among 62 users.



Getting access to E:Sharing. Source: MOVUS

PROJECT ACTIVITIES

During eBRIDGE the project partners MOVUS and the Regional Government of the Balearic Islands (CAIB – Comunitat Autònoma de les Illes Balears) promoted electric mobility in Valencia and the Balearic Islands. The E:Sharing service was trialed with vehicle monitoring analysis and attitude assessment. This allowed the improvement of the offer, identifying new tools to make the service more attractive to customers. The experience served as a basis for the activities developed in the Balearic Islands, where CAIB conceived an integral plan for the promotion of electric mobility and car sharing in the region.

From a conscious benchmarking of the general outlook and the market niche that can be exploited, MOVUS identified companies and public entities as relevant target groups for the promotion of e-car sharing as a mobility solution. Accordingly, the main part of the E:Sharing fleet is located at the premises of the Hospital Virgen de los Lirios in Alcoy. Likewise, the employees of the Department of Urbanism of the City of Valencia are regular users.

The employees of the home-care unit considered E:Sharing a good solution for their work trips: After the drivers familiarised with the EVs in terms of driving styles and charging, they planned their routes more efficiently and the number of medical visits made within the vehicle range increased. In the field of policy-making, CAIB developed a strategy to promote electric mobility and car sharing. Part of this strategy was the cooperation with the Valencian Institute of Business Competitiveness (IVACE - Institut Valencià de Competitivitat Empresarial) to set up the framework for the creation and coordination of the Electric Car Sharing Committee of the Balearic Islands. The Committee brought relevant stakeholders together, providing a common place for discussion and promotion of electric mobility in the region. Future developments will include the participation of other city councils, once they have approved the introduction of an identification card for EVs, called MELIB (Electric Mobility of the Balearic Islands - Mobilitat Elèctrica a les Illes Balears).



The Hospital Virgen de los Lirios is the first medical institution in Spain using an electric fleet to provide home-care services.



EV of the E:Sharing fleet. Source: MOVUS

RECOMMENDATIONS

The results of the Valencia-Palma eBRIDGE pilot indicate a high potential of e-car sharing among business customers, with reduced travel costs and improved organisation image.

Based on this, the eBRIDGE recommendations are:

- As car sharing and e-car sharing are still relatively new concepts, an intensive promotion of the service is crucial to make potential customers aware of the benefits of electric mobility and the use of EVs.
- Through regular use common barriers to EV use can be effectively reduced. This means, for example, that the drivers' knowledge about EVs improves, being able to rationalise vehicle selection according to trip requirements, and including route planning for charging when needed.
- Operators should be able to adapt to the customers' needs and expectations, changing marketing strategies when needed, introducing new products and actively seeking market niches for the service.
- In addition, operators in challenging markets should strive to provide high quality service maintenance and customer care to ensure customer loyalty.

3.3 GuidaMi Car Sharing: Promoting e-Car Sharing through Web 2.0 Communication

GuidaMi is the station-based car sharing offer of the Milanese Transport Company (ATM - Azienda Trasporti Milanese). The rapid evolution of the car sharing market in



Charging situation in Milan. Source: ATM, GuidaMi

Milan and the fierce competition caused a reduction of the GuidaMi electric fleet. There are currently 4 BEVs and 5 PHEVs (Citroën C-Zero and Toyota Prius) located in the congestion charge zone “Area C” in the city centre, where access with car is only possible by paying a congestion charge or with EVs.

PROJECT ACTIVITIES

The local eBRIDGE partners Fondazione Legambiente Innovazione (FLI) and ATM explored how the use of digital technologies with a social and gaming approach can help gain insights into the customers’ experience and improve their knowledge of EVs and their use. Additionally, barriers to e-car sharing adoption were assessed, contributing to identifying new strategies to improve the GuidaMi e-car sharing offer based on users’ feedback. Furthermore, marketing and promotional activities to promote EV use were implemented.

First, to learn about the users’ needs and expectations, an interactive survey with a group of selected testers was developed. They were able to make suggestions for the improvement of the car sharing offer in real time.

Second, a survey with a broader scope was carried out in cooperation with IKEA. Apart from that, various promotional activities were carried out: IKEA customers were eligible to drive a GuidaMi EV that was located at the Milan store.

IKEA-Family card holders and employees were granted 50 % discount on the annual GuidaMi membership fee. In addition, those who decided to sign up as electric drivers were granted one free booking. Furthermore, there was an active promotion through social media. The participants were invited to post pictures in social media networks with a cardboard cut-out of an EV located at the store. Prizes such as free tickets to the EXPO Milan 2015 were given to the person with more pictures showing they went shopping to IKEA with the GuidaMi electric car.



Digital and interactive communication tools like social networks using geo-tagged information, for instance foursquare, are most useful to collect customer experience in real time.



EV at the IKEA store Corsico in Milan. Source: ATM, GuidaMi

Finally, and encouraged by ATM, the City of Milan took part in a testing pilot to better understand if EVs can meet their daily travel needs. Since they used the standard car sharing fleet as a more efficient way to complement their existing fleet, EVs represented a new opportunity in the frame of that strategy. Despite the initial mistrust about the EV reliability, employees acknowledged the positive aspects of the tested EVs: silent engine, easy-to-use charging system, sufficient capacity to transport small items, and appealing car design.



EV at the City of Milan offices (Via Bernina). Source: ATM, GuidaMi

RECOMMENDATIONS

The Milan project encompasses a participative approach, which aims at collaborating closely with the users in the development and the optimisation of the e-car sharing scheme.

Based on this, the eBRIDGE recommendations are:

- Through daily EV use, charging becomes easier and less demanding.
- Digital tools via smartphone and gaming are important aspects for designing user experience monitoring measures.
- Useful innovative features to be taken into account for e-car sharing are (a) a navigator indicating battery range until destination, (b) an app providing advice on how to charge and use an EV, (c) an info-line service assisting EV drivers, and (d) an app showing driving style and CO₂ emissions.
- User friendly and widely available fast charging stations as well as an effective consumer-centred communication strategy are essential for a broader market introduction of EVs.

3.4 Caruso Carsharing: Facilitating Peer-to-Peer e-Car Sharing in rural Areas

Public transport is not always available in sparsely populated areas and the use of the private car is almost a must. The Austrian eBRIDGE pilot develops a flexible solution transferable to small towns and villages: the implementation of P2P e-CS.



P2P e-CS is the process in which car owners rent their vehicle to others for short periods of time. The process is closely aligned with traditional car sharing offers, but replaces a typical fleet with a “virtual” fleet made up of vehicles from participating owners.

PROJECT ACTIVITIES

During eBRIDGE, 29 P2P e-CS initiatives with 38 BEVs were started, usually promoted by the municipality or the organisation that purchased the EV. The vehicle was shared among the municipality employees, citizens and everyone aiming to join the initiative.

Some of the participating municipalities and organisations were: Gaubtisch, Krumbach, Baden, Auersthal, Waidhofen/Thaya, Thüringerberg, Zwettl, Bad Aussee, Gröbming, Weißenbach, Eferding, Korneuburg, Ernstbrunn, Langenegg, Lienz, Sarleinsbach, Amstetten, Hard, St. Leonhard, St. Veit an der Glan, Thal (Sulzberg), Werfenweng, and Bad Zell.



Austrian EV in Waidhofen/Thaya. Source: Zukunftsraum ThayaLand

People who want to start car sharing in their municipality face many questions concerning legal, financial or organisational issues. The eBRIDGE project partner Caruso Carsharing supported local stakeholders to start their own e-car sharing initiative. Besides consulting and know-how, Caruso Carsharing provided the technological components (e.g. on-board unit, booking system), concluded framework contracts and disseminated the e-car sharing experience among the interested public and municipalities, aspiring to establish a P2P e-CS scheme themselves. In addition, vehicle monitoring activities, interviews, videos and surveys with the users were carried out in cooperation with the local eBRIDGE partner Austrian Mobility Research (Forschungsgesellschaft Mobilität - FGM-AMOR).



The [Caruso carsharing website](#) offers complete information to start your e-car sharing initiative in Austria now.



Charging an EV. Source: illwerke vkw, Marcel Hagen

One success story is e.g. the electric car of Baden (bea) car sharing system, initiated by the city administration in cooperation with the fair trade store in 2014. Bea is used for business and private trips, shared among 28 citizens and 4 commercial partners. Bea provides service as a second car for citizens and gives companies the possibility to drive a functional EV. The feedback during eBRIDGE was very positive: 3 members already sold their first car and 2 families are planning to do so.



RECOMMENDATIONS

The Austrian pilot shows that P2P e-CS is the way to go for smaller municipalities in rural areas.

Based on this, the eBRIDGE recommendations are:

- The secret to success of P2P e-CS is the face-to-face contact. This is probably the best way to get people involved and foster their engagement.
- It is key to involve a motivated person who supports locally the users' community, takes care of the further promotion of the system and acts as contact point.
- To improve the user experience, modern car sharing technology is necessary. As this is still quite costly, the financial responsibility of the car sharing system should be taken over by a municipality or an association.
- To ensure members' commitment and an efficient usage of the car, a membership fee and rather low usage fees have proved to be effective.
- As people in smaller communities usually know each other, there is a common feel of responsibility for the e-car sharing scheme. Small tasks such as cleaning can be carried out by the members themselves, easing the management of the system.



KEY FINDINGS AT A GLANCE

IN SUMMARY...

- EVs are suitable to cover urban and medium length interurban trips, both for business and private use.
- E-car sharing provides easy and cost efficient access to the new technology without having to purchase a vehicle.
- E-car sharing can be easily integrated as part of a multimodal mobility in your travel plan, adding flexibility and cutting-edge technology to the urban mobility offer.

ORGANISATIONS SHOULD CONSIDER E-CAR SHARING IF...

- The company or administration is located in an area with existing e-car sharing offers.
- The need for business travel is often spontaneous.
- The company carpool is undersized, underused, or old.
- The company has problems to provide parking space.
- Grey mileage claims are high.
- Business travel trips are mainly under 100 km.
- The annual mileage per car is low.
- Employees travel frequently and intermodal, combining different means of transport.
- Employees are keen on new technologies and have positive attitudes towards EVs.



KEY FINDINGS AT A GLANCE

IF E-CAR SHARING IS NOT AN OPTION AND YOUR ORGANISATION OPERATES A CORPORATE OR MUNICIPAL CARPOOL, WE RECOMMEND...

- Replacing or complementing the fleet with e-car sharing offers.
- Making a profound fleet scan to understand the current fleet and its requirements.
- Understanding employees' mobility patterns and business travel needs.
- Learning about the specific features of the EV models available to match them with suitable tasks and services.
- Monitoring fleet performance and being ready to apply corrective measures when needed.
- Conducting user surveys to understand employees' attitudes towards the new technology: What are the barriers to EV adoption? What are the drivers? What other aspects need to be considered?
- Exploring local incentives to EV adoption and benefit from monetary savings as well as driving and parking privileges.
- Providing information on EVs advantages and user trainings to familiarise employees with EV use.
- Planning targeted interventions to mitigate users' concerns such as range anxiety and other barriers to EV adoption.
- Installing own charging points in strategic locations to alleviate range anxiety and increase EV fleet performance.
- Taking into account the benefits of allowing employees to use the EVs for private trip purposes: charging at home, more efficient use of the fleet.
- Cooperating with other local authorities and interested parties sharing knowledge and best practice.



KEY FINDINGS AT A GLANCE

CAR SHARING OPERATORS SHOULD CONSIDER...

- Exploring the willingness-to-pay of potential customers specifically for “electric” car sharing is essential. If the additional willingness-to-pay is marginal, full electric fleets can hardly be operated efficiently compared to conventional fleets.
- Assuming the feature “electric” is not a decisive factor for customers, it can still be reasonable to add a number of EVs to the fleet, to enhance the product portfolio and gain competitive advantage.
- E-car sharing is a complex product to sell. Consider providing mobility management consulting services and strive to become a company’s partner in implementing a concrete travel plan.

POLICY MAKERS CAN MAKE A DIFFERENCE BY...

- Considering policy incentives such as parking and driving privileges for EVs.
- Considering financial incentives to encourage EVs sale among fleet owners and private users.
- Cooperating with local energy utilities to develop a suitable charging network and support charging standardisation.
- Promoting renewable energies use and expansion to ensure clean power to electric mobility.
- Forming a multi-stakeholder coalition to further promote electric mobility.

THE CHANGE TOOL

The CHANGE Tool includes communication and promotion activities carried out by the pilot projects, targeting both business and private users, and aimed at fostering behaviour change towards EVs adoption. The measures have proved to be useful to overcome dominating misperceptions and to tackle the lack of knowledge about EVs.

General marketing and communication channels such as websites, mailings and newsletters supported the overall dissemination of the project results. In this section we concentrate on specific measures that have proved useful to increase the awareness of electric mobility and the usage of the involved electric fleets.

General recommendations for the conception and implementation of promotional measures:

- Gain thorough understanding of the site of intervention as well as of the practices, habits, mobility needs and concerns of your target group (e.g. via surveys, interviews, on-site-visits, workshops).
- Develop a long-term, comprehensive strategy, with a common vision of the integration of electric mobility into the mobility system for all stakeholders.
- Design specifically tailored measures for each target group.
- Establish contact with persons at strategic positions or opinion leaders, who can serve as multipliers.
- Cooperate with organisations working in related fields, e.g. car sharing, electric bikes, public transport, to achieve larger dissemination effects.
- Spread the word through local dissemination activities, e.g. events or fairs with topics related to sustainable mobility.
- Consider the use of digital technologies to monitor user feedback on the driving experience and user satisfaction of your target group in order to apply compensating measures, if necessary.
- Make use of Web 2.0 communication and collaboration tools to effectively engage your target groups, achieve higher acceptance and participation levels.
- Consider useful social psychology tools like normative messaging to motivate your target groups to adopt the desired behaviour.
- Assign well-informed contact persons, who work within the organisation and provide comprehensive direct advice, if needed. This is of particular



The marketing and communication measures were conceived according to the findings of previous surveys and interviews on perceived barriers to EV use, user and customer satisfaction, overall vehicle performance, etc. For further information, please see the tools BASE and SHARE in the previous sections.

importance in P2P e-CS schemes.

- Be aware of the importance of personal contact for a more effective user engagement with, and confidence on, the new technology.
- Be persistent in your communication activities as initial resistance takes time to break.
- Aim at a high-level service and thus satisfied users because these are the most powerful promotion instruments.

4.1 Increasing the Visibility of your Fleet: Branded Vehicles

WHAT IS IT ABOUT?

As the cars are always visible in public space, they are particularly suitable to function as mobile advertising media themselves.

Commercial car sharing systems do so to facilitate the identification of the cars and raise awareness of the service.

Either as a company fleet car or as part of a municipal carpool, vehicles can be branded in many ways. This is a useful, easy advertising measure without further running costs. A logo on the car can be eye catching and hence an incitement to start a conversation about the car features, driving experience, etc.

WHAT CAN YOU ACHIEVE?

- Greater public awareness of electric mobility.
- Encouragement of the driver and company preference for sustainable and innovative mobility.
- Electric mobility branding identifies drivers as pioneers.
- A practical way to identify the vehicle as electric, entitled to certain benefits e.g. access to restricted zones, driving and parking privileges.

WE RECOMMEND...

- Making your EVs visible (and appealing) in public space: as the vehicles are being driven or parked on the street, they are an ideal mobile advertising tool to raise awareness among curious and newcomers.
- Designing the branding together with the future vehicle user group to promote customer and user identification with the electric fleet.
- Choosing the size and colour scheme of your branding according to the vehicle design.
- Carefully selecting where to display it – either selectively placed on the rear or side parts or a full wrapping of the vehicle.
- Extending your branding to other means of transport (e.g. tramways or busses) if you cooperate with the local transport company.

THE eBRIDGE EXAMPLES

The GuidaMi car sharing system in Milan provided by the local transport company

ATM combined the labelling of the car sharing vehicles with corresponding advertising on the tramways. This is very useful if the shared fleet is integrated in the local public transport system.



GuidaMi branded e-car sharing vehicle and tramway. Source: ATM, GuidaMi



Austrian branded vehicle called "Gaubitscher Stromgleiter". Source: Municipality of Gaubitsch

In the Austrian pilot projects, municipalities were the funding promoters of the e-car sharing initiatives. In order to foster user engagement and a sense of belonging, the members of the e-car sharing groups contributed to designing the vehicle branding. The cars or the car sharing scheme often acquired their own name (e.g. Stromgleiter, e-Go, Flugs) conceived by the users themselves. The design of the vehicle branding and other communication material was usually created by a local designer.

4.2 Approaching the User: Demonstration Events with EVs

WHAT IS IT ABOUT?

Demonstration events are a perfect occasion to familiarise with EV technology and its features. Mostly conceived as information and showcase events, EVs can be fully experienced, and their benefits and potentials accordingly highlighted. Demonstrations provide interested people the opportunity to have a look at the cars, learn about electric mobility and even test drive.

This enables participants get to know EV technology from first hand. In general, these demonstrations are of high interest and very well received since a considerable amount of people have not been in touch with electric mobility before. You can design your demonstration event according to your target group: fleet managers, employees, public authorities, relevant stakeholders, as well as the general public.

WHAT CAN YOU ACHIEVE?

- First-hand informative and practical EV sessions.
- Illustration of the driving comfort of EVs in real life, i.e. silent driving, no tailpipe emissions.
- Help to overcome misperceptions and lack of knowledge about EVs.
- Greater engagement with electric mobility, as participants generally enjoy the driving experience and find it positive.

WE RECOMMEND...

- Including test drives whenever possible in large events, to reach a broader audience.
- Accompanying this intervention with other promotional activities e.g. hand out giveaways or issuing a press release about the event.
- Repeating the demonstrations periodically as part of an overall strategy to promote electric mobility.

THE eBRIDGE EXAMPLES

The EUREF campus in Berlin is a business and research cluster with over 50 organisations and 2,000 employees. At the Platform electroMobility, DB FuhrparkService showcases various EV models, among other electric cars and pedelecs. This is part of a demonstration laboratory, visited frequently by national and international delegations and companies. During specific events, for instance the eBRIDGE Conference Urban eMobility 2020 held in October 2014, participants had the opportunity to test drive EVs on campus.

To promote the E:Sharing scheme in Valencia and the surrounding area, the local eBRIDGE project partner MOVUS demonstrated EVs at various events on sustainable mobility, e.g. at events during the European Mobility Week in more than 10 cities. This allowed interested people to try the vehicle on the day, even if they did not know about the event before. Additionally EVs were provided to mayors, civil servants and business managers during different occasions.



Test drive at the Berlin conference. Source: choice GmbH, Benjamin Häger



Test drive at the Hospital Virgen de los Lirios in Alcoy. Source: MOVUS

4.3 Boosting Users' Confidence on EVs: Driver Trainings

WHAT IS IT ABOUT?

As almost all employees and users of the eBRIDGE pilots experienced EVs for the first time, specific training sessions played a central role in the correct handling of the cars and to mitigate initial drivers' concerns.

Targeted information on the vehicle's special features and handling helped drivers become confident with the EV technology e.g. ignition, information provided at the car display, automatic gearbox and charging process. In addition, being trained in how to drive an electric car properly (eco-driving, paying attention to air conditioning, heating use, and other ancillaries) contributes to improved driving styles, optimising the overall car performance, achieving longer trips in a single charge.

Training can be either conducted directly via professional trainers or indirectly via specially instructed employees (e.g. fleet managers) who pass the information to the EV drivers. In this way, concerns, misperceptions and questions can be directly addressed.

Additionally, providing EV user guidelines in written form can substitute face-to-face instruction.

WHAT CAN YOU ACHIEVE?

- Alleviation of concerns and improved attitudes towards the unknown technology in a safe environment.
- Ensuring that cars are used in the right way e.g. adequate charging, efficient driving styles, optimised car performance and trip lengths.
- Improving knowledge on the maintenance and operation of EVs helps lower costs due to optimised overall car performance.

WE RECOMMEND...

- Rolling training programmes that allow as many drivers as possible to participate in the sessions.
- Planning with plenty of time to carry out training sessions, explain the EV technology in detail and allocating time to answer questions thoroughly.
- Providing EV User Guidelines to the drivers in case on site trainings are not possible.
- Keeping written information simple, avoiding difficult terms and including illustrative pictures accompanying the instructions.

THE eBRIDGE EXAMPLES

When booking an EV, the employees of the participating companies of CEAGA in Vigo received, together with the vehicle key, a user guide to the usage and charging of the EV. Additionally, the Human Resources managers who acted as fleet managers, taking care of the vehicle bookings, vehicle returns and so on, were briefed on the adequate handling of the cars, providing support to drivers and answering concrete questions.

In Carmarthenshire County Council the employees took part in a rolling training

programme that made them eligible to drive the EVs. This was a safety requirement from the Council which helped employees familiarise with EVs with a professional instructor.

The drivers of CML received specific training sessions on driving techniques and general aspects of EVs. The drivers of the pooled vehicles were informed by the fleet manager.

In Austria, users were provided with tips for energy efficient driving, i.e. smooth driving at lower speeds, making a rational and smart use of electric devices (stereo, GPS navigation system) and heating and air conditioning systems.

Figure 3 • Brief user guide for the EV drivers in Vigo. *Source: CEAGA; INOVA*

EBRIDGE: "EMPOWERING E-FLEETS FOR BUSINESS AND PRIVATE PURPOSES IN CITIES"

WP3 Demonstration (Vigo Pilot)

INOVA
Iniciativa de Novas Oportunidades de Apoio à Inovação

CEAGA
Fundação Cluster de Empresas de Administração de Gestão

EBRIDGE: "EMPOWERING E-FLEETS FOR BUSINESS AND PRIVATE PURPOSES IN CITIES"

WP3 Demonstration (Vigo Pilot)

INOVA
Iniciativa de Novas Oportunidades de Apoio à Inovação

CEAGA
Fundação Cluster de Empresas de Administração de Gestão

1. Instructions for the use of electric vehicles: Ignite

The ignition of the Citroen C-Zero and Peugeot iOn is very quiet and fully automatic so the user must follow the instructions exactly.



The gear lever is placed in position "P"



To start, depress the foot brake and release the parking brake. For shift lever position "P" to "D" and go releasing the foot brake progressively, causing their movement was ahead.

To turn on, hold the key turned in the ignition until the end for 2 seconds, you will hear a sound and an indicator light will "READY". The vehicle is on.



2. Instructions for the use of electric vehicles: Automatic changing gear

Citroën C-Zero and Peugeot iOn are fully automatic, both the gearshift and in its operation.

The shift lever has 4 positions:

- "P": Parking position. Used to park the vehicle. If you want to remove the ignition key, it is only possible in that position.
- "R": Position to get the vehicle moving backwards.
- "N": Coasting of the vehicle.
- "D": Position to get the vehicle moving it forward.

4.4 Learning about EVs: Workshops and Information Events

WHAT IS IT ABOUT?

Workshops are useful to directly address your target group, both drivers and fleet managers, provide more specific information and enable expert discussions. The workshops can be held as part of local events, or organised in cooperation with partners as a special occasion to promote the launch of the electric fleet, the start of the local project, etc. but also as a way to tackle potential difficulties arising during the project.

To lower potential attendance barriers, workshops can be held on-site. These interventions allow space for the exchange of experiences as well as the clarification of specific concerns. Workshops have proved to be a good means of facilitating direct communication with the users and hear their views.

WHAT CAN YOU ACHIEVE?

- Targeted promotion of electric mobility among your target groups.
- Reaffirmation of the behaviour and motivation of EV-users through knowledge exchange and sharing of positive experiences.
- Clearing of misconceptions and concerns via face-to-face communication.
- Showing strong local presence and support to participants, providing advice and guidance when needed.
- Generating added value to your work and building confidence in EV technology.

WE RECOMMEND...

- Organising the workshop in cooperation with stakeholders to reach more potential participants.
- An adequate promotion of the workshop through various channels (e.g. company notice board, mailings).
- Offer the workshops at different times to enable many people to attend.
- Adjusting the discussion or workshop topic according to the interests of your target group.
- Including external experts to give objective information and a practical perspective on the topic.
- Involving enthusiastic users to report from their personal driving experiences.
- Creating an inclusive, positive atmosphere where everyone can share opinions.
- Gathering the key findings in a workshop report to further disseminate the event, also among those who weren't able to attend.
- Participating in workshops of other organisations to establish contacts with new actors and enlarge your network.

THE eBRIDGE EXAMPLES

In the Austrian pilot, personal contacts were of significant importance due to the small scale structures of the demonstration sites. Workshops can help establish and strengthen local relations, especially if organised in cooperation with partners who have their own network. The Austrian pilot shows that workshops are a good way of talking directly with the target group, get to know their opinion and affirm their behaviour. By exchanging different experiences, participants gain confidence that helps diminish user barriers. Eventually, satisfied and motivated users are an ideal way of spreading the idea of e-car sharing.

Cardiff University and Carmarthenshire County Council organised a knowledge transfer workshop in collaboration with Carplus, the UK leading NGO for car sharing and sustainable transport. This event attracted the participation of local authorities from Wales and South Western England, as well as private car sharing operators. During the workshop, council managers shared their experience and best practice with the attending local authorities and private fleet operators. A meeting report collected the main findings and is available [here](#).



Roundtable discussion at an Austrian workshop. Source: NÖ Energie- und Umweltagentur



Presentation at a workshop at Cardiff University. Source: Cardiff University, Dimitrios Xenias

4.5 Making EV use the Norm: Normative Messaging

WHAT IS IT ABOUT?

Normative messaging is a social psychology technique where members of an identified group and behaviour are given feedback on how another comparable group performs for the same behaviour, for instance, how a group of households

performs in terms of recycling compared to others.

The intervention can be communicated through a workshop or e-mail.

This way your target groups can be encouraged to improve their performance regarding the desired behaviour. Other additional activities to introduce the desired behaviour may include contest, games and so on, motivating your group to perform better than other comparable groups.

WHAT CAN YOU ACHIEVE?

- Improved performance of your target group regarding the desired behaviour, for instance, increased EV usage.
- Raising awareness of the desired behaviour among less engaged users and laggards.
- Indirect effects on related target groups that might be curious about the intervention, when promoted through a gaming approach.

WE RECOMMEND...

- Designing Normative Messaging measures with *professional support*.
- Implementing the measure directly at the point of a relevant behaviour, i.e. presented next to the vehicle booking desk, or at the time of online booking.
- Selecting how to communicate the results accordingly to your target group profile.

THE eBRIDGE EXAMPLE

Carmarthenshire County Council employees received an e-mail updating them of their EV fleet performance against other comparable eBRIDGE pilots. By comparing with other electric fleets, EV driving is communicated to the users as the norm rather than the exception. This was expected to increase EV use as driving and EV for business trips would be perceived as the normal thing to do.

Information card based on normative messaging as used in Carmarthen County Council.
Source: Cardiff University, Dimitrios Xenias

Next time consider Driving Electric! 

- ☺ 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.
- ☺ Charge 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!  

4.6 Leading by Example: Role Models

WHAT IS IT ABOUT?

The usage of EVs by top managers or municipal department directors serves as a role model for the employees as well as the general public. This way, they represent the general organisation commitment to sustainable and innovative mobility.

WHAT CAN YOU ACHIEVE?

- Building confidence in EVs as a viable alternative to conventionally fuelled cars.
- Leaders serve as multipliers as they can motivate others to test an EV themselves.

WE RECOMMEND...

- Using this measure especially during the kick-off phase of your project.
- Involving well-known people or opinion leaders in other events and promotional activities.
- Promoting the measure via press releases, social media or e-mail newsletters.

THE eBRIDGE EXAMPLE

CML is actively promoting the use of EVs among its employees and the citizens of Lisbon. Since their acquisition, the Mayor and several Department Directors travel daily in the official EVs, showing their support to electric mobility and contributing to raising confidence in EV technology.



The Mayor of the City of Lisbon charging an EV. Source: CML, Department of Marketing and Communication

4.7 Improving your Service: Mobility Management Software

WHAT IS IT ABOUT?

Travel plans can help optimise business travel effectively. Organisations can benefit from a broad palette of mobility services, among them e-car sharing, in an integrated portfolio adapted to their needs and costs restrictions. Tailored business mobility guidelines provide useful advice. For this, technology-based tools like mobility management software can be applied.

These tools assess the mobility behaviour of the employees and provide an overview of the organisation mobility. Through the use of a smartphone app, for instance, the employees participating in a trial can track their daily mobility behaviour automatically.

This type of tool helps mobility providers improve their offer by providing complete mobility management consulting services. As a result, comprehensive mobility guidelines can be designed according to research on mobility planning, employee mobility patterns, company budget restrictions and contextual factors, such as mobility policies.

WHAT CAN YOU ACHIEVE?

- Helping companies to replace or complement their fleets with car sharing offers.
- Effective introduction of e-car sharing as an integral part of a company's mobility services.
- Competitive advantage over other mobility providers.

WE RECOMMEND...

- Ensuring methodological soundness of the developed software.
- Developing high quality mobility management tools, which enable companies to analyse current business mobility parameters (employee behaviour, costs, management work flows), reveal optimisation potentials and help implement optimised business mobility plans.
- Training your sales staff accordingly as part of the mobility services of your company.

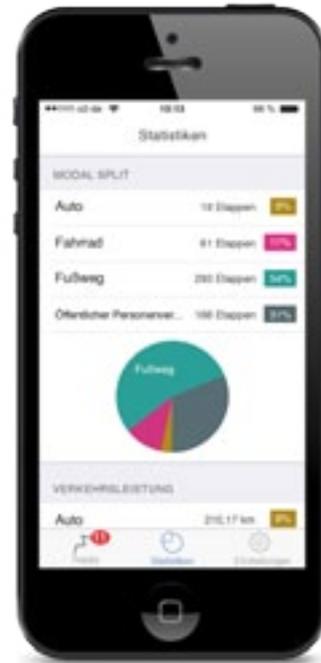
THE eBRIDGE EXAMPLE

A sound demand assessment is key to determinate the suitability of e-car sharing in a company mobility portfolio. A major challenge is to convince companies to replace their fleets or introduce e-car sharing offers. Based on the favourable conditions of the EUREF campus, which hosts companies that are mostly smart mobility-oriented, choice and DB FuhrparkService developed a concept for a technology-based assessment of the employees' mobility behaviour as part of the overall company mobility. The tool chosen was the "DB Rent Tracks", a smartphone app based on the "InnoZ tracker", a similar tool developed outside the eBRIDGE project.

The tool allows the demand assessment that is the first step for the development of tailored mobility management guidelines. The DB FuhrparkService sales staff

are currently being trained to include the tool among the mobility management consulting services to companies. As a result, DB FuhrparkService offers not only mobility products Flinkster, e-Flinkster, Call a Bike (bike sharing), chauffeur services and car leasing, but also integral mobility management services that help determine the mobility portfolio that suits companies best.

Mobility Management Software. Source: DB Rent GmbH



4.8 Interaction with the User: Web 2.0 Communication

WHAT IS IT ABOUT?

Social media and digital technologies are powerful tools to actively involve your target groups. With the help of map-based online tools, collaboration platforms, social media integration and a focus on mobile availability in the sense of responsive web design or dedicated mobile applications (apps), users can easily interact with the service provider and share valuable information about customer experience, suggestions to improvement and express specific concerns and expectations.

Dedicated websites for different target groups (private users, business customers and prospective users) provide target group specific information. While private users need (mobile) access to booking tools, charging station maps and information regarding the fleet and tariffs, business customers require business mobility management tools and direct contact to trained staff that responds to queries connected to the usage and management of the business offer. Additionally potential users are reached with the help of special campaigns and dedicated micro-sites that provide them with basic information about the offer and tease them into first-time usage of the offer.

Being active and available on various social media channels has become essential for operators to get in touch with existing and potential users. Trained staff looking after common channels such as facebook or twitter can serve as real-time helpdesk, providers of information and trouble-shooters in case of complaints or service problems. Additionally, users can engage one another, comment and share their user experience and attract their networks as potential users.

Collaboration platforms provide a valuable opportunity to further involve users that are interested in helping to shape the service according to their needs. Map-based participation tools are already used today by operators of shared mobility services to assess the demand of car sharing and bike sharing stations or extensions of the service area respectively.

WHAT CAN YOU ACHIEVE?

- User feedback and personalised interaction with your target groups.
- Active, engaged users sharing experience in real time.
- Broader diffusion of the provided information.
- Targeted information.

WE RECOMMEND...

- Providing target group specific websites:
 - Potential users: dedicated section or micro sites during campaigns to attract and inform potential new users.
 - Existing individual users: website and mobile application including booking and usage tools (e.g. charging point maps).
 - Companies and administrations: dedicated website or section including in-depth information on business mobility, business fleets etc, direct contact opportunities to get in touch with trained sales/consulting staff.
- Using responsive web design or apps to provide information and services on mobile devices.
- Providing direct connections to your social media sites via plug-ins.
- Assessing the opportunity to involve the user in the improvement of your service with the help of collaboration and participation platforms.

THE eBRIDGE EXAMPLES

In Milan, FLI and ATM developed a marketing concept based on digital technologies with a gaming approach to engage the GuidaMi car sharing customers with EV use and identify usage barriers.

Through the use of social media and a smartphone app, the GuidaMi customers could share the driving experience in real-time, as well as provide suggestions to improve the service via a digital logbook. The results were crucial to provide a customised GuidaMi e-car sharing service according to the users' expectations and needs.

The use of digital tools and gaming as a form of loyalty proved to be useful tools to interact with the user and improve the service. Likewise, geo-localised apps which relate the information provided to a specific location proved to be a viable option for this purpose as well.

DB Rent (user sales branch of DB Fuhrpark Group) re-launched its business customers website, based on a holistic sales approach gained through the eBRIDGE findings. The mobility products and services were displayed in an integrated way, including the new mobility management services.

4.9 Increasing the Impact of your Fleet: Cooperation with Strong Partners

WHAT IS IT ABOUT?

Developing cooperation with key partners is a good way to raise awareness of the benefits and advantages of electric mobility. Key partners can be acknowledged companies, institutions and non-governmental organisations (NGOs) operating in an electric mobility-related field, or individuals with a significant network who can serve as ambassadors of the new concept.

Cooperation with multipliers and opinion leaders is especially important in small-scale fleets in rural areas, where personal contact is very valuable. Politicians, experts, local energy or environmental associations, etc. can effectively support the initiative and help create the required dissemination network, co-develop workshops and information events, etc.

Additionally, cooperation with partners with similar goals, like European projects, is a very useful tool to increase your network and create a solid base for the development of your activities.

WHAT CAN YOU ACHIEVE?

- Greater diffusion of electric mobility via widely known partners.
- Credible partners add relevance to your fleet, also serving as multipliers.
- Building trust in EV technology and promoting its use.

WE RECOMMEND...

- Making use of your partners' marketing channels to further promote electric mobility among your target group.
- Co-organising promotional events that benefit from your partners knowledge and network.

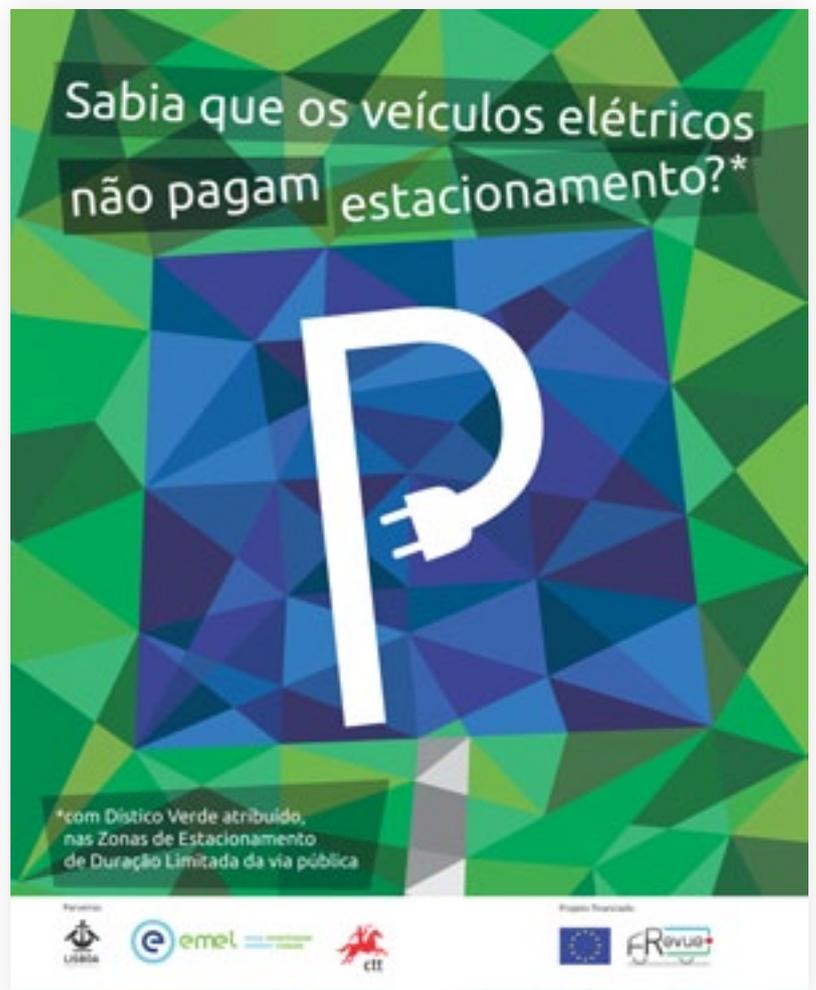
THE eBRIDGE EXAMPLES

From January to June 2015, ATM cooperated with IKEA to promote the usage of EVs which are part of the car sharing system GuidaMi. This partnership consisted of discounts for members of IKEA FAMILY on the GuidaMi inscription fee as well as a trip free of charge for new subscribers. The regional stores set up posters to promote the initiative and to highlight the environmental benefits of electric mobility. Furthermore, some parking spaces were especially assigned for shared EVs and equipped with chargers. Customers were encouraged to post photos doing their shopping with e-car sharing on social networks. This also included rewards for the most prolific users. Finally, IKEA conducted a survey among its customers to gain insights into their knowledge about EVs and their driving experience.

CML is actively promoting its electric fleet and the work developed in the eBRIDGE project. In cooperation with European-funded projects like "Pro-E-Bike" and "Freight Electric Vehicles in Urban Europe" (FREVIEWE), participants can learn through common workshops from others' experience and exchange knowledge on the use of EVs.



ATM and GuidaMi cooperation with IKEA. Source: ATM, GuidaMi



Lisbon's broad electric mobility campaign.
Source: Municipal Transport and Parking Operator (EMEL)

4.10 Gaining new Customers: Public Relations & Commercial Agents

WHAT IS IT ABOUT?

Professional public relations (PR) and sales agents are common among car sharing operators. Promoting and selling the offer is part of their commercial activity but it can also be useful for smaller fleets as a way to engage new users. They distribute promotional material to the media and are responsible for building and managing relationships with the target groups as well as business partners.

WHAT CAN YOU ACHIEVE?

- Central contact point for media as well as user requests.
- Spreading the word about sustainable mobility.
- Highlighting the company's commitment to communication activities.

WE RECOMMEND...

- Selecting your target groups carefully and establishing direct personal contacts.
- Concentrating your message on a common vision and the specific advantages of electric mobility.
- Keeping in touch with ongoing events on similar topics, where e.g. test drives could be organised.
- Being persistent as user barriers take time to break.

THE eBRIDGE EXAMPLE

The E:Sharing PR & Sales agent in Valencia is responsible for the overall promotion of the service. As the general awareness of electric mobility is often low, an active promotion through personal contact, the media and further communication channels is crucial to disseminate the benefits of EVs and e-car sharing among the public and potential new customers.



PR Agent working for MOVUS in Valencia. Source: MOVUS

Establishing direct contact with public bodies, e.g. universities or municipalities, and private companies enables the organisation of EVs demonstrations and workshops, contributing to raising awareness of e-car sharing and EVs in general.

4.11 Raising Awareness of EVs: Targeted Promotion Material

WHAT IS IT ABOUT?

Brochures, posters, flyers or information cards can be used to deliver general information on electric mobility and car sharing as well as specific information about EV use, including tips to directly address identified misperceptions and concerns.

Testimonial videos are a powerful tool to engage new users. The EV drivers tell about their experience and provide inspiring opinions and useful hints. Usual barriers to EV use like range anxiety and reliability of EVs can be easily addressed, helping alleviate the initial fears and concerns of the newcomers. Promotion material can be distributed at events, or online channels.

WHAT CAN YOU ACHIEVE?

- Brief information at a glance to support the message in face-to-face contacts.
- Spreading the word about your project.
- Incentive to dig deeper into sustainable mobility.
- Encouraged, motivated new users.

WE RECOMMEND...

- Tailored information according to the needs of the target group.
- Providing comprehensive but easy to read information.
- Designing a unique, appealing layout which clearly identifies all your promotion material.
- Integrating different promotion material in one advertising campaign with the common theme of sustainable mobility.
- Including statements of enthusiastic users or opinion leaders to add relevance to your message.

THE eBRIDGE EXAMPLES

Cardiff University conducted user experience surveys and interviews EVs among the employees of Carmarthenshire County Council that resulted to the identification of range anxiety as the prime perceived barrier for the use of EVs. As a direct response to this finding, two information cards were designed and included in all fleet cars.

The cards provided targeted information on the EV benefits such as low running costs, no need to travel to the tank station to refill the car (a specific inconvenience for Diesel car drivers, as they could only use a designated petrol station), environmental benefits, and addressing misperceptions and



Take a look at the eBRIDGE webpage for project related videos and the partners' websites for the news.

concerns such as range anxiety.

The Austrian EV users when interviewed provided useful feedback on their driving experience. This was gathered in testimonial videos that were broadcasted in local news channels. These initiatives had a broad diffusion also in local newspapers and other media.

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Austrian information folder designed for municipalities. Source: Caruso Carsharing

4.12 Disseminating your Success: Press Releases

WHAT IS IT ABOUT?

A press release is a compelling, short news piece that informs about your project progress, specific achievements, events or next steps. It can be distributed to the media and target groups via several channels (e.g. newspapers, TV, radio, websites, email lists). They usually target the general public and can be useful to engage new users with electric mobility.

WHAT CAN YOU ACHIEVE?

- Making the public aware of your project and the benefits of electric mobility.
- Gaining attention of interested stakeholders.

WE RECOMMEND...

- Using various communication channels to reach different target groups.
- Supporting your message with illustrative pictures.
- Distributing the press release to the local media, in local news channels or special bulletins of the participating companies to directly address the target group.
- Quoting enthusiastic users who describe their personal driving experiences.

THE eBRIDGE EXAMPLE

CEAGA used various channels to promote the eBRIDGE project and make their activities within the Vigo pilot widely known among the local stakeholders. Several press releases and info-notes were published on their own websites as well as in the automotive cluster's magazine "INFOCLUSTER" and were distributed to regional newspapers such as La Voz de Vigo.

The screenshot shows a news article on the website of 'La Voz de Vigo'. The article is titled 'Empresas de Vigo testan la eficiencia del coche eléctrico' (Companies in Vigo test the efficiency of the electric car). The text discusses a project led by CEAGA, involving six cities from six countries, to test electric vehicles in urban areas until March 2016. It mentions that only 360 units were sold in Spain in the first six months of the year. A yellow Citroën C-Zero is shown in a photograph. The article is dated August 7, 2013, and has received 2 votes.

VIGO
Empresas de Vigo testan la eficiencia del coche eléctrico
 Ciudades de seis países participan hasta el 2016 en un proyecto de la UE que quiere demostrar las fortalezas de esta flota en zonas urbanas

SOLEDAD ANTÓN
 vigo / la voz. 07 de agosto de 2013 05:00 ★★★★★ 2 votos

El coche eléctrico no termina de arrancar. Los especialistas insisten en que tiene mucho futuro, pero hasta la fecha el presente es bien pobre. El dato de las ventas resulta más que elocuente. En los seis primeros meses del año apenas se han vendido en España 360 unidades de ocho marcas, entre ellas el Citroën C-Zero.

Ceaga, el clúster gallego de la automoción, ha decidido predicar con el ejemplo y participar, junto a trece empresas e instituciones de seis países de la Unión Europea, en el proyecto eBridge (Empowering e-fleets for Business and Private Purposes in Cities), que se prolongará en el tiempo hasta marzo del 2016.

El objetivo es demostrar que los planes de flota eficientes pueden contribuir a introducir los vehículos eléctricos en las zonas urbanas y mejorar las condiciones del sector de la movilidad eléctrica. En definitiva, lo que harán será testar el coche y comprobar en el día a día sus fortalezas y debilidades.

La fundación Ceaga está integrada por un total de 90 empresas además del centro tecnológico CTAG, lo que la

de una decena- por parte de las firmas de la organización

Los empresas de Ceaga están testando el coche eléctrico. © eBridge

Screenshot of a press release published in La Voz de Vigo. Source: La Voz de Galicia

THE eBRIDGE PROJECT

eBRIDGE is a co-funded EU project that promotes electric fleets for passenger transport with the aim of contributing to more liveable, vibrant and competitive cities and towns in Europe.

Based on the introduction of EVs in fleets, eBRIDGE gathers a selection of pioneering cities, so-called Drivers of Change, that have tested innovative solutions to make electric mobility a main part of their transport system.

During eBRIDGE, these schemes applied actions to optimise operational fleet performance, test and launch solutions to increase the convenience and ease of use of car sharing offers, and raise awareness on the suitability of electric mobility for urban transport and commuting.

The fleet schemes are located in Germany, Austria, Italy, Portugal, Spain and the United Kingdom, and aim at becoming real drivers of change in their communities and abroad.



THE eBRIDGE PARTNERS

The eBRIDGE team involves technical experts, academics, associations, public administrations, mobility providers and public transport and car sharing operators.



www.choice.de



www.dbfuhrpark.de



www.mobilitaetsinstitut.at



www.fgm.at



www.legambiente.it



www.atm.it



www.caib.es



www.movus.es



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