EUROPEAN CYCLISTS' FEDERATION

Pedelec Substituting Car Use – Research List

European Cyclists' Federation

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ECF gratefully acknowledges financial support from both the LIFE Programme of the European Union and the cycling industry via Cycling Industries Europe. The information and views set out in this list are those of the author(s) and do not necessarily reflect the official opinion of the European Union. Neither the European Union institutions and bodies nor any person acting on their behalf may be held responsible for the use which may be made of the information contained therein.

Swiss study www.news.admin.ch/NSBSubscriber/message/attachments/36765.pdf showed that after given access to a the use of a pedelec 60% of
the people within the study who owned a car indicated they use the car "much rarer" or "less frequently.

Norway eBikes increased numbers and amount of cycling
https://www.sciencedirect.com/science/article/pii/S1361920915000140

In the Austria-wide study http://www.sciencedirect.com/science/article/pii/S0965856415301865#b0135 , 37% of respondents reported that, since buying the e-bike, they had reduced car use for work trips; 40% reported reductions for shopping trips; and 40% reported reductions for leisure trips. There were also small net reductions in household car/motorbike ownership - 4% reported that they had reduced household car ownership, and 3% had reduced household motorbike ownership, whilst 1% had increased car ownership, and 2% had increased motorbike ownership.

http://www.sciencedirect.com/science/article/pii/S0965856415301865#b0080 survey of e-bikes purchasers in Sweden asked participants about particular journey purposes that they used their e-bikes for, and how they were travelling previously (including whether the journey was a 'new trip'). Results varied with journey purpose – 3–12% of the e-bike journeys replaced walking; 4–16% replaced public transport; 15–26% replaced a conventional bike; and 47–67% replaced a car trip.

Landrad project http://www.sciencedirect.com/science/article/pii/S0965856415301865#b0085 for the individual participants, 52% of the trips done by pedelec were previously done by conventional bike whilst 35% were done as a car driver. It was estimated that approximately 230,000 car kilometres per year were substituted for pedelec use. 21% of purchasers were reported to have made substantial and long term changes to their travel behaviour.

http://www.sciencedirect.com/science/article/pii/S0965856415301865#b0035 Active Access project, about half of the pedelec trips made substituted for car trips, equivalent to an average of 6 trips – 44 km – per participant per week.

http://www.sciencedirect.com/science/article/pii/S0965856415301865#b0100 As a result of the e-bike programme in Chambery, 1.2 million km were reported to have transferred from car to e bike p.a.

in Flanders, 46% reported that they previously drove to work, and 58% reported that they used the car on days when they did not use the pedelec.

http://www.sciencedirect.com/science/article/pii/S0965856415301865#b0060 Norwegian project, the proportion of all kilometres travelled per day that were made by bike rose from 28% to 48% in the target group, whilst remaining constant at 20% in the control group

Eddeger et al. (2012) (b)	In Pescara, 80% of employees buying a subsidised e-bike said that since having the pedelec, they used their car less.
Wright, 2013	In the Totnes community e-bike hire scheme, 40–70% of e-bike journeys were reported to be replacing car use.
Kidd and Williams (2009)	In the Talybont-on-Usk Energy trial, 67% of the mileage travelled (1818 miles) was reported to be replacing car miles.
VCD (2013)	For the 506 e-bike users, 74% mentioned that the e-bike had replaced at least some car trips, with 21% reporting that it had exclusively replaced car use.
Helms et al. (2015)	For trips made by e-bike, 41% were previously made by car; 38% by conventional bike; 7% by public transport; 4% by foot; 6% were not made and 5% were made by other modes. In terms of distance, 45% of distance travelled was previously done by car. For commuting, 62% of trips were previously made by car

SVI (2017), Vélos électriques – effets sur le systčme de transports, Projet de recherche SVI 2014/003 sur demande de l'Association suisse des ingénieurs et experts en transports
https://www.mobilservice.ch/admin/data/files/news_section_file/file/4386/svi-kurzfassung_elektrovelos_en.pdf?lm=1517906642
In Switzerland, more than half of the distances travelled by fast e-bike would otherwise be travelled by car

SWOV (2017), Pedelecs and speed pedelecs. SWOV Fact sheet, September 2017, The Hague,
https://www.swov.nl/en/facts-figures/factsheet/pedelecs-and-speed-pedelecs
In the Netherlands, two thirds of speed-pedelec users would otherwise use a car

http://trec.pdx.edu/research/project/1041/National_Electric_Bike_Owner_Survey_
John MacArthur, Portland State University
US on how eBikes substitute car use