

Cycle logistics - Moving goods by cycle

EPOMM - Managing mobility for a better future

e-update december 2012

www.epomm.eu

Language: en | cz | de | it

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Dear reader,

around 60% of all trips in urban areas are related to the transport of goods (this astonishing number ranges from transports in large commercial lorries to simply transporting daily supplies home). By shifting goods under 500 kilograms to bicycles, cycle logistics will succeed in improving the quality of living in our cities considerably.

The term cycle logistics can refer to professional logistics like delivery services, waste collection or small trade services. This usually involves the use of cargo bicycles (2, 3 or 4-wheelers) and bicycle trailers. But at the same time it also refers to private logistics – where regular bicycles, well equipped with baskets, panniers, trailers, etc. are used to transport shopping or leisure equipment. Within the European project CycleLogistics, all these areas of logistics by bike are addressed to make the advantages known throughout Europe. Looking at the potential for cycle logistics, it is evident that this approach is much more than a niche activity. 42% of all motorized trips in urban areas could be shifted to logistics by bicycle (this corresponds to 25% of all trips). Learn more about the topic of cycle logistics in this e-update. A detailed description about the potential can be found here.

At the upcoming ECOMM2013, there will be a special session on the "MM approach for freight and deliveries". The deadline for the submission of papers is 10 December.

Back to the future



Source: Stichting Oud Obdam-Hensbroek

Already in 1881 the first carrier cycle was used by the British Post Office. A few decades later, many shopkeepers used this type of bike to make local deliveries of bread, meat, milk etc. That is why these bikes are also called baker's bikes or butcher's bikes. Starting from the late 1920's the 'Long John' appeared in the streets of Denmark. This bike had a load-carrying platform inserted between the saddle and the front wheel. Today this model is very popular and is known under the Dutch name 'bakfiets' (read more on the history of cargo bikes on the CycleLogistics website).

It seems that since the last two decades cargo bikes are being rediscovered. Various models, able to transport up to 500 kilograms, and varying in price from 800 to 6000 euros, can be found on the market (see e.g. overview of 67 cargo bikes, the Freight bike inventory list of CycleLogistics and velotransport (G)).

Deliver by bike: growing in many countries



Source: CycleLogistics photo database



Source: CycleLogistics photo database

Although especially popular in the Netherlands and Denmark, where even sperm samples are transported by cargo bikes to fertility clinics, also in other countries bike delivery services become more popular. Some examples:

- In Germany, as part of the Climate Initiative, car and bicycle couriers test the potential
 of electric cargo bikes for urban commercial transport in seven different cities (Ich
 ersetze ein Auto, I substitute a car-project). The German Cycle Master Plan 2020
 (Nationaler Radverkehrsplan 2020 (G), English summary) also recognises the potential
 of cargo bikes for last-mile deliveries.
- In Romania, the first bicycle courier service in Bucharest started in April 2012. Tribul (the tribe) delivers door-to-door packages throughout the city.
- In May 2012, the city of Gent (**Belgium**) installed the first public cargo-bike-sharing scheme in Europe. Four cargo bikes are part of the Cambio car-sharing service present in the city. The Flemish government also starts to actively promote bicycle courier services in Flanders, based on the results of a study by the University of Antwerp (in Dutch) investigating the potential of involving bicycle couriers in Flemish logistics. In the meanwhile Velo Fixer goes from house to house in Brussels, fixing bicycles (check out this nice video).
- In **Switzerland**, already in 1997, a bicycle home delivery service brings your purchased goods from the supermarket to your home by bike. Given the success of the service (21% of the customers changed from shopping by car to shopping by bike or on foot), 12 new services have been implemented throughout Switzerland.
- The **French** company la Petite Reine delivers yearly 1 million packages with their electric tricycles (Cargocycles, FR) in four big French cities, including Paris.
- In **Austria**, bikes are used to home deliver medication (G), to clean windows (G) and to bring fresh ice cream (G) into the parks. The municipality of Graz grants up to € 1.000 to businesses and institutions such as schools, housing associations etc., when



Source: www.eltis.org

- purchasing a cargo bike, and it includes cargo bikes in their bike rental scheme.
- In the UK, cargo bikes are used vor very diverse transports: digital projectors, office supplies, accessories to prepare Japanese pancakes, post packages (like Yellow Jersey Delivery in Coventry), flowers or even test tubes with antibodies... (read more about this in Loads more cycling). At Heathrow and London, even has bicycle ambulances!

Advantages and possible disadvantages

Here are the substantial advantages of using cycles rather than vans to transport goods (based on the extensive study of Transport for London, 2009)

- Lower costs: lower purchase cost, lower running costs (tax, insurance, storage) and no parking costs. GobaX, a German cargo bike manufacturer, calculated that a pizzeria could save 6.300 euros a year if they would deliver their pizza by bike rather than by car. The CycleLogistics project also makes an economic argument for cargo bikes.
- Speed despite congestion: cycles are much less affected by traffic conditions than vans and hence are faster and more reliable (need a prove? Enjoy a cargo bike ride in the centre of London).
- Allowed in car-free areas: narrow streets, streets where only bikes are allowed or
 areas of zero access during daytime? No problem for cargo bikes! This is for instance
 the case in Cambridge (UK), where Outspoken Delivery provides services to over 200
 local businesses. Recently, the company won the 'Contribution to reducing the city's
 carbon footprint' award.
- Lower environmental impact: reduction in CO2 emissions. The University of Westminster calculated a potential reduction of 62% in the centre of London The Hajtás Pajtás bicycle courier company in Budapest (H) frees the congested capital from 100 cars, saving an estimated 150 tons of CO2 emissions annually.
- Green image: an important asset, for example for the British AV2Hire and Gnewt Cargo).
- Social inclusion: no drivers licence is needed to ride a bike! In Bucharest (RO), a
 paper waste collection service by cargo bike employs disadvantaged people as a first
 step in their integration into the labour market.
- Better quality of life: no noise pollution, more space for people.

So why is the use of (cargo) bikes to deliver goods not more widespread? According to Transport for London the biggest problem seems to be (mis)perception.

- Companies are worried about security and theft of both cycles and payload. This fear
 proved to be exaggerated as almost no instances of theft were reported during the
 study. However, the more cargo bikes appear in the city, the higher the probability of
 theft. In the Netherlands, the Centre of Bicycle Theft now deploys cargo bikes as bait
 to catch the thieves.
- The **limited range and payload** is also considered to be a disadvantage. But recent models of cargo bikes are able to transport up to 500 kg!. Especially in inner cities the last mile delivery causes problems. In this segment lots are often far smaller than 500 kg and yet they are transported in oversized lorries. Creative solutions are now available to sove this problem. Within the context of the FP7 EU project STRAIGHTSOL, implementing seven innovative urban freight solutions, TNT Belgium will soon start to deliver goods to the inner city of Brussels by using a mobile depot (special truck) in combination with cargo bikes (video). Until the mobile depot is ready for use, TNT cooperates with the tricycle logistics company Ecopostale (French video), using their depot as a base (article).

The city of Berlin has a modular pack station, called a BentoBox, installed near their city centre. From there, cargo bikes transfer packages to the centre and back. The system was first tested within the context of the CityLog project and is now integrated in the regular logistic operations of a courier service (case study on Eltis and another application of the BentoBox in Lyon).

- **Driver fatigue** and **seasonality** were also mentioned as factors contra cycling. It is not easy for existing staff to suddenly switch to cycling, especially for small companies.
- Furthermore, several local factors might hinder cargo bike use. The Belgian law, for
 instance, does not allow three or four wheel cycles to drive on bus lanes, in pedestrian
 zones (before and after the zone is solely open to pedestrians), or contra-flow, while
 ordinary bikes can. Some cities are very hilly and have cobbled streets. Although even
 Edinburgh has a cargo cycle delivery service.



Source: CycleLogistics photo database



Source: CycleLogistics photo database

as cars are by far the most used transport mode for shopping (source: ARGUS 2009, p. 9). However, three quarters of these transports could easily be done by cycle.

CycleLogistics: the solution





Source: CycleLogistics photo database

CycleLogistics aims to increase the usage of (cargo) bikes as an alternative to vans and personal cars – with the prime objective to reduce energy usage. Twelve countries work together to target businesses, local authorities, individuals as well as cycle couriers:

- Shop-by-bike campaigns: The Flemish(B) campaign Met belgerinkel naar de winkel (With bell ringing to the shop) was very successful: 80.000 people went shopping by bike during the campaign, in Dutch) and 50% of them they kept riding their bike afterwards. Within the Cyclelogistics project, 15 campaigns will be carried out in 8 countries to promote shopping by bike. Two campaigns, in Vienna and Graz have already been successfully implemented in Summer 2012. The evaluation report is available on the website. Supermarkets and other stores play an important role in supporting cycling to their shops. For instance, in Belgium, Delhaize, a large supermarket with 800 shops all over the country, installs bike parking and offers bike bags at discount prices. A general campaign scheme has been developed and will be adapted to the local conditions in all the participating countries.
- Cargo bike sharing schemes, called Living laboratories, provide businesses the
 opportunity to test cargo bikes and experience their advantages. These are being set
 up in 9 cities differing in their level (beginner, climber, master). The city of Graz has
 already started their living laboratory. They lend 7 different types of cargo bikes to
 interested local businesses. In Brussels they offer 3 bikes, with plans for more.
- Consumer tests: since the purchase of a cargo bikes is quite expensive and cargo bikes differ in some ways from standard bikes, The Danish Cyclist Federation did a user test of cycles, trailers, shopping trailers, bags and baskets. Find the results here.

Moving freight bikes forward: the importance of policy



Source: CycleLogistics photo database

Policy makers can strongly promote cycle logistics, for example they can close a city centre to motorised traffic and allow cycles full access, develop logistics plans that favour non-motorised solutions, to name but a few. As part of the CycleLogistics Project The European Cyclists' Federation has considered what cities in 2050 might look like, and what cities across Europe are doing now to favour delivery by cycle (article). It is important that towns and cities decide on their quality of life but national ministers can also play a leading role. 52 Transport ministers gathered in Leipzig in May this year to discuss improving transport in their countries. 'Rethinking the Last Mile' was one of the opening sessions of the International Transport Forum (see the seventh session recording titled Rethinking the Last Mile.

Cycle Logistics Federation



Copyright: Outspoken Delivery

As a result of the CycleLogistic project, almost 60 cycle logistic companies joined their forces in the first European Cycle Logistics Federation. There are now 120 European companies registerd on the Cycle Logistics Federation website. Together they will lobby, up to the level of the European Parliament, for the promotion of cycling for freight transport. The Federation will also highlight best practice examples for followers, share available knowledge and experience freely among members and establish lobby groups in order to influence relevant stakeholders. In addition opportunities for shared promotions, marketing, etc. will be identified and appropriate information resources will be established.

It is the season...



Source: CycleLogistics photo database

- Christmas last year, the London-based Carry Me Bikes, a social enterprise which helps families, businesses, etc. move their cargo by bike and gives them the opportunity to test out a cargo bike, offered a Secret Cycling Santa Service. Indeed, a pedalpowered Santa brought children their presents.
- If you would like to see many Santas on a bike, than you need to go to Romania.
 Following an annual tradition, about 300 people dressed like Santa will distribute candy to children during a yearly Christmas cycling event.
- Last but not least, the BAMBINI Christmas Bike book, which is available in 11 languages, describes how Santa managed to deliver all his presents some time ago, when Rudolf was sick.

Want some more?

Stay tuned for recent news on cycle logistics via the CycleLogistic website. And if you are still not convinced about the power of bicylces, take a look at this video.

Upcoming events

- FIETSVAK 2013 (big fair on bicycles)
 20-22 January 2013 Amsterdam, the Netherlands http://www.fietsvak.nl/Pages/English.aspx
- ECOMM 2013 the yearly European Conference on Mobility Management 29. 31. May in Gävle, Sweden Info on the call for papers here deadline for submission 10. December Conference website: http://ecomm2013.eu/Please note: Gävle is very well accessible, it is just one hour by train from Stockholm airport!
- VELO-CITY (with events related to cycle logistics)
 11-14 December 2013 Vienna, Austria
 http://www.velo-city2013.com/

For more events, please visit the **EPOMM Calendar**.







































