



Final Public Report

Cyclelogistics aims to reduce energy used in urban freight transport and to get unnecessary motorised vehicles off the roads by using more cycles for goods transport in city centres throughout Europe. There is a huge potential for cyclelogistics- in average 51% of all motorised trips in European cities that involve transport of goods could be shifted to bikes or cargo bikes.

WWW.CYCLELOGISTICS.EU

Cyclelogistic
moving Europe forward

IMPRINT

[Publisher](#)

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Figures and values provided are based on the outcomes of
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1. CycleLogistics - Moving goods by bike

Logistics can be defined as the transport of goods from A to B. Currently no commonly accepted definition of urban logistics exists. Some studies define it as the movement of freight vehicles with the main purpose of goods transport in urban areas. For CycleLogistics a broader definition of goods transport in urban areas is used, independent of the vehicle type.

Logistics can be further distinguished by the type of goods that are transported and by the purpose of the trip:

- Transport services of professional carriers like freighters, haulage firms, postal companies and international delivery services like DHL or TNT. In an urban context, trips often concern the first or last mile delivery within a longer transport chain.



- Freight transport carried out by producers or traders themselves. The main activity of these companies is located in a different field and the delivery transport supports their business activity. For example, pizza delivery services.



- A special form of goods transport is generated by transport trips where no freight is collected or delivered, rather goods or tools are transported to carry out certain services. An example would be craftsmen, but could also be communal services like park maintenance or street

maintenance activities.

- Private trips (commuter, leisure, shopping) associated with the transport of goods are often not considered as logistics but are nevertheless part of this category. Both types of trip are associated with the transport of goods whether those goods are transported home by a delivery service or by private individuals themselves. Shopping is the most common form of private logistics, but often goods used for leisure purposes, such as musical instruments, are also transported.



What is the potential for CycleLogistics?

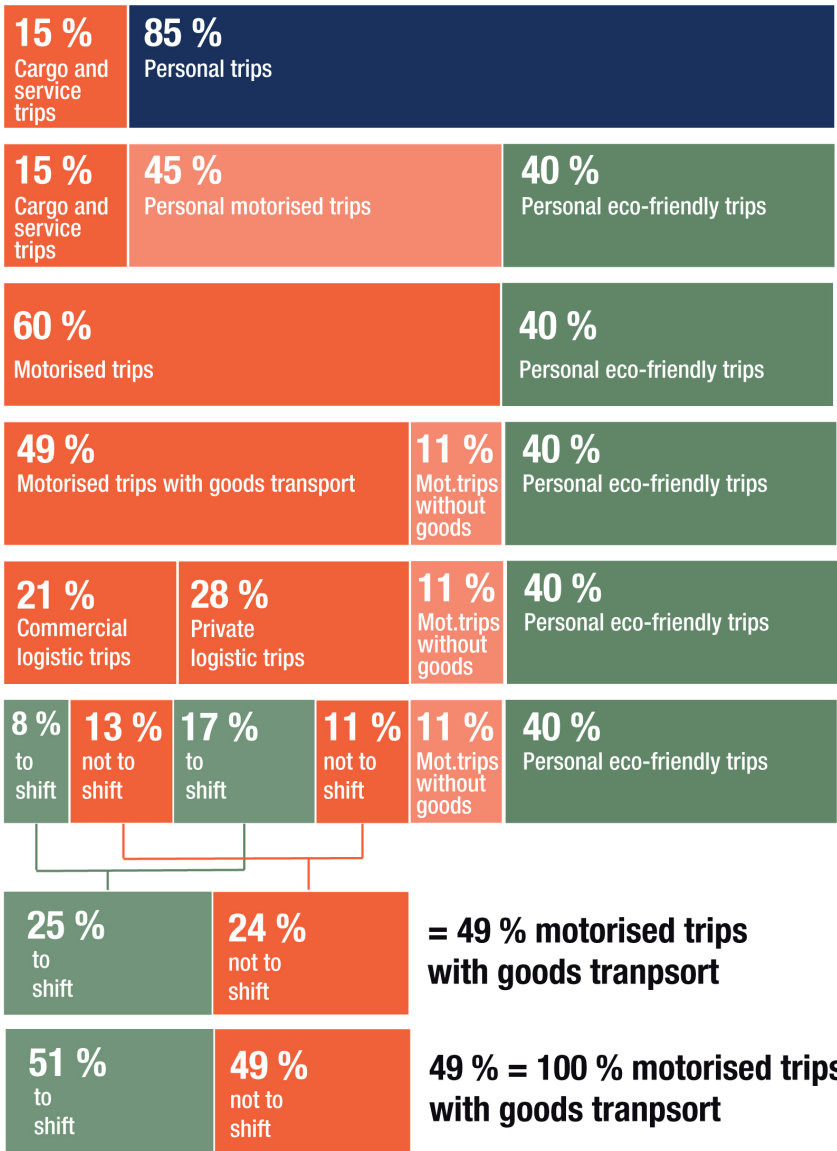
The transport behaviour in European cities varies considerably and there are also different methods for collecting and analysing data. While there is considerable amounts of data on urban passenger transport there is very little on urban goods transport. CycleLogistics carried out a baseline study (see download at cyclelogistics.eu) to compile and analyse the existing data on transport behaviour in European cities. This research resulted in surprising and interesting results.

To obtain a complete image, all delivery and service trips undertaken in a city have to be added to the personal trips undertaken in a city. In the next step we determined the share of motorised trips. The next step looked at motorised trips that were connected with goods transport. This calculation left us with 49% of all trips for further analysis. Taking a closer look at these 49% of motorised trips relating to goods transport, we determined that a share of 21% relates to commercial traffic (delivery, service, business) while 28% of the trips are related to private logistics (shopping, leisure, commuter).

Taking into account distance (less than 7km) and weight (more than a handbag less than 200kg load) and also that part of the trip (business, commuter, leisure) could be

shifted to trip chains e.g. bike and train, we were able to identify the share of trips that could be shifted from motorised vehicles to the bicycle. We see that 25% out of the 49% of all urban motorised trips with goods transport could be shifted to cycling.

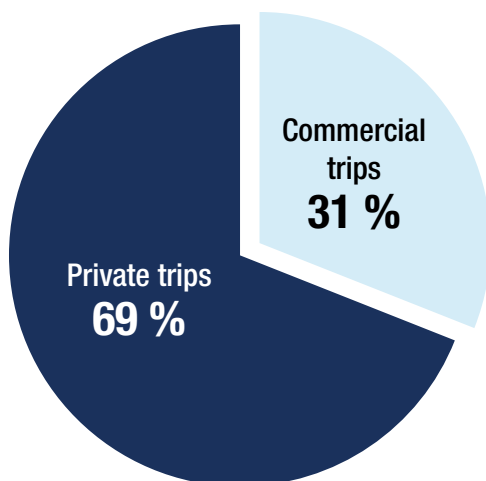
FACT:
IN AN AVERAGE EUROPEAN CITY
HALF OF ALL MOTORISED TRIPS RELATED
TO GOODS TRANSPORT COULD BE
SHIFTED TO BICYCLE OR CARGO BIKE.



Which trips are most suited for a shift to bicycle logistics?

More than two-thirds of all convertible trips come from the private logistics sector (shopping, commuter and leisure trips) while about one-third comes from commercial transport (delivery, service and business trips). Private logistics contributes heavily to motorised transport in cities. But it is often not considered when experts discuss urban logistics.

SHARE OF THE CONVERTIBLE TRIPS



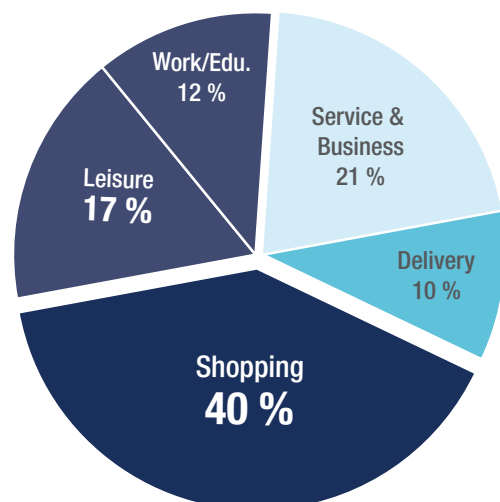
It is interesting to note that shopping trips represent by far the biggest potential for a change from motorised goods transport to bicycle goods transport. Shopping trips alone have greater shift potential than all commercial trip purposes taken together.

But the numbers of shopping trips are changing because of the increasing importance of online shopping. From 2009-2013 online shopping in Germany increased by about 25% and this also affects shopping for daily supplies. This development happened within the period of the CycleLogistics project and online shopping continues to grow. It is for this reason that private shopping trips will be transformed into commercial delivery trips in the future.

This shows that there is no one-sector solution when look-

ing to fully exploit the big potential for CycleLogistics in European cities. An important lesson learnt from the CycleLogistics project is that for a city to gain all the benefits from a shift to CycleLogistics requires a multi-level approach. However, there are so many angles and opportunities that a city could use to start to promote CycleLogistics that it would not be difficult to find an appropriate field for its first attempts.

SHARE OF CONVERTIBLE TRIPS BY TRIP PURPOSE



How CycleLogistics can change the traffic in an average city

In an average European city with 240.000 inhabitants there are about 1.000.000 trips per day.

1,000,000	400,000	600,000	490,000
All trips	Bicycle, pedestrian, Public Transport	Motor vehicle trips	Motorised trips related to goods transport

	NUMBER OF TRIPS PER DAY	NUMBER OF TRIPS TO SHIFT TO BICYCLE & CARGOBIKE	RELATIVE % OF SHIFT WITHIN MOT. TRIPS RELATED TO GOODS
Motorised trips related to goods transport	490,000	250.000	51%
Delivery	100,000	25.000	25%
Service and business	110,000	55.000	50%
Shopping	130,000	100.000	77%
Leisure	90,000	40.000	44%
Commuter	60,000	30.000	50%

FACT:

CYCLELOGISTICS CAN FUNDAMENTALLY CHANGE THE FACE OF A CITY AND CAN CONTRIBUTE TO MAKING IT A BETTER PLACE FOR PEOPLE.

2. Commercial Delivery Using Cargo Bike

THE INCREASING DEMAND FOR DELIVERY OF GOODS INCREASES THE PROBLEM OF CONGESTION, AIR AND NOISE POLLUTION AND DECREASES THE QUALITY OF LIVING IN THE INNER CITIES OF EUROPE. URBAN AREAS OF THE FUTURE ARE LIKELY TO LOOK VERY DIFFERENT FROM TODAY'S WITH CONFLICTS OVER URBAN SPACE PUTTING INCREASING PRESSURE ON LOGISTICS COMPANIES TO DO THINGS DIFFERENTLY.

Research undertaken by the CycleLogistics project has identified significant potential to shift motorised trips related to goods transport to bicycles in European cities. This research suggests that bicycles, and in particular cargo bikes, are a realistic alternative to motorised transportation, and one that is increasingly being used by both individuals and commercial organisations across the EU member states. To encourage and assist individuals and companies with the set-up of more CycleLogistics businesses a Transferable Business Model was developed during the project by partner Outspoken Delivery. This transferable business model is made up of a number of elements which can be utilised separately or together:

- Training for Start-up Delivery Organisations – this will be continued during the follow-up project Cyclelogistics Ahead
- Business Planner – this is available on the cyclelogistics.eu website
- Provision of a Resource Pack for Commercial Delivery using Cargo bikes - this is available on the cyclelogistics.eu website
- Franchise Business Model – a pilot is currently under way in Glasgow Scotland

Unique Selling Points (USPs) for Cyclelogistics

Any delivery business is a tough market to enter and choosing to undertake deliveries using cycles is a tough as it gets. Challenges include the need to change general perceptions and to convince people and customers that cycle delivery is a viable and practical alternative to motorised vehicle in urban areas. Entry level costs for a delivery business are very low and this drives down prices so it is essential to stand out by promoting the USPs of cycle delivery:

USP

Cost Effective (but never say cheap!)

Fast and Reliable

Flexible Delivery Capability

Secure

Professional

Environmentally Friendly – Green

Positive Image – fun, smart, trendy

Local



Potential Customers

When starting up a delivery business the first major challenge is obtaining customers. So rather than waste time and effort on a scatter gun approach it is recommended time is spent identifying customers who may require a local delivery service and have items which can be easily transported by bike.

The following are a few ideas on business sectors to consider approaching:



Equipment Types

THERE ARE A NUMBER OF DIFFERENT TYPES OF EQUIPMENT AVAILABLE FOR A CYCLE



Standard bicycle with shoulder bag or panniers

Payload: up to 40 kg

Equipment cost: 50-250 € (panniers/shoulder bags)

Equipment Suppliers: www.ortlieb.co.uk , www.carradice.co.uk

Company Examples: www.citycyclecouriers-plymouth.com,
www.demarragefietskoeriers.nl, www.superspeed.nl , www.bikepress.net

Advantages

Fast and agile in traffic, ease of use, low purchase cost, low maintenance cost, ease of storage, can be used on-road and off-road cycle paths, easy parking, can be taken on a train.

Disadvantages

Limit to size of packages carried (weight & volume), lack of visibility, negative image, security of bike when making delivery.



Standard bicycle with trailer

Payload: up to 80 kg

Equipment cost: 250 - 500 €

Equipment Suppliers: www.carryfreedom.com www.burly.com

Company Examples: www.cycle4u.co.uk, www.velocitycouriers.co.uk

Advantages

Low purchase cost, low maintenance cost, can be hitched on to many bike types, ability to carry larger loads (up to 80kg), can be used on-road and off-road, potential advertising revenue, Trailer can be unhitched and taken closer to customer.

Disadvantages

Limited cargo security, open to the weather (although closed boxes available), storage when not in use, maintenance of 2 items of equipment, push/pull effect when riding, need to lock bike and trailer, stability.

Cargo bike

Payload: up to 80 kg

Equipment cost: 2,000 - 5,000 €

Equipment Suppliers: www.8freight.com, www.larryvsharry.com, www.urban-e.com

Company Examples: www.outspokendelivery.co.uk, www.velocity.nl, www.biciogistica.it, www.heavypedals.at

Advantages	Disadvantages
Ability to carry larger loads (up to 80kg & 0.5m ³), flexible cargo carrying capability, can be used on-road and off-road, cargo secure and weather protected, designed for purpose (professional), ease of use, potential advertising revenue.	Purchase cost, maintenance cost, storage when not in use, additional bike security required, loading and unloading, greater rider ability required, overloading risk making bike unstable and subject to cracks.



Cargo trike/quad

Payload: up to 250 kg

Equipment Cost: 3,000 - 12,000 €

Equipment Suppliers: www.veloform.com, www.cyclesmaximus.com

Company Examples: www.outspokendelivery.co.uk, www.txita.com, www.vanapedal.es, www.messenger.de

Advantages	Disadvantages
Ability to carry larger loads (250kg & 1.5m ³), flexible cargo carrying capability, cargo secure and weather protected, easy loading and unloading, designed for purpose (professional), potential advertising revenue, mobile distribution capability, comparable with a small van.	Slow in traffic, purchase cost, maintenance cost, storage when not in use, range when fully loaded, may be restricted to road network, parking, greater rider ability required, rider strength & stamina.



For further equipment examples across the four equipment types check out the CycleLogistics product database: <http://www.cyclelogistics.eu/index.php?id=30>

Service Types

THERE ARE THREE BROAD SERVICE TYPES WHICH A CYCLE DELIVERY OPERATION CAN OFFER



Mail

A viable alternative to existing mail services providing substantial savings on postage costs for customers

OPERATING ISSUES

Suited to delivery using standard cycles with or without trailers. Best suited to high density residential/commercial areas in small defined areas. Delivery can be undertaken at any time. Service may be particularly attractive to local authorities and utility companies who need to contact residents/customers and educational establishments who need to contact students.

EXAMPLE: YELLOW JERSEY DELIVERY, COVENTRY, UK

www.yjdelivery.co.uk



Point to point

On demand service where a customer has an item which needs to be collected from “x” for delivery to “y”. Different service level can be provided based on delivery times (e.g. delivery within 1 hour, within 4 hours, etc)

OPERATING ISSUES

Suited to standard cycles (with or without trailers) or cargo bikes but dependent on cargo size. Reliant on customers contacting you, these calls can come at any time. Optimising efficient use of available capacity and riders (e.g. no control over when calls are received or where collection/deliveries are required, and size of cargo to be transported).

EXAMPLES: BIG BLUE BIKE, CARDIFF, UK

www.bigbluebike.co.uk

www.outspokendelivery.co.uk www.velocity.nl www.biciogistica.it www.heavy-pedals.at

Last Mile

Large volume deliveries into a town/city centre from a depot/hub on the edge of a city. Bulk delivery of items by a carrier to depot/hub

OPERATING ISSUES

Suited to cargo bikes and trikes. Usually working on a sub-contract basis for national/international carriers and you may need to conform with their operating procedures and use their technology (e.g. hand held devices for proof of delivery).

Best suited to high density residential/commercial areas in small defined areas. The nature of cargo bikes dictates that range is limited. Need a secure depot where cargo can be stored on an interim basis. Insurance issues (e.g. goods in transit, storage). Security of cargo bike. Recognising capability - the perception of what a cycle is capable of doing means that for many people the idea of carrying cargo by bicycle does not seem either feasible or practical.

EXAMPLE: OUTSPOKEN DELIVERY, CAMBRIDGE, UK

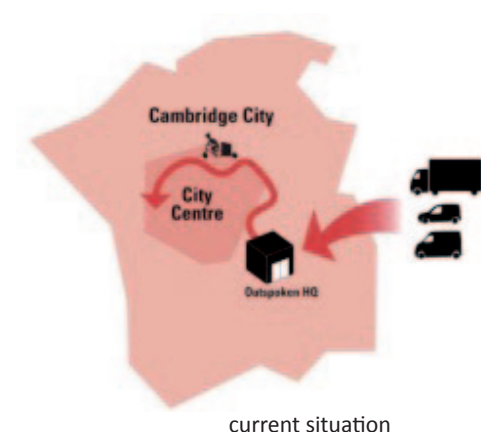
The proposition made to potential customers was that their cargo could be delivered to the Outspoken depot, located just on the edge of the city, and the cargo trikes would be used for the last mile delivery in and around the city centre.

The first contract obtained was the monthly delivery of lifestyle magazines to business and retail premises around the city. Each month 18,000 magazines would arrive at the depot on 2 to 3 pallets in bundles of 20 magazines in a pack. These magazine packs were then distributed to over 400 locations over a two day period, some locations would have over 500 copies while others may only have 20 copies. The success of the distribution resulted in a second magazine distributor asking Outspoken to deliver their competing lifestyle magazine.

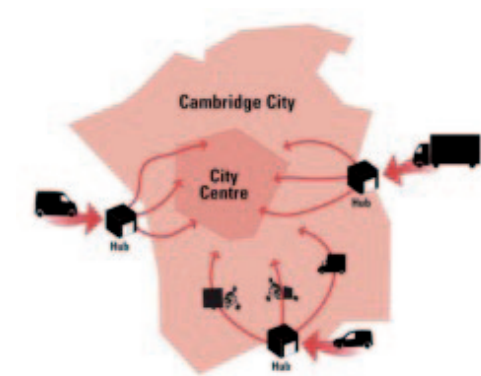
Outspoken currently provide last mile delivery services to two international carriers and a national franchise operator. Up to 300 items are delivered daily to the Outspoken depot on the edge of the city for subsequent delivery into the city centre using their fleet of cargo trikes.

The longer term aim is to work in conjunction with the local authority to develop a network of out of town hubs where last mile services are provided by a range of cargo bike and electric vehicle operators'.

Other examples: www.txita.com, www.messneger.de, www.ecopostale.be



current situation



aim

Other potential services



Bike - Train - Bike Service

A cycle based delivery business is normally local to the area in which they operate, however train connections to nearby larger towns and cities enable the delivery area to be extended. Collect items by bike, hop on the train with the bike and on arrival at the destination city/town, cycle to the final delivery point and provide a courtesy call to the sender to confirm delivery.

EXAMPLE: 5PL, UK

5PL (UK) has been working in partnership with East Midlands Trains and carbon neutral couriers since April 2011 to mould rail and cycle logistics seamlessly into an efficient, greener and cost effective alternative to road transport for the movement of a huge range of products. At a time when the rapid growth in e-commerce is placing an upward pressure on costs and environmental concerns, making better use of resources and existing infrastructure is essential. In this environment rail combined with zero carbon first/last mile transport offers a positive solution to the challenges of sustainable growth.

First Mile (on-forwarding)

The natural progression once last mile operations are established is to develop first mile (on-forwarding) operations. This is where items are collected from customers and taken to your local hub for collection by an international/national delivery company for on-forwarding to a final destination.



Advertising

Trailers, cargo bikes and trikes all have large areas on the boxes which can be used as advertising space. Advertising panels can be attached to the boxes or alternatively the cargo bike or trailer can be fully branded.

EXAMPLE: ARK DELIVERS PERFECT PRESENTS BY BIKE

Outspoken Delivery Cambridge's innovative cycle based delivery company has established a partnership with Ark an independent retailer based in the city centre. Outspoken deliver items purchased from the shop or via the Ark website to anywhere in Cambridge using the Ark branded cargo bike.

Jane Richards owner of Ark said "We are always looking for innovative ideas to promote our store and seeing as Cambridge has such a cycling culture it just seemed natural to provide a cycle based delivery service". Jane's aim for Ark has always been to sell things that nobody else does – and this has certainly been achieved. By providing a cycle delivery service perfect presents can be delivered anywhere in Cambridge.

Marketing & Promotion

TO ESTABLISH ANY BUSINESS AND GET CUSTOMERS REQUIRES A SIGNIFICANT AMOUNT OF TIME AND ENERGY ON MARKETING AND PROMOTION - HOWEVER IT IS EASY TO WASTE MONEY ON MARKETING EFFORT WHICH GENERATES LITTLE OR NO RESULTS.

10 tips on general marketing and promotion activities

1. DON'T WASTE MONEY ON PAID FOR ADVERTISING.

2. DEVELOP RELATIONSHIPS

with local print and broadcast media by proving a steady stream of press releases.

3. DEVELOP AND PUBLISH A SIMPLE WEB SITE

- use lots of photographs.

4. MAKE EXTENSIVE USE OF SOCIAL MEDIA

(e.g. Facebook, Twitter, LinkedIn)

5. APPLY FOR AWARDS.

6. DEVELOP A STICKER WHICH CAN EASILY BE ATTACHED

to any delivery you make - final recipients of a delivered package may not be aware that it has arrived by bike.

7. GET INVOLVED WITH ONE OR TWO LOCAL CHARITIES

and provide a delivery service to them free of charge - tell the media about your involvement.

8. OFFER TO SPEAK AT RELEVANT LOCAL MEETINGS

(e.g. transition movement, green agenda events, etc).

9. WRITE ARTICLES ABOUT THE BUSINESS MODEL AND PROMOTE THEM

to appropriate magazines (e.g. trade journals, lifestyle magazines, etc).

10. ATTEND LOCAL BUSINESS NETWORKING EVENTS

and relevant trade association meetings - be prepared to attend regularly so people get to know you.



Sticker to brand packages that are delivered by bike

Marketing & Promotion

10 tips on targeted marketing and promotion activities



1. DEVELOP A TARGET LIST OF ORGANISATIONS TO WORK WITH

- spend time identifying the right person to contact.

2. ESTABLISH RELATIONSHIPS

with receptionists and administrators at target companies leaving a calling card or freebie with contact details - they are the ones who frequently have to organise deliveries.

3. DON'T BE AFRAID OF TELEPHONE COLD CALLING

don't get disheartened you may have to make contact up to 7 times before they are willing to consider you.

4. FOR SMALLER ORGANISATIONS GO AND VISIT THEM

on your cargo bike - in the first instance people might be sceptical about a cargo bike's capabilities. Show them that it is secure and water tight. If it's safe let them ride it and have a go!

5. IF YOU HAVE A CUSTOMER IN A PARTICULAR SECTOR (E.G. FLORIST)

make contact with their local competitors and subtly indicate that you have demonstrable experience in delivery in that sector.

6. CONSIDER A CUSTOMER COMPLAINT AS A GIFT

make sure you respond accordingly and go the extra mile to put things right.

7. BE PROACTIVE AND LOOK FOR OPPORTUNITIES WITH YOUR EXISTING CUSTOMER BASE

suggest areas where you could enhance their logistics operation (e.g. collect and return packaging which can be recycled).

8. REGULARLY SURVEY YOUR CUSTOMER BASE

ask them what you do well and areas for improvement. Use this as a way of collecting quotes which can be used in marketing material.

9. OFFER TO RUN A FREE OF CHARGE "PILOT" OR "TRIAL"


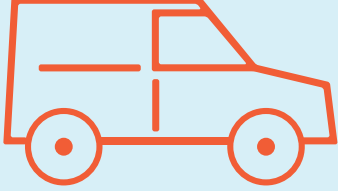
to prove to the customer your capability, reliability and security.

10. DEVELOP A PORTFOLIO OF WRITTEN CASE STUDIES

which can be used as examples when talking to new potential customers.



The Economic Argument

		
TANGIBLE COSTS	CARGO BIKE	VAN
SET UP COSTS		
Purchase Cost	€2,483 (including cargo box)	€3,310 per annum (3 yr contract hire, 10,000 miles pa)
RUNNING COSTS		
Annual maintenance	€237	Included in contract hire cost
Fuel	Zero	€1,334 pa (10,000 miles per year, 56 mpg/12.32 mpl)
UK Vehicle Excise Duty	Zero	€201 pa
Vehicle Insurance	€154 pa	€591 pa
RIDER/DRIVER COSTS		
Hourly pay rate	€9.60	Usually self-employed paid by delivery e.g. €1.59 per delivery
INTANGIBLE COSTS		
Emissions Contribution	Zero	152g/km CO2
Congestion Contribution	Minimal impact	Another vehicle on the road contributing to congestion
Noise		Diesel Clatter
Average speed in city	None	5 to 15 mph (stop/start)
Parking	10 to 12 mph (continuous)	Restricted (risk of parking ticket)
Flexibility	Not a problem	Restricted to the road network
Range	Access to restricted areas and cycle paths	Unlimited
Contribution to rider/driver health	50 miles per day Rigorous daily workout	Sedentary
EXAMPLE DELIVERY COSTS (CAMBRIDGE)		
EXAMPLE DELIVERY 1:		€ 10.05+VAT (€ 12.06)
- A4 Box		Cambridge Van Courier 1
- Collect by 10am, deliver by 5pm	€ 3.66+VAT (€ 4.39)	€ 9.40+VAT (€ 11.28)
- From CB30AY to CB40AY (2 miles)		Cambridge Van Courier 2
Example Delivery 2:		€ 10.05+VAT (€ 12.06)
- 3 x A4 Boxes		Cambridge Van Courier 1
- Collect by 10am, deliver by 5pm	€ 6.15+VAT (€ 7.38)	€ 9.40+VAT (€ 11.28)
- From CB30AY to CB40AY (2 miles)		Cambridge Van Courier 2

Lessons Learnt

CATEGORY	LESSON	DESCRIPTION
CONCEPT ACCEPTANCE	Identified challenges	<ul style="list-style-type: none"> Public perception that cargo bikes are a realistic option for the transfer of light goods in urban areas. Developing and promoting the CycleLogistics concept and defining a credible implementation approach Ensuring the message is being heard by relevant stakeholders who are able to influence and support a favourable environment. Making decision makers in urban areas aware they don't have to be afraid of implementing restrictions for motorised vehicles because cycle logistics will fill the gap.
CARGO BIKES & TRIKES	Bike/Trike reliability	Carrying heavy loads on bikes and trikes and the large number of kilometres travelled undertaken doing deliveries puts a strain on the cargo bike/trike and can result in frame and component failure. The perfect cargo bike and trike capable of handling heavy loads and continual use is still to be designed.
	Fast and reliable	Cargo bikes can get to areas where access is restricted to motorised vehicles. In congested urban areas a cargo bike is as quick if not quicker than a van and can make use of off-road cycling infrastructure.
	Cargo	Cargo bikes and trikes can carry all but the most bulky items (e.g. large white goods, furniture, industrial machinery, etc) in secure and watertight boxes. Packages, parcels, packets, etc, can easily be carried however items such as flowers and food items do require special care and attention when being packaged and loaded.
	Cargo boxes	Cargo boxes to fit cargo bikes tend to not come as standard and have to be specially manufactured. A cargo box for a cargo bike can cost in the region of €500 and for a trike €1,200
ENVIRONMENTAL ISSUES	Impressive green credentials	Cycle based delivery is very green in comparison to other motorised forms of transport with zero carbon emissions and particulate emissions and no noise pollution.
	Promoting the green credentials	The green credentials of cycle delivery are only likely to be of interest to organisations with CSR (Corporate Social Responsibility) reporting requirements such as large national and international organisations and local government/municipalities. In the main smaller organisations are more likely to be interested in service levels and cost.
	Freeing up road space	CycleLogistics can reduce road space used by between 20 to 30% if looked at from static point of view. But this space can only be realised if at the same time there is a restriction on motorised traffic.
OPERATING ISSUES	Security	There is a perception that a cargo bike is an easy target for crime. However it is possible to implement security measures that satisfy the demands of securing loads in lockable boxes and immobilising the bike when parked. In addition, electronic tracking is now possible.

CATEGORY	LESSON	DESCRIPTION
OPERATING ISSUES	Scope of operations	It is unrealistic to think that cargo bikes will be able to replace all forms of motorised delivery in urban areas, however research from CycleLogistics suggests that 25% of all commercial goods could be delivered by cargo bike.
	Proof of delivery and real time tracking	IT solutions for proof of delivery and tracking for cycle based delivery operations are in their infancy when compared to van based solutions, which are also likely to include a number of redundant capabilities. However there are a number of innovative solutions which are starting to become available and aimed at cycle delivery operations.
	Range	The nature of cycle delivery means that the delivery area is restricted in comparison to a van. Cycle based delivery works best where the area being served is densely populated with households and or business premises. New entrants often make their delivery areas too large and spend all their time cycling rather than delivering.
	Optimising cargo space and rider efficiency	To develop a sustainable cargo delivery business a regular and steady flow of business is required. This can only be achieved by the provider undertaking regular daily work on a contract basis. Cycle messenger services can provide a reactive service, however cargo delivery requires more planning to ensure optimal efficiency of the available cargo space and rider.
	Delivery area considerations	Size of delivery area. Time required to travel between extreme points in the area. Time/distance between key points. Keeping delivery areas small. Natural and man-made obstacles which might adversely affect delivery times. Identifying cycling infrastructure such as off-road cycle paths which can be used to improve delivery times. Identifying congestion hotspots and faster alternative routes.
	Last mile operations	The introduction of last mile services provides the main route to expanding cycle delivery operations due to the volume of deliveries likely to be involved. Although delivery prices will be squeezed, the volume makes up for this, as long as the delivery area is densely populated.
STAFFING ISSUES	Rider capability	Riders are likely to clock up many kilometres per day doing deliveries. It is unrealistic for riders to undertake this level full time on a daily basis without burnout after a few months. However, using a team of part-time riders provides greater flexibility and allows riders to fit in work around existing obligations.
	Rider training	Cargo bike riders need to be confident cyclists and be comfortable riding in traffic with a loaded cargo bike. Special care needs to be taken with road positioning and filtering/riding in congested areas. If a suitable training course exists for on road cycling then riders should be encouraged to undertake an appropriate course - in the UK there is the Bikeability training scheme.
	Branding	In order to promote a business it is essential that a clear and distinct brand is developed and reflected across all aspects of the business for example, rider uniform, bike branding, etc.

3. Establishment of the European CycleLogistics Federation



ACROSS EUROPE MANY ORGANISATIONS MAKE USE OF CARGO BIKES TO UNDERTAKE AND SUPPORT THEIR DAILY BUSINESS OPERATIONS.

The main example being cycle based delivery companies, however there are other examples including tradesmen such as plumbers, electricians, gardeners, also catering operators like mobile coffee, ice cream vendors, and providers of municipal services such as waste collection.

Discussions with the cycle based delivery companies around Europe has highlighted that there is no one group or professional body which represents and supports their needs. As a result and with encouragement

from CycleLogistics it was concluded that the European CycleLogistics Federation (ECLF) should be established to give the sector a voice and demonstrate to relevant stakeholders the potential and relevance of the cargo bike.

CycleLogistics partner Outspoken Delivery was given the responsibility of establishing the Federation.

HISTORY OF THE FEDERATION

In July 2012 the first meeting of the European CycleLogistics Federation was organised in Cambridge, UK and the day long conference was attended by over 60 participants from across Europe.

In October 2012 a Federation website (<http://federation.cyclelogistics.eu>) was launched, which was developed and hosted by the CycleLogistics project. The website will continue to be hosted by the follower project CycleLogistics Ahead. It includes a members directory, resources, events and news pages and forums for members to share information and communicate with each other. Technical support for the web site continues to be provided by the CycleLogistics project.

WWW.FEDERATION.CYCLELOGISTICS.EU

To date there are over 150 signed-up members from all over Europe distributed as shown in the map.

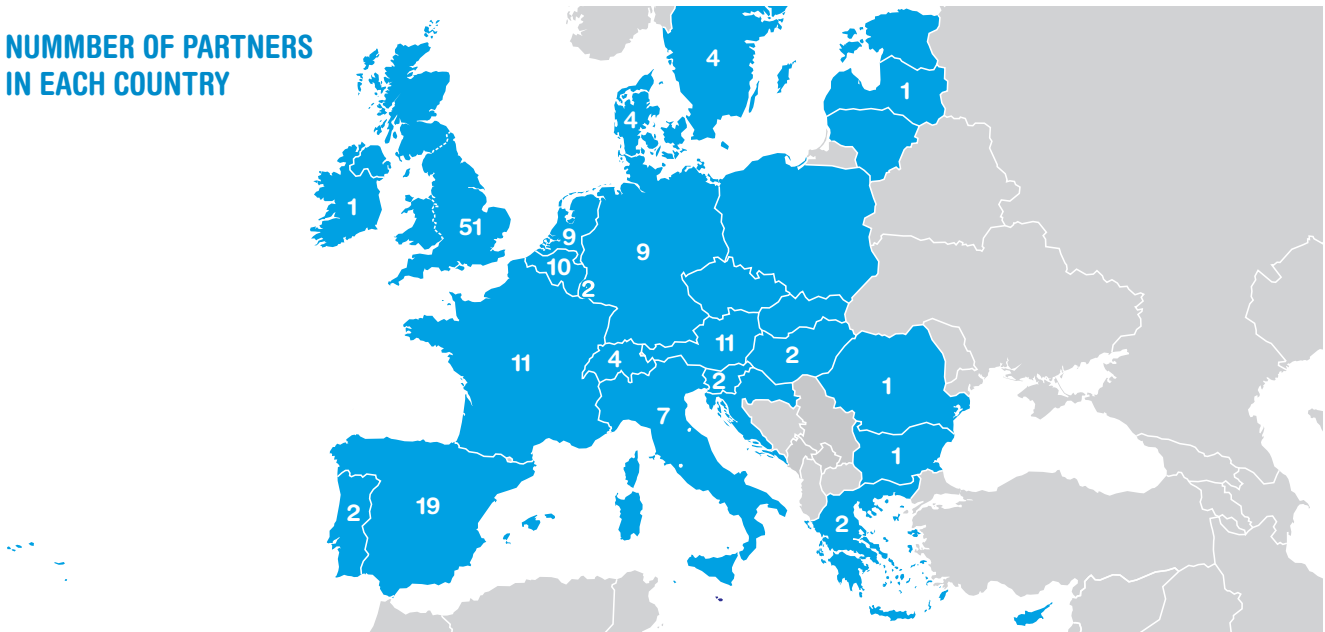
A second European CycleLogistics Federation Conference 2014 was held on Saturday 12 April 2014 in Nijmegen, Netherlands and formed part of the International Cargo Bike Festival. Over 200 participants attended the conference.

Since its inception the Federation has been invited to a number of events and exhibitions. In addition the Federation was asked to contribute to a white paper on Carbon

The aims and objectives of the Federation include:

- Highlighting best practice
- Sharing knowledge and experience
- Establishing lobby groups to influence relevant stakeholders
- Identifying opportunities for shared promotions, marketing and costs
- Establishing appropriate information resources
- Providing training and advice
- Supporting cycle logistics operators and new businesses/ social enterprises

NUMBER OF PARTNERS IN EACH COUNTRY



Free Urban Logistics for DG Move (The Directorate-General for Mobility and Transport who are in charge of developing transport policies for the European Union). The Federation members were asked for their views and subsequently the European Cyclists' Federation used the responses and prepared a position paper.

A formal legal entity, constitution and operating board has been established along with an approach to securing a self-funding and sustainable future.

FEDERATION AIMS & OBJECTIVES

The main objective of the Federation is to develop and implement a strategy for transferring as much as possible of the freight/goods moved within the urban environment in Europe, from motorised vehicles to cargo bikes / trikes / quads or electrically-assisted (pedelec) cycles / trikes. In addition, it will support any business or social enterprise which uses or intends to use cargo bikes to undertake its operations or services.

MEMBER SERVICES

The following are potential services which will be provided to members

- Training - start-up, business development, marketing & promotion, etc
- Accreditation and/or bench-marking schemes
- Representation when talking to relevant stakeholders
- Group insurance schemes - goods in transit, employer liability, public liability
- Equipment information and evaluation - cargo bikes, software, PDA, etc
- Collective negotiating with big delivery companies
- Template standard forms and policy documents - terms of employment, trading terms & conditions, etc
- Resources - case studies, carbon foot-printing tool, media resources
- Branding
- Annual conference and exhibition

4. Municipalities & Small Businesses

What can cities & regions do to promote Cyclelogistics?



Why support Cyclelogistics and how?

EUROPEAN CITIES COULD CUT LOGISTICS TRIPS BY OVER 50%, BY SHIFTING THEM FROM MOTOR VEHICLES TO BICYCLES. DOING SO REDUCES CONGESTION, ENERGY USE, AIR & NOISE POLLUTION, ENHANCES QUALITY OF LIFE, SUSTAINABILITY AND MANY OTHER BENEFITS.

So, how can cities and regions assist in developing policy and practices that favor delivery of goods and services by cycle?

The two main areas addressed here are how cities can do it, and how they can support it.

Readers will learn how cities across Europe currently use cargo bikes to deliver goods and services by cycle, and how they are including cargo cycles in their municipal vehicle fleet. The real life examples reported include, contracting delivery services to a cycle-based company, adding electric-assisted cargo bikes to an existing municipal fleet, and opening cycle storage facilities for public use, as well as several more.

Also provided are examples and case studies on how cities provide supportive framework conditions and other circumstances favourable to cycle-logistics. A comprehensive overview of municipal policy options to promote cycle logistics is presented. Examples of cities taking practical steps are offered, including provision

of free cargo bikes for use by citizens and small businesses, and cargo bike parking options. Two case studies show the type of municipal support that companies can use in developing cargo bikes services.

The information is based on experiences and information gathered by the people developing and implementing the EU funded project called “CycleLogistics”, and the lessons they learnt as well as other good practice examples.

CycleLogistics: Cities that do it

Cities which are engaged in CycleLogistics are from places as diverse as Cambridge & Hereford UK and Plovdiv BG, Utrecht NL and Graz AT. Following is a story of how a city tried to reduce traffic collisions and ended up having their internal post as well as officials’ meeting documents handled by a cycle-based delivery company. In another city, the city provides cargo bikes to staff as well as parking and facilities for privately owned cargo bikes.

Several cities and companies use cargo bikes to collect and transport waste: from trade & business and from public parks. In addition to standard delivery of parcels and post, another city logistics task described here is land surveying.

While waste handling may not sound very glamorous, doing so with cargo bikes has proven to be popular, and not just in the Netherlands! In one Austrian city the cargo bike waste collection story was blogged about and



it became popular with locals. Other city staff requested cargo bikes, and more were ordered. In Bulgaria, when the cargo bikes were transferred to another city agency after an extended trial period, the staff insisted they wanted them back.

The section includes comprehensive lessons learned about municipal use of cargo bikes from two very different sources: a UK delivery company that has won some but not all bids to provide services to local authorities, and an energy agency in Eastern Europe that worked with a city to trial cargo bikes used by city employees for municipal services.

CAMBRIDGE's long road to cycle-logistics success

CAMBRIDGE UK - Traffic restrictions were first introduced in the city centre in 1977 after a number of years' experimentation but were never properly enforced. Physical barriers (rising bollards) were introduced in the late 90's and early 2000's which allowed buses and taxis to enter the city at all times but physically stop all other traffic. In 1992 the access restrictions were extended to cyclists as well and it was not until 2005 following extensive campaigning by the local cycling group that the ban was finally lifted.

Today access to the inner city area is physically restricted to motorised vehicles between 10am and 4pm every day. There is a mad rush of delivery vehicles making their way to the access points before the bollards rise at 10am. Local cycle based delivery business Outspoken Delivery, founded in 2005 have benefitted from this initiative as they can still access the city centre during the restricted hours and some delivery firms make use of their services by dropping their loads at the Outspoken depot for subsequent last mile delivery by cargo bike into the city centre.

Interestingly, although the restricted access is beneficial for goods delivery by cargo bike, this is very much an accidental benefit as the main reason for its introduction was to ease the conflict between pedestrians and motor vehicles in the narrow streets.

Outspoken Delivery has bid to provide services to Cambridge City Council covering a number of areas: Internal mail delivery for the city on a daily basis; delivering key documents on a time critical basis; and an unsuccessful bid to collect business waste. These are described here.

INTERNAL MAIL DELIVERY USING CARGO BIKES

Cambridge City council operates from 15 separate sites located throughout the city. Given the bureaucratic nature of the work the council undertakes, a considerable amount of mail is received on a daily basis, and this has to be dis-

tributed to appropriate departments and offices to action. In addition the departments also generate a large amount of material which needs to be shared and also posted externally. The internal mail service was being run by two dedicated staff that used a van to distribute items around the council offices and to other locations.

Due to the financial downturn of 2008 to 2013 local councils across the UK were required to identify and make significant cost savings. In Cambridge one potential cost saving was to investigate whether cargo bikes could be used to provide the current internal mail distribution service.

In late 2012 Outspoken Delivery were asked to run a trial over a defined period to see if cargo bikes were a viable and practical alternative to the current service. The trial ran over a period of 3 months and was seen to be an overwhelming success, however to continue to operate the service the Council was obliged by law to undertake a formal tender process for potential service providers to respond against. The resulting contract would be awarded on the basis of the most economically advantageous bid in accordance with criteria/weightings covering price and quality.

Outspoken responded to the tender and were successful in winning the contract. The key aspects of the contract and service provided include:

- Outspoken provide daily postal, DX (document exchange) and internal mail delivery services for the council.
- Deliveries are undertaken using the Outspoken fleet of cargo bikes and trikes. At the larger sites it is necessary to walk the items around various departments on different floors of the building being serviced.
- The Outspoken riders are employees of Outspoken Delivery, trained to the national standards of cycling and regularly assessed and monitored. They are also CRB (Criminal Record Bureau) checked.

MEETING PAPERS DELIVERY TO COUNCILLORS

Cambridge City council has 42 elected council members who regularly attend formal council and sub-committee meetings. All meeting papers including minutes of previous meetings, agendas and supporting documents are packaged by the City Council and collected from the main council office by Outspoken Delivery and delivered to the councillors' homes by cargo bike. Deliveries are requested by the City Council 2 to 3 times per month.

BUSINESS WASTE COLLECTION

Outspoken Delivery outlined a proposal to collect trade waste (e.g. packaging, plastic, paper) from retailers in the city centre. However Outspoken were unsuccessful in obtaining this business primarily because the local

municipality wanted to outsource their whole waste collection operation for both residential and business to a single company. A summary of what was proposed is presented in Appendix.

Lessons Learnt working with local authorities in Cambridge, UK

- 1 Cities can have logistics services provided by bicycles, including internal post, and other time critical deliveries.
- 2 Companies wishing to provide them must follow standard procedures. When they do so, they can be successful.
- 3 As local authorities are responsible for spending public money all decision making requires scrutiny and review to ensure value for money is achieved. This scrutiny slows decision making.
- 4 Local Authorities in UK are required to undertake a competitive tender process if they intend to outsource any services. However the tender document may not necessarily be prepared to allow a cargo bike based solution to provide a favourable solution and hence decision makers may need to be educated as to the capability and opportunity.
- 5 Local authorities tend to require a service provider that can offer a complete solution, arguing that this is easier to manage and allows the greatest efficiencies to be achieved. Given the range and weight limitations of cargo bikes it may not always be possible to provide a complete solution so the service may have to be split. Where this is the case the decision makers need to be convinced that the benefits outweigh the limitations.
- 6 When working with local authorities it may be necessary to run a pilot or trial so that the decision makers can see if the service is practical and viable.
- 7 Local authority tender documents are normally in a set format requiring a detailed response to set questions and accompanied by supporting documentation.
- 8 Local elected councillors can be useful allies when trying to persuade a municipality to consider cargo bikes as a potential solution within the areas or within the municipality itself. Organise meetings with councillors and outline the scope and scale of the services which can be provided and suggest areas within the municipality where cargo bikes could potentially be used. They may be able to influence the municipality officers to consider the proposed solutions.

Case Study – Business Waste Collection: Hereford Pedicabs & Cargo, Hereford, UK

Hereford Pedicabs and Cargo offer passenger transport, parcel delivery and town centre recycling scheme. Using trikes with bespoke cages they collect paper, cardboard and plastics from over 370 businesses. Income is generated from both the collection and the sale of the collected items to recycling firms. At the time of writing, they also plan to offer cargo-bike hire to the public.

www.herefordpedicabs.com

Utrecht provides a fleet of cargo bikes, free storage, repair services and more

The municipality of Utrecht NL recently opened its first multipurpose bike parking facility. The main feature is free short term cycle parking. Other facilities include lockers, a bike repair station, and rental of electric cargo bikes, bike trailers and buggies for kids. These facilities are either free of charge or at a very low cost in order to promote shopping and transporting goods by bike. For example, the first day of parking is free of charge, and €0.50 per day thereafter. Cargo bike rental is 1€/hour and trailers cost half as much. The city states that the purpose of providing these services is to reduce private motor vehicle traffic, while supporting private, business and commercial needs.

City tests use of electric cargo bikes

A separate initiative by the municipality of Utrecht was to purchase an electric cargo bike for internal post delivery between offices in the municipality. There was an existing fleet of service bicycles, but this is the first pilot extending the fleet to include (electric) cargo bikes.

LAND SURVEYOR WANTS A BIKE, NOT A VAN IN THE MUNICIPALITY OF UTRECHT ONE OF THE LAND SURVEYORS ASKED HIS SUPERIOR TO PURCHASE A CARGO BIKE INSTEAD OF A MINIVAN FOR HIS WORK. HE ARGUED THAT A CARGO BIKE COULD ACCESS HIS WORKSITES MORE EASILY. AND HE COULD ALSO AVOID PARKING PROBLEMS THUS SAVING TIME. HE HAD TRIED OUT ONE OF THE TRIAL CARGO BIKES AS PART OF THE CYCLELOGISTICS PROJECT.

Municipal use of cargo bicycles in PLOVDIV, Bulgaria

As part of the CycleLogistics project, the Municipality of Plovdiv trialed two cargo bicycles for park maintenance at the city's largest sports and recreational area, a favourite place for many to bike, exercise, walk and enjoy the outdoors.

The two cargo cycles replaced an old, inefficient GAZ truck and were used for park maintenance works and collecting waste bins along the rowing channel. The users of the cargo bikes were highly satisfied with the cargo bicycles because they made it easier for them to do their tasks, transport tools, and be moving actively throughout their work day. The bikes were produced in Bulgaria by the Margal company in Stara Zagora, who gave a discount for the purchase of the bikes. Each cost €500 including maintenance for the

duration of the project.

Due to public interest and positive feedback to the trial, the CycleLogistics cargo bicycles will be put to permanent use at the sports and recreational park. Another benefit of their use there is that they are visible to the many park visitors and could inspire other applications – both private and business.



Cargo bikes used for municipal services like watering flowers



The Danish Post delivers by cargo bike

Lessons learned in Plovdiv, Bulgaria

The first, and most basic lessons learnt are the critical ones. The trials showed that park maintenance works can be done by city employees with cargo bicycles. Likewise, garbage collection can be done with cargo bicycles.

The second lesson is only possible due to the first: Using cargo bicycles saves money and fuel.

It is worth noting that there was significant reluctance in Plovdiv, as was noted in Graz. The staff were initially unconvinced about the benefits and ease of use of the cargo bicycles. But after trying them out, they gave them very positive feedback. When the bikes were given to another entity, the staff demanded to have their bikes back. Our conclusion is that once these bicycles have been tried, they are very much appreciated by the users.

Finally, the experience of the staff in Plovdiv was that using cargo bicycles makes the work of the park maintenance staff easier and more enjoyable. This is because they are actively moving and transporting their tools.



Graz started with a street cleaning service by cargo bike

Graz, Austria: A Folk hero street cleaner and his irresistible cargo bike

As part of the CycleLogistics project co-funded by the EU, the mobility research agency FGM lent one cargo bike to the city of Graz. The purpose was to learn if such a bike would be suitable for street cleaning. The bike had been custom-made by Christiana bikes to the specifications of the Graz street cleaning department. It took quite some time to find someone on the city staff who was willing to use the specially built cargo cycle. Finally

“Alois” agreed to try the bike. He was an instant success with the citizens of Graz. There is a blog about him (in German): <http://blog.holding-graz.at/unterwegs-mit-alois/> The city of Graz purchased the electric-assist cargo bike.

Since that time other staff also asked for such a cargo bike. As a consequence, the city of Graz ordered two additional electric Christiana cargo bikes. They are used for street cleaning, and the staff are very happy with them. Another blog tells a bit of the story (in German): <http://blog.holding-graz.at/sauberkeit-reinigungsdienst/>

Conclusions

Cities across Europe can make good use of cargo bikes. They can be applied to a variety of different tasks, including, but not limited to delivery of post and parcels, parks maintenance and waste transport. In the cases reported here, municipal staff using cargo bikes are invariably satisfied with the vehicles. So much so that other staff request to have cargo bikes to carry out their duties. Thus, providing cargo bikes to staff for trial is a good means of introducing them to the city vehicle fleet.

The cost savings are significant, related to less fuel usage, lower maintenance costs, and much lower capital costs. There are significant reductions air and noise pollution. All these benefits accrue to the city and its citizens.

CycleLogistics: How to Support it

In the previous section, we saw how cities can engage in the business of CycleLogistics, by including cargo bikes in their vehicle fleet for use by city staff carrying out logistics tasks. This section focusses on how cities can support the concept of moving goods by cycle, with policies and practices.

A WIDE RANGE OF OPPORTUNITIES EXISTS FOR CITIES TO SUPPORT CYCLELOGISTICS. THEY INCLUDE:

- developing a logistics plan with restrictions on access times or vehicle types,
- demanding management solutions such as parking restrictions and congestion pricing.
- Contractual delivery service provision preferences (bikes are best),
- subsidies for purchase or rental of cargo bikes
- promoting shopping by bike.

Some quite practical things that cities can do include providing a fleet of public cargo bikes, advertising on cargo bikes, and arranging meetings with cycle delivery providers with city officials.

Cycling Framework conditions Recommendations³

Cycling (in general) has many advantages, and it offers towns and cities the chance to put transport on a more sustainable path. The core message is that cycling transport can be produced just like any other kind of transport. However, introducing coherent pro-cycling policies needs to go hand in hand with measures to curb individual motorised transport. From the ECF point of view, this can be achieved by a number of demand management measures as well as by a strict application of the “Polluter pays” principle.

Coherent pro-cycling policies

Human-powered mobility, of which cycling is a part, has to be put on equal footing with public transport and individual motorized transport: This implies the establishment of a third pillar in transport planning administrations at every political level: local, regional, national, European. A pillar in its own right means dedicated staff working on human-powered mobility solutions and having adequate financial means at its disposal to plan, finance, and maintain walking and cycling infrastructure, etc.

INVESTMENTS IN CYCLING INFRASTRUCTURE

EU transport infrastructure money spent on cycling stands currently at 0.9 %. This is clearly insufficient and needs to increase considerably. This figure varies considerably ac-

ross cities and regions in the EU. However, in most cases, budgets for the provision of adequate bicycle infrastructure should be increased dramatically. Planning for development and maintenance of urban and intra-urban roads, intersections, etc, bicycle provisions should be made obligatory.

SAFE DRIVERS AND VEHICLES

Cycling gets safer the more cycling there is, so encouraging cycling must be central to road safety policies at all political levels. Also crucial is the perception that cycling is a safe thing to do in an urban environment.

Measures to be taken include:

- Making 30 kph the speed limit on most urban streets;
- Lowering speed limits wherever possible elsewhere and tackling speed;
- Making ‘Bikeability’ cycle training available to everyone, especially children. Future mobility patterns are very much decided in the adolescent age;
- Strengthening road traffic law and, crucially, its enforcement;
- Addressing the disproportionate threat from lorries; preventing large lorries from entering inner cities;
- Monitoring the perception of danger that prevents people from cycling, instead of simply recording casualties alone. The perception of the parents is also crucial: they decide whether their child cycles or is driven to school.

AWARENESS CAMPAIGNS

In many countries, successful cycling awareness campaigns have been introduced. They include “Cycling to School”, “Cycling to Work”, “Cycling to Shop”. Cities should support these kinds of campaigns.

BETTER PROVISION FOR COMBINING CYCLING AND PUBLIC TRANSPORT USE:

The integration of the bicycle with the public transport system is imperative and has advantages for both sides:

- a) Well integrated they constitute a viable alternative to the use of the private car, even for longer distances;
- b) Cyclists are important feeders for the public transport system, contributing to the economic efficiency of the latter. We therefore need:
 - Good access to, from, through and within stations and interchanges for cyclists;
 - Safe and secure cycle parking, storage and hire facilities at stations and interchanges;
 - Provision of adequate space for carrying cycles on public transport.

INTELLIGENT TRANSPORT SYSTEMS (ITS)

ITS can contribute towards solving urban transport problems in many ways and can improve cycling in an urban environment. However, increasing car

road capacity by means of ITS is not the approach to be pursued as it will increase traffic volumes. This is not desirable.

Demand management solutions

DECISION-MAKERS HAVE A NUMBER OF DEMAND-MANAGEMENT MEASURES AVAILABLE IN ORDER TO CURB INDIVIDUAL MOTORISED TRANSPORT.

PARKING RESTRICTIONS

This is a very powerful tool to help reduce private motorised transport. It makes motor vehicle use less attractive by increasing the monetary and non-monetary costs of parking, introducing greater competition for limited city or road space.

CONGESTION PRICING

Another tool to ease congestion is to introduce a system of congestion charging. From a European perspective, the congestion charges in London, Stockholm and Milan are of particular interest. The systems in place have proven to be successful. Demanding a price for a particular service – using a road to enter the

inner city centre at a specific time – has reduced traffic volumes by 10 to 30 % in these districts. At the same time, air quality improved, the use of sustainable transport modes increased, thereby reducing the external costs of transport.

There are also schemes in smaller cities in place, such as in Durham, UK. The British city introduced charges in October 2002, reducing vehicle traffic by 85% after one year.

ECF favours congestion pricing. However, in our view, we need to go beyond existing schemes, heading towards a strict application of the “polluter pays” principle: every motorised journey is producing external costs which should not be borne by the society but by the user itself. Clearly, the extent of external costs depends on the type of vehicle, type of road being used at what time, etc.



TABLE: INITIATIVES EMPLOYED BY CITIES TO REDUCE CONGESTION, POLLUTION AND NOISE AND TO ACTIVELY ENCOURAGE SUSTAINABLE OPTIONS SUCH AS CYCLING:

	INITIATIVE	DESCRIPTION	EXAMPLE IMPLEMENTATIONS
1	Restricted access	Access restricted to motorised vehicles during defined times or all the time	In many/most European inner cities
2	Congestion charge	Motor vehicles pay a charge to enter a defined area within a city	London, Stockholm, Milan, Durham, Valletta
3	Low emission zone (LEZ)	A geographically defined area which seeks to restrict or deter access by specific polluting vehicles or only allow low-emissions vehicles	London, Berlin, Cologne, Hannover, Gothenburg, Malmo, Stockholm
4	Road space rationing	Restricting access to city centres based on defined criteria (e.g.. cars with even number plates in Paris)	Paris

Support measures to promote cargo bikes



MUNICIPALITY FUNDED CARGO BIKE PURCHASE FOR BUSINESSES, ORGANISATIONS AND HOUSING

The City of Graz has introduced a subsidy that serves to reduce motorised business related traffic within Graz.

The measure clearly contributed to the great number of new cargo bicycles in Graz that are visible on the streets of Graz now. The city funds the purchase of 1 cargo bike per business, organisation, institution or even housing estate community with 50% of the purchasing price or a maximum of €1000. The measure demonstrates how municipalities can have a positive influence on the use of cargo bikes. A more detailed description of the funding scheme can be found in the Resource Package for cities and regions on the CycleLogistics website.

MUNICIPALLY SPONSORED CARGO BIKE LOAN SCHEME

In Copenhagen, cargo bikes have always been an important part of urban transportation, and in recent years their numbers have skyrocketed. As it stands in 2014, 25% of all families with two or more children own a cargo bike. But there are still many residents who appreciate the carrying capacity of these bikes, but don't have the budget to buy just yet. About 10 years ago the neighbourhoods of Christianshavn and Indre By (or Inner City) observed this and developed a scheme in which local residents could rent a cargo bike for a few days (for free!) to help with whatever they needed: ushering kids around, moving furniture, buying groceries for a dinner party, etc. Armed with a fleet of 14 beautiful green Nihola bikes, the goal was to encourage people to switch from car to bike, even if their everyday two-wheeler was not capable of handling a heavy load. The program has been a huge success and continues to this day. They have also opened up the program to more people by allowing residents who are curious about these bikes to take a test run before investing in one of their own. This great initiative has not only helped to decrease pollution and congestion in the city, but it also increases access to the city and makes the simple act of movement – even with large or cumbersome objects – much, much simpler.

Ultimately, this scheme is important for two reasons. The first is simple: it gets more people out of their cars and onto bikes. It allows residents more freedom and makes urban living more enjoyable for everyone, which makes a city a better place.

Charging no cost for this rental scheme removes the price barrier, which can be substantial for young and lower income residents. Secondly, and perhaps even more importantly, it sends the clear message that cargo bikes are a vital part of the city's transportation network.

The city's municipal offices not only use them, but they actively encourage private individuals and businesses to use them too by offering them free of charge. It shows your average family or small business owner that a car is often unnecessary, and that a workhorse bike can easily take its place for most tasks. This program is a prime example of a city embracing the ideals of CycleLogistics. One can only hope that the scheme not only continues to thrive for years to come, but that its success allows it to expand to other neighbourhoods and municipalities.

PARKING SOLUTIONS

The cargo bike boom in Copenhagen is a wonderful thing. But the many cargo bike owners present a challenge for planners of how to accommodate them on the streets. Providing safe and abundant parking is the most important concern. Therefore, in 2009 the city of Copenhagen launched a prototype of an innovative cargo bike parking solution in the city's Vesterbro neighbourhood: the Cargo Bike Car.

The symbolism of this bright pink "car" was masterful. On the street it takes up the same amount of space as an actual car, but holds four cargo bikes. It's made of fibreglass and has four individual lockable compartments, allowing cargo bike owners peace of mind, as these bikes are a prime target for the city's bike thieves.

Unfortunately, due to political changes in City Hall, the cargo bike "car" was removed and the city was left without a solution for cargo bike parking. Seeing this gap, Copenhagenize Consulting teamed up with a British firm, Cyclehoop, to develop a new on street cargo bike parking option, called the Copenhagenize Bar. With this flexible, modular cargo bike solution, cargo bike users simply roll their bike into the designated space and lower the bar between the seat and the cargo bay. The bar then snaps into place, and can be locked with a standard bike lock.

The measurements were designed so that the bar can safely accommodate all cargo bikes currently on the market in Denmark. A future generation of this design could feature a subscription service and a chip card (similar to bike share services) so that the bar can be locked and released with the swipe of a card, eliminating the need for a lock. One can hope that Copenhagen and other cities will recognise the need for and benefit of having a unique and flexible on-street cargo bike parking solution to accommodate the ever-increasing number of cargo bikes.

Support and promotion of Shopping by bike

(SOURCE: GOOD PRACTICE GUIDE D3.5 SHOPPING)

THERE ARE MANY MYTHS WHEN IT COMES TO TRANSPORT MODE OF CUSTOMERS TO SHOPPING AREAS AND SUPERMARKETS. MOST ARE BASED ON PREJUDICES THAT ACCESSIBILITY BY CAR IS THE MAIN FACTOR FOR SHOPS TO HAVE HIGH TURNOVER. IN REALITY IT IS BECOMING CLEAR THAT OTHER FACTORS DETERMINE WHETHER PEOPLE ARE VISITING A SHOPPING CENTRE, SUCH AS ATTRACTIVENESS, DISTANCE, VARIETY OF SHOPS AND AMBIENCE.

RECOMMENDATIONS FOR INCREASING BICYCLE USE FOR SHOPPING

- promote short trips policies
- create and promote bicycle parking near shops and shopping centres
- avoid planning large shopping malls outside cities
- Promote small and medium sized shopping malls
- disseminate information about the high purchase power and turnover by customers on cycles compared to cars
- shorten distances and barriers for cyclists: good parking facilities, short distances
- create extra carrying volume for cyclists by promoting use of trailers, crates and bags
- create a publicity campaign to seduce car drivers into making short shopping trips by bike
- reduce the amount of free car parking availability
- stipulate that building permissions for new supermarkets should be linked with promotion of cycling

More information relevant to cities interested in increasing bicycle use for shopping can be found in the resource pack for shops: www.cyclelogistics.eu
Topics covered include: City distribution centres, Parking Pull and push, Pick up centres, Delivery Services.

Good practice examples from across Europe

We have attempted to demonstrate what cities are doing already and some of the recommendations for policies and practical steps cities can take to promote and increase cycle logistics. For a large selection of good practice examples and case studies please refer to the Resource Pack for Cities and Regions on the CycleLogistics Website.



THINGS A CITY CAN DO

THIS LIST IS INTENDED TO STIMULATE AND ENCOURAGE CITIZENS, BUSINESS PEOPLE, CITY STAFF AND OFFICIALS TO TAKE CONCRETE ACTION TO MOVE MORE GOODS BY CYCLE IN YOUR CITY.

- **PROVIDE BETTER INFRASTRUCTURE** for bicycles and cargo bikes'
- **FAVOUR CYCLE LOGISTICS** in procurement procedures of municipalities
- **RESTRICT ACCESS TO MOTOR VEHICLES, UNRESTRICTED FOR CYCLE DELIVERY**



- provide supportive **FRAMEWORK CONDITIONS** for cycle delivery
- establish coherent **PRO-CYCLING POLICIES** on equal footing with public transport
- implement **DEMAND MANAGEMENT MEASURES**
- apply a **"POLLUTER PAYS PRINCIPLE"** (Road pricing etc.)
- promote cargo bikes through **FUNDING AND RENTAL SCHEMES**
- make encouraging cycling central to road safety policies
- make **30 KPH THE SPEED LIMIT** on most urban streets, **LOWER SPEED LIMITS WHEREVER POSSIBLE**

- strengthen road traffic law and enforcement;
- **ADDRESS THE THREAT FROM LORRIES**; prevent large lorries from entering the inner city
- monitor perception of danger that prevents people from cycling,
- have safe, covered **CARGO BIKE PARKING**
- **PROVIDE FREE TRIALS OF CARGO BIKES, OR LOW-COST RENTAL OPTIONS**



- solicit suggestions from staff and public on options to replace cars, vans & light trucks
- **MAKE CYCLE DELIVERY THE FIRST CHOICE FOR DELIVERIES TO AND FROM MUNICIPAL OFFICES AND OTHER CITY FACILITIES**
- When **TENDERING FOR LOGISTICS, INCLUDE CYCLE DELIVERY AS A PREFERRED OPTION**

- **RUN A PILOT** or trial with cycle delivery to see if the service is practical and viable
- contract delivery services to cycle-based company
- **ESTABLISH A MUNICIPAL FLEET OF BIKES & CARGO BIKES**
- **ADD ELECTRIC-ASSISTED CARGO BIKES** to the existing municipal fleet
- take out contracts for advertising that appears on cargo bikes
- **OFFER CITY STAFF BIKES OR CARGO BIKES** instead of motor vehicles
- **COMPARE COSTS** of replacement of motor vehicles with cargo bikes
- survey staff using cargo bikes on their experiences and degree of satisfaction
- **ADJUST LEGAL FRAMEWORK CONDITIONS TO CONSIDER REQUIREMENTS OF CYCLE LOGISTICS (E.G. BUILDING REGULATIONS, OPERATIONAL APPROVAL)**
- **PROMOTE SHORT TRIPS POLICIES**
- **CREATE AND PROMOTE BICYCLE PARKING NEAR SHOPS AND SHOPPING CENTRES**
- **AVOID PLANNING LARGE SHOPPING MALLS OUTSIDE CITIES**, instead promote small/medium sized shopping malls
- disseminate information about the high purchase power and turnover by customers on cycles compared to cars
- **SHORTEN DISTANCES AND BARRIERS FOR CYCLISTS:** good parking facilities, short distances
- **CREATE EXTRA CARRYING VOLUME FOR CYCLISTS BY PROMOTING USE OF TRAILERS, CRATES AND BAGS**
- create a publicity campaign to **SEDUCE CAR DRIVERS INTO MAKING SHORT SHOPPING TRIPS BY BIKE**
- **REDUCE THE AMOUNT OF FREE CAR PARKING AVAILABILITY**
- stipulate that building permissions for new supermarkets should be linked with promotion of cycling



Ferrara moving tourist information

5. Shop-by-Bike

Huge potential of shopping traffic done by bicycles

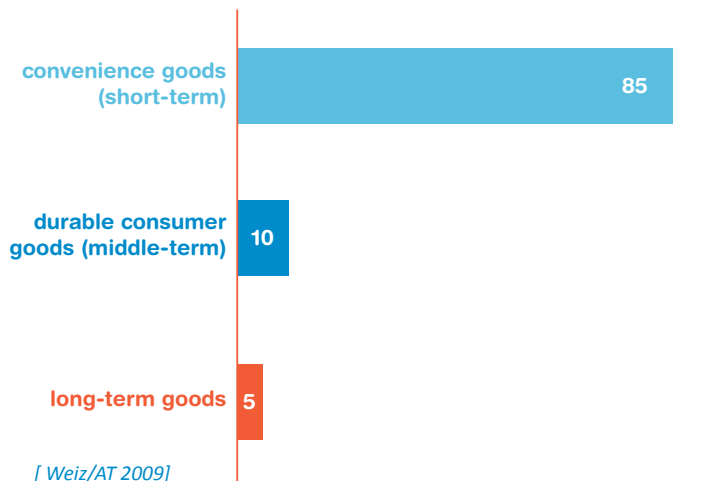
CYCLELOGISTICS TOOK A CLOSE LOOK AT MOTORISED TRIPS IN EUROPEAN CITIES RELATED TO THE TRANSPORT OF GOODS. THE SURPRISING FINDING WAS THAT HALF OF THE TRIPS COULD BE EASILY DONE BY BIKE OR CARGO BIKE.

When looking just at motorised shopping trips the share of trips that could be shifted to the bike is even higher. 77% of all motorised shopping trips in EU-cities could be done by bicycle. Therefore the shopping trips as part of private logistics represent by far the biggest potential for a shift towards bicycle logistics.

Distance and types of shoppings

The majority of all shopping trips involve the transport of daily goods (food and toiletries) [Reiter and Pressl, 2009]. In fact, 85% of shopping trips are done for daily supplies, available in supermarkets. In urban areas supermarkets are usually located within the catchment area of bicycle traffic. 10% are related to durable consumer goods (e.g. clothing) and only 5% are related to goods like furniture, equipment etc. Therefore, the existing data demonstrate a high potential for shopping transport, both, with regard to transport volumes and the trip distance.

SHOPPING TRAFFIC ACCORDING TO REQUIREMENT



Trips to supermarkets are on average short trips. But there is a big variety in bicycle use when it comes to shopping. In Copenhagen only 20% of all trips to supermarkets are done by car and 37% are done by bike. This can also be assumed for Dutch cities. But in the majority of all other European cities the car is the main transport mode for shopping trips.

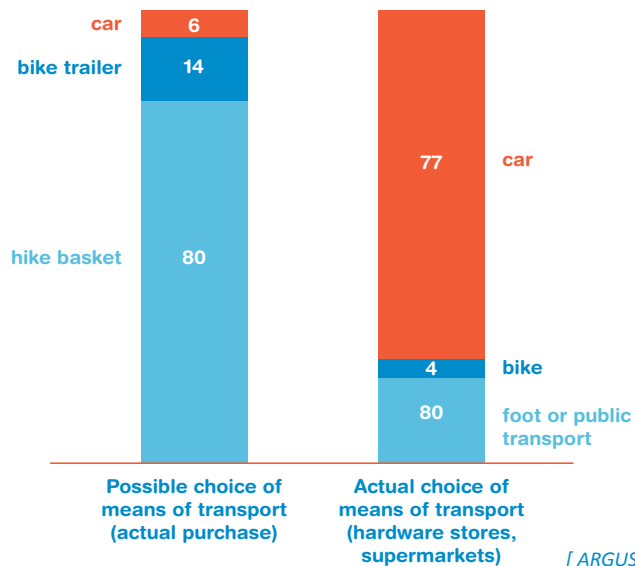
According to a nation-wide mobility survey in Germany [Mobilität in Städten, 2008] only 11% of all shopping trips are done by bicycle, compared to 18% of all trips to work and 17% of all leisure trips.



Shopping volumes

Shopping transport is responsible for a remarkable part of trips in European cities it has a share of 23% of all urban trips. But research shows that when it comes to shopping volumes a car would only be required for 6% of all shopping trips. [ARGUS 2009]

LOST OFT POTENTIALS



A survey, carried out in Graz in 2009, had surprising results: it turned out that 80% of 1600 purchases from shopping trips could have been transported in a bicycle basket. In 14% the volumes were so big that it would have required a bicycle trailer and only in 6% of the cases a car would have been necessary to transport the purchases home. Despite that 3 out of 4 of these shopping trips are actually done by car.

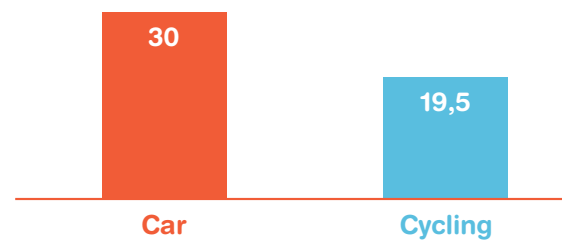
IMPORTANT MESSAGES

1. The majority of shopping trips (85%) are trips to buy convenience goods.
2. The majority of all shopping (more than 80%, convenience and durable consumer goods) can be transported on a bike, e.g. in baskets, panniers or trailer
3. The majority of all shopping trips are short distance trips (every second trip shorter than 5 km)
4. Looking at EU-cities as an average, 77% of all motorised shopping trips in EU cities could be shifted to bicycles

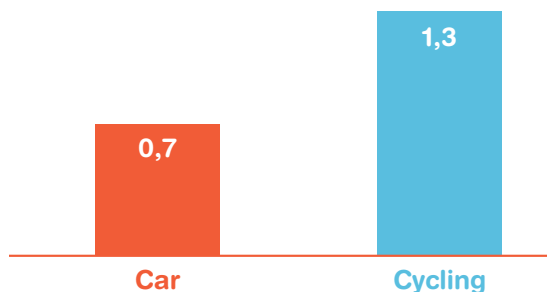
Retailers and municipalities

A lot of information is also still needed to convince retailers, municipalities and local politicians in many European countries. Because the purchasing power of cyclists is highly underestimated and shop keepers generally focus on motorists as their main customers. Car parking spaces and accessibility for cars is usually their primary aim. They have not yet realised that cyclists have at least the same spending power as motorists and constitute a growing market segment in European inner cities. A study in Bristol (UK) shows how big the gap between reality and perception can be. When retailers were asked to estimate how many of their customers live in a radius two miles of their shop, they answered 40%. However, in reality 86% of the customers lived within a 2 miles radius. These is a distance ideal for cycling and hence for shopping by bike.

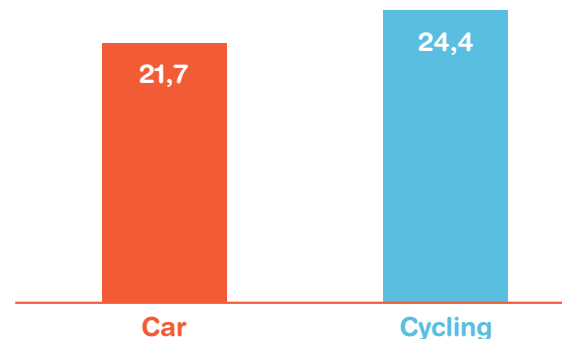
EUROS SPENT PER VISIT



NUMBER OF SHOPPING TRIPS PER WEEK



EUROS SPENT PER WEEK



Survey in 6 French towns [Brichet 2003]

In Austria [Georg Gumpinger, 2010] it could be demonstrated that 80% of cyclists visit local shops several times a week. For motorists this number is only 68%. Cyclists are also very loyal customers. People using their bicycle to do their shopping do so mainly by visiting shops located close to their home or workplace within inner cities and residential areas for daily supplies. For this reason, local shops and retailers have an advantage compared to shopping malls and supermarkets at the outskirts of towns.

With more cycling customers retailers can also save on costs for parking spaces. Because 6-9 bicycles fit into one car parking space and therefore lead to potential cost savings for parking spaces. An interesting survey in the city of Bern (Switzerland) analysed the relationship between profitability of purchases and the costs for customer parking spaces: calculated like this cyclists are worth 7.500 m² for retailers, while motorists are only worth 6.625 m².

IMPORTANT MESSAGES

1. Cyclists are good customers with a lot of purchasing power
2. More customers live close to the shops than expected
3. Cycling customers bring in more sales per square metre of parking area.



From the above mentioned data it becomes very obvious that there is a lot of potential for the bicycle with regard to shopping transport. However, neither decision makers and retailers nor private individuals are fully aware of this potential and how relatively easy it would be to transport daily supplies and other goods by bike, on short trips. In most European cities a lot of awareness raising work needs to be done in this field. Successful strategies to raise the share of cycling traffic and the use of the bicycle for goods transport need the cooperation of several actors: decision makers, retailers, representatives of cycling associations and the private individuals themselves. This was the aim behind the Shop-by-bike campaigns in the CycleLogistics project.

CycleLogistics – Shop-by-Bike campaign

During the EU-project CycleLogistics –15 Shop-by-Bike campaigns were carried out in 11 countries during 2012/2013. These Shop-by-bike campaigns consisted of test use phases of 1- 2 months, in which citizens were asked to do their shopping without a car, on their bikes. In total more than 3000 persons took part in these actions all over Europe. The campaigns were implemented using different approaches to find test users. All of the campaigns used incentives for the testers like vouchers, baskets, panniers, etc. to make this task easy for them.

The aim of these campaigns was to change the shopping behaviour of private individuals to the effect that they will use the bicycle more often to do their shopping. This would positively affect the quality of life in inner cities and bring advantages for retailers, because the number of car parking spaces could be reduced.

To achieve this aim it is important to establish what supermarkets and other retailers can do to make shopping by bicycle more attractive for their customers. During the trial phase it was also possible for the customers to find out how their bikes can be modified, e.g. with bicycle baskets, panniers, better bike stands, trailers, etc. to make it easy to transport daily goods by bike.

Campaign schemes in the various partner countries

Within CycleLogistics there are partner cities with a high share of bicycle use related to shopping trips like Copenhagen, Houten, and Ferrara. In Copenhagen only 20% of the customers arrive by car at the supermarkets whereas 68% arrive by foot or by bicycle.

The first focus for these cities with a high cycling culture is to maintain the high number of shop by bike users and in a second step to convince additional car users to change their transport behaviour.

Cycling customers play an important role for the improvement of the system by:

- Improving the image of shopping by bike by their presence on the roads and by making it into a mainstream activity
- Participating in topic related competitions to make the shop by bike more visible
- Providing feedback regarding necessary improvements of the infrastructure
- Acting as role models or proud users; talking to others through social media and simply by word of mouth

On the other side there are CycleLogistics partner countries/cities with a very low share of bicycle use for shopping. In cities of the UK, Romania or Bulgaria only few people cycle regularly to shops and the infrastructure for cyclists is perceived as too unsafe to start with such an activity. The situation in Slovakia, Croatia and Hungary is only marginally better, whilst Austrian and Belgium cities have already a higher cycling culture; but still not comparable with the Netherlands or Denmark.

The following actions were implemented in cities with high cycling culture



Copenhagen (DK):

The campaign invited citizens of Copenhagen via social media to submit photos of their bikes during a shopping trip (instagram, facebook, twitter, and email). The categories were: -Largest load / -Most awkwardly shaped / -Most unusual. The winners were posted on the CycleLogistics media sites and rewarded with shopping bags, panniers and other bike related gadgets. The pictures were again widely used as a dissemination tool to raise awareness among potential followers.



Ferrara (IT)

To use a survey as an awareness raising strategy is a very subtle method. Via interviews with guiding questions car drivers were enabled to reflect their behaviour and find new options on how to act in the future. The same method was used to transform occasional cyclists into regular cyclists and to turn regular users into proud users who talk to others. The participants in the survey were also rewarded with little incentives like a shopping bag.

A similar strategy was used for the interviews with the supermarket managers. They had the chance to reflect their options to improve the situation for cycling customers during an interview.

Houten, (NL)

Houten, (NL)

In the Netherlands, the “Shop by bike” campaign was carried out in Houten. As part of the Dutch campaign a bicycle stand was offered within 3 minutes walking distance of the supermarket. Evaluation showed that this was not accepted by the cyclists. Bicycle stands are only used if they are directly next to the entrance of the shop.

Countries and cities with low cycling culture

UK cities



In the UK, CTC as a cycling association worked with its members in order to run the Shop by Bike campaigns. More than 400 volunteers, the majority of whom currently use the car for their weekly shop, took part in the trial. They went to shops by bike at least once a week for a period of about 4 weeks and reported back their findings at the end of the trial. The feedback included information about the distance travelled, and the type of equipment they used as well as information around the conditions at the different retailers they visited. They reported back about their satisfaction with the amenities offered for cyclists. CTC uses this information to motivate retailers to provide better facilities for cyclists. CTC also offers advice on suitable equipment and where to buy it. The trial was incentivised by the offer of a £20 voucher.

Alba Iulia (RO)

As in many cities in the new member states there is a lack of appropriate infrastructure for cycling. Thus cycling is perceived as an unsafe way of moving. About 60% of the shoppers in Alba Iulia perceive bicycle use for shopping as outdated, old fashioned and unreliable. The shop by bike campaigns in Romania had to overcome two barriers. On the one hand the lack of physical infrastructure and on the other hand the existing mental barriers that prevent Romanians to use their bikes.

The campaign started with “first movers” from a NGO and the University. They carried their shopping everyday in the city of Alba Iulia by bike and were recognised as lead example in the public area. Later on additional test buyers were invited to follow this example. They were equipped with a fleet of rental shopping bikes provided by the city. The major supported the campaign by handing over “Urbis Grates Diploma” to the test users. These diplomas were thought after by the citizens of Alba Iulia.

Plovdiv, Sofia (BG)

A lack of infrastructure was also the starting point of the Bulgarian activities. Therefore, a design competition for better infrastructure for bicycle parking in the shopping mall was launched in Plovdiv. This awareness activity led to a lot of media attention and 22 design concepts. The best one was implemented and car parking places were transformed into cycle stands. The campaign for trial users started with the inauguration of the new cycling racks. The bicycle shoppers registered and also provided their feedback via internet.

A second Bulgarian campaign in Sofia was targeted to eco friendly customers. The Bio Cafetto offered all customers that arrived by bicycle a 10% discount. Also a bicycle rack was installed in front of the shop. The service was well recognised and found more than 600 users. An increase of the number is expected as this is an ongoing activity. The approach fits also very well into the customer relationship programme of the shop.



Budapest (HU)

Awareness rising was done by taking photographs of cyclists as they transport their shopping home. The pictures were used for promotional activities to convince other shoppers but also the shop keepers. The campaign was also used to set up a „bike-friendly shop” network.

Sered (SK)

The Slovakian campaign had a strong involvement of media and social media. Also, more than hundred test users were “outfitted” with T-shirts and reflexive strips. Beside the safety problem on the roads the test users were very positive about shopping by bike. They were very satisfied with the trial and 4 of 5 testers stated to continue with shop by bike after the campaign end. Participants even reported to be motivated enough to cycle all year round and even in bad weather conditions.

Koprivnica (HR)

The campaign in this small Croatian city was highly appreciated by the test users they used their bike several times per week and reported personal benefits like health, fitness as main reasons for their decision. Shop owners used the campaign to install or renew their cycle stands.

Bruxelles (BE)

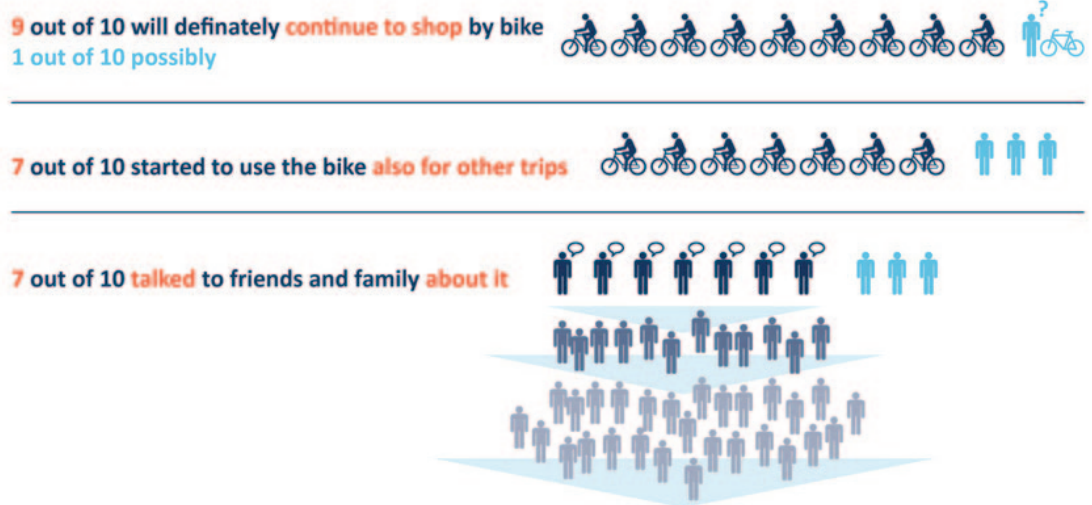
The campaign focused on the target group of Staff at the European institutions (e.g. Commission, Parliament, Committee of the Regions, etc.) But it was open to all adults living in the Brussels region. It was communicated through the EU Cyclists group newsletter.

Participants signed up on a dedicated webpage and committed to “shop by bike” for one month. Those who reported about their bike to shop experience got the chance to win a bike shopping trailer.



Graz, Vienna (AT)

In Austria 3 Shop-by-bike campaigns were carried out. The campaigns took place in Graz and in Vienna. The backbone of the Austrian “Shop-by-bike campaign” was carried out in cooperation with the supermarket chain SPAR. Test users received free equipment of their choice (bicycle basket, panniers or a high quality kickstand). The test users reported that the bike use related to transport capacity, safety, weather etc. was much better as they expected. But the users also requested better bicycle parking at supermarkets and better accessibility.



CONCLUSIONS

Shop by bike campaigns are an appropriate tool to exploit the potential of bicycle use for shopping transport. There is a difference in implementing shop by bike campaigns in countries with high cycling culture and low cycling culture but there is always the necessity of awareness raising activities and test use.

The evaluation showed that:

- Test users are surprised how easy it is to bring home their shopping with a bike compared to their expectations
- In most countries it is difficult to motivate supermarket managers and shop owners to acknowledge the potential of cycling customers
- “Shop by bike” campaigns is a possible support instrument to raise the overall infrastructure for cycling accessibility
- Shop by bike campaigns are cost effective and also have the positive side effect of building networks
- To approach occasional (leisure time) cyclists and convince them to try out shop by bike works very effective (UK & BE)
- There is a spill over effect from shop by bike to more cycle use for other trip purposes. People who started with shop by bike used their bike also more often for commuter and leisure trips (AT)
- Transport of daily supplies should be in the focus of shop by bike campaigns because of the high frequency of these trips
- A suitable bike for shopping purposes is equipped with a stable kick stand and a big basket of bicycle bags
- Shopping trips are the trip category with the highest shift potential from car to bike
- Shop by bike has a high public visibility and therefore can make a viable contribution to the improvement of the cycle culture in the concerned city

Possible actions of retailers to support shop-by-bike

Creation of infrastructure: bicycle parking spaces for bikes with/without bike trailers and improvement of accessibility for cyclists. Bicycle stations (at least bicycle pumps, oil, maybe a tube dispenser etc.) for cycling customers

- Other measures that help customers that cycle to the shop are luggage storage facilities that allow them to store their shopping in a safe place while continuing their visit to other shops. These can be luggage safe boxes of various sizes where shopping bags can be stored.
- Information and promotion of the Shop-by-bike campaign in the shops: posters, folders or websites (supermarkets, municipalities, etc.); window display to show how much can fit in a bicycle basket, panniers, trailer etc; promotion of the campaign on supermarket trolleys.
- Supporting products and actions: products like rain capes, bicycle baskets, saddlebags, picnic-ponchos, etc. that can be used by cyclists and are branded with the logo of the supermarket that sell them; introduction of special cycling days in big participating supermarket chains where customers can get information about the necessary accessories to shop by bike.
- Services: retailers could offer home delivery services of their goods by cargo bike

What can society do?

Cycling lobbies, environmental organisations and initiatives usually try to promote the use of bicycles for daily errands, like shopping for daily supplies. They play an important part in initiating political debates and formulating suggestions for improvement.

Often, they also carry out campaigns like “Shop-by-bike” to inform citizens, politicians and retailers about their possibilities and initiate improvements wherever needed.

These campaigns offer individuals to experience how easy it is to use the bicycle for your shopping trip and give valuable information about the necessary equipment, like bicycle baskets, panniers, trailers, etc. that make this task so much easier.

Sometimes it is also necessary to change the perception of the public with regard to their mental maps that are often dominated by out of town shopping centres rather than the offer of shops in their closer environment. A project in Hungary, termed “local shopping” aimed to do just that.

What can municipalities do?

An important factor for cities and towns that promote cycling is the continuous creation and maintenance of existing infrastructure on the one hand. On the other hand cycling and other sustainable mobility modes can be promoted with countless innovative information and service offers.

Apart from infrastructural and promotional measures however, municipalities can promote cycling and especially everyday cycling including shopping by bike on various levels by:

- Informing shop owners and retailers about the requirements of cyclists
- Support activities of retailers targeted to cycling customers
- Financially support the acquisition of high quality bicycle parking facilities for shops
- Promote Shop-by-bike campaigns in their municipal media
- Support Shop-by-bike campaigns e.g. with bicycle equipment
- Include “Shop-by-bike” information in existing bicycle maps (this is especially important information for new citizens and new employees)
- Company-related funding of measures for cycling customers (e.g. funding for bicycle parking facilities)

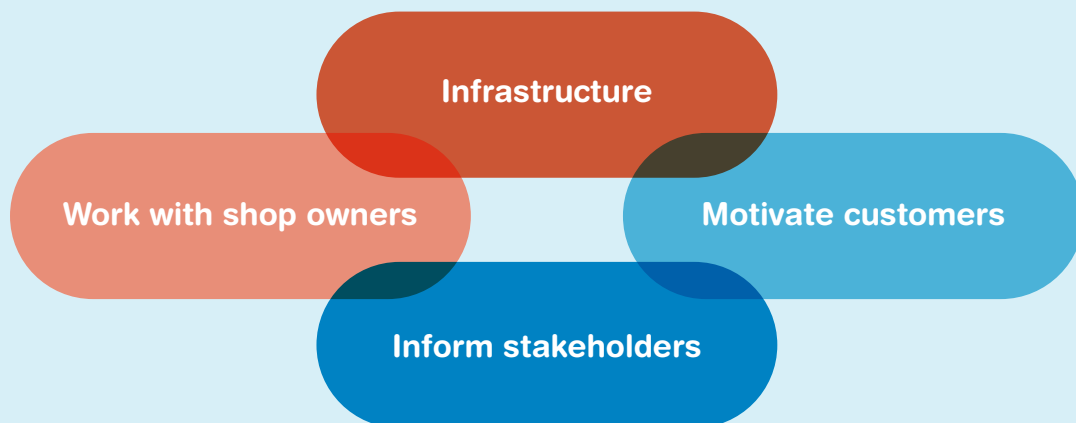


Figure 4: Tasks for municipalities

6. Consumer Tests

We're testing BASKETS

Baskets full of flowers, wine, puppies, or groceries, are images that occupy every romantic view of cycling. 'But for a cycle based delivery business, not all baskets are created equal.



Baskit

The Baskit from Racktime is practical without showing off; large and sturdy without being clumsy. It attaches very easily to the rack with a special click mechanism designed by Racktime. The bracket is by far the best we tested- easy on and off, completely secure and with zero rattling. This unique system provides stability and security and since the basket is quite deep you can enjoy the ride home from the supermarket without worrying whether or not your shopping is secure. Off the bike, the Baskit works great as well. The padded handle is quite comfortable and the rounded corners leave no bruises on your knees when carrying it. The Baskit also has four small legs that protect the fastening bracket when you put it down. While not aesthetically beautiful, it is a well thought out construction that inspires user confidence. However, it does have two drawbacks: 1) you cannot combine it with panniers or baskets hanging on the side of the rack; and 2) you will have to get the rack that the basket fits on (some bicycles will have a compatible rack preinstalled). But once you have all the necessary adaption the Baskit really does the job.

FUNCTION ★★★★★

PRICE ★★★★★

DESIGN ★★★



Basil Cardiff

For the big-shopper the Cardiff is a godsend. It is the only side hanging basket in the test and it can be combined with other panniers and baskets (on the other side of the rack) while additionally being able to fit items on top of the rack. The Cardiff is a classic and simple model. There are no brackets; the basket simply hangs on the side of the rack secured by two long hooks. The hooks are long enough to ensure the basket will not bounce off when you hit curbstones or potholes. At the same time it is easy to lift the basket off the rack when you reach your destination. If you only use one basket and really fill it up you may encounter instability when you are walking your bike but because the basket sits so low it does not affect the balance when you are riding. The Cardiff is a robust and very stable basket but it is narrow and does not hold as much as you would think by looking at it. However, because you can still put things on the rack the Cardiff is the obvious choice if you need to take home six bottles of wine and a pack of eight kitchen rolls. All in all the Cardiff is practical, cheap, and very stable shopping solution. The Cardiff is a clear test winner.

FUNCTION ★★★★★

PRICE ★★★★★

DESIGN ★★★★★

BEST IN THE TEST

Catania

This small folding basket shares its name with a Sicilian volcano and it also is the most “active” basket in the test. The basket fits permanently to the side of the rack, but unlike other baskets it can fold away when not in use. This makes it practical for the impulsive shopper and not so much for the big-shopper. The Catania is small and the folding base will not take too much weight, so do not put six bottles of expensive wine in there. The main advantage is that it’s always on the bike and ready to use but, at the same time it is a disadvantage that you cannot take it into the shop with you. Some definite benefits are that, the Catania will fit on any rack and it can be combined with other baskets and panniers. You can also put luggage on top of the rack while using the basket. When not in use the Catania folds down flat. It’s still very visible but does not take up any space or interfere with your ride but it does not really add to the look of your bike. In the end, the Catania is most useful for the spontaneous shopper who does not need to carry a lot and does not care about how their bike looks.

FUNCTION ★★★★★

PRICE ★★★★★

DESIGN ★★★★★



Bootbag

Forget about romantic wicker and lumpy metal mesh, Bootbag is molded in rubber and introduces a new way of thinking about bicycle baskets. The rubber used in the square-shaped Bootbag is relatively stable and comes in an array of colors. The basket fits on top of the rack with the universal bracket that will fit on most bicycle racks. It only takes a couple of seconds and it is fairly safe while riding. However, the sides of the Bootbag are not very stable so if you load heavy items near the mouth of the basket you risk losing them. The Bootbag has four handles but even so, it’s a bit difficult to carry since the handles do not quite reach each other in the middle. There is a shoulder strap available that quickly solves the problem. Like most top baskets it’s impossible to combine the Bootbag with side baskets and panniers which limits the overall capacity. It has got the looks, but in terms of functionality it is mediocre, and the price is a bit high.

FUNCTION ★★★★★

PRICE ★★★★★

DESIGN ★★★★★



California

Despite the name there is not much surfing or sunshine in this black metal mesh basket. The wide, long and generally quite large basket is fitted to the top of your rack by a spring loaded bracket with four small hooks and will fit on most racks. On the other hand, stability is not guaranteed. Narrow racks pose a problem since the springs are not tight enough and the whole thing becomes wobbly and even on wide racks you still have to be careful to balance your load. If you overload one side then the springs will let go and everything will fall out. The California is not very deep which provides little confidence since you will live in constant fear that your shopping will bounce out if you hit a pothole or just a bump. Off the bike the two handles make the California surprisingly easy and stable to carry and it is stable on the ground although it is a bit clumsy to manoeuvre around in the supermarket. Like other top baskets it’s impossible to fit other baskets or panniers on the side of the rack when the California is fitted. Overall you can probably find a better basket for any purpose you might have.

FUNCTION ★★★★★

PRICE ★★★★★

DESIGN ★★★★★



We're testing PANNIERS

How do you make room for folders and laptops on your ride? Which bags are best for carrying milk, tomatoes, and white wine? Some people use baskets and others have cargo bikes. But when you need more than a basket can carry but do not require the large carrying capacity of a cargo bike, panniers are the best way to solve your problem. But will you be touring or just riding around the city? What weather conditions do you expect to be riding in? We asked these questions and we tested five panniers.



WATERPROOF: NO, BUT VERY WATER RESISTANT
WEIGHT: 1,17 KG MEASURE
VOLUME: 24 L.
PANNIERS.COM

Arkel: Commuter BORING BUT STRONG

Are you looking for a commuterbag for life? Arkel has a lifetime guarantee for this bag which is made from durable nylon and the seams make the guarantee seem credible. Unfortunately you will have to put up with a not so beautiful dull gray-ish color. With robust water-repellent nylon and waterproof zippers it does more than it promises, it is seriously waterproof. The flexible hook system makes it easy to fasten the bag to most racks; it sits securely and does not rattle. The Arkel Commuter is the largest bag in this test. It weighs in at 1.17kg and holds 24 liters. There is one big compartment with a special pouch for a laptop or A4 folders. It also features several small pockets and compartments for your keys, wallet etc. The laptop pouch is one of the best we have seen. It sits above the bottom of the bag providing good protection. On foot the commuter is easy to carry. The hooks easily zip under a flap, so that you can carry the bag by the handle or shoulder strap without it getting snagged. The deep opening makes accessing and searching for contents easy but tomatoes and lemons might roll out if you are not careful, so the Arkel Commuter is not ideal for shopping. But for the commuter looking for function over design, the Arkel is brilliant.

FUNCTION ★★★★★

PRICE ★★★★★

DESIGN ★★☆☆☆

BEST FOR YOUR LAPTOP



WATERPROOF: YES
WEIGHT: 0,91 KG
VOLUME: 18 L.
CARRADICE.CO.UK

Ortlieb: Shopper FAITHFUL SHOPPING BAG

The German-made Ortlieb is legendary in the world of bicycle panniers. They are almost indestructible and their function and design work together perfectly if you choose the right model for your purpose. This bag is brilliant for shopping, but with its narrow base it is a nightmare for any lover of A4 folders. The Shopper weighs 0.97kg and holds 20 liters. It is made from heavy duty plastic material, is 100% waterproof and closes with a special water-tight zipper that all but seals the inside contents for eternity. The flexible hook system, fitted on a plastic rail is very user-friendly. Just lift the handle and the two locked hooks will open allowing you to lift the pannier off the rack where the Shopper was securely fastened. The bag has one big compartment and two small pockets. It could have more but the shopper is easily packed and rummaged through because the material is stiff and the bag does not sag. The two shoulder straps are adjustable but cannot be removed. However, if you move them to the front of the bag while riding they are not in the way. Appearance is a matter of taste. The Ortlieb Shopper is our favourite but not everybody finds the raw industrial look appealing. This is not a small or neat bag, but you will be hard pressed to find a more waterproof, reliable, robust, durable and useful shopping bag.

FUNCTION ★★★★★

PRICE ★★★★★

DESIGN ★★★☆☆

BEST FOR SHOPPING

Carradice: A4 MAINLY FOR DOCUMENTS

As the name indicates, this bag is designed to carry A4 sized folders and documents so apart from a small mesh pocket it only has one big square pocket that will protect your papers against water damage and bent corners. The A4 weighs 0.98kg and holds 18 liters. It is made from "cotton duck" – a heavy duty canvas with a solid waterproof waxing. The double closure at the top provides a water-tight seal. The A4 fits on the rack with two hooks that easily click to the railing making the bag sit securely with no rattling. It comes with a wide shoulder strap, but there is no cover for the hooks so the bag is uncomfortable to carry for a long period of time. Carradice have been making panniers since the 1930's and what might seem like retro design is in reality just classic Carradice. Leather straps and metal buckles rather than plastic would complete the retro look but probably also raise the price tag. A4 is a good, reliable and solid pannier for the commuter cyclist.

FUNCTION ★★★★★

PRICE ★★★★★

DESIGN ★★★★★



WATERPROOF: NO, BUT VERY WATER RESISTANT
WEIGHT: 1,17 KG MEASURE
VOLUME: 24 L.
PANNIERS.COM

Basil: Jada Mirte NEAT BUT NOT PRACTICAL

Jada Mirte is a lady's bag. It is designed like a handbag and it hooks easily onto your bicycle rack. It is easy to carry over your arm if you are going into the café. Unfortunately, the Jada Mirte is less than perfect as a commuter or shopping bag. It holds 16 liters. There is one big compartment and a small pocket for small items like keys, lipstick etc. The material is water repellent but unfortunately the zipper is not, which allows water to drip inside. The material is not that durable and we estimate that it will last and look nice for about one year if you use it daily. The hook system is the poorest we tested. The hooks cannot be moved to fit the rack and it is the only bag we tested that bounced off the bike while riding. So as a word of caution, do not put breakable valuables in this bag. By far the best thing about this bag is the design. The hooks hide away quickly and easily behind a zip-flap making the bag nice to carry when on foot. Jada Mirte is a light and cheap cycling lady's bag, but for hard every day using you'd be better off choosing something more robust.

FUNCTION ★★★★★

PRICE ★★★★★

DESIGN ★★★★★



WATERPROOF: NO
WEIGHT: 720 GRAM
VOLUME: 16 L.
BASIL.NL

Racktime: Buyit

Like the Jada Mirte, the Buyit is disguised as an ordinary bag, but this is where the similarities end. Quality wise this bag is in a different league and is specifically designed for shopping. The Buyit weighs 0.7kg and with its 14 liters capacity, it is designed for smaller shopping trips. The bag is made from good quality nylon. The zipper is waterproof, so in most cases the bag is waterproof enough for average days and the reflective piping on the seams is a neat feature. The hook system is like all Ortleib hooks meaning it works easily and holds the bag secure in any situation. To remove the bag you simply lift the handle, thus releasing the locking mechanism. When on foot, the hooks easily hide underneath a zip-flap. But we advise against long walks because the handle is pretty sharp and uncomfortable. The Buyit is officially unisex but, the design is pretty feminine while the colors seem masculine. However this odd mix does not overshadow the many good qualities this bag has. For daily and light shopping, Buyit is an excellent choice.

FUNCTION ★★★★★

PRICE ★★★★★

DESIGN ★★★★★



WATERPROOF: NO, BUT VERY WATER RESISTANT
WEIGHT: 0,70 KG
VOLUME: 14 L.
RACKTIME.COM

We're testing CARGO BIKES

Cargo bikes can move 50% of all goods in European cities. They are made to transport large item loads. Items can be stored in big boxes in front of the bike, long rear racks or on extended, long, low beds located between the handlebars and front wheel. For a long time these bikes were a standard mode of cargo transport in cities and towns worldwide and lately there has been a serious resurgence of cargo bikes as an easy mode of goods transport. The combination of new bicycle designs, new materials, modern cycling infrastructures make transporting goods by bike easier than ever before and focus on the bottom-line, lowering CO2 emissions and overall sustainability make these bikes one of the best options for the urban family and businesses. We tested six.

Christiania LIGHT

General

The classic from Christiania has three wheels and a huge bed on the front of the bike. The tested model has 7 gears, back-pedal brakes and a good hand brake system that controls both front wheels. The riding position of the bike is upright and relaxed.

The bed is a square, spacious and robust plywood box and the bike is additionally available with an interior bench, children's belts, and a hood cover.

Loading is easy and accessible – put your things in the box and ride off. Fragile objects require protection to ensure that they do not rattle and break but the only real drawback is riding with long objects. This is because the box is slanted downwards which makes it virtually impossible to fasten down long objects as they will hit the ground in front of the bicycle.

Starting: No problems detected - the three wheeled bicycle keeps itself perfectly balanced.

Riding: The Christiania Light is relatively easy to ride. It requires a little getting used to because the handlebars and the box are one whole system which means when you turn the handlebars you are actually turning the whole box. Furthermore, the bike is surprisingly heavy to ride and it feels somewhat unstable at higher speeds – especially without cargo. The risk of tipping over comes as a surprise to many who expected the tricycle to be more stable, even at higher speeds and sharp turns. On the plus side, the bike has a small turning radius and it is very stable when loaded.

Conclusion

Christiania Light is easy to pack and can withstand rough treatment. The bike is a really good start for those who want to move heavy objects short distances. It is perfect for city riding.



PRICE: 1,530 €

WEIGHT: 35KG

CAPACITY: 100KG

BIKE DIMENSIONS: 85x208 CM

BED DIMENSIONS: 63x90 CM

CHRISTIANIABIKES.DK

FUNCTION ★★★★★

PRICE ★★★★★

DESIGN ★★★★★

Nihola FAMILY

Nihola Family has three wheels and an oval bed in the front. The tested model has five gears and back-pedal brakes. Additionally the cargo bike has good hand brakes for both front wheels that ensure balance when braking. The riding position is upright and relaxed.

The bed is an oblong shaped box made out of metal and strong plastic. Seat belts for children, a bench and a cover can all be purchased.

Loading is easy. The oval box is open and easy to pack but fragile items need to be secured so that they are not crushed in the spacious box. The oblong shape and the round corners make the bed a little less spacious than the Christiania bike. On the other hand the Nihola rides significantly better with longer objects which can lie on top of the box.

Starting: Easy. The three-wheeled Nihola Family stays balanced even when standing still.

Riding: The Nihola is easy to drive, even for beginners. It does not require getting used to like the Christiania bike because the handlebars are separate from the box meaning you turn the tires, not the whole box. However, like other three-wheeled cargo bikes there is a chance that it may fall over when taking sharp turns and it is too heavy for long trips.

Conclusion

The Nihola Family is a good choice for the novice cargo biker. But like the Christiania bike, the Nihola is not a long-distance bike. The two bikes resemble each other so if your choice is between these two bikes then choose the design you like the best.

FUNCTION ★★★★★	PRICE ★★★★★
DESIGN ★★★★★	



PRICE: 1 470 €
WEIGHT: 32 KG
CAPACITY: 100 KG
BIKE DIMENSIONS: 89x200 CM
BED DIMENSION: 62x88 CM
NIHOLA.DK

Bakfiets CARGO L

Bakfiets is Dutch for cargo bike and this model is a Dutch classic. The tested model has 7 gears, hand brakes and no coaster brake. Seat belts for the benches and a cover can be purchased.

The bed is a large, oblong box of plywood that is both solid and durable.

Loading the Bakfiets Cargo L is a cinch. Really good outriggers stabilize the bike when you are loading goods but like most cargo bikes with large boxes, small fragile items must be protected to avoid damage while riding. Although the carrier is elongated, the Bakfiets is not good for transporting long items because the box is slightly tilted downwards.

Starting can be tricky for beginners and for smaller people. The two-wheeled bicycle must be supported when you get on and it can be especially troublesome when there is heavy load on the platform. It is however, a great advantage that the frame is low and that you can put the pedals in perfect starting position because there are no back-pedal brakes.

Riding: The Bakfiets can really get going. The bike is very stable - even with heavy loads and the driving position is upright and relaxed. This long bike has a fairly large turning radius but it feels much easier to ride than the other three-wheeled models.

Conclusion

Bakfiets is a strong and stable cargo bike. It is pleasant to cycle and amazingly fast. The bike is well suited for long hauls but it requires a little effort to get going when it is fully loaded.

FUNCTION ★★★★★	PRICE ★★★★★
DESIGN ★★★★★	



PRICE: 2,010 €
WEIGHT: 32 KG
CAPACITY: 100 KG
BIKE DIMENSIONS: 63x260 CM
BED DIMENSIONS: 63x100 CM
BAKFIETS.NL

**PRICE: 2 010 €****WEIGHT: 24KG****CAPACITY: 100KG****BIKE DIMENSIONS: 47x245CM****BED DIMENSIONS: 47x70CM****LARRYVSHARRY.COM**

Larry vs. Harry BULLITT RED

The classic from Christiania has three wheels and a huge bed on the front of the bike. The tested model has 7 gears, back-pedal brakes and a good hand brake system that controls both front wheels. The riding position of the bike is upright and relaxed.

The bed is a square, spacious and robust plywood box and the bike is additionally available with an interior bench, children's belts, and a hood cover.

Loading is easy and accessible – put your things in the box and ride off. Fragile objects require protection to ensure that they do not rattle and break but the only real drawback is riding with long objects. This is because the box is slanted downwards which makes it virtually impossible to fasten down long objects as they will hit the ground in front of the bicycle.

Starting: No problems detected - the three wheeled bicycle keeps itself perfectly balanced.

Riding: The Christiania Light is relatively easy to ride. It requires a little getting used to because the handlebars and the box are one whole system which means when you turn the handlebars you are actually turning the whole box. Furthermore, the bike is surprisingly heavy to ride and it feels somewhat unstable at higher speeds – especially without cargo. The risk of tipping over comes as a surprise to many who expected the tricycle to be more stable, even at higher speeds and sharp turns. On the plus side, the bike has a small turning radius and it is very stable when loaded.

Conclusion

Christiania Light is easy to pack and can withstand rough treatment. The bike is a really good start for those who want to move heavy objects short distances. It is perfect for city riding.

FUNCTION ★★★★★

PRICE ★★★★★

DESIGN ★★★★★

Yuba MUNDO

Yuba Mundo is a long bike. On this bike the cargo is fastened to an extra long bed located behind the saddle. The model we tested has 24 gears, hand brakes and no back-pedal brakes. Child seats can be purchased and there is room for two of them.

The bed is a very long and very strong luggage rack, which is built into the frame. Large bags can be purchased and extras can be fitted to the steel tube on the side of the bike.

Loading is fine. A good kickstand keeps the bike in place during packing and unpacking. However, the bike does not have a closed box so everything must be placed in bags or attached in other ways. Yuba Mundo is great for long objects like a surfboard strapped to the side.

Starting and driving position is no different than on a regular bike.

Riding the Yuba Mundo feels just like a normal bike and because of this it is the clear cut winner of the all the bikes we tested. The bike is light and is well suited for longer distances and is also a good entry level models for green cargo bikers.

Conclusion

Yuba Mundo is the test's lightest and strongest cargo bike. Even with very heavy loads the bike is nice to ride and it is the obvious choice for those riding longer distances.

FUNCTION ★★★★★

PRICE ★★★★★

DESIGN ★★★★★

BEST IN THE TEST



PRICE: 1 100 €

WEIGHT: 22KG

CAPACITY: 200KG

BIKE DIMENSIONS: 70x210CM

BED DIMENSIONS: 18x80CM

YUBARIDE.COM

Xtracycle FREE RADICAL

XTRA Cycle is a long bike but in reality it is just an extension for a mountain bike. To use this extension you must already have a mountain bike that you can attach it to. XTRA Cycle mounts between the frame and back wheel elongating the bike's rear, providing more space for cargo.

The bed is a large carrier made out of metal covered with high quality, durable canvas. Different bags can be purchased. Starting and driving position is like a regular bike.

Loading is very similar to Yuba Mundo. All items must either be in bags or securely fastened to the rack. Unfortunately XTRA Cycle cannot compete in the cargo load. The rack cannot hold more than 40 kgs and large objects are difficult to fasten. One should also not stack items too high on the bike because this affects the bike's stability.

Riding XTRA Cycle is like riding a normal bike. It is easy to move and easy to control except when carrying heavy loads.

Conclusion

XTRA Cycle is a smart buy if you have a mountain bike lying around that you do not use. It is an inexpensive way to get a cargo bike, but you have to be a meticulous mechanic to properly put it together. The bike is best for light cargo, and is the only bike in the test that cannot mount a child seat. The bike is perfect for carrying things like a guitar, a surfboard or other long and light things.

FUNCTION ★★★★★

PRICE ★★★★★



PRICE: 380 €

WEIGHT: 23KG

CAPACITY: 100KG

XTRACYCLE.COM

We're testing SHOPPING TRAILERS

A shopping trailer is a bicycle trailer that doubles as a shopping cart. The convenience is, the shopping trailer can come into the shop, and double as both your grocery basket and grocery bags. This way you do not have to spend time loading goods in and out of shopping bags or panniers. You simply attach the trailer to your bicycle and ride home. Additionally, most shopping trailers also collapse or fold easily making them perfect for cities, towns or someone with minimal storage space. We tested four.

Andersen: Royal Shopper Plus

The shopping trailer from Andersen looks like a classic senior citizen shopping cart. It is made from strong and durable materials. It is hardwearing and almost waterproof. The bag itself detaches from the frame easily and will change into a practical backpack in seconds. The tires are solid and will not puncture.

On foot the Andersen really excels- easy to pull and very stable. And, because it looks like a normal shopping cart it will not raise eyebrows in the supermarket.

Packing is very easy since the sturdy material keeps the bag open as you load it. The bag is very roomy and smaller items easily find a place in the small mesh pockets. **On the bike** the trailer is a bit of a disaster. The absence of air filled tires reduces suspension and the trailer tends to jump about like a springbok and quite often it comes close to tumbling over. This is most pronounced when empty and during strong side winds. **The hitch** is easy to operate, and quite stable. However it is ugly and clumsy. On the plus side the construction means that you can use the top of the luggage rack even when the trailer is attached. **At the home** the Andersen trailer does not take up much space. The frame easily folds flat and the bag can also be compressed. **Conclusion:** The Andersen Royal Shopper Plus is at its best when off the bike, and will suit a small family that usually walks to the shops but also some would find it handy to use a trailer for shorter trips.

FUNCTION IN THE SHOP ★★★★★

FUNCTION ON THE BIKE ★★★★★

PRICE ★★★★★

DESIGN ★★★★★



SIZE: 35x67x24CM
WEIGHT: 4.8KG
CAPACITY: 50KG / 56L

Andersen: Royal Shopper Plus

The Burley Travoy is a tribute to the Indian way of transporting goods by horse:, dragging the loads on two poles tied together, called a "travoy". The modern bicycle version is made from quality aluminum, strong plastic, air filled rubber tires and a durable nylon bag. It is not waterproof but you can buy a rain cover.

On foot: The Travoy is easy to maneuver and easy to pull, but it does not stand well and it will draw attention in the shop. **Packing** is very easy because the bag is like a big tote bag. The nylon is quite soft so you have to make an effort to hold it open when you are loading your shopping. There is a small pocket for keys and wallet and on the front of the bag there is a lattice system where you can fix long and light items. While **on the bike** the Travoy is a pleasure to pull. It is light, stable and feels safe even during sharp turns. No matter what you do, it will not fall over because the hitch's rubber does not permit rotation. **The hitch** is small and elegant. It fits easily on the seat post and is very easy to attach and remove the trailer. The only drawback is that you cannot use the rear rack when the trailer is attached. **At home:** The Travoy takes up very little space. The frame folds up in seconds and the wheels snap right off. It actually becomes so small that frame and wheels fit into their own tote bag. **Conclusion:** Inside the supermarket the Travoy is not great and it does not combine with luggage on the rack, but in every other aspect the Travoy is great and versatile trailer.

FUNCTION IN THE SHOP ★★★★★

FUNCTION ON THE BIKE ★★★★★

PRICE ★★★★★

DESIGN ★★★★★



SIZE: 53.3x46.7x23.3CM
WEIGHT: 4.4KG
CAPACITY: 27L

Carry Freedom: City

The Carry freedom "City" is an all-round trailer. It is the only model in the test that carries the load low and horizontally. It consists of an elegant aluminum frame, two good wheels and a large detachable nylon shoulder bag.

On foot the Carry Freedom City looks like a small trolley type suitcase. That is why it feels a little strange to take it into the supermarket and fill it up with shopping. It is easy to pull and has a soft handle. **Packing** is easy. The bag's opening is easy to load and because it is horizontal your goods do not get squashed as much. You do however have to bend quite low to put your shopping in the bag. On top of the bag there is a lattice system where you can fix long or light items. **On bike:** The trailer is great to ride with. It is light, low and stable so you hardly notice it. Only if you make a sharp right turn at low speed you might get into trouble as the rear wheel might hit the tow bar. **The hitch** is small and it works. It is easy to fit on the bike and the trailer is easy to hitch on. You will have to bend down low to do it, but the up side is that you can still use the luggage rack when you are pulling the trailer. **At home:** The bag can be removed and the frame folded in seconds and the whole thing stows away easy. **Conclusion:** The City trailer is more flexible and more all round than the other trailers in the test. It will do fine on cycling holidays or trips where you need to take the train. It is practical for families because you can still use a child seat when the trailer is fitted. But it does feel a bit odd in the supermarket.

FUNCTION IN THE SHOP ★★★★★	FUNCTION ON THE BIKE ★★★★★
PRICE ★★★★★	DESIGN ★★★★★



SIZE: 35x65x125CM
WEIGHT: 5.5KG
CAPACITY: 45KG / 55L

Winther: Donkey

The only open trailer in the test. There is no bag but a metal netting keeps your shopping in place. The metal netting also doubles as a shelf (photo). This robust three-wheel trailer is built over a sturdy steel frame and a strong plastic shell. It comes with a snug fitting rain cover. **On foot** the Winther is a dream. It is very maneuverable when resting on the little trolley wheel. It stands stable and a small parking brake keeps it from rolling away. With the open arrangement it feels quite ok to take it into the supermarket and shop directly into because it does not look like you are trying to hide anything. **Packing** is very simple; just dump your stuff in the bin. But you have to be careful, small items might find their way through the netting and fragile items need to be cushioned. **On bike:** The ride is ok. The Winther Donkey is relatively easy to pull, but the hitch prevents you from making sharp turns. Unfortunately the hitch has a loud rattle that is really annoying on longer trips. **The hitch** is the same style as on the Andersen Royal Shopper. It's big and it's ugly. But like on the Andersen you can use the luggage rack and a child seat while towing the trailer. **At home:** It doesn't fold so it will take up some space in your home. Or it can be left outside since it's "climate proof". **Conclusion:** A very robust and roomy trailer well suited for big and bulky shopping and trips to the hardware store. So if you can put up with the rattling it's very useful.

FUNCTION IN THE SHOP ★★★★★	FUNCTION ON THE BIKE ★★★★★
PRICE ★★★★★	DESIGN ★★★★★



SIZE: 60x38x37CM
WEIGHT: 10.5KG
CAPACITY: 40KG/65L

We're testing TRAILERS

Do you want your trailer to be small and nimble or big and sturdy? Are you going on vacation or just down the street? Will you be carrying long, heavy, pointy objects or large bags and boxes? We asked these questions while testing bike trailers to make it easier for you to decide which one is best for you. Bike trailers are the perfect accessory for the cyclist who wants to carry large loads but does not have the money, space, or need for a full-blown cargo bike. They are also perfect for the cycling tourist who needs to take a few weeks or a few months worth of gear with them as they cycle on EuroVelo Routes. So whether it is the garden centre or the open road: we tested five.



WEIGHT: 6,5 KG

WEIGHT: 6,5 KG

DIMENSIONS: (OPEN) 93,0x78,5x40,9 CM

(FOLDED) 94,0x66,7x10,9 CM

CAPACITY: 45,5 KG

BURLY.COM

Burley Flatbed

On this flat trailer you can pile items as high as your arms and imagination will reach. This makes the Burley Flatbed the perfect travel companion if you are bringing a large tent on your cycling holiday. The Flatbed has a large floor, with a capacity of 50kg and as for long items; it is only the law and balance that set the limits. The design is practical and robust. The aluminum frame is equipped with heavy duty rubber covered nylon and the wheels are separated from the bed so the stuff you carry will not scrape against the rotating wheels. The open design means that you will need a box or a bag and some straps to tie them down if you are carrying smaller items. The hitch is neatly fitted on the rear wheel axle and the trailer snaps on and off easily by inserting or removing the locking pin. It takes a bit of bending over but the system is simple and reliable.

The trailer has little affect on the riding characteristics but the Flatbed is wider than, for instance, the Nomad, so you will have to be careful when riding to ensure that the trailer does not hit obstacles. Like the Nomad the Flatbed is difficult to tow because of the low tow-bar. The Burley Flatbed is best suited for cycling holidays when you are carrying loads of stuff but its versatility makes it useful in other situations.

HOLIDAY ★★★★★

SHOPPING ★★★★★

GARDEN CENTRE ★★★★★



WEIGHT: 7 KG

DIMENSIONS: 70x50cm

CAPACITY: 90 KG

CARRYFREEDOM.COM

Carry Freedom Y-frame

The Y-frame from Carry Freedom is strong as an ox and the best all-around trailer we tested. The Y-frame has an open bed and the trailer is made from a strong aluminum frame covered by a plywood board. It will support about 90kg although this amount is probably not entirely legal. The Y-frame is a bit smaller than the Burley Flatbed but that makes it easier to tow and more stable when weighed down. The design is open, elegant and simple but the wheels are left uncovered so you will have to use a box, bag or some straps to fix your load. Another perk is the anti-slip cover on the surface which helps keep things in place. The Y-frame is really easy to tow and barely affects the riding experience. The hitch is easily fitted to the bikes rear axle. The trailer also easily fits to the hitch with a lock split not unlike the Burley system. It is easy and intuitive, but you need to bend low to do it. On foot the Y-frame is awkward to pull but still a bit better than the Burley trailers. The Y-frame is a good all-around choice. Even with a heavy load it is very stable and rides well. The downside is that you do need extra gear—a box, bag or straps to fit your load. But once you have that there is no limit. If you can pull it the Y-frame can carry it.

HOLIDAY ★★★★★

SHOPPING ★★★★★

GARDEN CENTRE ★★★★★

Burley Nomad

The Burley Nomad is a great choice for the modern "Nomad" who travels by bike. The aluminum frame and nylon cover safely contain all your belongings during your cycle holiday. The Nomad is light and really easy to tow. It has a very limited effect on the bike's riding characteristics and it is so narrow that you do not have to think about hitting signposts or curbstones. But despite its narrow frame the Nomad is still quite roomy and will carry 30 kg. The hitch is easily fitted on the rear wheel axle and the trailer snaps on and off easily by inserting or removing the locking pin. It takes a bit of bending over but the system is simple and reliable. Because of the low tow-bar the Nomad is difficult and uncomfortable to pull by hand. The Nomad is at its best during cycling holidays. It rides well and your gear is well protected under the cover.

HOLIDAY ★★★★★

SHOPPING ★★★★★

GARDEN CENTRE ★★★★★



WEIGHT: 6,7 KG

DIMENSIONS: (OPEN) 82,3x67,9x57,9 CM

(FOLDED) 82,3x54,6x16,5 CM

CAPACITY: 45,5 KG

BURLY.COM

Tout Terrain: Mule

This is the only one wheel trailer in the test and performs excellently on cycling holidays provided you are travelling light. The little Mule can carry 30kg and can hold a 60 liter bag. Riding with the Mule is fantastic; the trailer is light and follows the bike like a shadow. This is typical for one wheel trailers but the Mule is even better than most because of its suspension which works very well. All these aspects make the Mule the best towing trailer we tested. But the one wheel construction also means that the trailer is almost impossible to handle when removed from the bike. It is hard to maneuver and balance when loaded. Thankfully the Mule has a large, stable, removable kickstand that holds it still when parked. For rain protection the Mule comes with a rain cover that'll protect your stuff even if you did not pack it in a watertight bag. A mudguard also limits mud spraying on you and your things. The hitch fits on the seat post of the bike and is easily accessible. Fitting the trailer to the hitch is easy and intuitive, but the hitch will not fit on bikes that have a very low saddle. The towbar also prohibits putting any cargo/luggage on top of your rear rack. The Mule is best suited for cycle touring due to its stable steel frame and waterproof luggage compartment combined with the excellent riding characteristics. The Mule a fast, lightweight touring treat.

HOLIDAY ★★★★★

SHOPPING ★★★★★

GARDEN CENTRE ★★★★★



WEIGHT: 6,7 KG.

DIMENSIONS: 73x40x17 CM,

CAPACITY: 50 L/40KG

EN.TOUT-TERRAIN.DE

Christiana

The classic from Christianina is by far the most heavy duty trailer we tested. It is a serious workhorse. With a strong and heavy steel frame combined with a plywood box this trailer will carry anything heavy, pointy and sharp you can fit inside. The trailer is easy to pack, just dump your stuff in the box and off you go, but be careful not to let small fragile things rattle round. The riding characteristics are satisfactory, but it is heavy and you cannot ride fast. It also has a tendency to tip over if you take corners too quickly. The hitch fits on the seat post and it is easy and straight forward to use. But like with the Mule, the hitch will not fit if the saddle is too low. On foot the Christianina is the best out of all the trailers. It has a good pulling height, is well balanced and has a kickstand that keeps it stable. The Christianina is best for the hard worker or the cozy trip. It is perfect for the garden centre or recycling but will also work well during holidays if you have to carry lots of stuff and are not in that big of a hurry.

HOLIDAY ★★★★★

SHOPPING ★★★★★

GARDEN CENTRE ★★★★★



WEIGHT: 17,5 KG

DIMENSIONS: 88x48x35 CM

CAPACITY: 100 KG

CHRISTIANIABIKES.COM

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