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EUROPEAN CYCLISTS´ FEDERATION

SHOPPING BY BIKE: BEST FRIEND OF YOUR CITY CENTRE

Cycling and Local Economies

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About the European Cyclists' Federation
ECF is the umbrella federation of bicycle users' organisations in Europe and beyond. Our aim is to have more people cycling more often and we target to double cycling by 2020 in Europe. To reach this goal, we work with our members and partners on putting cycling on the agenda at global, European, national and regional level.

MAIN FINDINGS

Cycling delivers major economic benefits in the EU: For example, the health benefits due to reduced mortality amount to 114-121 billion EUR, or the benefits of congestion easing to ca. 25 billion EUR. Cycling also creates jobs: At current levels of cycling, more than 650 000 jobs in the EU [1] are linked to the sector. If cycling modal share was doubled, more than 400 000 extra jobs could be created [2].

Many of the economic benefits of cycling that have been quantified until now are reaped at the national level, and it is important to underline those benefits as arguments for ambitious European and national cycling policies and investments in cycling. However, finding the right arguments the local level also remains crucial: This is where the funding is spent and concrete decisions on cycling-friendly transformations of certain streets are made. At this level, there sometimes still is a lot of uncertainty about the benefits of cycling, and local retailers often fear that they would lose customers and turnover if more space is given to cyclists and pedestrians and less space to cars in their streets.

The aim of this report is to show that these fears are unfounded. We first show that customers going shopping by bike are an important source of turnover in retail, and could actually be a source of growth for the local retail sector, especially in city centres, if we reach our goal of doubling the modal share of cycling. By using an earlier study from Austria, we estimate the following impact of cycling on retail in the EU:

At the moment, customers going shopping by bike account for a consumption volume

111 billion EUR in the EU-28.

If the modal share of cycling was doubled in the EU (excluding Croatia), this would generate an increase in retail turnover for local retailers of more than

27 billion EUR

This would give an economic boost to city centres, towns and villages all over Europe.

LOCAL CASE STUDIES FROM EUROPE AND ELSEWHERE ALSO SHOW THAT:

- Clients coming by bike spend more than those coming by car, be it during a certain time period or related to the parking space that has to be provided for them. Car drivers might spend more per visit, but they visit shops less often. Cyclists do their shopping locally, and are more loyal customers.

- Retailers often under-estimate the share of clients that go shopping by bike, and over-estimate the share of car users among their customers.

- If a street is transformed in a way that gives more space to cyclists and pedestrians and less to cars, the absence of clients that came by car before is more than compensated for by the clients that come by foot or by bike afterward.

1. ECF, 2013: Calculating the economic benefits of cycling in EU-27. http://www.ecf.com/wp-content/uploads/ECF_Economic-benefits-of-cycling-in-EU-27.pdf
2. ECF, 2014: Cycling Works – Jobs and Job Creation in the Cycling Economy. http://www.ecf.com/europeancyclingjobs/

OVERVIEW OF OTHER STUDIES ON CYCLING AND LOCAL RETAIL

1. COPENHAGEN

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• In **Copenhagen**, cyclists create more revenue in shops and supermarkets than car drivers (2.05 billion EUR for cyclists, 2.04 billion EUR for car drivers).

› Study conducted by the City of Copenhagen on the link between shopping and transport mode (2013).
http://www.cycling-embassy.dk/2013/08/26/are-cyclists-good-customers/

2. BRISTOL


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• In **Bristol**, retailers overestimated the share of car-drivers among their costumers by almost 100 per cent: In a survey, they stated that 41 per cent of costumers would come by car, while the actual value was only at 22 per cent. For cycling, it was the other way round: Shopkeepers estimated the share of cyclists among their customers at 6 per cent, while the actual share was 10 per cent. Shopkeepers also overestimated the distances customers would travel to their shops: They thought that only 12 per cent of clients would live less than half a mile from the shop, while the real value was 42 per cent.

› Shoppers and how they travel (2006), Information sheet by Sustrans.
http://www.tut.fi/verne/wp-content/uploads/Shoppers-and-how-they-travel.pdf

3. FRANCE

© Mitch Altman

• In **France**, a survey in 6 cities found that cyclists spend more money per week in shops than car drivers (24.35 EUR for cyclists, 21.65 EUR for car drivers). They spend less money per visit, but visited shops more often.

› Brichet, Heran: Commerces de centre-ville et de proximité et modes non motorisés . Publication ADEME n°4841 (2003).
http://www.weekvandemobiliteit.be/system/files/bijlagen/velocom-merce_2003_rapfin.pdf

4. BERN

© Márcio Cabral de Moura

• In **Bern**, a consumer survey found that clients coming by bike create 7 500 EUR of revenue per square metre of dedicated parking space, while car drivers only brought 6 625 EUR.

› Mit dem Fahrrad zum Einkaufen. Deutsches Institut für Urbanistik (Difu) gGmbH (2011).
http://www.nationaler-radverkehrsplan.de/transferstelle/downloads/for-a-04.pdf

5. DAVIS (CALIFORNIA)


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• In **Davis** (California), a study analysing almost 1.900 shopping trips to a new store found that cyclists spend $ 250 per months, car drivers only $ 180.

› Popovich, Handy: Bicyclists as Consumers. Mode Choice and Spending Behavior in Downtown Davis, California (2014).
http://trrjournalonline.trb.org/doi/pdf/10.3141/2468-06

6. FLANDERS

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• In Flanders, a Master thesis analysing the transformation of a street from giving space predominantly to cars towards more public transport (tram), walking and cycling came to the conclusion that the customers not coming anymore because of the lack of car parking after the transformation were replaced entirely by clients coming by bike or by foot, and that turnover was slightly higher after the transformation. 81 per cent of the shop owners that had established themselves after the transformation were satisfied with their turnover.

› Delaere, Vandommele: Ruimtelijke en economische impact van fiets- en tramverbindingen, Casestudie Mortsel – Boechout (2015).
http://www.scriptiebank.be/scriptie/ruimtelijke-en-economische-impact-van-fiets-en-tramverbindingen-casestudie-mortsel-boechout

CURRENT VOLUME OF SHOPPING BY BIKE IN THE EU

	CURRENT CYCLING MODAL SHARE	CURRENT VOLUME OF SHOPPING BY BIKE (MILLION EUR)
European Union (28 countries)	7.64%	111.476
Belgium	13.0%	5.483
Bulgaria	1.9%	92
Czech Republic	7.1%	1.139
Denmark	18.9%	4.847
Germany	13.0%	36.734
Estonia	5.0%	77
Ireland	3.1%	527
Greece	3.1%	1.129
Spain	1.9%	2.509
France	3.1%	6.910
Croatia	6.0%	419
Italy	5.0%	10.788
Cyprus	1.0%	29
Latvia	8.1%	205
Lithuania	5.0%	258
Luxembourg	1.9%	49
Hungary	18.9%	1.898
Malta	1.5%	18
Netherlands	31.0%	16.442
Austria	8.1%	3.011
Poland	9.0%	3.912
Portugal	1.9%	353
Romania	5.0%	830
Slovenia	7.1%	357
Slovakia	9.9%	629
Finland	13.0%	2.834
Sweden	17.1%	6.102
United Kingdom	1.9%	3.895

ADDITIONAL TURNOVER FOR RETAILERS IF CYCLING MODAL SHARE IS DOUBLED IN THE EU

	NEW MODAL SHARE	INCREASE IN LOCAL RETAIL TURNOVER (MILLION EUR)
European Union (27 countries, excluding Croatia)	15.3%	27.389
Belgium	25.6%	1.299
Bulgaria	5.1%	39
Czech Republic	16.5%	368
Denmark	32.4%	850
Germany	25.6%	8.705
Estonia	12.5%	29
Ireland	8.0%	205
Greece	8.0%	439
Spain	5.1%	1.064
France	8.0%	2.685
Italy	12.5%	4.008
Cyprus	2.7%	12
Latvia	18.2%	63
Lithuania	12.5%	96
Luxembourg	5.1%	21
Hungary	32.4%	333
Malta	4.1%	8
Netherlands	37.3%	814
Austria	18.2%	926
Poland	20.3%	1.203
Portugal	5.1%	150
Romania	12.5%	308
Slovenia	16.5%	115
Slovakia	21.7%	184
Finland	25.6%	672
Sweden	30.0%	1.141
United Kingdom	5.1%	1.652

METHODOLOGY

The calculation of the current volume of shopping by bike and the increase in retail turnover that would occur if cycling modal share was doubled is based on an earlier study from Austria [3].

CURRENT VOLUME OF SHOPPING BY BIKE

In this study, the current volume of shopping by bike is calculated as a percentage of the consumption volume of consumer goods. In order to calculate this value, the following methodology was used.

First, the total volume of consumption in each country was calculated by multiplying the values of two statistics retrieved from Eurostat[4]:

- Mean consumption expenditure by household [hbs_exp_t111]
- Number of private households by household composition, number of children and age of youngest child (1 000) [lfst_hhnhtych].

In a second step, the share of consumer goods in total consumption was computed for each country, since the overall value also includes items like energy, communication, or housing which are not relevant for retail shopping. The calculation of the share of consumer goods is based on the data set „Overall structure of consumption expenditure by detailed COICOP level (1 000) [hbs_str_t211]“ and comprises the following items:

- CP01 Food and non-alcoholic beverages
- CP02 Alcoholic beverages, tobacco and narcotics
- CP03 Clothing and footwear
- CP051 Furniture and furnishings, carpets and other floor coverings
- CP052 Household textiles
- CP053 Household appliances
- CP054 Glassware, tableware and household utensils
- CP055 Tools and equipment for house and garden
- CP0561 Non-durable household goods
- CP0611 Pharmaceutical products
- CP095 Newspapers, books and stationery
- CP091 Audio-visual, photographic and information processing equipment
- CP092 Other major durables for recreation and culture
- CP093 Other recreational items and equipment, gardens and pets
- CP1213 Other appliances, articles and products for personal care
- CP123 Personal effects n.e.c.

The combined share of these items in total consumption varies considerably between countries, from 27 per cent in the Netherlands to 50-51 per cent in countries like Malta, Romania or Lithuania. In order to account for this variation, it is important to include it in the calculation.

The aforementioned study from Austria had computed a share of 6.6 per cent in the consumption of consumer goods for shopping by bike. This calculation is based on the assumption that shopping by bike is local shopping and overwhelmingly done in the municipality of residence. Therefore, the authors of the study use the share of consumption that is done in the own municipality

3. CIMA Beratung + Management GmbH for LebensministeriumÖsterreich (2010): StudieRadfahren und Einkaufen. Die wirtschaftlicheBedeutung und Potentiale des Fahrradesfür den Einzelhandel in Österreich. https://www.bmlfuw.gv.at/dam/jcr:312a3473-e6b5-4f7f-8281-26bb82aa8737/Studie_20Radfahren_20und_20Einkaufen%5B1%5D.pdf
4. http://ec.europa.eu/eurostat

by residents and the level of cycling for shopping as parameters to determine the share of shopping by bike in consumption. Obviously, this is a value that has been calculated specifically for Austria, using consumption volume data from all cities and municipalities in the country. Since there are no comparable statistics available for the other countries, this value has been used here to extrapolate values for the rest of the EU. Since the modal share of cycling in Austria (8.1 per cent) is closer to the European average (7.64 per cent) than in any other EU country, it can be assumed that also the share of shopping by cycling is close to the EU average value. Therefore, the use of the Austrian value for the other countries should not lead to results that would completely distort the calculation.

In order to account for differences in cycling levels, the ratio of the share of shopping by bike and the overal modal share in Austria (6.6 per cent divided by 8.1 per cent) is applied to the modal shares of the other countries, which are based on a previous ECF study on the job creation effects of cycling [5]. For example, in the Netherlands with a modal share of 31 per cent, the share of shopping by bike would be 25 per cent, whereas in the UK with a modal share of 1.9 per cent it would be 1.5 per cent.

Finally, the share of shopping by bike in the consumption of consumer goods is multiplied by the total volume of consumption of consumer goods to compute the value of shopping done by bike.

Comparing the value for Austria with the one from the original study shows that our value (ca. 3 billion EUR) is higher than the former one (2.5 billion EUR). This can mainly be explained by the fact that the original study uses household consumption data from 2004, whereas we used data from 2010. Household consumption in Austria has increased during that time period by 15 per cent.

INCREASE OF TURNOVER IN RETAIL WITH DOUBLING OF CYCLING MODAL SHARE

The calculation of the increase in turnover in retail with a doubling in the modal share of cycling is also based on the aforementioned study from Austria, which has calculated an increase of retail turnover of 0.2 per cent for each percentage point increase in cycling modal share. This is applied to the growth in modal share estimated for each country , based on the total consumption of consumer goods.

The model dividing the doubling of the aggregate EU cycling modal share between the different countries is based on the ECF study on jobs creation mentioned above. This model attributes a higher growth rate of modal share to countries with low base values, and a much lower growth rate to countries with high base values, like the Netherlands.

Finally, Croatia is not included in this calculation since there is no data available to estimate the growth of modal share.

5. http://www.ecf.com/wp-content/uploads/141125-Cycling-Works-Jobs-and-Job-Creation-in-the-Cycling-Economy.pdf

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