



Bicycle Recycling Schemes in London – A Scoping Study

Report to Transport for London
ED06240 Issue 1

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Executive summary

This report presents the findings of a Transport for London (TfL) commissioned study investigating the feasibility of establishing a central bicycle recycling initiative for London. This commission is thought to be the first of its kind to have been undertaken in the UK and it was clear from the outset that limited publicly available information existed on bicycle recycling schemes. Therefore, this study utilised a range of research methods to gather appropriate background information, data and experiences from other similar schemes that operate in the UK, and where appropriate from overseas.

Whilst desk based literature searches and correspondent questionnaire surveys of London boroughs were undertaken, the report's main findings were derived from a comprehensive set of case studies developed from face-to-face and telephone interviews. The study's outputs represent a unique collation of relevant information that could assist TfL make appropriate decisions on whether the establishment of a London specific bicycle recycling scheme would be a worthwhile undertaking.

An important conclusion of the study identified that a London scheme could be established by utilising success criteria of schemes operating in other cities. Combined with London's ample supply base of disused bicycles and sufficient local demand, London also boasts an established policy environment (e.g. Mayoral strategic policies), appropriate infrastructure (e.g. established small scale projects, administrative bodies such as TfL and the London Boroughs etc) and systems (common waste and landfill management systems) that can be adapted and leveraged to help establish a bicycle recycling scheme. The report concludes by presenting a range of options and associated recommendations for consideration by the client on how to take an initiative for London forward.

Key findings include:

- Although many of the recycling schemes in operation around the UK can secure profitable income from sales of recycled bicycles, new and old parts and accessories, most were established using grant funding to 'pump prime' or to maintain viability of the project. In many cases grant funding is still a fundamental requirement to ensure continual provision of the service, however there are exceptions (e.g. Oxford Cycle Workshop), which have been able to trade profitably without third party grants or funding support.
- Securing and maintaining skilled labour (wages, training, retention, recruitment etc) represents the most significant challenge and burden for schemes. As many of the schemes rely on volume of sales to ensure that costs can be covered, affordable and effective skilled labour is a success factor that schemes require. Whilst many depend on volunteers, some scheme operators have turned to prison services to provide very low cost and enthusiastic (low churn rate!) labour in order to reduce costs and increase volume throughput.
- There are a number of schemes in London that utilise discarded bicycles. However, most of these schemes are focused on training and skills, rather than on recycling significant numbers of bicycles and introducing them to market. Other schemes outside of London also vary in terms of purpose, however two notable schemes work well as a commercial venture (by covering operating costs), namely the Oxford Cycle Workshop and the Edinburgh based Bike Station.
- There is an estimated annual total number of 27,500 potential discarded bicycles in London. This estimated figure represents approximately 5% of total new bicycle sales in London, which are estimated at 560,000 per annum. From a contextual perspective, even if half of the potential 27,500 bicycles were salvageable via a London bicycle recycling scheme, it would currently outperform all of the current UK based recycling schemes combined. Key sources of bicycles includes discarded bicycles at civic amenity sites, as well as bicycles recovered by the Metropolitan Police Service (stolen or abandoned).

- Demand in London would potentially be significant for recycled bicycles, particularly as 14% of London's population is made up of students in higher and further education. In addition to this, London has experienced a growth in cycling particularly in central London (congestion charge area), spurred on by promotion of cycling to work schemes (as part of travel plans), pool bikes, increases in cycle lane infrastructure and parking facilities. An additional beneficiary market could also include the large number of London's long term unemployed that could utilise low cost bicycles to improve their access to jobs in London.
- Recycling schemes have been established around the UK for a variety of reasons. The majority have been established voluntarily for training and engaging with young people, whilst only a handful have been developed to provide a range of services including sales of quality cheap bicycles (The Bike Station, Oxford Cycle Workshop and Waltham Forest).
- The most common challenge to all schemes was making the logistics (inbound and outbound) of their operation efficient and cost effective. This has been predominantly due to the unpredictability of supply of, and in some cases, demand for quality recycled bicycles. This challenge also extended, in part, to labour efficiencies from both a throughput (ability to process/maintain bicycles) and a cost point of view (many are volunteers, but some are employees). Few scheme operators have any experience in logistics operations or general management skills and little has been done to apply reverse logistics concepts to such schemes.
- As margins per bicycle are low, volume throughput is the only method of generating sufficient income to cover costs of operation. Many view models such as the Oxford Cycle Workshop as the most successful due to its ability to operate commercially without dependency on grant funding. The following table provides a summary overview of the case studies covered by the study:

Project	Location	Overview
The Bike Station	Edinburgh	Developed out of a volunteer based project. Recycles donated bicycles; provides training facilities for cycle maintenance; provides cyclist training
Oxford Cycle Workshop	Oxford	Social enterprise recycling 1,000+ bikes per year; provides training facilities for cycle maintenance; provides cyclist training; mobile cycle repair service; has partnership with prison who provide labour for reconditioning of bikes
Re-Cycle	London/ Colchester	Dual site operation, reconditioning bicycles with the majority shipped to Africa
Stafford Jobcentre Plus	Stafford	Purchases recycled bikes for jobseekers (via Advisory Discretionary Fund) with no other transport options
Wandsworth Prison	London	Established primarily for offering bicycle maintenance for prisoners. Prisoners gain accredited training through Open College Network.
Cycle Training UK	London	Carrying out several small cycle maintenance projects with young people and/or communities, recycling bikes in the process
Waltham Forest	London	Sells reconditioned bicycles and offers a facility for the general public to undertake maintenance of their own bikes
Brixton Bicycle Art	London	Interesting use of recycled cycles in a youth/art project. Working with young people, covering mostly creative skills, but also social skills and technical elements
Metropolitan Police	London	Collect abandoned bikes around London. Many bikes are donated to local recycling projects
Transportation Alternatives- Recycle a Bike	USA	Largest bicycle recycling scheme in the USA. Puts bicycles back into action, but the main objective is to instil an environmental consciousness and foster mechanical and social skills in children.

Mini Case Studies		
Community Action Furness	Barrow in Furness	Furniture project that looked at recycling bikes
Welwyn and Hatfield CVS	London	Furniture project looking at recycling bikes
Citi-Cycle	Milton Keynes	Cycle recycling project that worked with young people excluded from school, project ended as not close enough to parent organisation's core mission
Motiv8	Worcester	Thriving cycle recycling project, started as an offshoot of a motor mechanics' project with young people excluded from school
Youth Offending Teams (YOT)		
Wandsworth	London	Training for young offenders. Recycled bikes given to victims of cycle theft
Camden	London	Training for young offenders. Recycled bikes given to victims of cycle theft
Barking and Dagenham	London	Training for young offenders. Donates to Re~Cycle when reconditioned
Tower Hamlets	London	Training for young offenders. Donates to Re~Cycle when reconditioned
Other London Activity		
Haringey Borough Council	London	Commissioned a feasibility study for recycling bicycles. Not operational
STA Bikes	London	Cycle training project in Hackney
Cycick	London	Unknown
On Your Bike	London	No longer active
Re-Cycle Cold Harbour	London	Discontinued project in Brixton
Easy Rider Islington	London	6 month project funded by London Cycling Campaign and delivered by Groundwork, project manager has moved on and Groundwork have no details
Brent Eleven Streets Residents' Group	London	In development
Burgess Park	London	Social cycling club. Also runs maintenance classes for children
Springboard Resource Centre	London	Working with Mental Health NHS Trusts. Provides vocational activity and training

- The study concludes that sufficient evidence exists that a pan London scheme could be developed based on adopting best practice from the case studies and applying these to the potentially significant London market. With a more manageable and predictable supply base (due to the volume of disposed bicycles and number of disposal sites) as well as a large target market for sales (student, workplaces, unemployed) London could support a start up scheme and feed its growth.

The study presents the client with four options covering a 'Do Nothing' scenario, an 'Alliance/Cooperative' scenario, a 'Demonstration Programme' scenario and a 'full scale initiative' scenario. It explains the 'pros' and 'cons' that each option presents. The report also suggests individual recommendations that are specific to each option as well as identifying common *investigative* and *fundamental* recommendations that would need to be considered, if the first option of 'Do Nothing' was rejected.

The report puts forward the third option of undertaking a 'Demonstration Programme' as possibly having the strongest case for implementation due to its flexible nature, low risk and comprehensive approach.

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1 INTRODUCTION

Recycled bicycles provide an opportunity to provide cheap and sustainable transport options for those on lower incomes, thus helping to support policy objectives.

This scoping study was undertaken as part of an ongoing strategy of Cycling Centre of Excellence (CCE) support for local schemes and community cycling, demonstrating the value of these schemes and then assessing their mainstream potential. This has included Cycle London Promotion Partnership (CLPP) project funding and variety of innovative pilot schemes including the funding of a bike recycling schemes in Waltham Forest. The scoping study aims to assess the potential and logistics required to move this type of scheme into a pan-London project, managed by other GLA family members.

This scoping study was made up of the following key elements:

- **Desk top review**

The desk top review utilised a mixture of desk based research employing Internet, published documents and telephone information gathering techniques. This desk top study included:

- Identification of where and how cycle recycling schemes support or meet strategic transport objectives e.g. Mayor of London's Transport Strategy
- review of published information including TfL policy documents and other public body internal reports
- review of freight and logistics publications (e.g. reverse logistics processes)
- identification of gaps in available information
- identification of potential funding streams
- identification of promotional campaigns
- identification of potential partners
- a market study of recycled bicycles

- **Case studies**

The case studies utilised a mixture of questionnaire development (see Appendix 1), desk based research, telephone interviews and face-to-face interviews to obtain information on a range of recycling schemes both inside and outside London.

A brief analysis of the case studies was undertaken in order to try and identify, where feasible issues such as:

- Current scale and state of the bicycle recycling industry
- Critical success factors of the schemes
- Main beneficiaries and key benefits
- Logistics operations deployed in the schemes

- **Logistics Review**

The logistics review section analysed the information obtained from the case studies and made a comparison between the processes involved in three of the schemes. It identifies both barriers and the solutions that were developed, where available, for each of the processes. A comparison has also been made with current reverse logistics practices in order to benchmark current operational status and maturity of operations.

The next stage of this process could be to assess the options presented in this report, agree on an approach collaboratively with GLA family members and then conduct a more detailed evaluation, pilot and implementation of the requirements for the chosen option.

It is anticipated that the recommended actions resulting from this phase will assist TfL in developing the scope and objectives of subsequent research phases.

2 DESK TOP REVIEW

This top level review was undertaken to assist in defining the scope of later stages in the project. The review has investigated and identified a number of areas including how recycling bicycles supports different areas of the Mayor for London's various strategies, whilst also exploring possible sources of funding to identify grant schemes or other resourcing streams that could support the development of a bicycle recycling scheme in London. In addition, a number of promotional campaigns have been identified that could provide opportunities for joint initiatives, possible partnerships and alliances that could assist a potential cycle recycling scheme to succeed in London.

2.1 STRATEGIES

2.1.1 Mayor's Strategies

The Mayor of London has published a series of strategy documents setting out his policies for London. The section below summarises the main strategy aims and indicates how a bicycle recycling scheme could contribute to these aims.

The Mayor's Transport Strategy

The aim of the Mayor's Transport Strategy is to create a world class transport system that supports a vision of London as a sustainable world city. To achieve this world class transport system, ten key transport priorities are identified. A bicycle recycle scheme would contribute to a number of these transport priorities:

- Increased levels of cycling: Cheaper availability of bicycles through a bicycle recycling scheme should encourage increased uptake of cycling and therefore indirectly meet transport benefits of cycling as outlined in the London Cycle Action Plan (LCAP).
- Supporting local transport initiatives including walking and cycling initiatives: The majority of existing bicycle recycling schemes have links with safety and environmental awareness schemes. A London wide bicycle recycling scheme could integrate with other schemes such as Safer Routes to School.
- Improving social inclusion: A bicycle recycling scheme could, depending on the particulars of the scheme, provide subsidised bicycles to residents of deprived areas, therefore providing affordable transport to access jobs and training. In addition there may be employment opportunities within the scheme itself.
- Reduced traffic congestion by shifting journeys from motor transport modes to cycling
- Improved journey time reliability for door-to-door journeys since cycling (along with walking) trips are the most reliable means of transport in London (ref).

The Mayor's Air quality Strategy

The Mayor's aim is to improve air quality to the point that pollution no longer poses a significant risk to human health. As cycling is a sustainable, non-polluting mode of transport, encouraging greater use of cycles for work and leisure activities would assist in supporting this strategy. A bicycle recycling scheme will increase the size of the second hand market for bikes, and encourage an uptake of cycling, thus reducing the number of cars on the road and improving air quality.

The Mayor's Economic development Strategy

One of the main economic development goals is investing in places and infrastructure. A bicycle recycling scheme would contribute to the infrastructure aims of sustainable growth, effective infrastructure and delivering healthy, sustainable, high quality communities. An increase in cycling would reduce congestion and air pollution while assisting in the creation of a healthier population.

A scheme would also contribute to investment in people. It could create employment for the long-term unemployed and provide them with new skills which could increase their chances of developing a career. There is significant scope to create partnerships with organisations, which generate employment opportunities, especially with organisations that promote employment opportunities in disadvantaged areas such as Urban Futures and Groundwork.

The Mayor's Noise Strategy

An initial priority mentioned in the noise strategy is encouraging quieter vehicles. Being non-motorised a bicycle is a 'no noise' form of transport and increasing the availability of second hand bicycles could therefore encourage quieter modes of transport.

A bicycle recycle project could link in with other projects encouraged in the noise strategy such as Home Zones or other 'Streets for People' projects.

Mayors Municipal Waste Management Strategy

Currently, it is believed that not all bicycles that are disposed of are recycled as scrap metal. Therefore, a bicycle recycling scheme could potentially contribute to the Mayor's Municipal Waste Management Strategy which promotes reducing waste by re-using it. Such a scheme could contribute to the target of recovering value from 45% of waste by 2010.

As well as reducing the amount of waste, the scheme would also raise the profile of re-using and recycling in London. Any marketing campaigns employed to promote bicycle recycling schemes could also be considered as marketing for general recycling purposes. A bicycle drop off site could also be an excellent location for information and leaflets about other re-use and recycle schemes.

The Mayor's Energy Strategy

A bicycle recycling scheme would also contribute to the Mayor's objectives for energy savings. Both the re-use of an unwanted consumer article and increasing cycling as a transport mode contribute to energy savings and emission reductions.

Table 2.1 shows a policy matrix, which demonstrates how the attributes of a bicycle recycling scheme support the different areas of the Mayor's strategies. This table represents Momenta's perspective, based on analysis and mapping of case studies.

Table 2.1 Policy Matrix

Recycling Cycle Attribute / reference	TfL / GLA objectives									
	Congestion	Air Quality	CO ₂ reduction	Energy savings	Noise reduction / Improvement Urban Environment	Sustainable growth / Economic Development	Promoting Healthier Lifestyle	Improving Social Inclusion	Employment	Waste Reduction
Provides learning skills	1	1	1	1	1	3	2	3	3	2
Incentives/ support for target groups	2	2	2	3	2	3	3	3	3	1
Partnership with health promotion	1	2	2	1	2	3	3	2	1	1
Raises profile of cycling in London	3	3	3	3	3	3	3	3	1	1
Links in with other cycling initiatives	3	3	3	3	3	3	3	3	1	1
Recycling of product / material	2	2	3	3	3	3	1	1	1	3
Raises profile of recycling in London	2	2	2	3	3	3	1	1	1	3
Non motorised	3	3	3	3	3	3	3	3	1	1
Inexpensive to acquire and run	2	2	2	3	2	3	3	3	1	1

Low / No relevance	1
Medium relevance	2
High relevance	3

Table 2.1 shows that each attribute of a potential bicycle recycling scheme has relevance to at least half the Mayor's policies. From the table, it appears that sustainable growth/economic development has the most relevance, followed by energy savings, promoting healthier lifestyle and improving social inclusion. Of equal interest, it appears that the scheme has significant cross-cutting relevance for promoting non-motorised transport, linking in with other cycling initiatives and raising the profile of cycling in London.

2.1.2 Other Strategies (TfL, GLA)

London Transport 2025 Transport Vision (TfL)

A cycle recycling scheme would contribute to all three of the transport objectives identified in the London Transport 2025 Transport Vision document produced by Transport for London (TfL). The objectives are:

- Supporting economic development by reducing traffic congestion
- Tackling climate change and enhancing the environment by reducing CO₂ emissions, improving air quality, reducing noise and improving the urban environment.
- Improving social inclusion

By raising the profile of cycling in London a cycling recycling scheme would contribute to the cycling target which is to increase cycling trips by 400% by 2025. A scheme would also contribute to two of the six transport strategies mentioned in the Transport 2025 Document namely influencing travel behaviour and reducing congestion and emissions.

London Cycling Action Plan (TfL Cycling Centre of Excellence)

A bicycle recycling scheme could contribute to the objectives of the London Cycling Action Plan (LCAP). Depending on the particulars of the scheme and the destination of the cycles, the scheme could contribute to Objective 4 of LCAP supporting innovative cycling schemes, to increase the appeal and advantage of cycling. It also supported Objective 6, since cheaper second hand bikes would make cycling more socially inclusive. There is also the opportunity to offer these bikes for use during cycle training, thus further enabling children and adults who do not currently have access to a bike. By providing free or reduced cost bikes to residents who otherwise would not be able to afford a bike, the scheme would contribute to reducing the barriers that limit participation in cycling and potentially increase participation by under-represented groups.

There is also a great opportunity for the scheme to link in with other sectors. LCAP Objective 10 to improve co-ordination and partnership specifically mentions partnerships with health and the voluntary sector, both of whom would be ideal partners for the cycle recycle scheme.

London Plan for Sport and Physical Activity (London Sports Board)

The London Sports board in partnership with the Mayor of London, Greater London Authority (GLA), National Health Service (NHS), Department for Health (DH) and Home Office produced the London Plan for Sport and Physical Activity. The London Plan for Sports aims to connect sport with a wider policy agenda in London and use physical activity as a means of delivering important socio-economic outcomes.

A cycle recycling scheme could contribute to the London Plan for Sport and Physical Activity target of increasing overall participation rates by 1% a year.

2.2 CURRENT/PREVIOUS RECYCLING SCHEMES IN LONDON

There are a number of schemes in London that utilise discarded bicycles. However, most of these schemes are focused on training and skills, rather than on recycling significant numbers of bicycles. A summary of the schemes follows below while the case study chapter (see section 4) provides more in-depth information.

Waltham Forest bike recycling (run by London Borough of Waltham Forest)

Waltham Forest Council run a bicycle recycling scheme that delivers recycled bikes for sale to the public. Residents can qualify for a new bike (in return for a donation), and can also donate an old bike to the scheme. In addition, they can also learn how to work on their own bike with the assistance of a qualified bicycle mechanic.

Wandsworth bike recycling scheme (run by London Borough of Wandsworth)

Wandsworth's Youth Offending Team run a bike reconditioning project which works to recondition old bicycles which are subsequently given to victims of cycle theft.

Re~Cycle

Re~Cycle is a charity that recycles old bikes and parts and then ships them to Africa, where project partners teach locals the skills required to repair and maintain the bicycles in order to improve their lives in a sustainable manner. The London Borough of Barnet send their disused bicycles to Re~Cycle while the London Borough of Lambeth is also currently in discussion with Re~Cycle.

Other Schemes

There are a number of other schemes, which focus upon training and skills for young people. Brixton Bicycle Art is an organisation running art/youth projects using old bicycles. There are also Youth Offending Team projects in Camden, Barking and Dagenham and Tower Hamlets. The Camden and Tower Hamlet's schemes collect the vast majority of their bikes from the police whilst Barking and Dagenham obtain bicycles from both the police and the general public. Bicycles repaired under these schemes go to victims of cycle theft and to Re~Cycle. No bikes are sold to the public.

Hounslow Borough council does not have a formal scheme, but do recycle high quality bicycles received at their waste sites and provide these to schools on an ad hoc basis.

2.3 MARKET SIZING

This section of the desk top review sought to identify the potential market, including the number and types of people who may purchase a bike. In addition, the London boroughs were contacted to try and obtain data on the actual number of bikes deposited at waste sites each month in order to try and identify the potential supply of discarded bikes that could be used in a cycle recycling scheme. The running costs of an actual cycle recycling scheme are also included for information.

National Market

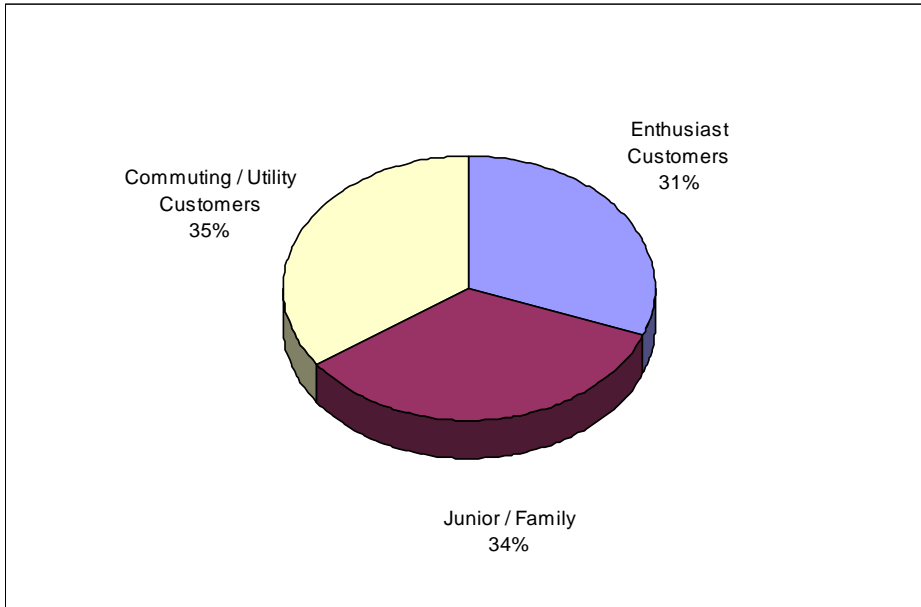
The British new bicycle industry is estimated to be worth £500m per annum¹. In 2004, 4.5 million bikes were sold in the UK² The average price for a new adult bicycle in the UK in 2001 was £107³.

The breakdown of the different types of customers who purchase bicycles are shown in Figure 2.1 below.

¹ Source: CTC/Bicycle Association/Association of Cycle Traders 2001

² Source: Bicycle Association of GB

³ Source: Mintel, Bicycles 2001

Figure 2.1: Composition of bicycle market

Source: Bikebiz 2006

Figure 2.1 shows that the market is almost equally divided into utility, family and enthusiast cyclists. Enthusiast customers are sports cyclists using racing bikes or mountain bikes. It is anticipated that enthusiast customers are more likely to buy new bicycles at the higher end of the market. However, this still leaves 70% of the market potentially open to second hand bicycles such as could be provided by a bicycle recycling project.

Based on a UK population of 60.2 million compared to a London population of 7.5 million, it appears that currently approximately 12.5% of the UK population live in the London area. Therefore, if it is assumed that the market is uniform throughout the UK, this could therefore be equivalent to a possible London market of approximately £62.5 million per annum (based on 12.5% of the estimated £500 million per annum national industry value). Using the national sales of 4.5 million bikes per annum, if 12.5% of these sales were to occur in London then this would be equivalent to total London sales of approximately 560,000 bikes per annum.

Bike Shops in London

The Yellow Pages lists 118 bicycle shops in London. In addition, there are also 15 Halfords stores and a number of supermarkets that sell bicycles. The London Cycling Campaign provides a list with 13 bicycle shops in London who specialise in second hand bicycles and another 11 that occasionally sell second hand bicycles. Second hand bicycles are also sold privately via local classified websites such as Friday-ads.

2.3.1 Potential Demand Sources

Cycling has grown above average in Central London with a growth of 43% in the Congestion Charging Zone (TfL, 2006).

The Office for National Statistics (ONS) 2005 population statistics estimate that there are 7,518,000 residents in Greater London, of whom 5.26 million are in the age range 15-64 years old, the category

most likely to use a bicycle. The Greater London population in this age group has increased in size from 5.05 to 5.26 million since 2001, which is a 4% increase in 4 years.

Students

There are approximately 1.05 million students in higher and further education in London (Source: National Union of Students). This number includes both full time and part time students and equates to 14% of total London residents. This figure is slightly higher than the UK average of 11.46% students (source ONS) but less than for Oxford where 32% of residents are students and Edinburgh which has 21% student residents.

Statistics from the Oxford and Edinburgh schemes shows that students form a considerable proportion of the demand for second hand bicycles. The 1 million students can therefore be considered as a significant potential market and it might be useful to locate future outlets of bicycle recycling projects in the vicinity of universities

Low Income Groups

Another group that a bicycle recycling scheme could target is the lower income groups. This group includes some people who work unsociable hours such as employees at restaurants, bars and hotels. There are currently 257,000 people employed in the hospitality sector in London and this number is expected to grow by 3%⁴. A significant proportion of these people work unsociable hours, which means that there is likely to be only limited public transport available. Targeting this group could enable them to access job opportunities in a wider geographical area, increase their disposable income (e.g. reduce the potential need to use taxis) and improve their health.

Both the Bike Station and Oxford Cycle Workshop sell large numbers of bikes to one particular low income group i.e. students. There are also a variety of cycle training initiatives around London that target various other groups. The Waltham Forest project has demonstrated that linking with cycle trainers involved in these initiatives is likely to be the best targeted way of providing cycles and encouraging cycling among different demographic groups.

In the course of this project, key contacts were established with Jobcentre Plus who showed a strong interest in linking with potential cycle recycling projects to provide bikes to certain target groups of jobseekers – specifically those placed in low-paid jobs and/or working shifts (the catering industry especially fits both these criteria). Jobcentre advisors have specifically noted that there are many instances in which a jobseeker taking up work is only marginally better off than when collecting benefits – and the cost of transport to work can eliminate the financial gain altogether. In such circumstances, providing a bike could well make the difference between that jobseeker taking up employment, or not.

Unemployed

According to a report in the HRM Guide (a specialist human resources publication), the Labour Force Survey identified London as having one of the highest rates of unemployment in the UK. Its June 2006 report (covering the January to March period), the rate of unemployment in London reached 7.6%. Its unemployed total of 301,000 was more than the totals for Wales, Scotland and Northern Ireland combined, more than the entire English Midlands and more than the North West and North East of England combined. National statisticians reported that within London itself there were enormous variations of unemployed between the London Boroughs. The numbers of claimants for Jobseekers allowance that had been out of work for two years or more (at the time of reporting) ranged from 5 in the City of London, 60 in Kingston-upon-Thames, 65 in Hounslow and 80 in Richmond to 710 in Brent, 740 in Haringey, 805 in Tower Hamlets and 1,160 in Southwark.

A London cycle recycle scheme could work in partnership with a number of Boroughs, Job Centre Plus, South East Regional Development Agency and other employment agencies to partly ensure that access to transport was not a barrier to the long-term unemployed finding work.

⁴ Source: National Guidance Research Forum

Workplace and School Travel Plans

Workplace travel plans are increasing in importance, especially with new office developments. In London, there may be opportunities to link a bicycle recycling scheme to workplace travel plans which could be beneficial for both. The bicycle recycling scheme could increase its patronage while the provision of inexpensive bicycles might encourage employees to cycle to work. There could also be opportunities for the scheme to have 'Dr Bike' sessions where a mobile mechanic fixes and maintains employees' bikes at large employers with travel plans.

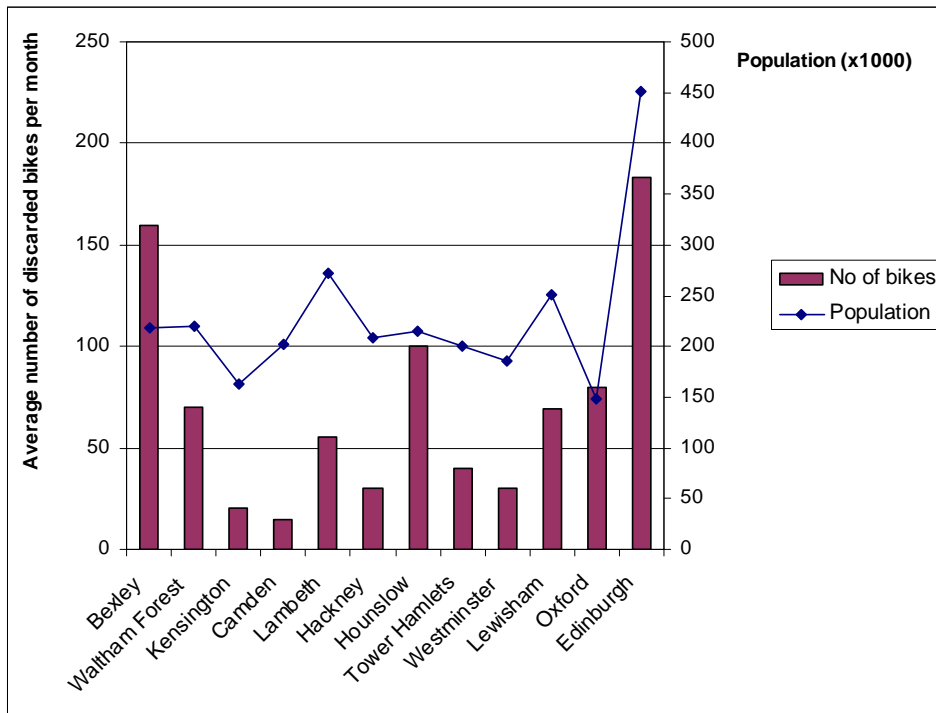
A bicycle recycling scheme in London could also be linked to School Travel Plans. The provision of inexpensive children's bikes might encourage children to cycle to school while the recycling, environmental and health aspects of a scheme could be linked to the curriculum.

2.3.2 Likely supply of redundant bicycles

London Boroughs have been contacted (by telephone and email) to investigate the supply of recyclable bicycles in London. Apart from Waltham Forest, which already runs a recycling scheme, none of the boroughs contacted had accurate information available initially and consequently, most of the boroughs which replied, provided an estimate. However, Waltham Forest was able to provide more robust data, whilst Lewisham counted actual numbers of discarded bicycles during February (see Appendix 2).

A total of 10 boroughs replied with information on the monthly number of bicycles discarded. Figure 2.2 shows the number of bicycles in relation to the number of residents in the borough. For comparison, the graph also shows the number of bicycles supplied to the Oxford and Edinburgh bicycle recycle schemes.

Figure 2.2: Monthly Supply of recyclable bicycles



Source: Data supplied by borough waste officers, Oxford Cycle Workshop and Edinburgh Bike Station

For the 10 boroughs who provided data, it was found that Bexley and Hounslow received the highest number of discarded bicycles, while Kensington and Camden received the lowest number. From Figure 2.2, it may be seen that there appears to be a significant variation in the average number of discarded bicycles obtained by the boroughs with some boroughs only receiving approximately 15 to 20 bikes per month. However, the data from the Oxford and Edinburgh case studies found that the number of discarded bicycles per head of population was greater than that recorded in most of the above London boroughs. This difference may be due to a range of factors that could include under-reporting by some of the London boroughs. However, it is not currently possible to determine whether this is actually the case, due to the lack of accurate information available on the number of discarded bicycles. It would naturally be useful for more accurate data to be collected.

It is noted that the majority of the data cannot be subdivided into types of bike e.g. child, adult etc. However, the Lewisham data suggested that approximately one third of recyclable bicycles are children's bikes.

The data obtained from these 10 boroughs on the potential supply of discarded bikes was compared with the total population for these boroughs. From this data it was found that a total of approximately 7,068 bikes were discarded per annum in these 10 boroughs, which between them have a total population of approximately 2,136,645. Therefore, as these 10 boroughs contain just over 28% of the total London population (based on the total population of approximately 7.5 million for the whole of London) this could result in an estimated total number of approximately 25,000 discarded bicycles per annum for London as a whole, if this pattern was replicated in the all of the London boroughs.

The above figures are based on the number of bikes collected at borough waste sites and do not take into account bicycles supplied by other sources such as the Metropolitan Police. Therefore, the estimated potential supply of bikes per annum is anticipated to be greater than suggested above. From the case study data, it is estimated that the Metropolitan Police Service (MPS) receive approximately 2,500 cycles per year which would increase the potential supply of discarded bikes in London to approximately 27,500 per annum.

During this study it has not been possible to obtain data on the number of abandoned bikes on the streets in London. However, Oxford Cycle Workshop has been involved in negotiations to tackle this problem in Oxford, and estimates that the number of cycle parking spaces in Oxford that are occupied by abandoned bikes can range as high as 30%. Therefore, in a city such as London, the potential occupancy of even a small percentage of spaces by abandoned bicycles could be a significant waste of resource.

There are sensitivities around removing abandoned bikes from cycle racks (at both streets and stations). However, whilst Thames Valley Police have shown reluctance to remove such street clutter in Oxford, the Metropolitan Police have demonstrated a more robust attitude and this does not appear to have generated significant complaints from the public. At some rail stations, the land is private property, and cycles can legally be removed with relatively little notice. However, different regulations may apply where the land is publicly owned.

A comparison of income for both new and recycled cycle businesses.

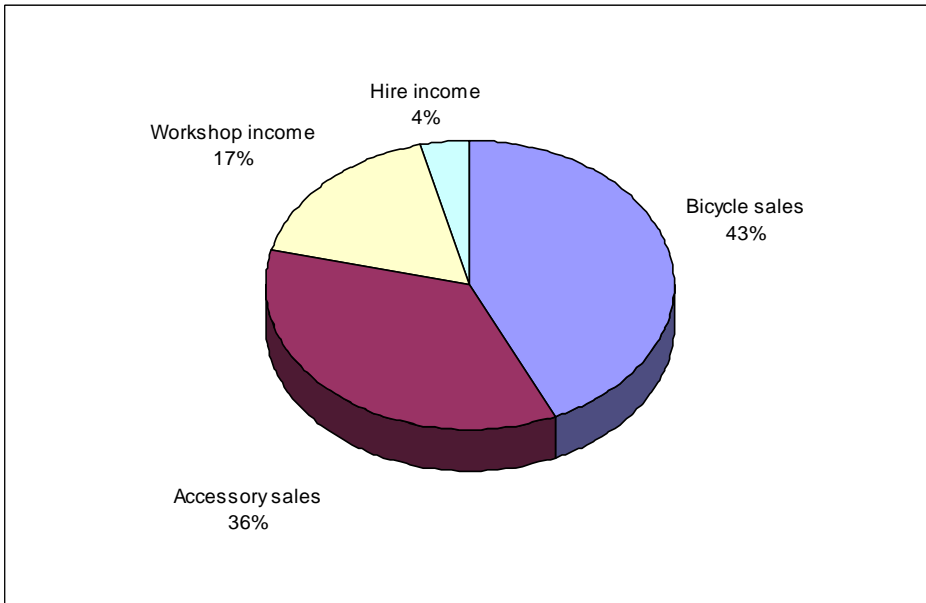
So that it could be understood how a bicycle recycling initiative could be run, the following comparison was undertaken between the income for both new and recycled bicycle businesses.

The average independent bicycle dealer has a turnover of £338,500⁵. The typical dealer's gross profit margin on bicycles is 34%, whilst on clothing it is 43% and on parts and accessories it is 48%⁶. A bicycle dealer needs about 36% profit margin to cover the costs of doing business and break even financially. Therefore, the profit margin cannot be reached by bike sales alone and there is a need to sell accessories. The average bike dealer's profit is less than 5% at year's end⁶.

⁵ Source Association of Cycle Traders

⁶ Source: Bikebiz

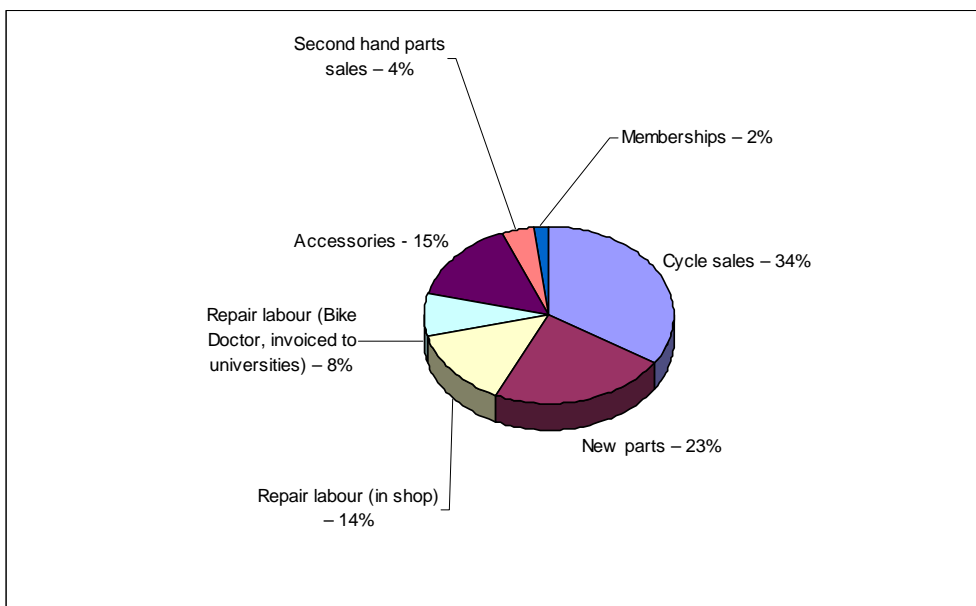
Figure 2.3: Average bicycle shop income for new bicycles



Source: Association of Cycle Traders

The information in Figure 2.3 above relates to sales of new bicycles. Currently it has not proved possible to obtain statistics on second hand bicycle sales, breakdown of cycle sales by price point and other detailed statistics.

Figure 2.4: Oxford Cycle Workshop Income



Given the paucity of information on recycled cycles, we have been kindly given the breakdown of income for the Oxford Cycle Workshop (OCW) (Figure 2.4). When compared to average industry figures for cycle shops in general, it reveals a few key differences. In both cases cycle sales are the largest part of their income, but for OCW, cycle sales represent 34% of income compared to the figure of 43% found for cycle shops in general. This may be due to the lower average sale price of each bike at OCW.

Accessory sales at OCW are significantly lower than the average industry figures for cycle shops. It is suggested that this may be due to the smaller range of these items being offered by OCW than in a typical cycle shop. OCW does not have display space for clothing and other 'high end' accessories, although it does sell basics such as lights and locks with most bikes. It is possible that there may also be a difference in the classification of goods i.e. the industry figures do not list 'new parts' separately, so it is assumed that they must be included in either the workshop income and/or the accessories categories. OCW classifies items such as new saddles, racks and mudguards as parts, so this may also be contributing to the lower accessories figure.

Given the workshop emphasis in OCW, it is unsurprising that repairs contribute a larger percentage of income than the industry norm. The industry figures list 'workshop income' as 17%, versus a combined total of 22% for 'repair labour' at OCW.

2.4 POTENTIAL PARTNERS AND PROMOTIONAL CAMPAIGNS

As part of the desk top review a number of potential partner organisations were identified that could possibly provide support for a London wide scheme. It is considered that several organisations have objectives that suggest they may be interested in participating in a cycle recycling scheme as this could contribute to their aims. Consequently, it is considered that there may be opportunities for joint initiatives. However, at this preliminary stage, these organisations have not been directly approached. The potential partners identified are summarised below. More detailed identification of the most suitable partners will depend on the particulars chosen for the bicycle recycling scheme.

London Cycling Campaign (LCC)

The main aim of the LCC is to improve cycling in London.

- To improve the quality of life in London by increasing cycling.
- To involve people from all London's communities in cycling.
- To bring about the best possible services for people who want to cycle in London.
- To be at the forefront of research and policy linking cycling to wider issues.

This organisation is the main cycling organisation in London with links to most other London based cycling organisations and projects. LCC work with major employers such as the BBC and the Metropolitan Police and is a key stakeholder for CCE. LCC also assist and fund community bicycling projects and employ a community cycling officer. Working with this organisation could give significant benefits with regards to community and business stakeholders / contacts and community project expertise.

<http://www.lcc.org.uk/index.asp?Pageid=1>

PRO-ACTIVE

There are 5 London PRO-ACTIVES (previously called Sport and Physical Activity Partnerships) funded by the London sports board. Their overall purpose is to develop / enhance existing partnerships and establish new partnerships and ways of working using sport and physical activity as

a catalyst to bring about positive social and economic well being of local communities. It focuses on increasing participation and the widening of access for the whole community.

PRO-ACTIVE West London	Brent, Ealing, Hammersmith and Fulham, Harrow, Hillingdon, Hounslow.
PRO-ACTIVE East London	Redbridge, Tower Hamlets, Havering, Bexley, Barking-Dagenham, Newham, Hackney, Lewisham, City, Greenwich
PRO-ACTIVE Central London	Wandsworth, Lambeth, Southwark, Kensington and Chelsea, Westminster, Camden, Islington
PRO-ACTIVE North London	Barnet, Enfield, Haringay, Waltham Forest
PRO-ACTIVE South London	Richmond, Kinston, Merton, Sutton, Croydon, Bromley.

PRO-ACTIVE will provide invaluable experience in using physical activity to enhance social inclusion and increase the well being of local communities. Partnership with PRO-ACTIVE will provide community contacts and community project expertise. It might increase buy-in to the project as residents are likely to be more familiar with PRO-ACTIVE than with a new bicycling recycling project.

http://www.sportengland.org/homepage-subregional_sport_and_physical_activity_partnerships.htm

Groundwork

Groundwork is a federation of Trusts in England, Wales and Northern Ireland, each working with their partners to improve the quality of the local environment, the lives of local people and the success of local businesses in areas in need of investment and support.

Groundwork's purpose is to build sustainable communities through joint environmental action. They aim to do this by getting residents, businesses and other local organisations involved in practical projects that improve quality of life, bring about regeneration and lay the foundations for sustainable development. A partnership with Groundwork could provide access to local communities and community project expertise.

<http://www.groundwork-london.org.uk/>

London Community Recycling Network (London CRN)

The London Community Recycling Network, which was set up in 1997, is funded by a number of organisations including the London Development Agency (LDA), the London Boroughs and Recycle for London. London CRN is a non-profit making organisation that supports, promotes and represents organisations engaged in community recycling. It encourages and assists local authorities with the integration of community recycling services.

London CRN's services include technical, funding or legislative advice, consultancy services, training and events, business support, sector representation and advice on how to recycle. Partnership with London CRN could provide expertise in setting up and running a recycling scheme.

<http://www.lcrn.org.uk/>

Urban Futures

Urban Futures is a regeneration agency which aims to increase social and economic wealth in some of the most disadvantaged areas of London. They manage major regeneration programmes and projects on behalf of the LDA, the Learning and Skills Council (LSC), the Government Office for London and other agencies. Urban Futures works to encourage sustainable regeneration, including the creation of permanent employment opportunities for local residents.

Teaming up with Urban Futures would provide expertise in the employment and skills angle of a possible bicycle recycling project. It could also provide useful contacts and possible funding from LDA, LSC and the Government Office for London.

<http://www.urbanfutures.org.uk/>

London Remade

London Remade aims to create environmental solutions for a sustainable capital. This is achieved through developing markets for recycled content products, providing tailored support to help grow green enterprises and introducing green practices to existing businesses.

London Remade acts as a leading advisor and consultant to London boroughs to improve recycling waste management. The ultimate aim is to transform London's waste into a reusable resource, to create viable everyday products and reduce the impact on landfill. A partnership with London remade could provide expertise in setting up and running a recycling programme.

<http://www.londonremade.com/>

The organisations listed below are national organisations but could be potential partners. Working with these organisations could provide useful expertise in setting up and running major cycling projects. Being linked to these organisations could also assist in the promotion of a bicycle recycling project.

Cycling England

Cycling England is the national body which co-ordinates the development of cycling across England. They aim to create the conditions which will result in more people cycling, more safely, more often. They are supported by a group representing a number of Government Departments, including health, education, planning and sport as well as transport.

<http://www.cyclingengland.co.uk/>

Sustrans

Sustrans is the UK's leading sustainable transport charity. Their vision is a world in which people can choose to travel in ways that benefit their health and the environment. They work on practical, innovative ways of dealing with the transport challenges that affect daily life.

<http://www.sustrans.org.uk/>

Life-Cycle UK

Life Cycle UK is a unique charity that helps people take up cycling. They aim to inspire people and to equip them with the skills, the knowledge and the confidence to make cycling part of their everyday lives.

<http://www.lifecycleuk.org.uk/>

2.4.1 Promotional campaigns

A number of promotional campaigns have been identified that could provide opportunities for joint initiatives. Some examples of possible campaigns are listed below:

Safe routes to School

Safe routes to school aims to create a safe, healthy environment so that children and young people can travel to and from school using sustainable forms of transport such as cycling and walking, thereby increasing their independence, health and fitness. As this campaign is now well known, linking up could increase the profile of a bicycle recycling scheme and provide access to a potential market (i.e. young people).

<http://www.saferoutestoschools.org.uk/>

"Helping new cyclists" initiative London Cycling Campaign

This initiative provides a starter pack including maps, advice and information on starting cycling in London. Inclusion of the recycling scheme in the starter pack would be a useful way to reach new cyclists who are an important potential market for a bicycle recycling scheme.

<http://www.lcc.org.uk/index.asp?PageID=790>

Everydaysport

A campaign run by Sport England to encourage people to build physical activity into their every day lives. As cycling is one of the easiest ways to build activity into daily routine, it might be useful teaming up with this campaign to explain the benefits of cycling to health and the environment, as well as the advantages of buying a second hand bicycle.

<http://www.everydaysport.com/>

Get fit for 2012 NE London NHS

This programme will use the enthusiasm created by the 2012 London Olympics to encourage more young people to get involved in sport. Linking up with this campaign would be useful as it is particularly aimed at young people who are a potential market for the recycling scheme.

<http://www.fitforlondon2012.nhs.uk/>

RecycleNow

The RecycleNow campaign has been created and is run by WRAP, the Waste and Resources Action Programme. The aim of RecycleNow is to encourage people to recycle more. Linking up with this campaign would increase the profile of a bicycle recycling scheme. The RecycleNow website has a section on recycling bicycles and organisations such as Re-Cycle and The Bike Station are mentioned. It also has a 'where to recycle' search tool which would be a useful location to provide information on where you could deposit unwanted bicycles in London.

2007 Tour de France London

In July 2007, London will host the opening stage of the Tour de France, the biggest cycling event in the world. The Tour de France will raise the profile of cycling in London and could provide advertising opportunities although potentially this may only be for a limited time period.

<http://www.tourdefrancelondon.com/en/>

2.5 SOURCES OF FUNDING

Possible sources of funding were explored to identify grant schemes or other resourcing streams that could support the development of bicycle recycling schemes. These sources of potential funding have been identified in the following section. However, it should be noted that whether or not an application for funding is successful will depend on a number of factors, including the particulars of the bicycle recycling scheme and external factors such as the quality and number of other applicants. The following sources are therefore indicative and more research will be needed once the bicycle recycling scheme details have been finalised.

Big Lottery Fund

Funding might be available from the Big Lottery Fund, especially from the *Reaching Communities* programme. The Reaching Communities programme funds projects that respond to needs identified by communities, and actively involve them. It helps those most in need, including those people or groups who are hard to reach.

Reaching Communities will give grants ranging from £10,000 to £500,000, including a maximum of £50,000 for capital grants.

A Cycle Recycling scheme could potentially bring about all four changes mentioned in the Reaching Communities programme, therefore increasing its chances of being awarded funding. These changes are:

- People having better chances in life, including being able to get better access to training and development to improve their life skills.
- Strong communities, with more active citizens, working together to tackle their problems.
- Improved rural and urban environments, which communities are better able to access and enjoy.

- Healthier and more active people and communities.

The Big Lottery Fund also run the **Awards for All** scheme. This scheme is aimed at local communities. The programme awards grants of between £300 and £10,000 towards projects that enable people to take part in art, sport, heritage and community activities, as well as projects that promote education, the environment and health in the local community.

It is suggested that it may be worthwhile to apply for lottery funding as the Staffordshire bicycle recycling scheme was awarded a grant under the 'awards for all' scheme.

<http://www.biglotteryfund.org.uk/london>

European Social Fund (Government Office for London)

Objective 2 of the European Social Fund aims to renew industrial and urban areas that are in decline. Sustainable development is an over-arching theme for the Objective 2 Programme and environmental sustainability is one of its four cross-cutting themes. Measures which include the four cross-cutting themes - environmental sustainability, equal opportunities, innovation and ensuring local benefit - need to be shown in the projects.

As a bicycle recycling scheme could include all four measures it may be worthwhile applying for a grant with the ESF.

http://www.gos.gov.uk/gol/European_funding/

Connecting Communities Plus

Connecting Communities Plus is a grants programme from the Home Office aimed at reducing racial inequalities and tackling extremism. The grant funding is for organisations that are committed to delivering projects and services that promote racial equality and create strong community relations. The grants will facilitate tailored initiatives to meet the specific needs of disadvantaged communities, rather than treating all communities in the same way.

A bicycle recycling scheme aimed at increasing access to employment and services in disadvantaged communities and creating jobs and skills could potentially receive funding from the Communities Plus programme.

<http://www.governmentfunding.org.uk/Default.aspx>

The Ashden Trust

The Ashden Trust is a grant-making charity with the key aims of reducing climate change, sustainable development and improving the quality of life in poorer communities. They make small grants (typically between £1,000 - £20,000) to organisations with a track record of delivering innovative and effective projects.

As a bicycle recycling scheme would combine the key aims of the trust, it might be worthwhile contacting this organisation. The Ashden trust also funded some research into cycling and social exclusion a few years ago which indicates they may have a special interest in the role bicycles can play in reducing social exclusion.

<http://www.ashdentrust.org.uk/index.html>

Esmée Fairbairn Foundation

The Esmée Fairbairn Foundation is one of the largest independent grant making foundations in the UK giving around £25 million of grant funding to projects each year.

Two themes are relevant for the Bicycle recycling project:

- **Low Carbon Economy** which aims to stimulate changes in policy, planning and practice that will support the achievement of a low carbon economy and lessen the detrimental effects of greenhouse gas emissions.

The foundation is particularly interested in applications which promote sustainable transport: especially work at a strategic level which aims to find viable alternatives to vehicle use.

- **The Social Change Enterprise and Independence** programme aims to enable people and communities facing disadvantage to improve their lives and prioritises those at greatest need.

The aim is to enable people and organisations to be more enterprising and to develop new ways of tackling the needs of those at greatest disadvantage through:

- work which enables voluntary and community organisations to achieve some degree of sustainability (for example through trading activities or increasing other earned income)
- social enterprises (businesses which trade for a social purpose where the surplus is re-invested into the organisation) to improve their business or social performance
- organisations taking an entrepreneurial approach to tackling social needs by experimenting with new methods
- new opportunities for people to become more economically independent, for example by moving into paid employment.

A bicycle recycling scheme promotes sustainable transport and could fit in as a social enterprise or an organisation taking an entrepreneurial approach to social needs. The Staffordshire bicycle recycling scheme was awarded a grant by the Esmée Fairbairn Foundation. It is therefore suggested that this foundation could be considered as a potential source of funding.

<http://www.esmeefairbairn.org.uk/>

Learning and Skills Council

The Learning and Skills Council (LSC) aims to improve the skills of England's young people and adults to ensure a workforce of world-class standard. The LSC is responsible for planning and funding high quality education and training for everyone in England other than those in universities. Depending on the particulars of the scheme, some funding for a bicycle recycling project could potentially be available from the LSC.

<http://www.lsc.gov.uk/>

2.6 REGULATIONS

As there is little regulation applicable to this area, the following have been included as having the nearest relevance:

The Landfill (England and Wales) Regulations 2002 states what kind of disposal is and is not allowed to go to landfill. From July 2003 vehicle tyres are not allowed to go to landfill anymore. Bicycle tyres however, are specifically mentioned in the regulations as an exception and therefore still permitted to go to landfill.

New waste legislation has recently come into force in two areas:

The End of Life Vehicles (ELV) Directive came into force in Europe on October 21, 2000. Member States were to implement the directive by April 21, 2002. This legislation only covers motorised vehicles excluding motorcycles and therefore also excludes bicycles.

Landfill tax is paid on top of normal landfill disposal fees by businesses and local authorities that want to dispose of waste by using a landfill site. It aims to encourage waste producers to produce less waste and recover more value from waste. The tax is currently £21 a tonne but is expected to increase to £24 in April.

All of the Boroughs contacted dispose of bicycles as scrap metal, which means that they will receive money rather than have to pay for disposal. The average price for mixed scrap metal is £60 to £70 per

tonne. However, some bicycles, for examples ones thrown away in residential skips, might end up at landfill sites by mistake and Local Authorities will have to pay disposal and landfill tax on this.

2.7 REFERENCE PUBLICATIONS

The following publications contain information that may be useful to organisations that are considering setting up a bicycle recycling scheme.

2.7.1 Recycling scheme operator published material

Kulkarni A, Parlikad A and McFarlane D. Reverse Logistics in Supply Networks: State-of-the-Art and Challenges, University of Cambridge, UK.

Department for Transport, Sheffield Hallam University, Cranfield University and Chartered Institute of Logistics and Transport. The Efficiency of Reverse Logistics

The Bike Station. Bicycle Recycling- A Guide. www.thebikestation.org.uk

Furniture Re-use Network (1999), Loading Up

A guide for starting up a community-based furniture recycling project. This report provides useful guidance on how to set up and run a recycling scheme and might be useful as a bicycle recycling scheme operates in a similar environment and with similar logistics.

2.7.2 Policy documents

Mayor of London (2001) Highlights of the Mayor's Transport Strategy

Mayor of London (2002) Cleaning London's Air, Highlights of the Mayor's Air Quality Strategy

Mayor of London (2003) Rethinking Rubbish in London, Highlights of the Mayor's Municipal Waste Strategy

Mayor of London (2004) Green light to Clean power, Summary of the Mayor's Energy Strategy

Mayor of London (2004) The London Plan for Sport and Physical Activity 2004-2008

Mayor of London (2005) Sustaining Success, developing London's Economy, Summary of the Mayor's Economic development Strategy

TfL (2004) Creating a chain reaction, The London Cycling Action Plan

TfL (2004) A business case and evaluation of the impacts of cycling in London

TfL (2006) Transport 2025, Transport Vision for a growing world city

http://www.hrmguide.co.uk/jobmarket/regional_unemployment.htm

3 CASE STUDIES

A series of case studies have been undertaken to obtain more detailed information from existing bicycle recycling schemes. This section of the report includes a range of UK schemes that are in operation, both inside and outside of London. As a comparison, we have also undertaken a brief desk top review of a case study in the USA. In addition, it also briefly reports on some schemes which are no longer running and some for which it proved difficult to obtain any accurate, up to date information – it is suspected that some of these may also have ceased operating.

The case studies include schemes of various sizes which cover a range of objectives including social inclusion, youth driven projects, training, charitable initiatives and environmental benefits.

Where possible, the critical success factors and/or barriers have been identified. This information could potentially be used to assist in scoping possible future bicycle recycling schemes in London.

The main beneficiaries and the key type of benefit for each case study has been summarised at the end of this section. Where possible, strengths and weaknesses have been identified.

So as to enable the case study information to be as complete as possible, this section includes, where available, a profile of the logistics operations deployed in most of the current schemes.

Table 3.1 below, shows a detailed list of the case studies, together with a brief overview of each of them.

Table 3.1: List of Case Studies

Project	Location	Overview
The Bike Station	Edinburgh	Developed out of a volunteer based project. Recycles donated bicycles; provides training facilities for cycle maintenance; provides cyclist training
Oxford Cycle Workshop	Oxford	Social enterprise recycling 1,000+ bikes per year; provides training facilities for cycle maintenance; provides cyclist training; mobile cycle repair service; has partnership with prison who provide labour for reconditioning of bikes
Re-Cycle	London/ Colchester	Dual site operation, reconditioning bicycles with the majority shipped to Africa
Stafford Jobcentre Plus	Stafford	Purchases recycled bikes for jobseekers (via Advisory Discretionary Fund) with no other transport options
Wandsworth Prison	London	Established primarily for offering bicycle maintenance for prisoners. Prisoners gain accredited training through Open College Network.
Cycle Training UK	London	Carrying out several small cycle maintenance projects with young people and/or communities, recycling bikes in the process
Waltham Forest	London	Sells reconditioned bicycles and offers a facility for the general public to undertake maintenance of their own bikes
Brixton Bicycle Art	London	Interesting use of recycled cycles in a youth/art project. Working with young people, covering mostly creative skills, but also social skills and technical elements
Metropolitan Police	London	Collect abandoned bikes around London. Many bikes are donated to local recycling projects
Transportation Alternatives- Recycle a Bike	USA	Largest bicycle recycling scheme in the USA. Puts bicycles back into action, but the main objective is to instil an environmental consciousness and foster mechanical and social skills in children.
Mini Case Studies		

Community Action Furness	Barrow in Furness	Furniture project that looked at recycling bikes
Welwyn and Hatfield CVS	London	Furniture project looking at recycling bikes
Citi-Cycle	Milton Keynes	Cycle recycling project that worked with young people excluded from school, project ended as not close enough to parent organisation's core mission
Motiv8	Worcester	Thriving cycle recycling project, started as an offshoot of a motor mechanics' project with young people excluded from school
Youth Offending Teams (YOT)		
Wandsworth	London	Training for young offenders. Recycled bikes given to victims of cycle theft
Camden	London	Training for young offenders. Recycled bikes given to victims of cycle theft
Barking and Dagenham	London	Training for young offenders. Donates to Re~Cycle when reconditioned
Tower Hamlets	London	Training for young offenders. Donates to Re~Cycle when reconditioned
Other London Activity		
Haringey Borough Council	London	Commissioned a feasibility study for recycling bicycles. Not operational
STA Bikes	London	Cycle training project in Hackney
Cycick	London	Unknown
On Your Bike	London	No longer active
Re-Cycle Cold Harbour	London	Discontinued project in Brixton
Easy Rider Islington	London	6 month project funded by London Cycling Campaign and delivered by Groundwork, project manager has moved on and Groundwork have no details
Brent Eleven Streets Residents' Group	London	In development
Burgess Park	London	Social cycling club. Also runs maintenance classes for children
Springboard Resource Centre	London	Working with Mental Health NHS Trusts. Provides vocational activity and training

3.1 The Bike Station

3.1.1 Company overview

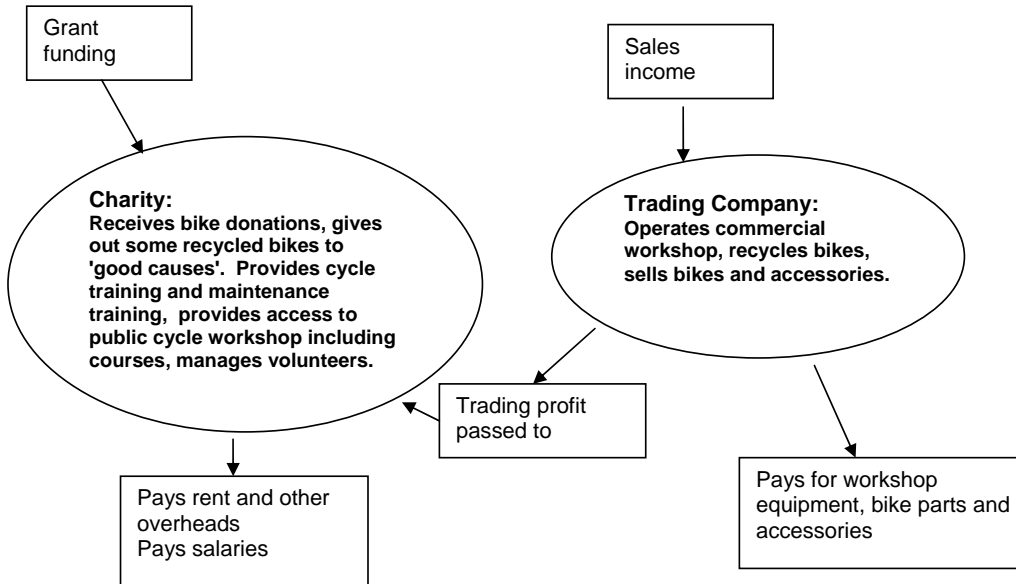
History

The Bike Station developed out of a volunteer-based project providing and maintaining bicycles for school pupils, linked to a local Safe Routes to Schools project. In 2002, loss of the original project's premises led to The Bike Station being established in Waverley Station. During this period, grant income was built up to employ more staff and raise levels of activity and income. In late summer 2006, a move to a new site a few miles south of the city centre was needed to overcome limitations set by the station space. By this time, the profile of the organisation was established as a bicycle recycling and promotion project focused on three strands of work: recycling donated bikes; providing training and facilities for cycle maintenance; and providing cyclist training. The former is essentially profit-making, whilst the second two strands are supported by grant income although all work is charged for.

Structure and Staffing

The Bike Station's structure is that of a charity which also owns a trading company, the latter being effectively the bike recycling operation. The formal responsibilities of these two entities is given in the following Figure, although operationally the distinction is not significant.

Figure 3.1



Strategic direction for the organisation is given by the Board of Directors, while day-to-day running and planning are managed by the Project Manager, who was taken on four years ago through a waste reduction-based grant. The Project manager is supported by four other grant-funded staff: the Training Manager (responsible for maintenance training), the Cycle Training Coordinator (responsible for cyclist training), the Volunteer Coordinator and the Workshop Manager. The latter manages the mechanics (2 full-time and one part-time) and volunteers as well as responsibilities such as health and safety. The mechanics' salaries are covered by bike sales income. Due to some part-time hours, total FTE is 6, across 7 paid staff.

The Bike Recycling Operation and Logistics

The staff levels (i.e. mechanics) at The Bike Station allow them to recycle about 35 bikes per week. These are sourced via donations, the vast majority of which are brought to the premises by individual donors. A recently acquired van, grant-funded and shared with another charity, has meant they can also now collect bikes when requested. There are a few institutional donors, notably the University and railway station when abandoned bikes are cleared, and the Edinburgh Furniture Initiative, which notifies The Bike Station about any bikes left at civic recycling sites. Donated bike numbers averaged 183/month in 2006, up from 60 per month in 2004. The 2006 figure (2,200) equates to 34 tonnes of waste saved.

Those bikes not used for recycling are scrapped, with some parts salvaged for spares. Scrapped bikes bring in a small level of income (£30/month) as well as making a contribution to the organisation's waste stream redirection.

The vast majority of recycled bikes are sold to the general public, at sales held every Saturday morning. Demand regularly exceeds supply, with queues forming well before opening time. In peak demand periods (e.g. summer), the part-time mechanic will increase his hours so as to raise production levels. Awareness of the sales is widespread across Edinburgh, mainly due to word-of-mouth. If it proves necessary to raise demand, for example when the weather is bad, the Project Manager obtains coverage in the local press, student newspaper and radio

Bike recycling is kept separate from the other parts of the business in order to be certain that the bikes sold have been built up by fully qualified mechanics and not volunteers. The mechanics' workshop is not open for general use; one reason for the move to new premises was so a separate workshop could be made available for courses and public drop-in sessions. Volunteers are only used to strip parts from donated bikes that have been designated as scrap.

Other Operations

The public cycle workshop is available for use as a drop-in workshop at specified times, and for maintenance courses. Courses are often provided for groups such as youth clubs and young offenders, in liaison with local authority bodies or the police. Cyclist training is typically provided for schools and youth groups, healthcare clients, the council's leisure service and so on. In each case, the body booking the course pays a fee per participant.

There are two further community-based dimensions to The Bike Station's (TBS) work. Firstly, staff at a local prison have been trained by TBS to train inmates in cycle maintenance, and donated children's bikes are regularly supplied to the prison for inmates to work on to gain experience. Secondly, children's bikes are often donated directly to charities such as a local children's hospice, or as a means for a charity to raise funds.

3.1.2 Financial details

Start up costs

TBS's history and development make it difficult to identify what its actual start-up costs would have been. The Project Manager regards £6,000 as the minimum level of investment needed for a good workshop (or £3,000 for basic provision). He also regards the key financial issue, if cycle recycling is to be profitable, to be maintaining the right balance between mechanics' salaries and expenditure on new parts on the one hand, and income from recycled bike sales and parts sales on the other.

Income and Expenditure

The following table shows the main elements of current income and expenditure.

Table 3.2: Income and Expenditure.

Item	Annual cost	Annual income – sales	Grants
Premises	£18,000		
Wages	£13,000/month = £156,000		
Transport (currently petrol only until first year's insurance runs out)	£80/month = £960		
Cycles and parts	£1500/month = £18,000		
Insurance	£1800		
Sales		£70,000 bikes £8,000 accessories £6,000 new parts £6,000 old parts	
Contracts		£20,000 (this is projected for this year; could exceed this figure)	
Courses, use of workshop etc		Not projected currently	
Total	£194,760	£110,000	£83,800 <i>[Estimated grant value to assume break even trading]</i>

Income is balanced at about 60% for bike, parts and accessories sales, and 40% grant and course income. Income from contracts appears to have been underestimated in current projections, whilst income from courses and use of the public workshop is not currently projected since this workshop only opened recently.

Profitability

All bikes sold make a profit, with a mark-up of about 100% of the cost of the labour and new parts used. The average price per bike is £64, and the average cost £35. Average prices have increased from £45 in 2004. There are no absolute upper or lower limits on prices, for example a well-known brand or model could be sold for over £100. Any bikes that fail to sell will be sold on ebay, as will any valuable parts or accessories that are identified during sorting.

3.1.3 Customer Profile and Marketing

TBS is the only retailer in Edinburgh that sells second-hand bikes – all other bike shops sell only new bikes. This means they are well placed to serve their typical customer profile, which is predominantly young people, students and transient people (these used to be mainly Australians and New Zealanders, but are now more likely to be Eastern Europeans). Their customers include a lot of new cyclists or potential cyclists – people who will spend £45 on a bike to try out cycling to work, rather than risk £300 to start with. This means they often act as a stepping stone to a new cycle purchase at one of the other cycle retailers. The gender split among customers is more-or-less 50/50. There are very few second generation immigrant customers or people from lower income backgrounds.

Customer motivations for choosing TBS are varied. As well as being the only option for a retail second-hand bike, motivations include the low prices of the bikes, and support for the social and environmental aspects of the organisation.

Every bike sold has a questionnaire card attached to it for the customer to return. This asks some questions about the customer's cycling history and ambitions, and asks for their email address. This information has been used in a limited way for marketing purposes, e.g. to generate more customers when there is a glut of bikes available. A postcode analysis of responses found that even before the recent relocation, customers were predominantly from the area of the city where the new premises are located –'studentville', in the words of the Project Manager. A nearby district, Marchmont, has the highest walk to work rate in the UK, which makes this a good target market.

TBS relies primarily on word-of-mouth to maintain customer awareness, alongside strategic use of the local press and radio. Very little paid advertising is taken out, other than a yellow pages advert and leaflets that are available in the shop and in the mailings of like-minded organisations. There was also coverage in the council newsletter and other ad hoc publications (e.g. a church newsletter following a donation of some bikes to a local charity). The Project Manager finds it very easy to get press coverage when he needs to raise either the number of bikes being donated or the number of customers: 'If I want any kind of free publicity I just pick up the phone.'

3.1.4 Partnerships

There are few formal relationships with other bodies. The partnerships they have are a mixture of pragmatic and socially motivated. As well as the partnerships below, there are many relationships with grant-giving bodies, which are now tied to the provision of maintenance and cycle training projects (e.g. NHS, local authority, education authority), rather than general support.

TBS is not linked formally to any cycle trade or other sector bodies. However, they receive *Bicycle Business*, the cycle retail magazine, and are members of the Community Recycling Network.

Table 3.3

Partner Organisation	Nature of relationship	Motivations	Benefits: financial/ non-financial
Edinburgh Furniture Initiative	EFI has a presence at civic recycling centres and saves bikes for TBS	Mutual focus, practical motivations on both sides	TBS letter of support helped EFI gain their funding; for TBS, this partnership increases supply of bikes
Shotts Prison	TBS has trained prison staff to train prisoners in cycle maintenance, and provides children's bikes for them to work on. This commitment includes transport of bikes, provision of bikes and parts. Prisoners do about 2/3 of the work needed before TBS completes and sells/gives away.	Helping the local community	Little material benefit for TBS – a portion of the work is done on the bikes, but investment in transporting them perhaps cancels that out. Benefits are more to do with their social objectives.
Recycling for play organisation	Share a van, provided through a grant.	Practical	Use of van for just 50% running costs.

3.1.5 Hurdles and Critical Success Factors

The Bike Station's own views on these are:

- Be clear whether your project is a recycling project or a cycling project
- Prepare for rapid expansion by ensuring the organisation is in a state that can deal with this
- You need the right location with a local market in order to get the tonnage of diverted waste that will justify a recycling project
- Good data management is needed to give you the information you need month by month

3.2 Oxford Cycle Workshop

3.2.1 Company overview

Oxford Cycle Workshop (OCW) was established as a limited company, in April 2001, by its two directors Dominic Scholfield and Gary Essex. It employs 6 staff (FTE), and in February 2007 it became a worker's co-operative.

The founders were keen that the project should not be vulnerable to shifts in funding, and therefore aimed to be 100% revenue funded. The company received around £3,000 in grants at the outset, plus around £1,500 in membership fees from local people – other than this it has received no grant support. They feel that although this limited the 'social' aspects of the project at the outset, it has been a worthwhile strategy in the long term. The company now turns over £120,000 pa and just breaks even after paying staff.

OCW uses its own truck to collect around 30 cycles per week, primarily from the main municipal waste collection site in Oxford. These are assessed and stored in a garage, and those deemed viable for reconditioning are taken to HMP The Mount, a prison near Hemel Hempstead, where they are repaired by inmates. OCW pays around half of the prisoners' wages, and provides some of the funding for the workshop. The cycles are then brought back to the main OCW shop/workshop in Oxford, where they are thoroughly checked by experienced mechanics before being put on sale. The shop also handles after-sales service, repairs and sales of accessories.

OCW works with the local Youth Offending Team and youth service, making the workshop facility available to train young people during shop down-time. It also provides a mobile cycle repair service (the 'Bike Doctor') for university departments.

3.2.2 Financial details

Start up costs

OCW received one grant of £2,000 from a community development organisation, plus a further £1,000 in smaller sums from a small trust and local people. It also raised £1,500 in membership fees – local people paid £15 each, getting them a discount in the shop and use of the workshop to carry out their own repairs.

A shop unit was found for a very cheap monthly rent (without a lease) of £550. Around £1,000 was spent on tools and equipment, £2,000 on initial stock and £500 on fitting out the shop. As no money was available for paying wages, staff initially invoiced the shop on a piece-rate basis once cycles they had repaired were sold.

Current running costs

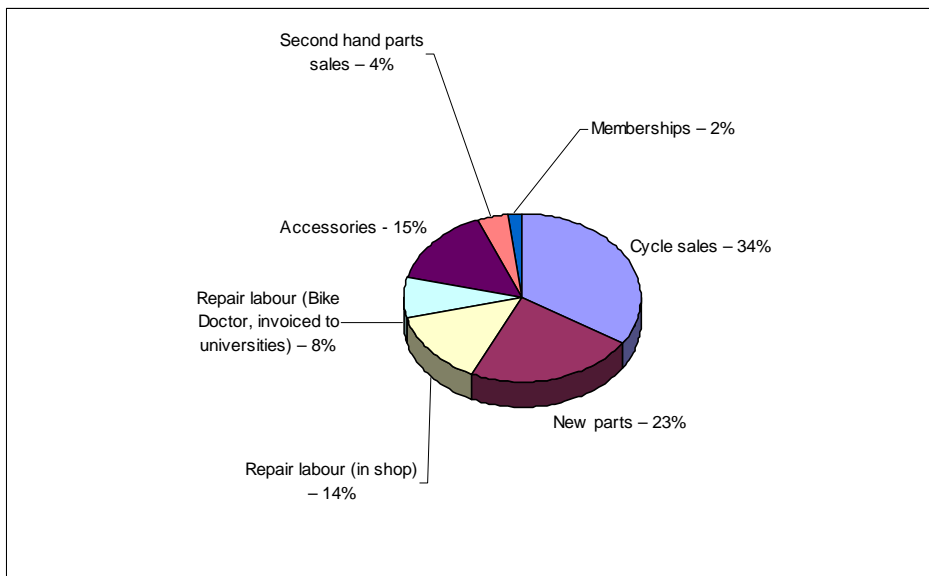
The current breakdown of costs (annual) is as follows:

£20,000 overheads – rent, rates, utilities, vehicle etc.

£50,000 cost of sales – cycle parts and accessories

£50,000 wages

Current income



Profitability

In 2006/07 OCW broke even, and with the prison partnership is expecting to make a £5-15 K profit in 2007/08. However, its salary levels are still below what it considers necessary to retain staff in the long term. Allowing for past trends, and the new growth possibilities the prison partnership offers, the company predicts it will achieve a more sustainable financial position within 3 years.

3.2.3 Customer profile and marketing

Compared to the national average, Oxford has very high rates of cycling (15-20% of journeys into the city centre), and high acceptance of cycling as a legitimate mode of transport driven primarily by student demand.

Reconditioned cycles are at the cheaper end of the market, which affects its customer base. The gender split is around 50-50%. Cyclists overall are more likely to be men, and they generally spend

more on a bike. Furthermore, a high proportion of customers have had a bike stolen in the previous month – (and research has shown that customers spend on average 30% less on the next bike after one has been stolen).

Oxford has 11 cycle shops, so customers tend to be geographically concentrated in the immediate area of any one shop. However, OCW is the only shop in the city selling a wide range of second-hand bikes and through word of mouth marketing/recommendations has attracted customers from further away, including surrounding towns and sometimes London. Given the high level of ‘utility’ cycling in Oxford, and high levels of theft, OCW consider that many of the customers are in the middle income bracket – email addresses indicate many work for the universities, hospitals and NGOs (notably Oxfam). Students make up probably 30-50% of the market for bikes, with a huge surge in sales in September and October, but probably only account for 20% of repair work.

Most of the marketing of OCW has been electronic. OCW believes its website is the most extensive of any shop in Oxford, and has been designed to have the feel more of a cycling community site than a shop promotion. This has been backed up by taking email addresses rather than postal addresses from all customers, and adding them to a mailing list (currently with around 4,000 members). A monthly newsletter highlights issues of interest to cyclists, a monthly quote, maintenance tip and special offers. Both the website and newsletter receive regular, unsolicited, positive feedback from customers. Many customers make comments indicating that the ‘community bikeshop’ image fostered by OCW is one of their reasons for choosing the shop.

OCW has also received regular editorial coverage in the press, by issuing press releases covering any new partnerships/initiatives. Since, OCW became known as a source of comment on cycling issues, it now receives regular calls from TV, radio and print journalists looking for comment on cycling stories – all adding to the profile. A cycle shop, and bikes in general, make for good pictures, so OCW has been photographed to illustrate all sorts of stories on topics from homelessness to social enterprise. Paid advertising is restricted to being part of the industry association (ACT) box ad in the Yellow Pages.

OCW has one significant strand of contract work. The largest is the mobile ‘Bike Doctor’ service run for the universities. In the case of the University of Oxford, this has proved so popular that it has expanded to 2-4 days of work per week, accounting for up to 20% of turnover in some weeks. If new customers can be found, the Bike Doctor presents a significant growth opportunity as it has limited overheads and does not require any additional space in the shop (a strong limiting factor on other operations). A constraint of Bike Doctor expansion is the need for experienced staff who can go onto a site and manage customers and repairs reliably.

3.2.4 Partnerships

Oxfordshire County Council. OCC pay OCW a fixed monthly fee of £234 for bike pick ups from as many waste sites as can be managed. This fee is not a commercial rate – it just about covers the running costs for the pick-ups, but the alternative for OCC is for the bikes to go into the scrap metal stream, which actually generates revenue. OCW does not have a written contract for this work, it's simply rolled over each year.

Youth Offending Team – When OCW started, an officer within the YOT was very supportive, and was keen to see young offenders fixing cycles. However, the quality of the work produced was very low and consequently made a financial loss. The YOT also has a very small budget. The current arrangement is that OCW trained two members of the YOT team in cycle maintenance, for a fee. These two members of staff are then allowed to use part of the workshop on a day when the shop is closed. They work with young offenders to fix children’s bikes (which have little value to OCW), and these are then given away to deserving causes. This scheme is cost neutral to OCW, and is seen as adding value to the ‘community’ image of the shop. This is a simple ad-hoc relationship rather than a contract.

Aspire (intermediate labour organisation working with the homeless) – The Bike Doctor service was originally started in partnership with Aspire, as a project to train and employ homeless people. In this respect it was unsuccessful – as mentioned above, the Bike Doctor requires an experienced and responsible member of staff and so any ‘trainee’ employed on the scheme would be in addition to the

'supervisor'. In practice, there were very few days when there was enough work to profitably employ more than one individual, and so this partnership failed. This relationship was managed through a service level agreement.

HMP The Mount – This partnership has proven to be crucial to the overall financial sustainability of the project. In the first four years of operation, OCW struggled to recondition enough bikes to be viable, and was unable to employ more staff or use volunteers due to space constraints. The prison effectively provides a regular and unlimited pool of cost effective labour, paid on a per-bike basis, to carry out the more time consuming but less critical work (initial assessment and final quality control are still carried out by experienced staff). Before the partnership, there was an existing workshop at the prison, set up by the Inside Out Trust. 25-30 prisoners repaired bikes which were supplied by the Trust and then donated to good causes. OCW now makes use of 5-6 of the most able prisoners. In return, OCW has provided the whole workshop with technical expertise, additional income (£2.50 per bike to the prisoner that fixes it, plus £4 in credit to the prison workshop, to be spent on spares through OCW), greater incentives, industry contacts, a more reliable supply of cycles to work on, and much needed new spares for the cycles which go to good causes. This relationship is managed through a service level agreement, with options for either party to terminate. OCW would welcome the security of a more long-term arrangement, but the prison service is not in a position to provide it. However, given the excellent relations with HMP The Mount, and with the central prison service, it is very likely that a similar arrangement with another prison could be made if conditions changed at The Mount.

OCW is a member of the Association of Cycle Traders.

3.2.5 Employees

OCW has found recruiting and retaining skilled staff to be the greatest challenge in running the business. Fundamentally, this is because the business has not been profitable enough to offer wages competitive with other cycle shops. Over time, staff have been recruited who are prepared to work for below market wages because of the more positive working environment created by the 'community bike shop' ethos – but such people are relatively few, and generally have to move on eventually due to cost-of-living pressures. Recruits have come from a wide geographic area (including the USA and Australia, having seen the shop website), and are almost all young men with good educational qualifications.

Several recruitment methods have been used:

- Advertising on the industry website – due to the not-for-profit status of the company and good relations with the website operator, OCW has placed ads for free, and this has so far been the most successful recruitment route.
- Retaining contacts and CVs offered by people simply walking in off the street – OCW was surprised to experience that this has proved to be the second biggest recruit generator.
- Bringing on younger people via work experience/Saturday jobs – there is a ready supply of young people, but while they can be trained in workshop skills, their usefulness to a diverse business is limited by their lack of willingness to engage with customers.
- Recruiting older/retired/semi-retired people, either long-term cycle enthusiasts or those with industry experience when younger – this idea seems good on paper, but OCW has not yet found a way to unlock this potential source of recruits, and cycles seems to be very much a young person's industry.
- Jobcentre Plus/New Deal – this has not provided any useful recruits, as the 'job advisors' do not seem to be able to stick to the job spec required.
- Australians/New Zealanders – this is the most recent, and potentially most successful strategy. Many Aussies/Kiwis come to the UK to work, and most end up in unskilled jobs (i.e. bar work). Many have worked in cycle shops in their native countries, and really value the chance to use their skills in a community project. The 'Gumtree' website is an ideal way to advertise posts directly to this workforce.

Training tends to be on-the-job, with almost all recruits having prior experience. Until recently there has been no industry qualification, but the 'Cytech' NVQ is now increasingly recognised as the standard, and OCW seeks to put as many staff as possible through the course. The NVQ is provided by Aylesbury Training Group, who can provide the course for free to under 25s through LSC funding.

3.2.6 Legal/insurance/liability

Stolen bikes – To avoid buying stolen bikes, OCW do not purchase

Trading standards – Trading Standards do anonymous checks. OCW received a (mostly) glowing report, partly due to the use of a ‘service history’ card. There is a British Standard for cycles that all shops should be familiar with, but the standard for second hand cycles is slightly more relaxed.

Liability insurance – OCW has a standard shop package from Norwich Union. The industry association have set up a special deal through Spenglers brokers, which is also underwritten by Norwich Union. Spenglers have refused OCW cover on this deal because the shop sells almost all second-hand cycles. However, OCW has almost the same policy through an Oxford broker, which managed to secure a note specifying ‘second hand cycles’ on the policy document.

Additional cover may be needed for other activities, such as cycle training.

Reconditioned cycles are used on the road, and negligence in their repair could cause a serious accident and possibly death. Legally, a cycle shop is required to show that it has done all that any other shop/reasonable person could have done to ensure the quality of its work and products. Therefore, robust and transparent quality assurance processes, and staff training, are vital.

3.2.7 Processes/logistics

Figure 3.3 shows the processes used by OCW that are involved in recycling a bicycle.

Figure 3.3: Bicycle recycling process at OCW



Collection

Usually this involves a weekly visit to one main waste site, in Oxford where members of the public leave cycles in a designated, fenced-off area. Occasionally additional sites are used, further from Oxford but with less frequent collections e.g. fortnightly or monthly.

Collection is done by an experienced operative, who makes a quick initial assessment of all bikes, with roughly 50% being rejected, and the remainder being loaded onto the vehicle. Some spares are also removed from the rejected cycles and added to the load. This process typically takes 1 hour.

Approximately 30 bikes per week reach the next stage. This however is seasonal, with peaks in the spring/Easter bank holidays and generally over the summer period.

An additional source of cycles is those brought directly to the shop by members of the public. This is a significant source – averaging approximately 5 bikes per week, with approximately 50% being serviceable.

Transit to next stage is by a long wheelbase flatbed Transit van which has a capacity for 25 cycles (typical weight of a full load 300-400kg), plus crew-cab for spares. An additional trailer is used at busy times, expanding capacity to a maximum of 50 cycles. This trailer is generally only used for short trips (under 30mins).

Assessment

Cycles are delivered to a yard/garages near to OCW. Experienced mechanics then assess all cycles in a two stage process. This assessment is critical to the success of the business. In the early years of operation it was not unusual to spend several hours working on a cycle, only to find either a fatal flaw (frame damage, seized components) or that the cycle needed so much work that it was uneconomic to recondition. This was one of the largest inefficiencies in the business.

First four common 'fatal' conditions are checked – frame damage, fork damage, stem seizure and seat-post seizure.

If the fatal conditions are absent, the cycle is etched with a code number, and a complete job sheet written – using a tick-box form. The job sheet allows a quick calculation of the cost of spares needed to complete the job, and in some instances the cycle will be rejected if this is too high.

This process typically takes 10-15 minutes per cycle.

Those cycles rejected at this stage are stripped for useful spares. This will take approximately 1 hour. Most of these spares are loaded onto the vehicle and taken to the prison, with a few kept for the shop.

Transit to next stage

Journey time to the reconditioning unit near Hemel Hempstead takes approximately 90 minutes with a further 10 minutes for loading and unloading.

Reconditioning (at HMP The Mount near Hemel Hempstead)

OCW visits the prison once a week. The prison operates two work sessions, morning (9 – 11.30 am) and afternoon (1.30 – 4pm). It is not usually possible to take a vehicle into the prison after 4pm, so a member of OCW staff will follow the procedure below:

- The vehicle is driven to the prison to arrive at approx 8.30.
- Subsequent security checks can take approximately one hour before it is possible to enter the prison workshop,
- OCW work with the prisoners for the morning session, and do a quick (5min) check of each reconditioned cycle, plus a test ride. If any clear flaws in work are found, the cycle is given back to the prisoner, and where appropriate the member of OCW staff will give training or assistance. In most cases, flaws are corrected during the work session and the cycle can still be taken back to Oxford that day.
- At the end of the work session a stock take is undertaken of the new spares, and paperwork is checked with the prison workshop staff.

- OCW then return to the vehicle to unload the next batch of unrepaired cycles, plus any spares identified from the previous week's stock take.
- The load of repaired cycles are then transported back to Oxford taking approximately 90 minutes.

Quality control and sale

Cycles from the prison are unloaded at the shop and stored in the cellar. Over the course of a week the batch are given complete quality control checks (using a checklist), and sales paperwork, by skilled mechanics.

The time taken to check cycles for sale follows the 'pareto principle' – i.e. 20% of the cycles take up 80% of the time. Most cycles take 30-60 minutes to check (usually with a few minor adjustments needed). A minority take closer to half a working day, usually because of problems with the 'bottom bracket'. OCW is considering a policy of simply abandoning cycles at the first sign of such problems, even though they have already had work done and may well be repairable, because of the potential time costs.

Cycles are put outside the front of the shop to be sold. All customers are offered a free check over and service 2 weeks after sale. This allows certain components to 'bed in' and then be adjusted, particularly bearings, saving a lot of problems later on. OCW advises customers that if they do not bring their bike for its 2 week check, OCW will not accept liability for consequential damage.

When a cycle is sold, the customer's details (name, phone number and email address) are taken, and added to the job sheet for the bike. This information is added to the shop database. This serves 3 functions:

- Adds customers to the mailing list, also allowing 2 week, 6 month and 1 year service reminders to be sent by email.
- Allows identification of the owner of cycles recovered by the police.
- Allows OCW to analyse cycle sales per month, numbers fixed/checked by different individuals, types of cycles sold etc.

Cycle sales are not even throughout the year. Sales tend to be lower than average from mid December through to April, steady through the summer, and very high in September and October (due to the returning students). Therefore it is important that in the below average months, a surplus of checked cycles are put into storage until September. The actual storage space required will depend on a variety of factors. Until 2006 OCW had the use of a large warehouse space from the City Council. This is no longer available and the company is looking for other options e.g. old shipping containers.

Disposal of scrap

Scrap cycles accumulate at both the shop, and the assessment location. These are disposed of once per week, in a round trip combined with the pick up. The scrap is not taken to the recycling centre, as the weight would be subtracted from what OCW removes. Instead it is taken to a local scrap metal merchant. The merchant does not pay for the scrap, as it is not a large enough quantity (typically 200kg) but it can be disposed of for free.

3.2.8 Premises

Shop – Shop front, front workshop area, store-room, rear workshop area, cellar, office, toilet. Water paid, no other utilities, poor state of repair, shop fitting provided by OCW. £550 per month.

Garages/yard – 3 standard size garages, yard area 20m². £110 per month.

3.2.9 Critical success factors

- Production of cycles – OCW has consistently had more demand for cycles than it can supply, with cycles almost always taking longer to repair than estimated.
- Capable staff, and finance to keep a staff team throughout the year despite strongly seasonal sales.

3.3 Re~Cycle

3.3.1 Company overview

This was started by an LSE student, who began by offering a 'Dr. Bike' service in the students' union. Following initial interest, he was asked about sending bikes to Haiti as part of a charitable action. On investigation, he found a large American charity had already set up a scheme to send bikes to Haiti, and he used their contacts and reputation to establish a complimentary scheme in the UK, branded as Re~Cycle.

Re~Cycle was set up as a company and a registered charity in 1997, with a largely dormant board of trustees. Given that the shipping distance makes Haiti much more accessible from the US than the UK, Re~Cycle soon shifted its focus to Africa. It was noted that while Asia has a well developed cycling culture, Africa has not embraced the bicycle and still relies on walking – presenting a big opportunity. The charity partnered with 'Afribike', a charity with workshops across South Africa (mainly Johannesburg) to send them bikes.

The biggest partnership is with the Post Office, who used to dump and crush hundreds of bikes every year. Post Office bikes are particularly well suited to send overseas as they are heavy-duty and built to last, and designed to carry heavy loads (which few cheap leisure bikes are well suited to).

In recent years Re~Cycle has been keen to increase its range of UK beneficiaries, partly because this opens up a wider variety of funding sources.

Throughout its operation, Re~Cycle has been keen to set up additional collection hubs around the country. In 2005 Re~Cycle went into partnership with Lady Margaret Hall Settlement (LMHS) in south London, and the trustees of LMHS became the trustees of Re~Cycle. Operations are run from both London and Colchester.

3.3.2 Financial details

Start up costs

Minimal – Initial labour was free. No tools were needed, rent on Colchester barn very low.

Current income

- National Lottery
- Cred – this is currently the largest single funder, providing £180,000 over three years. This funding ends in 2007 and the organisation currently has no major funder to replace it.
- Multiple small trusts
- Churches fundraising to sponsor individual containers – typically may raise £800 towards cost of a shipment.
- Donations given with bikes – this can be difficult, as asking for donations may put some people off bringing their bikes, and the organisation needs to increase the number of bikes collected to satisfy their CRED funding.
- Discounts negotiated on shipping.
- Some of the bikes at the Colchester site are fixed by experienced volunteers and then sold at the University of Essex to raise money. Typically 20-30 bikes per year (at the start of the academic year), are sold for £40-60 each.

Income is under £100,000 per annum in total. In fundraising for the project, the advantage is that it's tangible and easily understandable. The downside is that it seems to fall between different agendas – recycling funders say that it's a transport project, transport organisations that it's development, development bodies that it's recycling. The manager has found it particularly difficult to fundraise for, with an estimated 20 failed funding applications.

Costs

Mainly shipping – a container of 400 bikes costs about £2,500-3,000 to ship to West Africa, and then there are import fees on top that are very variable. Inland countries are much more expensive. The

shipping costs are charged at a cheaper rate i.e. done at a 'charity price'. However, the shipping costs have generally increased in the last couple of years due to the large demand for containers to be shipped to China due to the growth in the Chinese economy.

3.3.3 Partnerships

- **YOT**
- **DEFRA**
- **HMPS**
- **LMHS**
- **Royal Mail:** Had to work for 18 months to get the partnership, as the company was concerned about liability issues and in a large organisation it was hard to find the right person to deal with. There were a variety of contracts over the course of the partnership, but these were very much dictated by the Royal Mail due to Re~Cycle's limited legal capacity. Originally Royal Mail promised around 4,000 bikes per year, but have actually provided closer to 2,000.
- **African partners:** They have produced a set of guidelines setting out the obligations and rights of each half of the partnership – cultures of working together can be very different.

3.3.4 Employees

Volunteers are used for packing bikes into containers. They come to the project via various avenues – bike enthusiasts, people coming for social reasons, people with a development focus. There is a mix of ages, and the diversity of people is useful when working with Young Offenders. Supervision of volunteers is critical to successful working.

As well as volunteers, Re~Cycle uses some young offenders and ex-offenders for loading bikes into containers. It is keen to develop longer-term training opportunities for these groups.

In running the project, the LSE student was initially unpaid, later was able to pay himself sporadically, and until parting company with the project a few months ago was able to pay himself around £14,500 pa.

The operation in Colchester has employed a full time administrator for the last 2 years (approx) and a warehouse supervisor (3 days per week) for the last year (approx).

The operation at LMHS has no paid staff, which has been identified as the single biggest obstacle to its success. They currently have one skilled mechanic who is a student who works in a bike shop and volunteers for the project.

3.3.5 Legal/insurance/liability

- Generally difficult to find at a sensible price. Cost increased after 9/11.
- Some agencies specialise in charity insurance – Re~Cycle use Keegan and Pennikidd in Scotland.

3.3.6 Premises

Re~Cycle started with an old barn on a National Trust property near Colchester, with room for about 800 bikes (stacked 2 high), cost £700 pa. They now have a warehouse for the Colchester operation, and the Lady Margaret Hall Settlement warehouse near Vauxhall in London (1,300 m²). Both of these premises are purely warehouses, and do not have the necessary amenities (heating/toilets) to have people regularly working in them.

3.3.7 Processes/logistics

Collection

- The Royal Mail have delivered varying levels of service over the course of the partnership, but typically drop bikes off weekly using a transit type van. Estimates of numbers vary ranging from 30 to 60 bikes per week. The lower figure is probably more reliable.

- Bikes are dropped off randomly by the public around the Colchester site, averaging out to about the same numbers as the Royal Mail (~30 per week) – although there can be big surges e.g. 500 were dropped off in Bike Week 2006.
- In London, Re~Cycle get daily calls from members of the public wanting them to collect bikes. However, they have no capacity to collect. Local church groups and cycle clubs make collections and drop them off at the warehouse – numbers collected have varied from 5 to 200.
- At no point has Re~Cycle received bikes from recycling centres/waste sites.
- Logistics have been identified as the biggest headache of the whole operation. The major difficulty is the way that bikes arrive in extremely variable numbers week to week, leading to difficulties in storage, organising shipping and organising volunteers. In London there is a particular problem with container lorries and their drivers being averse to coming into central London. Containers cannot generally be left overnight, so loading has to be carried out as soon as a container arrives, (and very quickly and efficiently), which is not always easy to do when bikes and volunteers can be unreliable.

Loading

- Volunteers are put on an email database so that they can be mobilised to load a container when needed. About 15 people are needed, so generally try to potentially recruit about 20 to allow contingency for some not turning up.
- Loading days are usually Saturdays, with 6 hours of work split into an early and a late shift. It has proved beneficial to keep everyone busy and maintain momentum. Generally a more experienced volunteer is paired with a less experienced one.
- LMHS use volunteers from Queen Mary College, who are able to drum up 20-30 volunteers quite easily – their problem is not having anyone to supervise them.

Distribution

In 2006, an average of one container per month was shipped containing an average of 420 bikes i.e. approximately 5,000 bikes per year.

3.3.8 Other notes

LMHS have recently agreed rents on two shops in Lambeth which they are considering using to sell bikes, but at present they have no real funding/capacity to get this idea going. They also run a network of community centres across South London, which could be used to host bike related projects.

3.4 Stafford Jobcentre Plus

The government's 2004 White Paper 'Choosing Health' makes explicit the links between long term unemployment, sedentary lifestyles and associated physical and particularly mental health problems. Depression is one of the largest causes of sickness incapacity, and incorporating aerobic exercise into everyday activity, such as by cycling and walking for regular journeys, is increasingly recognised as being of significant therapeutic value. Providing cycles to the long term unemployed would be a good way of targeting those individuals who are likely to be on low incomes and find cheap transport beneficial, as well as having significant health benefits.

JobcentrePlus provides funds to its employment advisors via its Advisory Discretionary Fund (ADF). This money is to be used to help jobseekers who have been out of work for over six months, and it can be spent on items jobseekers require in order to take up a post if one is found for them. A typical use would be to buy protective clothing for work on building sites, which is often not provided by the employer. The maximum funding available per jobseeker has been reduced over the last 5 years, from £300 to £100, although in particular cases advisors can make a special application to spend more.

In the course of this research, two jobcentres have been identified that use the ADF to buy recycled bikes for jobseekers. In Stafford, advisors started buying bikes for New Deal trainees who had no transport options to reach their placement, and moved on to buying bikes for other jobseekers. Initially they bought cheaper new bikes from a local shop, but found that many were stolen. This was thought

to be because the jobseekers often lived in higher crime areas, and many did not have secure parking for their new bike.

Back2Bikes is the Stafford cycle recycling scheme, and this opened premises near to the jobcentre in 2005. In the last year the jobcentre estimates it has purchased between 100 and 200 bikes, many from Back2Bikes. These recycled bikes are cheaper and are also less of a target for thieves.

In Worcester, the Motiv8 project has just started to provide bikes for jobseekers referred from the Malvern jobcentre. However, the number of bikes provided to jobseekers by this project here have been much smaller, as Motiv8 is not located as conveniently close to the jobcentre, making the purchases more logistically difficult.

3.5 HMP Wandsworth

3.5.1 Company overview

HMP Wandsworth has 1,675 prisoners. As a transfer prison, it has a relatively high prisoner turnover, but still manages to put prisoners through training courses and provide them with useful work.

As a general trend, work within prisons has moved away from revenue generation in recent years, and is now much more focused on gaining useful qualifications for prisoners. Opportunities to do both are welcomed.

Wandsworth has an existing cycle recycling workshop, and a governor and learning and skills co-ordinator who are very keen to see the project develop. The number of bikes renovated currently is small, at approximately 5 per week, since instructors and prisoners focus on training, rather than production. However, the prison are keen to set up a second 'production' workshop – trainees from the existing workshop would move on to this part of the project once they had completed their training. The prison suggest that this could be set up within a couple of months, and their experience (plus the experience at HMP the Mount) suggests that the output of completed bikes could be approximately 50 bikes per week.

3.5.2 Financial details

Start up costs

- Tools and original set-up provided by the Inside Out Trust.

Current income

- Of the bikes coming from the police, the best ones are auctioned internally to HMPS staff, and the money used to pay for spares for the project.
- Sale of scrap, small amounts of money (under £100 per quarter)
- Small scale provision of repairs to prison staff

3.5.3 Partnerships

- Brixton police (provide bikes)
- Inside Out Trust (provide some bikes, take bikes away to good causes)
- Open College Network – HMP Wandsworth have developed a basic cycle maintenance qualification in partnership with OCN.

3.5.4 Employees

The workshop has 14 prisoners working in it, with 10 workstands available. There are morning and afternoon sessions on 5 days per week, amounting to 6 hours of work-time per day. In addition, the prison runs 3 evening sessions for vulnerable prisoners. This makes the HMP Wandsworth by far the largest cycle recycling project in London in terms of the number of person hours committed per week.

Each session has two instructional officers and one supervisor, from normal prison staff.

3.5.5 Legal/insurance/liability

This is not an issue, as bikes are distributed by other organisations. Work within the prison is covered by their insurance.

3.5.6 Premises

There is one current workshop space that is geared up for training. The prison has room to open another workshop on one of the prison wings, if a greater throughput of bikes were required. The prison is short of storage space for bikes, with room for only around 50 in total, either waiting to be worked on or completed.

3.5.7 Processes/logistics

Collection

- Police – tend to drop off one big load approximately every 6 months, comprising as many as 200 bikes
- Inside Out Trust – bring a transit van load of bikes (15 – 20) around once per month.
- Jole Rider – small 'bikes to Africa' project based in Wiltshire, drops off and/or picks up occasional van loads of bikes.

Sorting

- Immediately saleable bikes are auctioned to staff to raise funds for the project.
- Remaining bikes are sorted, the majority are scrapped and sold to a local scrap metal merchant to raise further funds.

Repair

- Carried out under supervision as part of training.

Quality control/checking

- Bikes are thoroughly checked by instructors as part of checking the work for the prisoner to gain their qualification.

Sale or distribution

- Jole Rider and the Inside Out Trust generally come and collect the bikes they originally dropped off, to go either to Africa or to good causes in the UK.
- The prison workshop has also provided bikes for Linden Lodge School

3.5.8 Additional notes

The most significant achievement of this project has been the development of an Open College Network accredited training course in cycle maintenance. This course has several levels, with the entry level taking some prisoners as little as one week to complete. This course could provide a vital intermediate level of training for cycle projects, in between a basic maintenance course such as the ones run by CTUK for the public, and the professional, lengthy and (relatively) expensive Cytech NVQ.

The learning and skills officer at HMP Wandsworth, is keen to expand and set up a second workshop with a production focus, if it can be supported as part of a wider partnership. There is a desire to see this second workshop largely managed by the prisoners themselves (i.e. in terms of co-ordinating work, ordering spare parts etc.) in order to develop the training outcomes beyond cycle maintenance and into more transferable business-related skills.

The prison industries co-ordinator for the Greater London area (David Lancashire), indicated that several other prisons could be brought into any larger cycle recycling partnership – notably Wormwood Scrubs and Brixton. Wormwood Scrubs already has some facilities, and a similarly enthusiastic learning and skills officer. However, not all prisons and offender institutes in the London

area are appropriately positioned or structured to accommodate a recycling workshop. This was due to issues such as lack of space and facilities, as well as complexity of prisoner profile e.g. age, volatility, motivation, type of sentencing etc.

3.6 Cycle Training UK

CTUK are included as a potential partner and service provider – particularly in respect of training mechanics in cases where full accredited NVQ training from Aylesbury Training Group (ATG) is unnecessary. They are also a key partner in providing cycle training as a component of a 'package' of accessories to go with bikes that may be distributed to potential cyclists.

3.6.1 Company overview

This is a not for profit company, whose primary business is providing cycle training. They have a network of trainers covering the whole of London, and are one of a handful of training companies in the UK accredited to train cycle trainers to the National Standard.

In addition to cycle training, they provide maintenance courses e.g. they provide a course in bike assessment and adjustment for cycle activity providers. For this they charge £100 per person, and the course is delivered typically to groups of 8 trainees working with 2 instructors.

CTUK also provides other basic maintenance courses to members of the public, which are intended to provide trainees with the specific skills required to fix their own bike rather than the skills needed to fix all bikes. They charge £60 for an 8 hour day-long course, typically with 10 trainees and 2 instructors. Through this, CTUK suspect they have 'seeded' a number of recycling projects, by providing youth workers with some basic skills that they have then used to start their own projects. However, the CTUK staff have mixed feelings about this, as there are concerns as to whether such basic courses provide sufficient information for a sound basis for recycling bikes which members of the public will subsequently ride out on the streets.

CTUK have carried out a number of PAYP (Positive Activity for Young People) projects. These are paid for by the boroughs (most of the projects have been in Hackney), usually through youth or social services. CTUK applies for money, then finds a 'host' organisation (e.g. a youth centre) to provide a good location. Bikes are then sourced, and typically come directly from local police, or local police auctions, or via the Waltham Forest recycling centre. CTUK then carry out discreet blocks of training sessions with young people, working with them to fix up the bikes and teach them maintenance and riding skills in the process. However, CTUK have mostly stopped doing these projects, as the young people are difficult to work with, and the projects involve a lot of paperwork.

Recently, CTUK have moved to doing larger scale projects, for a broader range of people. For example, they have received £60,000 to work for Notting Hill Housing Trust on their estates, carrying out 'Dr. Bike' repairs on residents' bikes, and delivering basic maintenance training courses for residents. These projects typically start as 'drop in' centres, and then subsequently progress on to teaching. Currently, CTUK are undertaking this work on 7 estates.

3.6.2 Financial details

Start up costs

For individual projects, CTUK can provide tools and instructors, but they prefer the host organisation to purchase tools/stands to make the project more sustainable. Given the basic nature of the work, the tool costs are low compared to full recycling projects, at around £500 for 2 stands and sets of tools. Host organisations provide premises (finding good work locations has been a major barrier), and pay the cost of instructors – or this is paid for by the PAYP provider (see above).

3.6.3 Partnerships

Boroughs, or other organisations (e.g. Youth Offending Teams, Travellers' service unit, social services) often approach CTUK with a very vague idea of what they want. CTUK then shape their expectations, suggesting the type of project that could actually be undertaken and what it would involve.

3.6.4 Legal/insurance/liability

CTUK has cover as a 'cycle activity provider', which covers the actions of the CTUK staff. The trainees and the venue are covered by the venue insurance, and CTUK has a written agreement with the client. In addition, trainees are required to sign a consent form. If a trainee is given a bike at the end of the training, the bike will have been thoroughly checked and the recipient will be asked to sign a release form.

3.6.5 Premises

Projects are carried out in locations provided by host organisations – typically youth centres. Finding good locations, undercover and with room to work, has been a problem for a lot of projects.

School buildings have been used as project locations, though not specifically as part of the 'extended schools' programme.

3.6.6 Processes/logistics

Collection

CTUK used to get bikes from police auctions for £20-30 each. However, they now approach the local police directly and get the bikes free of charge, or alternatively, obtain them from the recycling centre in Waltham Forest. The number of bikes needed for each project is small, typically 10-12 bikes. Where possible, CTUK get the client organisation to transport the bikes.

3.6.7 Additional notes

It is understood that the borough of Southwark are about to redevelop a 30 acre gasworks site as a recycling centre. It is suggested that this could potentially provide a good South London collection point for bikes.

3.7 Waltham Forest

Company overview

The Waltham Forest branch of the London Cycling Campaign sought a cycle recycling project from 2001, and the cycle training team within the council were supportive, as they often had trainees with no bike, or unsuitable bikes, and wanted to be able to provide for them. The major difficulty was finding premises. However, in April 2003, a space was found in the large shed used to store street cleaning machines.

One of the borough cycle trainers, initially started the project because he was fed up with seeing bikes abandoned that he could be using for trainees. Subsequently, the LCC drove the initiative forward. They had a £1,000 grant from the borough green grants programme which was spent on tools and stands. Within the council cycling team there is a central point of contact, who co-ordinates the project at the council level.

From its initial small floor space, the project grew physically and now occupies a garage-like bay within a large hangar. This expansion was primarily caused by the number of bikes that arrived. The project operates every Friday, with volunteers and a few paid staff working to recycle as many bikes as possible. The operators believe it is the only one in London for which the output of bikes is a primary focus. On one Saturday per month there is a bike sale day to sell the output to members of the public.

Furthermore, a 'drop-in' day is also organised once a month, when members of the public can come in and fix their own bikes.

Financial details

Start up costs

£1,000 grant initially, spent on tools and stands.

Current income

- Premises are provided via the council for free.
- Staff costs are around £20,000pa. Some costs cover cycle trainers working with their trainees to prepare bikes for the trainees to ride. The rest of the staff cost is covered from council budgets.
- The cost of spares is covered by the sale of bikes – for 2006, 118 bikes were sold, at an average price of £53 and with an average cost of spares of £37. [Note that the project was not in operation for several months in 2006, so the 2005 figure of 149 bikes in the year is probably a fairer measure of total production.]

Profitability

This project views itself as being the only project in London that regards the sale of bikes as a major part of its income. The council project co-ordinator indicated that it would be desirable for the project to be self-financing. However, at present it is a very long way from covering its staff costs from sales alone.

Customer profile and marketing

The project's initial customer base was centred round those people receiving cycle training from the borough as part of borough initiatives. A large proportion of this customer base were predominantly middle aged women, from the ethnic minority communities. The project perceived that these women were likely to be reluctant to directly approach bike shops, and furthermore, may be put off by the bicycle prices. Therefore, the project was deemed to be a practical way to enable them to be provided with a quality bike.

Both volunteers and customers arrive having been recommended mostly through word of mouth marketing. This is typical, particularly within the ethnic communities. Other customers are derived from the arts, music and temporary housing schemes. The project also runs a website, through which council and bicycle events are promoted (e.g. Car Free Day) thereby attracting bicycle donors and other customer groups.

Partnerships

In line with TfL pan-London initiatives, the council acts as a key partner through its cycle training initiatives. The partnership consists of a council co-ordinator and a project co-ordinator who work closely together.

Employees

After initially commencing as a volunteer, the project co-ordinator now works 18 hours per week on an annual pro-rata salary of £24,000. The project co-ordinator has a cycle shop background, and has been successful at managing and training the steady stream of volunteers the project attracts. Consequently, the co-ordinator has not had the time to really develop the project, its partnerships and its revenue generation.

There are around 4 paid staff (including the co-ordinator and cycle trainers) and up to four volunteers. The project recognises that while new volunteers are desirable, the demand placed upon experienced staff members, limits productivity which is typically around 3 bikes per week.

Legal/insurance/liability

The council provides a basic level of insurance cover for the project. Although the project implements similar pre-sales checks as for new bicycles and staff are Cytech qualified, customers are asked to sign a disclaimer acknowledging that the bicycle is recycled. Therefore, bicycles are not 'sold'. Instead, customers are asked to make a donation.

There has been one complaint from a local cycle shop that sells a lot of second-hand cycles, on the grounds that having this disclaimer causes unfair competition. Although there may be some justification to this, this complaint is the only one that has been received.

Premises

The shed used to house the project has been developed into a workshop and storage space. It is 6x12m with a high ceiling. Racking has been set up along one wall for bike storage – around 50 bikes can be stored, hung from their saddles. There are six workstands in the centre of the space, with a small kitchen space and spares storage along other walls.

Processes/logistics

Collection

- Large numbers of bikes are dropped off by the council street cleaning teams, most of which are unusable.
- A steady stream of bike donations come from the public. However, opinions varied as to how many were provided from this source. A lot of these are childrens' bikes.
- 2 or 3 times per year the police drop off a batch of around 50.
- About 20-50 are picked up each fortnight from the neighbouring waste site run by the waste company ECT.

Sorting

- An ad-hoc process is used for sorting. Generally there are significantly more bikes coming in than can be recycled.

Repair

- Is undertaken by staff and volunteers using ad hoc processes.

Quality control/checking

- As a qualified mechanic, the project co-ordinator tries to ensure she has checked all bikes that go on sale. A written checklist is also used.

Sale or distribution

- Many of the worst bikes are collected and sent to a school in Ghana.
- Sale of bikes occurs via the Saturday sales days. Accessories such as lights and locks are not sold with the bikes.

3.8 Brixton Bicycle Art

Brixton Bicycle Art (BBA) is more an organisation running art/youth projects than a cycle recycling organisation. However, it is included as a case study because of its potential as a resource and partner for any recycling scheme that may be developed. BBA has had demonstrable success in engaging young people using the bicycle theme, and has recently won contracts from TfL to develop bespoke artworks to complement the staging of the Tour de France depart in London this July.

3.8.1 Company overview

Brixton Bicycle Art is based around project founder LaMonte Johnson. An artist and designer, he originated from one of the poorest neighbourhoods in Chicago, USA. BBA primarily runs one-off, grant-funded projects working with younger teenagers (mainly aged 9-16).

The BBA team consists of three additional paid staff – a mechanic, a recycled materials artist and a performance artist. They frequently work with a photographer, and a circle of other volunteers.

BBA believes that young people in deprived neighbourhoods with high crime rates, such as Brixton, have relationships with their possessions and each other that are strongly based around logos and brands. This view is strongly materialistic, and leads to purely materialistic aspirations, lack of creativity and poor quality relationships with each other. Bicycles are a prime example – brand names such as 'Trek' or 'Specialised' on a bike are strong indicators of financial value. Children are

encouraged to paint over the logos on their recycled bikes, stripping them of financial value (which they find a shock), but at the same time personalising them and expressing their own identity.

3.8.2 Example projects

Pimp Your Bike Week

19th – 23rd June 2005, run from a studio at Burgess Park karting track. Over 60 children attended, learning about cycle maintenance, and painting their own designs on bikes supplied by the police. Some bikes were displayed as exhibits at Brixton Art Gallery. This was followed up with 'Bling Your Bike Week', a similar project.

Vassall youth centre

Bicycle repair and art workshops for 10-14 year olds. Supported by Lambeth Community Safety Team, Lambeth Police and Vassall Youth Partnership.

3.8.3 Future projects

BBA is moving to a new studio provided as part of the re-development of Brockwell Park, with money from the Friends of Brockwell Park, Lambeth Council and the Heritage Lottery Fund.

BBA has two potential commissions to produce art works for the Tour de France this summer. They also have a Tour de France themed project set up to run at Herne Hill Velodrome, with 600 children already signed up.

3.9 Metropolitan Police

In London, the Metropolitan Police Service (MPS) receive approximately 210 cycles per month, with roughly 40% being 'crime related' and 60% having been collected, presumed abandoned, from the streets.

These cycles are initially stored at local police stations whilst attempts are made through the website immobilise.com to trace the owners. This website now fulfils the function of a central property database for the MPS. The cycles are kept for 6 weeks, and then disposed of. As our research on projects around London has shown, many of these bikes are given to local recycling projects working in the community with young offenders etc. Those that are in very poor condition, rusty or badly damaged are disposed of at scrap yards. The remainder are sent to Central Property Services in Southwark.

Central Property Services hold regular auctions to dispose of bikes. In the last year, all but 7 of the bikes were sold, the average price being approximately £20. No analysis has been made of who purchases the bikes, although the MPS is aware that some dealers attend the auctions.

Unlike the Thames Valley Force, for example, the MPS does not feel constrained in its disposal options by legal ambiguities. Their response was, "Crime related cycles are disposed of as directed by the Police (Property) Act 1897 as amended by the Police (Property) Regulations 1997. The disposal of property found is not covered by any legislation other than the Treasure Act 1996. Providing attempts are made to locate the person who has legal title to property, no offence is committed under the Theft Act 1968 as there has been no intent to permanently deprive the owner of their goods."

3.10 Transport Alternatives (Recycle A Bicycle)

3.10.1 Company overview

The company Transportation Alternatives (TA) was founded in 1974 and sets an example for community living in America and around the world. Transportation Alternatives has always been cycling-orientated and their agenda has broadened - helping people and communities become less dependent on cars, maintaining a grassroots connection to environmental issues and enhancing neighbourhoods and communities.

The original goal of the Recycle-a-bicycle (RAB) project was to promote cycling as a practical form of transportation. It aimed to combine the social aspect of youth training with goals of environmental education, promotion of cycling and waste reduction. RAB is the largest bicycle recycling scheme in the US with four sites and a fifth opening soon. They work closely with state schools across New York City.

3.10.2 Financial details

Selling bikes is not RAB's main income as their primary goal is education. It's important for them to put bicycles back into action, but the main objective is to instil an environmental consciousness and foster mechanical and social skills in children..

In addition, the bike business isn't particularly lucrative as new bicycles have a far lower profit margin than almost any other division in retail. Dealers make most of their money from parts and accessories. Used bikes are also very labour-intensive to restore.

The majority of RAB's income comes from grants, corporate sponsors, private donors, and events. In addition, they do repairs for which some money is received. However, this money is regarded by RAB as a donation rather than a payment, as they do not want to take away custom from local bike repair shops.

3.10.3 Marketing

Marketing is important for the supply of bikes, for attracting interest from the community and donors and for selling bikes. RAB have found that the following are very useful:

- **A Logo-** People respond well to symbols. Whilst logos are not essential, a well-designed logo can lend authority.
- **A Brochure-** A project should have one good piece of material that tells a stranger everything they need to know. It should be clearly laid out, illustrated and concise. It should also be easy to carry around, give to others, and fit into a business envelope.
- **Press Releases-** This is one of the easiest ways to make a bid for media attention. A release can be printed on the company's regular stationery and it is suggested that this should always be about a special event. Building a mailing list of local media that includes newspapers, magazines, TV and Radio stations, and community newsletters is important.
- **A Newsletter-** This is a good way to keep an organisation's "membership" abreast of the project's activities. The newsletter doesn't have to be particularly elaborate, and could appear infrequently (every three months is typical). A single, well laid-out sheet may suffice. It is suggested that illustrations should always be included.

3.10.4 Partnerships

RAB was able to expand very quickly through partnerships with the Children's Aid Society and schools. Although independence has the advantage of remaining in control, RAB have found that there are advantages of partnerships too.

An existing organisation has a structure in place that could expedite the start-up process of the project. Being in partnership with such an organisation could assist with marketing, covering the costs of liability and could dedicate resources towards the project. The staff may also offer valuable skills.

The neighbourhood is an important place to find resources. People enjoy making a contribution to their community and are willing to help if there is a clear "wish list" of material donations or tasks that they can choose from. It is important that children and parents get involved to create a sense of ownership.

Local Charities may be asked to provide certain elements of the project. A local bike club may supply ride leaders and mechanics while a youth service organisation may recruit children and provide space for educational activities and bike storage. Local businesses might be approached to donate cash or materials for the project. Contact with local media is very important to raise awareness of the project

Personal contacts are often important in setting up alliances with organisations that share enthusiasm for the project. However, when working with other organisations it is important to define the role of each and to follow up on agreements made with them.

3.10.5 Employees

RAB has the benefit of having experienced employees. The director has worked for charities for a large number of years and is very experienced in fund raising, mobilising people and community networking.

Their head mechanic is also very experienced. A head mechanic is the most important person at the shop. He or she is the one who will select tools, order supplies, organise the workspace, train children and volunteers, and check all the work before it leaves the shop. It is important to hire a professional mechanic as it is not easy to fix bicycles. In addition, it is important that the head mechanic should be a good teacher.

Additional staff are required to deal with other aspects of the recycling scheme e.g. to set up an inventory system, organise bike collections, recycle scrap metal and tyres, publicise the programme, and distribute refurbished bicycles within the community. People experienced as community organisers, teachers, youth counsellors, and administrators are also important to a project's success.

The type and level of skills needed varies by project goal. For example, a project that focuses on cycle rides must have people who can plan routes, educate children on safe cycling, administer first aid, and do roadside bike repairs. If the project emphasis is on learning and skills, a person with a background in business would be invaluable.

3.10.6 Legal/insurance/liability

RAB have mechanisms in place to minimise the risk of claims being made against them. RAB uses a waiver which is a piece of paper signed by the bike recipient that acknowledges that the bike they are about to claim is used and carries an unavoidable element of risk.

RAB have experienced problems obtaining suitable insurance cover in the past. However, contact with the League of American Bicyclists led to a sympathetic insurer. The National Insurance Professionals Corporation is now insuring RAB's four sites for an annual fee of \$2000.

3.10.7 Processes/logistics

Collection

Acquiring bikes rarely poses a problem for RAB. Instead, since at RAB all bicycles are accepted, the sheer number of donations can be a challenge to deal with. Approximately one fifth of donated bicycles are irreparable and get stripped for parts. It is found that even the worst cases generally have a re-usable parts.

RAB does not collect bicycles because the cost and impracticality of maintaining a vehicle in Manhattan ruled it out. It has been found that most bike donors are usually willing to drop them off at the site.

Repairs

When a bike enters the shop, a special green "work" ticket is made out and attached to the handlebars. The ticket is a pre-printed inventory of the major parts of the bike with blank areas left for noting the required work. Each line ends with a check-box. A senior staff member appraises the bicycle and fills out the blank lines. This first inspection is crucial as it enables any major problems to

be identified before the bike goes into the process. Any bikes with irreparable frame damage are identified and set aside for destruction instead of recovery.

Processing time for the bikes varies considerably from 24 hours to a number of weeks. Throughout the process, the ticket remains on the bike and the check-boxes are filled in as the tasks are completed. Any procedure that has been performed by children, is inspected by an experienced staff member. When the entire row of check-boxes are completed, the bike is ready to receive its final quality inspection by a qualified mechanic.

Once all the checks are completed, including a road test, the mechanic/instructor removes the work ticket, signs it, and files it.

Following completion of this stage of the process, a new, orange ticket is attached to the bike which states "This Bike Has Been Recycled". This ticket has spaces in which to record the make and model, the serial number, the size, the date of completion, the estimated value of the bicycle. The use of differently coloured tickets make it possible to tell at a glance which bikes are complete and which still need work. Orange tickets also function as price tags for browsers.

RAB retains every ticket for every bike that has ever been worked on in the shop. By maintaining good records, it is possible to monitor the project's progress very precisely.

Disposal of finished bicycles

Approximately 25% of the finished bikes are given to the children who work on them in the Earn-A-Bike programme. In addition, RAB donates bikes to other non-profit organisations in the US and developing countries. RAB also sells a small number of bikes.

Disposal of scrap

Once bicycles are stripped for parts, they get sent to the scrap dealer for scrap metal. Tyres are recycled as well. RAB have also used redundant bicycle parts for arts projects at schools.

3.10.8 Premises

It is not always easy to identify suitable premises for a workshop and consequently, this is often the first reason for a project to ally itself with another organisation. When TA approached the Children's Aid Society they were very lucky to be offered a new, completely unused shop facility.

3.10.9 Critical success factor

It is important to define clear goals and measure progress towards them. It may be beneficial to instigate measures that could assist the development of current/future staff.

3.11 Community Action Furness

Community Action Furness (CAF) in Barrow-in-Furness has for several years run a furniture recycling project. While picking up furniture from around the community they were also given a lot of unwanted bikes, and were keen to recycle them, so a small number were reconditioned and then sold for around £15-20. CAF then started receiving bikes from the police, at a rate of approximately 20 per month.

Eighteen months ago, CAF brought in a consultant to investigate the feasibility of expanding the project to become more financially self-sufficient. Although they have a part-time staff member, and a volunteer, the numbers of bikes prepared for sale is very small. Of the 20 bikes received per month, around 10% need minimal attention before sale, 15% are repairable, and 75% are discarded. Prices have been raised to around £50, without any impact on sales.

Currently, the future of the project is in doubt because the parent organisation (CAF) is experiencing financial difficulties. The furniture project is developing into a Community Interest Company, and can

no longer support the cycle project. They are continuing to make applications for the funding needed to set the project up as a more viable enterprise.

3.12 Welwyn and Hatfield CVS

This furniture recycling project also has a cycle scheme with 4-5 cycles per week being received from the police. The project has use of a large garage in a car park attached to the furniture store.

The aim is to run a training programme for ex-offenders and young offenders for 6 weeks out of every 8. The project is applying to the lottery for £20-25,000 to pay for tools and one full time member of staff. Currently, their application has passed the first stage.

3.13 Citi-Cycle

Contec EBP is the Education Business Partnership in Milton Keynes which is responsible for CitiSchool, an innovative 'school without walls' providing full-time alternative education to 15-16 year olds who are excluded or at risk of exclusion from mainstream school. Citischool focuses on active learning experiences, both individually and in groups. Citischool began operation with 12 Year 11 students in September 2001, and in September 2003 had a roll of 24 year 11 students and 12 Year 12 students.

In December 2001, Mark Leonard Trust agreed a grant of £10,000 to support development of Citischool Re-Cycle Project with four distinct objectives (1-4 below) to be met during April 2002 - August 2003.

- Encourage students to use own bicycles
- Support student safety
- Develop student skills as trainers; promote cycling in middle schools
- Re-Cycle unused bicycles

In addition, the project had an aspirational target to 'offer low-cost cycle repairs to public' which was potentially achievable only through successful partnership with Milton Keynes Council and/or other agencies.

Table 3.4

The £10,000 grant was spent as follows:

Citischool Project Director salary	£3,000
CitiCycle Project Manager salary	£2,000
Support Staff salaries	£1,500
Construction of Cycle Storage Facility	£1,000
Cycle tools and equipment	£1,000
Staff training/visits	£1,000
Materials for delivery of two 10-hour training courses for Year 4-7 pupils	£500
Total	£10,000

The project formed successful partnerships with the police, the cycling team in Milton Keynes council, the national hockey stadium (now used by Wimbledon FC) and local cycle shops and cycling organisations. Trainers and project staff were recruited via these partnerships. Once the workshop area was set up, training took place with young people for 4 hours per week. The project also tied in with cycle training initiatives, and some of the young people involved were given the opportunity to help provide cycle maintenance training to children at a local middle school, which was very well received.

The project was focused on training outcomes, and as such the number of cycles recycled was relatively low (exact numbers are unclear, but under 50 for the duration of the project). The supply of cycles came from the police, and was not a limiting factor. Cycles were supplied to pupils of Citi-School, and via the police to ex-offenders as part of their rehabilitation programme.

Unlike many of the projects included in this report, Citi-Cycle was conceived and developed by a well resourced organisation, with realistic funding for premises and staff secured before operations began. Although the project achieved its objectives, Contec found it very technically challenging – as other projects have reported, recruiting key project staff who combine the skills necessary to work with cycles and work with difficult young people is not easy. At the end of its funding, the project was discontinued as Contec felt that it did not align closely enough with its training and education goals. However, it is possible that the number of young people involved and the amount of training they got were not high enough to justify the overall cost of the project.

The partnerships and facilities remain in place. A follow-up proposal has been prepared, focused around getting more young people to cycle to Wimbledon FC games at the stadium. However, currently no funding has been secured for this idea.

3.14 Motiv8

Motiv8 is an existing project in Worcester that works with young people excluded from school, learning about motor mechanics, building stock-cars and sometimes racing them.

The project has had more and more children coming through who are too young for motor skills to be appropriate, and was keen to develop training based around fixing cycles. The budget for this area of work was small, and in early 2006 they called in a consultant to advise on the likely costs of setting up a scheme, and the potential for generating revenue from the sale of bikes to cover some of the costs.

Since receiving advice, Motiv8 have been able to secure a partnership with their county council to have drop off points for bikes at waste sites in the county. This has been assisted by the fact that Worcester is one of the 'sustainable transport towns' in a current DfT initiative.

Motiv8 also pick up some bikes on request from members of the public, and although this is expensive, they plan to continue this in a limited way because the quality of the bikes tends to be higher.

Motiv8 keep records of numbers of bikes because they claim re-use credits under the landfill tax scheme – between April and October 2006 they dealt with 512 bikes, weighing 7.58 tonnes (i.e. 15kg per bike – a figure similar to that found by other projects). Note that to claim re-use credits brings the scheme within the waste handling regulations. However, Motiv8 is a charity and thus exempt from having to pay for a waste handling licence. The amount of money claimed is under £1,000 per year, and therefore, if a waste handling license were required, it would not be financially worth claiming.

The project has had limited start-up costs as it makes use of the existing Motiv8 premises and tools. One mechanic has been recruited, who is responsible for the quality control on all bikes sold. One existing member of staff with experience of working with young people oversees the project, but does not work on it full time. Most of the work of recycling bikes and working with trainees is now carried out by two young men who were two of the first young people to be trained, and who now stay on unpaid.

Beginning from September 2006, the local LEA started sending excluded young people through via the pupil referral unit as an official part of their schooling. Motiv8 is paid £30 per day for working with them.

The staff (mainly the two full time young people) will repair 4 bikes between them 'on a good day'. Typically, around 15 will be repaired per week. These bikes are sold to members of the public, with significant interest being generated through advertising in county council channels. Sales were very high in the run up to Christmas, and then later in the spring. The typical price of a bike is £40-45, with prices ranging from £25- £120.

Through the link with the council via the sustainable travel town initiative, Motiv8 has secured contracts to provide bikes for local teachers, and for the local cycle-2-work scheme. Initial orders are for 20 bikes under each. The project has also formed strong links with the local social enterprise community, and local environmental groups.

3.15 Wandsworth Youth Offending Team (not linked with HMP Wandsworth Prison Scheme)

3.15.1 Organisation overview

The Wandsworth Youth Offending Team regard the weekly cycle recycling sessions for young offenders as the most successful and productive of the reparation 'placements' it operates. The fact that the recycled bikes are given to victims of cycle theft makes it a very clear opportunity for young offenders to genuinely make amends in some way. This scheme is viewed as being very effective at changing the mindset of young people.

The scheme is however on a small scale, operating only one evening per week. It has recycled approximately 60 bikes over the last two years, which have been given to victims of cycle theft.

3.15.2 Financial details

Start up costs

£2,000 grant from local Primary Care Trust as part of their Local Exercise Action Pilot (LEAP). Used to buy stands and tools.

Current income

Applies for grants for ongoing spares and tool replacement costs. Most recent application was to the Home Office for £4,000, and the project was praised for the quality of the application. Any money brought in for the project in this way takes pressure off the overall budget for other, less easy to fund placements.

3.15.3 Partnerships

The police and their victim support unit supply bikes to be worked on, and identify likely recipients of bikes.

CTUK allow the project to buy spares through their accounts, and provide some technical support.

3.15.4 Employees

- There is one session per week, on a Thursday evening. The session accommodates 3 young people (although they frequently don't show up, so getting all three is rare), with one reparation supervisor and one mechanic.
- Both staff are paid the YOT supervisors rate of £13.12 per hour, plus one hour in 12 as paid holiday.
- Having a good mechanic who knows what they're talking about is vital to maintaining the respect and credibility in the eyes of the young people.
- Recruitment of mechanics was initially via approaching cycle shops, but this identified few candidates with the time, and the skills to work with young people. In practise, mechanics have come via CTUK and the Wandsworth Cycling Campaign (an individual who found out about the project through their website).

3.15.5 Legal/insurance/liability

This is covered by council insurance, both on the YOT and the premises. Recipients of bikes sign a disclaimer drawn up by the council legal team.

3.15.6 Premises

Sessions are undertaken at the council youth training resource centre. (The centre is fully equipped, with open access provision of drama space, music studio, computer centre etc). One of the benefits of using the centre is that the young offenders on the project become aware of the other resources that the centre makes available to them. The project itself uses an old garage at the centre, which had previously been used for ad-hoc storage of a large range of items.

3.15.7 Processes/logistics

Collection

Bikes are dropped off by the police, or come from members of the public who hear about the project via the Wandsworth Cycling Campaign website. If necessary the project borrows a council van for pick-ups.

Sorting

Minimal.

Quality control/checking

There is some pre-assessment of the bikes to be worked on, and a check at the end but there is currently no set checklist. In discussion, it was agreed that a more official checklist for the finished bikes would be useful.

Sale or distribution

The bicycles are distributed to victims of cycle crime via police victim support. In recent months, the YOT have noticed some suspicious patterns of 'victim' requests, suggesting that there may be a need for more thorough checks as to whether 'victims' are genuine

3.15.8 Additional notes

The provision of a system whereby the project could have access to wholesale price spares could save around 50% of the project's material running costs.

The team helped Richmond YOT set up a project, but there was no long-term commitment from the team and the project folded relatively quickly.

3.16 Other YOT projects

3.16.1 Company overview

In addition to Wandsworth, the following Youth Offending Teams in London also have projects:

- Camden
- Barking and Dagenham
- Tower Hamlets

Newham and Richmond have also attempted to set up projects, but they have been unable to sustain them.

It is possible that there may also be other YOTs running projects in London, but a full review of all YOTs was outside the scope of this work.

3.16.2 Financial details

Start up costs

Camden	£1,500 from the police property trust (borough commander's grants, from sale of unclaimed property). £2,000 from Safer London Foundation
Barking and Dagenham	£200 initially for tools. Has now got a budget of £2,000 to spend on a new workshop area. Little or no budget for spares, so acquire second-hand parts from second-hand bike shops
Tower Hamlets	£3,000 for a shipping container, generator and workshop tools. No money is spent on spares as all of the spares used come from recycled bikes. Hoping to get some money from the Metropolitan Police in 07/08.

3.16.3 Employees

Camden	For each session, 4 young people, 1 reparation supervisor, 1 experienced mechanic. Staff paid YOT rates.
Barking and Dagenham	For each session, 1 or 2 young people, 1 reparation supervisor. Staff paid YOT rates. This project is reserved for more serious offenders, as it does not involve contact with the public.
Tower Hamlets	For each session, 2 or 3 young people, 1 reparation supervisor, various individuals, no mechanic training. Staff paid YOT rates.

3.16.4 Legal/insurance/liability

- Covered by YOT insurance
- Bikes are given away.

Premises

Camden	Housed in a motorcycle project's workshop.
Barking and Dagenham	New workshop is in two previously empty flats in a council estate.
Tower Hamlets	Converted 40' shipping container of which half is used for storage and half for the workshop. All power comes from a generator run on waste vegetable oil. The container is on a site provided by Leaside Wood Recycling.

3.16.5 Processes/logistics

Collection

Camden	All cycles come from local police. The majority of these cycles have been stolen from students, recovered and not subsequently claimed.
Barking and Dagenham	Bikes come from several sources, including some bikes from the police and some from the public via adverts in local press and council magazines. Also, some bikes come from the local tip, where bikes are put aside.
Tower Hamlets	Some bikes provided by Re-Cycle. The police also deliver bikes (which have been previously stored by the police in a secret location).

Sale or distribution

Camden	As with the Wandsworth project, Camden give bikes to victims of cycle theft. These have been given to a school, a youth project and a mental health charity.
Barking and Dagenham	Take bikes to Re-Cycle when complete. This comprises a load of approximately 40 bikes about once per quarter.
Tower Hamlets	Very similar to the Barking project. Takes bikes to Re-cycle when completed with a load of approximately 40 bikes about once per quarter.

3.17 Haringey Borough Council

Haringey Borough Council commissioned a feasibility study for a potential cycle recycling and training project in 2004. Their primary focus was on skills training and employment.

Following receipt of the study, they made contact with Aylesbury Training Group (ATG), who are the main provider for the national NVQ in cycle maintenance. ATG were looking for a base in London, and with Haringey made a joint funding application to the LDA for the project. This application was unsuccessful, and no further action has been taken, although Haringey remain interested in the possibilities such a scheme might offer.

3.18 STA Bikes

STA bikes is a cycle training project working mainly in Hackney. This project is in receipt of cycle training money from TfL, as well as some from other sources. STA bikes also try to carry out cycle promotion activities.

STA bikes works with about 40 schools, training parents as well as pupils, and trying to embed a culture of cycling within the school with promotional events, showing load carrying bikes, trailers, child seats etc. They also run some maintenance classes and, in addition, STA bikes have even managed to run peer-to-peer learning with one or two of the more able/enthusiastic children.

STA's experience has been that it has been hard to get permission to use training budgets to pay for either maintenance-related activities, or for recycling bikes for trainees who need them. They have managed to set up a small bike pool for trainees to use, but would like to do more. STA bikes train approximately 700 adults and more than 1,000 children per year, and estimate that two thirds of them don't actually have a bike of their own and would benefit from a cheap recycled bike. It is considered that the bikes should not be given away, as they are not then valued. Ideally, STA bikes would like to be able to provide bicycles for a price of around £30 each.

3.19 Cycick

There were some references on the web which suggested that this project was active. However, despite several efforts to contact the scheme coordinator, no response was obtained.

3.20 On Your Bike (OYB)

OYB in Forest YMCA, Beckton Centre. Website is no longer active, phone number disconnected. Tried to contact the Forest YMCA, but unable to obtain a number.

3.21 Re-Cycle Coldharbour

This is a now discontinued project in Brixton. The project co-ordinator no longer works at the council and it did not prove possible to obtain any further information.

3.22 Easy Rider Islington

The project is run by Groundwork Islington with a grant from the London Cycling Campaign. £1,100 was given to set up a cycle recycling project for 20 young people in the Market Estate, Islington. This project ran for 6 months while funding lasted. On contacting Groundwork Islington, we were advised that the project officer no longer works there and no details about the project were available.

3.23 Brent Eleven Streets Residents' Group

This group are working with Brent Borough Council and the London Cycling Campaign to divert £10-15,000 of cycle training funds into the refurbishment of a disused scout hut, to be used for cycle maintenance training and recycling of bicycles.

3.24 Burgess Park

Southwark Cyclists is a cycling club that's more of a social/touring/campaigning group (as opposed to a racing club). They helped fund and create a BMX style dirt cycling track in the park. The site also has a popular karting track, and the project uses the kart workshop.

At the park, Southwark Cyclists run maintenance classes for children, with an 'earn-a-bike' approach – i.e. once children have shown commitment in attending enough classes, they get a bike to recycle and subsequently keep for themselves.

Some bikes come from the police, but Southwark Cyclists have found the bureaucracy very slow. The project has quite a high profile in the community, so most bikes are donations from members of the public. Southwark Cyclists run a drop-in session every Tuesday, and 2 or 3 actual courses per year (plus some adult courses). Courses are 3-4 evenings, with no more than 10 children per course, with 2 trainers. Trainers come from CTUK, plus one person who is based at the track.

There is currently no dedicated budget for the courses for children, and they have therefore been paid for by diverting small sums from other projects. In April, Southwark Cyclists hope to launch a more regular initiative, 'Young Southwark Cyclists' with Awards for All money (bid pending). They are also looking at working with the local Latin American carnival, organising rides to the event plus other initiatives to encourage people from the Latin community, and refugees, onto bikes.

3.25 Springboard Resource Centre

South West London and St George's Mental Health NHS Trust runs this training facility, providing vocational activity and training for adult clients referred from the Community Mental Health and Community Learning Disability Teams. Clients come mostly from the 5 South West London boroughs.

The centre is based at Tolworth Hospital, and has had its own building for the last 2 ½ years. It runs a wide variety of activities, all of which have some saleable product which contributes to the centre's funding. One of the activities is cycle maintenance (others include horticulture, carpentry, printing and running a café).

The cycle maintenance activity is run all through the week, 10-12am and 1-3pm Monday to Friday. There are a maximum of 4 clients working on cycles at any one time, with the usual number being 3. There is one key member of staff responsible for the work, and two others who assist when required. Much of the learning is peer to peer, with more longstanding clients assisting the newer ones.

The number of bikes fixed and made ready for sale is only around 3-4 per month, and most are sold for £20-30. All the bikes that are sold are first checked thoroughly by the key member of staff. Given the low numbers of bikes required, occasional donations from the public and the parks police provides enough stock to work on, with many being stripped for spares. As well as selling the recycled bikes, the centre also carries out a few repairs, sells second hand parts and has even made an arrangement to sell a few new bikes (although this amounts to maybe one per month).

This project is well established, and is operated very much as part of a training programme for the clients, rather than a recycling or physical activity promotion project.

3.26 Benefits Tables

Comment [N1]: This section needs work. An overall summary of the main aspects of each scheme so that it is easy to compare them side by side.

The main beneficiaries and the key type of benefit for the case studies have been identified where possible and are summarised in the tables below. The strengths and weaknesses identified could assist in understanding the applicability of different elements of the case studies to London schemes.

Benefits deriving from the case studies

3.26.1 London

Burgess Park

Social	Beneficiaries	Number	Type of benefit	Scheme Overview
	Local youth	30 young people per year max.	Maintenance training, plus recycled bike	Social cycling club. Also runs maintenance classes for children
	Local adults	Variable, 10 people max	Maintenance training	
Environmental	N/A			

HMP Wandsworth

Social	Beneficiaries	Number	Type of benefit	Scheme Overview
	Prisoners	20 prisoners in training at any one time, ~ 40 trained per year	Training - cycles and key skills	Established primarily for offering bicycle maintenance for prisoners. Prisoners gain accredited training through Open College Network.
	Projects in Africa and UK	~ 20 bikes per month	Completed bicycles shipped to Africa	
Environmental	N/A			

Strengths:

- Useful, meaningful and interesting activity for prisoners.
- Prisoners gain accredited training through Open College Network.
- Project is very cost effective compared to other similar activities run by the prison.

Weaknesses:

- Throughput of bikes is currently low, which is currently the limiting factor on the prison expanding the workshop, and thus working with more prisoners.

Camden YOT

Social	Beneficiaries	Number	Type of benefit	Scheme Overview
	Young offenders	~ 30 – 40 young people per year	Training and development opportunities	Training for young offenders. Recycled bikes given to victims of cycle theft
	Victims of crime, local school	~ 80 - 100 bikes per year	Completed bicycles given to victims of crime	
Environmental	N/A			

Barking and Dagenham YOT

Social	Beneficiaries	Number	Type of benefit	Scheme Overview
	Young offenders, more serious cases	~ 15 – 20 young people per year	Training and development opportunities	Training for young offenders.
	Africa, via Re-cycle	~ 160 bikes per year	Completed bicycles shipped to Africa	
Environmental	N/A			

Tower Hamlets YOT

Social	Beneficiaries	Number	Type of benefit	Scheme Overview
	Young offenders	~ 20 – 30 young people per year	Training and development opportunities	Training for young offenders.
	Africa, via Re-cycle	~ 160 bikes per year	Completed bicycles shipped to Africa	
Environmental	N/A			

Wandsworth YOT

Social	Beneficiaries	Number	Type of benefit	Scheme Overview
	Young offenders	~ 20 – 30 young people per year	Training and development opportunities	Training for young offenders
	Victims of crime, via victim support	~ 30 bikes per year	Completed bicycles given to victims of crime	
Environmental	N/A			

Strengths:

- Cycles are given to victims of theft, which provides a very clear link for the offender between the reparation work they are doing and their crime. This has proven to be a very successful route into engaging young people and changing their attitudes to what they have done.
- The project co-ordinator has had a lot of success in applying for grant funding for the project, thus relieving the pressure on funds for other areas of the YOT’s work.
- Strong partnership established with local police.
- The fact that the work takes place in part of a local youth resource centre has the spin-off benefit of introducing the young people to the other facilities available to them at the centre.

Weaknesses:

- The project currently only has limited quality control of bikes given away.
- Lack of direct access to spares at wholesale cost.
- Small throughput of bikes and young people – project only operates one session per week.

Waltham Forest Bike Recycling Project

Social	Beneficiaries	Number	Type of benefit	Scheme Overview
	Members of the community, often ethnic minorities	>200 people per year	Use of workshop to fix their own bikes	Sells reconditioned bicycles and offers a facility for the general public to undertake maintenance of their own bikes
		~ 150 people per year	Able to buy a low cost, recycled bike	
Environmental	150 – 200 bikes per year diverted from landfill			

Strengths:

- Good links with local cycle trainers, provides cycles for training low income trainees.
- Good links with local ethnic minority communities, many recycled cycles sold to members of these communities.
- Good training of volunteers.

Weaknesses:

- Very low productivity, leading to low sales income, lack of bikes to sell to potential customers and problems storing incoming bikes.
- Lack of a clear business plan, objectives, lines of responsibility. Council contact would like to see project more financially self-sufficient. Project co-ordinator is fully occupied with checking bikes and training volunteers, and has no time to develop ‘business’.

Brixton Bicycle Art

Social	Beneficiaries	Number	Type of benefit	Scheme Overview
	Young people	Over 500 young people per year	Learning in art and cycle maintenance, positive community based activity	Interesting use of recycled cycles in a youth/art project. Working with young people, covering mostly creative skills, but also social skills and technical elements
Environmental	N/A			

Strengths:

- Quality work with young people, covering mostly creative skills, but also social skills and technical elements.
- Re-use of cycles supplied by the police.

Weaknesses:

- Projects are all grant funded, and therefore ‘one-offs’ – leading to lack of continuity, and less efficient use of resources (as each new course/event has to be set up from scratch).

3.26.2 Outside London

Oxford Cycle Workshop

Social	Beneficiaries	Number	Type of benefit	Scheme Overview
	Young offenders	~ 20 – 30 young people per year	Training and development opportunities	Social enterprise recycling 1,000+ bikes per year; provides training facilities for cycle maintenance; provides cyclist training; mobile cycle repair service; has partnership with prison who provide labour for reconditioning of bikes
	Local community	Over 1,000 people per year	Access to quality assured reconditioned cycles, access to workshop to carry out own repairs	
Environmental	Approximately 15 tonnes of bikes per year diverted from landfill.			

Strengths:

- Recycles large number of bikes, second highest in UK.
- Multiple income streams.
- Strong ‘brand’ within local community, and very loyal customer base.
- Strong quality control procedures, independently verified by Trading Standards.
- Successful partnership with local waste authority provides reliable source of bikes.
- Partnership with prison provides a reliable, and potentially expandable, source of labour, plus additional social benefits.
- ‘Full service’ bike shop – provides all accessories, repairs etc. plus services such as cycle training and quality independent advice and information.
- Bike Doctor service allows expansion of repair income without expansion of premises, and has extended the geographical profile of the customer base.

Weaknesses:

- Lack of charitable ‘arm’ of organisation limits options for applying for funding for individual cycling projects.
- Small premises limit the potential to use volunteers, opportunity to work with young people and display stock.
- Has historically struggled with high staff turnover due to limited wages, although the prison partnership has increased productivity that may enable wages to be increased.

The Bike Station Edinburgh

Social	Beneficiaries	Number	Type of benefit	Scheme Overview
	Charities and good causes	~ 50 – 100 bikes per year	Completed bicycles given away, to go overseas, to deserving schools or to charities	Developed out of a volunteer based project. Recycles donated bicycles; provides training facilities for cycle maintenance; provides cyclist training
	Local community	~ 1,800 people per year	Access to quality assured reconditioned cycles, access to workshop to carry out own repairs	
	Local community	Up to 20 'slots' available per week	Good quality volunteering opportunity	
Environmental	Approximately 35 tonnes of bikes per year diverted from landfill.			

Strengths:

- Recycles very large number of bikes, highest in UK.
- Workable structure, charity plus trading company.
- Multiple income streams.
- Clear lines of responsibility.
- Strong 'brand' within local community.
- Successful in stimulating donations of bikes by public direct to project premises.
- Good use of volunteers.
- Able to pay high enough wages to limit staff turnover to sustainable levels.

Weaknesses:

- Sales are currently restricted to one day per week.
- Limited aftersales service, e.g. no repairs carried out (although maintenance training given, and customers could go to other shops for this).

Re~Cycle

Social	Beneficiaries	Number	Type of benefit	Scheme Overview
	Local community	Up to 30 'slots' available per month	Good quality volunteering opportunity	Dual site operation, reconditioning bicycles
	Africa	~ 5,000 bikes per year	Bicycles requiring refurbishment shipped to Africa	
Environmental	Approximately 75 tonnes of bikes per year diverted from landfill.			

Strengths:

- Good social benefit, and understanding of the concept by most members of the public.
- Good way of diverting cycles from the waste stream when the owners may not otherwise have the intention of reusing the bicycles (e.g. Royal Mail cycles).
- High tonnages of cycles diverted from landfill.

Weaknesses:

- No reliable income stream developed. The public are keen to donate bikes, but often don't realise that cash to pay for shipping is the limiting factor rather than the number of bikes collected.

- Complicated logistics – need to store large number of bikes, then load them into containers in only a few hours.

4 LOGISTICS REVIEW

This section compares the logistical practices of the Oxford Cycle Workshop (OCW), The Bike Station (TBS) in Edinburgh and Her Majesty’s Prison Wandsworth (HMPW). It identifies both barriers and the solutions that were developed, where available, for each of the processes. A comparison has also been made with current reverse logistics practices in order to benchmark current operational status and maturity of operations.

Comment [N2]: Why these 3 in particular? Are they representative? Are they all relevant to London issues?

4.1 Comparison of Logistics Operations Deployed in Current Schemes

The logistical practices at Oxford Cycle Workshop, The Bike Station Edinburgh and Her Majesty’s Prison Wandsworth are chosen for comparison because they are well established schemes and present a good understanding of how a bicycle recycling scheme operates. The aim of this section is to identify the key differences and successes of the schemes in order to help prepare for further potential phases the project e.g. developing an optimum logistical model for London.

Table 4.1 below depicts the types of processes associated with the 3 schemes named above.

Table 4.1: Types of logistical processes

Inbound Supply (Source)	Transport	Storage Facilities	Intermediary Processes	Onward Distribution
Direct to store/warehouse	Own or shared transport	Capacity	Material handling and initial sortation	Transport
Home doorstep collection	Number and Types of vehicles	Location	Value added services repairs, modifications	Retail/ distribution outlet
Recycling centres/ waste sites	Frequency of collection/delivery		Dismantling and secondary sortation of materials	Customer service
Charities	Geographic area served		Inventory and quality control processes	
Police			'In-process' distribution to other specialists sites or process operators	
			Administration including human resources, finance and IT	

From the case study section, we have established that the logistics operations of the schemes vary depending on the geographical location and its objective. The similarities and differences are discussed below:

Inbound Supply (Source)

Table 4.2: Sources for inbound supply of bicycles

Inbound Supply (Source)			
	TBS	HMPW	OCW
Direct to premises	Yes	Yes	Yes
Home doorstep collection	Yes	No	No
Recycling centres/ waste sites	Yes	No	Yes
Charities	Yes	Yes	No
Police	No	Yes	No
*Other institutions	Yes	No	No

* Universities, private organisations based on the TBS case study

Table 4.2 identifies where the schemes source the bikes and how they arrive at their premises.

All three schemes allow delivery direct to their premises but only TBS occasionally arrange to pick up bikes. This suggests that generally there is either no demand to offer this service, or the transportation and costs involved with this activity outweigh the benefit.

Unlike OCW and TBS, HMPW does not visit the waste/recycling centres to source bikes. Receiving approximately 200 bikes every 6 months from the police, approximately 20 per month from Inside Out Trust and occasional bikes from Jole Rider, the prison has a plentiful source of bikes to meet its objective that is concentrated on training, rather than generating revenue.

Overall the research suggests that bikes can be sourced from many outlets, but delivery direct to the premises reduces total cost by reducing transport needs and resource time. However, it does reduce the ability to predict the weekly intake and therefore manage resource effectively.

Transport

HMPW generally has no transport costs as all deliveries are made direct to its premises. Inside Out Trust and Jole Rider generally collect the reconditioned bikes.

OCW and TBS have vehicles but TBS cost is less, largely due to all work being undertaken at one location. TBS only makes occasional pick ups and shares a vehicle with another local recycling organisation.

OCW requires a vehicle to transport its bikes from the waste sites to HMP The Mount for repair and then back to the workshop in Oxford on a weekly basis. The journey time is a 3 hours round trip but it is productive in that an experienced mechanic delivers the bikes and allows time to oversee some of the prisoners work, provide training and assess stock. The prison has a week to turn around the bikes so the mechanic usually does not return empty. This is beneficial to the environment as well as to OCW's running costs.

Storage Facilities

Table 4.3- Summary of storage facilities

	No	Location	Details
OCW	4	Garages are close to the shop in Oxford	3 garages with yard space, shop with rear and front workshops
TBS	1	On Site	The different parts of the business are kept separate. Public area is at the front with the mechanics' workshop to the right and the training course workshop at the back. The administration etc is above on a mezzanine floor.
HMPW	1	On Site	Room only for 50 bikes in total

OCW has the greatest volume of storage premises which suits their process as they have a separate area in which to hold bikes for assessment prior to the bikes being sent to the prison for repair. This has similarities with Edinburgh in that they both find it beneficial to separate parts of the process into different premises/areas. The benefits to Edinburgh of operating with their process segregated in this way is prevents bikes have not been quality checked being offered for sale to the general public.

HMPW is currently limited for space, but has the room for another workshop if throughput was to increase.

Intermediary Processes

This section initially discusses the uses for the recovered bikes and then also considers the processes resulting from these different uses.

Each bike receives an assessment by an experienced mechanic when it is either delivered to the recycling premises or recovered from the waste site. The research suggests that the bikes can be sorted into the following categories at the time of recovery (see table 4.4).

Table 4.4: Usage for Recovered Bikes

Group	Description	Subsequent Use
Usable bicycles	This grouping includes bicycles that are completely functional but may require a minimal amount of maintenance.	Reissued to an end user
Usable bicycles-repair required	This group includes bicycles that require reasonable levels of repair or modification to bring them up to usable status.	Reissued to an end user following repair.
Spare Parts	This grouping represents the intermediary phase that determines whether a bicycle is 'usable' or 'unusable' due to cost/effort of repair.	The bikes that are 'unusable' may be sent to landfill or scrap. This grouping of bicycles may offer valuable components that could be stripped and re-entered into commercial supply chains or donated to organisations that could make use of them (UK domestic or overseas).
Scrap	This grouping is typically those bicycles that are in poor condition and offer limited or non-critical usable spares.	Such bicycles are appropriately prepared for scrap and terminal recycling.

Each of the 3 schemes categorise the bicycles into these groups in an effort to try and maximise the usage of the product and minimise waste which can have social, environmental and or economic benefits.

For example, the bikes that HMPW receive from the police that are usable and require no repair are auctioned off to Her Majesty's Prison Service employees. The funds from this activity are injected back

into supporting the scheme. HMPW scrap the majority of the remaining bikes they receive from the police and use the money obtained to raise further funds for the scheme.

It is possible that different schemes would look at the cost/benefit at this stage and select the appropriate option depending on their objectives e.g., a scheme like OCW relies on income from the sale of bikes to support it. In contrast, as HMPW requires bikes predominately for training purposes it therefore would possibly find greater benefit in raising funds to support the project rather than increasing output.

Other Intermediary Processes

- All 3 schemes recognise quality control and ensure that an experienced/qualified mechanic or instructor checks all bikes for sale/ use.
- OCW and TBS operate with a similar volume of employees to run their schemes.
- OCW is the only scheme of the 3 that uses other specialist sites and process operators into its process by using HMP The Mount for repair services.

Onward Distribution

Table 4.5: Onward Distribution Activities

	Delivery To Market	Other Services
OCW	No	Yes
TBS	No	Yes
HMPW	No	No

Table 4.5 illustrates that none of the schemes deliver the reconditioned bike to an outlet/ customer. This indicates that there is possibly no demand for this service or alternatively the costs do not make it economically viable to undertake this service at present.

Other services include offering training courses/ workshops, after sales service e.g. OCW offers a free service two weeks after the sale, and general cycle repairs. OCW and TBS both offer training and maintenance services to the general public and institutions.

TBS view training as one of the main focuses for the business. It offers cyclist training together with facilities for the public to receive training in cycle maintenance. During non-productive periods OCW offers its workshop space to train young people. It also provides a cycle repair service for the University.

Both OCW and TBS are interested in their customer base and have mechanisms in place to ensure they capture details for further opportunities

Overall these onward distribution activities provide a good service to the community together with maximising the utilisation of the floor space (economically and environmentally efficient), opens up opportunities to expand the market and provides development opportunities for the employees.

4.2 Barriers and solutions

Table 4.6 Key barriers to the logistics process

Barriers		
Inbound Supply	Intermediary	Outbound
Recognising usable bikes	Resource and skills	Delivery
Controlling intake of bicycles	Storage	Sale methods

From our research the two main barriers have been identified for each of the processes:

Inbound Supply

The research suggests that it is important that usable bicycles can be separated from unusable bikes relatively quickly to improve overall productivity. Therefore the schemes employ experienced mechanics to assess the bikes upfront. The Bike Station, for example have also found it efficient to have selection criteria as to what is considered to be a usable bike and expects all mechanics to adopt this as best practice.

As it is not possible to predict the number of bicycles coming into the process this can cause problems for both storage and resource planning. OCW are able to manage part of their inbound supply by sourcing at the waste sites. However, they still accept deliveries from the general public and other sources which are unpredictable.

Intermediary

Attracting employees and retaining them has been a problem for a number of the schemes. The schemes do not want to spend time training people to the required standard, if they are then going to leave soon afterwards. TBS and OCW offer development opportunities e.g. training and teaching opportunities, to employees, which can increase morale and make their longevity in the industry increase.

Having suitable premises in the right location is important to the survival of the scheme. Choosing the focus of the business and understanding its market and catchment area has helped TBS become a success.

Outbound

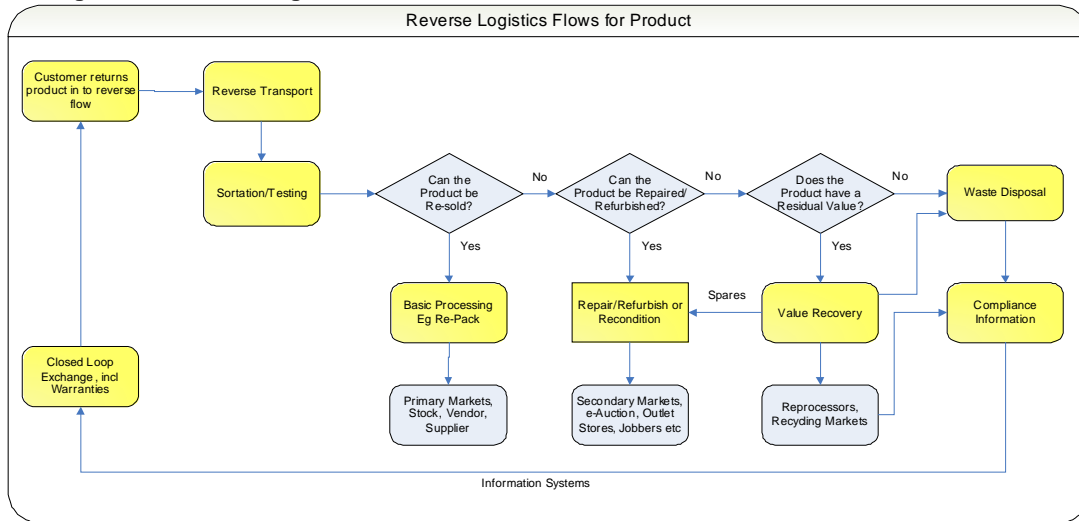
Being able to deliver to the outlet/ customer would obviously encourage more participation. However, this is an added expense and with a lot of the schemes they have found it more beneficial to allow clients to come to the workshop to select their bike. This can however interfere with the maintenance, as resource is needed to run the shop. TBS addressed this by holding Saturday only sales therefore being able to plan resource to accommodate this. They also have a separate mechanics' workshop and therefore sale days do not interfere with productivity.

4.3 Current Reverse Logistics Practices

The recycling bicycle schemes discussed have implemented some efficient ways of managing bicycles in their supply chain.

Through the top level review of logistical practices undertaken by the schemes identified in the case studies we can compare the processes used by the schemes with current reverse logistics practices in order to benchmark current operational status and maturity of their operations. Figure 4.1 below shows a standard reverse logistics process.

Figure 4.1: Reverse Logistics Flows for Product



Source: Logistics Europe April 2004

Reverse logistics involves planning, implementing and controlling the flow of materials and management of related information back through the supply chain with the prime purpose of capturing its value. This not only has an economic benefit but is also beneficial to the environment.

From our research it is evident that few scheme operators have any experience in logistics operations or general management skills and little has been done to apply reverse logistics concepts to such schemes. However in comparison with this chart, it can be seen that the process adopted by some bicycle recycling schemes experience similar product/ information challenges as follows:

- Identifying each item uniquely
- Identifying constituent parts and materials
- Maintaining and updating information at unique item level throughout product lifecycle(manufacturing to end-of-life stages)
- Maintaining accurate information
- Accessing information easily, quickly and automatically - it appears that most recycling schemes are less developed in this area e.g. internal logistics are generally not automated

5 CONCLUSIONS

Research carried out as part of this Transport for London funded scoping study has identified a number of issues that are key to the success of a bicycle recycling scheme as follows:

- A recycled cycle scheme would fit into a number of areas of the Mayor's strategy. A cycle recycling scheme would contribute to all three of the transport objectives identified in the London Transport 2025 Transport Vision, contribute to the objectives of the TfL Cycling Action Plan, and the London Plan for Sport and Physical Activity by providing free or reduced costs bikes
- There is limited statistical information available relating to recycled bicycles in London e.g. it is difficult to identify shops selling second hand bicycles in the London area
- Data obtained from 10 boroughs on the potential supply of discarded bikes was compared with the total population for these boroughs. From this data it has been estimated that the total number of discarded bicycles per annum is 25,000 for London as a whole, if this pattern was replicated in the all of the London boroughs.
- Students (1.05 million in London), low income groups, unemployed and school and work based travel plans are identified as potential demand sources for recycled bicycles
- A number of potential partners have been identified that could possibly provide support for a London wide scheme e.g. LCC
- Possible sources of funding were explored to identify grant schemes or other resourcing streams that could support the development of bicycle recycling schemes. Such funding sources are potentially useful because many recycling projects could initially struggle to survive on a commercial basis and therefore may require support to enable them to become established. However, it was noted that whether or not an application for funding is successful could depend on a number of factors, including the particulars of the bicycle recycling scheme and external factors such as the quality and number of other applicants. The sources identified included Big Lottery Fund, European Social Fund, Ashden Trust and Learning and Skills Council.
- Currently the existing schemes appear to be fragmented with little evidence of good practice sharing being undertaken.
- A number of the schemes have found it to be important to decide up front what the main focus of the scheme is intended to be e.g. a recycling project; cycling initiative; training scheme
- The Bike Station's experience found that it is important to have the right location with a local market in order to get the tonnage of diverted waste that will justify a recycling project
- Keeping income-critical equipment (i.e. professional bike tools) separate from equipment accessible to the public
- The 'Saturday sale' model used by TBS may not be sufficient to meet demand in London. However, it is also a good way of minimising the number of staff required as the resource can be organised to accommodate this although this can lead to poor levels of customer service on sale days e.g. queues
- TBS currently receive more bikes than they are able to recycle i.e. supply generally exceeds recycling capacity. However, at present there is a greater demand for refurbished bikes than TBS is able to satisfy due to resource limitations which constrain productivity
- Many cycle training providers, particularly in boroughs with higher indices of deprivation, report that a high proportion of their trainees (over half) do not have a bicycle. Therefore further demand could be satisfied by issuing recycled bikes to trainees. This could also address cycle training

national targets to train half of Year 5/6 by 2010 and ensure social inclusion for adults offered cycle training

- Many organisations and boroughs have shown a willingness to carry out work with young people around recycling bikes, both to provide meaningful activity and in some cases more formal training e.g. safe road craft skills. This could be linked to the prison population and youth offender groups to further meet Mayoral economic growth, social inclusion and sustainability targets.
- OCW, The Bike Station and Waltham Forest (the only 3 projects recycling relatively significant numbers of bikes and passing them to the public) all reported that it was not necessary to pay for marketing, as local media find cycle recycling projects a useful source of newsworthy items and photogenic stories.
- Most recycling schemes preferred bicycles to be delivered directly to them, rather than to go and collect the bikes. In the case of TBS, it has not proved necessary to go and collect bikes as the scheme already receives sufficient supply of bikes
- Recycling schemes generally assess the bicycles and categorise them into one of four categories i.e. reusable bikes requiring no repair; reusable bikes requiring repair; spare parts; scrap. This is done in order to try and maximise the usage of the product and minimise waste which can have social, environmental and or economic benefits.
- Recycling schemes require experienced mechanics for quality control purposes. However, this could have cost and time implications
- The research suggests that the process adopted by a cycle recycling scheme is similar to standard reverse logistics processes
- The existing projects in London and elsewhere demonstrate clear social and environmental benefits can be gained from cycle recycling projects. These benefits fall broadly into three categories – training and useful activity for target social groups (e.g. prisoners, young people), diversion of waste from landfill and provision of cheap bicycles for individuals for whom the cost of a bike is a barrier to cycling.
- TfL are keen to increase cycling levels. In addition, many trainers within TfL's existing programme of cycle training have expressed a desire to provide recycled cycles to trainees, indicating a clear and targeted potential outlet for the bikes. For the case studies considered in this study, only The Bike Station (Edinburgh) and Oxford Cycle Workshop have reconditioned a sufficiently large quantity of cycles to have a potential impact on the number of cyclists in these two cities. However, the existing projects in London are all currently too small in scale to have a similar impact on cycling levels in London. In addition, all but one of the London schemes are focused on training/activity benefits rather than throughput of bikes.
- Cycling could be a potential transport mode during the London Olympics in 2012. Infrastructure costs are relatively low, very little space is required for parking, and conditions for cycling should generally be good as the games take place during the summer.
- A cycle recycling scheme could provide cheap pools of bikes for schools, hospitals and other organisations in the vicinity of the Olympic venues. It could also link with a more high tech public bike scheme similar to the OyBike scheme currently being piloted in West London. The key part of this scheme is that the bikes can be locked into a 'docking station' – they are released by means of a code or mobile phone by the user, and their charging period ends when they are docked in another station at the end of the user's journey. The docking 'collars' on the OyBikes could in practice be fitted to any bike, so if a large number of extra bikes were required in the system during the Olympics, a cycle recycling scheme could provide them.
- During this study it has not been possible to obtain data on the number of abandoned bikes on the streets in London. However, Oxford Cycle Workshop has been involved in negotiations to tackle this problem in Oxford, and estimates that the number of cycle parking spaces in Oxford that are

occupied by abandoned bikes can range as high as 30%. Therefore, in a city such as London, the potential occupancy of even a small percentage of spaces by abandoned bicycles could be a significant waste of resource.

- At present logistics appear to be the biggest problem. This is due to a number of factors including the unpredictability of volume of bicycles being received, storage requirements, transport, resource planning.
- By learning from and extracting the appropriate mix of success criteria derived from case studies around the UK and abroad, there is a distinct opportunity to apply this to a London specific bicycle recycling scheme. If suitably resourced a new scheme could be established to take advantage of London's potentially significant supply source and market. Such a scheme could also assist the fragmented schemes that are already in existence in London to pool resources and offer an enhanced service.

6 RECOMMENDATIONS

The following section presents options for consideration by the client that range from a 'do nothing' scenario through to the implementation of a full scale bicycle recycling scheme. Each option aims to provide a balanced view of the merits and pitfalls that each may or may not offer TfL.

Option 1 - Do Nothing

Although the report provides a range of information that presents a possible case for a London specific bicycle recycling scheme, there are many examples of smaller London regional schemes that have been established without any prior intervention by TfL. It is possible that the situation could continue as at present, with an ad-hoc network of small, mainly training oriented projects, and no significant supply of recycled bicycles.

Alternatively, a social entrepreneur may set up a company similar to TBS or OCW, which could survive by selling reconditioned cycles. In the latter case, it is likely that there could be significant additional benefits to society such as working with local Youth Offending Teams, providing cycle and maintenance training to local people etc. However, at present there are no known plans for anything like this to happen in the near future. There is also no guarantee that should this happen, such a project would be willing and/or able to provide TfL with a steady supply of cheap recycled bikes to help promote cycling in London, nor is there any guarantee that such a scheme would take advantage of linkages to those schemes currently operating in the London area. In effect it could possibly become a competing scheme.

Merit of doing nothing

In either case this would mean that no further investigative work would need to be undertaken by TfL. No further resources or investment would be required to support either current schemes or any future pan London scheme.

Pitfall of doing nothing

However, there are clear policy, environmental, social and economic opportunities that TfL could forego by not becoming involved. Some of these are identified below:

- So far, none of the independent schemes in London has taken advantage of the potential supply base of recyclable bicycles and none appear positioned, motivated or capable of doing so in the future. Therefore, bicycles will continue to be sent to community refuse sites and ultimately to landfill.
- Most of the independent schemes are training orientated and as such have little capacity to recycle volume, therefore will continue to employ few staff and remain dependent on grants and other funding streams.
- The Metropolitan police will continue to tie up valuable policing resources in managing the significant throughput of bicycles they collect and receive each month.
- Due to the fragmented nature of current recycling schemes, they contribute very little to the fulfilment of Mayoral strategies of promoting sustainable modes of transport, reducing environmental impacts of transport and supporting sustainable growth and economic development.
- The London Cycling Action Plan (2004) states 10 Objectives. Of these we identify half as possibly not being fulfilled as a result of taking up a 'do nothing' option:
 - o Objective 4 (Support innovative cycling schemes)
 - o Objective 5 (Promote cycling and its status)
 - o Objective 6 (Incentives and support for target groups)
 - o Objective 8 (Promote cycle links and interchange schemes)
 - o Objective 10 (Improve coordination and partnership)

Given that the current schemes have not made much impact and are not necessarily established for the benefit of London, adopting a laissez-faire approach is unlikely to result in market forces enabling a significant and successful bicycle recycling scheme in the near to medium future. We advise the client not to adopt the option of doing nothing, if they require the benefits that a London bicycle recycling scheme could offer.

Option 2 – Establish an alliance agreement with current scheme operators and the creation of new schemes within the Boroughs

A clear opportunity exists within London to integrate the current schemes and help them refocus or adapt their current strategies to formulate a service that reflects a model similar to either the TBS or OCW schemes. This could be established along the lines of an 'alliance' or cooperative model where each can continue with their original mission whilst also contributing to and benefiting from a common London wide scheme.

There are several steps that are likely to be taken by TfL in establishing an alliance scheme. At this stage we have identified three that would be required:

- The first is a creation of a central administrative or coordinating body (could be a single person at the outset and could be TfL led/branded) responsible for establishing a set of criteria that all alliance partners agree to. This stage would also be responsible for establishing and assisting schemes to be developed in strategic London locations, where none are present.
- The second would be to create necessary infrastructure that is currently difficult to implement on a micro scale or is missing completely (e.g. central logistics service, information systems, skilled labour provision, scheme promotion, branding etc). This second step would in effect be the establishment of benefits and support services of alliance membership.
- A third step could include the active management of all alliance partners to ensure quality and consistent levels of service, as well as the management of the wide stakeholder communities that would need to be engaged to ensure success (London Boroughs, waste management organisations, enforcement agencies, cycling traders and support groups etc).

Merit of this option

One benefit of taking forward this option is that it may avoid having to 'start from scratch' by making use of the current infrastructure and improving upon it. It may also assist the current schemes to deliver more of their original ambitions whilst also offering a more productive bicycle recycling scheme for London. Further benefits would include supporting delivery of a number of Mayoral strategies and TfL cycling objectives.

Pitfall of this option

A key challenge associated with this option is that many schemes have been set up with varying missions and objectives. The current schemes are being run independently and there is little evidence that they communicate or recognise the benefits of working together. This lack of communication is also true of the London Boroughs within which some of these schemes are operating, as few resources are shared or more importantly 'leveraged' for the benefit of the schemes. Given much of the volunteering associated with the running of the schemes, it is likely that the 'hearts' of scheme managers would need to be won over before their 'minds'.

Given the immaturity of the market place, the effort that may be required in establishing an alliance scheme may be equal to establishing a completely new initiative from scratch, as many of the activities mentioned above would need to be undertaken for a new scheme anyway. This option is likely to require extensive negotiations and the likely compromises that are probably required to make this scheme work, may not deliver the maximum benefits for London as a whole.

Option 3 – Introduce the establishment of a full-scale bicycle recycling demonstration project in London in stages

We anticipate that this option could be established in three stages:

- A. Establish a pilot demonstration project in London
- B. Evaluate the demonstration project; and whether the success criteria have been met
- C. Roll out of full scale London initiative

A. Fund a pilot demonstration bicycle recycling project in London

Based on the findings from the market sizing, case study and logistics review, there is an opportunity to establish a dedicated, full scale London bicycle recycling scheme. Whilst the current London based schemes are small, fragmented and unconnected, none reflect the ambitions or relative success of the TBS or OCW schemes, despite the attractive opportunities that London offers. Therefore, a new, focused scheme could be established with little 'resistance' from current scheme operators through partnership working arrangements.

To test this theory and to test the market place, it is proposed that a small funded pilot scheme be commissioned to demonstrate what could be achieved and to assess the possibility for a larger scale London initiative. The pilot could run for 18-24 months to allow time to develop operations and a full year's accounting period and operate in a single London location, possibly two. A clear objective for the pilot is to develop and execute a plan that can provide a stable business supply and demand market environment, whilst also delivering quality outputs and satisfied customers. Other objectives include creating employment opportunities, cheap travel for a wide range of customer / beneficiary groups as well as developing strategic partnerships with stakeholders and other recycling schemes. Naturally, promotion and awareness raising will be essential activities to help secure these outcomes.

B. Evaluate the pilot demonstration project

Criteria for success will need to be defined (e.g. target numbers of bicycles diverted from landfill, recycled and sold, numbers of staff trained/employed etc) so that progress can be measured to demonstrate impact of scheme.

At a prescribed interim review point, an independent evaluation of the project should be undertaken to determine how the project is progressing against predetermined success criteria and targets. The evaluation should also identify areas and methods for improvement and recommend these for consideration by the project. A final evaluation of the project would determine whether there would be any merit for it to continue either as a funded programme, or a commercially self financing social enterprise or to scrap it completely.

C. Full scale roll out of a London specific bicycle recycle scheme

If successful, TfL may consider seed funding or releasing the pilot scheme as a self-financing social enterprise. It is anticipated that much of the preparatory work for such a roll out would have been undertaken during the piloting stage, particularly if the evaluation review stages has identified potential success for a London-wide bicycle recycling scheme. It is envisaged that the scheme would still require TfL funding, however in a reducing quantity for a further two to three years. We have considered some detailed activities that would be undertaken for this stage and to prevent repetition, these are presented as part of Option 4.

Merits of this option

As in Option 2, this option could help TfL support its own and other Mayoral Strategies. Additionally, this option provides the client with probably the most flexibility. Whilst it suggests that a brand new scheme is developed, it also allows scope for Option 2 to be considered (alliance/cooperative) as part of the pilot development. The option also affords the client a measured approach in determining viability of such a scheme. The ability to review in stages allows a structured way of identifying and deploying appropriate funding and in ensuring value for money investment. A demonstration programme can allow the customer to increase the level of funding in line with the degree of success. Should the pilot demonstration programme be unsuccessful, no additional TfL resources need to be committed to a full scale scheme. Alternatively, should the pilot demonstrate promising and attractive results, TfL can gauge what additional funds, if any, are required to expand the scheme to all of

London. This approach also offers TfL the possibility of nominating this programme of work as 'research', which in turn can overcome certain EU limitations on state aid rules etc.

Pitfalls of this option

The overall approach represents a cautious method of implementation, by staging steps gradually over time. Consequently it offers the client a 'safe' implementation option. If time is a priority then there may be other approaches available (e.g. Option 4). A further consideration is that the evaluation approach may be too much of an 'exact science' for a scheme such as this. As identified in the report, developing such a scheme on the scale of London is unprecedented and it is unknown how it may develop within the lifetime of the pilot stage – it may require a longer period for sufficient market penetration, or greater resources to accelerate success.

Based on the merits of this option we strongly advise the customer to consider adopting this staged demonstration programme.

Option 4 - Launch a full scale roll out of a bicycle recycling demonstration project in London

Clearly, there is the option of bypassing the piloting and evaluation stages as described in Option 3 and immediately embarking on establishing a full scale bicycle recycling scheme for London.

It is envisaged that a pan-London scheme could be seed funded for three to five years, with the aim of then becoming financially self sufficient, primarily through the sales of recycled bikes. It is considered that with good management, working partnerships and economies of scale, the trading arm of such a project may be able to generate sufficient revenue to cover its costs and possibly provide a surplus to any associated charitable trusts. Any surplus could be used to provide either low-cost/free bikes to be distributed to potential cyclists, or low-cost/free services to cycling projects in the city. If the boards of the company and trust comprised TfL and other appropriate stakeholders, it may be possible to guide the management of the project towards the desired outcomes

At this stage we have considered potential actions that could be undertaken as part of this Option (or as part of Stage 3, Option 3). This option could:

- Be set up as TBS, with a trading company and charitable trust working together, with TfL and other stakeholders strongly represented on its boards. Whilst initial grant funding for a TfL supported initiative could be generally focused on setting up a scheme, TBS's experience suggests that tying grants to specific posts and/or projects would be beneficial for helping to focus the scheme's priorities.
- Operate a number of workshop premises around London, as well as a number of sales outlets (these could be combined or separate; there is a possibility of using some Oxfam shops as collection points and sales outlets.)
- Organise large-scale collection of cycles, and their redistribution to workshops around London. The large warehouse run by Lady Margaret Hall Settlement near Vauxhall could provide a suitable location for central storage, and LMS have expressed a willingness to consider this
- Centrally organise the buying and distribution of wholesale spares for use in cycle recycling
- Create a partnership with the prison service (e.g. with HMP Wandsworth) to recycle large numbers of bikes (subject to pre-assessment and final quality checks being carried out by qualified mechanics)
- Work with the MPS to put mechanisms in place in order to reduce the likelihood of inadvertently recycling and selling stolen bikes
- Act as a service provider for the existing multitude of small social projects, and enable many more to be established
- Could provide workshop space, technical assistance/training, wholesale supplies and bikes for reconditioning. Small projects could be asked to pay a fee for these services, but this would cost far less than they pay now, as many such projects have workshops which are currently only used for one or two days per week
- Disseminate qualifications widely across the cycle projects e.g. the Open College Network qualification developed by HMP Wandsworth and/or Cytech

A clear requirement for this however is to undertake a preliminary implementation scoping study to ascertain some fundamental requirements such as location, sales and marketing, logistics (for supply and demand) and information systems requirements and any appropriate partnerships arrangements. The outputs of this study would help develop a business plan identifying how the enterprise will function and be financed (e.g. from a mixture of sales revenue and funding or sales revenue alone). TfL will then have a transparent understanding of what will be demanded of it, or not, as the case may be and be better placed to make a decision as to whether to proceed with this option.

Merits of this option

Combined with the information in this report and a fully worked up business case, there is every reason to believe that a substantial bicycle recycling market can be established in London. Therefore, adopting this option could potentially accelerate the development of a pan London bicycle recycling scheme and derive results and meet objectives quicker.

Pitfalls of this option

The approach will not have 'tested' the market by means of a pilot programme. It is therefore viewed as a riskier option. Although TfL/GLA funding would be dependent on a satisfactory business case, decisions will be based predominantly on a paper based exercise, rather than practical experience, and potentially commit TfL/GLA to several years of grant funding. If the paper exercise is inaccurate, the scheme may become unviable and TfL may not be willing to finance any funding gaps. Additionally, by instigating a full roll out scheme backed by TfL funding, other current schemes may consider this an aggressive move, rather than a complementary one. A further consideration is that it may not be possible to nominate this approach as 'research', and as such may cause TfL/GLA difficulties in utilising public money for market transformation activities.

Option 4 will require a significant amount of investment to kick start a pan-London scheme and whilst this may have the most impact at the outset as it is totally committal, it nevertheless poses the riskier option.

Recommendations

For Options 2, 3 and 4 the following recommended actions are likely to apply (Option 1 is a 'do nothing' option and therefore has no subsequent activities). Investigative work will need to be undertaken to prepare each option, in addition to those identified in the options. Furthermore, common fundamental components will need to be considered or prepared to ensure that appropriate 'infrastructure' is available for a London recycling scheme:

Investigative work could include (not listed in priority order):

1. From the outputs of this study, a full business case would need to be established to indicate the resource levels required by TfL/GLA to support Options 2, 3 or 4. A decision could then be made as to which option or mixture of options offer the most appropriate way forward.
2. TfL should explore the limitations of EU state aid rules and identify what restrictions may apply to Options 2, 3 and 4.
3. Whilst some of the London Boroughs were helpful in providing data on discarded bicycles over a short time period, it would be useful to collect more structured data over a longer time period. It is recommended that a survey is undertaken in all Boroughs to collect and classify discarded bicycles. An additional component of work would be to collect classified data from the Metropolitan Police Service. This information would enable TfL to have a better understanding of the volume of bicycles being disposed of in London.
4. To fully understand the range of steps required, their implications and degree of resource to bring the schemes together as part of an alliance operation, it is recommended that an additional study should be undertaken. This study would involve consultation with the scheme operators and any necessary stakeholders (e.g. London Boroughs, waste management organisations etc) to identify any barriers (logistics and information systems, funding etc) that could challenge the introduction of an alliance scheme. The study should then also identify the

minimum requirements from a central administrative body, its duties and functions that can derive benefits from the scheme.

5. There is a risk of TfL/GLA 'branding' or TfL/GLA being seen to be overtly leading this initiative, as there will be an expectancy that TfL/GLA owns (therefore funds) the programme. This may be desirable if the returns and benefits of the scheme beyond its early stages are attractive (high profile, good media coverage etc). A branded scheme, however, can limit the flexibility available to TfL. For instance, if a TfL scheme is unsuccessful, then this is undesirable and it could be difficult to withdraw from quietly. Alternatively, if it is successful and commercially self financing, the ease of withdrawing funding and its association from the scheme could be damaging to the scheme and possibly expensive due to rebranding, communication and awareness raising activities required to support the scheme's new identity. If managed appropriately, TfL can derive benefits from any profile generated by the creation of such a scheme without it being a TfL branded initiative. It is recommended that as part of recommendation 3, or as a separate mini study, the concept of awareness raising and marketing is investigated (and whether a TfL/GLA branded scheme would be a benefit or not).
6. It is suggested that further discussions with JobcentrePlus could be undertaken to explore the possibility of buying bikes for long-term unemployed people re-entering the workforce. This initiative would be targeted at individuals for whom the difference between their benefits and potential earnings from employment is small – for such individuals the cost of public transport to get to work could remove all financial incentive to take up a post. Additional targeting factors would be provision of public transport (e.g. fewer tube links in South London), and shift work that requires workers to travel between midnight and 6am when public transport links are less frequent.
7. A cycle recycling scheme could provide cheap pools of bikes for schools, hospitals and other organisations in the vicinity of the Olympic venues. It is suggested that it could also link with a more high tech public bike scheme similar to the OyBike scheme currently being piloted in West London. The key part of this scheme is that the bikes can be locked into a 'docking station' – they are released by means of a code or mobile phone by the user, and their charging period ends when they are docked in another station at the end of the user's journey. The docking 'collars' on the OyBikes could in practice be fitted to any bike, so if a large number of extra bikes were required in the system during the Olympics, a cycle recycling scheme could provide them.
8. It is suggested that as part of any future work on cycle recycling, TfL could convene relevant stakeholders (e.g. the Metropolitan Police, Councils, station operators, London Cycling Campaign etc) with a view to establishing a London-wide common protocol for the removal of abandoned bicycles. This may include placing warnings on bikes, then moving them from racks to a central location if the bikes are not collected within a stated timeframe, storing them for a reasonable period and then feeding them into the recycling process.
9. Most of the small projects working with young people, volunteers or other community groups will only use their premises for a few hours per week. If premises were established, and ultimately paid for, for/by production focused projects (similar to Oxford Cycle Workshop), their premises could be made available to more community orientated projects for a minimal marginal cost.
10. It is suggested that identifying and then encouraging the sharing of good practice between schemes could potentially enable improvements to be achieved across all schemes. Several of these practices have been identified in this study, however more work could be developed to extract these into useful guides for schemes to utilise.

Fundamental components include:

1. Location will clearly affect the success of the recycle scheme. It is important to try and identify a suitable location for the scheme which should be linked to the intended market and that TfL

considers the implications of expansion on the scheme's operations and how best to accommodate this. It is recommended that a study is commissioned to identify a suitable location for the scheme to start from. For example, the report has identified that schemes can benefit young people, but which particular youth segments are of concern needs to be clearly identified. Locating in an area populated by large numbers of tertiary-level students will be valuable for that group. However, location in or near areas of substantial social housing and/or low-income private rented housing is more likely to facilitate benefits to children under 16. A location that is close to both groups would maximise the scope for outreach work to benefit young people.

2. An optimum model based on the best aspects of the case studies could be developed to help manage the logistical processes of a scheme. A more in depth review of logistics processes would be required to develop this concept further.
3. All schemes should apply the same process to their initial assessment of the bikes in order to ensure that all of the cycles initially received are assigned to the same category e.g. reusable bikes requiring repair; spare parts; scrap.
4. Quality control procedures should also be standardised so that all the refurbished bikes are produced to a similar standard.
5. Most current projects in London have very small budgets, and struggle through a lack of administrative support. Centralised administration of functions such as bike collection, staff recruitment and ordering of tools and spare parts would help small projects prosper.
6. Establishing a pool of resource that could be called on when needed. This could be in the form of a central database, managed centrally or externally. This may be a resource pool of volunteers or centrally employed staff. However, this resource pool would need to have the special training required for refurbishing bicycles. Naturally, untrained resource could be used for other labour consuming activities such as material handling (e.g. storage and loading of containers, lorries etc).
7. Due to the unpredictable/variable demand for bikes, there could potentially be occasions when the supply of refurbished bikes outstrips demand. Therefore, in order to avoid creating a potential storage problem, it is suggested that it may be useful to have a central storage location available for the completed bikes. These completed bikes could be held centrally for an agreed time period. It is suggested that an agreed percentage of any bikes still remaining after expiry of the time deadline could be put into a container to be shipped abroad for charitable purposes.
8. It is suggested that a London wide system for the tracking and monitoring of recycled bicycles may be useful to improve quality control/health and safety issues and to assist in setting and maintaining standards. Such a system may also enable additional statistics to be collected e.g. on the demographics, borough distribution etc. If a London wide system proves useful, it could subsequently be rolled out nationally.
9. Most cycle recycling projects in London currently access cycles from the police. Only Waltham Forest obtain cycles from a waste centre, and Waltham are frequently overwhelmed by the volume of bikes available. The research suggests that cycles from the waste centres across London may represent a huge and un-tapped resource. It is suggested that with good publicity, the public may bring cycles directly to a designated collection point, possibly simplifying the logistics. In addition, it may be possible to liaise with waste centres to redirect bikes to recycling schemes
10. The Metropolitan Police Service receives a significant number of bicycles per month, which could be a valuable asset to the recycling scheme. It is therefore recommended to engage with the MPS as a stakeholder in assisting the growth of the scheme.

7 REFERENCES

CTC/ Bicycle Association/ Association of Cycle Traders, 2001

Department for Transport, Sheffield Hallam University, Cranfield University and Chartered Institute of Logistics and Transport. The Efficiency of Reverse Logistics

Furniture Re-use Network (1999), Loading Up

Kulkarni A, Parlikad A and McFarlane D. Reverse Logistics in Supply Networks: State-of-the-Art and Challenges, University of Cambridge, UK.

Logistics Europe (April 2004), Reverse Logistics Moves Forward

Mayor of London (2001) Highlights of the Mayor's Transport Strategy

Mayor of London (2002) Cleaning London's Air, Highlights of the Mayor's Air Quality Strategy

Mayor of London (2003) Rethinking Rubbish in London, Highlights of the Mayor's Municipal Waste Strategy

Mayor of London (2004) Green light to Clean power, Summary of the Mayor's Energy Strategy

Mayor of London (2004) The London Plan for Sport and Physical Activity 2004-2008

Mayor of London (2005) Sustaining Success, developing London's Economy, Summary of the Mayor's Economic development Strategy

TfL (2004) A business case and evaluation of the impacts of cycling in London

TfL (2004) Creating a chain reaction, The London Cycling Action Plan

TfL (2006) Transport 2025, Transport Vision for a growing world city

TfL Pool Bikes for Business, A practical Guide for Setting up a Workplace Bike Pool
<http://www.tfl.gov.uk/assets/downloads/businessandpartners/Pool-bikes-for-business.pdf>

The Bike Station. Bicycle Recycling- A Guide.
www.thebikestation.org.uk

Bicycle Association of Great Britain, 2004
<http://www.ba-gb.com>

Big Lottery Fund
<http://www.biglotteryfund.org.uk/london>

Bikebiz 2006
<http://www.bikebiz.co.uk>

Cycling England
<http://www.cyclingengland.co.uk>

Economic Social Fund
http://www.gos.gov.uk/gol/European_funding

Esmee Fairbairn Foundation

<http://wwwesmeefairbairn.org.uk>

Everydaysport
<http://www.everydaysport.com>

Groundwork
<http://www.groundwork-london.org.uk>

HRM Guide
http://www.hrmguide.co.uk/jobmarket/regional_unemployment.htm

Learning and Skills Council
<http://www.lsc.gov.uk>

Life-Cycle UK
<http://www.lifecycleuk.org.uk>

London Community Recycling Network
<http://www.lcrn.org.uk>

London Cycling Campaign
<http://www.lcc.org.uk>

London Remade
<http://www.londonremade.com>

Mintel, Bicycles 2001

National Guidance Research Forum
<http://www.guidance-research.org/>

National Union of Students
<http://www.nusonline.co.uk>

North East London NHS- Get fit for 2012
<http://www.fitforlondon2012.nhs.uk>

Safe routes to School
<http://www.saferoutestoschools.org.uk>

Sport England
<http://www.sportengland.org>

Sustrans
<http://www.sustrans.org.uk>

The Ashden Trust
<http://www.ashdentrust.org.uk>

The Office for National Statistics
<http://www.statistics.gov.uk>

Tour de France London 2007
<http://www.tourdefrancelondon.com>

Transportation Alternatives- Recycle a Bike
<http://www.transalt.org/brooklyn>

Urban Futures

<http://www.urbanfutures.com>

www.governmentfunding.org.uk

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Wandsworth

The London Boroughs of:

Bexley
Camden
Hackney
Haringey
Hounslow
Kensington
Lambeth
Lewisham
Tower Hamlets
Westminster

APPENDICES

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- Appendix 1** Case Study Questionnaire
- Appendix 2** Number of bikes collected in one month in Lewisham

APPENDIX 1

Case Study Questionnaire / Guide

This document is intended to be holistic in approach and therefore not all questions will be applicable to every potential case study. Please be aware of this when preparing for your interviews.

Interview methods

Much of the information we need from any case study organisation will be obtained through an extended chat on the phone or in person, provided the interviewer keeps an eye on the topics to be covered and returns the conversation periodically to any points not yet dealt with.

The topic guide does not need to be followed point by point, especially not if it might spoil the interviewee's flow – it's generally to return later to a point that has been overlooked. Allowing the interviewee to talk at length is in any case likely to capture a variety of other points too (though it can be necessary to prevent them going too far off topic, in order to save time).

What's in it for them?

- The opportunity to learn from others, and to learn from benchmarked good practice
- The chance to help a new scheme be established
- No competitive threat
- Possibility for networking with others

QUESTIONS

Company Overview

Background

- Who owns the company? e.g. owner/manager, partners (how many?), workers' co-op, etc.
- How is the company run? e.g. executive decisions by owner, a range of management roles, a committee, etc.
- When was it set up, and what was the background? How was the need for such a service identified, how was the company established, how did it get from there to here?
- What was the motivation behind setting up the company? Does it have any guiding ethos?
- In what way is the company networked within its industry/sector(s) – e.g. with other retail organisations, with cycling bodies, local business or social/environmental groups.

Operations Overview

What does the company do? Not the logistics, but the breakdown of different activities engaged in. This should tie in with the company ethos, and be their own definition, not ours (i.e. don't lead their answer) – e.g. it could include social/environmental/community activities such as 'employing local socially-excluded people' on top of income-generating work.

Staffing/Employment

- How many staff are there – FTE and total number
- What is the age/gender/ethnic and social background breakdown for staff? Are any efforts made to affect these in recruitment?

- What are the levels of retention and turnover?
- Are there volunteers too? How many, and how are they motivated/incentivised?
- Who manages volunteers' work and how is their status different to that of paid staff?
- Intermediate labour
- Recruitment geography: how wide an area are staff recruited from?
- How and where is recruitment targeted
- How much are staff paid – compared to pay scales in the locality generally, and compared to this sector locally?
- What kinds of training and staff development are provided?
- Are there any barriers faced in relation to staffing?

Legal/ Insurance/Liabilities

How do they deal with legal liabilities such as insurance, trading standards, employment regulations, and liabilities regarding potentially stolen property?

What do these things cost them, especially insurance – and what is ensured?

Are there any specific concerns in these areas?

Financial Details

(Stress that all of this information will be treated in the strictest confidence as we recognise its sensitive nature. See what you can get!)

- Start up costs – break down as far as possible
- Were they supported initially (or still) by any kinds of grants/subsidies – if so, get details.
- Running costs monthly or annually – again, break down as far as possible:
 - Premises
 - Wages
 - Transport
 - Cycles and parts
 - Finance
 - Marketing
- Regular sources of income:
 - Sales (bikes, repairs, other)
 - Regular contracts – get details of contract such as length, value and terms
 - Grant income
- Are they profitable? If not can they forecast a profit? How long has/will it take(n) to reach break-even point?
- How do finances vary seasonally? Any problem times?
- Bike costs v. prices: what is the average sale value compared to the average cost of a bike? Are there any upper or lower thresholds that they feel they should not pass in order to achieve sales – if so how does this affect their costs/prices?

Marketing for customers and partnerships

- What marketing does the company do? E.g. advertising, sponsorship, press opportunities?
- What balance is managed between paid for and free marketing?
- What approaches have been found to be most successful? Any abject failures?
- What are the main ways that existing customers have heard about the company?

Customers/ market

- What is the size of the local potential market?
- Who is their market - age, gender, occupation, social background, values?
- What is the market's geographical location?
- What are customers' motivations for using this company?

- In what ways do they try to maintain an ongoing relationship with customers/supporters e.g. mailings, events.
- In what ways do they obtain feedback from customers? What feedback do they get?
- Are there any institutional customers, e.g. contract work?

Partnerships

What other organisations do they have relationships with, what type of relationship is it, the motivations and the outcomes/benefits on both sides for having this partnership? The following list should provide sufficient prompts.

- Providers of bikes
- Suppliers of parts accessories
- Social, community and environmental organisations
- Local bodies such as the local authority, police, NHS, LEA, voluntary groups
- Providers of additional labour (e.g. prison service, homeless services, youth offending schemes)
- Other

Results of this can be put together in the following table.

Partner Organisation	Nature of relationship	Motivations	Benefits: financial/ non-financial

Other Information

- Hurdles
- Critical Success Factors
- Quotes

Logistics

Take us through the process from sourcing of bikes through sorting, repair and sales. We need to know how these processes are carried out, what they cost in time and money, and any barriers and solutions that have been found.

Keep asking the following:

What problems have you encountered in developing these processes? How were problems solved?

- How are your processes for recycling bikes defined and followed? E.g. is there a checklist?
- How is this work administered and by whom? What kinds of systems are used for managing specific jobs, managing the overall workflow, keeping control of inventory, human resources, finance, IT etc.
- What are your bike sources? How do you liaise with the source?
- What is the procedure for collecting bikes?
- How do you transport bikes – what vehicles do you have for this? Who does this work? How often is it done, what distances are covered?
- What premises do you have for storage and repair work? Where do you store bikes during this process? What are the costs involved?
- What criteria are used for receiving bikes – are they sorted before collection or once received?
- How are bikes sorted for recycling? What quality control criteria do you use?
- How is the work of recycling bikes carried out? E.g. are procedures followed in terms of both managing the workflow (such as which category of bikes get done in what order) and following checklists in carrying out each job?

- What happens to a bike once completed? How does it get to the sales area?
- How does the process vary for different bikes, e.g. does sorting of bikes lead to one group following a different process to another, e.g. repairs v. scrap for parts?

What are the costs, in time and money **per month**, for the following:

Process		
Action	£	Time (hrs)
Pick up/sourcing & related storage		
Transport for the above		
Sorting, assessment & related storage		
Transport for the above		
Repair		
Quality control and related storage		
Sales, and related storage/display		

APPENDIX 2**SURVEY INTO CYCLES FOR RE-USE – FEBRUARY ONLY**
Civic Amenity Site, Landmann Way, New Cross, SE14 5RS.

DATE	TYPE OF BIKE (MOUNTAIN, RACING, ETC)	TYPE OF BIKE (CHILDS', ADULT, ETC)	COMPLETE	FRAME ONLY
1.	3 x mountain	2 x adult, 1 x child	Yes	+ 1 x frame
2.	2 x racing bikes	adult	Yes	+1 x frame
3.	1 x mountain, 1 x racing	adult	No	2 x frames
4.	6 x mountain, 3 x racing	3 child, 6 adult	Yes	+ 2 frames
5.	NONE			
6.	2 x mountain	adult	Yes	
7.	NONE			
8.	NONE			
9.	NONE			
10.	1 x mountain	adult	Yes	
11.	2 x mountain, 3 x toddler	2 x adult, 3 child	Yes	
12.	NONE			
13.	1 x racing	adult	No	Frame only
14.	3 x mountain, 1 x racing	All adult	Yes	+ 1 x frame
15.	1 x toddler	child	Yes	
16.	1 x BMX style	child	Yes	
17.	1 x racing	adult	Yes	
18.	3 x mountain, 4 x BMX style	3 x adult, 4 x child	Yes	+ 2 x frames
19.	NONE			
20.	2 x mountain	child	Yes	
21.	6 x mountain	4 x adult, 2 x child	Yes	+ 2 x frames
22.	2 x racing	adult	Yes	1 x frame
23.	3 x racing, 1 x mountain	2 x adults, 2 x child	Yes	2 x frames
24.	3 x mountain	adult	Yes	
25.	10 x mountain	7 x adult, 3 x child	Yes	+4 x frames
26.	3 x BMX style	child	Yes	
27.	NONE			
28.	NONE			

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