



Dear reader,

if there is one major growing market in mobility, it is that of the electric vehicle. While the success of the electric car is still minor, the e-bike and pedelec are definitely making their entrance into our daily lives. Does it provide any new challenges to mobility management professionals? Discover why e-vehicles represent an entirely new transport mode and are starting to change the way people organise their mobility.

This will be one of the many themes of the ECOMM – the European Conference on Mobility Management. The programme is now online – please have a [look](#) – [registration](#) is open.

The e-bike revolution: towards a market share of over 20%



Source: [Pedelec Adventures](#)

Pedelecs and e-bikes ([what's the difference?](#)) are quickly conquering markets in Europe. In the Netherlands, they have a share of over 20% in sales numbers but 40% of sales volume (as e-bikes are on average more than double as expensive as normal bicycles) In Germany the numbers are **10% and 20%** respectively. Over a million e-bikes are sold in Europe annually – up from 300.000 in 2008. In the Netherlands – doubtless THE early adopter country in Europe – market and mobility trends are clear: at first mostly people over sixty tend to buy them, and then more and more people of middle age. Over 10% of people in the Netherlands over age 46 now own an e-bike – and a majority of them are women ([source](#)). Evidence is growing that the e-bikes replace car trips, as people tend to drive 50% further than with a normal bicycle, use them in hilly or even mountainous areas, use them in older age or use them when they do not want to arrive all sweaty in the office. The rapidly rising market share guarantees a high impact on mobility behaviour. German journalist Susanne Brüsche demonstrates how pedelecs can even conquer [the Sahara and Mongolia](#).

Promoting electric cycling



Source: [Chrischerf / CC BY-SA 3.0](#)

Promoting electric cycling can open up and kick-start markets – and in Europe there are many examples for financial incentives:

- In Bologna, Italy, the amount of the subsidy is doubled to 600 euros in case of scrapping an old moped.
- In Austria the [Landrad project](#) (2009-2010) offered a discount on the purchase of pedelecs in return for information on how buyers used them. They found that half of all trips done by the pedelecs would otherwise have been made with an ordinary bicycle, while 35 % would have been made by car. Every fifth Landrad user had changed mobility behaviour fundamentally.
- Home care providers – having to make a “tour” from client to client – used to prefer the car as only practical solution. Now the Belgian Home Care service (Thuishulp) decided to start subsidising e-bikes for their caregivers. (Source: [Verkeersspecialist n°190](#))

The European [GoPedelec](#) project has a handbook in several languages and collected many other [best practices for promoting pedelecs](#).

You have to try it to believe it



Source: [GoPedelec](#)

The most effective element of e-bike and pedelec promotion are test rides (again see the [GoPedelec Handbook](#)).

- A [Dutch study](#) found that having commuters try out an e-bike leads to a purchase by 10% of the testers.
- Or why not try one out for a longer period? The Swiss competence centre for electromobility [m-way](#) offers electric vehicles for rent, which you can purchase afterwards at reduced price PLUS a [discount](#) on the subscription fee for the Swiss car sharing service [Mobility](#).
- In Stuttgart, Germany, there was the [pedelec leasing](#) initiative, whereby customers sign a 4-year contract and pay about 30 euros per month. The battery is part of the public system, which offers over 1,000 battery exchange-stations.
- As pedelecs and e-bikes are heavier and faster than regular bikes, riders have to get

used to them. In order to render e-bikes safer, several [training courses for senior citizens](#) have taken place in The Netherlands, on a prepared circuit and under the supervision of professionals.

- During the GoPedelec project, several customers in Prague returned their pedelec, as they were too scared to drive in the busy traffic in Prague. The Czech partner reacted by organising [training activities](#).

Meanwhile, e-bikes are finding their way into bike sharing schemes, for instance in [Call a bike in Stuttgart](#) and Aachen, Germany, and in the public transport bike scheme [OV-Fiets](#) in the Netherlands.

Will e-car entrepreneurs kick-start the market?

Despite massive promotion, [incentives](#), investments and media attention, e-cars are rarely bought by European consumers. On the other hand, very interesting entrepreneurs have entered the market – betting on a complete change of the market. Three fascinating examples:

better place 



Mahindra **REVA**

- [Better place](#) in Israel has developed a revolutionary battery swap system – thereby abolishing range problems and guaranteeing the customer the best battery technology available. The company takes whole countries as test ground – primarily the wind energy country Denmark and the solar energy country Israel. Watch this fascinating [video](#) how this might change everything. Better place has raised 700 million \$ venture capital but the market breakthrough has not yet developed. The very inspiring CEO, Shai Agassi, has been replaced end 2012.
- [Tesla motors](#) in the USA conquers the market from the top price segment: it developed an all electric top performance sports car – price tag 100.000 \$, very popular with celebrities. They also develop a super charging network . Look at a recent [hot discussion](#) between the founder, top entrepreneur Elon Musk and the New York Times. Tesla is poised to enter the family car market with their [car of the year](#) and US e-vehicle sales are [rapidly growing](#).
- [MahindraREVA](#) in Bangalore, India will start to produce a relatively low cost electric vehicle in a supermodern, ultra-low carbon assembly [plant](#) and is also backed by a lot of capital. They see the e-car as having the 5 “C”: [clean, convenient, clever, cost efficient and connected](#).



All these companies recognise that e-mobility is organised differently because of the energy source – and therefore offer superior energy management and information systems – e.g. Tesla with a 17-inch touch screen system representing an on-board computer system which can remotely “update” the cars energy management. These e-car companies also envision that high numbers of car batteries can operate as a massive buffer storage for electric grids – which is very interesting to balance out imbalances in wind and solar energy production. The companies are therefore negotiating contracts with utilities – to have their battery management system become part of the public electricity grid and to get “green” electricity for their cars. The companies recognise that CO2 savings can only be made when the electricity is produced in a sustainable way.

To sum up: while established car companies have invested billions into e-cars – the market is slow to react. Some new players are competing and cooperating with the car giants, and all this might still lead to a massive change: at competitive price and performance e-cars will conquer the market and become a component of the electricity grid. Drives will be guided by excellent mobility and energy management information possibly leading to a different mobility behaviour. Gasoline usage might then drop dramatically, while demand for “green” electricity will grow – and thus e-cars might be the drivers for a true [energy transition](#).

But don't we want less cars?



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E-cars decrease local pollution and are less noisy. But they do not solve congestion and parking problems, still destroy urban spaces, cause accidents and lead to health problems as people have not enough daily exercise. But as described above, e-cars might conquer the [market](#). Car buying motives, usage patterns, ownership patterns could change – and income from fuel tax could drop dramatically.

How should mobility management prepare for this? **Join the discussion at the next ECOMM – in which there will be a special session dedicated to “e-mobility – what is left after the big media-hype”.**

- Get to know market developments in Europe
- Compare Norway (where incentives led to a 4% share of e-cars – the by far highest share in Europe) with a more moderate e-vehicle region incentive scheme in Austria
- Discuss past and future developments and how to react to it from a mobility management perspective with experts in the field

The success-market for e-cars: carsharing



Source: Flickr, Author: Francisco J. Gonzalez

The only market where e-cars in Europe have a significant impact, is carsharing – there are now large schemes in place with 100% electric car fleet.

- The largest and best known all-electric car sharing service is **Autolib'** (2011) in Paris, France (watch the [video How it works](#) in French). In its first year, some 37,000 people registered and 1,200 people still join in every week.
- **Car2go** provides an all electric e-Smart carsharing fleet in **Amsterdam** (introduced 2011) and **Stuttgart** (2012), in both cities with 300 cars. The company has developed an own carsharing-e-Smart for the project.

Some smaller examples:

- In order to attract new customers, **Zen Car** in Brussels teamed up with energy corporation Electrabel to offer new customers a **one-month subscription for free**, including 12 driving hours free of charge.
- In Berlin, where the car sharing service is about to test the **Hiroko electric car**. Thanks to a folding mechanism, three of these cars can park in one ordinary parking spot.

Find out more



Source: www.eltis.org

- Everything you need to know about Pedelecs, available in six languages: the [GoPedelec Handbook](#)
- [PRESTO policy guide on electric bicycles](#) (2010)
- [Electric Bicycle Guide blog](#)
- [Light Electric Vehicle Association](#)
- [ExtraEnergy](#) – NGO for the promotion of Light Electric Vehicles
- [AVERE](#) – The European Association for Battery, Hybrid and Fuel Cell Electric Vehicles
- A quite good [electric car market overview](#) by country by Wikipedia
- [NICHES+ Guidelines for implementers of electric cars in car share clubs](#) (2010)

Upcoming events



- **ECOMM 2013 - the yearly European Conference on Mobility Management**
29. - 31. May 2013 in Gävle, Sweden
Conference website: <http://ecomm2013.eu/>
Registration page [here](#)
Download programme [here](#)

For more events, please visit the [EPOMM Calendar](#).

