



# MobiCity



FULL REPORT



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## **MobiCity**

MobiCity provides services specialising in REAL TIME TRAFFIC INFORMATION in the CITY CENTER and BUSINESS AREAS. Our company gathers, analyses the actual traffic information and creates an intelligent database and customised solutions. MobiCity meets needs of different stakeholders (government, B2B) and depending on customer's requirement provides a range of services: improving of logistics in time and distance, giving access to the most extended database about traffic jams, accidents and available parking slots, route planing according to traffic congestion, payments on the go, fostering control over city mobility and street safety.

The significant value of MobiCity's services is that they are PROVIDED IN REAL TIME and BASED IN REAL TIME INFORMATION. Unique services are highly required in the market and do not have competition.

### **Mission, Vision and our Values**

#### **Mission**

We provide real time information and customised service solutions specialised in city mobility in order to increase efficiency and profitability of our main stakeholders as well as to improve city living environment and road safety.

#### **Vision**

Our vision is to grow locally in the short-term but with a global perception of the business; and to become a highly recognised company specialised in city mobility by continuously improving our customised services and broadening in the future the range of our services within our specialised area in order to meet stakeholders' new needs and expectations.

#### **Values**

We aim to promote the joint of business efficiency and sustainability with the improvement of working and whole city environment providing intelligent data and solution in the real time with the use of technology.

### **Why is Mobicity highly required?**



A modern city grows quickly geographically spreading its borders. At the same time it increases extremely in population density. Enormous amount of citizens as well as inhabitants of near located cities are driving everyday his personal car to the city and business centers - making this areas the most overcrowded and collapsed. In the overwhelming majority of the cities, the center and business zones are not able to receive and locate this huge number of cars. The result is that a modern city cannot provide mobility , healthy living and working environment.

MobiCity concentrates on the most difficult zones of the city, CENTRE and BUSINESS areas, and brings **real solution to biggest concerns of the city, business and citizens** as it helps:

- AVOID TRAFFIC JAMS improving logistics in time and distance
- SAVE MONEY in the situation of economic crisis, constantly increasing price of petrol, the money value of the personal time
- ECONOMISE TIME spent in the traffic jams, routes, searching for parking, payment
- IMPROVE THE ENVIRONMENT through the decreasing of emissions to atmosphere
- INCREASE OF STREET SAFETY by improving systems of control over the roads (wrong way drivers detection, crash detection..)
- BRING ADDITIONAL COMFORT and CONFIDENCE while driving



- IMPROVES CITY GROWTH PLANING POLICIES As we collect a huge amount of data we are able to deliver highly specialised reports that can improve the overcrowded areas and be a support for future city planing.
- IMPROVES SAFETY SERVICES RESPONSE TIME AND SAFETY Real time traffic information and ability to plan traffic lights

MobiCity addresses and can successfully deal with the concerns above as it **possesses exact traffic information in real time and on this base creates intelligent data and customised solutions.**

### **How does it work?**



The information is taken from the different CCTV data bases of the city, we process this huge amount of raw data with our graphic detection system to produce valuable data for our different customers in a very automatic way. This information goes to MobiCity Infocenter where it is automatically recognised, analysed and divided into different databases. For example: real time traffic information, real time available parking slots, pay as you go services.

The customer receives valuable real time information through his mobile, GPS or computer with connection to the Internet.

### **The city of the future is created today.**

MobiCity makes innovative technology to work for the sake and benefit of modern city, business and society. Thus our company contributes in creating smart city with sustainable balance in regarding technical development, social and business needs and environment.



## Who are our customers?

MobiCity concentrates its activities in providing services to GOVERNMENT and B2B. Among B2B customers we mark out three business units:

1. Companies that transmit our services to their own end-clients in order to increase client satisfaction and get profitability: mobile company.

An example of potential customers in this market are Vodafone, Megaphone and etc.

2. Companies that use our services for better performance in logistics and transport management. This market is composed, for instance, by retail companies, delivery companies, taxi.

3. Companies that use our services to create additional value to their core business. As an example, private parking companies.

## Which services does MobiCity provide?

### Government

**MAIN PRODUCT:** information and solutions for improvement of city mobility and city environment, foster and automate control over the safety of the roads, quicker emergency services.

MobiCity provides local authorities with actual information over **traffic density, traffic jams, traffic accidents and incidents, road safety, submission of driving and parking rules** in a very automated way, saving the amount of resources needed to do that with real people watching live camera. With that we enable authorities with a tool to control and manage situation in real time, to improve penalty system. MobiCity's **route planning** service aims to manage the efficiency of emergency services (police, ambulance, firemen) avoiding the emergency car to be blocked in traffic jams and helping to save time by advising shortest free way to destination.

We provide **analysis of traffic conditions in the city on the base of highly exact data and real solutions for improving** of each issue connected with traffic. We help the traffic management within the city be more efficient, that way gaining the decreasing in carbon emissions, making the city environment healthy. We are also able to work as a mobility consultancy providing complex reports of to manage the traffic, advise on city-growth policies and public transport expansion.

The range of services provided:

- Exact information over road conditions: traffic density, traffic jams
- Analysis and solutions of improvement for city mobility

Automatic system that detects the brake of the driving rules (speed excess, wrong parking, driving through red traffic lights, drivers going in the wrong direction), gives alarm or puts the fine



- Accidents detection system
- Real time traffic information and route planning for quicker emergency services (police, ambulance, firemen)

Benefits:

- A real control over the city safety, city traffic
- Managing of city mobility
- Managing emergency services
- Improving ecology of the city
- Improving the performance of penalty system
- Automatised systems saving the amount of resources
- Accident management

### How are the current needs satisfied?

#### Demand is satisfied **PARTLY**:

Data collection, analysis and improvement suggestions now are made by outsourced consultancy services for data treatment. **Our advantage: exact data about the most difficult areas: business and city centers.**

Automatic control and fine system for speed: some radars placed in selected points. **Our advantage: complete coverage the most difficult areas: business and city centers.**

#### Demand is **NOT** satisfied:

**NO** automatic control and fine system for Illegal parking

**NO** automatic control and fine system for driving through red traffic lights

**NO** automatic control and fine system for drivers going in the wrong direction

**NO** automatic accidents detection system

**No** real time traffic information for quicker emergency services (police, ambulance, firemen): demand not currently met

### **B2B Telecom providers**

**MAIN PRODUCT:** We share real time intelligent information with the Telecom operator (t-Mobile, O2, Orange, 3..). This enables him to provide our service as part of the whole value proposition to his final customer. Our service supports Telecoms´ final user with a highly valued adding tool.

The range of services provided to end-clients through the Mobile Operator:

- Real time information over traffic density, traffic jams, accidents, incidents (road works, diversions..) available parking spaces (public or private), petrol prices on nearby petrol stations



- Pay as you go on private and public car parks without physical interaction
- Route planning
- Automatically updated city maps

Benefits for end-client:

- Save fuel due to avoiding traffic jams or looking for a free slot
- Save time
- Convenience of the pay as you go system (don't have to put cash on tolls)
- Access to local search (petrol prices, etc etc)
- Additional comfort while driving

Benefits for the Mobile Operator:

- Increase of profits

Brings strong competitive advantage over others Mobile Operators

Increase clients' satisfaction and loyalty

Increase in number of new clients

Strength company's position on the market

Creates a reputation as a leader in using new technology

### How are the current needs satisfied?

**Demand meets PARTLY:** The customer can have route planning with GPS systems, but existing systems do not take into account real time information so they are not very useful in a changing city. **Our advantage: route planning according to traffic congestion.**

### Demand is not satisfied:

**NO** Real time information over traffic density, traffic jams, accidents, incidents (road works, diversions) available parking spaces (public or private), petrol prices on nearby petrol stations.

**No** Pay as you go on private and public car parks without physical interaction in an integrated system

### B2B Companies involved in logistic or transportation

Logistic: FedEx, UPS





Car rental: Hertz, Rent a Car

Private health services: London Bridge Hospital

**MAIN PRODUCT:** improving of efficiency, control, logistic performance through access to the most extended database about traffic jams, accidents and available parking slots, route planning according to traffic congestion, payments on the go.

### **The range of services provided:**

- Real time information over traffic density, traffic jams, accidents, incidents (road works, diversions..) available parking spaces (public or private), petrol prices on nearby petrol stations.
- Pay as you go on private and public car parks without physical interaction
- Route planning
- Automatically updated city maps
- Special Gadget adapt to the working conditions
- Maintenance of the service
- Vehicle detection system (optional)

### **Benefits:**

- Save fuel due to avoiding traffic jams or looking for a free slot
- Save time
- Improve overall productivity and planning possibilities
- Convenience of the pay as you go system (don't have to put cash on tolls)
- Access to local search (petrol prices on nearby petrol stations)
- Increase control over transport management
- Integrated service pack ready to go.

### **How are the current needs satisfied?**

**Demand meets PARTLY:** The customer can have route planning with GPS systems, but existing systems do not take in account real time information so



they are not very useful in a changing city. **Our advantage: route planning according to traffic congestion.**

**Demand is not satisfied:**

**NO** Real time information over traffic density, traffic jams, accidents, incidents (road works, diversions..) available parking spaces (public or private), petrol prices on nearby petrol stations.

**No** Pay as you go on private and public car parks without physical interaction in an integrated system

**No Integrated system providing all this services.**

**B2B Car park companies (public and private)**

**MAIN PRODUCT:** Pay As You Go Program.

**The range of services provided:**

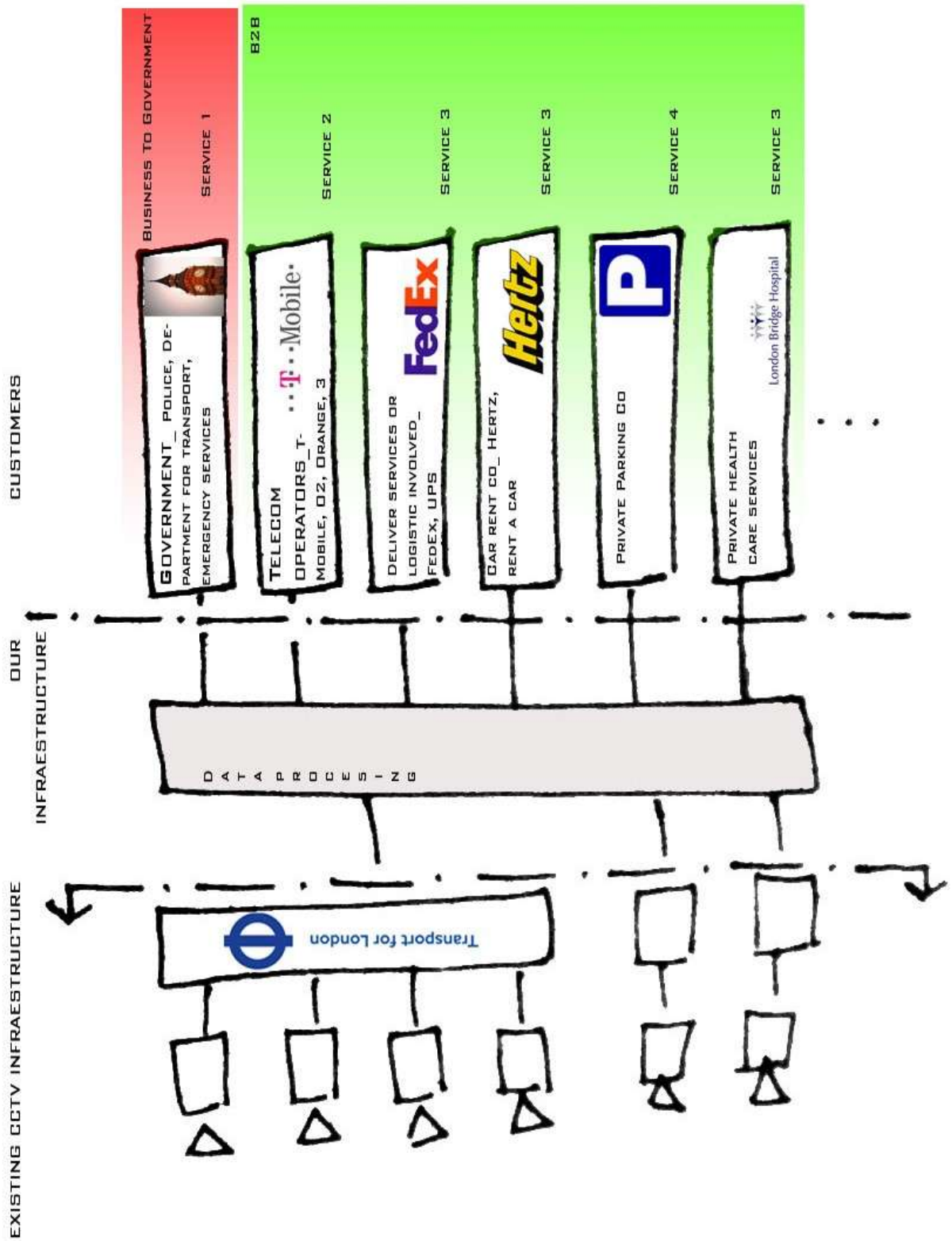
- Data base with MobiCity customers Pay As You Go Program
- Pay As You Go Program implementation and operation
- Maintenance of the Pay As You Go system

**Benefits:**

- Improve overall productivity (increase car turnover due to the fast payment)
- Convenience of the pay as you go system as part of their value proposition to the final customer.
- Integrated service pack ready to go.

**How the current needs are satisfied?**

**Demand is not satisfied: No** Pay as you go on private and public car parks without physical interaction in an integrated system



## Why is MobiCity innovative?

- **Technology independent:** our technology does not rely in a single external data source, but takes information from many. Private and public cameras, Internet databases, sensors, etc. guarantees that the information gathering will never be interrupted by technical breakdowns.
- **Modular design based on replaceable business components:** the different business units (B2B, Public Institutions, etc.) are independent one from the other. Even if some of them is having trouble, the others won't be affected.
- **Product not existing yet:** our service is completely innovative, given that some others give information about the city traffic, it's not real-time and completely reliable; given that some of them provide information about parking slots, they do not provide it outside from private parkings; given that there are several fining systems within the city, they're not automatized and widespread.
- **Growth with the market, low and limited investment required:** the first approaches rely on any kind of existing infrastructure, making the images to data transformation in a centralised, standard computer cluster. It will run an owned image recognition software, with available technology. Afterwards, the data will be classified and arranged in real time on spreadsheets, to be sold to several interested clients, both public and private. The distribution to the final customer will rely on the clients' own resources (Internet by telephone, for example). In further approximations to other cities, if the camera network is more limited, the investment will be bigger. That's why we'll start providing MobiCity services in the most traffic and security concerned cities, with the most widespread camera network. That way, we'll confront smaller projects at first, to be facing increasingly greater challenges.

## PEST ANALYSIS

### Political

- Kyoto Protocol and G20
- European Union directives for the reduction of CO2 emissions



- Council laws to rationalise usage of private transport within the city

### **Economical**

- Economic crisis
- Increasing trend of petrol prices
- Carbon Emission Taxes

### **Social**

- Environmental consciousness
- Increasing traffic congestion problems in the cities
- Geographical growth of the city
- Increase in population density in cities
- Changing life style: high value of time
- Growth of car ownership
- Development of public transport system
- Specific of architecture of the city

### **Technological**

- Widespread use of UMTS technology (3G Internet)
- Intensive use of technology in daily life (e.g. GOOGLE MAPS, PORTABLE GPS DEVICES)
- Use of technology to reduce energy consumption
- Tendency to create intelligent city

### **Effect of other sectors**

- Mobile Telecom
- Image- recognition software



- Public parking spaces management companies

### **Legal**

- Protection of privacy
- Data ownership concerns
- Driving rules

## Sector analysis

### Introduction:

This chapter is giving a full external analysis of our sector including broad information of how is actually the market, the competitors we are going to face in the moment of the launch and its future movements. Also, we collect data about our future suppliers and distributors concerning our service.

Through this chapter we are giving the whole picture of legal, political, economic and social environment on which we are going to compete and technology which is going to be the main channel we´re going to use to deliver our service.

That is going to be critical to try to assure a successful launch of the service, trying to control environmental variables.

### Sector data

*Political, economic and legal considerations*

**NOTE:** Even though that our service is able to be implemented in any country, in any city in the world, we choose London as our prototype city, because of its ideal conditions of infrastructure, environmental consciousness, level of availability of IT technologies and traffic congestion problems. That´s why we´ll focus on this city to get the data for the project:

### **a) Political:**

#### **The London Plan**

This plan, amended by the Mayor of London, is a spatial development strategy for the Greater London area and has six objectives:

- To accommodate London´s growth within its boundaries without encroaching on open spaces
- To make London a better city for people to live in
- To make London a more prosperous city with strong and diverse economic growth
- To promote social inclusion and tackle deprivation and discrimination
- To improve London´s accessibility
- To make London a more attractive, well-designed and green city

As we can see, the Mayor of London, as head of the Greater London City Council, is politically involved in the creation of a more livable city, starting from its traffic problems. To achieve the Mayor´s vision of an exemplary, sustainable world city, the quality of London´s transport must be transformed.



This means taking an integrated approach to transport provision and development, making major improvements to public transport and tackling traffic congestion. The Mayor is committed to making public transport and the pedestrian environment accessible to everyone, especially disabled people.

Also Mayor's Transport Strategy sets out policies and proposals to achieve these goals. Implementation of the program of improvements in the Transport Strategy is vital to achieving the economic growth and development aspirations of this plan. The Transport Strategy will be revised in an integrated process with the review of the London Plan. Work to revise the Transport Strategy will build on transport planning and policy analysis being undertaken by TfL. This plan sets out spatial policies to improve travel in London over the next 20 years.

We can assure that our service will make the transformation sought much more easy, with all the stakeholders involved (citizens, City Council, our shareholders, TFL, etc.) being greatly benefited.

### **The London Congestion Charge**

The **London congestion charge**, the policy that affects most our approach is a fee for some motorists travelling within those parts of London designated as the Congestion Charge Zone (CCZ). The main objectives of this charge are to reduce congestion, and to raise funds for investment in London's transport system. Politically it shows the great consciousness of the politicians in transforming London into a world recognized "drivable" city. The zone came into operation in parts of Central London on 17 February 2003 and it was extended into parts of West London on 19 February 2007.

- **Area Covered:**







- Fees: 8 pounds per day per car entering or travelling along congestion Chart zone (60-180 pounds fine for non - payments)
- Organization responsible: Transport for London (Capita group + IBM)
- Technology explanation:

The scheme makes use of CCTV cameras to record vehicles entering and exiting the zone. Cameras can record number plates with a 90% accuracy rate through automatic number plate recognition (ANPR) technology. There are also a number of mobile camera units which may be deployed anywhere in the zone. The majority of vehicles within the zone are captured on camera. The cameras take two still pictures in color and black and white and use infrared payees overnight by computer. In those cases when a number plate has not been recognized then they are checked manually. Technology to identify the plate numbers. These identified numbers are checked against the list of

### **Cars with More Emissions Pay Bigger Parking Fees in Britain**

People who drive gas-guzzlers will cough up more money to park on the streets of the London borough of Richmond, where the city council hopes to encourage driving of cleaner cars. This is the latest in a series of fees and taxes London has been slapping on big cars, and other British cities are embracing the idea.

All motorists will have to register their cars online in order to receive the "Smart Card" they will swipe at meters to pay parking fees. Or they can pay by mobile phone by entering their vehicle registration number into the meter. The car's emission class will be checked against a city database, and the correct fee will be levied."

### **b) Legal Framework:**

#### **b.1.- Energy and Carbon Emissions**

Since the last years of the past decade, the environmental consciousness has grown worldwide. The urgency of finding a solution for the global warming, is leading to the adoptions of politics of environmental friendliness. The Kyoto protocol (1997) was agreed by 187 countries worldwide, and the Copenhagen Climate Conference of 2009 had the support of the virtual majority of Countries.

Also, the Carbon emission trade has become contaminating expensive. That's why any policy that leads to an emission reduction is profitable for the Country or Company that makes it possible. Regarding UK, this country has been one of the first implementing active policies, like these ones:



### **b.1.1.Climate Change Act: 80% percent less CO2 emissions than 1990 levels for 2050.**

The **Climate Change Act** became law in the UK on 26 November 2008. It makes it the duty of the Secretary of State to ensure that the net UK carbon account for all six Kyoto greenhouse gases for the year 2050 is at least 80% lower than the 1990 baseline. The Act aims to enable the United Kingdom to become a low-carbon economy and gives ministers powers to introduce the measures necessary to achieve a range of greenhouse gas reduction targets. An independent Committee on Climate Change has been created under the Act to provide advice to UK Government on these targets and related policies.

### **b.1.2. The UK Low Carbon Transition Plan:**

Published on July 15, 2009, the UK Low Carbon Transition Plan details the actions to be taken to cut carbon emissions by 34% by 2020, based on 1990 levels (of which 21% had been achieved at the time of publication). As a result, by 2020 is it envisaged that:

- Over 1.2 million people will be employed in green jobs.
- The efficiency of 7 million homes will have been upgraded, with over 1.5 million of them generating renewable energy.
- 40% of electricity will be generated from low carbon sources (renewable, nuclear power and clean coal).
- Gas imports will be 50% lower than would otherwise have been the case.
- The average new car will emit 40% less carbon compared to 2009 levels.

### **b.1.3.Renewable Transport Fuel Obligation:**

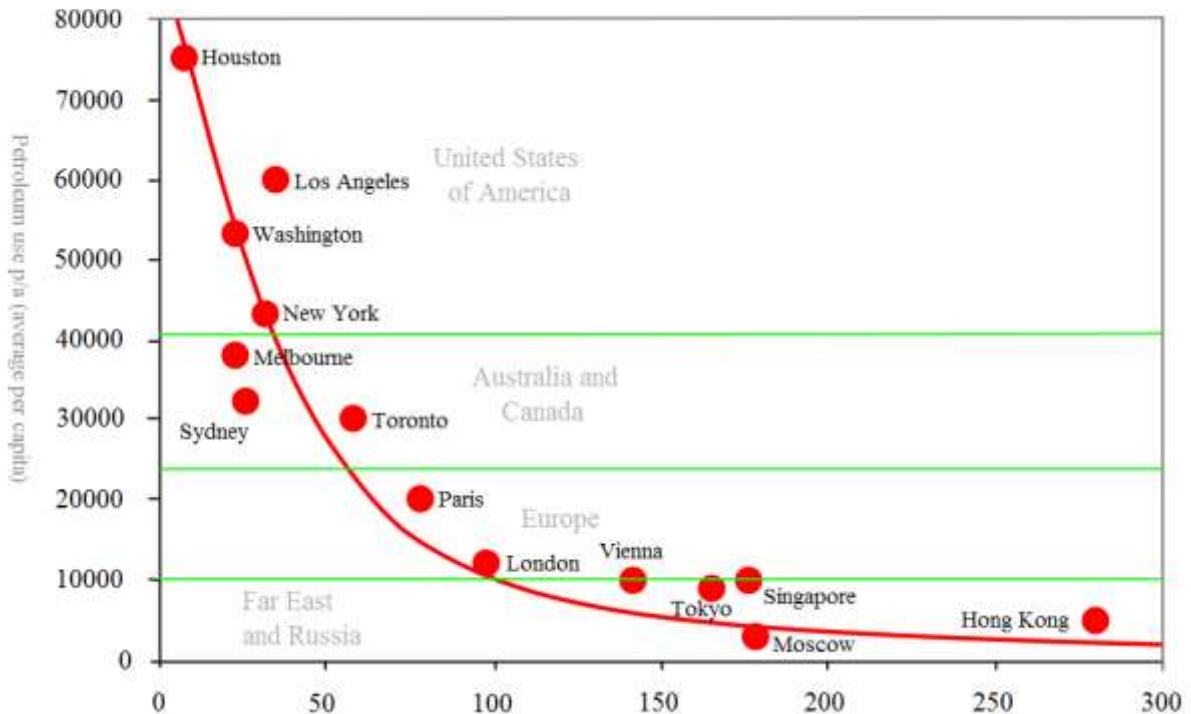
Is a requirement on transport fuel suppliers to ensure that 5 percent of all road vehicle fuel is supplied is from sustainable renewable sources by 2010. The Government intends to set variable targets for the level of carbon and sustainability performance expected from all transport fuel suppliers claiming certificates for biofuels in the early years of the RTFO.

### **c) Economic considerations:**

- General data:
- London:
  - 7,556,900 in
  - 33 boroughs
  - 384,000 unemployed people (+20.000 in three months to November 2009) Lowest in London.



- **Petroleum usage per person** (related to type of urbanism):



- **New companies taking advantage of the London´s congestion problems:**
- **Electric Scooters rental:**

The new line of scooters will be launched by E-Motive, a company which produces electric vehicles. There will be three models available in the first launch and all are said to operate at very low costs, as little as 1p per mile. The three different models all have their advantages and all operate at extremely low costs making them perfect for people just starting out, or those looking to save money on their commute.

Even though public transportation still remains the greenest option it is certainly not the cheapest. Recently London Mayor Boris Johnson confirmed that fares for trains, buses, and the Tube would be going up. This makes electric scooters and other green transportation a much more viable option for those living in the city or just outside of it. The infrastructure is starting to change to support these types of vehicles, as cities are now installing electric top off stations throughout the UK."

**- Social:**



➤ **Traffic:**

The traffic control in London is carried by a private company called Transport for London (TfL). According to their web page, "many of London's traffic management systems are currently over 30 years old and TfL is committed to investing in modernizing these sites to avoid degradation issues." We think that our system is the product they're looking for in order to rationalize the use of the London's roads.

Main facts regarding traffic, according to Transport for London:

- **373 cars** per 1000 in
- **5-9 tons of CO2** per capita (2005)
- The total distance travelled by people within Great Britain increased by 94 per cent between 1971 and 2006, to **812 billion passenger kilometers**.
- The most commonly used transport for travel to work in Inner London was the **London Underground or light rail**, used by 26 per cent of commuters.
- Passenger numbers on **local buses have decreased** over the ten years since 1996/97 in most parts of Great Britain, yet passengers increased by 62 per cent from 1,230 million to 1,993 million in London.
- The **casualty rate** per 100 billion vehicle kilometers for people killed or seriously injured has fallen throughout all the regions of Great Britain between the period 1994 -1998 and 2006: the rate **in London fell by 45 per cent**.
- Despite increased awareness of more environmentally friendly behavior, such as sharing lifts or making greater use of public transport, the most common use of the car by car drivers was **for commuting (28 per cent of all trips by car)** while leisure was the main reason for trips made by car passengers.
- In Q4 of 2006, **47% of trips to work were made by car** or van in Outer London, 20% in Inner London.
- Bus passengers **increased by 62 per cent** from 1,230 million to 1,993 million in London in 10 years (1997-2007)
- London facts:



- **13,800 km network** (580 km TfL managed and carrying 38% traffic)
- **7.3 million residents.**
- **28 million visitors** each year
  
- London streets each day:
  - **21 million road journeys** (including 11 million car and motorcycle trips)
  - **6 million** bus passengers
  - **400,000 cyclists**
  
- London streets each year:
  - **1,000,000** road and street works
  - **400 - 500** public events affecting roads
  - **5000** accidents
  
- Key causes of congestion:
  - Collisions
  - Security incidents
  - Non-compliance
  - Street and road works
  - Special events
  
- TfL's traffic control infrastructure:
  - 6000 traffic signals (half computer controlled)
  - 1200 CCTV cameras
  - 140 over height vehicle detection units
  - 110 variable message signs (VMS)
  
- **42% of people** within London use the car.
- **30% of all journeys** in London are less than one mile in length: half of all car journeys in London are less than two kilometers long.
- Londoners are most likely to think that **roads in London need improving (28%)**, followed by buses (20%) and the Underground (19%).
- **Transport**, followed by the range of shops, are considered the **best two aspects of living in London.**

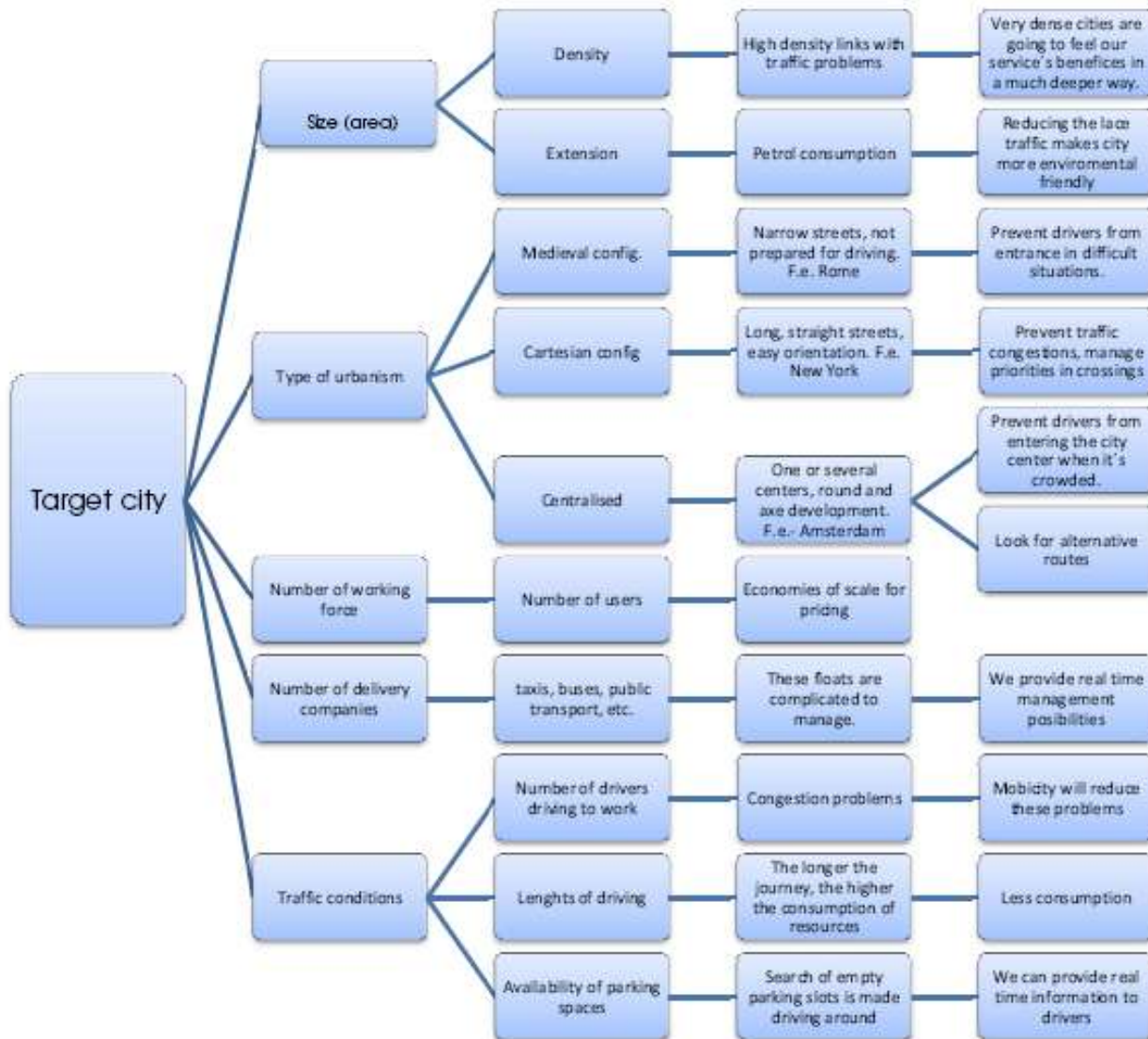
**Standard data chart for a target city:**



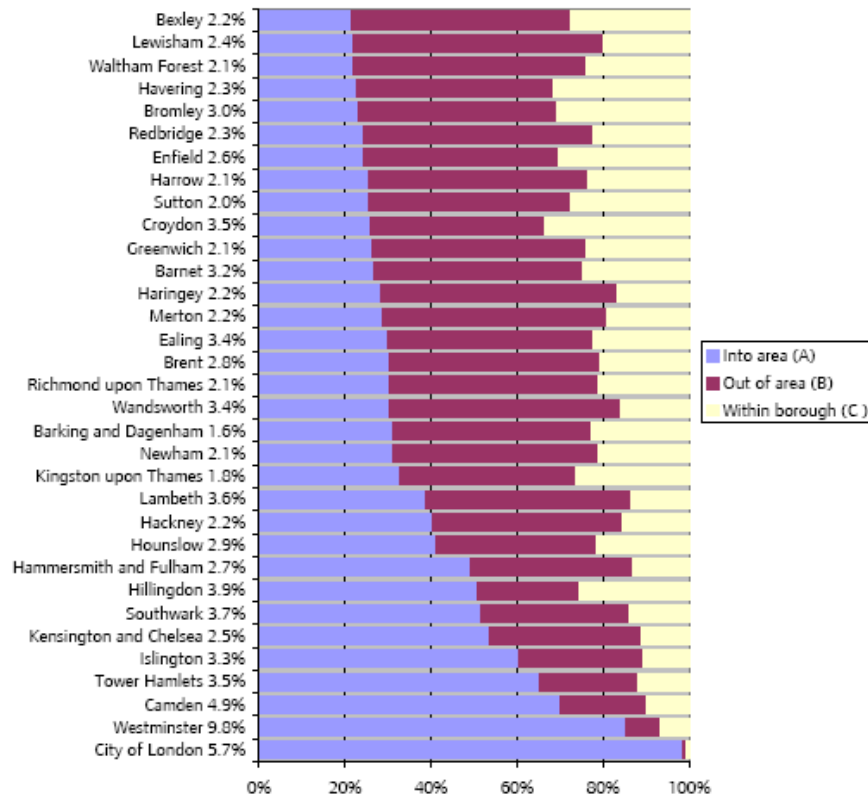
	City Factors / City	Target City	London
General	Number of inhabitants	#	13.073.956 inh (metropolitan area)
	Number of working force	#	6.528.116 (metro area)
	Number of unemployed people	%	384000
Transport companies (potential BtoB businesses)	City administration	Centralised/Decentralised	33 boroughs
	Average income	# \$	51000
	Couriers	#	207
	Driving Schools	#	321
	Haulage	#	33
	Logistics	#	71
	Taxis	#	302
	Transport consultancy	#	8
	Vehicle hire	#	667
	Car park and parking services	#	85
	Total number of private transport	#	1694
Environmental consciousness	High/medium/emerging	High	
Traffic	Number of drivers	#	3,805,655 people commuting to
	Density of car ownership	#	373 cars per 1000 inh
	Average distance to work	#	16.2 km
	Number of workers driving to work	#	1,452,000 commuters in London who drive a car or van to work
	Km of roads within the city	#	13.800 km
	Number of daily road journeys	#	21 million
	Availability of parking slots	Low / Medium / High	Low
Average delay in congestion	# minutes / km	1,9	
Urbanism	Petroleum usage per person	#	12000 barrels / year
	Area	#	1,572 km <sup>2</sup>
	Type of urbanism	Centralised/Several Centers/City	City Federation (Greater London)
	Configuration of Urbanism	Mid Age heritage/Two axes/Circled	Mix
City Density	#	4,758 / km (Greater London)	
Technology	Number of internet terminals	#	30
	Level of spread of cell phones	%	65
	Percentage of Smartphones	#	50% for 2010
	Number of CCTV cameras within the city centre	#	1200
	Other control infrastructure		400 over height vehicle detection



# Relationships between factors

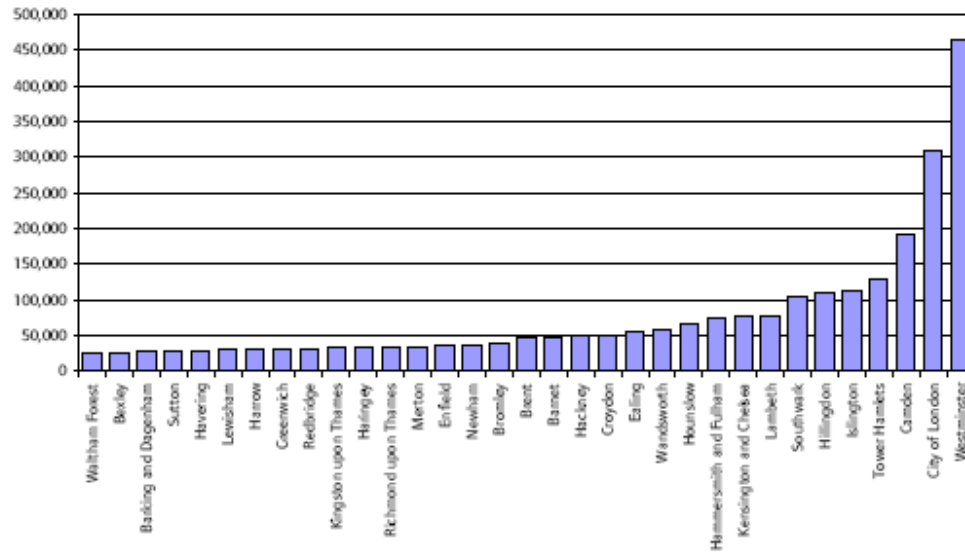


**Figure 3 Split of workers coming into each borough, leaving the borough and working within the same borough**



NB the figure by the borough name is the percentage of the total London workforce who worked in that borough.  
 Source: 2001 Census, Theme Table TT10

**Figure 6 Numbers of commuters who travelled into each borough, 2001**



Source: 2001 Census, Special Workplace Statistics SWS103



Figure 12 Numbers of residents who commuted, 2001

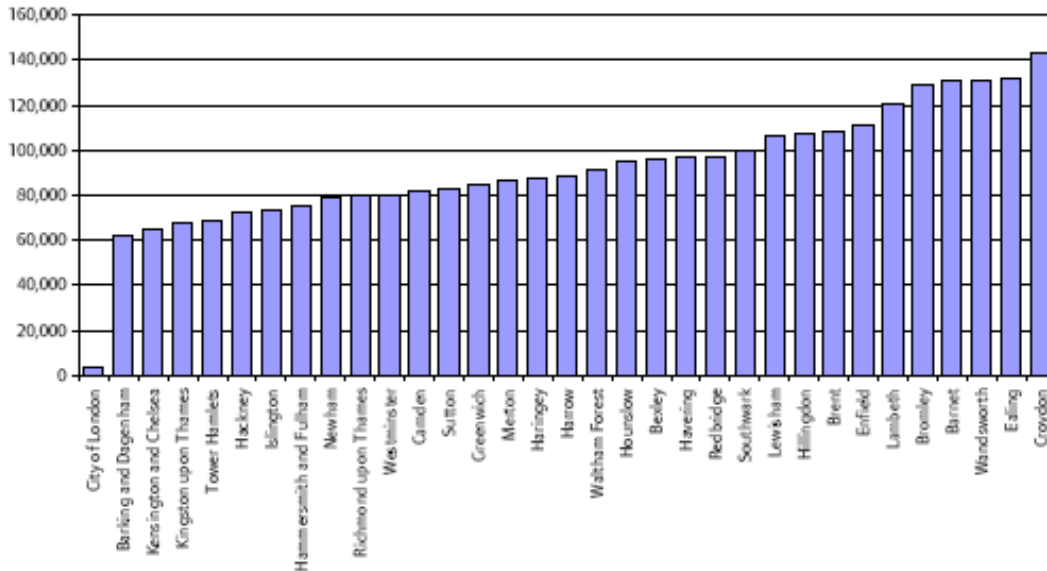
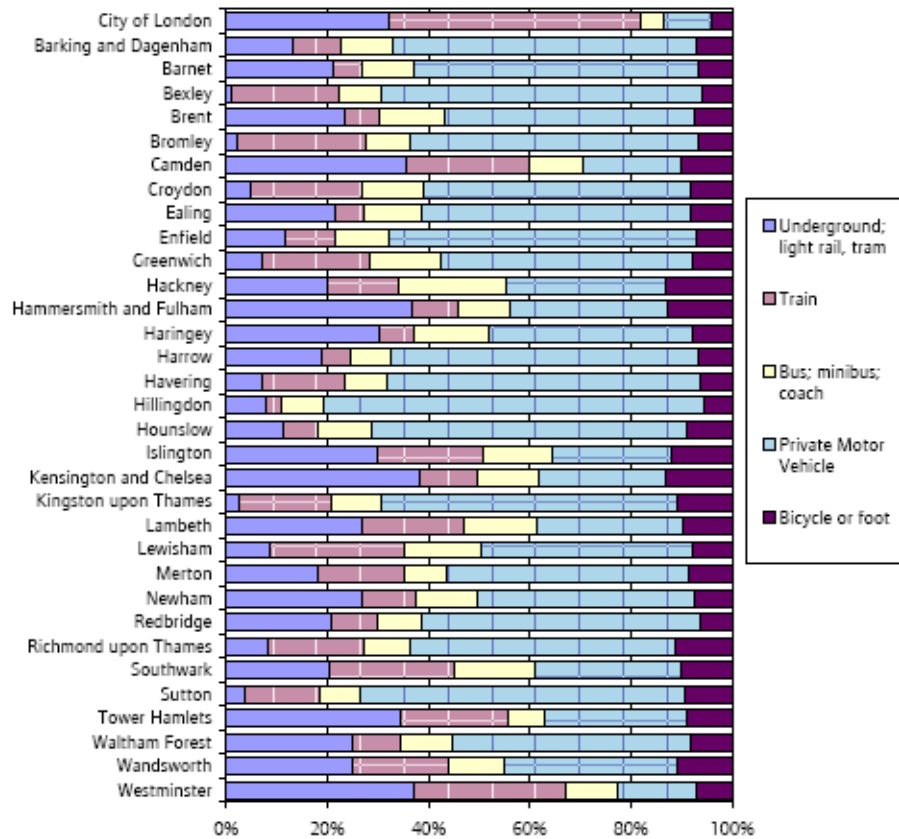


Figure 18 Method of travel to work by London borough as a percentage of all commuters in a borough



Source: 2001 Census, Theme Table TT010

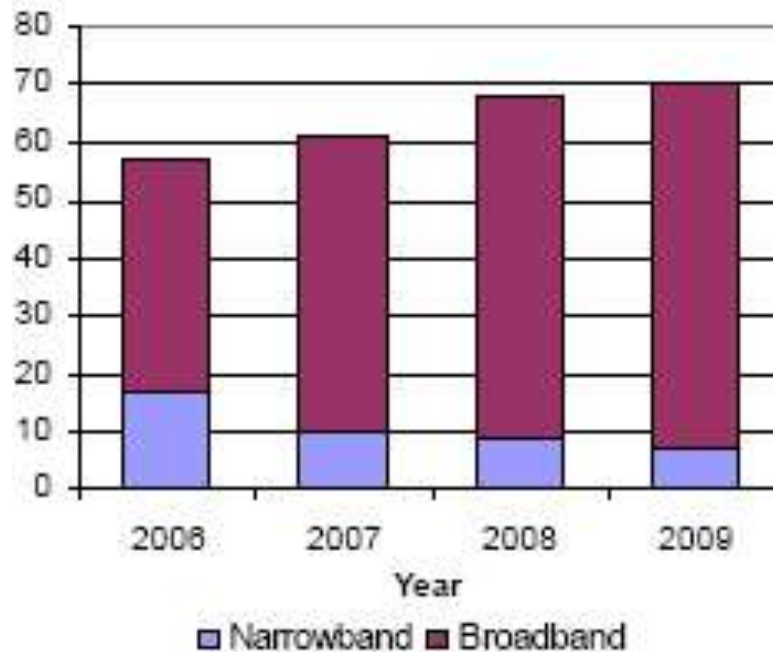
**Table 11 Average distance travelled to work (km) by method of travel, by place of work, 2001**

	London	Inner London	Outer London	Rest of E&W
All people	16.2	18.8	12.3	11.3
Underground; metro; light rail; tram	11.8	11.8	11.4	17.9
Train	31.9	33.4	20.1	25.2
Bus; minibus; coach	7.8	8.9	6.6	7.7
Motor cycle; scooter or moped	15.3	16.2	13.2	10.4
Driving a car or van	16.3	19.4	14.7	13.4
Passenger in a car or van	13.4	18.5	10.6	9.0
Bicycle	6.9	7.5	5.7	4.8
On foot	1.6	1.7	1.5	1.4

Source: 2001 Census, Standard Table ST129

➤ Internet:

**Households with access to the Internet and broadband**





Market (size, trends, segments, characteristics)

We will subdivide this topic between two main areas. First we will try to have an overall view of the size of the market according to the final user. We are not addressing the final user in our business model but It 'll be good to have an idea of how big is this market. Then we will try to focus on the business to business market.

Final User

Defining and measuring metropolitan regions

- Travel to Work Area (proposed)
- Functional Urban Region (1813 jobs per square mile core, NUTS4 hinterland)
- Greater London Authority
- London Metropolitan Area

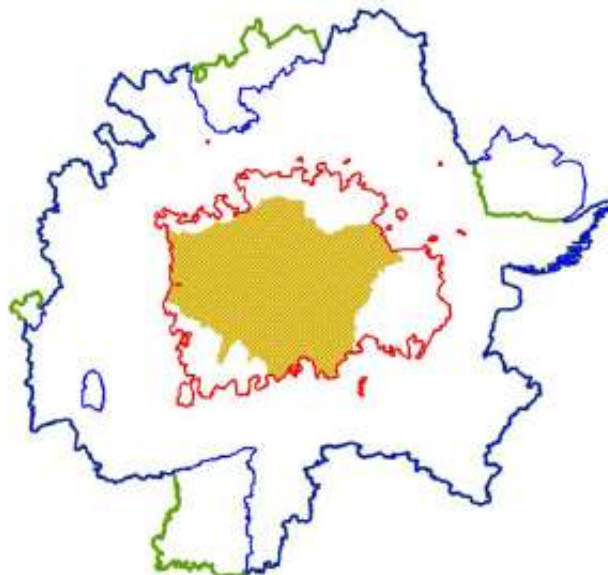


Table 3: Summary of populations and workforces

	Population	Workforce Employment
GLA London	7,172,091	3,805,655
GEMACA London FUR	12,660,293	6,304,205
London Metropolitan Area	13,073,954	6,528,116
London Travel-to-work Area	8,214,960	4,191,014



- Source: Greater London Authority June 2007

### Commuters

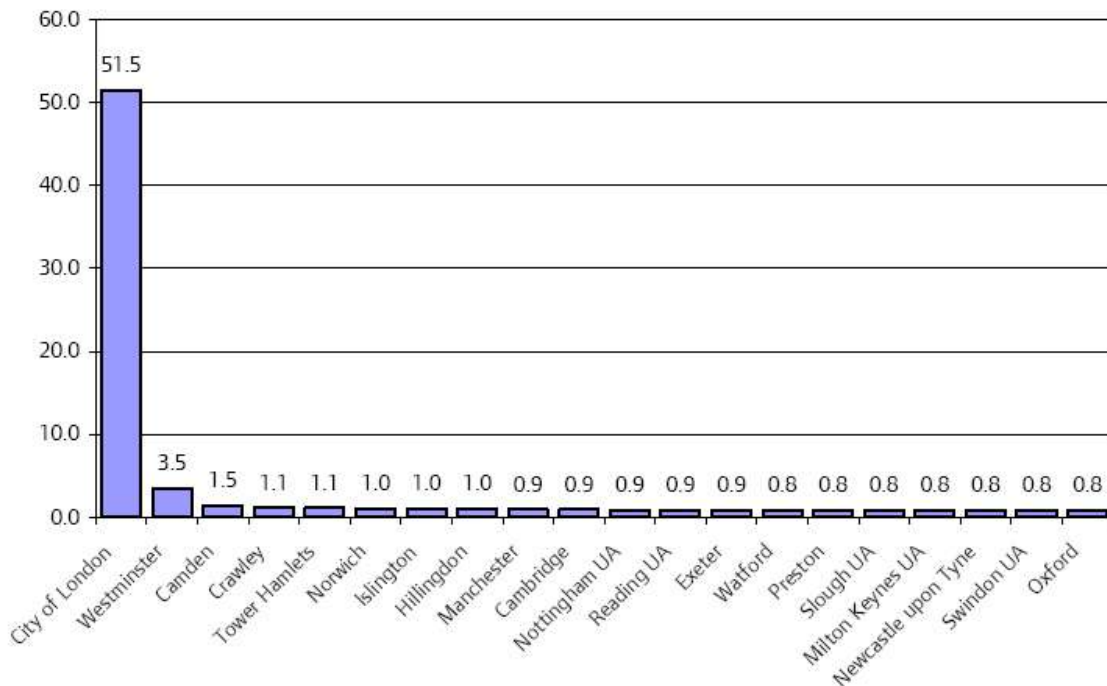
In total there were over 3.7 million people whose journey to work involved travelling in London. Over 2 million Londoners, travelled to work outside their borough of residence. Furthermore, just under a million workers worked in the same borough they lived and a further 285,000 worked mainly at/from home. Also, around 722,000 people travelled from outside London into London to work.

### Jobs density in London

The total number of workers in London was 3,805,655. The greatest number of people working in one borough was 509,943 in Westminster followed by the City of London (312,178) and Camden (227,669).

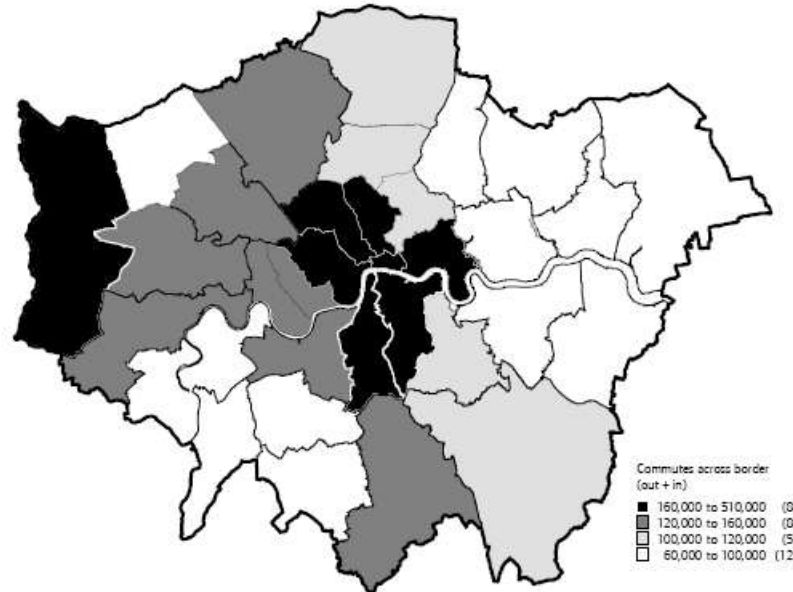
Jobs density is defined in this Briefing as number of workers per resident aged 16 to 74. In London the average jobs density was 0.7. The jobs density in Inner London (1.0) has double that in Outer London (0.5). The highest job density was in the City of London where there were over 51 workers per resident. This was by far the highest in the country, while the next highest was Westminster where the figure was 3.5 followed by Camden (1.5).

**Figure 1 Top 20 districts for jobs density, England and Wales 2001**



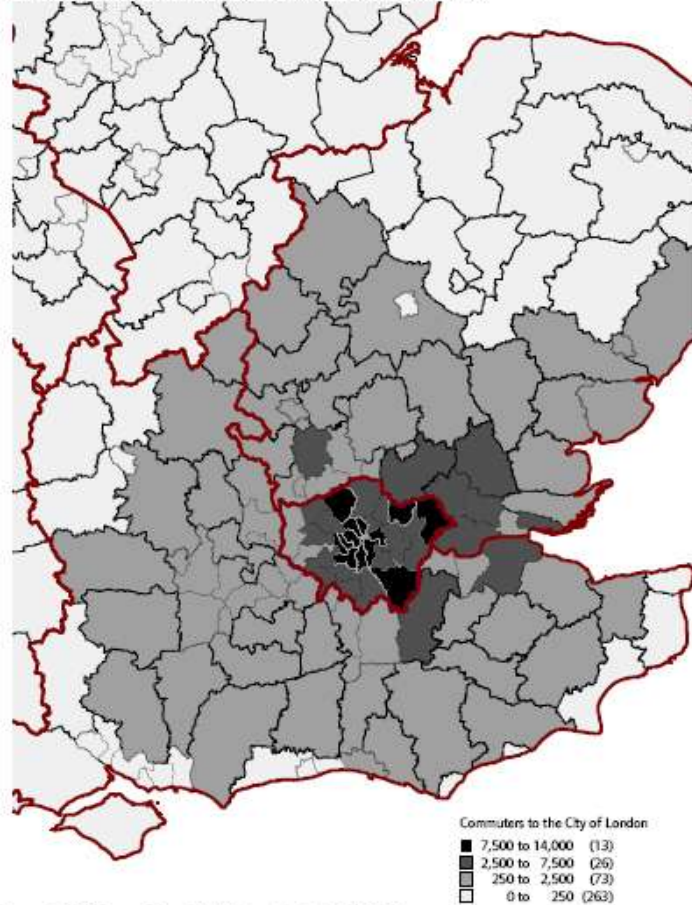


Map 6 Numbers of commuters who travelled in or out of borough,



NB This data includes double counting as one commuter can be counted as leaving and counted as entering a borough. Source: 2001 Census, Special Workplace Statistics SWS103

Map 20 District of origin for City of London workers



Source: 2001 Census, Special Workplace Statistics SWS103



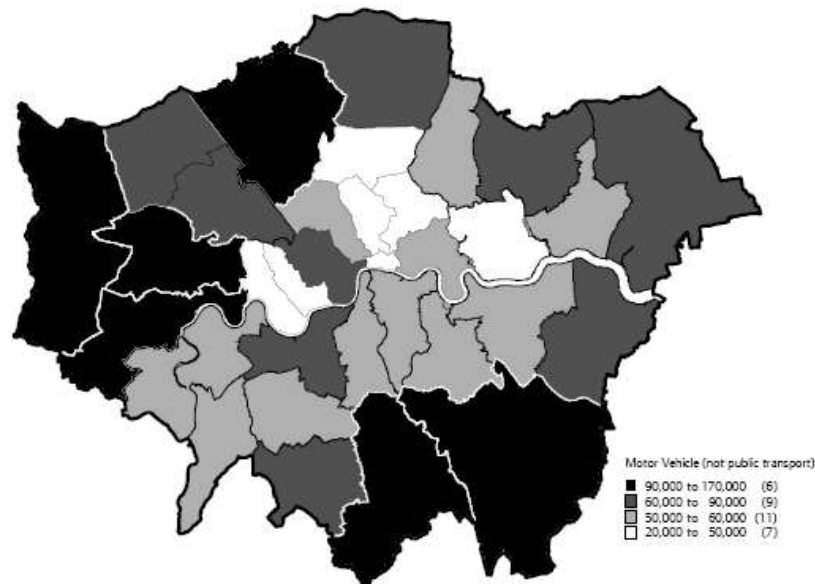
Car commuters

There were almost **1.5 million commuters in London who drive a car or van to work;**(1,452,000). This was considerably more than the second most used method of travel, which was train (687,000). There were a further 101,000 commuters who were passengers in a car or van. The number of car drivers in Outer London was more than twice that in Inner London.

By far the highest number of commuters who drive to work was in Hilling don (151,680). The area surrounding Heathrow Airport is a popular place of work for many workers and there may be little or no public transport to some of those workplaces. Furthermore, many of those commuters will be driving vehicles carrying goods. After Hillingdon there were four boroughs with similar numbers of car drivers, they were Hounslow (91,333), Croydon (90,731), Ealing, (90,309) and Barnet (90,056).

All the top 11 ranking boroughs as either origins or destinations for car drivers were in Outer London, with Westminster twelfth. Conversely, all of the bottom nine were in Inner London, with the City of London having the fewest (19,983) followed by Kensington and Chelsea (27,851). Westminster is a popular destination for drivers with over 60,000 people driving into the Borough to work, and even though most of the rest of Inner London is not so popular as a destination, those people driving to Westminster will have to pass through surrounding boroughs, which would increase the traffic flows in those boroughs.

**Map 16 Numbers of commuters who travelled by car (driver or passenger), motorcycle or taxi by borough of workplace or residence**



Source: 2001 Census, Special Workplace Statistics SWS103



## Use of Internet

**Table 17: Mobile Internet connections**

	Male	Female	All
<i>Per cent</i>			
Mobile phone via GPRS	21	15	18
Mobile phone via UMTS, HSPDA (3G, 3G+)	11	5	8
Handheld computer (palmtop, PDA)	7	..	5
Portable computer (laptop) via wireless connection away from home/work	29	23	26
None of the above	54	66	60

Base: UK adults who accessed the Internet in the last three months

Source: Office for National Statistics Internet Access Households and Individuals 2009

**London, UK, 04 February 2008: The Mobile Data Association (MDA) today launches the first UK Mobile Report, a comprehensive quarterly guide providing statistical analysis on current, historical and seasonal trends and growth factors in the use of mobile technology.**

### Headline statistics

A summary of findings: A significantly wider variety of data usage has driven overall growth figures in 2007. SMS growth remained strong but a combination of static and video messages and Internet usage has resulted in the following key statistics:

December 2009 annual figures

Text Messaging (SMS) total = 9,6 billion  
 Picture Messaging (MMS) total = 64,07 million  
 Mobile Internet (MI) total users = 17,8 million

### Mobile Internet (MI)

17,8 million people accessed the Internet on their phone in December. This equates to **23% of mobile users in UK**

## Conclusions

### Market size (for private final user)



**13.073.956 people living in London metropolitan area**

**6.528.116 workforce people living in London metro area**

**4.194.114 workforce people living in London Travel to work area**

**3,805,655 people commuting to London**

**1,452,000 commuters in London who drive a car or van to work**

**23% of mobile users in UK**

**345.000 Potential daily heavy users**

Business to Business

Sector categories

The sector is divided among different categories. We are targeting the following sectors:

Couriers (2,353 companies operating in Great Britain, 207 operating in Greater London)



Event Transport

UK Fine Art Transport Companies

Fragile Goods Transport  
General Courier Services  
Hazardous Material Couriers  
International Couriers  
Large Scale Couriers  
Medical Couriers  
Motorcycle Couriers  
Multi Drop Couriers  
Next Day Couriers  
Sameday Couriers  
Secure Vault and Cargo





**Driving Schools** (3,642 companies operating in Great Britain, 321 operating in Greater London)

- Advanced Driver Training
- CBT Test
- Commercial Vehicle Training
- Driver Training
- Driving Assessment Centre
- Driving Instructor Training
- Driving Instructors
- Female Driving Instructor
- Fleet Driver Training
- HGV Driver Training
- Intensive Driving Courses
- LGV Driver Training
- Motorcycle Training
- Pass Plus Instruction
- Taxi Driver Training
- Trailer Training



**Haulage** (442 companies operating in Great Britain, 33 operating in Greater London)

- Abnormal Load Escort
- Boat Delivery
- Flight Cases
- General Haulage
- Light Haulage
- Refrigerated Container Sales companies
- Refrigerated Transport
- Vehicle Delivery Service



**Logistics** (444 companies operating in Great Britain, 71 operating in Greater London)

- Bio-Logistics
- Distribution Services



Freight Forwarding  
Freight Management  
Fulfillment  
Logistics Consultants  
Logistics Software  
Outsourcing Solutions  
Palletized Freight Distribution companies  
Pick and Pack  
Reverse Logistics  
Shipping Agents  
Third Party Logistics  
Warehousing



**Taxis** (1,901 companies operating in Great Britain, 302 operating in Greater London)

Air Taxis  
Airport Transfers  
Business Transport Service...  
Business Travel  
Disabled Taxi Service  
Mini Cabs  
Minibus Taxis  
Private Hire Taxis  
Sea Port Transfers  
Taxi Hire

**Transport Consultancy** (26 companies operating in Great Britain, 8 operating in Greater London)



**Vehicle Hire** (1,928 companies operating in Great Britain, 667 operating in Greater London)

Campervan Hire  
Car Hire  
Chauffeur Driven Car Hire  
Classic Car Hire  
Coach Hire  
Contract Hire and Leasing  
Courtesy Cars



Dual Control Vehicle Hire  
Funeral Car Hire  
High Performance Vehicle Hire  
Hotbox Hire  
Hybrid Vehicle Hire  
Ice Cream Van Hire  
Limo Hire  
Loader and Forklift Hire  
Mini-bus Hire  
Motorcycle Clubs  
Motorcycle Hire  
Motorhome Hire  
Plant Hire  
Refrigerated Van Hire  
Trailer Hire  
Van Hire  
Vintage Bus Hire  
Vintage Car Hire

**Car park and parking services (85 operating in Greater London)**

**Total potential B2B companies operating in Greater London 1694**

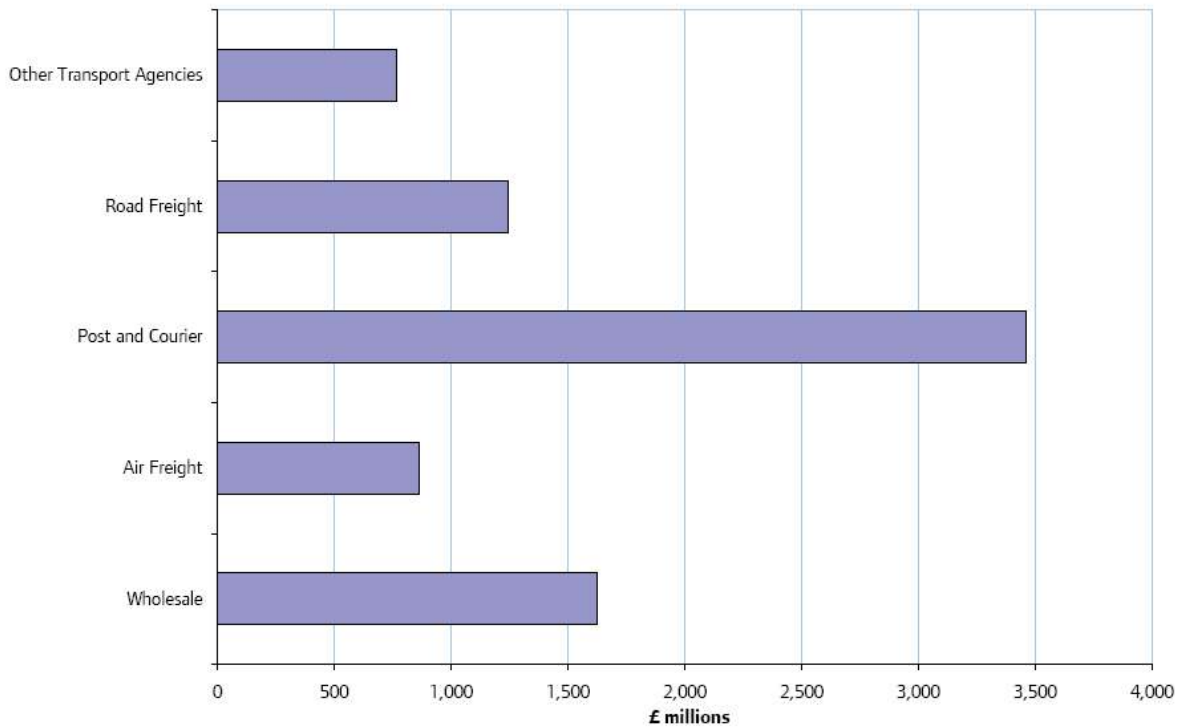
Trends:

Figure 1.6 shows that post and courier services are the largest sub-sector, accounting for almost £3.5 billion of logistics output in London. The next largest sub-sectors are wholesale and road freight, contributing respectively £1.6 billion and £1.3 billion of logistics activity.

Air freight and other transport agencies are the smallest sub-sectors, together comprising £1.6 billion of logistics activity.



**Figure 1.6: London’s logistics activity, 2007**

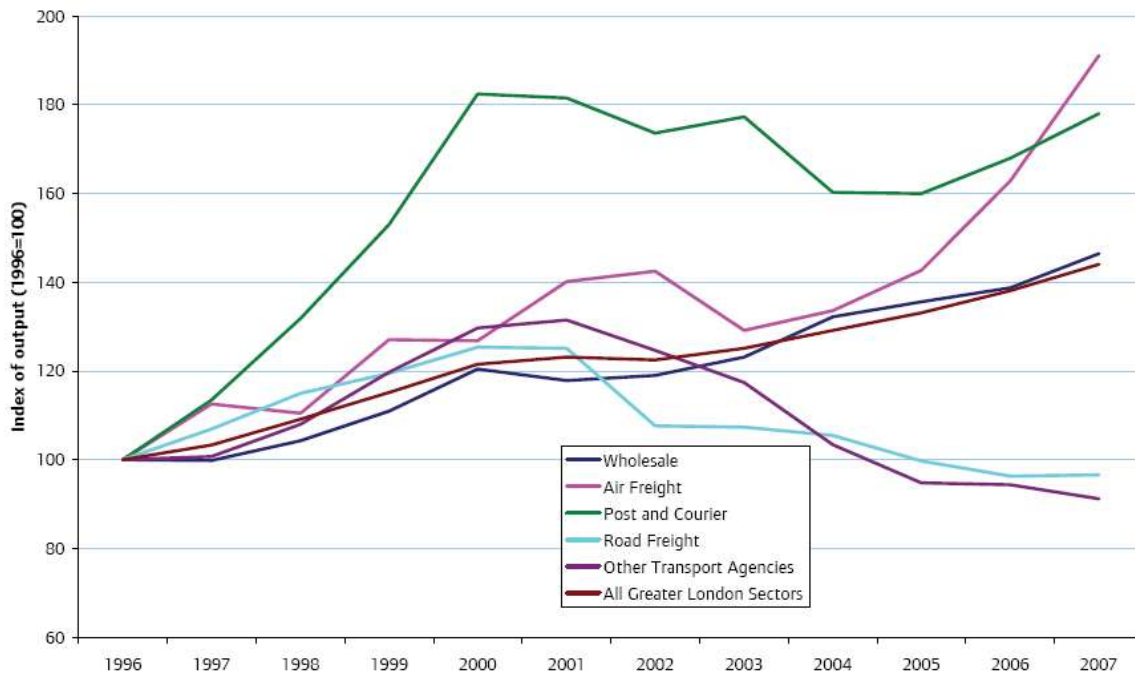


Source: Experian Business Strategies

Figure 1.8 shows an index of output for logistics sub-sectors from 1996 to 2007. The subsectors whose output grew the most in this period were air freight (an 84 per cent increase) and post/courier (78 per cent increase). The distribution over time of their gains differs with air freight output growing strongly in all years except 2001 and 2002 and post and courier growing at a fast rate and peaking in 2000 then falling or growing slightly in subsequent years. Wholesale output also grew over the period, closely following the growth rate for London’s economy as a whole. In 2007 output stood at a level 46 per cent higher than its 1996 level. Although, until 2001, other transport agencies and road freight were growing faster than London’s economy, declines in output since then meant a contraction of 9 per cent and 3 per cent respectively.



**Figure 1.8: Change in logistics sub-sector output**



Source: Experian Business Strategies

This report has presented statistics on the logistics sector in London. The sector accounts for approximately 3.4 per cent of London’s output and 5.2 per cent of its employees. In the last decade logistics output has grown at a similar rate to the London economy but employee numbers have remained stable in the sector whilst growing across London as a whole. The sector is geographically concentrated, particularly in West and East London, around Heathrow airport and the Thames Gateway boroughs. Air freight is more prominent and road freight a much less prominent logistics sub-sector in terms of output in London than in Great Britain as a whole.

*Competitors (positioning, market shares, economic results, success strategies)*

Market has just started to realize the strong demand of society, government and businesses in possessing the real time information that can be applicable to improve total mobility taking benefits in economizing money, time and efforts. Innovations and the widespread use of technologies (portable navigation devices, in-vehicle navigation systems, mobile phone-based navigation, Internet, sensors, traffic cameras and etc) in our common life bring



this demand to the stage possible to satisfy. Market enjoys the moment when business' aims area, customer's need area and technology area are crossing one with each other creating common interest. In these aspects to become a winner-company means to create the most effective, affordable and profitable solutions to answer the market needs.

In the range with MobiCity we can define several companies that have challenged to meet the market demand and have already lounged their product or have announced to do it in short time. Among our competitors we can name INRIX, Nokia, Navteq, TFL, Google, Tomtom, ITIS, and Streetline.

### **Competitors' position**

- **NAVTEQ:**

Up to today Navteq specialized on B2B in providing solutions on logistics by proposing detailed map with rough planning but with no real time information in main cities of North America, Germany and France. Recently the company announce new product competitive to MobiCity: drive navigation with real-time traffic information, automatic re-routing according to in and also the automatic update of the maps. The company plans to lounge the product also in London. The most of the traffic information that will be available through Navteq's technology is collected using government deployed sensors. While these sensors, which sit on the roads and monitor car speeds and traffic volume, do a good job, they are too expensive to be deployed everywhere. This means that traffic information will only be available for major road of London, but it's missing on arterial or secondary roads.

- **Tomtom:**

Tomtom is a digital mapping and routing company that focuses on car navigation, aimed to gain competitive advantage through new superior product - HD Traffic provided as an additional paid service applied to Tomtom GPS devices. It enables a real-time connection to the latest route information (such as traffic information, latest fuel prices, roughing, incident reports, travel and arrival times) through Tomtom GPS device. Tomtom HD Traffic receives signals from 16.7 million anonymous mobile phone users on the road of UK, analyzes the speed all these mobile phone users are travelling throughout the road network, compares with historical data and gives information over real-time traffic situation. Updates information every 3 minutes. But still the company's software cannot provide highly accurate information as it depends on limited number of mobile users in London. It covers 97% major street of London (through cameras) and only 40% of secondary road.

- **Google:**



Google's position themselves as a company that aims to organize the world's information and make it universally accessible and useful. In their web-page Goggle provides London city map with information over local services (petrol stations) and also real time traffic information. The service provided for free. But still it covers only main streets and traffic conditions are shown based on data availability -- if Google don't have enough data to calculate accurate traffic speeds for a road, then it won't show traffic conditions for that road. The only source of information is governmental traffic agency TFL.

- **TFL:**

Transport For London (TFL) is the part of the project of Mayor of London, the London Assembly and the Greater London Authority created to constitute a unique form of strategic citywide government for London. TFL deals with transport management and mobility of London. TFL can be regarded as our competitor in the aspect that in their web site they provide free information over true traffic in the city applying it to Google Maps. The information is taken from cameras and street sensors and so covers only main arteries of the city.

- **INRIX:**

INRIX works as provider in USA, Canada, UK of real-time (information is collected through GPS Probes, road sensors, Toll Tags, Cell Phone Data), historical and predictive traffic information offering to BtoB navigation and traffic solutions. In UK the company specialized as consultancy to city mobility and logics. INRIX is supplied with information by company ITIS.

- **ITIS:**

ITIS is a UK's provider of real time and historic traffic information, suitable for a range of users: government, telecoms, logistics, and broadcasters. The company provides to their clients database and also software platform as the basis for their applications. ITIS has developed and operates patented technology to receive real time information: Cellular Floating Vehicle Data and GPS Floating Vehicle Data. This technology by sampling the location of a mobile phone and GPS over a period of time, measures the route and velocity at which the phone or GPS and with this analyze the traffic conditions. Another source of information - a journalistic transport information gathering service, taking information from cameras, control rooms, police forces and many other sources. The data is analyzed and verified by the UK's team of professional travel information journalists.

ITIS methods of gathering information permit to have high accuracy and coverage. But still the company do not possesses the information over parking



slots. And at the same time ITIS do not aim to provide the types of services as MobiCity provides.

- **Nokia:**

Nokia has announced the developing of application to Nokia Maps that will permit the Nokia mobile users (the users of following mobiles: Nokia X6, Nokia N97 mini, E72, E55, E52, Nokia 6730 classic, Nokia 6710 Navigator, Nokia 5800 Xpressmusic, Nokia 5800, Nokia 5230) to access to the true traffic information. The application will be available in main cities of USA and then company planes to adopt application to European market. Nokia developing some services that are competitive for our business as drive navigation with real-time traffic information, automatic re-routing according to in and also the automatic update of the maps. The information is provided by Nokia for free through connecting and downloading the Maps with PC. The service provider charges for data-in-real-time transmission as customer uses a mobile internet connection. Traffic information is collected mainly from traffic cameras, road sensors and by receiving signals (location and speed of moving) from Nokia cell phones. That makes the accuracy highly depended on number of Nokia mobile users in the London.

- **Streetline Company:**

Streetline position themselves as experts in sensor networking, software and operations in USA. Streetline provides the true status of parking space – at curbside, in lots and in garages; to enable customers to pay for parking by mobile. Also they aim to provide the tools for city managers and planners to manage parking problems and cognition of the city.

The company installs special sensors in each parking place that gather information if the slot is busy or not. The information goes to web page which the driver can reach with through mobile with internet. The embedded sensors also are used to relay congestion information to city planners by monitoring the speed of traffic flowing on city streets. The product is implemented in business district in San Francisco and has plans to spread over USA. Now is the only company providing competitive to us product – the real time information over the parking slots.

Ultimate result: as the cheap maintenance of the sensors and with the additional payment options for customers, this saw revenue rise by 15% to 20% for the advanced meters.

The table below joins the information above and other important facts that differentiate the competitor between each other and MobiCity.





Characteristics / Companies	INRIX	Nokia	NAVTEQ	TFL	Google	Tomtom	ITIS	Streetline	MobiCity
Competitive Product	Database	Nokia Maps Real Traffic	Database	Google Maps Real Traffic	Google Maps Real Traffic	HD Traffic	Trafficlink	Database	Database
Markets where the Product already lounded	North America, Europe		North America, Europe: Germany, France	London	USA, Europe	North America, Europe	UK	USA	
Launch of the product in UK	2008	Announced to enter 2012	Announced to enter 2011	1999	2005	1991	2000		2010
Distributional channels of informational services	In-Vehicle and Portable Navigator, Phone, PC	Nokia Mobile	In-Vehicle and Portable Navigator, Phone, PC	PC	Web Site, Mobiles	Navigation Devise	PC	Mobile	In-Vehicle and Portable Navigator, Phone, PC
Target BtoB Customers	Regional Government Agencies, Transportation management solution provider, Web portals, Mobile Phones APP developers, Wireless operators, Navigate device manufacturers, Automobile manufacturers		Application developers, Navigator providers, Car industry, GPS manufacture	Logistics and Transport companies		Logistics and Transport companies	Broadcasters , Telecoms, Logistics, Automotive, Government	Government, Telecoms	Regional Government, Telecoms, Logistics and Transportation, Private and public Parking, Navigator providers
Useful strategy	Free mobile App for iPhone and Android, collaboration with car manufacture	Creating customer loyalty through additional service	Gaining volume through application developers	Apply their information to free for charge Google Maps	Use free of charge source of information	Alliance with telecom company	Patented Floating Vehicle Data and GPS Floating Vehicle	Involvement of local government in order to demonstrate benefits of the product	
Sources of revenue	Sell of information	Free Service	Sell of map, data, merchants*	Free Service	Free Service	Sell of navigation devices, geographic databases, month fee for real time information	Sell of information	Sell of information	Sell of real time intelligent information

We have mentioned above the range of services the companies provide and way they gather information, its coverage and accuracy that refer to quality of service. The tables below help to compare the competitors and MobiCity in these main characteristics that affect strongly the success of the company.



### Services

MobiCity has no relevant competitor referring to the range of services provided. MobiCity gains competitive advantage by identifying more possibilities of using the traffic and parking information to create intellectual and valuable databases and with this meets higher number of customer's



needs (see the table below). Some of the services are unique in UK market and do not have any competition.

Services/ Companies	INRIX	Nokia	NAVTEQ	TFL	Google	Tomtom	ITIS	Streetline	MobiCity
real time traffic information	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	White	Yellow
automatic penalty system	White	White	White	White	White	White	White	White	Yellow
solution for improvement city mobility	White	White	White	Yellow	White	White	Yellow	White	Yellow
available parking spaces	White	White	White	White	White	White	White	Yellow	Yellow
incident information	White	White	White	Yellow	White	Yellow	Yellow	White	Yellow
route planning according to congestion	Yellow	Yellow	Yellow	White	White	Yellow	Yellow	White	Yellow
automatically update maps	Yellow	Yellow	White	White	White	White	Yellow	White	Yellow
reservation of parking slot	White	White	White	White	White	White	White	White	White
pay as you go system	White	White	White	White	White	White	White	White	Yellow
petrol stations location	White	White	White	Yellow	Yellow	Yellow	White	White	Yellow
petrol prices	White	White	White	White	White	Yellow	White	White	Yellow
special gadget	White	Yellow	White	White	White	Yellow	White	White	Yellow

 service is provided by the company  
 service is not provided by the company

### **Quality**

To provide quality service it is critical to the company to possess high coverage and accuracy of traffic data as these is determining the overall user experience. To answer this challenge each company its individual way uses the volume and variations of the types of incoming data (real-time, historical, and



fusion) and proposes different coverage of the city. The advantage of the MobiCity is that it uses the number of sources used by others companies as well as exclusive source (parking sensors). Exclusive modeling and prediction technologies offer the highest accuracy in the market today. Also MobiCity possesses itself in unique niche covering the city and business center.

Characteristics / Companies	INRIX	Nokia	NAVTEQ	TFL	Google	Tomtom	ITIS	Streetline	MobiCity
real time information	Cameras, ITIS: Cell Phone Data*, 1,4 mil GPS Floating Vehicle Data*	Nokia Mobiles User, Road Sensors, Traffic Cameras	Road Sensors, Traffic Cameras	London Traffic Control Centre, ITIS	TFL, Taxi Fleet	ITIS: 16,7 mil mobile users of Vodafone, Tomtom' navigator users	Cameras, Network of travel information journalists, Cell Phone Data, 1,4 mil GPS Floating Vehicle Data*	Specially installed sensors in parking slots	Cameras, sensors, TFL, Cell Phones, GPS, parking sensors, parking, Web
Suppliers/ sources of information									
additional sources	Historical Data		Historical Data			Historical Data	Historical Data		Historical Data
Coverage in London	Major roadway leading to London center	Main and secondary roads	Major roadways	Major roadways	Major roadways	97% of major roadways, 40% of secondary roads	Total coverage	Business center	Total coverage of city and business center
Accuracy Dependence	On number of Mobiles and GPS	On number of Nokia Map Users	On number of cameras and sensors	On number of cameras	On number of cameras	On software	On software	On software	On software



*Distribution channels (existing channels, margins and channel aids)*

**1. Distribution channels:**

In MobiCity case, these are the tools we are going to use in order to provide our services to our clients, who are, as stated in the 1st delivery:

- **Businesses** (basically Mobile Telecom, Logistics and Transportation companies)
- **Government**

We are not talking here about the tangible devices through which the end user may receive the information from our clients, but of the way we transmit it to them, once processed in real time through our software.

Therefore, our way of passing this information in the form of services, is the Internet.

**2. Margins:**

As we are talking about intangible software used on shared and public basis by anyone for professional or personal functions, there is no way of measuring the real economic margins these sources can provide.

Nevertheless, we can talk about net operating margins of MobiCity's competitors which give us also an idea of how the market performs.

Anyway, the compelling reason for our clients to buy MobiCity services is the need to meet end user demand based on:

- MobiCity services will make their daily urban lives easier.
- They will save money on petrol.
- They will save time spent in their daily routes.
- They will contribute to create a green city.



**3. Aids:**

The same philosophy applies here as in MobiCity case, using an open-source channel, what we have to look for is subsidies or sponsorships to carry out our activity through the mentioned channels.

	CHANNELS	MARGINS	AIDS
	Internet	Fixed fee	Subsidies on emissions reduction Transportation budget
	GPRS RSD HD RADIO HTTP CDMA SATELLITE WIFI	Not available	Car manufacturers sponsorship Partnership with stakeholders
	GPRS HTTP SATELLITE WIFI	18% net operating margin	Mobile Telecom sponsorship (Nokia)
	GPRS	19% net operating margin	No aids
	Wireless internet signals	Not available	Government (San Francisco Transport Department)
	HTTP GPS SMS RADIO / TV INFORMATIVE PANELS	Non for profit org.	Government (local, national and from EU)
	HTTP GPS	Not available	No aids



*Suppliers (data on the main ones, levels of concentration)*

We analyze here the information taking into account not only who MobiCity's suppliers are, but also the data typology we can get from them.

1. **TFL Traffic Management through cameras:**

This institution's cameras can provide us with real time information on traffic density, traffic jams, accidents and works being carried out on the streets.

2. **TFL sensors:**

There are sensors buried on the streets in the city. From this source, we can have access to data on number of vehicles passing through those areas per determined interval of time and also on their speed and consequently on the congestion.

3. **BUS network:**

Bus drivers transfer continuous real time information on incidents or alterations on normal traffic flows they drive into.

4. **POLICE:**

Metropolitan Police Area Traffic Control manages real time data on both unexpected incidents which can cause delays and congestion and also on events taking place in the city which can also cause traffic problems.

5. **GPS:**

Connected devices offer information on routes actually chosen by drivers at the same time as their location and speed so that we can reckon the state of the traffic in that area.

6. **MOBILE telecom companies:**

They have also access, thanks to the Internet or gps connection of their users, to their specific location, speed and route.



7. **CCTV:**

Apart from the cameras installed and managed by government, there are also many private owned by businesses or households filming the entrance to their premises. From here we can also have access to helpful data on congestion status and certain incidents real time.

8. **PETROL STATIONS:**

They will provide us with information so that drivers can see both the gas and petrol prices and estimate the convenience of their location.

9. **PRIVATE CAR PARKS:**

Both public and private companies offering parking slots, will give us information on their availability in order to optimize occupation rates and therefore incomes. Besides, this can dissuade drivers from going into an area where they would be obliged to face driving and thus, increasing emissions.

SUPPLIERS									
	CAMERAS (TFL Traffic Mgt)	SENSORS (TFL, buried on roads)	BUS network	POLICE (traffic control)	GPS	MOBILE Telecom companies	CCTV (businesses, households)	PETROL STATIONS	PRIVATE CAR PARKS
<b>DATA</b>	Image	Traffic density in streets	Traffic jam Accidents Works	Incidents on streets Traffic jam Accidents Events scheduled	Traffic jam Accidents	Traffic jam Accidents	Traffic density in streets Traffic jam Accidents Works	Offers / Promotions Gas & Petrol prices	Availability
	Alerts	Traffic jam Accidents Works	Traffic jam Accidents Works	Traffic jam Accidents Events scheduled	Traffic jam Accidents	Traffic jam Accidents	Traffic jam Accidents Works	Offers / Promotions	
	Numeric data							Gas & Petrol prices	Availability
	Location					Anonymous drivers location		Petrol stations	Parking
	Speed / flow		Speed and # of passing vehicles			Speed & routes of drivers	Speed & routes of drivers		Parking slots rotation
<b>SERVICES</b>									





## B. Sector analysis

### *Barriers of entry:*

- **Economies of scale:** Once the software to process and transfer the data is implemented, economies of scale arise, thus, making it more difficult for new comers to enter the market.
- **Alliances / Contracts:** In our sector, the contracts to be signed as a way of achieving incomes, are low in number but very much high both in commitment and as revenue generators. Therefore, it requires a lot of investment and time get to an agreement.
- **Patent:** As we are developing a new and high profile technology system, we are going to patent it and therefore, new incomers will have more difficulties in entering the market.
- **Know-how** required: We are dealing with very specialized and high profile both hardware and software which requires of specific know-how and expertise in order to produce the services we provide.

### *Barriers of exit:*

- **Alliances / Contracts:** The agreements reached with clients, both B2B and B2G, provided that we are talking about premium companies and institutions, stand for a big barrier of exit in the market. During the terms of the contracts, we are obliged to provide the service. Otherwise, the cost of both image and money, would be really big.

### *Customer bargaining power:*

*(Our customers, as mentioned in the 1st delivery of the project, are businesses and government, no final user or driver).*

- **B2G** In this area we face a high purchasing power from our customer, as the Government on its own can demand our services depending on their priorities of expenditure and the evaluation they make of the impact of the improvements in the day to day of the areas they govern.



Also depending always in the rate of acceptance from their final customer, the voters.

- **B2B**- As regards of the Businesses we offer our services to, in average we consider their bargaining power is medium. We are talking here about:
  - **Telecom** companies: As there are in a very competitive environment, their power based on their resources and market share is mitigated by this fierce competition. In case of any of them ruling out our proposal, once any of the competitors begin offering our services, and final customers using them, they will be forced to joining the project.
  - **Car park** companies: They are interested in offering our services of both "pay as you go" and information on availability. This is because end customers will experience the convenience and avoid going to those parkings or areas for public parking where they can be queuing up or driving around for a long time before succeeding.
  - Companies involved in **logistics or transportation**: On the one hand, they are powerful mainly due to their resources and size, but on the other hand, they will realize the optimization of cost and time incurred in their daily activities if in use of our services.

*Possible competitor response strategies: (to counteract our entrance in the market):*

- The main threat we face here, considering our dependence on the developed and specific software we use, is that any arising competitor could **copy** them and then, start providing the same service.

This would in any case, create serious legal problems to the named competitor.

*Supplier bargaining power:*

- In the case of the data the government, car park companies or logistic companies are meant to provide us from their infrastructure, their bargaining power is **high** as they are the only ones with access to that data, but on the other hand, we consider we can counteract this easily as the services we produce with their supply are going to be very beneficial for their voters, customers and business respectively.



- There are some cases, such as the information on petrol prices in the petrol stations near to the customer, in which the bargaining power of the supplier is **very low**, almost nonexistent, as the information is already public.

*Substitute products or services:*

*Definition (MONASH Marketing Dictionary)*

*Products that buyers perceive as having some characteristics and utilities in common (for example, potatoes and rice).*

We can mainly state the following:

- **Google:**

They can provide our services through the Internet, specifically through Google Maps application or in some months, through their Nexus One device supporting Android systems.

- **Tom tom:**

They currently offer GPRS services calculating routes and even 3-minutes-delay traffic data in specific devices.

- **Nokia:**

They have announced they will provide free GPS navigation systems in the smart phones without Internet connexion required.

- **TFL:**

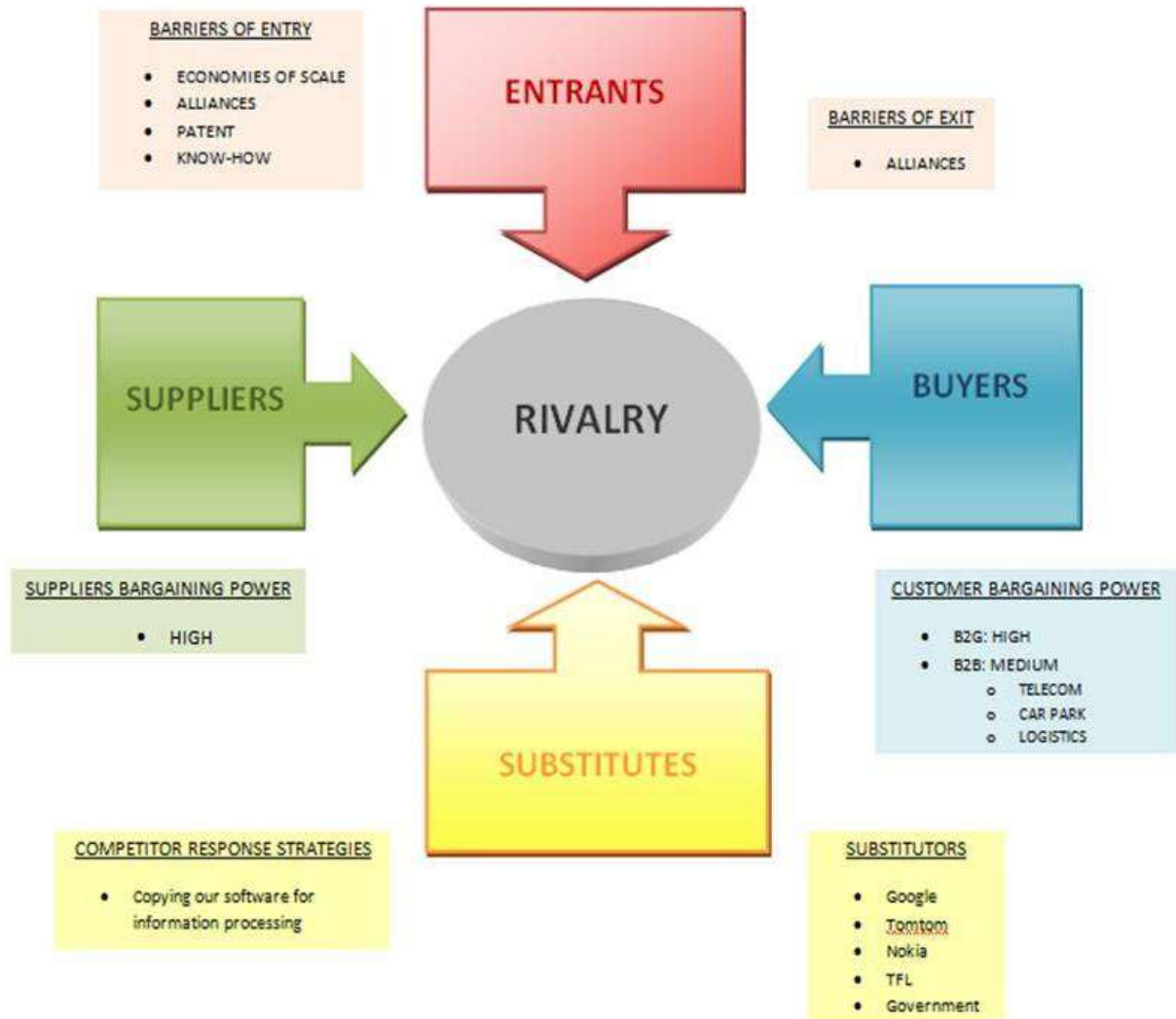
The information we will be requesting from them in order to process and provide our services could be also managed directly by themselves.

- **Government:**

In the same way as the previous paragraph, they could develop the infrastructure to provide our services (the ones based on their data) directly. Besides, the **informative panels** they place on roads and streets can also be perceived as similar services as MobiCity's.

- **Computerized traffic signals:**

As they also provide real-time information about traffic conditions.





## Conclusion:

Generally speaking, after all this analysis we have gone through, we can conclude that our business idea fits best with the actual economic, environmental policy, political will of the authorities, and the available technology. Concerning this last issue, the emerging technologies are going to broaden the scope of the service to a big market share.

Regarding demand, we see that the necessity of MobiCity is great, as long as the management of the actual cities is becoming more and more complex, and logistics of goods and transportation is not facing its optimum behavior.

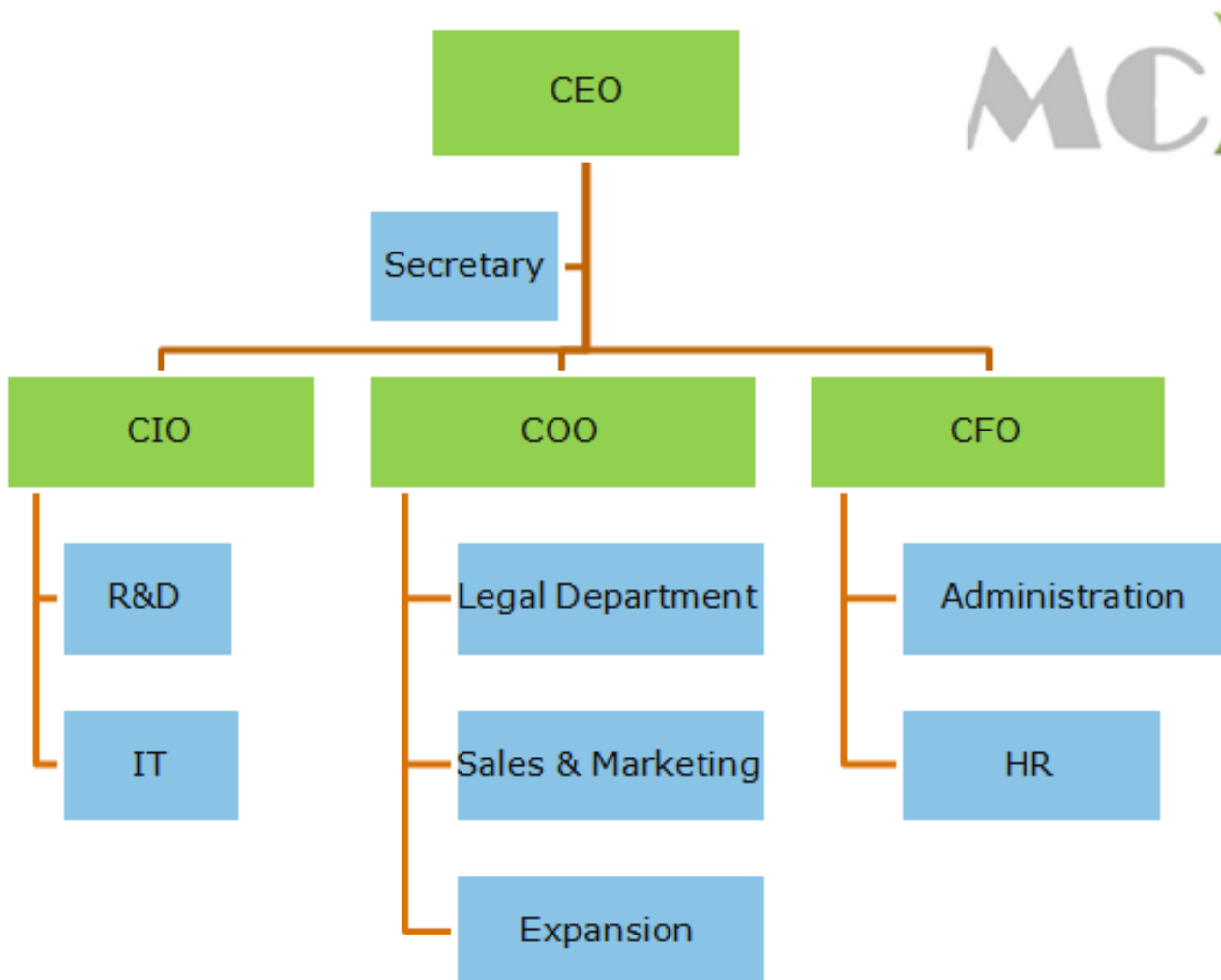
The competition in this segment is fierce, but they are not providing the great range of services in a whole packet, and still feel lack of quality. We can occupy unique niche in the market.

The suppliers (and deliverers) are mature enough to make our focus possible. The mobile Internet device spread as well as CCTV cameras, sensors and other measurement instruments is deep enough and will provide us the necessary data about the city.

## INTERNAL ANALYSIS

### Company's organisation.

Being MobiCity a newly created company, the organizational structure will evolve with time, following two main stages.



**Colour codes:**

**Green:** MobiCity's 1<sup>st</sup> Stage

**Blue:** MobiCity's 2<sup>nd</sup> Stage

**Note:** Each position is a role required but two roles can be developed by the same person or viceversa.

**1. First stage: All the team members and a secretary will set up and start the business.**

- **CEO:**

The abilities required for MobiCity's CEO position are highly correlated. Given his/her leadership position and compensation, CEO will very likely have a significant impact on MobiCity's success through the management of the portfolio of services, business development, etc.

- **CIO:**

The Chief Information Officer has to develop, administer, and manage the information systems, infrastructure and technology necessary for efficient operation of the MobiCity's services. Also the role of business analysis (data) will be necessary.

Considering that ours is a company in the telecommunications sector and that we are based on technology and software, the CIO profile is essential.

- **COO:**

The Chief Operations Officer will be responsible for managing the day-to-day activities of MobiCity and for operations management; this is to say, the development, design, operation, and improvement of the systems that create and deliver the MobiCity's services.

He or she will make sure that business operations are efficient and effective and that proper management of resources, distribution of services to customers, and analysis of systems is done.

He or she will have domain knowledge of:

- Business and industry
- Modern management theories (Total Quality Management, Kaizen)
- Process/quality improvement techniques (e.g. Six Sigma)
- Quality process standards (ISO 9001).

- **CFO:**

This person will be primarily responsible for managing the financial risks of MobiCity. He or she will be also in charge of financial planning and record-keeping, as well as financial reporting as a way of measuring the numeric performance of our business.

Taking into consideration economic and strategic issues, we will decide whether a person will be hired or if it will be out-tasked.

**2. Second stage: Once the company has signed the first commercial agreements as source of revenues, more employees will be needed to overcome MobiCity's consolidation and expansion.**

1st STAGE ORGANIZATIONAL CHART				
ABILITIES	CEO	CIO	COO	CFO
MANAGERIAL	Hires A Players	Charismatic	Hires A Players	
	Develops People	Develops People	Develops People	Develops People
	Removes Underperformers		Removes Underperformers	Negotiating skills
	Treats People with Respect			
	Efficiency		Efficiency	Efficiency
	Flexible/Adaptable	Flexible/Adaptable		Flexible/Adaptable
PERSONAL	Integrity	Confident	Ethic	Ethic
	Organization and Planning	Organization and Planning	Organization and Planning	Organization and Planning
	Stress & Conflict management	Helpful	Stress & Conflict management	
	Aggressive but respectful		Customer requirements	
	Moves Fast	Trouble shooting		Moves Fast
	Follows through on Commitments			Processing information
INTELLECTUAL - SPECIAL	Technical knowledge	Infrastructure management		Financial knowledge
	Analytical Skills	Analytical Skills	Analytical Skills	Analytical Skills
	Business development	Strategic Thinking/Visioning	Strategic Thinking/Visioning	Strategic Thinking/Visioning
	Creative/Innovative	Creative/Innovative	Creative/Innovative	Data interpretation
	Attention to Detail	R&D	Attention to Detail	Market understanding
	Enthusiasm & Persistence	Passionate about technology	Organized and logical	
MOTIVATIONAL	Proactive /initiative	Goal oriented	Goal oriented	Goal oriented
	Work Ethic	Culture fit	Proactive /initiative	Proactive /initiative
	Listening Skills	Listening Skills	Listening Skills	Listening Skills
INTERPERSONAL	Open to Criticism and Ideas	Open to Criticism and Ideas	Open to Criticism and Ideas	
	Written & Oral Communication		Excellent communication skills	Communication skills
	Teamwork	Teamwork	Teamwork	Teamwork
	Public Relations skills		Understand perspectives	





- **SECRETARY:**

The person in this job has to perform secretarial and executive support activities to assist the CEO and the rest of the executives and employees in MobiCity.

An executive secretary working for MobiCity is responsible for handling the flow of information through departments and employees and that all material are given to the correct individual to ensure completion. Also, the processing of both incoming and outgoing information is clue in this position.

He or she will work with sensitive information; this is the reason why discretion and a professional and confidential manner are required.

- **R&D:**

He or she will participate in the development, testing and validation of the proprietary software implementations MobiCity will continuously conduct in search of improvements or possible new services.

- **IT:**

This position requires very specialized knowledge and the ability to learn quickly and be updated as new programming languages are continually being developed. There are mainly four different positions differentiated in this area:

1. **Development** positions include programmers, system developers and computer configuration staff.
2. **User support** includes assisting with computer software purchase, installation and training and requires communication and people skills.
3. **Hardware support** is a more technical skill, relying on specialized training in computer networking, hardware installation and modification. This role is very mechanical.
4. An **information technology analyst** needs excellent communication, project management, and trouble shooting skills. The role of an analyst is to bridge the gap between the user and the developer.

In MobiCity we are going to cover the Information Technology position with an only person focused mainly in the development and analyses areas.

- **LEGAL DEPARTMENT:**

The person in this position will provide MobiCity with legal advice for the business.

It will be important that this person focused on:

1. Protecting intellectual property:
  - a. We are dealing with images and data gathered in public spaces



- b. Captured by proprietary software we do not own
  - c. And processed in proprietary software developed by MobiCity
2. Negotiating and drafting contracts both with our suppliers and clients
  3. Trading with legal frameworks worldwide

- **SALES & MARKETING:**

In MobiCity, taking into account the sort of clients we are dealing with (B2B and B2G), the sales force has to have developed and proved negotiating skills as well as connections in order to have access to big accounts and close agreements.

As regards of Marketing, as we are not addressing the end user, this activity can be coordinated by the sales force with our clients, as they are the ones who can best communicate our business and the solutions we provide.

- **EXPANSION (Business Development):**

This position must be filled with a proactive person, technology aware and with abilities to enhance a network of connections in MobiCity's business field. He or she will be continuously searching for unfulfilled demand of services related with our industry sector in current and new markets.

- **ADMINISTRATION:**

The person assuming this role must be skilled in accounting, data entry, invoicing, budget control, taxes procedures and cashier tasks. He or she would be in charge of the daily financial tasks in MobiCity, reporting directly to the CFO.

It should be an organized person, following procedures and detail oriented.

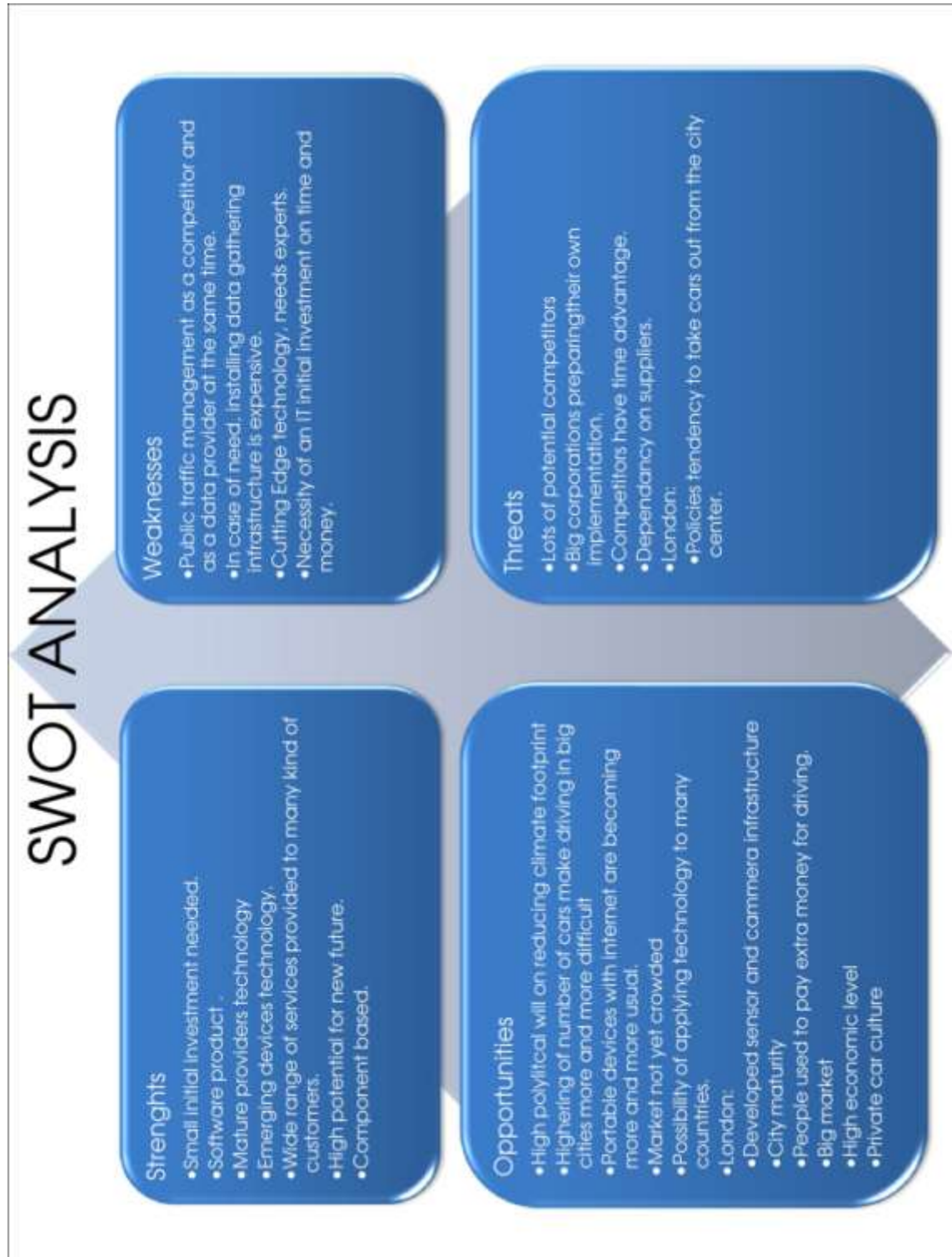
- **HR:**

He or she will be a workforce strategist (optimize MobiCity human resources), conducting selection and recruitment, training planning and procurement, managing remuneration packages and looking for ways to create excellence in MobiCity work environment.

2nd STAGE ORGANIZATIONAL CHART

ABILITIES	SECRETARY	R&D	IT	LEGAL DEPARTMENT	SALES & MARKETING	EXPANSION	ADMINISTRATION	HR
MANAGERIAL	Supervise office policies compliance	Exchange information			Charismatic			Hires A Players
	Supervise office materials			Negotiating skills	Negotiating skills	Negotiating skills		Develops People
	Agenda management	Efficiency	Efficiency	Treats People with Respect	Treats People with Respect	Efficiency		Removes Underperformers
PERSONAL	Flexible/Adaptable	Flexible/Adaptable	Flexible/Adaptable	Flexible/Adaptable	Flexible/Adaptable	Flexible/Adaptable	Flexible/Adaptable	Negotiating skills
	Discretion	Anticipate deadlines	Order priorities	Ethic	Ethic	Ethic	Ethic	
	Organization and Planning			Organization and Planning	Organization and Planning	Organization and Planning	Organization and Planning	Organization and Planning
INTELLECTUAL - SPECIAL	Confidentiality			Stress & Conflict management	Stress & Conflict management			
	Multi-Task	Multi-Task	Multi-Task	Multi-task	Aggressive but respectful	Moves Fast		Helpful
	Moves Fast		Moves Fast	Aggressive but respectful	Moves Fast			
MOTIVATIONAL	Processing in-outgoing information			Processing in-outgoing info		Processing incoming info	Processing information	
	Archive	Written & oral technical skills	Multiple step logic	Legal expertise (trading)	Technical knowledge	Technical knowledge	Financial knowledge	Emotional intelligence
	Microsoft package	Software development	Software development	Technological project focus	Analytical skills	Analytical skills	Analytical skills	
INTERPERSONAL	Databases	Comply with procedures	Programming languages	Strategic thinking/Visioning	Strategic thinking/Visioning	Strategic thinking/Visioning		Strategic Thinking/Visioning
	Attention to Detail	Imaginative /Innovative	Data manipulation	Attention to Detail		Creative/innovative	Data manipulation	
	Organized and logical	Passionate about technology	Passionate about technology	Organized and logical	Organized and logical	Passionate about technology	Organized and logical	Market understanding
MOTIVATIONAL	Proactive /Initiative	Goal oriented	Goal oriented	Proactive /Initiative	Goal oriented	Goal oriented	Proactive /Initiative	Passionate about people
	Responsible	Culture fit	Listening skills	Listening skills	Listening skills	Listening skills	Listening skills	
	Listening Skills	Open to Criticism and Ideas	Open to Criticism and Ideas	Conflict resolution	Conflict resolution	Conflict resolution	Conflict resolution	Open to Criticism and Ideas
INTERPERSONAL	Open to Criticism and Ideas	Excellent communication skills	Teamwork	Excellent communication skill	Communication skills	Communication skills	Teamwork	Communication skills
	Teamwork	Teamwork	Understand perspectives	Teamwork	Teamwork	Teamwork	Teamwork	Observer
				Understand perspectives	Public Relations skills	Public Relations skills	Public Relations skills	Public Relations skills

## SWOT and Super SWOT analysis.



## Super SWOT.

# SWOT ANALYSIS

### Boost Strengths

- We'll offshore when possible
- We will collaborate with providers to help them provide us with the best information.
- We will be very aware of new market possibilities regarding electronic devices.
- We will invest 10% of revenues on R&D to keep being top-edge technology provider.
- The growth of the company will fit the growth of our market.

### Correct Weaknesses

- Alliances with providers.
- We will outsource initial program creation, and experts will be hired as necessary.
- We will boost the initial period by starting with existing software.

### Maximize opportunities

- We will make marketing campaign showing the benefits on environment and traffic management.
- We will make alliances with mobile internet providers.
- We will develop a 10 years expansion project studying the most.
- London:
- We will make suggestions about adding sensors.
- We will centre the marketing campaign in the message that our service is the best ally of the car.

### Face Threats

- We will follow a niche strategy.
- We will analyse the lead time of our competitors to design an action plan.
- London:
- We will show our service as the best ally on any pollicy regarding traffic.



## Strategic aims

- positioning aim
- sales aim
- profitability aim.

## Positioning.

MobiCity possess number of specific characteristics that enables our company to stand out from the competitors and gives complete reasons for our customer to choose us as a partner. We put the emphasis to create the perception for current and potential customers of our company as:

**MobiCity delivers valuable real time traffic and city information to a wide variety of business, government and private users and can be used in the widest possible ways of applications.**

**MobiCity is young and ground-breaking company that uses unique and innovative approach to provide the most extensive and precise information available.**

**MobiCity's working team consist of high experts looking continuously for high quality and inventions.**

**MobiCity informational service is an easy way to get a great amount of benefits and necessary to keep sustainability and win position in the market.** In case of companies connected with transportation, government and parking companies: using MobityCity's service is the most efficient way to increase of quality, higher profits through decrease of expenditures and lead time, provide total control over company's logistics processes. In case of mobile operator: MobityCity's service is the inventive way to provide the end-customer additional service wining competitive advantage, profitability and customer satisfaction.

**MobiCity informational services are of high trust, rich in detail, extremely accurate and win in camper with others.**

**MobiCity delivers the widest package of services by affordable price.**

**MobiCity possesses know-how and pioneers in such services as real time information over the parking slots, pay as you go.**

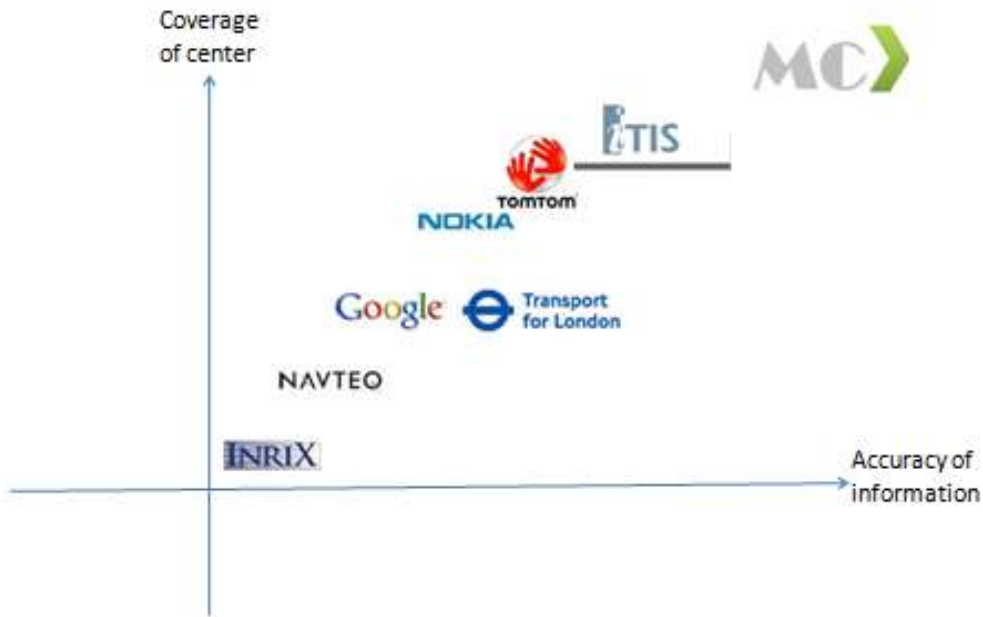
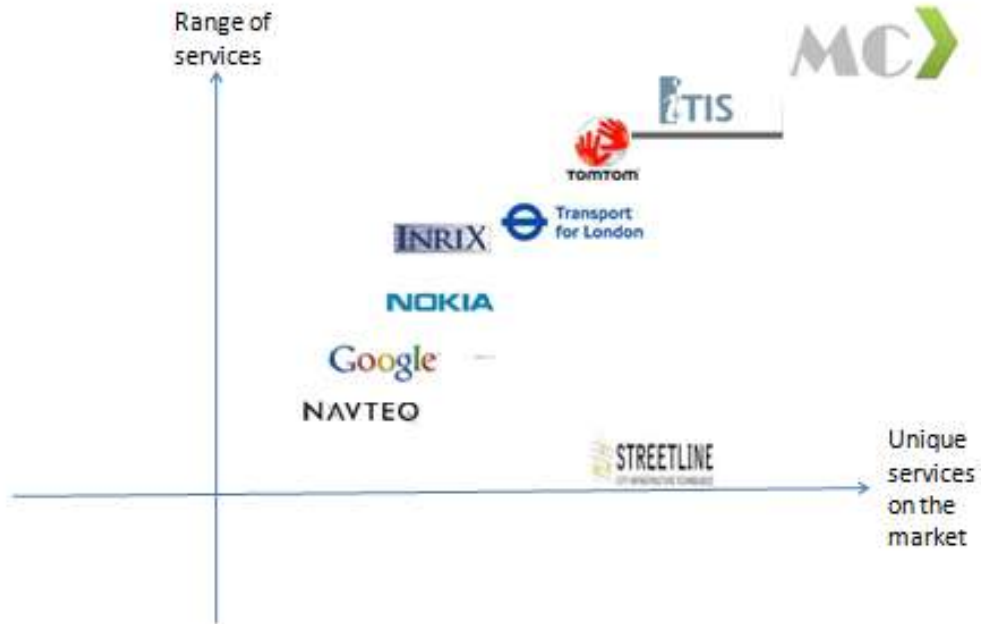
**MobiCity is reliable and strategically important partner.**

**MobiCity not only answers to highly important current market needs but also looks forward to be ready to satisfy future customer's needs.**

**MobiCity has high potential to grow in European and others world's markets.**



### Perceptual Maps.





**Note:** Quality of services estimates by accuracy of information and coverage (information of how many roads in the center city the company possesses).

**Sales aims.**

**Launching year:**

As we analyzed in previous chapter we have a huge number of potential B2B clients. In the first year MobiCity decides concentrate only on the B2B companies operating in Greater London. Our aim is to reach a 10 % of market share that would be about 170 companies (of the total number of 1694).

Additional significant sale aims are:

- to make a contract with mobile operator.
- to establish long term relationship with government and start to provide part or whole package of our services.

In the first step MobiCity also aims to cover with its services all private parkings in city and business center as these companies are strategically important not only as customers but also as one of the sources of information we use to get real-time parking information.

**Development in time:**

The following action step of MobiCity is to grow in 5% in each year according to the total index growth of the sector we are acting in. Thus we extend the





number of our customers (transport and logistics companies) from 170 to 500 in 4 years.

MobiCity also aims to extend the package of services provided to government in order to win position as a main supplier of timely traffic and city information.

Another strategically important sale aim is act in the automotive sector and during three years to get 2-3 contracts with car manufacturers in order to implement applications (through with the drivers can use our services) in factory-fitted navigation devices in vehicles.

Sales aim *	Year 1	Year 2	Year 3	Year 4
	2M £	3,75M £	4,5M £	8M £
Profitability aim*	Year 1	Year 2	Year 3	Year 4
	0%	3%	8%	16%

*\*This figures are the first estimations. This predictions are based in compassion with the competence and the industry according to the company size. It will be updated as we advance and design our specific structure of cost and pricing.*

*Materials used to make approximation:*

*ITIS 2006, 2007, 2008 Balance sheet and P&L (included in the appendix)*

*Tom Tom 2006, 2007, 2008 Balance sheet and P&L (included in the appendix)*

*Navteq 2006, 2007, 2008 Balance sheet and P&L (included in the appendix)*



## Operations plan

### Definition

#### Company definition:

MobiCity is a supplier of traffic real time and analytic information. The software platform MobiCity has developed, allows us to deliver valuable traffic services (information) to a wide variety of business, government and private users.

- Our clients: first of all, **drivers** who have a mobile phone or GPS device connected to the Internet via 3G Satellite systems. second, the **delivery companies**, rental car companies, and similars. They will have the advantages of the private user and further, they will be able to manage their fleet in real time to maximize their accuracy. And finally, the **government**, that will be able to get both real time data about traffic, but also trends, statistics, and urban planning help information.
- Our suppliers: London Greater authority, Traffic for London, some London Boroughs and some minor players such as private CCTV owners.
- Our business partners: will be the London Greater Authority.
- Our business value: for the private user, he will be able to receive information about free parking slots in the street near its position in real time, traffic congestions in that moment within the city, automatic regulated parking payment on the go, and so on; for the fleet-based businesses, more accurate and effective management of their fleet; and for the government, information databases to better design and manage the city.

We use a huge amount of sources to generate accurate traffic information:

- Floating Vehicle Data from cellular phone networks
- Floating Vehicle Data from GPS devices
- Fixed-sensor systems
- Incident reporting centres
- Reports from national / inter-urban centers
- Traffic reports from other players
- Ecological reports
- Cameras
- Automatic Number Plate Recognition
- Radar info on vehicle speed
- Data from private parking



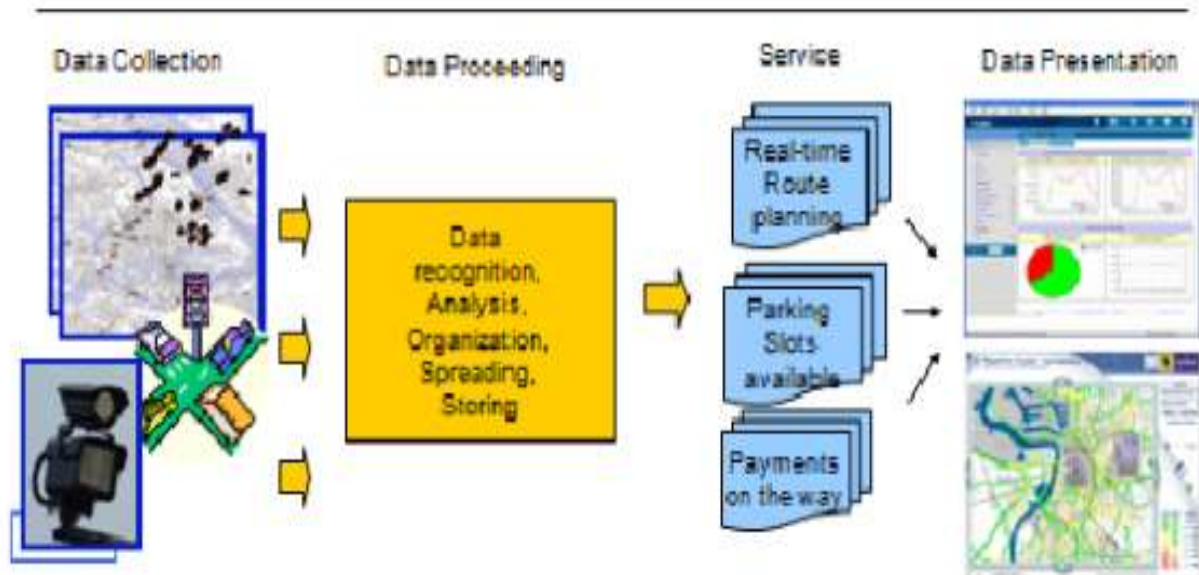
- Accident reports
- Road works schedule
- Internet

Sophisticated analysis within our software platform delivers historical, real-time, predictive and analytic traffic information that is rich in detail, is extremely accurate. Specific information over each traffic issue forms our services. We provide the widest possible variety of services (specialized information) than any company in the market. Our customer can approach our services (specialized information) through a variety of media (web, mobile phone with Internet connection, e-mail, radio, digital, phone, GPS with Internet connection). Our process of working with information consist of 3 main stages:

- COLLECT: Taking data from multiple sources**  
Data about the different traffic issues of the city is gathering from many sources and it is key to us being able to offer services dealing with traffic information with the greatest geographic coverage and accuracy.
- DETECT: Adding value to the data**  
The complex analysis performed within our software results in comprehensive high-quality information about traffic flows in real-time and brings a customer solutions in actual situation. Accurate prediction of traffic flows is vital in providing information that users trust. Analytic and historical information is based on accurate and extend data.
- Delivery: Providing data in the form needed by different customers.**  
We work with government, commercial organizations and private units to provide data (service) that they needed, precisely the way they need and through channel they want.

**Example of providing services in real time.**

## Real-time Traffic Services



### Service definition.

- **Real Time Traffic Information**

Providing the analyzed data about the actual situation on the roads, level of congestion of the streets. The data is shown in the map or given as text information.

- **Information for Penalty**

The automatic penalty system detects the braking rules in the roads: the moving of the car in wrong direction, passing on the red traffic lights, uncorrected parking. The system makes the picture of the car and its license plate number and sends information to the police office.

- **Consultancy**

Providing historical, real-time and analytic information to authority; creating solutions to improve city mobility, to control of city traffic; creating the city traffic policy; developing roads architecture; improving the work of the traffic lights, etc.

- **Information about the available parking slots**

Providing the data in actual time about the free parking spaces in the area required by customer. The data is indicated in the map or given as text or sound information.



- **Incident Information**

Real time information about the incidents that affect the traffic in the city: accident, broken traffic light, reconstruction of the road, limited access to the road and etc. The information service serves to aware the customer and also gives advice of better route. The data is indicated in the map or given as text information.

- **Route Planning in Real Time**

On the base of analysis of real time information about the congestion of the streets the customer is given following information: calculation of time that will take the way from the point of customer´s location to the point of destination, show the alternative routes, advice the shortest in time route according to actual traffic situation.

- **Automatically update maps**

The service keeps the customer´s map updated with all recent changes.

- **Reservation of parking slot**

The service enables customer to make reservation of free parking slot in the area he needs and for the time he wants. The reservation can be done through the Internet or mobile.

- **Pay-as-you go system**

The system permits to customer to make payments on the road (entering special city zone, parking payment and etc.) without stopping or making any procedure. The system picture the car and its license plate number and send information to the company in charge of billing and collecting payments.

- **Relevant to customer City Information**

According the customer request the service provides the information about the nearest located companies/services. For example, petrol station (with price information), book shop, cinema or other companies/services which the customer is looking for at that moment.

## **Development of the product/service**

The table below shows the development of company´s services according to its integration into the market and maturity of the market.

There is a direct correlation between the development of infrastructure of the city and development of company´s services. The majority of the megapolicies provide all resources needed to quick integration of the Stage 1 and 2. Stage 3 requires implementation on the streets special devices (parking sensors) that already exist but not strongly used. The main challenge of this step to encourage local government to bring this technology to real life. Stage



4 reflects growth geographically (depending on others cities maturity), in range of services (depending to new market needs and new technology).

		Service development			
		Maturity Level 1 Start	M Level 2 Integration	M Level 3 Total City	M Level 4 National
Real Time	Quality and depth of penetration	Real-time for major routes of city-center and business zone	Real-time for all arterial routes using multiple sources of city-center and business zone	Real-time total coverage of the total city	Real-time data for high geographic coverage (the main cities of the county)
	Services	automatic penalty system, automatically update maps, available parking spaces in private parking, rough planning according to cognition, incident information, petrol stations location, petrol prices	reservation of parking slot, available parking spaces in main streets, pay as you go, city information	available parking total coverage	New market needs
	Sources	Cameras / Automatic Number Plate Recognition, Radar info on vehicle speed, Data from private parking, Accident reports, Road works schedule Web: Traffic info from other players	Data from GPS, Anonymous mobile phone data, Pay as you go system	Parking sensors in the street	Innovation
Analytic Information	Services	consultancy: analysis of city mobility, design and architecture of city roads, traffic- light optimization, ecology analysis	consultancy	consultancy	consultancy
	Sources	Analysis on base of historical (Reports from national / inter-urban centers, Traffic reports from other players, ecological reports) and limited real time information	High-level analysis in real-time and historical MobiCity's own info	Detailed analysis in real-time and historical MobiCity's own info	Multi-modal analysis in real-time and historical MobiCity's own info
	Command & Control	Semi-automated, manual	Automated	Automated	Centralized
	Level of Integration	Limited	Networked	High integration	Extended integration

## HUMAN RESOURCES

### 1. Quantitative requirements:

We estimate below the positions we expect to fill in MobiCity.

As stated in the Internal Analysis, the organizational chart will evolve with time, that is the reason why the four of us will be working at MobiCity from the beginning (Internal Analysis 1<sup>st</sup> stage) while the rest of the employees will be hired at different moments according to company needs (I.A. 2<sup>nd</sup> stage).

As this is a planification that will evolve and change as time goes by, we have assumed that employees will be hired at the beginning of each semester in the year.

We estimate below the positions we expect to fill in MobiCity.

QUANTITATIVE REQUIREMENTS	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5		
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	
	Semester										
CEO	█		█		█		█		█		
CIO	█		█		█		█		█		
COO	█		█		█		█		█		
CFO	█		█		█		█		█		
SECRETARY					█		█		█		
R&D				█	█		█		█		
IT			█	█		█		█		█	
LEGAL DEPARTMENT						█	█		█		
SALES & MARKETING				█	█		█		█		
EXPANSION							█	█		█	
ADMINISTRATION						█	█		█		
HR									█	█	
<b>TOTAL POSITIONS</b>	<b>4</b>		<b>5</b>	<b>7</b>	<b>9</b>	<b>11</b>	<b>11</b>	<b>12</b>	<b>12</b>		

## **Manufacturing processes or production**

We are planning to begin renting a processing space to IBM in the outskirts of London. The rent will be an expense. IBM will own the computers and the physical space and will be responsible for running and maintain our ITS (Intelligent Transportation Software) on it. We are considering having a cold copy running in other IBM facilities in order to improve our efficiency and as a way of having a backup and an operational contingency plan in case our main facilities fails. We are using infosphere packadge (Information Integration, Data Warehouse and Master Data Management). As we consider this is critical to our business we will consider having a hot copy as soon as our cost structure can afford it. (Further explanations on the process map).

Our main asset is the ITS. We are conducting an extensive research to collect our system requirements. As we are not experts in software development and we need to do it right first time we are planning to use IBM Mainframes based in LINUX wich is open source. We are using IBM Z series mainframes to run our ITS because we be considering reliability and 24x7 service a key success factor in our company, and z-platform has a 99,99% High Availability. We are using IBM software packages which we will program to meet our requirements.

- IBM InfoSphere: data warehouse solution
- IBM COGNOS: business Intelligence and Financial Performance Management: turn data into intelligence (and standardize reports/outputs)
- IBM SPSS+: predictive Analytics Capabilities
- IBM ILOG: inference engine, base on which we will develop our software.

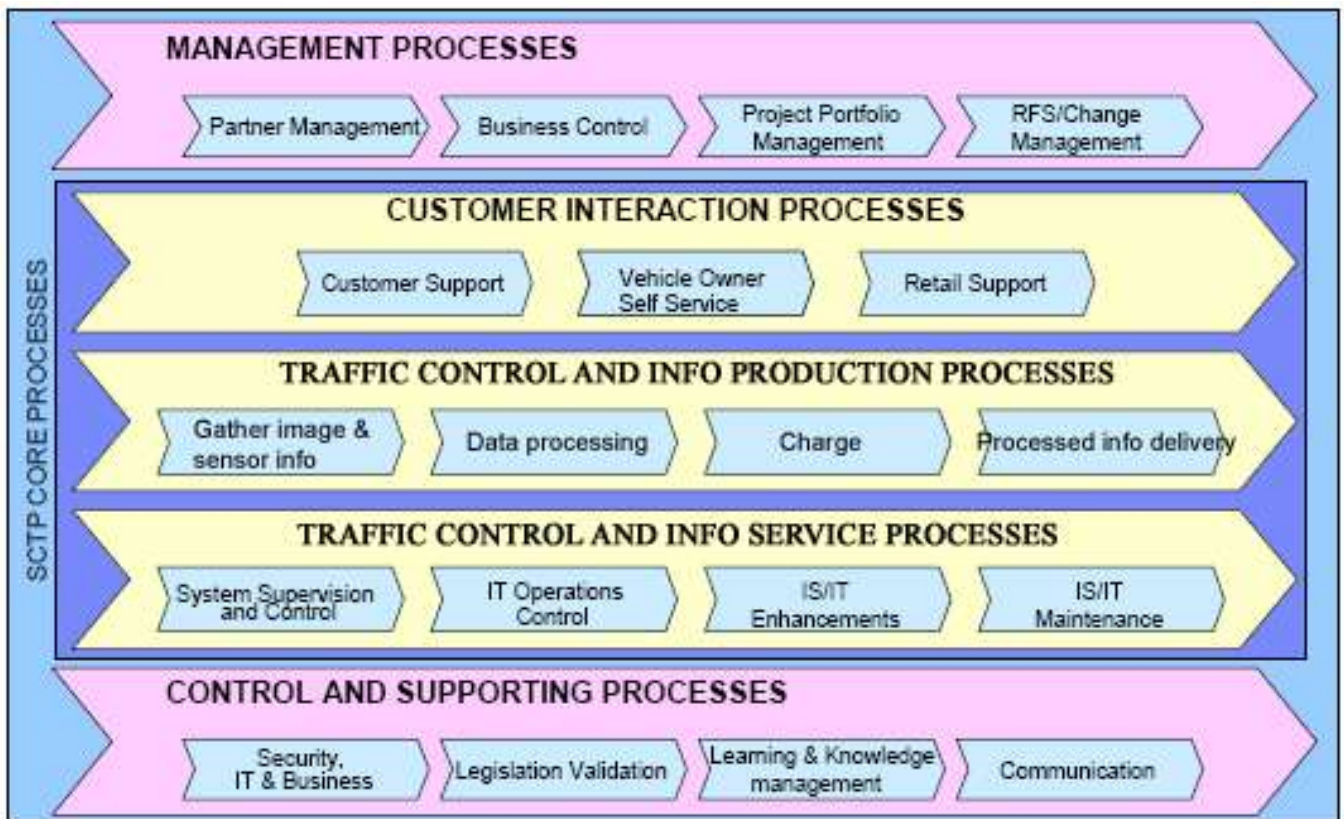
This provides a series of advantages. As we have seen in previous delivers this is a competitive market. Our priority is to start operating in six months. Developing our own software, even if we outsource it could take several years in which we will probably lost our market opportunity. IBM and his software packages allows us to have the reliability we need in a record time. There are highly customizable so we can really make our own software. We estimate that the software expenditure is 100.000 euros for the first year and 60.000 euros the following ones. This includes the IBM packages, the usage of de IBM Z series mainframe and the hardware needed and the maintenance and running cots.

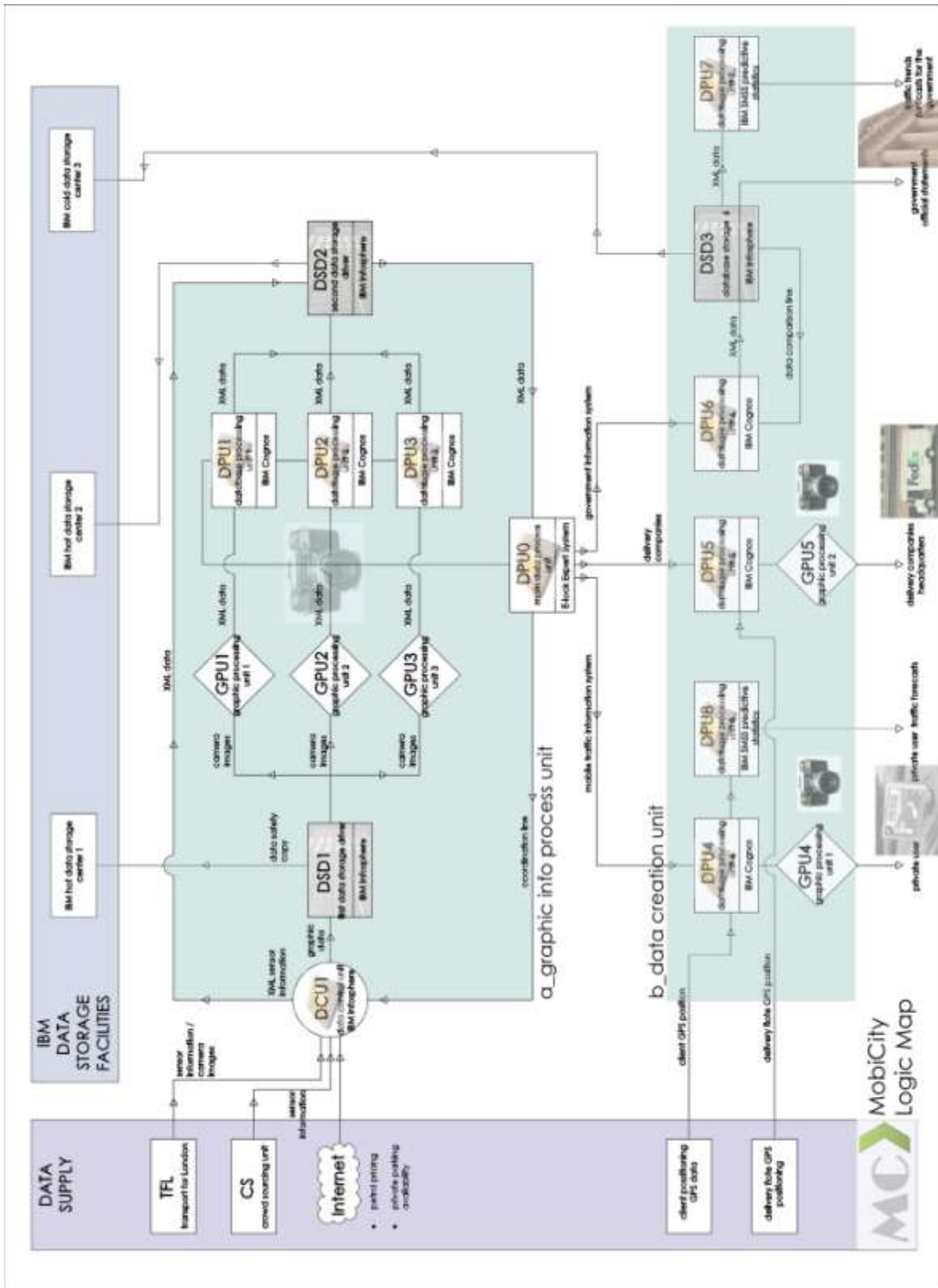
The sources of the raw materials are the images that are being recorded in London, crowd sourcing and the Internet.





We have some big suppliers such as London Grether authority, Traffic for London, some London Boroughs (five out of the thirty three: The City, Westminster, Kensington and Chelsea, Camden, Islington) and some minor players such as private CCTV owners. We are trying to establish long term relationships with the mayor players. We are using their existing infrastructure to collect the real time videos that we will transform into useful information. This will save us the huge amount of setting the infrastructure and maintain it. Our core business is processing information and not providing city infrastructure. The policy is to minimize the investment in to physical hardware to avoid the costs and to focus into our core business. Due to that we will connect to our clients databases, nor to the cameras, to be more efficient directly.







**Maintenance and service**  
*pre-sales and after-sales service*

The maintenance of our ITS is outsource to IBM, we will sign a contract in which there will be assigned penalties in case of infringements of the SLA. We will implement a quality control procedures ISO 9001 to continuously improve our operations to reach a consistent quality level. We will try to do that as automatically as possible to ensure consistency and to reduce cost by constantly monitoring all of our processes.

We will implement the quality control in all of our processes to automatically detect problems and to be able to prevent them before happening.

In the future we will develop a specific department to attend enquiries from our clients. As we are starting as a SMB we will deal with that with the resources we have and we will increase them as needed. The sales department will be in charge of that. The Chief Operations Officer will be in charge of managing key accounts such as the governmental ones or large clients.

## **MARKETING PLAN**

### **Summary**

1. Segmentation
  - A. End customer through Mobile Telecom companies
  - B. Business to Business
  - C. Public Services
2. MobiCity target market
  - A. Mobile Telecom companies
  - B. Business to Business
  - C. Public Services
3. Positioning
4. Prices
5. Service
6. Distribution
7. Sales Network
8. Marketing Mix
9. Marketing Actions
  - A. Mobile telecommunication companies
  - B. Business to Bussiness
  - C. Public Services
10. Cost/Expenditure and investment
11. Channel to Market



## MobiCity Marketing plan

MobiCity Products: Our product is a Service sold to Telecom, Services Companies and Public Organizations. The final users of our Services are Consumers, Citizens that travel and use public and private transportation within a city.

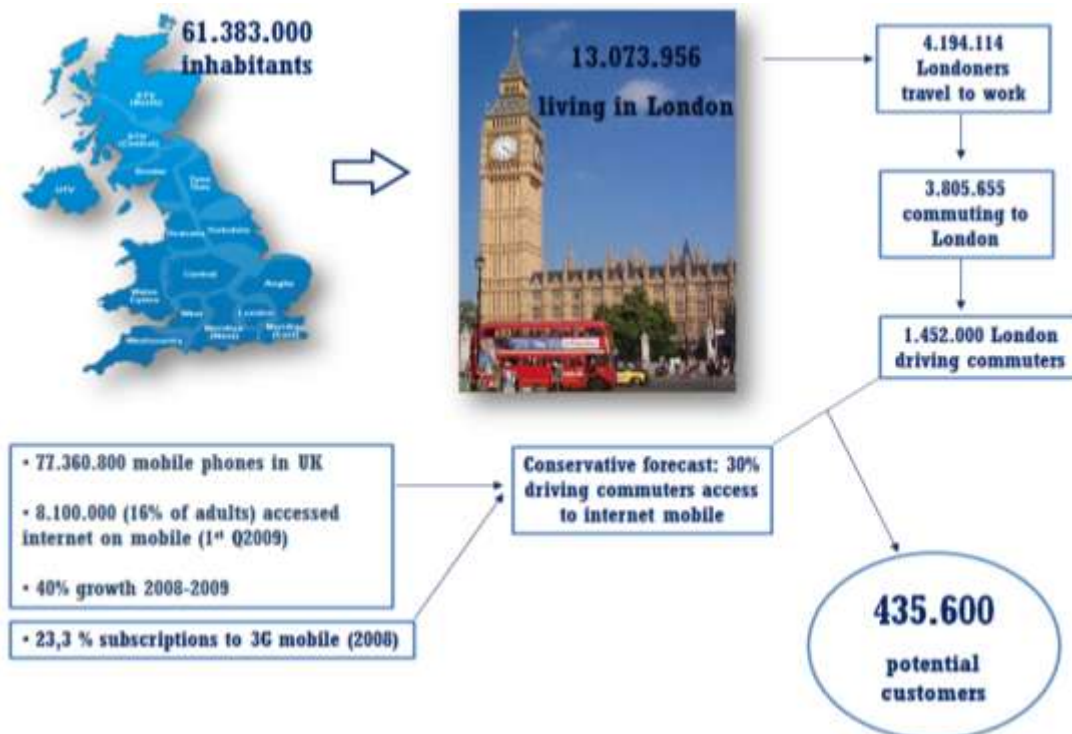
Our Services optimizes vehicle movements through a town, saves time to the user and reduces traffic congestion.

### 1. Segmentation

#### A. End customer through Mobile Telecom companies:

We will segment the final users of our service, even if they are not our customers. We think it makes sense to have a view of this market in order to sell our services to the Telecom providers and to demonstrate them it's a profitable service.

The idea is that the final user gets the service for free and the Telecom provider is the one paying for our services. We cannot compete with Google Maps or Nokia Maps with a non free service. We must sell the benefits to the Telecom providers in terms of added value for their customers. That will have an impact on customer satisfaction and customer loyalty (which is critical in their sector).



Sources: [www.statistics.gov.uk](http://www.statistics.gov.uk) ; [www.itu.int](http://www.itu.int) ; [www.ofcom.org.uk](http://www.ofcom.org.uk) **2<sup>nd</sup> delivery I.B.1.f. (Sector Analysis)**

In order to explain the process summarized in the above diagram, we will explain the two types of constraints used:

- **Geographical and transportation** constraints: Taking United Kingdom as a base, we have focused in London and from there, we have searched for data on how many people drive daily their own car from their houses to their jobs (1.452.000).
- **Technological** constraints: As our service is provided through advanced technology devices with internet connection, we needed to make a forecast of how many of those Londoners driving their cars to their jobs daily, would have access to internet in their mobiles.

Data told us that:

1. In the 1<sup>st</sup> Quarter of 2009, 16% of adults in U.K. accessed internet on their mobiles.
2. There had been a growth of 40% in this figure since last year.
3. Besides, 23% of all the mobile subscriptions in 2008 had also been to 3G mobile.

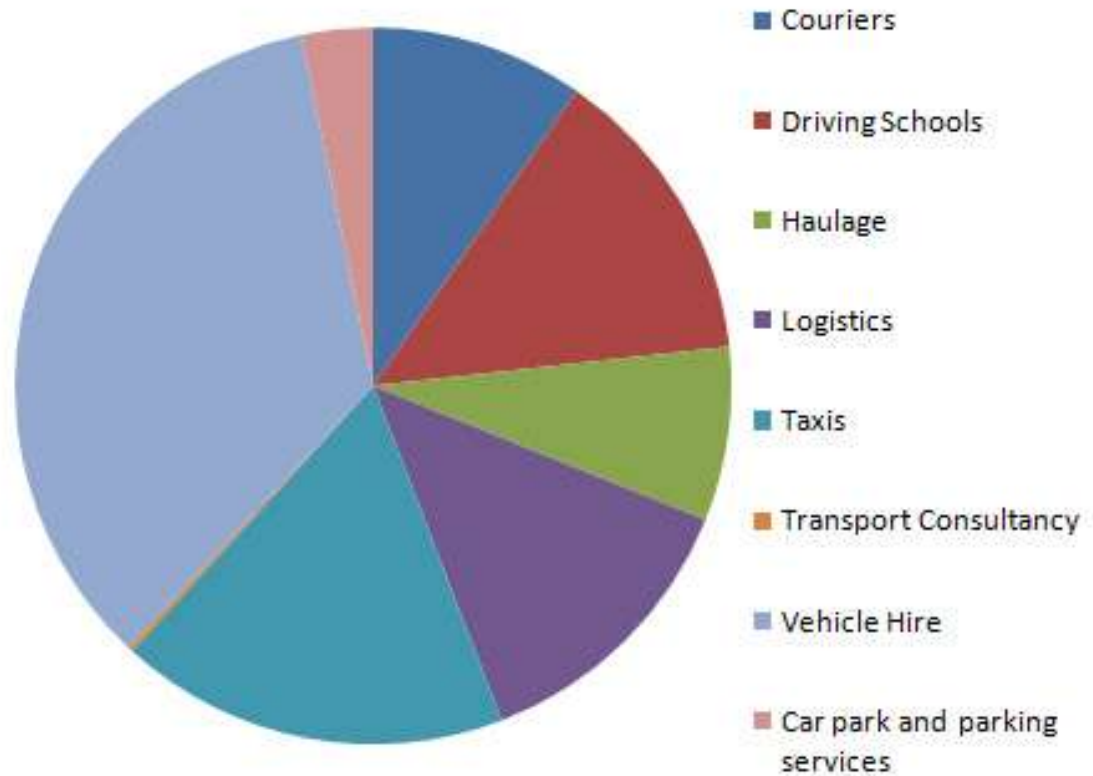
Taking into account that London has a higher ratio of technology development than in the rest of UK, we made a forecast of 30% of the driving commuters accessing the internet on their mobiles for the time our services are implemented.

Utilizing this technological constraint with the figure already obtained from applying the one of London Commuters, we get to a final figure of 435.600 potential MobiCity customers.

## **B. Business to Business:**

The second main clients will be the businesses, and the public government. We will apply different approaches to each of these segments. The Businesses will be classified according to their turnover, the number of employees and the amount of vehicles that will be using our service, in order to adapt our tariffs to these factors. We will create three steps or categories to differentiate these three categories: small, medium and big companies.

Moreover, the service itself will vary according to these factors. We will design three different "levels of control" according to the size of the business, giving to the customer the possibility of service customizing in a higher or lower level. Nevertheless, as a promotion campaign, one month per year we will release a "trial version" of the higher service level.



### C. Public sector:

The administrative area of Greater London contains thirty-two London boroughs. Inner London comprises twelve of these boroughs plus the City of London. Outer London comprises the twenty remaining boroughs of Greater London. We have the ability of gather an enormous amount of information regarding city traffic, learning and understanding trends, and forecasting future behaviors based on previous data. All this knowledge, put together in periodical reports and consultancy services, will be offered to the London City Council. For example, in cases like *sport events*, *International meetings*, *demonstrations*, and whatever other programmed event in which the customer wants to know how the city traffic is going to behave, we can sell our forecasts. Also to face climatic problems, like snowfalls.

The tariffs in this case will be fixed for each report, and also per hour of consultancy service. That service will be the next step, due to the initial small size of the company.

## 2. MobiCity target market:

### A. Mobile Telecommunication companies:



Market Share	4,5%	21,6%	23,4%	25,2%	25,3%
Potential MobiCity clients	19.602	94.090	101.930	109.771	110.207

	Year 1			Year 2			Year 3					
Forecast for MobiCity services demand	39%			47%			38%	54%		44%	40%	
Partial target	125.544			151.297			35.754	173.831		41.399	7.841	
<b>TOTAL TARGET PER YEAR</b>	<b>125.544</b>			<b>187.051</b>			<b>223.071</b>					

In relation to the target in the Mobile Telecommunication companies segment, we have based ourselves in the following:

- We have distributed the number of potential clients obtained in the segmentation among the main players in the sector taking into account their market share.
- In order to obtain a target for the first three years of MobiCity operations, we have forecasted that:
  - In the 1<sup>st</sup> year, we will be able to establish commercial relationships with the three biggest operators (**T-Mobile, O2 and Vodafone**) and that 39% on average of the previously defined potential clients, will actually contract our services through these three companies.
  - In the 2<sup>nd</sup> year of operations, an additional 8% of the potential clients of these the biggest three companies will become users



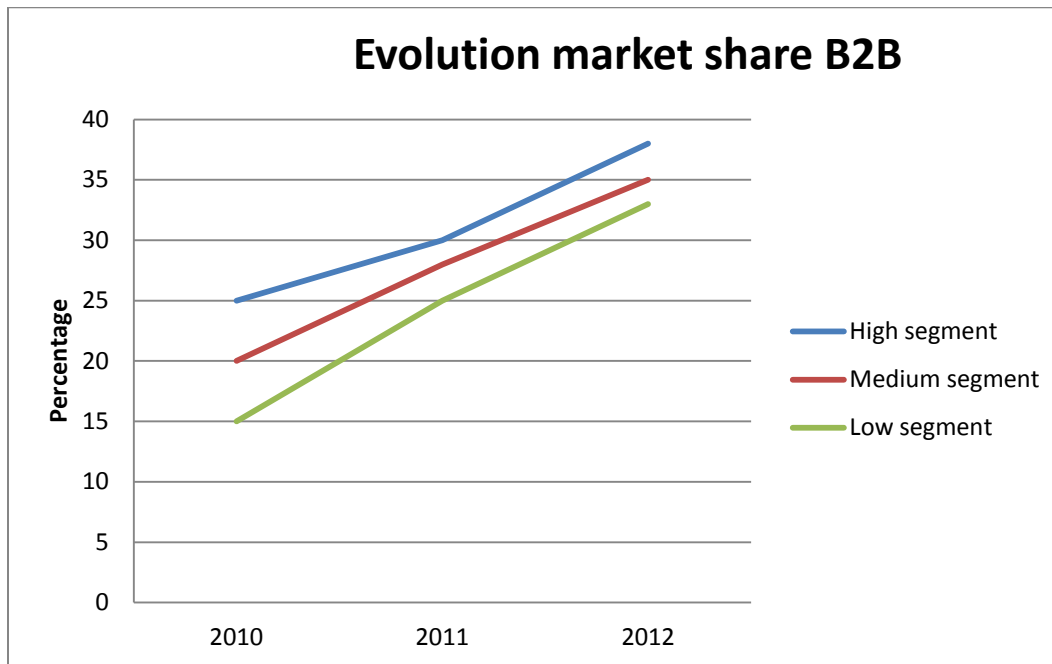
of our services and a new contract will be signed with **Orange**. In this case, 38% of Orange's potential clients will contract our services.

- In the 3<sup>rd</sup> year, we will continue providing services to **T-Mobile, O2 and Vodafone** (increasing the users in 7%) and to **Orange** (increasing users in 6%). Additionally, a new commercial agreement will be signed with **Three** so that our service will be used by 40% of the potential clients who are their customers.

## **B. Business to Business:**

We have 5045 vehicle float related business in the Great London Area. All of them are potential clients of us. We will divide them into three different segments, according to their size, turnover and business complexity. Each of these three segments will be addressed with a different selling approach, and it will be mandatory for us to get a significant and growing trended market share within the first three years.

- In the 1<sup>st</sup> year, we will be able to establish commercial relationships with the 25% biggest companies, the 20% of the medium size companies and the 15% of smaller companies, as we understand that smaller companies will look up at bigger ones letting them mark trend and following them.
- In the 2<sup>nd</sup> year of operations, an additional 5% of market will be gained for the upper segment, while the med and small sized will gain an 8% and a 10%, in the shoulder of the bigger ones.
- Our goal for the 3<sup>rd</sup> year is that the 40% of the biggest companies will be using our service, while the figures for mid and small companies will reach 35 and 33% of the share.



### C. Public Services:

We are going to target the greater London Authority which is in charge of some wide services and some of the London Boroughs. There are 32 boroughs in London. The London boroughs are administered by *London Borough Councils* which are elected every four years. The boroughs are the principal local authorities in London and are responsible for running most local services in their areas, such as schools, social services, waste collection and roads. We are targeting 8 of the 32 boroughs, the ones with more traffic problems, with more working people and within the congestion charge zone. (see Market research for more details).

This eight boroughs are:

1. Kengsinton & Chelsea
2. Westmister
3. Camdem
4. Islington
5. City of London
6. Hackney
7. Southwark
8. Hamersmith and Fullam



### 3. Positioning:

Value proposition: We want to position MobiCity as a reliable real time traffic intelligent information supplier. We are offering our service within the city center.

### 4. Prices:

We will negotiate long term contracts with telecommunications companies such as : 02, Virgin Mobile or Vodafone. The idea is to establish a variable remuneration considering the amount of their clients we are going to provide service. This price per final user is established in the different telecoms contracts according to their bargaining power and their market share. The aim is that these companies provide this service for free to their customers in order to improve their satisfaction and their customer retention.

The prices for the rest of the B2B are based on the company size. We have three different categories with different prices. Small, medium and big companies. The payment method for them will be monthly fees.



We are also aiming to provide different services to the government, such as papers, studies and consulting services thanks to our data analytics.

We will consider having special promotions with price reductions in key dates.

MobiCity is also open to non intrusive advertisement and local search in the final gadget. The user will have the option to restrain it or cut it completely. We will charge the companies that want some advertisement space in PPM (price per print)

Categories of customers	Type of remuneration
Telecommunication Co	Variable remuneration
Small Transport Co	Monthly fees
Medium Transport Co	Monthly fees
Large Transport Co	Monthly fee
Government	Fee per work
Advertisement	Price per print

#### **4. Service:**

For other towns as potential new contracts the services will depend on the city transportation infrastructure of the city. As seen on the table.



		Service development			
		Level 1 Start	Level 2 Integration	Level 3 Total City	Level 4 National
Real Time	Quality and depth of penetration	Real-time for major routes of city-center and business zone	Real-time for all arterial routes using multiple sources of city-center and business zone	Real-time total coverage of the total city	Real-time data for high geographic coverage (the main cities of the county)
	Services	automatic penalty system, automatically update maps, available parking spaces in private parking, rough planning according to cognition, incident information, petrol stations location, petrol prices	reservation of parking slot, available parking spaces in main streets, pay as you go, city information	available parking total coverage	New market needs
	Sources	Cameras / Automatic Number Plate Recognition, Radar info on vehicle speed, Data from private parking, Accident reports, Road works schedule Web: Traffic info from other players	Data from GPS, Anonymous mobile phone data, Pay as you go system	Parking sensors in the street	Innovation
Analytic Information	Services	consultancy: analysis of city mobility, design and architecture of city roads, traffic- light optimization, ecology analysis	consultancy	consultancy	consultancy
	Sources	Analysis on base of historical (Reports from national / inter-urban centers, Traffic reports from other players, ecological reports) and limited real time information	High-level analysis in real-time and historical MobiCity's own info	Detailed analysis in real-time and historical MobiCity's own info	Multi-modal analysis in real-time and historical MobiCity's own info
	Command & Control	Semi-automated, manual	Automated	Automated	Centralized
	Level of Integration	Limited	Networked	High integration	Extended integration

We will establish three different SLA (Service Level Agreements) for the B2B companies according to our classification of small, medium or big. This will match the three different rates with three different levels of services. For



example a big company such as UPS will have more traffic information and some more features than one small company paying the access fee.

## 5. Distribution:

We are suppliers of information for companies providing the services, such as O2, Virgin, Orange,3 or Vodafone.

When we work for some other companies our distribution channel are telecom providers.

## 6. Sales network:

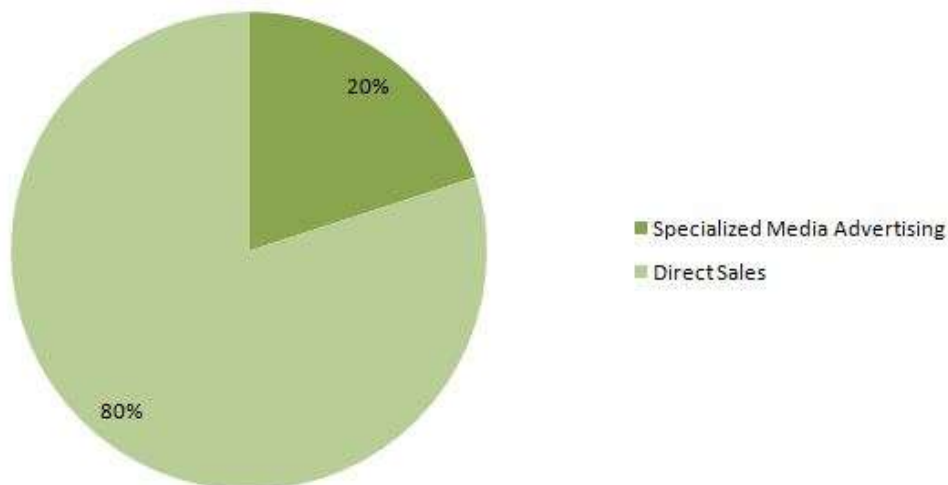
We will have a sales force integrated in our team (see previous organizational charts). We will start with to salesman working full time trying to get new B2B contracts, they will be also in the negotiations with the telecom providers as well as the CEO to arrange the conditions of the long term contracts.

As our company grows we will increase the sales force.

## 7. Marketing mix:

As we are targeting companies we consider publicity on mass media is not the optimum tool to get clients. We will do focus advertising targeting freight and deliver companies on specialized media. Nevertheless we want to put emphasis on the direct sales strategy.

**Marketing Mix**





## 8. Marketing Actions:

### A. MOBILE TELECOMMUNICATIONS COMPANIES:

	Y 1				Y 2	Y 3
	1st Q	2nd Q	3rd Q	4rd Q		
<b>SALES TOOLS</b>						
WEBSITE DESIGN AND DEVELOPMENT	■					
BUSINESS CARD DESIGN	■					
BROCHURE		■				
<b>INTERNET MARKETING</b>						
GOOGLE ADWORDS		■				
DIRECTORY LISTING			■			
<b>PUBLIC RELATIONS</b>						
BBC LONDON RADIO INTERVIEW			■			
FT NEWSPAPER INTERVIEW				■		
TELECOM MAGAZINE INTERVIEW						
 TELECOM 2.0		■				
 TOTAL TELECOM		■				
 CONNECT WORLD		■				
UNIVERSITY CONFERENCE						
 LONDON SCHOOL OF ECONOMICS	■					
 UNIVERSITY OF LONDON	■					
<b>TRADESHOWS THAT REACH TARGET</b>						
 total telecom world telecoms council				■		
 Mobile Apps World		■				
 VWA				■		
 Carriers World			■			
<b>MEETINGS</b>						
T-MOBILE	■	■				
O2	■	■				
VODAFONE	■	■				
ORANGE			■	■		
THREE					■	
<b>MEMBERSHIPS</b>						
 LONDON CHAMBER	■					
TELECOM ASSOCIATION		■				
 COM. MANAGEMENT ASSOCIATION			■			
INTELLECT TECHNOLOGY ASSOCIATION				■		
MOBILE MARKETING ASSOCIATION						■



Some notes:

- Telecom Association: Founded in 1995, gathers 3.500 voice & data telecom agents, channel partners, independent consultants, network service integrator.
- Communication Management Association: UK's premier membership organization for ICT professionals and enterprises.
- Intellect Technology Association (ITA): Provides a collective voice for its members and drives connections with government and business to create commercial environment. ITA represents over 750 companies from SMEs (Small, Medium Enterprises) to multinationals.

## **B. BUSINESS TO BUSINESS:**

The way by which we will approach to the B2B customer is going to be mainly by comercial agents. MobiCity will provide three categories of services. We will adjust the service offered to the client depending on their necessities. The way of addressing them from a marketing point of view will be relying in salesmen, making one to one sales our main driver. Also, we will show our product in specialized fair.

## **C. PUBLIC SERVICES:**

We will consider them key accounts, so we will have a salesman for the London City council and the different boroughs, offering them our service. The contract with the London City council will be considered priority.

## **9. Cost / expenditure and investment:**

We will need two people with some experience in the area in charge of the marketing area and the sales. As we want a light structure they will have the COO and even the CEO help. Some of their work is Key for MobiCity Start. Their compensation package will be based on variable remuneration. It will be in the range of 25.000 to 30.000 euros per year.

The advertising budget on specialized media will amount 12.000 the first year.

## **10. Channel to Market:**

In case our competitors launch similar services to the market with any specific competitive advantage we have developed different strategies to overcome that.





The first part of our strategy is to establish long term contracts with our suppliers and our clients. That in itself is a powerful entry barrier. Telecommunication companies do that to minimize the impact of clients moving to competitors. These long contracts will also give us some time to react in case some new player is considers to enter the market.

As an added value service we will offer our B2B clients a benchmarking consulting service about Key business aspect of their sector. By being anonymous we will grant privacy among the selected set of players. We are able to provide these studies as we have the information from operating several years. Our new competitors cannot provide such service.

Another strategic step to consider would be to use the Research and Development department to develop a new gadget in which to run our software for the delivery companies. It would be specifically design for the needs of the big deliver companies. We will use Open source technology and a joint venture with a manufacturer such as HTC.

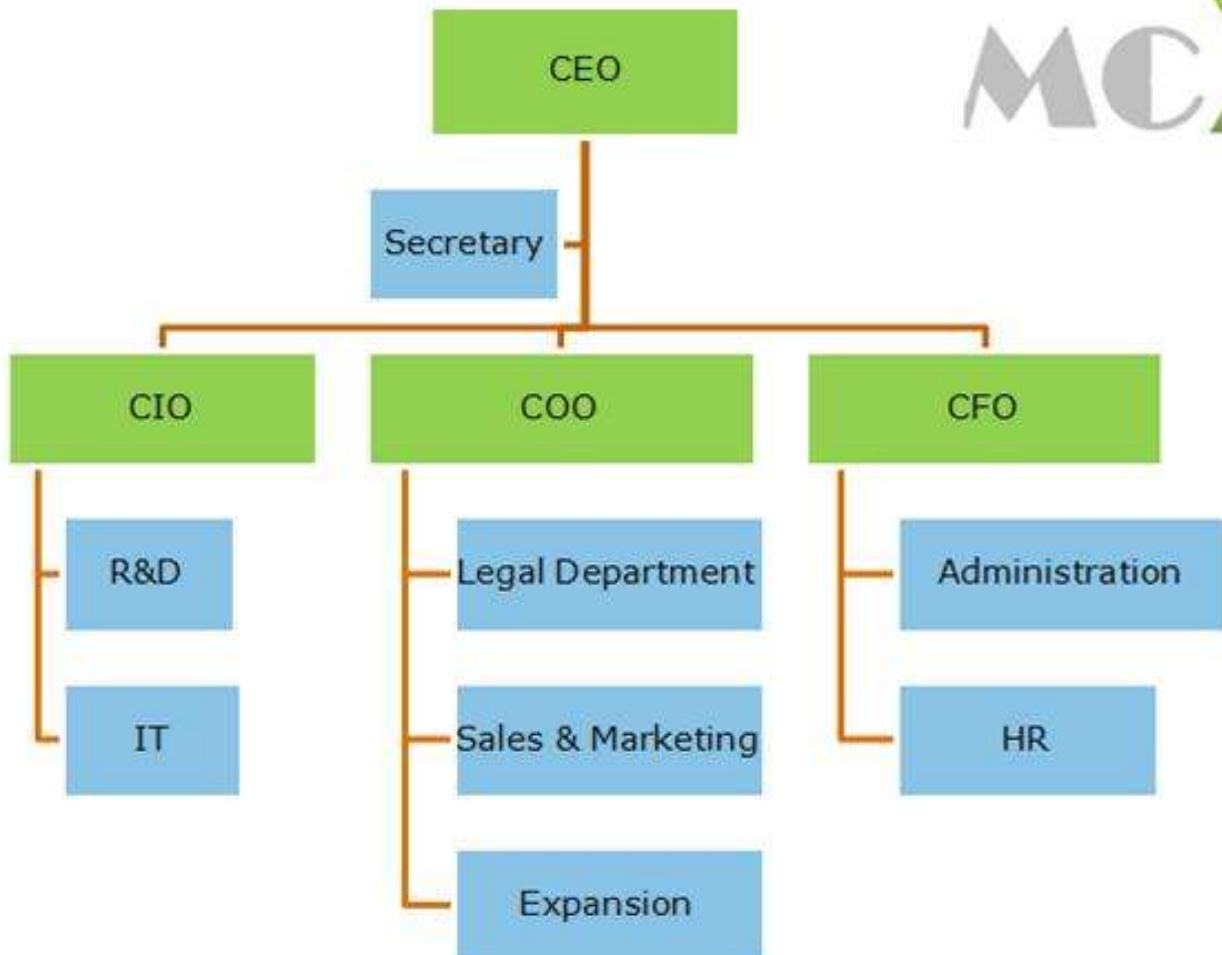


## **OP & HR PLANS**

### **Summary**

1. Organisation chart
2. Roles & Staff
3. Job profile
4. Payment policy
5. Description of other staff policies
  - A. Recruitment
  - B. Training
  - C. Motivation

- **Organisation chart**



- Roles and Staff**

Below you will find the roles or positions that MobiCity will require from the beginning and that will be assigned to differentiate people as the business grows.

QUANTITATIVE REQUIREMENTS	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd
	Semester									
CEO	█		█		█		█		█	
CIO	█		█		█		█		█	
COO	█		█		█		█		█	
CFO	█		█		█		█		█	
SECRETARY					█		█		█	
R&D				█	█		█		█	
IT			█		█		█		█	
LEGAL DEPARTMENT						█	█		█	
SALES & MARKETING				█	█		█		█	
EXPANSION						█	█		█	
ADMINISTRATION					█		█		█	
HR								█	█	
<b>TOTAL POSITIONS</b>	<b>4</b>		<b>5</b>	<b>7</b>	<b>9</b>	<b>11</b>	<b>11</b>	<b>12</b>		<b>12</b>

- Job profile**

1st STAGE ORGANIZATIONAL CHART				
ABILITIES	CEO	CIO	COO	CFO
<b>MANAGERIAL</b>	Hires A Players	Charismatic	Hires A Players	
	Develops People	Develops People	Develops People	Develops People
	Removes Underperformers		Removes Underperformers	Negotiating skills
	Treats People with Respect			
	Efficiency		Efficiency	Efficiency
	Flexible/Adaptable	Flexible/Adaptable		Flexible/Adaptable
<b>PERSONAL</b>	Integrity	Confident	Ethic	Ethic
	Organization and Planning	Organization and Planning	Organization and Planning	Organization and Planning
	Stress & Conflict management	Helpful	Stress & Conflict management	
	Aggressive but respectful		Customer requirements	
	Moves Fast	Trouble shooting		Moves Fast
	Follows through on Commitments			Processing information
<b>INTELLECTUAL - SPECIAL</b>	Technical knowledge	Infrastructure management		Financial knowledge
	Analytical Skills	Analytical Skills	Analytical Skills	Analytical Skills
	Business development	Strategic Thinking/Visioning	Strategic Thinking/Visioning	Strategic Thinking/Visioning
	Creative/Innovative	Creative/Innovative	Creative/Innovative	Data interpretation
	Attention to Detail	R&D	Attention to Detail	Market understanding
<b>MOTIVATIONAL</b>	Enthusiasm & Persistence	Passionate about technology	Organized and logical	
	Proactive /Initiative	Goal oriented	Goal oriented	Goal oriented
	Work Ethic	Culture fit	Proactive /Initiative	Proactive /Initiative
<b>INTERPERSONAL</b>	Listening Skills	Listening Skills	Listening Skills	Listening Skills
	Open to Criticism and Ideas	Open to Criticism and Ideas	Open to Criticism and Ideas	
	Written & Oral Communication		Excellent communication skills	Communication skills
	Teamwork	Teamwork	Teamwork	Teamwork
	Public Relations skills		Understand perspectives	

2nd STAGE ORGANIZATIONAL CHART								
ASPECT	SECRETARY	R&D	IT	LEGAL DEPARTMENT	SALES & MARKETING	EXPANSION	ADMINISTRATION	HR
MANAGERIAL	Supervise office policies compliance	Exchange information			Charismatic			Hires & Places
	Supervise office materials Agenda management	Efficiency Flexible/Adaptable	Efficiency Flexible/Adaptable	Negotiating skills Seats People with Respect	Negotiating skills Seats People with Respect	Negotiating skills		Develops People Removes Underperformers Negotiating skills
PERSONAL	Flexible/Adaptable Decision	Efficiency Flexible/Adaptable Anticipates deadlines	Efficiency Flexible/Adaptable	Efficiency Flexible/Adaptable Ethic	Efficiency Flexible/Adaptable Ethic	Efficiency Flexible/Adaptable Ethic	Efficiency Flexible/Adaptable Ethic	Flexible/Adaptable Ethic
	Organization and Planning Confidentiality Multi-task Moves Fast Processing In-coming information	Multi-task Multi-task Multi-task	Order prioritizer Multi-task Moves Fast	Organization and Planning Press & Conflict management Multi-task Aggressive but respectful Processing In-coming info	Organization and Planning Press & Conflict management Aggressive but respectful Moves Fast	Organization and Planning Press & Conflict management Aggressive but respectful Moves Fast	Organization and Planning Press & Conflict management Aggressive but respectful Moves Fast	Organization and Planning Press & Conflict management Aggressive but respectful Moves Fast
INTELLECTUAL - SPECIAL	Archive Microsoft package Outlook Attention to Detail	Written & oral technical skills Software development Comply with procedures Imaginative /Innovative	Multiple file logic Software development Programming languages Data manipulation	Legal expertise (training) Technological project focus Strategic thinking/Visioning	Technical knowledge Analytical skills Strategic thinking/Visioning	Technical knowledge Analytical skills Strategic thinking/Visioning Creative/Innovative Market understanding	Processing information Financial knowledge Analytical skills Data manipulation	Emotional intelligence Strategic thinking/Visioning
	Organized and logical Proactive /Initiative Responsible	Passionate about technology Goal oriented Culture fit	Passionate about technology Goal oriented	Organized and logical Proactive /Initiative	Organized and logical Goal oriented Proactive /Initiative	Organized and logical Goal oriented Proactive /Initiative	Organized and logical Goal oriented Proactive /Initiative	Organized and logical Goal oriented Proactive /Initiative
MOTIVATIONAL	Listening skills Open to Criticism and Idea	Listening skills Open to Criticism and Idea	Listening skills Open to Criticism and Idea	Listening skills Open to Criticism and Idea	Listening skills Open to Criticism and Idea	Listening skills Open to Criticism and Idea	Listening skills Open to Criticism and Idea	Listening skills Open to Criticism and Idea
	Excellent communication skills Teamwork	Teamwork Understand perspectives	Teamwork Understand perspectives	Excellent communication skill Teamwork Understand perspectives	Communication skills Teamwork Public relations skills	Communication skills Teamwork Public relations skill	Communication skills Teamwork Public relations skill	Communication skills Observer Public Relations skills



- **Payment policy**

In the table, we reflect the total estimated incomes for each position, including variable commissions. We do not specify their calculations as the figure of total income from each project will be worked out for next delivery (Business Plan).

Anyhow, we forecast that 15% of each project's revenue would be the amount paid in concept of commissions and these, would be calculated in the basis of two concepts:

- Sales
- Execution

This way, both roles are encouraged.

Annual indexation:	
Year 2	1%
Year 3	2%
Year 4	4%
Year 5	6%



QUANTITATIVE REQUIREMENTS	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5	
	1st Semester	2nd Semester	1st Semester	2nd Semester	1st Semester	2nd Semester	1st Semester	2nd Semester	1st Semester	2nd Semester
CEO	60.000		60.600		61.812		64.284		68.142	
CIO	48.000		48.480		49.450		51.428		54.513	
COO	48.000		48.480		49.450		51.428		54.513	
CFO	48.000		48.480		49.450		51.428		54.513	
SECRETARY					11.000	11.000	22.000		24.253	
R&D			16.000		32.640		33.946		35.982	
IT			17.500	17.500	35.700		37.128		39.356	
LEGAL DEPARTMENT					19.000	19.000	39.520		41.891	
SALES & MARKETING			20.000		40.800		42.432		44.978	
EXPANSION				20.000	19.000	19.000	39.520		41.891	
ADMINISTRATION					13.000	13.000	27.040		28.662	
HR							16.000	16.000	33.920	
<b>TOTAL WAGES</b>	<b>204.000</b>		<b>277.040</b>	<b>53.500</b>	<b>405.301</b>	<b>62.000</b>	<b>477.033</b>		<b>522.615</b>	





- **Description of other staff policies (recruitment, training and motivation)**

A. Recruitment:

In the very first moment the only staff that MobiCity will have is our own workforce. Although it is true that we will need a very specialized and reliable IT department, for the initial R+D effort we will rely in outsourcing, buying optical recognizing technology from a known engineering firm, mainly from India or other developing countries to lower costs. We will make a initial research between different firms, in order to launch a private contest to get the most appropriate relationship between cost and technology. The winning team will also gain the first purchase and maintenance contract, renewable each 2 years.

For the second year, we will have to recruit an stable IT staff, to deal with day to day maintenance of the system. The recruitment will require 1 IT official with experience in the field, and a # of IT technicians to be defined. For the second half of the year, we will improve the marketing & sales and R+D effort with # more hirings. The selection of the candidates will rely initially in usual ways, CV + recommendation letters + promotion in Universities and Schools. A more formal HR department will appear in the second half of the fourth year, which will formalize a more standardized recruitment system.

B. Training:

We will have the policy of taking scholars from the last year of the IT grade, in order to train them. At the very first moment, anyhow, we will need a reliable and experienced technician that will guarantee the functioning of the system from the very first moment. It will be really important to get the system actualized in every moment. To reach this goal, we will dedicate a 10% of the working time of the employees to R+D and self-taught. We will not hesitate to update the knowledge of our staff by continuous training, by financing update courses.

C. Motivation:

We will provide a Employer Value Proposition that will cover 5 key points in the motivation field: the Rewards, the People, the Work, the Organization and the Opportunity. The Rewards will be split into Fixed and Variable Compensation. We will rely on Phantom Stocks and Stock options,



because of our lack of initial budget but high projection of MobiCity. The People refers to the care we will put in creating an appropriate and nice working environment. The Opportunity is the ability of our employees to develop a career inside the company. At the very first moment the growth expectations are huge, so as the business grows and the company takes a more complex and extended diagram, the key employees will be promoted to match this positions. Talking about the Work, we expect that every young professional's requirements will be met, as the project is exciting, demanding and innovative enough for them. Also, we will take care of our Organization's reputation (the morality and ecologic approach will guarantee the meaningfulness of our work), and in the future a possible CSR effort will be put in place in a more explicit way.





- Fixed Compensation
- Variable Compensation
- Benefits
- Retirement Plans
- Vacation



- Camaraderie
- Work Environment
- Coworker quality
- Manager quality
- People Management



- Development
- Future Career Opps
- Organization Growth Rate
- Meritocracy
- Organizational Stability



- Reputation
- Diversity
- Empowerment
- Social Responsibility
- Ethics
- Industry
- Market Position
- Brand Awareness
- Quality
- Technological level



- Travel
- Innovation
- Impact of Job
- Alignment with Interests
- Location
- Recognition
- Work-Life Balance

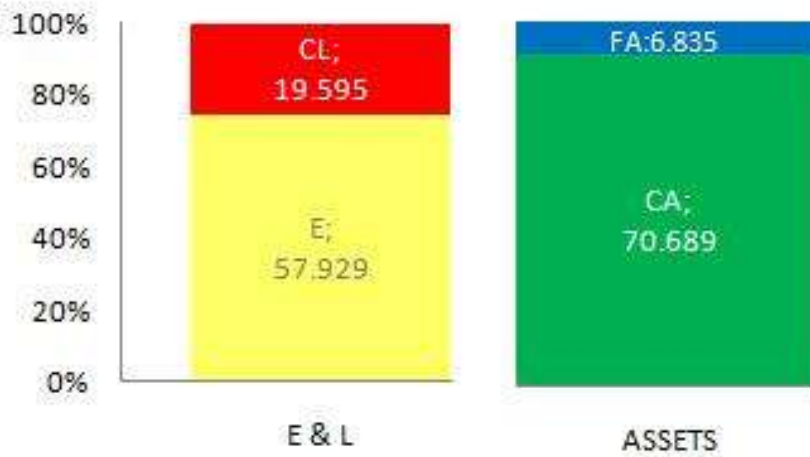
Source: Corporate Leadership Council – "Attracting and Retaining Critical Talent Segments: Identifying Drivers of Attraction and Commitment in the Global Labor Market" - 2006



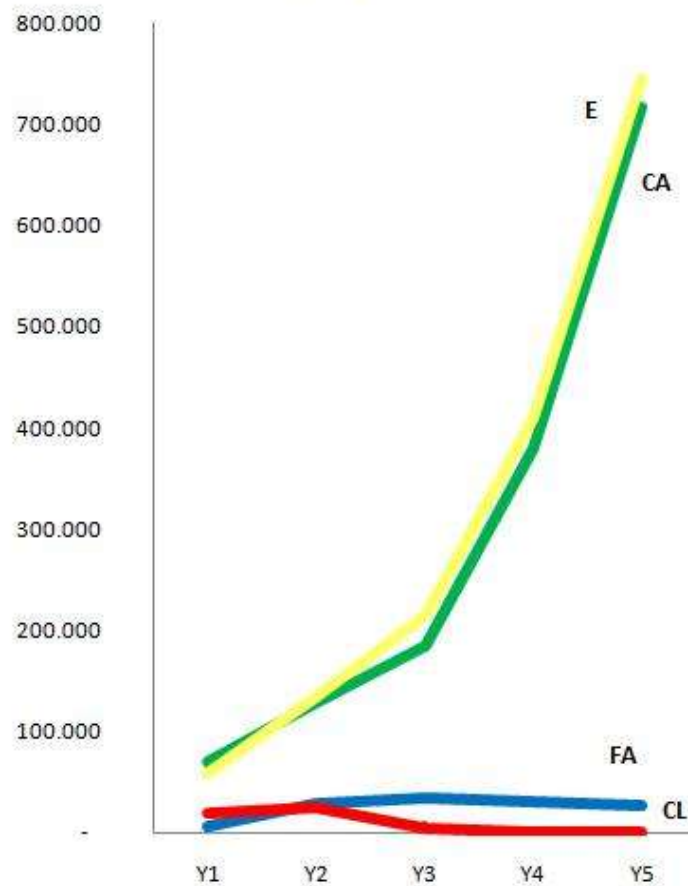
## FINANCIALS

<b>BALANCE SHEET</b>						
	Initial	Year 1	Year 2	Year 3	Year 4	Year 5
<b>NET INTANGIBLE FIXED ASSETS</b>	<b>£2.150</b>	<b>£1.075</b>	<b>£25.000</b>	<b>£26.075</b>	<b>£25.000</b>	<b>£25.000</b>
Software/Licenses	£2.150	£2.150	£2.150	£4.300	£4.300	£4.300
New Markets software develop.			£50.000	£100.000	£150.000	£200.000
Accumulated amortization		-£1.075	-£27.150	-£78.225	-£129.300	-£179.300
<b>NET FIXED ASSETS</b>	<b>£7.200</b>	<b>£5.760</b>	<b>£4.320</b>	<b>£8.640</b>	<b>£5.760</b>	<b>£2.880</b>
Furniture	£3.200	£3.200	£3.200	£6.400	£6.400	£6.400
IT hardware	£4.000	£4.000	£4.000	£8.000	£8.000	£8.000
Accum. Depreciation		-£1.440	-£2.880	-£5.760	-£8.640	-£11.520
<b>ACCOUNTS RECEIVABLE</b>		<b>£65.689</b>	<b>£123.252</b>	<b>£179.117</b>	<b>£247.073</b>	<b>£324.297</b>
<b>CASH/BANKS</b>	<b>£40.650</b>	<b>£5.000</b>	<b>£5.000</b>	<b>£5.000</b>	<b>£5.000</b>	<b>£5.000</b>
<b>SHORT TERM FINANCIAL INVESTMENTS</b>					<b>£127.139</b>	<b>£387.096</b>
<b>TOTAL ASSETS</b>	<b>£50.000</b>	<b>£77.524</b>	<b>£157.572</b>	<b>£218.832</b>	<b>£409.972</b>	<b>£744.273</b>
<b>EQUITY</b>	<b>£50.000</b>	<b>£57.929</b>	<b>£133.019</b>	<b>£214.036</b>	<b>£409.972</b>	<b>£744.273</b>
Share Capital	£50.000	£50.000	£50.000	£50.000	£50.000	£50.000
Retained earnings		£7.929	£83.019	£164.036	£359.972	£694.273
<b>SHORT TERM BANK CREDITS</b>		<b>£19.595</b>	<b>£24.553</b>	<b>£4.795</b>		
<b>TOTAL LIABILITIES</b>	<b>£50.000</b>	<b>£77.524</b>	<b>£157.572</b>	<b>£218.832</b>	<b>£409.972</b>	<b>£744.273</b>

P & L					
	Year 1	Year 2	Year 3	Year 4	Year 5
SALES	<b>£390.053</b>	<b>£731.850</b>	<b>£1.063.566</b>	<b>£1.467.078</b>	<b>£1.925.621</b>
FIXED COST	£366.438	£510.396	£774.336	£837.064	£900.233
Wages & NIC	£230.112	£312.501	£457.179	£462.726	£468.383
Office (Rent, Supplies, Insurance)	£17.834	£18.547	£38.578	£40.121	£41.726
Expansion & Travel	£5.000	£105.500	£156.050	£206.655	£257.321
Advertising & Advisors	£13.493	£13.848	£14.528	£15.241	£15.990
Works outsourced (IBM & IGV)	£100.000	£60.000	£108.000	£112.320	£116.813
<b>EBITDA</b>	<b>£23.614</b>	<b>£221.454</b>	<b>£289.231</b>	<b>£630.015</b>	<b>£1.025.388</b>
DEPRECIATION OF TANGIBLES	-£1.440	-£2.880	-£5.760	-£8.640	-£11.520
DEPRECIATION OF INTANGIBLES	-£1.075	-£27.150	-£78.225	-£129.300	-£179.300
<b>EBIT</b>	<b>£21.099</b>	<b>£191.424</b>	<b>£205.246</b>	<b>£492.075</b>	<b>£834.568</b>
FINANCIAL EXPENSES	-£1.176	-£1.473	-£288	£0	£0
FINANCIAL INCOME	£150	£150	£150	£3.964	£11.763
<b>EBT</b>	<b>£20.074</b>	<b>£190.100</b>	<b>£205.108</b>	<b>£496.039</b>	<b>£846.331</b>
INCOME TAXES	£4.215	£39.921	£43.073	£104.168	£177.730
<b>NET PROFIT</b>	<b>£15.858</b>	<b>£150.179</b>	<b>£162.035</b>	<b>£391.871</b>	<b>£668.602</b>

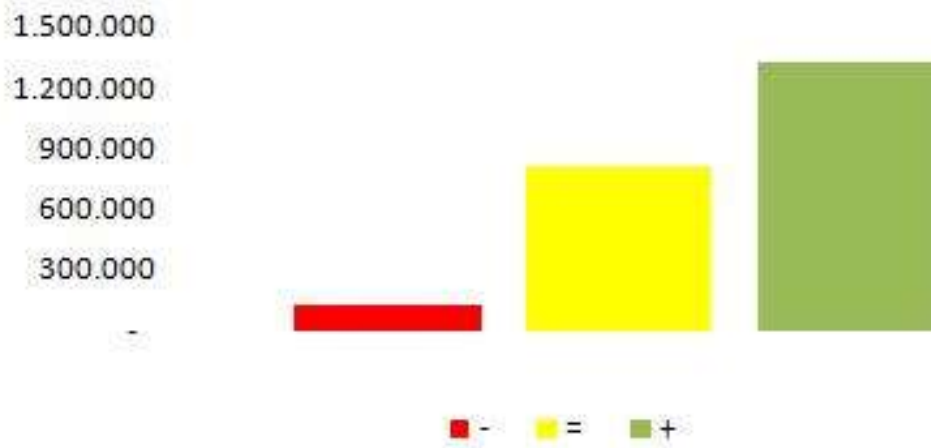


### STRUCTURE



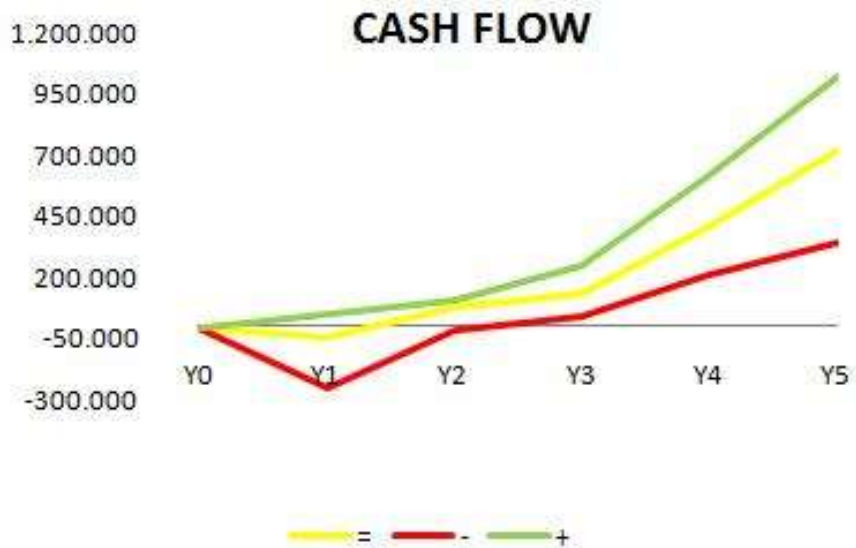
**3 SCENARIOS:**  
**RED: PESSIMISTIC**  
**YELLOW: REALISTIC**  
**GREEN: OPTIMISTIC**

### NPV

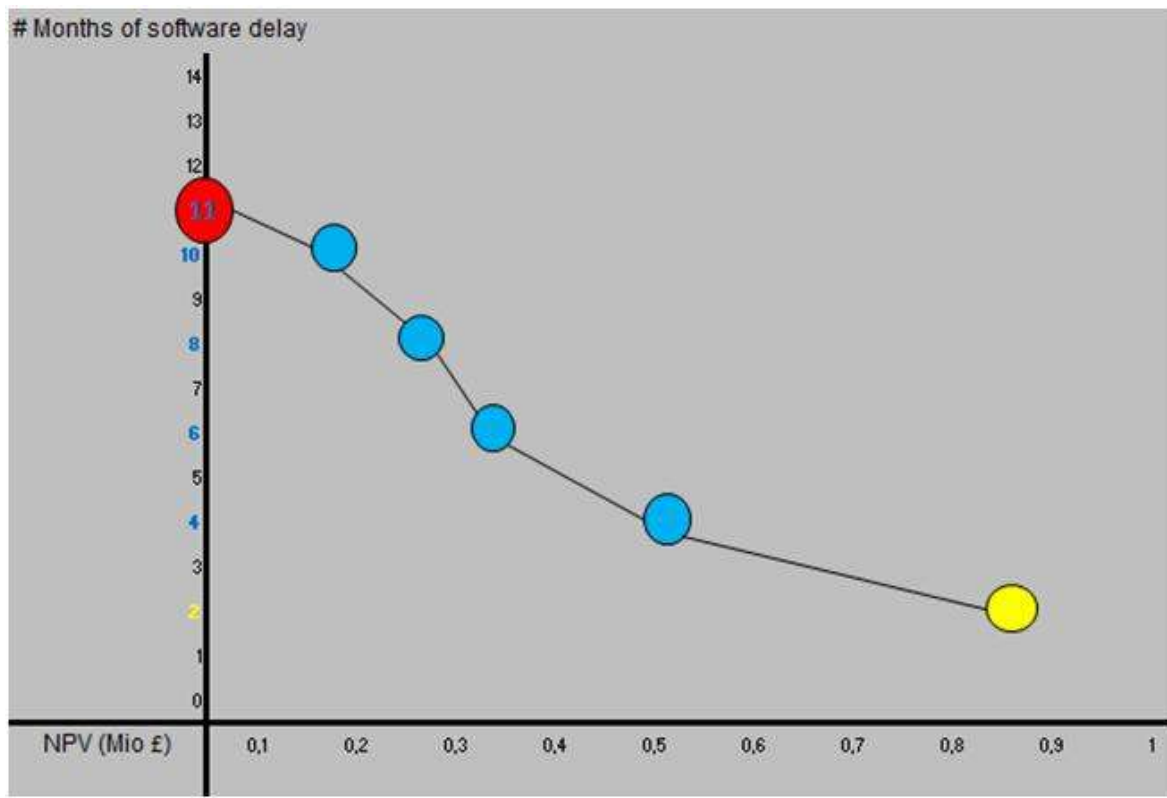


### Payback





**SENSIBILITY ANALYSIS → VARIABLE: # MONTHS IN SOFTWARE DELAY**







## **Glossary:**

### **C**

Cell Phone Data: technology to enable the measuring and forecasting of traffic flow based on anonymously sampling the position of cell phones. By sampling the location of a mobile phone over a period of time, the route and velocity at which the phone is travelling can be determined. While an individual record of a mobile phone's position is typically less accurate than that of a corresponding GPS record, this is compensated for by the large number of mobile phones on any road, knowledge of the underlying road network and the application of statistical techniques.

Commuter: someone who travels regularly from home in a suburb to work in a city.

### **F**

Floating Vehicle Data: is a technology for the collection, analysis and forecasting of journey times using speed and location data directly from a sample of vehicles as an alternative to fixed-sensor systems. Data is sampled from GPS devices fitted to large vehicle fleets, and analyzed by software.

Freight: transporting goods commercially at rates cheaper than express rates

### **L**

logistics sector: companies involved in moving, handling or storing goods.  
Lace traffic: traffic created in the city by drivers looking for parking spaces.

### **M**

merchants: special service that provide the customer to put his Brand on a Map.

### **S**

Substitutes: Products that buyers perceive as having some characteristics and utilities in common (for example, potatoes and rice).

### **T**

TFL: transport for London institution.

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No. 37

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Editors: Abigail Self

Linda Zealey

Office for National Statistics

***Traffic Operations in London***

Mayor of London

Transport for London



## Appendix 1. List of Businesses:

These are the categories of companies that potentially could become customers of us:

### Couriers

485

Event transport  
UK Fine Art Transport Companies  
Fragile Goods Transport  
General Courier Services  
Hazardous Material Couriers  
International Couriers  
Large Scale Couriers  
Medical Couriers  
Motorcycle Couriers  
Multi Drop Couriers  
Next Day Couriers  
Sameday Couriers  
Secure Vault and Cargo

### Driving Schools

688

Advanced Driver Training  
CBT Test  
Commercial Vehicle Training  
Driver Training  
Driving Assessment Centre  
Driving Instructor Training  
Driving Instructors  
Female Driving Instructor  
Fleet Driver Training  
HGV Driver Training  
Intensive Driving Courses  
LGV Driver Training



Motorcycle Training  
Pass Plus Instruction  
Taxi Driver Training  
Trailer Training

**Haulage**

396

Abnormal Load Escort  
Boat Delivery  
Flight Cases  
General Haulage  
Light Haulage  
Refrigerated Container Sales companies  
Refrigerated Transport  
Vehicle Delivery Service

**Logistics**

659

Bio-Logistics  
Distribution Services  
Freight Forwarding  
Freight Management  
Fulfilment  
Logistics Consultants  
Logistics Software  
Outsourcing Solutions  
Palletised Freight Distribution companies  
Pick and Pack  
Reverse Logistics  
Shipping Agents  
Third Party Logistics  
Warehousing

**Taxis**



	887
Air Taxis	
Airport Transfers	
Business Transport Servic...	
Business Travel	
Disabled Taxi Service	
Mini Cabs	
Minibus Taxis	
Private Hire Taxis	
Sea Port Transfers	
Taxi Hire	
<b>Transport Consultancy</b>	<b>11</b>
<b>Vehicle Hire</b>	<b>1756</b>
Campervan Hire	
Car Hire	
Chauffeur Driven Car Hire	
Classic Car Hire	
Coach Hire	
Contract Hire and Leasing	
Courtesy Cars	
Dual Control Vehicle Hire	
Funeral Car Hire	
High Performance Vehicle Hire	
Hotbox Hire	
Hybrid Vehicle Hire	
Ice Cream Van Hire	
Limo Hire	
Loader and Forklift Hire	
Mini-bus Hire	
Motorcycle Clubs	
Motorcycle Hire	
Motorhome Hire	



Plant Hire

Refrigerated Van Hire

Trailer Hire

Van Hire

Vintage Bus Hire

Vintage Car Hire

**Car park and parking services**

163