STADIUM
Smart Transport Applications Designed for large events with Impacts on Urban Mobility

SOUTH AFRICA DEMONSTRATOR
ASSESSMENT OF POTENTIAL LONG TERM BENEFITS OF STADIUM SERVICES

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Start Date and Duration</strong></td>
<td>01 May 2009, 48 months</td>
</tr>
<tr>
<td><strong>Deliverable no.</strong></td>
<td>D5.a.3</td>
</tr>
<tr>
<td><strong>Dissemination level</strong></td>
<td>PU</td>
</tr>
<tr>
<td><strong>Planned submission date</strong></td>
<td>M26</td>
</tr>
<tr>
<td><strong>Actual submission date</strong></td>
<td>M29</td>
</tr>
<tr>
<td><strong>Responsible organization</strong></td>
<td>PLUSERVICE</td>
</tr>
</tbody>
</table>

“SA Demonstrator: Assessment of potential long term benefits of STADIUM services”
**Document Title:** SOUTH AFRICA DEMONSTRATOR - ASSESSMENT OF POTENTIAL LONG TERM BENEFITS OF STADIUM SERVICES

<table>
<thead>
<tr>
<th>Document History</th>
<th>Version</th>
<th>Comments</th>
<th>Date</th>
<th>Authorized by</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Version 0.1</td>
<td>First draft</td>
<td>June 2011</td>
<td>Giannini</td>
</tr>
<tr>
<td></td>
<td>Version 0.2</td>
<td>Final for peer review</td>
<td>September 2011</td>
<td>Giannini</td>
</tr>
<tr>
<td></td>
<td>Version 1.0</td>
<td>Includes peer review</td>
<td>September 2011</td>
<td>Squillante</td>
</tr>
</tbody>
</table>

**Number of pages:** 31  
**Number of annexes:** 2

**Responsible Organization:** PLUSERVICE  
**Contributing Organization(s):** SAHA, MMIV  
**Principal Authors:** Giannini Monica, Daniela Vasari  
**Contributing Author(s):** Koos Van Zyl (SAHA), Fuad Noormohamed (MMIV)

**Peer Review**  
<table>
<thead>
<tr>
<th>Version</th>
<th>Partner</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version 1.0</td>
<td>Thetis</td>
<td>September 2011</td>
</tr>
</tbody>
</table>

**Approval for delivery**  
<table>
<thead>
<tr>
<th>Version</th>
<th>ISIS</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version 1.0</td>
<td>Coordination</td>
<td>6 October 2011</td>
</tr>
</tbody>
</table>
Table of Contents

1. REFERENCE DOCUMENTS ................................................................................................................................... 5

2. ANNEXES ............................................................................................................................................................ 6

3. ASSESSMENT OF POTENTIAL LONG TERM BENEFITS OF STADIUM SERVICES .............................................................. 7

3.1. INTRODUCTION ..................................................................................................................................... 7

3.1.1. Description of the solution implemented .................................................................................................. 8

3.2. DEMO IMPLEMENTATION DURING SOCCER WORLD CUP ............................................................................ 15

3.3. ACTIONS FOR STADIUM LEGACY AND SYSTEM SUSTAINABILITY ............................................................... 16

3.3.1. Peninsula Holdings Business Plan ............................................................................................................ 16

3.3.2. Actions planned and scheduling ................................................................................................................. 17

3.3.3. Marketing Plan ..................................................................................................................................... 17

3.3.4. Advertising material: ................................................................................................................................. 18

3.3.5. Flexibility in the use of hardware and software supplied for new services ............................................ 22

3.3.6. SUPERDRIVER™ Platform, placement of the Telebus module in the modular context of the management platform of the Public Transport system ......................................................... 24

3.4. EVALUATION AND DATA COLLECTION ........................................................................................................... 25

3.4.1. DIAL-A-RIDE SERVICE: A CANDIDATE FOR COMPARISON IN CAPE TOWN ........................................ 25

3.4.2. DATA COLLECTION METHODOLOGY ......................................................................................................... 28

3.4.3. TRACKING DATA ..................................................................................................................................... 28

3.5. ASSESSMENT OF POTENTIAL LONG TERM BENEFITS .................................................................................. 30
List of Abbreviations

The following table reports a series of acronyms used herein:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWC</td>
<td>Soccer World Cup</td>
</tr>
<tr>
<td>DRT</td>
<td>Demand-responsive Transport</td>
</tr>
<tr>
<td>AVM</td>
<td>Automatic Vehicle Monitoring</td>
</tr>
<tr>
<td>OBE</td>
<td>On Board Equipment</td>
</tr>
<tr>
<td>D-a-R</td>
<td>Dial-a-Ride</td>
</tr>
<tr>
<td>CoCT</td>
<td>City of Cape Town</td>
</tr>
<tr>
<td>CBD</td>
<td>Central Business District</td>
</tr>
<tr>
<td>LMS</td>
<td>Last Mile Service</td>
</tr>
<tr>
<td>IRT</td>
<td>Integrated Rapid Transport</td>
</tr>
<tr>
<td>BRT</td>
<td>Bus Rapid Transit</td>
</tr>
<tr>
<td>LPT</td>
<td>Local Public Transport</td>
</tr>
<tr>
<td>TRP</td>
<td>Taxi Recapitalisation Programme</td>
</tr>
</tbody>
</table>
1. **REFERENCE DOCUMENTS**

The present document is referred to the following STADIUM documents:

<table>
<thead>
<tr>
<th>No</th>
<th>Document Title</th>
<th>Report No.</th>
<th>Published By</th>
</tr>
</thead>
<tbody>
<tr>
<td>[R1]</td>
<td>Evaluation Framework and Annexed Field Survey Guideline</td>
<td>Deliverable D6.1</td>
<td>TUB</td>
</tr>
<tr>
<td>[R2]</td>
<td>Report on Current Events</td>
<td>Deliverable D6.2</td>
<td>TUB</td>
</tr>
<tr>
<td>[R3]</td>
<td>“Equipment Installation, Integration and Validation report for the South Africa Demonstrator” and related Annexes</td>
<td>Deliverable D5a.1</td>
<td>PluService</td>
</tr>
<tr>
<td>[R4]</td>
<td>“Demonstrator result reports and data collection – South African demonstrator” and related Annexes</td>
<td>Deliverable D5a.2</td>
<td>SAHA</td>
</tr>
<tr>
<td>[R5]</td>
<td>“Demonstrator design for the South Africa Event” and related Annexes</td>
<td>Deliverable D4a.1</td>
<td>PluService</td>
</tr>
<tr>
<td>[R6]</td>
<td>“Detailed and validated design of the South Africa Demonstrator, based on the results of Tasks 4.3 and 4.4” and related Annexes</td>
<td>Deliverable D4a.2</td>
<td>PluService</td>
</tr>
<tr>
<td>[R7]</td>
<td>“Report on the overall monitoring of current events”</td>
<td>Deliverable D6.3</td>
<td>TUB</td>
</tr>
</tbody>
</table>
2. ANNEXES

<table>
<thead>
<tr>
<th>No</th>
<th>Document Title</th>
<th>Report No.</th>
<th>Published By</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PH Business Plan for new services – Updated version – sept 2011</td>
<td></td>
<td>SAHA PluService</td>
</tr>
<tr>
<td>2</td>
<td>&quot;Demand Responsive Transport as integration to urban regular transport service: a case in Cape Town&quot;</td>
<td>Paper ITS European Congress - Lyon – France - 2011</td>
<td>PluService</td>
</tr>
</tbody>
</table>
3. ASSESSMENT OF POTENTIAL LONG TERM BENEFITS OF STADIUM SERVICES

3.1. INTRODUCTION

The demo activities in Cape Town, South Africa, dealt with the introduction of an ITS solution in the context of an Emerging country and during a big event (FIFA Soccer World Cup). The pilot project included various objectives:

- Analysis of requirements and study for the integration of an ITS solution able to support local public transport
- Study of a solution supporting management of mobility during a big event in an emerging country (South Africa)
- Realization of an operational service/system during Soccer World Cup 2010 in Cape Town
- Analysis and implementation of new services for the use of the system beyond the SWC

Therefore, among the purposes of the testing in Cape Town, there was a specific task dedicated to the sustainability of the solution meant as:

- technological solution supplied
- type of services using the system supplied

The partners involved in WP5a worked together with the local transport operator Peninsula Holdings in the realization of a business plan including the activation of new services for flexible transport. Each new service should be introduced to the authority competent for approval and release of permits. Some services proposed have already been approved and integrated in local public transport.

Flexible services activated time by time use technology supplied within the Stadium project: control centre and monitoring system, booking centre and on-board devices with driver interface.

In fact, the Stadium demonstrator activities in South Africa consisted in the implementation of a monitoring system for a fleet of minibus taxis and in the execution of a booking system for the transport service. A monitoring control center for a fleet of 19 Peninsula Holdings’ minibus taxis was installed at the new Peninsula Holdings’ premises in Saint Peter’s Square, Observatory, Cape Town.

The original idea was to equip 40 minibus taxis, but it has been reevaluated during the project for various reasons:

1. High unexpected costs for installations on the buses (as reported in D5a1)

On such an issue, partner MMIV provided a document stating all difficulties in trying to adapt on-board devices to the various minivan models. Moreover, the vehicle owners made installation more complex since they made their vehicles available for installations only for a short time.
2. The choice was to equip the vehicles with a complete set of tools able to ensure higher sustainability opportunities.

For instance, the vehicles were provided with monitors for diffusion of service information as well as advertising, webcams for security and smart card readers aimed at a future integrated system for e-ticketing. All these solutions resulted from a thorough analysis on the potential of system and services that the operator could have offered after the SWC.

3. Budget problems

The partner supplying on-board equipment, MMIV, had to face numerous budget problems due to the unfavourable exchange rate which changed within the issuing of the project proposal and the actual project start-up. Moreover, being MMIV a micro-enterprise, it was not able to pay for the extra material with its own money as investment on potential future development.

In any case, a fleet of 19 vehicles can be considered as sufficient for evaluating the impact of a demand-responsive service.

3.1.1. **Description of the solution implemented**

In Cape Town, the local minibus taxi association, Peninsula Holdings, was contracted by the City to handle the passenger transport during the 49 days of the SWC. The minibus taxis, usually a 13-seat, were integrated in the transport plans as feeders or special service providers complementing the BRT (IRT) system (see Stadium Deliverable D5a.1 for further details). The Stadium partners involved in the South African demonstration contacted Peninsula Holdings and implemented a DRT system and monitoring control centre to manage the so-called ‘Last Mile’ service operated during the SWC as an extension of the Airport shuttle, taking passengers arriving at the Civic centre (via the airport shuttle from the airport) to their final destinations.

**System provided (by Stadium SA demo partners – PluService, SAHA, MMIV) [as described in D4.1a; D4.2a; D5a1 and all related annexes]:**

- On Board Equipment for a fleet of vehicles (GPS, OBU, screen, card reader, CCTV, passenger counter)
- A control centre for the monitoring of vehicles
- A booking centre for the management of demand-responsive services
- Manuals and training to drivers and call centre operators
- Assistance to visitors during SWC

**Service provided (by minibus transport operator Peninsula Holdings):**

- Last Mile service to and from the Central Business District BRT station

Peninsula reserved a room for the server at its premises at St Peter’s Square, Observatory, even if during the SWC the system was hosted by an Italian server and the service was provided in remote in order to allow PluService to monitor and test the software.
Figures 1 and 2: Server room and Call Centre for the DRT system at PH premises

By means of the monitoring system, Peninsula was able to track the vehicles and verify their status (position, speed, number of passengers, opening of doors, ticket printing, etc). This service allowed Peninsula Holdings’ operators to locate and assign transport services to their vehicles in an optimized way: assignment of the service to the vehicle nearest to the pick-up point and in the proper conditions for performing the service. The system provided gave way to the introduction of other useful tools for service monitoring and execution: driver ID, driving time, speed. Such information has turned out to be useful for the operator to acquire detailed knowledge on the service delivered.
Besides the AVM (Automatic Vehicle Monitoring) system, the Stadium project in Cape Town – at Peninsula Holdings – implemented a system for the management of DRT (Demand Responsive Transport). Such a system allows a flexible management of resources (vehicles, drivers), based on the booking of the service. The system was implemented and operated by Stadium partners at Peninsula, whose operators were trained on the modes of service use and on possible controllable services. The installation and training were performed in May 2010 by PluService, SAHA and MMIV personnel at Peninsula premises in Cape Town.

Training to drivers was performed by MMIV, as reported in Annex 3 of Deliverable D5a1.

Training to call centre operators was performed by PluService, both on site and via conference call with the support of the 2 Users’ Guides enclosed in Deliverable D5a2:


The DRT booking system was operational during the SWC 2010 for the management of the Last Mile service. The latter provided transport from the CDB (Central Business District) Station to the final destination (the reason for the name “Last Mile”) for passengers coming from the airport via the shuttle bus of the new BRT (Bus Rapid Transit) line.

Unfortunately, such a system was not used since the call-center operator from Peninsula was unexpectedly required at the bus depots to manage emergencies during the SWC and was not able to operate in the call center. Moreover, the new BRT service was inaugurated by Cape Town.

“SA Demonstrator: Assessment of potential long term benefits of STADIUM services”
Municipality just a few days before the SWC kick-off causing the service to be underused due to scarce awareness by the passengers arriving at the airport. The total number of passengers getting to the CBD station was generally very low. Consequently, there were a reduced number of passengers utilizing the DRT service during the SWC. However, the Last Mile service was managed by using a manual booking system (word-of-mouth on the vehicles or by direct contact with the drivers on their mobiles) with the support of an operator especially hired by one of the Stadium partners (SAHA) who provided indications on the use of Last Mile to passengers at CBD during the SWC.

Figure 4: BRT shuttle route from airport to CBD in red. Last Mile service potential routes in black

The following figures illustrate the procedure for entering a booking request on the DRT system. A more detailed description of the aforesaid procedure is reported in Annex 3 to Deliverable D5a2–User Guide_New Telebus.
Figure 5: Request entry

Figure 6: Request management
**Figure 7: Journey management**

**Figure 8: Routing of the journey in Figure 6**
### List of Bookings from 24/06/2010 to 24/06/2010

<table>
<thead>
<tr>
<th>Date</th>
<th>Request Id</th>
<th>User</th>
<th>Scheduled Departure Time</th>
<th>Pickup Point</th>
<th>Scheduled Arrival Time</th>
<th>Dropoff Point</th>
<th>Seats</th>
</tr>
</thead>
<tbody>
<tr>
<td>28/10/2010</td>
<td>527</td>
<td>Ade Badri</td>
<td>12:36</td>
<td>Ellis Rd, Sea Point, Cape Town</td>
<td>12:41</td>
<td>Interior Rd</td>
<td>1</td>
</tr>
<tr>
<td>28/10/2010</td>
<td>530</td>
<td>Monge Kumi</td>
<td>14:00</td>
<td>High St, Cape Town</td>
<td>14:05</td>
<td>Lion St</td>
<td>1</td>
</tr>
<tr>
<td>28/10/2010</td>
<td>525</td>
<td>Damien Dando</td>
<td>16:45</td>
<td>Lion St, Cape Town</td>
<td>16:50</td>
<td>Peter Square, Observatory</td>
<td>1</td>
</tr>
<tr>
<td>28/10/2010</td>
<td>523</td>
<td>Coffia Chid</td>
<td>19:15</td>
<td>Lion St, Cape Town</td>
<td>19:20</td>
<td>Military St</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Requests:** 4  
**Total Passengers:** 4
3.2. DEMO IMPLEMENTATION DURING SOCCER WORLD CUP

Last Mile service procedure

The Last Mile service operated as an extension of the Airport shuttle, taking passengers arriving at the Civic centre (via the airport shuttle from the airport) to their final destinations. The co-ordination that was put in place by the Stadium team worked as follows:

- A representative of the airport shuttle service asked passengers what their final destination was and if they needed further transport in Cape Town.
- If required, the representative at the airport station called the regulator at the Civic Centre station asking him how many passengers needed further transport.
- The regulator selected a minibus taxi from a circulation list and called the driver informing him on passengers arriving at the next airport shuttle bus in about 15 minutes.
- The driver had time to offload his current passengers and drive to the Civic Centre station to wait for the new passengers.
- When the airport shuttle arrived at the Civic Centre station the regulator greeted the passengers and showed them where the taxi was waiting for them. In most cases he also took them personally to the taxi and also gave them information about the available Last Mile services.
- The drivers and the regulator gave their personal telephone numbers to the passengers in case they needed to book a return trip. This worked well in the cases where passengers were groups of 3 or more and private bookings were made through the drivers and regulator.
- The service was structured to enable the drivers to still do their normal activities during peak periods and for most part of the day.
Constraints

Because the Last Mile service depended on passengers from the Airport shuttle, the service was not used extensively. This was because the airport shuttle did not carry a lot of passengers. The detailed numbers will be available soon, but an average of less than 100 passengers per day utilised the airport shuttle for 90% of the SWC period.

The main reason for the low number of passengers is the lack of marketing done by the City of Cape Town for the new BRT Airport shuttle. Passengers were not informed about the availability of the shuttle service at the arrivals hall of the airport and then made alternative travel arrangements. The airport station is also not clearly visible when passengers exit the airport building.

Management problems

Peninsula Holdings is the operator of the new IRT service in Cape Town which started to operate just before the SWC period. Their managers were not available to organise the Last Mile service. One manager devoted some of his time to the Last Mile service and through him, the consortium managed to get 4 taxi operators to be available for the LMS.

3.3. ACTIONS FOR STADIUM LEGACY AND SYSTEM SUSTAINABILITY

The ITS equipment installed in the minibus taxis and the DRT applications supplied as part of the STADIUM project offers a starting point for the implementation of similar DRT-related services in the taxi industry. The equipment and applications are modified to fit in the current and future business plans of Peninsula Holdings. The STADIUM legacy supplies the test ground on which the future direction of minibus taxi operations will be build.

In the 1st quarter of 2011), STADIUM’s legacy was used to evidence the sustainability of the ITS equipment and applications. Once all the stakeholders embrace the new methods of operations, further investigation will be done in the funding of more equipment to fit more vehicles.

3.3.1. Peninsula Holdings Business Plan

A business plan was developed for Peninsula Holdings that makes full use of the STADIUM supplied technologies. This plan incorporates the future direction of the Peninsula Holdings company as well as the future of minibus taxi services in South Africa (ref.: Annex I_PH Business Plan for new services)

The Business Plan describes the introduction of DRT booking services that extends the operations of the minibus taxis. The principles of introducing the DRT services are:

- Taxis will be utilized more efficiently
- Scheduled services can be introduced and financial planning can therefore be done
- The introduction of the DRT services creates no financial risk for the drivers and owners

Some of the new public transport services being offered by PH are the following:

- **Loop Service** – This service will be based on current operations where the driver will deviate slightly off existing routes to pick up potential commuters who have placed a call to the call centre.
• **Point-to-Point Service** – This service is a metered type of Taxi service but at a reduced rate for groups of passengers. This service will be aimed at Major Hotel Groups, Back Packing Lodges, Bed and Breakfast facilities.

• **Mall Shuttle** – This service will be a dedicated loop type service for residents such as housewives who need to be picked up and driven to the designated mall for that area. Bookings can be done to be picked up from home and taken to the mall and back home again.

• **Contract Service** – This contract service can be offered to companies to transport their workers to work in the morning and back home again in the evening.

• **Last Mile Service** – This service will complement the City’s Airport Shuttle Service into the City by offering the commuter a service from the City’s Civic Centre Station to his final destination.

Initial customer response to the new services has been very positive. PH has conservatively estimated growth in demand for the new services at 10% per annum, with total increased revenue of over R4 million over five years.

### 3.3.2. Actions planned and scheduling

Due to the nature of the current taxi operations and the fact that Peninsula Holdings cannot afford having the operators (drivers and owners) lose their daily income because of new pilot programs, only a few vehicles will be used for the introduction of the new services. Phone calls for booking requests will be managed by the call centre during office hours and diverted to selected drivers during afterhours.

The actions to full implementation of the new services are:

1. Additional training to drivers and call centre operators for the new services
2. Get feedback from drivers and public to fine-tune hardware, software and operational procedures
3. Do extensive marketing of the services
4. Plan for expansion possibilities

The above activities will be scheduled as soon as a new service is planned and formally agreed with the local authority responsible for the issuing of the new permit.

### 3.3.3. Marketing Plan

Promotion and marketing will be implemented by means of:

- In-vehicle electronic advertising
- Pamphlets, mall information sheets and electronic newsletters
- Road Shows at targeted locations on key routes
- Networking (all PH owners and drivers)
- Radio promotion (reportage of new services, rather than advertising)
- Newspaper & magazine advertising
  - Aim to do editorials instead of advertisements
  - Make use of the National Transport Month (October) to get editorials in newspapers
- Outboard vehicle advertising
- Billboard advertising in key locations
- Get services advertised by Department of Tourism and City of Cape Town
- Internet marketing (the website address will be: www.last-mile.co.za)
  - PH’s own website and third party website advertising
  - Email newsletters to clients and potential clients

3.3.4. Advertising material:

![Last Mile Service advertisement displayed on board](image1)

- **Figure 11:** Last Mile Service advertisement displayed on board

![Last Mile Service advertisement displayed on board](image2)

- **Figure 12:** Last Mile Service advertisement displayed on board
Figure 13: Last Mile Service advertisement displayed on board

Figure 14: Last Mile Service advertisement displayed on board

The STADIUM project is an Technical Research project sponsored by the European Commission. The project aims at improving the performance of transport services and systems made available for large events hosted by big cities.

The equipment on this vehicle is a direct result of this project and is used to improve the transport services delivered by minibus taxis. You are experiencing the legacy of the STADIUM project.

The successful results are the starting point of improving public transport during and after large events.
Figure 15a: Flyer printed and distributed to promote the LMS (front side)
Figure 15b: Flyer printed and distributed to promote the LMS (back side)
3.3.5. Flexibility in the use of hardware and software supplied for new services

The hardware supplied for the implementation of the DRT+AVM system in Cape Town was studied to ensure extensibility of the system. The servers installed at the premises of operator Peninsula Holdings are able to manage an amount of data higher than the one indicated in the enclosed Business Plan (in terms of connections, tracking data, booking data and routing management) and a calculation capacity greater than the one foreseen by the current services implemented. This decision was taken by the work team in order to guarantee future extension of the services managed by Peninsula Holdings, both in terms of use of existing services and in terms of allocation of resources for new DRT services.

Besides the servers installed at Peninsula Holdings in Cape Town, other servers at PluService and MMIV were reserved to the Stadium project in order to ensure proper development and adaptation tests for new services and monitoring of the software provided for SWC 2010. The use of such servers connected with the servers installed at Peninsula allows operating in real time in case of modifications to be applied, maintenance, assistance, debugging and other situations in which there is request of an intervention by partners to ensure correct functioning of the system.

The description of all the hardware provided is reported in detail in deliverable D5a.1 [R3]

As regards the software for the management of DRT, the following observations should be considered:

- As described in paragraph 3.4 Evaluation and Data collection hereinafter, in Cape Town there were no DRT services, except for the D-a-R service managed by the Municipality and dedicated to disabled users. This service is currently managed manually, which means that the scheduling of the route and pick-up and drop-off times are performed manually by some dedicated operators. This implies very long management and feedback times and the bookings are accepted only with some advance (a few days) with long waiting time for the users expecting a reply; for this reason, the Dial-a-Ride service in Cape Town has been nicknamed Dial-a-Wait!

- The introduction of software for automatic and real-time management of the booking and scheduling service of DRT represented a relevant technologic upgrade in the abovementioned context. The system supplied has not yet been adapted to the D-a-R service, as it is still under concession of the previous operator. Once this contract expires, Peninsula Holdings is going to apply for the management of D-a-R service, proposing an automatic management system of bookings within the Stadium project (it will be necessary to adapt the software).

- DRT is therefore a new concept in the transport scenario of Cape Town – and in general in South Africa – and there were relevant bureaucratic problems for the introduction of such services within the local transport plan. Negotiation for obtaining new permits for the management of flexible services presented by Peninsula, delayed operations for system start-up. Without such permits it was not possible to carry out the DRT in any form, therefore it was necessary to have a “manual and experimental” start-up, which was eventually successful thanks to the efforts by Peninsula Holdings’ drivers who applied the scheme and advertised the new transport mode among users.

- DRT is perfectly adaptable to the “informal” transport model through minibus taxis operated in South Africa and allows the formalization of some aspects which otherwise result as “out of the norm”, such as pick-up performed in the street, also in dangerous positions, excessive competition in catching clients, total lack of service scheduling and of travel comfort.
The DRT model is well inserted in the context of feeding system of BRT lines, which allow reaching high-capacity lines from peripheral areas with weak demand. Such aspects were presented in some papers, including the one available in Annex 2 “Demand Responsive Transport as integration to urban regular transport service: a case in Cape Town” – Paper ITS European Congress - Lyon – France – 2011.

Following this introduction on hardware, deployment of DRT service and its potential integration with the local transport system, emphasis should be put to characteristics of modularity, extension and adaptability of the software supplied by the Stadium project.

The software realized and supplied for the implementation of DRT in Cape Town and for the management of flexible transport services during the SWC 2010 and after the latter (new services listed in previous paragraphs and in the Business Plan enclosed) was specifically developed within the Stadium project starting from the software Telebus, property of the company PluService. The software Telebus fits into the modular context of the platform SuperDriver, which is briefly described in paragraph 3.3.6. This software module dedicated to the management of requests and routing optimization has been adapted within the Stadium project to satisfy the following requests/specifications:

- Cartography and local PoIs (Cape Town, through Google Map)
- Adaptation of the minibus taxi system (type of vehicles, number of seats, routes)
- Linguistic adaptation and HMI
- Management of on-board systems supplied by MMIV (local partner) with introduction of new peripherals
- Adaptation for extension to new services such as e-ticketing, Location-Based Advertisement
- Adaptation and extension to new flexible transport services, such as hiring services, tourist services and new dedicated services
- Integration with AVM platform AVM for tracking and monitoring of vehicles assigned to the DRT service
- Off-line and real-time booking management, generation of scheduling and communication with the vehicle in various modes (service schedule forwarded to displays of OBE, pre-encoded text messages)

The adaptation of the software Telebus™ involved various programmers in PluService, as well as the R&D unit for refining and adapting optimization and routing algorithms also in collaboration with university departments which usually collaborate with PluService on such themes.

With an outlook on the new services that Peninsula Holdings is going to implement, PluService, MMIV and SAHA (local partners of the Stadium project) proposed themselves for the adaptation of the software and necessary training. Such activities will not be part of the Stadium project, whose financial resources have been used, but they will be part of possible new agreements between the parties involved.

The Stadium project has favoured and generated some processes related to the use of new technologies and ITS solutions in South Africa. The most important:
- Flexible (on demand) transport model
- Cooperative systems
- Computer Automated Dispatching Systems

3.3.6. **SUPERDRIVER™ Platform, placement of the Telebus module in the modular context of the management platform of the Public Transport system**

**THE ERP SYSTEM FOR TRANSPORT COMPANIES**

Superdriver is an integrated management modular information technology system.

Each office in a Transport Company is, in fact, organised in a fully independent manner, but constantly in contact with all the other units, in a network of continuous data exchange. Superdriver is the result of the know-how acquired by PluService in years of specific information technology experience in the Local Public Transport sector (LPT).

The system produces higher levels of company profitability through automated management of all operations, optimising the efficiency of offices and staff and helping to define more effective levels of organisation within the staff.

Superdriver™ has an extremely ductile and easily accessed database. Using this database, it is possible to transfer information of specific interest to individual users, which can then be customised according to the use to be made of them. The data, however complex, can be called up with ease from each unit, simply by indicating the selection criteria using simple spoken instructions. Adoption of this system for total computerisation of the company gives a certain reduction in management costs, with immediate economic returns. It also helps build a solid image of organisational efficiency for the outer world. The modules composing the Superdriver™ ERP are many and with integrated features. Among them: Telemaco™ e-ticketing, fleet management, Automatic Vehicle Monitoring, Telemaco™ Internet Booking, Fleet Maintenance, Crew and Vehicle Scheduling etc.

The module Telebus™ is located inside the ERP Superdriver™, of which it forms an integral part, making up one piece of the mosaic that has been created specifically to manage TPL companies. Telebus™ by PluService offers the ability to manage “Call-up Transport” requests, that is to say collection and processing of the transport requests received from Users, so as to create a service that is optimised in terms of timetables, destinations and availability of resources. It provides the operator with an interface tool to enter the personal details and requests of Users, as well as allowing real time display on the map of the positions of transport vehicles. Satellite location and GPRS connection of the vehicles make real time interaction possible, so that a call-up service can be organised using a vehicle that is already on the road. Service Users can also manage and enter their requests via the web. A wide range of report forms, continually updated maps, and a parameter based system capable of adapting to changes in stop, route and road traffic are available for managing organisations and service administrators. On board the transport vehicles there is a driver support system complete with satellite location, graphic interface with information on the stops to be made, the Users to be collected, delays or advances with respect to the timetable.
3.4. EVALUATION AND DATA COLLECTION

The DRT formula had never been implemented in Cape Town before the introduction of the Stadium Last Mile services, except for the D-a-R (Dial-a-Ride) service operated by the City of Cape Town to provide a demand-responsive transport service for the disabled and passengers with special needs. Stadium’s project partners carried out analyses on the D-a-R service in order to evaluate the impact of the introduction of an automatic system for the optimization of requests currently managed manually.

3.4.1. DIAL-A-RIDE SERVICE: A CANDIDATE FOR COMPARISON IN CAPE TOWN

The City of Cape Town has improved the Dial-a-Ride service, which is a public transport service for passengers with special needs, such as the disabled and visually-impaired. The Dial-a-Ride service is subsidised by the city and the provincial and national Governments for the exclusive use of special-need passengers with physical and visual impairments. The objective of the service is to be efficient, safe and fair to all registered passengers. This gives effect to the Department of Transport's motto of "Putting People, Public Transport and Quality of Life First".
Users are required to register on the database which currently has about 5,000 listed users. Users of Dial-a-Ride can book a trip either by text message, by calling the toll-free number 0800 600 895 or by emailing: bookings@dialaride.co.za. The provincial department monitors the quality of the service through the toll-free Transport Information call centre at 0800 65 64 63 where users can register their compliments and/or complaints.

The service operates seven days a week, from 6am to 8pm.

The City, in accordance with existing legislation and in consultation with other stakeholders, keeps very low fares, making public transport for special-need passengers more affordable. The minimum fare is R4.00 and the maximum fare R5.50 (compared to similar metered taxi fares which are 10 to 20 times higher).

Currently, the service transports about 450 passengers a day of which 80 percent are during peak hours when people are being transported to and from work. One passenger trip (one way) can cost the CoCT up to R155. Some vehicle travel about 15,000 km per month. There are 27 vehicles in continuous use with 5 vehicles in standby.

The D-a-R service does have a call centre with operators. This is currently run by the Operator. As the call centre staff receive the requests for trips from the passengers, the scheduling is done manually. The CoCT is currently investigating options to do the scheduling by means of intelligent scheduling software. It is required that the electronic scheduling should improve their effectiveness by at least 15%. In 2011 the transport operators Peninsula Holdings, involved in the Stadium Cape Town demonstration, will participate to the tender for the management of the D-a-R service and will propose the DRT system provided by Stadium to run the service. The software should build routes for the available vehicles and the schedules will then be issued to the operator in order for him to dispatch the vehicles. The operator should be linked with the scheduling software and be able to let the scheduling software know if a vehicle becomes unavailable due to practical interruptions, e.g. a breakdown or driver unavailability.

The table below lists some of the stakeholders and the differences of the automated DRT process compared to the manual management:

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Action</th>
<th>Current D-a-R situation*</th>
<th>With the DRT system and software</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call Centre Operator</td>
<td>Handles the calls and insert data</td>
<td>The requests are listed on a spreadsheet</td>
<td>Data inserted directly in the Central System in real time. Forms already available for registered users</td>
</tr>
</tbody>
</table>

"SA Demonstrator: Assessment of potential long term benefits of STADIUM services"
<table>
<thead>
<tr>
<th><strong>Service Provider</strong></th>
<th><strong>Check the scheduling</strong></th>
<th><strong>Request Type</strong></th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>D-a-R (City of Cape Town)</td>
<td>Today the routing is done manually by consulting a map book. A record of the vehicle movement only is available electronically from a GPS assisted fleet management package. The monitoring of route adherence and service delivery is done manually by comparing waybills with vehicle route information.</td>
<td>Manual</td>
<td>Monitor the service in real time on a map. Have reports on the service delivery with points of pick-up and delivery (effective against scheduled).</td>
</tr>
<tr>
<td><strong>Give feedback to the caller (user)</strong></td>
<td>Call back</td>
<td>Requests are processed immediately and the passenger can have a confirmation about the booking. More precise info can be given at a later stage after the processing of other requests and before the transport service begins. Automatic SMS alert service.</td>
<td></td>
</tr>
<tr>
<td><strong>Send the scheduling to the drivers</strong></td>
<td>A paper waybill with the schedule is given to the drivers a day or more in advance. Live requests are handled by communicating the request to the driver via two-way radio</td>
<td>Scheduling is given to the driver electronically via the driver interface. Live requests are slotted in the schedule and displayed on the driver interface. Paper copies (waybills) can be generated as a backup.</td>
<td></td>
</tr>
</tbody>
</table>

**Manages DB:** new users, road changes, new map content

Software tools to manage these features
Currently, drivers don’t have a navigator. They used a navigator which was part of the GPS Buddy system used for fleet management, stealing it from some vehicles because the display was a loose unit on the dashboard. Generally, drivers know the area or they consult a map book.

* This information was gathered through interviews with the service provider and the operator.

The CoCT was involved in Stadium, SA demo, at the beginning of the project during the phase of selection for the transport operator involved in the realization of the pilot in Cape Town. Unfortunately, negotiation was unsuccessful due to red tape and lack of time. Therefore, the Stadium team contacted Peninsula Holdings, the minibus-taxi operator, who accepted being involved in the demo activities of AVL and DRT systems.

Nevertheless, the D-a-R service could be managed by using the DRT solution provided by Stadium, in case Peninsula is granted the service provision in the next call for tender issued by CoCT. Peninsula wants to present an offer for service management, with utilizes the DRT software support provided in the Stadium project (call for tender expected for December 2011).

The D-a-R service described in this paragraph offers elements aimed at a comparison between manual management of demand-responsive service and automatic one, using specifically systematized technology and software.

In order to evaluate the results of the activity implemented in Cape Town in the Stadium project, there has been a campaign for collecting data and questionnaires, supported by a data collection and evaluation methodology (as specified in WP6).

### 3.4.2. DATA COLLECTION METHODOLOGY

Data collection methodology is described in a framework by TUB (*D6.1 Evaluation Framework and its Annex Field Survey Guideline)*.

### 3.4.3. TRACKING DATA

Tracking data are collected from the fleet of vehicles. The following data are collected:

- Day
- Vehicle Code
- Coordinates
- Time
- Vehicle speed
- Driver’s name
- (Number of Passengers is under development due to difficulties in positioning the sensors on board)
The sampling rate is 5 to 30 seconds. The Automatic Update on AVL control centre map (Refresh) is performed every 50 seconds. Tracking data enable the monitoring of the DRT service provided by means of comparison tables like those presented hereafter:

<table>
<thead>
<tr>
<th>Pick up point (coordinates or address)</th>
<th>Estimated pick up time</th>
<th>Actual pick up time</th>
<th>Deviation</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Drop off point (coordinates or address)</th>
<th>Estimated drop off time</th>
<th>Actual drop off time</th>
<th>Deviation</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Vehicle</th>
<th>Number of stops</th>
<th>Total distance run</th>
<th>Passengers per km</th>
<th>Total number of passengers booked</th>
<th>Total number of passengers</th>
</tr>
</thead>
</table>

"SA Demonstrator: Assessment of potential long term benefits of STADIUM services"
3.5. **Assessment of Potential Long Term Benefits**

The introduction of an ITS system within transport services performed by minibus taxis in Cape Town is undergoing the phase of adaptation to the new services provided by Peninsula.

Once having verified the validity of the DRT service in support of BRT lines within big events, on the basis of actual use of the service and bookings received directly by the drivers during FIFA SWC (see Annex I), there should be proof of efficiency and efficacy of the AVM/DRT and mobility services proposed daily in Cape Town. After the large event in Cape Town additional data were collected in order to evaluate the system and the service acceptance. A business plan was discussed with the local transport operator and includes plans to improve user acceptance of flexible transport services as well as the convenience of using automated dispatching systems (see Annex I).

The need of a DRT service and a system managing the service was automatically assessed through initial surveys performed by the STADIUM team.

Particularly, it was necessary for the drivers to count on a “basic” number of clients to serve throughout the day along an itinerary scheduled upon requests. A DRT service integrating the regular minibus taxi service allows the drivers to work in less stressful and less dangerous conditions, as the driver does not constantly have to worry about drawing the attention of potential clients met along the route, and therefore avoid distractions when driving.

A DRT service managed by call centre and with high-tech on-board devices for security (webcam), infotainment (monitor) and fare rules (printer and contactless validator) makes transport through minibus taxis more appealing to a wider range of passengers. The DRT service operating from and to main tourist attractions, proposed as a service for hotels, restaurants and guest-houses, offers access to new market shares for transport operators. An important outcome achieved through the South Africa Demonstrator is actually the validity of the DRT model applied to the BRT architecture.

Finally, within the framework of local public transport in Cape Town, the architecture of the BRT system generates the necessity of an integrating transport system linking the areas close to the BRT line with the BRT stations. A widespread system of minibus taxis supplements mass transport lines and is able to serve even the most remote areas if optimized with a DRT service minimizing misuse (vacant buses operating) and providing the service only if necessary.

In virtue of the general benefits introduced by the system, data collected during the testing phase have been analyzed in order to carry out accurate assessment of the demo results. Deliverable D6.3 contains the results of the analysis performed by TUB and CSIR.

The data collection and analysis resulted in the definition of following main benefits:

- Flexible (on demand) transport scheme is aligned with the Taxi Recapitalisation Programme

---

1 As part of South Africa Government’s intervention to improve the effectiveness of the minibus taxi industry since its de-regulation, the Taxi Recapitalisation Programme (TRP) is on course. The TRP is an intervention by Government to bring about safe, effective, reliable, affordable and accessible taxi operations by introducing New Taxi Vehicles (NTVs) designed to undertake public transport functions in the taxi industry. TRP is not only about scrapping old taxi vehicles but also about how best operators can be assisted to benefit constructively in the industry through empowerment.
- Computer Automated Dispatching System is able to support intermodality (DRT+BRT)\(^2\)
- The use of ITS can optimise the daily work of drivers and operators (for example AVM and e-ticketing systems)

Data collected according to the methodology set within STADIUM and evaluation of results are described in Deliverable D6.3 “Report on Current Events”, with emphasized reference to paragraph “Assessment before, during and after the 2010 FIFA World Cup”. The business plan agreed with Peninsula Holdings demonstrates the interest in the use of the system with an analysis of the sustainability of the demand responsive transport scheme integrated with the local public transport.

\(^2\) Some analysis and studies were performed during the Stadium project demonstration in Cape Town. As a result some papers were published and presented at international congresses. See for example Annex II - “Demand Responsive Transport as integration to urban regular transport service: a case in Cape Town” presented at the ITS European Congress – Lyon – June 2011
BUSINESS PLAN FOR:

Peninsula Holdings Ltd

New Public Transport Services

Topaz Sky Trading 251 Limited (2008/002219/06) trading as PENINSULA HOLDINGS

September 2011
## Contents

1. Executive Summary ........................................................................................................... 7
2. Details of Business .............................................................................................................. 9
   2.1. Introduction to Business ............................................................................................... 10
       2.1.1. Main Objectives of Business ............................................................................... 10
       2.1.2. Background .......................................................................................................... 11
       2.1.3. Physical Location of the Business ....................................................................... 11
       2.1.4. The Company we Keep ...................................................................................... 11
   2.2. Strategy and Implementation ....................................................................................... 12
   2.3. Ownership Details ...................................................................................................... 13
3. Product /Service Offering ................................................................................................. 15
   3.1. Loop Service .............................................................................................................. 15
       3.1.1. Current Situation ................................................................................................. 15
       3.1.2. Identifying the gap ............................................................................................. 16
       3.1.3. PH service to be introduced .............................................................................. 17
       3.1.4. Fare structure ...................................................................................................... 18
       3.1.5. Differentiation ...................................................................................................... 18
       3.1.6. Target market ...................................................................................................... 19
       3.1.7. Potential for expansion ....................................................................................... 20
       3.1.8. Competitors ........................................................................................................ 20
       3.1.9. Barriers to entry .................................................................................................. 21
       3.1.10. Operators (suppliers) ...................................................................................... 22
       3.1.11. Relationship with operators ............................................................................. 23
       3.1.12. Alternative operators ........................................................................................ 23
       3.1.13. SWOT analysis .................................................................................................. 23
   3.2. Point-to-Point Service .................................................................................................. 24
       3.2.1. Current Situation ................................................................................................. 25
       3.2.2. Identifying the gap ............................................................................................. 25
       3.2.3. PH service to be introduced .............................................................................. 25
       3.2.4. Fare structure ...................................................................................................... 25
       3.2.5. Differentiation ...................................................................................................... 26
       3.2.6. Target market ...................................................................................................... 27
       3.2.7. Potential for expansion ....................................................................................... 27
       3.2.8. Competitors ........................................................................................................ 28
       3.2.9. Barriers to entry .................................................................................................. 29
       3.2.10. Operators (suppliers) ...................................................................................... 29
       3.2.11. Relationship with operators ............................................................................. 29
       3.2.12. Alternative operators ........................................................................................ 29
       3.2.13. SWOT analysis .................................................................................................. 29
   3.3. Mall Shuttle Service .................................................................................................... 30
       3.3.1. Current Situation ................................................................................................. 31
       3.3.2. Identifying the gap ............................................................................................. 31
3.3.3. PH service to be introduced ................................................................. 31
3.3.4. Fare structure .................................................................................... 33
3.3.5. Differentiation .................................................................................. 33
3.3.6. Target market .................................................................................... 33
3.3.7. Potential for expansion ...................................................................... 34
3.3.8. Competitors .................................................................................... 34
3.3.9. Barriers to entry ............................................................................... 35
3.3.10. Operators (suppliers) ...................................................................... 35
3.3.11. Relationship with operators ............................................................ 35
3.3.12. Alternative operators ...................................................................... 35
3.3.13. SWOT analysis ............................................................................... 35

3.4. Contract Service .................................................................................. 36
3.4.1. Current Situation ............................................................................... 36
3.4.2. Identifying the gap .......................................................................... 37
3.4.3. PH service to be introduced ............................................................. 37
3.4.4. Differentiation .................................................................................. 38
3.4.5. Target market .................................................................................... 38
3.4.6. Potential for expansion ..................................................................... 38
3.4.7. Competitors .................................................................................... 38
3.4.8. Barriers to entry ............................................................................... 39
3.4.9. Operators (suppliers) ...................................................................... 39
3.4.10. Relationship with operators ............................................................ 39
3.4.11. Alternative operators ...................................................................... 39
3.4.12. SWOT analysis ............................................................................... 39

3.5. Last Mile Service ................................................................................ 40
3.5.1. Current Situation ............................................................................... 40
3.5.2. Identifying the gap .......................................................................... 41
3.5.3. PH service to be introduced ............................................................. 41
3.5.4. Fare structure ................................................................................... 43
3.5.5. Differentiation .................................................................................. 44
3.5.6. Target market .................................................................................... 45
3.5.7. Potential for expansion ..................................................................... 45
3.5.8. Competitors .................................................................................... 45
3.5.9. Barriers to entry ............................................................................... 46
3.5.10. Operators (suppliers) ...................................................................... 46
3.5.11. Relationship with operators ............................................................ 47
3.5.12. Alternative operators ...................................................................... 47
3.5.13. SWOT analysis ............................................................................... 47

3.6. Advertising Service ........................................................................... 48
3.6.1. Current Situation ............................................................................... 48
3.6.2. Identifying the gap .......................................................................... 49
3.6.3. Advertising implementation plan ...................................................... 49

3.7. Holding Company Involvement / Vertical Integration ....................... 50

3.8. Essential Technology of the business ................................................. 50
3.8.1. Back Office and Call Centre .............................................................. 50
3.8.2. On-Board Equipment ..................................................................... 51
4. Marketing Strategy

4.1. Positioning Statement And Corporate Identity

4.2. Pricing Strategy

4.3. Promotion and Marketing Strategy

4.4. Marketing Objectives

4.5. Marketing Programme

4.6. Marketing Budget

4.7. Advertising Sales Programme

4.8. Sales Projections – Total Sales and Contribution Per Service

4.9. Cost Projections – Total Cost Per Service

4.10. Website and Internet Marketing

4.11. Long Term Plan

4.12. Exit Strategy

5. Human Resources

5.1. Organogram (structure) and management team description

5.1.1. Owners/Members/Shareholders Operational Roles

5.1.2. Positions To Be Filled in next 5 years

5.1.3. New services positions required

5.1.4. Recruitment and Retention Strategy

5.2. Staff development and training plans

5.3. Remuneration and performance reward strategy

5.4. Company, product, process documentation (e.g. manuals)

5.5. Arrangements Made And/Or Systems Put In Place To Ensure any necessary staff Compliance (e.g. legal, health, regulatory)

5.6. BEE status and strategy

6. Key Financial and Risk Issues (to be read in conjunction with financials)

6.1. Risk Analysis And Alleviation

6.2. Key Financial Factors (include working capital needs)

6.3. Forex Risks

6.4. Bad Debt Risks

6.5. The Importance of Interest Rates

6.6. Sourcing Of Inputs Including Energy

6.7. Sourcing Of Labour/Skills Shortages

6.8. Changes In The Market

6.9. Price Cutting

6.10. Threats To Political And Economic Stability
6.11. Risks Flowing From The Existing Labour Legislation And Labour Union Activity .......................................................... 73
6.12. Weaknesses In The National Infrastructure ................................................ 73
6.13. Risks Linked To The Possible Occurrence Of Natural Disasters ............ 74
6.14. Reputational Risks ................................................................................... 74

7. Projections for the New Service ............................................................... 75
   7.1. First Year Income Projection Highlights .............................................. 76
   7.2. Income Statement Summary ............................................................... 76

Table of Figures

Figure 1: Peninsula Holdings' relationships ............................................. 12
Figure 2: Current passenger movement situation .................................... 16
Figure 3: Passenger and taxi movements in new Loop Service ............... 18
Figure 4: Peninsula Holdings and Last Mile logos .................................... 55
Figure 5: Table of projections for number of requests per day/month, number of
   services used and duration of requests ................................................. 64
Figure 6: Graph showing the expected growth in number of requests for the new
   services monthly for year 1 ................................................................. 65
Figure 7: Sales projection over 5 years ....................................................... 65
Figure 8: Cost projection over 5 years ...................................................... 66
Figure 9: Peninsula Holdings structure .................................................... 68
Figure 10: Minimum requirements and projections for first months .......... 75
Figure 11: Income projection graph .......................................................... 76
Figure 12: Income statement summary ..................................................... 77
Introduction

This document explains the business case for the new services to be introduced by Peninsula Holdings.

The purpose of this version of the document is for internal use to explain to shareholders and relevant parties what the new services are and how it will influence the current business practices. The document also explains how the technology supplied by the FP7 Stadium project, which was co-funded by the European Commission, will be utilized for these new services.

Sections of this document can be used for motivation in applying for specialized- or additional permits. Care should be taken not to take separate parts of the document out of context when this is done.

Additional documentation will be issued covering the implementation plans and business processes for the new services. This can only be done with collaboration from the Peninsula Holdings team.
1. Executive Summary

Peninsula Holdings Ltd (thereafter, referred to as PH or the Company) is a Holding Company for its shareholders who all operate in the Minibus Taxi environment which is a highly competitive business of a rapidly evolving and demanding sector of the economy. Its founders are Minibus Taxi Operators with more than 25 years of experience in the Minibus Taxi Business and Public Transport Environment as a whole. The products and services which PH wishes to offer will meet the needs of a huge chunk of commuters who use Public Transport in the Western Cape. It will also appeal to a new segment of the market that has up to now not used Minibus Taxis for Public Transport in the Western Cape.

PH initially started as a Taxi Association. Numerous business opportunities presented themselves in the Public Transport Market which could not be pursued as an association and this is where PH the company was created with a Board of Directors and with all its 170 members being equal shareholders. This shareholding structure applied to all members irrespective of the number of vehicles or permits per member. The company initially started with arranging discounts on bulk buying in terms of spares, petrol and maintenance for the benefit of all its shareholders. It also entered into joint ventures with an insurance company and an advertising company where huge bulk discounts are negotiated for its shareholders with a small profit being earned by the company. Because of the consolidation of part of their operations under one umbrella i.e. PH, this gave the operators i.e. the shareholders a more powerful voice in the Public Transport Industry. Under one umbrella, the company now had access to multiple vehicles, drivers and permits to routes in practically all areas of the Cape Peninsula. This in turn opened up numerous contract opportunities such as:-

- Driver Training for the City of Cape Town
- Jamie Shuttle – Transporting of Students to UCT
- The Soccer World Cup Transport for the City of Cape Town
- A 77% shareholding in TransPeninsula which is the Transport Operator of the initial phase of the Cape Town Integrated Rapid Transit (IRT).

Because the Company uses the vehicles and drivers of its shareholders, the cost of running the company is kept low, thus maximizing profits and reducing risks. Also its members are rewarded with work and profit share. Negotiating with Transport Authorities also became easier as this is done with one voice for all its shareholders. The company has been building its profile over the past couple of years in terms of service delivery on all its contracts.

PH believes that it is critical to offer the commuter a highly dignified, competitive, reliable, evolving and safe Public Transport service despite a constantly changing industrial and economic climate.
PH with its new offerings will also differentiate itself from the General Minibus Taxi industry which is driven by individual operators sharing a market that will slowly be eroded by the IRT within the next couple of years.

Some of the new public transport services to be offered by PH are the following:-

- **Loop Service** – This service will be based on current operations where the driver will deviate slightly off existing routes to pick up potential commuters who placed a call to the call centre.

- **Point-to-Point Service** – This service is a metered type of Taxi service but at a reduced rate for groups of passengers. This service will be aimed at Major Hotel Groups, Back Packing Lodges, Bed and Breakfast Establishments.

- **Mall Shuttle** – This service will be a dedicated loop type service for residents such as housewives who need to be picked up and driven to the designated mall for that area. Bookings can be done to be picked up from home and taken to the mall and back home again.

- **Contract Services** – This contract service can be offered to companies to Transport their workers to work in the mornings and back home again in the evenings.

- **Last Mile Service** – This service will complement the City’s Airport Shuttle Service into the City by offering the commuter a service from the City’s Civic Centre Station to his final destination.

To achieve the above, PH is establishing a call centre at its premises and outfitting a number of Taxis with ITS (Intelligent Transport Systems) equipment in order to provide a monitored, safe and efficient service to the commuter.

PH is positioning itself in order to benefit from contracts that will be awarded by the City of Cape Town in relation to its IRT rollout over the medium to long term and also other specialised transport contracts like Dial-a-Ride.
2. **Details of Business**

**Contact Numbers and Addresses**

<table>
<thead>
<tr>
<th><strong>Telephone Number</strong></th>
<th>021 447 8404</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fax Number</strong></td>
<td>021 447 6117</td>
</tr>
<tr>
<td><strong>Main Contact Person</strong></td>
<td>Igshaan Lucas</td>
</tr>
<tr>
<td><strong>Main Contact’s Number</strong></td>
<td>021 421 0764</td>
</tr>
</tbody>
</table>

**Physical Address:**

<table>
<thead>
<tr>
<th><strong>Street Number</strong></th>
<th>Cnr Anzio &amp; Main Road</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Building</strong></td>
<td>1&lt;sup&gt;st&lt;/sup&gt; Floor, St Peters Square Office Suites</td>
</tr>
<tr>
<td><strong>Suburb/Area</strong></td>
<td>Observatory</td>
</tr>
<tr>
<td><strong>Town</strong></td>
<td>Cape Town</td>
</tr>
<tr>
<td><strong>Province</strong></td>
<td>Western Cape</td>
</tr>
<tr>
<td><strong>Postal Code</strong></td>
<td>7925</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Registered Name</strong></th>
<th>Topaz Sky Trading 251</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trading Name</strong></td>
<td>Peninsula Holdings</td>
</tr>
<tr>
<td><strong>Company Type</strong></td>
<td>Limited</td>
</tr>
<tr>
<td><strong>Company Category</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Registration Number</strong></td>
<td>2008/002219/06</td>
</tr>
<tr>
<td><strong>V.A.T. Number</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Postal Address:**

<table>
<thead>
<tr>
<th><strong>Postal Number</strong></th>
<th>PO Box 465</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Postal Town</strong></td>
<td>Cape Town</td>
</tr>
<tr>
<td><strong>Postal Code</strong></td>
<td>8000</td>
</tr>
</tbody>
</table>
2.1. Introduction to Business

2.1.1. Main Objectives of Business

The main objectives of PH are:

- To add a number of additional sustainable services to their current business model.
- To increase work and revenue generation for its shareholders.

The short term (1st year) objectives are:

- To increase income generation by using existing vehicles and drivers for the new service offerings without impacting on income generated by current service operations.
- To cover additional operational and infrastructure costs (through advertising and a percentage of the new service turnover).
- To introduce and train the operators and drivers for:
  - A new approach to Public Transport Operations (behaviour and methodology).
  - A new market segment of commuters.
  - New Services to be introduced.
- To promote and educate the commuting public of the new services.
- To target a new market segment of commuters who are not currently using Public Transport.
- To offer the new services in a price bracket that are reasonable, attracts new customers, increase revenue for all stakeholders and fits in suitably in the Public Transport offerings in Cape Town.
- To target current areas where the new services can be offered and accepted.
- To strategically position Peninsula Holdings in an area of the market as determined by the new services with limited competition.
- To determine and implement a marketing strategy.
- To build a strong brand.

The medium term (2-3 years) objectives are:

- To expand demand for the new services which will enhance Public Transport for commuters.
- To consolidate services, areas and routes that are profitable.
- To identify services that will need to be serviced on a full time basis and address their needs.
- To improve operational conditions by moving towards a formalised structure for some of the services on a required basis.
- To position PH as a front runner for IRT and other Public Transport contracts.
- Establish a strong management structure.
Fine tune and refine all business processes.

- The long term (within 5 years) objectives are:
  - To build a strong brand for specialised Public Transport Services.
  - To expand the brand to other areas of the Western Cape and the country.
  - To franchise the brand.

2.1.2. Background

The PH business was formed as the business arm of Peninsula Taxi Association in 2008. This was done to take advantage of new business opportunities and also to consolidate business deals under one umbrella for the Taxi Association.

2.1.3. Physical Location of the Business

Peninsula Holdings’ office is in Observatory. Because of their structure and functions which are mainly administrative, large premises are not required at this stage.

2.1.4. The Company we Keep

Peninsula Holdings is involved in several business deals and joint ventures with other related industries in order to increase service delivery and revenue for its members.

Because of PH’s structure as a company it is easier for them to approach businesses and authorities in order to negotiate new business arrangements for their shareholders.

The following figure illustrates the relationships PH has. These relationships are supportive to the new services PH is planning to implement.
2.2. Strategy and Implementation

Vision
To establish a public transport brand that will make Peninsula Holdings the 1st choice for specialised commuter transport services and to be the 1st choice of authorities and corporations for contracts/tenders for specialised transport services in the Western Cape.

Mission Statement
Within the next couple of years, Peninsula Holdings will transform the way Minibus taxis operate within the public transport sector. Peninsula Holdings will change the perception of the Minibus taxi industry by introducing the following:

- Only use drivers that are trained to respect their passengers, vehicles and other road users.
- Only use vehicles that are late models and in excellent Roadworthy condition.
- To educate Minibus taxi operators to maintain their vehicles so as to attract a different sector of the population to use the services as defined.
To carry out extensive and effective marketing in targeted areas of services as defined.

Peninsula Holdings will obtain the co-operation of the various authorities by:

- The inclusion of the Minibus taxi industry in the integrated transport plans of the City of Cape Town.
- The granting of permits for the various services as identified by the authorities.

Peninsula Holdings will employ people who will have the capability and training to realise the goals of its various services as defined in terms of:

- Call centre manager
- Call Centre operators
- Marketing experts
- Customer management

**Value Proposition**

The various services as defined will have the following benefits:

- Value for money
- Secure – all vehicles will be monitored from the call centre and internally by CCTV
- The service will be reliable, efficient and on time.
- The customer will be treated with dignity and respect.
- Convenience.
- Call centre for information and booking of trips.
- Complaint Centre with driver accountable to management.

**2.3. Ownership Details**

Peninsula Holdings are owned by the 150 shareholders who are all members of the Peninsula Taxi Association. The executive committee steers and manages all aspects and the day to day business of the company.

The executive structure of Peninsula Holdings consists of a CEO and five directors. Their details are given in the table below:
<table>
<thead>
<tr>
<th>Surname</th>
<th>Name</th>
<th>Initials</th>
<th>Position</th>
<th>ID Number</th>
<th>Cell Number</th>
<th>Business Telephone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lucas</td>
<td>Igshaan</td>
<td>I</td>
<td>Chief Executive Officer</td>
<td>6708245425089</td>
<td>073 2032323</td>
<td>021 4252623</td>
</tr>
<tr>
<td>Behardien</td>
<td>Ghaalid</td>
<td>G</td>
<td>Director</td>
<td>7206165206083</td>
<td>083 2601254</td>
<td>021 4252623</td>
</tr>
<tr>
<td>Albertus</td>
<td>Ebrahiem</td>
<td>E</td>
<td>Director</td>
<td>6606085246086</td>
<td>083 3029895</td>
<td>021 4478404</td>
</tr>
<tr>
<td>Sims</td>
<td>Noel</td>
<td>N</td>
<td>Director</td>
<td>3612225108082</td>
<td>074 3742175</td>
<td>021 8563680</td>
</tr>
<tr>
<td>Tasriet</td>
<td>Moegamat Zaid</td>
<td>MZ</td>
<td>Director</td>
<td>5906155857082</td>
<td>083 2393197</td>
<td>021 4478404</td>
</tr>
<tr>
<td>Razak</td>
<td>Nazeem</td>
<td>N</td>
<td>Director</td>
<td>6810125133088</td>
<td>072 1587584</td>
<td>021 4478404</td>
</tr>
</tbody>
</table>

*Table 1: Peninsula Holdings executive committee details*
3. Product /Service Offering

Public Transport historically was mainly provided for the poor sections of the population in South Africa. For the sector that could afford to use cars like the middle and rich classes, hardly any sort of Public Transport was provided. In actual fact this sector was encouraged to use their vehicles for transport. This can be seen in how cities in South Africa were designed and planned (urban sprawl).

The trends in all major cities are to move towards Public Transport. Also cities cannot afford to cater for the increase in vehicular traffic as space and money for additional roads are limited. The other factor to consider is that the price of fuel will also be increasing rapidly over the next couple of years because the availability of oil is starting to decrease. Government is also looking at tolling the major freeways in metropolitan areas which will also increase costs of travel. Because of all these increases, there will be a new market coming on stream of current motorist who will need Public Transport. This market is just waiting to be developed.

Travelling patterns of commuters are changing as using a private car becomes more and more expensive. The new services that PH will be introducing will encourage more and more private car users, the middle to upper class segment of the citizens, to switch to Public Transport. These services will make available more convenient, versatile and safe ways to travel within the City of Cape Town.

There are six new services that will be implemented by Peninsula Holdings, five transport services and one advertising service. These services are listed below and discussed in more detail in the rest of the section.

1) Loop Service
2) Point-to-Point service
3) Mall Shuttle service
4) Contract service
5) Last Mile service
6) Advertising service

3.1. Loop Service

This service will work on existing routes where the driver will go slightly off-route to pick up potential commuters who placed a call to the call centre.

3.1.1. Current Situation

Minibus taxis already operate along routes in the area where this service is intended to be introduced. The vehicles collect passengers at taxi ranks or other nodes in and
around the city centre. The vehicles only depart from the ranks when all seats are filled. Passengers are dropped along the routes closest to their end destination and then have to walk to their homes if it is not along the routes itself.

In most cases these routes end in residential suburbs. The taxis then return to the ranks empty. They do pick up passengers along the way if the opportunity arises, but this is seldom the case from residential suburbs and outside of peak traffic hours.

The passengers’ movements are explained graphically below:

![Graph showing passenger movement](image)

**Figure 2: Current passenger movement situation**

### 3.1.2. Identifying the gap

In steep residential areas the use of minibus taxis is unattractive explicitly because of the scenario explained above. The people who mostly make use of the minibus taxis in these areas are people who are forced to do because they have no alternative modes of cheap and reliable transport. These people include domestic staff, casual gardeners and students.

The customer base utilizing minibus taxis in these areas can be expanded if customers do not have to travel on foot for the last leg of their journey. Taxi drivers and owners have received numerous requests to drop customers at their homes which are just off the normal taxi route.

By introducing a type of service that drops customers at their houses, the minibus taxis will be able to expand their customer base to include not only people from the lower
income group, but also the middle to higher income group as well. The vehicles itself must be clean, modern, reliable and safe to adhere to the standards required by this new customer base.

The routes and areas where this type of service can attract new customers will be the routes leading from- and to steep residential areas such as:

- Vredehoek
- High Cape
- Tamboerskloof
- Oranjezicht
- Kloof Nek
- Kloof Street
- Table Mountain
- V&A
- Sea Point, Greens Point, Bantry Bay
- Queens Beech

3.1.3. PH service to be introduced

The new Loop Service to be introduced will use current taxi services on existing routes as a basis. The option will then be available to customers to be dropped off at their houses which might be off-route. The service will be for an additional price to customers. Customers can request this additional service from the driver when he/she boards the taxi.

Customers will also be offered the same service for the return trip, meaning they will be picked up from their houses and dropped off at stops in the city. In order for the customers to be picked up from their homes, they will have to request a taxi via a central call centre. The call centre will determine which taxis are on the route closest to the customer placing the request and inform the driver about the request. The driver will confirm whether he can satisfy the request and the final booking is then confirmed with the customer. This is a normal Demand Responsive Transit (DRT) method of operation (the details of DRT is explained in other documentation from the Stadium project already familiar to Peninsula Holdings).

The movements of the passengers and minibus taxis in the new Loop Service are graphically explained in the figure below:
3.1.4. Fare structure

The average price for the current services on these routes is between R4.50 and R7.00. The price that will be charged for being picked up on the route and dropped off at the customer’s house which is within 1km of the route is R15.

The price is less than what a metered taxi will charge and more than the price for the current minibus taxi service of being dropped off on the route.

The owner will receive 80% of the fare and PH will take 20%.

3.1.5. Differentiation

a) Current minibus taxi operations:
The Loop Service offers customers a ‘last mile’ service by driving to the customers’ homes. It costs customers more than just the normal minibus taxi fare.

b) Metered taxi operations:
The service is similar to a metered taxi service, but the price at which this service is offered to the customer is much lower than what a metered taxi
would charge. The reason for this is because the minibus taxi does have other customers on the same trip who shares in the total cost of the trip.

The service can be booked via a central call centre to ensure a seat on the taxi. A timeframe of when a customer wants to be picked up can also be specified. Bookings can be done in advance and even repetitive bookings can be accommodated.

The Loop Service is a customized minibus taxi service which gives the customer a level of personalized convenience at an affordable price.

3.1.6. Target market

a) Initial target market
The routes identified where the Loop Service will initiate are as mentioned above:
- Vredehoek
- High Cape
- Tamboerskloof
- Oranjezicht
- Kloof Nek
- Kloof Street
- Table Mountain
- V&A
- Sea Point, Greens Point, Bantry Bay
- Queens Beech

The people who will be targeted are initially the existing customer base of the minibus taxis operating in these areas. By means of internal advertising (inside the vehicle) the passengers will be made aware of the availability of this service and given the opportunity to start making use of the introduced options. It is expected that awareness of the service will be spread by word of mouth initially by the existing customers.

b) Other relevant target markets
It is the long term aim of the Peninsula Holdings’ Loop Service operators to have as a customer base all residents along the routes where the minibus taxis operate. The people that will be targeted will be people living in the relevant areas who have the following needs:
- Students who need to go to classes in the city bowl,
- Office workers who has no need for their vehicles during the day other than to take them home,
- Housewives who does shopping at shops in the city bowl,
• Elderly and disabled (not wheelchair) people who need to go to shops in the city and need a convenient, reliable and safe way to travel, and
• Tourists at guesthouses who wants to travel to the city.

To target these audiences the advertising campaign shall be directed at malls, businesses, guesthouses and training centers in the city and Seapoint.

3.1.7. Potential for expansion

Initially vehicles fitted with the EU sponsored on-board equipment will be used to introduce the new Loop Service. There are 19 of these vehicles available. This is because the vehicles are fitted with a LCD advertising screen which will be used to explain the service to existing customers. The vehicles are also fitted with GPS location devices and a communication interface that is linked to the call centre. This equipment makes bookings possible.

Peninsula Holdings has access to a fleet of 450 vehicles that can potentially offer the new Loop Service. In order for these vehicles to deliver a highly reliable Loop Service which includes the booking component, the vehicles need to be fitted with a GPS module only. This, as well as a cellphone for the driver, is the basic equipment required to offer a booking service.

Expansion can easily be done into areas where Peninsula Holdings’ shareholders have operating licenses on the minibus taxi routes. The following aspects are required for vehicles to offer the new Loop Service:

• The vehicles need to be of a high standard regarding safety and cleanliness,
• The vehicles must be fitted with a GPS module that can be linked to the call centre back office,
• The driver needs an active cellphone, and
• The driver must be able to deliver a friendly, informative and efficient service to customers.

Routes from different areas can be linked in the future to expand the service beyond single routes. For example, a customer picked up on a Seapoint route can request to be dropped of in Vredehoek and vice-versa.

3.1.8. Competitors

a) Metered taxis:
Metered taxis charge an average of R10 per kilometer. The cost for a metered taxi for similar trips will be in the region of R20. In general minibus taxis are perceived to be the cheaper public transport option. For the customer to pay a guaranteed R15 from his house to the city will be perceived a value for money compared to a metered taxi fare.

b) **Rikkis:**
Rikkis is an intermediate public transport taxi service offering a door-to-door service. The minimum price based on a shared trip is R22 per person. For a single person the trip will cost R50. For every-day use for single persons the new Loop Service pricing is more economical.

c) **Minibus taxis:**
Minibus taxis from other associations are not allowed to travel on most of the intended routes for the new Loop Service. This negates competition from them. At this stage the minibus taxis of Peninsula Taxi Association are the only taxis that can be reached via a call centre. No other taxi association in the Western Cape has the same infrastructure.

Several factors contribute to the competitive price that can be offered by the new Loop Service:
- Taxis are already operating profitably on the routes and the only additional expenditure per request will be petrol cost for a maximum of 2km to the customer’s house,
- Taxi operators do not have additional standing time because of the new Loop Service,
- The new Loop Service is an extension of an existing service on a need-only basis,
- Rides are shared by up to 13 customers, and
- Infrastructure cost at the call centre is a minimum because in the initial stages most of this cost are covered by the existing infrastructure of the Peninsula Holdings office, and
- The call centre operational cost is shared between other services offered by Peninsula Holdings.

### 3.1.9. Barriers to entry

a) **Permits:**
Currently most permits only allow a minibus taxi to operate along a certain per-determined route. These permits are linked to a taxi association and its members. The members are not allowed to operate on routes of other taxi associations or off the route as specifically described on their permits.
Operators of the new Loop Service need a permit called a Special Hire permit. This allows them to veer off their routes and pick up or drop customers at their homes which are not on the taxi routes. Currently very few of the operators under Peninsula Holdings have a Special Hire permit.

Peninsula Taxi Association (PTA) can apply on behalf of their members for a Special Hire permit if they can prove the need for these types of permits. By starting to market the new Loop Service initially inside the vehicles, the need can be determined and proof of this can be obtained by means of recording the passenger movements through the on-board equipment. PTA can use this proof to apply for the Special Hire permits for its members.

b) Legislation:
The Integrated Rapid Transit (IRT) in Cape Town will have trunk services and feeder services. It is envisioned by the City of Cape Town that the taxi routes will be replaced by the feeder services and no other public transport will be allowed to operate along routes within a certain radius of the feeder services. Legislation will therefore be drawn up to this effect. The details of this vision is not finalized or discussed with the affected taxi associations as yet. It is not foreseen that the feeder services will be implemented within the next two years.

PTA has a strong influence in the conception of legislation regarding public transport by the City of Cape Town. By being pro-active the new Loop Service can be promoted by PTA to form part of or be the feeder service of the IRT as intended by the City of Cape Town.

3.1.10. Operators (suppliers)
The operators are all members of Peninsula Taxi Association and shareholders of Peninsula Holdings. Currently 19 vehicles are fitted with on-board equipment that is linked with a call centre at Peninsula Holdings’ offices.

The operators all volunteered their vehicles to be fitted with on-board equipment in order to be able to deliver new services as envisioned by Peninsula Holdings. The operators and drivers are willing to experiment the implementation of new services with the understanding that the new services will not affect their current level of income negatively. Each vehicle has a minimum income target per day and if the new services cannot bring in this income then the driver must still be able to produce the daily revenue through his normal services.
3.1.11. Relationship with operators

Because of the structure of Peninsula Holdings where all operators are equal shareholders, the net profit from any additional revenue created by Peninsula Holdings is distributed equally to all. This model ensures no inside fighting between members because of jealousy. The specific operators who are delivering the service get their share of the fares, Peninsula Holdings get a percentage of this and all shareholders get a percentage of PH’s profit.

The operators trust Peninsula Holdings to make the correct choices in business deals and the executive committee of PH reports to their shareholders (the operators) exactly what the financial impacts of the business deals are.

3.1.12. Alternative operators

With Peninsula Holdings having access to over 450 vehicles belonging to its shareholders, it is not necessary to source vehicles from operators outside PTA.

3.1.13. SWOT analysis

a) Strengths
The process of implementing the new Loop Service does not affect current operations of the operators negatively. There is therefore no loss of income for the operators and only additional income when they deliver the new Loop Service offering to their customers. This means a zero risk for losing income by the operators.

The price bracket of the service is well situated below the offerings of metered taxis and the Rikkis service. The vehicles are of a high quality and because of the on-board equipment the service is reliable, monitored and therefore safe and has an on-board information system which delivers transport information and advertisements. All these factors make it an attractive service for a new client base situated in the middle- to upper class segment of the population.

The booking service offered through the call-centre means that more people have access to a personalized convenient transport service.

b) Weaknesses
To add additional vehicles to the new Loop Service the operator has to fit a compatible GPS unit to the vehicle at a cost of R4500 per unit. This might be an entry barrier for expanding the service. A solution is put in place a process where Peninsula Holdings pays for the GPS unit and the cost is
recovered through the additional fares that are generated by the new Loop Service. This requires financial bookkeeping and monitoring reports by the call centre back office.

Drivers might do private deals with customers after delivering the initial service. The income will then not be reported to PH. It is possible to monitor a vehicle’s movements closely via the on-board equipment and patterns of such behaviour can be detected if it is suspected that drivers are withholding income from PH. It is envisioned that an electronic payment system will be implemented in the future on-board these taxis in which case this risk will be lowered.

c) Opportunities
The new Loop Service will get existing customers to use the additional services offered and result in a higher income for both the operator and Peninsula Holdings.

The new Loop Service will attract new customers and result in an increase in rider-ship.

The new Loop Service can be included in the IRT feeder services as planned by the City of Cape Town.

d) Threats
Special Hire permits are needed by the operators to deliver a service which requires them to go off existing taxi routes. The new service must first be operational before the motivation for the permits can be given. This might incur fines from the traffic authority. Because the service is offered mainly in residential areas the risk for this is fairly low.

Legislation might come in that does not allow taxis to operate along routes within a certain distance of the new feeder service of IRT. This risk can be managed to an extent by PTA being part of the negotiations for feeder systems.

Fuel cost might increase to the extent where the fare pricing needs to change. In this situation all other transport are also affected and careful consideration should be given to the calculation of setting a new fare price.

3.2. Point-to-Point Service

This service will essentially be a booking service for groups. Bookings will be handled by the Peninsula Holdings call centre. Customers can request a vehicle to pick them up
at a specific address at a specific time and drop them at another specific address. A minibus taxi will then be dedicated to deliver this service.

### 3.2.1. Current Situation

There is currently no booking service for minibus taxis. Customers who require such a service usually contact a minibus taxi owner they know and arrange a private booking on an ad-hock basis. The fare is then a private arrangement between the customer and the taxi owner.

### 3.2.2. Identifying the gap

Numerous requests for the service as described above has been made to and handled by taxi owners. It is not well known by the public that the option to utilize a minibus taxi like this exists.

Peninsula Holdings identified the opportunity to make use of the FP7 Stadium supplied infrastructure to supply such a service in an organized and well marketed manner.

### 3.2.3. PH service to be introduced

The infrastructure supplied by the FP7 Stadium project includes a call centre with scheduling software which can take bookings, organize them according to time, number of passengers and vehicle availability and issue an electronic schedule at the beginning of each day to the relevant vehicles.

The software also allows for ‘live’ bookings, meaning the call centre operator can see vehicle positions on a map and decide accordingly which vehicle can be used to satisfy a request while talking to the customer. The software also allows for internet bookings to be made a day or more in advance.

The on-board equipment on the vehicles is used extensively in order to minimize communication cost between the call centre and the driver. The equipment also verifies the delivery of each request by providing the movement details and number of passengers carried to the back office. This information is available through reports.

### 3.2.4. Fare structure

The pricing strategy for this service is optimized for groups. The fares are distanced based and calculated per kilometre. The owner will receive 80% of the fare and PH will take 20%.
The detailed prices will be given in tables and for explanation purposes the shortest service is explained here.

The minimum distance covered by this service will be in the region of 5km to 6km – this is the distance to travel from the city centre to the V&A Waterfront and back. The minimum amount that a minibus taxi requires to operate profitable is R90 for this distance. The fares charged will therefore be:

<table>
<thead>
<tr>
<th>No of passengers</th>
<th>Individual fare</th>
<th>Total fare</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>R 90</td>
<td>R 90</td>
</tr>
<tr>
<td>2</td>
<td>R 45</td>
<td>R 90</td>
</tr>
<tr>
<td>3</td>
<td>R 30</td>
<td>R 90</td>
</tr>
<tr>
<td>4</td>
<td>R 25</td>
<td>R 100</td>
</tr>
<tr>
<td>5</td>
<td>R 20</td>
<td>R 100</td>
</tr>
<tr>
<td>6</td>
<td>R 20</td>
<td>R 120</td>
</tr>
<tr>
<td>7</td>
<td>R 20</td>
<td>R 140</td>
</tr>
<tr>
<td>8</td>
<td>R 20</td>
<td>R 160</td>
</tr>
<tr>
<td>9</td>
<td>R 20</td>
<td>R 180</td>
</tr>
<tr>
<td>10</td>
<td>R 20</td>
<td>R 200</td>
</tr>
<tr>
<td>11</td>
<td>R 20</td>
<td>R 220</td>
</tr>
<tr>
<td>12</td>
<td>R 20</td>
<td>R 240</td>
</tr>
<tr>
<td>13</td>
<td>R 20</td>
<td>R 260</td>
</tr>
</tbody>
</table>

*Table 2: Fares for up to 6km Point-to-Point service*

Similar tables give the fares for other round trip distances. These tables will be worked out in detail in the implementation/planning documents.

For 3 or more people per request these fares compares well with the Rikkis service which offers a similar shared service. For more than 5 people the pricing is far below the Rikkis fare structure.

3.2.5. Differentiation

The new Point-to-Point service is aimed at delivering a safe, reliable booking service for groups available through a centralized call centre.

a) Current minibus taxi operations

There is no such a type of service currently available within the minibus taxi industry.
b) **Private shuttle services**
These services have a limited number of vehicles available. Peninsula Holdings can cater for very large groups because they have access to all their shareholders’ vehicles. PH also does not have the infrastructure cost to keep a large number of vehicles available because the vehicles belong to separate operators who operate their vehicles on other (normal taxi) services to cover their overheads.

c) **Metered taxi services**
This service does not compete in the same market segment of delivering a point to point service for 1 to 3 passengers.

3.2.6. Target market

a) **Initial target market**
In the initial stages the service will be marketed on-board via the LCD display. Existing customers who require such a service will be targeted through this medium. These customers include:
- Students forming party groups
- Tourist groups
- Church groups
- Groups going on prison visits
- Groups going to funerals or graveyard visits

Existing customers fall within these groups and will become aware of this service when using the taxis for normal everyday use.

b) **Other relevant target markets**
Other groups that are targeted are people not using minibus taxis currently or who will not become aware of this service through internal (on-board) marketing. Marketing to these groups need to be done externally through advertising, pamphlets and other means. These groups include:
- School groups
- Tourist groups
- Corporate functions
- Soccer and rugby clubs
- Government functions

3.2.7. Potential for expansion

The same principles for expansion of the Loop Service apply for the expansion of the Point-to-Point Service, namely:
Initially the 19 vehicles fitted with on-board equipment will be used for this service,

PH has access to 450 vehicles which can be used in this service. In order for them
to give this service they need as a minimum a GPS module,

Other requirements for the additional vehicles:
- Maintain a high standard regarding cleanliness and safety
- Driver needs a cellphone
- Driver must be able to deliver a friendly, informative and efficient service to
customers

The service will be marketed in the City Bowl and Seapoint areas initially but services
will be offered in the whole Cape Peninsula. For trip requests outside the Cape
Peninsula the customer will be put in contact with a specific operator who is willing to
do the trip. Peninsula Holdings will take a percentage (10% - 20%) of the fare
negotiated.

3.2.8. Competitors

a) Metered taxis:
The type of service offered is similar to a metered taxi service, however, the
Point-to-Point Service does not compete with the metered taxi service for 1
to 3 customers. It will be cheaper for the potential customer to use a
metered taxi in this case. For groups of 4 or more passengers the metered
taxi cannot compete based on vehicle size.

b) Rikkis service:
The Rikkis service offers a similar service to customers in the Cape
Peninsula. For 4 to 7 persons the minimum Rikkis price is R150 per
vehicle. This equals to a minimum price of R21.40 per person. The new
Point-to-Point service beats the price of the Rikkis in all areas for 4 or more
customers.

c) Other minibus taxis:
Minibus taxis operating under other taxi associations in the Cape Peninsula
does not have the same infrastructure as Peninsula Holdings. They can
therefore not compete on the same scale with the same level of service that
is made possible by the infrastructure and technology.

The fares of the Point-to-Point Service can be held low and competitive
because the vehicles are not used exclusively for this service. If an
operator does not have any requests scheduled for an hour or two, he/she
can still operate the normal minibus taxi service without losing income due
to the Point-to-Point service.
3.2.9. Barriers to entry

The same barriers to entry exist for the Point-to-Point Service and the Loop Service. These are permits and legislation. See the relevant section under ‘Loop Service’ for an explanation.

3.2.10. Operators (suppliers)

The same operators that do the Loop service are also available for the Point-to-Point service. Initially the 19 vehicles with on-board equipment will be utilized for Point-to-Point requests, but other vehicles will be equipped and used if required.

3.2.11. Relationship with operators

As discussed earlier, Peninsula Holdings has a good business relationship with the operators.

3.2.12. Alternative operators

Because of the extensive availability of vehicles and operators within Peninsula Holdings’ shareholders, there is no need for alternative operators.

3.2.13. SWOT analysis

a) Strengths
The process of implementing the Point-to-Point Service does not affect the current operations of the operators negatively. There is therefore no loss of income for the operators and only additional income when they deliver the new Point-to-Point Service offering to their customers. This means a zero risk for losing income by the operators.

The other services that compete for the same target audience are the Rikkis service and other private shuttle services. PH can offer a much lower fare due to the fact that it has almost no fleet expenses. These expenses are covered by the existing operations of the individual operators.

PH can cater for any size group because it has access to 450 vehicles.
b) Weaknesses
The same weaknesses for the Loop Service apply for the Point-to-Point service. These are:

To add additional vehicles to the new Point-to-Point Service the operator has to fit a compatible GPS unit to the vehicle at a cost of R4500 per unit. This might be an entry barrier for expanding the service. A solution is put in place a process where Peninsula Holdings pays for the GPS unit and the cost is recovered through the additional fares that are generated by the new Point-to-Point service. This requires financial bookkeeping and monitoring reports by the call centre back office.

Drivers might do private deals with customers after delivering the initial service. The income will then not be reported to PH. It is possible to monitor a vehicle's movements closely via the on-board equipment and patterns of such behaviour can be detected if it is suspected that drivers are withholding income from PH. It is envisioned that an electronic payment system will be implemented in the future on-board these taxis in which case this risk will be lowered.

c) Opportunities
Only additional income will be generated by the operators and there will be no loss of income due to the implementation of the Point-to-Point Service.

Because of the professional service offered by PH including a centralized call centre, a single body that is accountable for the service, safe and reliable vehicles with monitoring, a web-based booking service and a competitive fare structure, the Point-to-Point Service can become the service of choice for guesthouses, hotels, businesses and the general public.

d) Threats
Special Hire permits are needed by the operators to deliver a service which requires them to go off existing taxi routes. The new service must first be operational before the motivation for the permits can be given. This might incur fines from the traffic authority.

3.3. Mall Shuttle Service

This service will be a dedicated type of Loop Service for residents such as housewives who need to be picked up and driven to the designated mall for that area. Bookings can be done to be picked up from home and taken to the mall and back home again.
3.3.1. Current Situation

The specific mall where the Mall Shuttle Service will be started is the Cavendish Square Shopping Mall. This mall currently has a free tourist shuttle to the mall from hotels and guest lodges, around Cavendish and surrounds. This service is aimed at the tourist market.

Peninsula Holdings operators operate on routes which end at the shopping mall. The operators then wait at the mall taxi rank until it is their turn to load passengers for the return trip on the route towards the city.

Peninsula Holdings has a good business relationship with the Claremont Improvement District Company (CIDC) whose aim is to transform Claremont into the best urban space in the metropole. Currently Claremont has a parking and road infrastructure problem. Too many cars are competing for space in the same area. The introduction of efficient public transport is high on the agenda of the CIDC.

3.3.2. Identifying the gap

Out of the relationship between PH and the CIDC the need for the Mall Shuttle Service was identified by the PH executives. The main aim of the service will be to reduce traffic in and around the mall area.

A Mall Shuttle Service operating in a radius of 3km of the mall will offer a much needed service to customers to the mall who live in the area.

PH shareholders' vehicles are already in the area and they have to wait in a queue before their normal services can resume on its return leg in the Cape Town direction.

It makes sense to use this 'dead' time of the vehicles to supply an additional service, the Mall Shuttle Service. This will ensure a zero risk to the operators in losing money because they still have their normal operations making the required income. If the new service becomes very busy and lucrative then the operators can shift their focus to only operate on the Mall Shuttle Service.

3.3.3. PH service to be introduced

His service will operate on a request (booking) basis only. Requests can be made for 3 different scenarios:

1. An advance request (one or more days in advance) for the service from a residential or other address to the mall,
2. A same day request (30 minutes or later) for the service from a residential or other address to the mall, and
3. A same day request from the mall to a residential or other address in the area.

Vehicles other than the 19 fitted with on-board equipment will also form part of the Mall Shuttle Service. These vehicles do not have to be fitted with any on-board equipment, but it is required that the driver has a working cellphone.

The call centre will handle all advance requests by ordering them into schedules and issuing them electronically to the 19 fitted vehicles. For the same day requests the call centre will work together with the regulator at the taxi rank closest to the mall. The operational procedures of each request scenario are discussed below:

1. Advanced requests: These are usually made a day or more in advance.
   a) The call centre agents take all requests and enter them into the scheduling software application.
   b) The application calculates schedules for vehicles according to these requests and they are issued electronically to the available vehicles in the morning.
   c) The driver accepts or rejects the schedule for the day.
   d) In the case of a rejection the schedule is passed on to the next available vehicle.
   e) In the case of an acceptance the driver is required to satisfy all requests according to the schedule.

2. Same day requests from residents: These requests can only be guaranteed 30 minutes or more in advance.
   a) The call centre agent takes the request and ends the call with the customer.
   b) The call centre agent calls the regulator and gives him/her the details of the request.
   c) The regulator knows the taxis available for the Mall Shuttle Service and determines which one is the most suitable to satisfy the request.
   d) The regulator issues the driver with the request and confirms this with the call centre via a SMS or phone call.
   e) The relevant driver satisfies the request.

3. Same day request from the mall: These requests are via the call centre and can also be guaranteed 30 minutes or more in advance. Exactly the same procedure is followed as for customers placing requests from residents.
   a) The call centre agent takes the request and ends the call with the customer.
   b) The call centre agent calls the regulator and gives him/her the details of the request.
   c) The regulator knows the taxis available for the Mall Shuttle Service and determines which one is the most suitable to satisfy the request.
d) The regulator issues the driver with the request and confirms this with the call centre via a SMS or phone call.

e) The relevant driver satisfies the request.

There is a high frequency of PH taxis in the Claremont area which will always be available to satisfy live requests for the Mall Shuttle Service. All taxis that will offer this service must report to the regulator at the Claremont taxi rank when arriving in the area.

### 3.3.4. Fare structure

The fare charged for this service is exactly the same as the fare for the new Loop Service, namely R15. The owner gets 80% and PH gets 20% of the fare.

The reasoning behind the fare is that the driver has already covered its cost by carrying customers to the Claremont area. While the driver is waiting in the queue at the taxi rank doing nothing he/she can earn an additional income by being part of the Mall Shuttle Service.

The service is also a shared service and taxis are allowed to load up to 13 customers simultaneously if the available requests allow for this.

### 3.3.5. Differentiation

a) **Free tourist shuttle offered by Cavendish Square**

The Mall Shuttle Service caters for customers other than tourists. The service is available to all visitors of the mall including housewives, students, etc. The service will also pick up and drop customers at their private homes.

b) **Metered taxis**

The Mall Shuttle Service fare is far lower than what a metered taxi can offer.

c) **Other minibus taxis**

Minibus taxis belonging to other taxi associations does not have the call centre and back office infrastructure to offer such a level of service.

### 3.3.6. Target market

a) **Initial target market**
The initial target market is the residents in the Claremont area. More specific the following groups will be targeted:
- Home Executives
- Pensioners
- Mall Workers
- Students

b) Other relevant target markets
The same service will be introduced for visitors to the V&A Waterfront. Peninsula Holdings has a very good business relationship with the management of the V&A Waterfront which will make the negotiations with them easier to finalise.

Another area that is identified for this type of service is the area around the Canal Walk shopping centre.

3.3.7. Potential for expansion
Because of the method of operations it is not needed to fit additional vehicles with any on-board equipment at all. The size of the service can therefore easily be expanded.

If the Mall Shuttle Service becomes popular it will be wise to have a presence inside the mall like a kiosk or small shop/office from where bookings can be taken. In such a positive case the service can grow into a service with scheduled departures from the mall.

3.3.8. Competitors
Free tourist shuttle offered by Cavendish Square
Although this shuttle is offered for free, it only targets customers from hotels and guest lodges. The new Mall Shuttle Service targets all other customers in the vicinity of the mall.

a) Metered taxis
Metered taxis charge an average of R10 per km. The new Mall Shuttle Service offers a better price than metered taxis for a large percentage of the customer base. Customers within 1 km of the mall prefer to walk to the mall in order to avoid the congested roads.

b) Rikkis
The minimum price for a Rikkis service based on a shared ride is R22.

c) Other minibus taxi services
Operators from other taxi associations do not have access to call centre infrastructure.

3.3.9. Barriers to entry

a) Permits
Special Hire permits are needed for each vehicle in order for them to pick up and drop customers off from the standard taxi routes.

Once again the service need to start first to gather proof that there is a need for it and then PTA can apply for these permits based on actual evidence.

3.3.10. Operators (suppliers)

The operators that operate normally on the Claremont routes will be used to initialize this service. Because no special on-board equipment is needed to handle daily requests, all operators who are shareholders in Peninsula Holdings can be employed on this service. Of these, the operators who have permits on the Claremont routes will have fewer expenses to get to the area because they can operate their normal taxi services en-route to the mall taxi rank.

3.3.11. Relationship with operators

As previous described, Peninsula Holdings has an excellent relationship with all operators.

3.3.12. Alternative operators

Due to the number of vehicles available to Peninsula Holdings it will not be necessary to employ alternative operators.

3.3.13. SWOT analysis

a) Strengths
The implementation of the new Mall Shuttle Service poses no financial risk to the operators because they can continue with their normal operations when there are no requests. Any requests are handled during their ‘down’ time when they are waiting at the taxi rank.
The fares charged are lower than metered taxi fares which makes this service more attractive.

The CIDC is supportive of the improvement of public transport services in the Claremont area. The new Mall Shuttle Service will obtain their approval.

b) **Weaknesses**
For same day requests the service relies on a regulator that is not controlled by the call centre. Strict operational procedures need to be in place to ascertain the smooth handling of same day requests.

c) **Opportunities**
The same type of service might expand to other stops along Main road in Claremont. This expansion of the service will have to develop in harmony with the development plans of the CIDC for the Claremont CBD.

The same model can work for other shopping malls like the V&A Waterfront and Canal Walk.

d) **Threats**
Expansion of the free shuttle for tourists offered by Cavendish Square to include other residents will make the new Mall Shuttle Service obsolete. This, however, is not likely to happen because a free service can easily be misused by the public.

Special Hire permits are needed by the operators to deliver a service which requires them to go off existing taxi routes. The new service must first be operational before the motivation for the permits can be given. This might incur fines from the traffic authority. Because the service is offered mainly in residential areas the risk for this is fairly low.

### 3.4. **Contract Service**

The Contract Service can be offered to companies to transport their workers to work in the mornings and back home again in the evenings.

#### 3.4.1. **Current Situation**

The South African labour law requires companies to provide transport for their workers if they are required to work after hours or on shifts starting or ending outside of normal working hours. To comply with this law, some SMME companies contract minibus taxi owners to transport their employees. These contracts are usually private deals between the relevant companies and taxi owner.
These existing contracts originated usually by employees or company management who knows a taxi owner personally and as a result contract him or her because they know that the taxi owner can be trusted. The price is worked out to favour both parties. Usually the taxi owner place the passengers in taxis whose drivers reside in the same area where the last passenger is dropped off or the first passenger is picked up.

Companies who do not make use of such a contract service sometimes pay their employees an additional transport allowance and they have to arrange their own transport.

3.4.2. Identifying the gap

Peninsula Holdings realized that there are many companies which are in need of such services for their employees. The basic requirements to acquire such contracts are marketing and having a reliable service on offer at a reasonable price.

With the help of a call centre and a centralized entity which is accountable for the actions of its drivers, Peninsula Holdings can be seen as a professional, specialized service provider which customers can trust to deliver a safe, reliable and fairly priced service.

3.4.3. PH service to be introduced

Peninsula Holdings will supply a centralized contact point (the call centre) for companies to call in order to arrange a Contract service. Each contract is very specialized and there is no fixed price structure available to the call centre agents. The role of the call centre is therefore to put the relevant company in contact with the best suited taxi operator.

The operators need to identify themselves to the call centre and they will be offered the contracts on a fair basis. The benefits that the operators have by utilizing PH instead of trying to get private contract deals, are the fact that PH will do the marketing of the Contract service to companies and that companies are more likely to trust Peninsula Holdings than an individual operator.

Although the price for each contract is negotiated by the relevant operator, PH will ask the operator a management fee of R10 per vehicle trip of each contract. PH will also give guidance to the operator in terms of the pricing.
3.4.4. Differentiation

a) Private shuttle services

Various private shuttle services offer similar services to the new services offered by Peninsula Holdings. Due to the available ITS equipment and other factors, the PH Contract Service are better positioned regarding:

- Price
- Size of fleet available
- Internal- and external monitoring ensuring an added level of security
- Call centre
- No standing time of vehicles due to their use in various services

b) Other minibus taxis operators

The call centre and professionalism of the Contract Service organized through PH, offer potential clients piece of mind that their transport requirements will be met as intended and paid for.

3.4.5. Target market

The current clients of individual operators will not be forced to do their arrangements through the PH call centre. The aim is to increase the customer base. PH will obtain new clients for the operators through effective marketing. The target market is:

- Private companies
- Government departments
- Universities
- Schools

3.4.6. Potential for expansion

Due to the access to a large fleet of vehicles it is possible for Peninsula Holdings to grow the Contract Service substantially. Initially it will not be necessary to fit all vehicles used for this service with tracking or other ITS equipment because it is not a ‘live’ service where the call centre need to know the immediate movements of the vehicles.

3.4.7. Competitors

a) Private shuttle services

These companies also offer a good quality service, but they do not have the capacity that PH can offer. PH operators will also be able to offer better prices than Private shuttle services.
b) Other minibus taxi operators
These operators can offer very competitive prices to the same client base. They lack in organization regarding a call centre infrastructure, a centralized accountable body and marketing. Currently they can also not offer fully monitored vehicles.

3.4.8. Barriers to entry

There are no barriers to entry for the Contract Service because it is proven that this service can be run effectively by PH operators. The only difference to current operations is that it will be structured through a single entity and it will be marketed alongside the other new services offered by Peninsula Holdings.

3.4.9. Operators (suppliers)

Apart from the operators with the 19 vehicles fitted with on-board ITS equipment, all the other operators under Peninsula Holdings can be utilized for the Contract Service. The pre-requisite will be that the vehicles conform to high standards regarding safety and cleanliness.

3.4.10. Relationship with operators

Peninsula Holdings has an excellent business relationship with all operators.

3.4.11. Alternative operators

It is not foreseen that this service will need to utilize vehicles from alternative operators.

3.4.12. SWOT analysis

a) Strengths
The Contract Service is already operated on an individual basis by some operators of Peninsula Holdings. It is a familiar service to the operators which will only be formalized. There are no special permits required by the operators because the service is a private arrangement between the client and the operator. The Contract Service offered by PH can compete and outperform its competitors on price and quality of service.
Because this service is mostly required outside normal operating hours it will not affect the normal income of the operator. There is zero financial risk for the operators to be part of the Contract Service.

b) Weaknesses
The market is not aware of the Contract Service availability and less so of PH offering such a service. An extensive and targeted marketing campaign must be implemented to get the service known.

Drivers might do private deals with companies after delivering the initial service. The income will then not be reported to PH. It is possible to monitor a vehicle’s movements closely via the on-board equipment and patterns of such behaviour can be detected if it is suspected that drivers are withholding income from PH. PH is dependant on the honesty of the operators for the long term income generated by this service.

c) Opportunities
The Contract Service will mean additional income for the operators outside of their normal operating hours.

If customers require the service within normal operating hours it will mean a definite income for the operator instead of working from a taxi rank for this period.

d) Threats
There are no real threats to the Contract Service but marketing is a very important factor to keep this service alive.

3.5. Last Mile Service

This service will complement the City’s Airport Shuttle Service into the city by offering the customer a last mile service from the city’s Civic Centre station to his/her final Destination.

3.5.1. Current Situation

The city’s Airport Shuttle is operated by TransPeninsula of which Peninsula Holdings is a 77% shareholder. Commuters arriving at Cape Town International Airport take the Airport Shuttle to the city centre at the Civic Centre Station. From here the commuter has to arrange his/her own transport or take a metered taxi to get to his/her end destination.
The future plan by the City of Cape Town is to have Loop Services (not to be confused with the new Loop Service planned by PH) running which will offer commuters a low priced trip to destinations in the city along a pre-defined route.

3.5.2. Identifying the gap

Getting to the end destination from the Civic Centre Station is still a challenge for commuters travelling into Cape Town. The available public transport options are expensive (metered taxis) or still not available (IRT feeder system).

PH encounters (through their involvement with TransPeninsula) daily enquiries from users of the Airport Shuttle as to how they can get to their end destination from the Civic Centre station. There is also a need for the return trip from the end destination to the Civic Centre station when the visitors need to return to the airport.

Even when the IRT feeder system will be introduced, there will still exist gaps where visitors will have to walk a block or more to their end destination, usually with luggage.

These facts inspired the idea of the Last Mile service. This service will take visitors to Cape Town with their luggage to their end destination in and around the city centre when they arrive on the Airport Shuttle at the Civic Centre station.

The Last Mile service will offer the visitor to Cape Town a public transport option for reaching his/her end destination from the Civic Centre station.

3.5.3. PH service to be introduced

a) From the Civic Centre station
The Airport Shuttle busses depart from the Airport station and arrive at the Civic Centre station at 15 minute intervals. In order for minibus taxis to operate with a minimum risk to their daily income, they should be allowed to operate their normal business during the period when there are no passengers at the Civic Centre station. This implies that minibus taxis should not have to wait for extended periods at the Civic Centre station.

In order to achieve this goal there must be communication from the Airport station to the Civic Centre station and the drivers available for the Last Mile Service. This requires a Last Mile representative at both the Airport and Civic Centre stations.

The Last Mile representative at the Airport station will determine how many passengers boarding the Airport Shuttle will need the services of the Last Mile taxis. He/she will then communicate this information to the
representative at the Civic Centre station via cordless radio or SMS. The Last Mile representative at the Civic Centre will contact a driver to be available at the Civic Centre when the bus will arrive. The driver then has 15 to 20 minutes to finish whatever service he is currently performing and to get to the Civic Centre station.

b) **Last Mile representatives**

The Last Mile representative at the Airport station should be the station manager (under employment of TransPeninsula) or someone he/she appoints and has direct control over. The representative should be able to engage with the passengers to learn their transport requirements.

The representative at the Civic Centre station will perform the duties of a taxi regulator. Taxis will be used according to the Bala system: The number of taxis available for the Last Mile service will be called upon on a rotational basis without them having to wait in a queue. If a taxi is not available for his turn, his slot will be rotated with the slot of the next taxi. If he is not available for that slot either, he will only be called upon during the next rotation round. The next example with five taxis: A, B, C, D and E explains this situation:

Original rotation list:
A, B, C, D, E, A, B, C …

After A, B is not available, the order changes to:
A, C, B, D, E, A, B, C …

B is again not available, the order changes to:
A, C, D, E, A, B, C …

The representative at the Civic Centre station will direct the passengers to the Last Mile taxis when they arrive at the station.

c) **Communication and technology tools**

Communication between the representatives at the two stations must be via handheld radios in order to cut down on communication cost.

At the Civic Centre station the Last Mile representative must have access to an internet connected computer. Via this he/she will be able to monitor the location of the Last Mile vehicles. The representative will also be able to communicate to the vehicles via the on-board equipment. A message can be typed in to ask the driver to pick up passengers at a certain time from the Civic Centre. The driver can reply to the representative whether he/she is able to comply.
If the internet connection is not available to the representative, the backup option is to make a phone call to the relevant driver’s cellphone.

d) **Return trip to the Civic Centre station**
When passengers are picked up from the Civic Centre station, they will be informed about the option to book their return trip to the Civic Centre via the call centre. This will be handled further in the same manner as the Point-to-Point Service.

### 3.5.4. Fare structure

The cost to operate a minibus taxi is more expensive than to operate a sedan car (metered taxi). Therefore the fares to paying passengers only become attractive when 4 or more passengers are using the vehicle simultaneously.

The pricing strategy for the Last Mile service is the same as the pricing strategy for the Point-to-Point service. The difference between the Last Mile and the Point-to-Point services is that the Last Mile service is not officially pre-booked. Commuters from the Airport Shuttle can still decide not to take the Last Mile taxi when they arrive at the Civic Centre station.

Because of these factors the Last Mile Service is also aimed at groups of 4 or more passengers. Groups do not have to consist of passengers all travelling to the same destination. For smaller numbers travelling by metered taxi might be more attractive.

When passengers are greeted by the representative at the Civic Centre station he/she will know the total number of passengers who requested the service at the Airport station. According to this information the representative will be able to tell the passengers the exact fare for the Last Mile service. The driver then has to charge this fare even if one or more of the passengers change their mind and does not make use of the Last Mile service.

a) **Remuneration for Last Mile representatives**

It will not be possible to employ representatives specifically for the Last Mile Service because they will not be allowed to operate on the Airport and Civic Centre station as intended. It is possible to make use of existing TransPeninsula employees to fulfil the role of the representatives. This must be approved by TransPeninsula.

In order to create an incentive it will be practical to pay the representatives a commission per vehicle trip rather than to pay a fixed salary.
The minimum trip fare is R90 (see the fare structure under the Point-to-Point Service). Of this 20% (R18) must be paid to Peninsula Holdings for providing the infrastructure and marketing. The driver must get a minimum of R65 per trip (less than 6km) to earn the same as what he can earn through his normal operations. There is then R7 (R90 – R18 – R65) per trip that can be used to pay the representatives. This must be split as follows: R3 for the Airport station representative and R4 for the Civic Centre representative.

Based on the 3 Last Mile trips per hour for a 9 hour day, the potential income for the representatives are:
3 x 9 = 27 trips per day
Representative at the Airport station: 27 x R3 = R81 per day
Representative at the Civic Centre station: 27 x R4 = R108 per day

The payment process will be (for the minimum trip fare of R90):
- Taxi driver receives a minimum of R90 from the passengers
- R25 (R18 + R7) per 6km (or less) trip must be paid to the owner (how the remainder is split between the driver and owner depends on their own arrangement). The R18 is 20% of the minimum trip fare. Higher trip fares will change this amount which is due to PH.
- The owner will pay PH R25 for each Last Mile trip
- PH gets reconciliation reports from the Last Mile representatives and is able to confirm this with the historical GPS data collected at the back office (in case disputes arise)
- PH will pay the Airport representative R3 and the Civic Centre representative R4 for every Last Mile trip at the end of each week/month

3.5.5. Differentiation

a) Price
Because this service is also aimed at groups, it only offers value for money to passengers when there are a lot of passengers arriving on the Airport Shuttle. For groups of 4 or more, not necessarily travelling to the same end destination, this service is the most economical when compared to metered taxis, the Rikkis service and other private shuttle services.

b) Destination
The Last Mile Service takes passengers to their end destination. This service is not available by the IRT feeder system that will be available in the near future.
c) Convenience and safety
The vehicles have space for luggage. The vehicles are of a high standard and are monitored internally and externally.

d) Return journey
Passengers are informed about the option to book their return journey. They are also informed via the on-board advertising screen about all the other transport services on offer. This will take the stress out of having to plan for their transport needs during their visit to Cape Town. The passengers have one number to call for all their required trips in and around the Cape Peninsula.

3.5.6. Target market
The target market is all passengers arriving in Cape Town via the Airport Shuttle. These include:
- Tourists
- Business people coming for meetings to Cape Town
- Sportsmen coming to events in Cape Town
- Students
- Capetonians living in the City Bowl or Seapoint area going to and from the airport

3.5.7. Potential for expansion
Initially the 19 vehicles fitted with on-board ITS equipment will be used for this service. This will assist the marketing of the Last Mile- and other new services.

It is possible to expand the Service by using vehicles not equipped with on-board equipment. The minimum requirements are for the driver to have a cellphone and the vehicle to be of a high standard regarding cleanliness and safety.

3.5.8. Competitors
a) Metered taxis
For 1 to 3 passengers the Last Mile Service can not compete in terms of price. That is why the aim is to target groups of 4 or more passengers at a time. The Last Mile Service can make it cheaper for individual passengers if there are more than 4 passengers that can share the vehicle. The driver can then drop the passengers on a single trip to different destinations.

b) Rikkis service
The price structure of the Last Mile Service is more competitive than the Rikkis price structure.

c) **Other Minibus taxis**

Other minibus taxis does not have the infrastructure and inside information (through TransPeninsula) to make the same type of service viable. They would have to wait at the Civic Centre station in order to catch the passengers arriving on the Airport Shuttle. The Last Mile taxis can still operate on normal minibus taxi routes until they are called for when passengers arrive.

### 3.5.9. Barriers to entry

a) **Permits**

Operators of the new Last Mile Service will need a Special Hire permit to veer off current taxi routes in order to pick up or drop customers at their end destinations.

Peninsula Taxi Association (PTA) can apply on behalf of their members for a Special Hire permit if they can prove the need for this type of service. By starting to market and implement the new Last Mile Service, the need can be determined and proof of this can be obtained by means of recording the passenger movements through the on-board equipment. PTA can use this proof to apply for the Special Hire permits for its members.

b) **Marketing and operations on stations**

The efficiency of the Last Mile Service depends on the Last Mile representatives at the Airport and Civic Centre stations. If these representatives are not allowed to engage with potential customers on the stations then it will be impossible to call the taxi operators to be available only when passengers need their services.

Pamphlets, posters and other marketing material at the stations can also direct the passengers towards the Last Mile service and the representatives. It is not known to what extent marketing material for a transport service will be allowed on the stations.

### 3.5.10. Operators (suppliers)

The initial operators for the Last Mile Service will be the ones who have their vehicles fitted with the on-board ITS equipment. Of these, the operators whose vehicles are usually operating on routes near the Civic Centre station are the best suited to deliver the service with the least interruption to their other normal operations.
3.5.11. Relationship with operators

Peninsula Holdings has a very good relationship with the operators.

3.5.12. Alternative operators

Due to the availability of up to 450 vehicles it will not be required to involve operators from other taxi associations.

3.5.13. SWOT analysis

a) Strengths

*Price*

The Last Mile Service is very competitive with fares for groups of 4 or more passengers.

*Service*

The Last Mile Service delivers the same service as a metered taxi, but for groups and with the advantage of monitored vehicles which make the passengers feel safe.

*Economical to operators*

Operators can still operate on their normal routes and will not have ‘dead’ waiting periods because of the Last Mile Service. They are only offering the service on a ‘need to’ basis.

b) Weaknesses

The efficiency of the service is dependant on representatives whose basic salary is not from the Last Mile Service, but from TransPeninsula. The representatives’ first commitment is with TranPeninsula and it is not sure how this will influence the effectiveness of the Last Mile Service.

Potential passengers still have the option not to make use of the Last Mile Service when they arrive at the Civic Centre station. This means that the taxi operator would come out of his normal taxi service to pick up passengers at the Civic Centre station and then none or only one or two passengers actually boards the vehicle. The passengers were promised a certain price at the Airport station based on the total number of potential passengers and they expect to pay this reduced price, but because of the lower number of passengers the driver will charge each passenger more to
cover his/her cost. This might lead to misunderstandings and a negative impression of the quality of service.

c) Opportunities
An effective and well executed Last Mile service can influence the chances of Peninsula Holdings when negotiations for the IRT feeder system are under way.

The convenience of the centralised booking service, the quantity of available vehicles and attractive price of the service per person are all factors that can influence hotels and guesthouses to make use of the Peninsula Holdings’ Last Mile Service to fetch and return their guests from the Civic Centre station.

d) Threats
TransPeninsula is under contract of the City of Cape Town and operates on the Airport and Civic Centre stations. The City of Cape Town can stop or prohibit all advertising of third party services by TransPeninsula on the stations or busses. The marketing effort of the Last Mile Service must be done at the airport before potential passengers board the Airport Shuttle. To have a visible marketing campaign inside the airport building means that official space must be rented from ACSA. This will incur an additional cost which is not factored in the initial plans for the Last Mile Service.

3.6. Advertising Service

The on-board ITS equipment supplied on 19 minibus taxis include a LCD screen facing the passengers. The intended use for this screen is passenger information, internal marketing and advertising.

3.6.1. Current Situation

The FP7 Stadium sponsored on-board equipment for 19 minibus taxis. Included in this equipment is a LCD screen that can display still images (jpegs), movies (mpegs) and a scroll bar with text. The concept by the sponsors of the on-board equipment is that advertising space on the screen, in terms of time slots, can be sold and the additional income can assist the operator and Peninsula Holdings in covering the additional back office costs involved in setting up the new planned services.

Currently advertising agencies use minibus taxis in different ways for advertising.

- Externally taxis are wrapped with vinyl advertising. The advertising company pays the owner of the taxi between R500 and R1000 per month.
Internal advertising is done with LCD screens. The advertising company fits the LCD screens and uploads and maintains the content. The screens belong to the advertising company and they remove it from the vehicles after the contract period expires. The vehicle owner gets between R500 and R1000 per month. The advertising company sells the space to their client base. The spread is 1000 taxis divided over 3 major areas: Johannesburg, Cape Town and Durban.

3.6.2. Identifying the gap

The on-board equipment on the 19 vehicle does offer the opportunity for internal advertising material to be displayed on a LCD screen. The advertising space can be sold to either an advertising company or directly to advertisers.

Two options regarding advertising exist:
- Peninsula Holdings has a business relationship with an advertising company, Provantage. Provantage indicated in initial communication that they pay the taxi owner R500 per vehicle when they fit an In-Taxi Television (TTV) unit.
- In discussions with other advertising specialists it was identified that it will be more profitable for the taxi owners and Peninsula Holdings to use an advertising broking agent to sell the advertising space on their vehicles.

To identify the most lucrative choice a thorough investigation into both options shall be done. When PH decides on which option to implement an action plan shall be drawn up and executed. This should generate enough revenue to cover the additional expenses of Peninsula Holdings and make a profit in the long term.

3.6.3. Advertising implementation plan

Because the implementation of the advertising is still dependent on decisions that can be influenced by Peninsula Holdings’ business relationship with Provantage, the Advertising Service to be introduced will not be discussed in detail in this document. A separate business plan analysis and project plan will deal with the detailed implementation of the Advertising Service.

It is very important for the Advertising Service to be included as part of PH’s new offerings because this service does not require any interaction by the owners or drivers. The owners will be paid a fee for hosting the service in their vehicles and for looking after the equipment and Peninsula Holdings will use the profit from the advertising to pay for all additional expenses incurred by the call centre and back office to operate the other new transport services.
3.7. **Holding Company Involvement / Vertical Integration**

The long term vision of Peninsula Holdings is for a single entity under PH to handle the day-to-day business of the new services including the call centre. In the interim Peninsula Holdings will house this entity. If the venture grows significantly, then PH will house the venture in a separate company under PH.

3.8. **Essential Technology of the business**

3.8.1. **Back Office and Call Centre**

The **back office** infrastructure consists of:
- 3 x Rack mounted servers
  - Communication server
  - Application server
  - Database server
- Backup Power Supply Unit
- Tape Streamers for Data Backup
- MS Server and SQL Data Base Operating Systems.
- Call Centre Applications
- Tracking Applications

The back office infrastructure is hosted in Peninsula Holdings' office in Observatory, Cape Town.

The communication server receives and handles incoming- and outgoing data from-and to the vehicles. This data consists of GPS data and on-board information such as door-open times, passenger counts and also driver messages.

The database server stores all vehicle- and call centre data, current and historical.

The application server hosts the call centre booking and tracking applications.

The call centre consists of a PABX which can receive up to 4 incoming calls simultaneously. One extension on Peninsula Holdings’ PABX will initially be sufficient to serve as the incoming call centre line. Initially only one operator will handle incoming requests for all the transport services. If the need arises the number of call centre agents will increase on an ‘as-need’ basis.
3.8.2. On-Board Equipment

There are 19 Taxis that have been outfitted with the following on-board ITS equipment:

The on-board ITS equipment installed is the following:

1. **The Vehicle Management Unit (VMU)**
2. **Driver Display Unit (DDU)**
3. **GPS/GPRS Modem**
4. **IP Closed Circuit TV Camera (CCTV)**
5. **Printer**
6. **EMV (Europay, MasterCard, Visa) Compliant Card Reader**
7. **Real Time Passenger Information and Advertising Screen**
8. **Passenger Counter via Seat Sensors**

1. **The Vehicle Management Unit (VMU)**

The Vehicle Management Unit is the heart of the on-board ITS system. It is a multi port device which can interface to numerous end point devices. All the above end point devices are connected to this VMU. Additional devices can be attached to the VMU such as:

- Door sensors;
- Outdoor Display Unit;
- 3rd Party Smart Card Readers; and
- Additional CCTV Cameras.

2. **Driver Display Unit**

The Driver Display Unit is a 7 inch LCD Touch Screen that is mounted on the front dashboard for easy access for the Driver Operations. This unit can be used by the driver to:

- View CCTV footage of passengers at the back of the vehicle;
- Select routes and schedules to be serviced;
- Select Cash Ticket for a cash paying passenger;
- Interact with call centre for Demand Responsive Transport (DRT);
- Select a Pre-Paid Voucher for sale to passengers;
- Select FM Radio for Entertainment; and
- Access mapping and routing software.

3. **GPS/GPRS Tracking Modem**

The GPS/GPRS Tracking modem will be installed in a safe and secure area on the vehicle and is connected to the VMU. The functions of the GPS/GPRS modem are:

- To make it possible for the call centre to monitor Taxis in real time on their routes;
- To enable the back office to monitor for route adherence if required;
That it can be used to monitor speeding;
That it can be used to monitor kilometres travelled;
To transmit DRT information between the call centre and taxi;
To transmit ticket and passenger information to the back office server; and
To assist the operator to improve the service to the commuter.

4. **Closed Circuit Television (CCTV) Camera**

The CCTV camera will be mounted next to the advertising screen to monitoring the passengers. Features of the CCTV cameras:

- Internal monitoring of Taxi.
- Will help attract more passengers.
- Will attract a better quality of passenger.
- Will reduce abuse of passengers by drivers.
- Will reduce the vandalism of the taxi by passengers.
- Will reduce theft and pick-pocketing of passengers by other passengers.
- Will help reduce interference especially of women passengers by other passengers and the driver.

5. **On-board Printer**

The On-board Printer which is a thermal printer is mounted on the front dashboard for easy access to the driver for Driver Operations. This unit can be used by the driver to:

- Print a paper ticket for the passenger.
- Will help the operator to determine the number of passengers carried by the taxi.
- Will tell the operator the revenue collected by a taxi on a route on a daily basis.
- Advertising space can be sold on the paper ticket.
- Competition lines can be run based on number of tickets collected.
- Can be used to sell Pre-Paid vouchers such as cellphone airtime etc.
- Passengers will then expect a ticket.

6. **EMV Compliant Card Reader**

The EMV compliant card reader will be situated at the side door on the left hand side of each Minibus Taxi. The card reader:

- Will make the taxi’s payment system IRT (Integrated Rapid Transport System – Cape Town’s BRT) compliant.
- Will enable the passengers to use IRT issued smartcards on the taxi.
- Will also be able to accept other EMV transport smartcards on the taxi.
- Will be able to accept a closed system Mifare card issued by Peninsula Holdings.
7. **Information and Advertising Screen**

The screen is a 15 inch LCD screen. This is an all purpose built screen which is linked to the VMU. The screen is installed high behind the driver’s seat. The LCD screen:

- Is used to advertise the new services that Peninsula Holdings offer.
- Shows the route information of Peninsula Holdings’ services.
- Explains the safety and security aspects of Peninsula Holdings’ taxis.
- Gives fare information.
- Shows telephone numbers of Peninsula Holdings’ complaints centre.
- Explains the Demand Responsive Transport (DRT) booking service information.
- Gives driver and vehicle information.
- Shows entertainment and educational video clips (revenue generation).
- Is used for external advertising services (revenue generation).
- Occupies passengers’ attention for most of the trip.
- Displays CCTV footage of passengers in the vehicle that is being monitored.

8. **Passenger Counter:**

The Passenger Counting is implemented by means of seat sensors. Each seat is fitted with a sensor to determine if there is a passenger sitting on that particular seat. The Passenger Counter gives the following functionality:

- The amount of passengers on the vehicle between any two points on a route.
- The operator will be able to determine how many passengers have viewed any specific advert.
- The call centre will be able to determine the number of passengers for booking purposes for the DRT.
4. Marketing Strategy

4.1. Positioning Statement And Corporate Identity

Peninsula Taxi Association members have more permits than any other taxi association in the Western Cape. The permits cover routes over most of the Cape Peninsula. Peninsula Taxi Association is the single biggest taxi association in the Western Cape. Because of its position, leadership and capacity, it is usually first in line for specialised transport contracts.

4.2. Pricing Strategy

The pricing strategy of each new service is discussed in the previous sections with each individual service. In general the pricing of the new services is between what Metered Taxis are charging and the current Minibus taxi fares. The pricing of the new services are competitive and gives the commuter value for money. The following table is an indication of prices to be charged for the various services as described in this Business Plan.

<table>
<thead>
<tr>
<th>Fares for the New Public Transport Services</th>
<th>Price per Trip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loop Service per passenger</td>
<td>R 15.00 per Trip</td>
</tr>
<tr>
<td>Mall Shuttle Service per passenger</td>
<td>R 15.00 per Trip</td>
</tr>
<tr>
<td>Point-to-Point Service minimum fare per vehicle (aimed at groups)</td>
<td>R 90.00 per Trip</td>
</tr>
<tr>
<td>Last Mile Service minimum fare per vehicle (aimed at groups)</td>
<td>R 60.00 per Trip</td>
</tr>
<tr>
<td>Contract Service per Minibus Trip: 10-13 passengers</td>
<td>R 250.00 per Trip</td>
</tr>
</tbody>
</table>

4.3. Promotion and Marketing Strategy

Branding

All the new services introduced pick up and drop passengers at their individual point of departure or end destination. A descriptive term for this type of service is “Last Mile”. Although this term is generally used in the IT industry, it has relevance and is an illustrative phrase in this type of transport service.

In terms of a website link the URL (website name) will be: www.last-mile.co.za.

The term “Last Mile” is the brand that will be marketed to the public. It is envisioned that the public will differentiate the Peninsula Holdings’ taxis from other minibus taxis by referring to it as: last mile taxis.
The logo of the Last Mile brand is in the same colour scheme as the Peninsula Holdings logo. The Last Mile and the Peninsula Holdings logos have similarities and are shown below:

**Figure 4: Peninsula Holdings and Last Mile logos**

![Peninsula Holdings logo](image)

![Last Mile logo](image)

Initial branding will be to identify the vehicles and the drivers. This will install a pride with the drivers by displaying to the public that they deliver a superior service to the normal taxi operations.

For identifying the vehicles two magnetic strips with the logo on will be issued per vehicle. These shall be fitted in the front and rear of the taxis above the windscreen. This will make the vehicles visible to people on the roadside as well as to other road users in cars. On the magnetic strips will also be the telephone number of the call centre.

For identifying the drivers, each will be issued with a white peak cap with the logo on. Passengers will identify these drivers as belonging to the Last Mile service who are more professional. Passengers will also be able to identify the responsible person who they can ask for information about the new services marketed on board the vehicle.

Costs involved with the branding are:

- **Cost of Artwork**
  - The initial artwork is done and sponsored by the Stadium team

- **Printing Cost**
  - Magnetic banner strips and caps
    - This can be sponsored by the Stadium project if the words: “A project sponsored by the FP7 Stadium project” appear on them together with a Stadium logo. This can be much smaller than the Last Mile logo.

- **Cost of Wrapping of Vehicle**
  - This can be done at a later stage and should be paid for by Peninsula Holdings

- **Cost of Stationary**
  - This is internal cost to Peninsula Holdings
Promotions and Marketing Components

The marketing and promotion of the new services can be done collectively for all services via some media and it can concentrate on one specific service via other.

Promotion and marketing will be implemented by means of:

- **In-vehicle electronic advertising.**
  - Educate the current customer base of the new services.
  - Explain the nature of the new services.
  - The basic price structure of the new services will be shown.
  - The areas of operation of the new services will be advertised.
  - Current commuters can see how they can benefit from the new services.
  - Stadium will cover the cost of the initial content and upload thereof.
  - Peninsula Holdings is responsible for future marketing content which will be paid for by the additional income from the combined new services.

- **Pamphlets**
  - Look and feel of pamphlet
    - All services will be advertised on 1 pamphlet.
    - Pamphlets will show the areas of operation and the prices of the Loop- and Mall Services (R15)
    - The front face of the pamphlet will be uncluttered containing the basic information conveying the essence of the marketing message:
      - Reach your end destination
      - Book this service through a central number
  - The Stadium project will cover the initial number of pamphlets
    - Stadium requires some space to explain and advertise the FP7 project
  - Funding after Stadium of new marketing content will be covered by the additional income generated by the new services

- **Road Shows**
  - Will use Peninsula Holdings’ current people and infrastructure
  - Road show will involve the following PH people
    - Taxi owners
    - Drivers
    - Back office employees
  - Road show will target a particular area
    - City centre
    - V&A Waterfront
    - Cavendish Square
    - Kenilworth Centre
    - Etc, etc
  - Road show will involve
    - Interacting with people
    - Educating people about PH
    - Educating people about PH’s new services
Networking
- This will be done by Peninsula Holdings’ members during their normal operations
- PH members and operators will network with their current client base
- PH will educate their current client base on the new services
- The shareholders will market the new services to their contacts in various companies
- PH executives will network with their contacts in local, provincial and national government

Radio advertising
- Instead of paying for radio advertisements the new services can be aired via interviews during radio shows

Newspaper & magazine advertising
- Aim to do editorials instead of advertisements (free advertising)
- Make use of the National Transport Month (October) to get editorials in newspapers
- Target the following publications:
  - Local and Regional newspaper
  - Local magazines
  - Airline magazines

Outboard vehicle advertising

Billboard advertising
- Target areas:
  - Taxi ranks
  - Airport
  - Highway

Mall info sheets and electronic newsletters

Get services advertised by Department of Tourism in their material

City of Cape Town marketing
- Reach through networking by Peninsula Holdings
- Content being ready and made available for publishing

Internet marketing
- Peninsula Holdings website advertising
- Third party website advertising
  - Italian Consulate
  - City of Cape Town website
  - Department of Tourism website
  - Western Cape Provincial Department of Transport
  - Cape Town Restaurant and Hotel websites
- Email newsletters to clients and potential clients
4.4. Marketing Objectives

The marketing objectives to achieve are:

- To ensure that the services being developed and offered to the target markets as defined will be taken up as rapidly as possible.
- The marketing should enable PH to create a successful and recognisable brand.
- To grow the services as rapidly as possible.
- To gain recognition as a Public Transport Operator of choice.

4.5. Marketing Programme

The marketing program for the various services will be as follows:

**Loop Service** – This service will be area specific where the minibus taxis are operating on existing routes. As each area is targeted, the following programme will be put into place:

- The upcoming service will be advertised on the minibus taxis’ electronic advertising screens.
- Pamphlets will be distributed to the existing minibus taxi commuters in the area.
- Strip malls, which are a cluster of stores usually with a mini market situated within each suburb, will be targeted in areas where the new services will be introduced. High School Students could be hired from the area on weekends or evenings who could help to promote the new services.
- Schools, colleges and universities will be targeted in the area.
- Businesses such as offices and factories will be targeted in the area.
- Visitors to the bigger shopping centres in the area will also be targeted.

**Point-to-Point Service** – This service will be targeted to the whole of the Cape Peninsula.

- The upcoming service will be advertised on the minibus taxis’ electronic advertising screens.
- Pamphlets will be distributed to the targeted customer base which are:
  - Major Hotel groups
  - Boutique Hotels
  - Backpacker lodges
  - Bed & Breakfast establishments
  - Restaurants
  - Bars
  - Night clubs
  - Businesses
o Universities
o Colleges

• Peninsula Holdings will aim to get editorials in various magazines and newspapers to create excitement about the new available service.

Mall Shuttle Service – This service will be targeted at specific areas where there is a major mall and where normal services on dedicated routes are already being provided. The first mall where this service will be implemented is Cavendish Square in Claremont:

• The Mall Shuttle service will be advertised on the minibus taxis’ electronic advertising screens.
• Pamphlets will be distributed to the targeted customer base which will be:
  o The Mall management
  o The stores in the mall
  o The stores around the mall
  o Residents such as housewives, old age pensioners who need to be picked up and driven to the designated mall for that area. Bookings can be done to be picked up from home and taken to the mall and back home again.
  o People from the surrounding areas working in the Mall
• The Claremont community newspapers should have an editorial about this service which will improve the traffic flow in the region
• The Cavendish Square website should have a link to the Last Mile booking service as well as the call centre telephone number.

Contract Services – This contract service can be offered to companies to transport their workers to work in the mornings and back home again in the evenings. This service will be promoted to:

• Companies who need there workers to be picked up and dropped off back home every day.
• The attractiveness of this service will be promoted by:
  o Cost effective charges
  o Workers getting to work on time
  o Workers who can barely afford to use their own cars to get to work
  o Companies looking for a service that gets their employees to work every day and on time without an excuse
• Hotels who need to outsource picking up and dropping off of their customers safely to areas of interest like:
  o The V&A Waterfront
  o Century City
  o The airport
  o The city centre
Other tourist destinations
- Government Department who need to outsource the picking up and dropping off of their workers.

**Last Mile Service** – This service will complement the City’s Airport Shuttle Service into the city by offering the commuter a service from the Civic Centre to his/her final destination. This service will be promoted at:
- the airport bus station
- the Civic City Centre station
- the hotels and guesthouses
- editorials in airline magazines

**Onboard Advertising** – This is an advertising service using an onboard advertising screen mounted in the taxi facing the passengers. This service will be promoted as having the following advantages above other advertising media/space:
- The target market is known
- The LSM band is known for targeted marketing
- The target market is mostly employed (95%)
- The attention of the target market is guaranteed
- The number of times the advert is viewed is known

The specifics and details of the advertising service are dependant on several high level decisions by Peninsula Holdings and are handled in a separate scoping and implementation plan.

The advertising screens will also be used to advertise all the additional services as described in this plan. When tourists use the last mile service, they will be educated while travelling to their final destination of all the other services PH is offering with telephone numbers of the call centre, rates etc. This will be a powerful internal marketing tool for PH without the added marketing expense.

### 4.6. Marketing Budget

The marketing budget for the above services will initially be determined by what money is available by Peninsula Holdings to spend on this project. PH will have to evaluate the new services and what is going to be required in terms of marketing to reach the targets as highlighted in this business plan. The amount allocated to marketing is described in the financials of this business plan.

Each service will dictate which methods are the most effective at the various stages of implementation. In order to keep the financial outlay and -risk as low as possible, the
exact strategy for each service will be determined with insets from all stakeholders. This will ensure that fresh and new ideas get a chance to be implemented. With 150 shareholders the chances are good that someone will have contacts that can be used to maximise exposure of the new services.

4.7. Advertising Sales Programme

As mentioned previously, the details of the advertising service will be affected by high level decisions not known at this stage. The decisions will determine whether the Advertising Service will be driven by Peninsula Holdings’ advertising business consortium or by Peninsula Holdings and their shareholders on their own. Each choice will have advantages and disadvantages (mainly in the form of potential risks).

Whether the Advertising Service is handled externally (through the business consortium) or internally, the basic target market stays the same:

- National companies such as:
  - Pick & Pay
  - Vodacom
  - MTN
  - Cell C
  - Coca Cola
  - KFC
  - Etc.etc.
- Government institutions
- Local companies
- NGO’s who provide services to poorer communities can also be targeted. The new services could help NGO’s get to the communities they are targeting more effectively and cheaply.

Because advertising has to be sold and relationships built between the advertiser and the sales arm of PH, a commission structure has to be worked out for sales personnel. Costs involved in the selling of the advertising space include:

- Sales commission
- Loading charges
- Vehicle owner commission
- Administration
4.8. Sales Projections – Total Sales and Contribution Per Service

The projections for the sales of the individual services are done as customers per vehicle per day. The calculations assume a slow start with only 1 or 2 passengers per vehicle per day and an increasing trend per month.

In the case of the new transport services the sales amount is the fares paid by the customers.

A) Loop Service
For month 1:
- 2 taxis are used
- Each taxi does 1 Loop Service trip per day
- Each trip fare is R15
  - 80% is income for the taxi owner (cost of sales)
  - 20% is income for Peninsula Holdings (gross profit)
- The service operates for 22 days per month

The rest of the first year is shown in the summary table below.

B) Point-to-Point Service
For month 1:
- 2 taxis are used
- Each taxi does 1 Loop Service trip per day
- Each trip income is R90 minimum
  - 80% is income for the taxi owner (cost of sales)
  - 20% is income for Peninsula Holdings (gross profit)
- The service operates for 22 days per month

The rest of the first year is shown in the summary table below.

C) Mall Shuttle Service
For month 1:
- 2 taxis are used
- Each taxi does 0 Point-to-Point Service trips per day
- Each trip fare is R15
  - 80% is income for the taxi owner (cost of sales)
  - 20% is income for Peninsula Holdings (gross profit)
- The service operates for 22 days per month

The rest of the first year is shown in the summary table below.
D) Contract Service

For month 1:
- 2 taxis are used
- Each taxi does 0 Contract Service trips per day
- Each trip income is on average R200
  - R10 is income for Peninsula Holdings (gross profit)
  - The remainder is income for the taxi owner (cost of sales)
- The service operates for 22 days per month

The rest of the first year is shown in the summary table below.

E) Last Mile Service

For month 1:
- 2 taxis are used
- Each taxi does 2 Last Mile Service trips per day
- Each trip income is minimum R50
  - 80% is income for the taxi owner (cost of sales)
  - 20% is income for Peninsula Holdings (gross profit)
- The service operates for 22 days per month

The rest of the first year is shown in the summary table below.

F) Advertising Service

For month 1:
- 5 taxis are used
- 1 Advert is sold per taxi
- The average income per advert is R290
  - 30% is paid for commission, handling cost and to the taxi owner (cost of sales)
  - 70% is income for Peninsula Holdings (gross profit)
- Adverts are sold per slot per vehicle per month

The rest of the first year is shown in the summary table below.

For year 1:
The following table was used to project the numbers to start off the new services from the first month and thereafter the projected growth of the new services in the number of calls received from month-to-month for a period of 12 months.

Some assumptions:
- All services were calculated to run for only 22 days per month.
- For the 1st month, a minimum of 2 vehicles will be used for each of the new services in this projection.
- For the 1st month, it was projected that 1 advert will be sold on a minimum of 5 vehicles.
- We projected that we will average 10 requests a day for the 1st month.
- The requests would be for the Loop service (1 per vehicle/day), Point-to-Point service (2 per vehicle/day) and Last Mile service (2 per vehicle/day). It was assumed that each request is only for 1 passenger at a time i.e. requests per day for a total of 10 passengers for the day. Thereafter the number of requests per day on a month-to-month basis will increase as well as the number of vehicles used and the amount of advertising sold.

This whole projection was done for 12 months. In the 12th month we projected that more than 6 vehicles will be needed for the new services, the number of requests per day would be at least 166. These projected figures can be studied in the table below for the initial 12 months.

The figures below were used to calculate the projected income for this business plan.

<table>
<thead>
<tr>
<th>New Services</th>
<th>Requests per vehicle per day</th>
<th>Oct-11</th>
<th>Nov-11</th>
<th>Dec-11</th>
<th>Jan-12</th>
<th>Feb-12</th>
<th>Mar-12</th>
<th>Apr-12</th>
<th>May-12</th>
<th>Jun-12</th>
<th>Jul-12</th>
<th>Aug-12</th>
<th>Sep-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loop Service</td>
<td></td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Mall Shuttle Service</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Point-to-Point Service</td>
<td></td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Contract Service</td>
<td></td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Last Mile Service</td>
<td></td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Projections</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Days</td>
<td></td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>Minimum Number of projected Vehicles used for New Services</td>
<td>2+</td>
<td>3+</td>
<td>4+</td>
<td>4+</td>
<td>5+</td>
<td>6+</td>
<td>6+</td>
<td>6+</td>
<td>6+</td>
<td>6+</td>
<td>6+</td>
<td>6+</td>
<td></td>
</tr>
<tr>
<td>Number of requests per day for all vehicles used</td>
<td>10</td>
<td>24</td>
<td>52</td>
<td>60</td>
<td>85</td>
<td>120</td>
<td>132</td>
<td>138</td>
<td>156</td>
<td>156</td>
<td>168</td>
<td>168</td>
<td></td>
</tr>
<tr>
<td>Average time per request (min)</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Number of requests per month for vehicles used</td>
<td>220</td>
<td>528</td>
<td>1144</td>
<td>1320</td>
<td>1870</td>
<td>2640</td>
<td>2904</td>
<td>3036</td>
<td>3432</td>
<td>3432</td>
<td>3696</td>
<td>3696</td>
<td></td>
</tr>
<tr>
<td>Time on requests per month (HOURS)</td>
<td>7.33</td>
<td>17.60</td>
<td>38.13</td>
<td>44.00</td>
<td>62.33</td>
<td>88.00</td>
<td>96.80</td>
<td>101.20</td>
<td>114.4</td>
<td>114.4</td>
<td>123.2</td>
<td>123.2</td>
<td></td>
</tr>
<tr>
<td>Time on requests per day(min)</td>
<td>20</td>
<td>48</td>
<td>104</td>
<td>120</td>
<td>170</td>
<td>240</td>
<td>264</td>
<td>276</td>
<td>312</td>
<td>312</td>
<td>336</td>
<td>336</td>
<td></td>
</tr>
<tr>
<td>Time on requests per day(hour)</td>
<td>0.33</td>
<td>0.80</td>
<td>1.73</td>
<td>2.00</td>
<td>2.83</td>
<td>4.00</td>
<td>4.40</td>
<td>4.60</td>
<td>5.20</td>
<td>5.20</td>
<td>5.60</td>
<td>5.60</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Projections for advertising</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising Slots Sold per vehicle</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>7</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Number of Vehicles used for Advertising</td>
<td>5</td>
<td>10</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

Figure 5: Table of projections for number of requests per day/month, number of services used and duration of requests
Our projections as above of 10 requests (or calls) a day for month 1 and increasing to about 60 a day for month 4 will require a current resource already employed from PH to man the call centre for a maximum of about 1 to 2 hours a day. After the 4th or 5th month, a full time resource can be employed to man the call centre.

![Graph showing the expected growth in number of requests for the new services monthly for year 1](image)

*Figure 6: Graph showing the expected growth in number of requests for the new services monthly for year 1*

For projection purposes it is expected that the usage of the services will increase with 10% per year.

<table>
<thead>
<tr>
<th>Services &amp; Products</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loop Service</td>
<td>98,010.00</td>
<td>155,628.00</td>
<td>171,190.80</td>
<td>188,309.88</td>
<td>207,140.87</td>
</tr>
<tr>
<td>Mall Shuttle Service</td>
<td>101,200.00</td>
<td>172,920.00</td>
<td>190,212.00</td>
<td>209,233.20</td>
<td>230,156.52</td>
</tr>
<tr>
<td>Point-to-Point Service</td>
<td>706,860.00</td>
<td>1,245,024.00</td>
<td>1,369,526.40</td>
<td>1,506,479.04</td>
<td>1,657,126.94</td>
</tr>
<tr>
<td>Contract Service</td>
<td>400,400.00</td>
<td>691,680.00</td>
<td>760,848.00</td>
<td>836,932.80</td>
<td>920,626.08</td>
</tr>
<tr>
<td>Last Mile Service</td>
<td>323,400.00</td>
<td>605,220.00</td>
<td>665,742.00</td>
<td>732,316.20</td>
<td>805,547.82</td>
</tr>
<tr>
<td>Advertising</td>
<td>282,750.00</td>
<td>505,267.00</td>
<td>555,793.70</td>
<td>611,373.07</td>
<td>672,510.38</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,912,620.00</strong></td>
<td><strong>3,375,739.00</strong></td>
<td><strong>3,713,312.90</strong></td>
<td><strong>4,084,644.19</strong></td>
<td><strong>4,493,108.61</strong></td>
</tr>
</tbody>
</table>

*Figure 7: Sales projection over 5 years*

**4.9. Cost Projections – Total Cost Per Service**

The cost of sales will be as discussed above. For each trip charged to the customers Peninsula Holdings will take a percentage as indicated. The percentage or amount kept by the owner is considered the ‘cost of sales’. The projections of the cost of sales for the first 5 years are linked to the sales projections. This is given in the table below.
### Services & Products

<table>
<thead>
<tr>
<th>Services &amp; Products</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loop Service</td>
<td>78,408.00</td>
<td>124,502.40</td>
<td>136,952.64</td>
<td>150,647.90</td>
<td>165,712.69</td>
</tr>
<tr>
<td>Mall Shuttle Service</td>
<td>80,960.00</td>
<td>138,336.00</td>
<td>152,169.60</td>
<td>167,386.56</td>
<td>184,125.22</td>
</tr>
<tr>
<td>Point-to-Point Service</td>
<td>565,488.00</td>
<td>996,019.20</td>
<td>1,095,621.12</td>
<td>1,205,183.23</td>
<td>1,325,701.56</td>
</tr>
<tr>
<td>Contract Service</td>
<td>320,320.00</td>
<td>553,344.00</td>
<td>608,678.40</td>
<td>669,546.24</td>
<td>736,500.86</td>
</tr>
<tr>
<td>Last Mile Service</td>
<td>258,720.00</td>
<td>484,176.00</td>
<td>532,593.60</td>
<td>585,852.96</td>
<td>644,438.26</td>
</tr>
<tr>
<td>Advertising</td>
<td>84,825.00</td>
<td>151,580.10</td>
<td>166,738.11</td>
<td>183,411.92</td>
<td>201,753.11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,388,721.00</td>
<td>2,447,957.70</td>
<td>2,692,753.47</td>
<td>2,962,028.82</td>
<td>3,258,231.70</td>
</tr>
</tbody>
</table>

*Figure 8: Cost projection over 5 years*

#### 4.10. Website and Internet Marketing

The name www.last-mile.co.za will be registered and linked to the current Peninsula Holdings website.

This website will be set up to inform the visitor of:
- all the services offered,
- how the services operate,
- in what areas the services operate,
- the benefits to the commuter,
- how to use the service,
- rates for the various services, and
- help-line number.

The website will also contain a link to the online booking service.

In order to be visible the service will be registered with Google and other search engines.

#### 4.11. Long Term Plan

The Long Term Plan will be:
- To increase advertising revenue for the current vehicles’ electronic advertising screens.
- To increase the number of vehicles who will be able to host electronic advertising.
• To increase the number of vehicles with the monitoring equipment who will be available to deliver the services as described.
• To increase the call centre’s capability in order to keep delivering a professional service.
• To become the feeder operators within the COCT IRT service.

4.12. Exit Strategy

Peninsula Holdings and its members will be using their existing infrastructure for the new services. The new services as proposed will need very little in terms of Capital and Operational Costs. No capital layout for equipment is done for any of the new services because all the initial equipment is sponsored by the FP7 Stadium project.

The only financial layout from PH is a one year contract with the telephone company for increased bandwidth and a dedicated telephone number. If the new services stop then the increased bandwidth will still be used. The dedicated telephone number needs to be paid until the end of the one year contract.

The exit strategy will be as follows:
• The marketing of the service will be stopped
• The people employed specifically for the new services can be re-deployed if they were in the service of Peninsula Holdings previously or retrenched if they were not
5. Human Resources

5.1. Organogram (structure) and management team description

Figure 9: Peninsula Holdings structure

The decisions about the details of the new services’ operations are made by the executive management. The executive management is also responsible to ensure the processes, infrastructure and people are in place for the smooth operations of the new services.

5.1.1. Owners/Members/Shareholders Operational Roles

The operational roles of each participant in the new services are described below.

CEO – I Lucas
- Identify and classify the new services to be implemented
- Make decisions about areas of operation
- Interact with City of Cape Town regarding permits
- Spokesperson for Peninsula Holdings to the media

Director – G Behardien
- Identify and classify the new services to be implemented
- Make decisions about areas of operation
- Interact with PH executive committee and operators to instigate the operations of the new services
- Lead the commencement of the supporting staff personnel's roles and responsibilities

Directors – E Albertus, N Sims, MZ Tasriet, N Razak
- Assist in the planning of the services
- Interact with operators and support staff to improve the success of the new services
• Fulfil the role of the support staff in the initial stages in order to start the new services
• Identify gaps in the operations and adapt and improve on them
• Plan and execute the marketing of the new services
• Manage the reporting from the back office and effectively use this information to change/expand on the services

Administrative staff – C Adriaanse
• Support the executive managers
• Take charge of the call centre, manage the call centre agents

Operators / Taxi Owners
• Make use of on-board equipment in day-to-day operations
• Network with current customers to market the new services
• Supply a friendly, professional service
• Give feedback to executive management on how to improve the services

5.1.2. Positions To Be Filled in next 5 years

The executive managers will initially run the day-to-day operations of the new services. This involves:
• Training and sourcing of the operators
• Oversee the call centre operations and even act as agents if necessary
• Interacting with authorities and mall representatives where necessary
• Initiating the marketing plans

All these aspects will be taken over by a new entity inside Peninsula Holdings. The staff for this entity could come from inside PH as well as from new appointments. The risk for failure will be lower if the management portion of this entity is PH employees or shareholders.

5.1.3. New services positions required

• Manager
  o Oversees the day-to-day operations of the call centre
  o Implement changes to services as required
  o Contact person for operators
  o Report to Peninsula Holdings about the state of the new services
  o Reconciliation of the income of the new services and collect the percentage owed to PH from the owners

• Call centre agent/s
  o Take requests and make bookings for customers
  o Issue scheduling to operators and vehicles

• Marketing manager
- Responsible to co-ordinate the marketing of all the services
- Financial control of marketing efforts
- Feedback and reporting on marketing results

5.1.4. Recruitment and Retention Strategy

The staff will firstly be recruited from Peninsula Holdings staff and shareholders if a suitable candidate is available. The reason is because this staff will have a vested interest in the success of the new services.

It is very important that the staff must have a good knowledge and experience in the operations of the minibus taxi industry.

5.2. Staff development and training plans

Initially the Stadium team will train the Peninsula Holdings staff and operators in the operations of the hardware and software. The marketing will be led by the PH employees who will be supported by the Stadium team.

The staff and business processes of new entity in charge of the new services will be put in place by a joined effort between PH and the Stadium team. The management staff of this entity will be able to employ new staff if necessary and if it is financially viable to do so. They will also be responsible for the training of the new staff.

5.3. Remuneration and performance reward strategy

Salaries of the new entity that will handle the operations of the new services will be determined by Peninsula Holdings executive committee and increases will be based on performance.

Operators will be remunerated by additional work on top of their current services. The operators pay a percentage of the fares of only the additional work created by the new services.

The new Advertising Service will be used to generate revenue to pay for the additional infrastructure at Peninsula Holdings to operate the new services. The operators will be remunerated by a fixed amount per month from the advertising revenue for hosting the advertisements. The exact amount will be determined by the PH executive committee and will depend on factors such as the revenue generated from advertising, the success of the new services and the co-operation from the operators. The amount will be reviewed once a year or when required.
5.4. Company, product, process documentation (e.g. manuals)

Initial documentation of the following processes will be issued by the Stadium team:

- **Call centre**
  - Request handling with the help of software
  - Process for each individual service – what to do and who to contact at each stage of the request

- **Management**
  - Responsibilities regarding call centre, operators, marketing
  - Reporting to PH management
  - Reconciliation of requests handled

- **Marketing**
  - Initial marketing method within budget
  - Expansion methods of marketing keeping in mind the restrictions (operator capabilities, permits, etc.)
  - Financial control of marketing budget
  - Measurement and reporting on success or failure of marketing effort

These process documentations will be 'live' documents which must be changed to adapt to the varying situation.

5.5. Arrangements Made And/Or Systems Put In Place To Ensure any necessary staff Compliance (e.g. legal, health, regulatory)

All the regulatory systems are already in place in Peninsula Holdings

5.6. BEE status and strategy

- 100% BEE Compliant. PH is 100% BEE owned and 100% BEE staffed.
- The strategy is to use its BEE credentials in securing permits and contracts as required
6. **Key Financial and Risk Issues (to be read in conjunction with financials)**

6.1. **Risk Analysis And Alleviation**

- The risks of starting these new services are small.
- All the IT equipment as required for the starting the project is in place and paid for.
- The vehicles and drivers are available to deliver on the new services
- There are no additional costs for using the operator vehicles and drivers.

6.2. **Key Financial Factors (include working capital needs)**

- The key financial factors including operating costs and potential business of the new services is indicated in the financing section of this business plan
- Working capital needs will be accumulated from new services and advertising sold.
- Initial working capital is needed for the expansion of the communication infrastructure of PH to include:
  - Fixed ADSL Data Line with a 3 IP Addresses
  - 2 additional Fixed Telephone Lines
- Initial working capital is modest and should not exceed R 30,000.00 (thirty thousand rand). This should cover the initial expenses for the 1st 3 to 4 months such as call centre manager/marketer, administration, ADSL link, stationary, marketing & advertising etc.

6.3. **Forex Risks**

- No forex Risks as no forex is needed for this project

6.4. **Bad Debt Risks**

- Very Low Risk. Input costs are low, very little outlay for the new services
- Bad Debts can occur with advertisers who may not pay.

6.5. **The Importance of Interest Rates**

- Interest rates will not affect this service as existing funds that are available will be used.
- The service will be using existing offices – no costs initially
- The service will be using operator owned vehicles – no costs initially.
6.6. Sourcing Of Inputs Including Energy

- Most inputs exist and the new services will piggy-back on the existing service.

6.7. Sourcing Of Labour/Skills Shortages

- Initially only existing labour already employed will be used

6.8. Changes In The Market

- The only risk here is that legislation may change
- Peninsula Holdings does have an influence in the legislation on a municipal and provincial level

6.9. Price Cutting

Price cutting will only happen:

- If a specific service is over priced,
- If competitor advertising is cheaper, and
- If competition evolves and threatens the viability of the services being offered because of price.

6.10. Threats To Political And Economic Stability

- This is not a threat, public transport will always be needed, even more during difficult economic periods.

6.11. Risks Flowing From The Existing Labour Legislation And Labour Union Activity

- This is definitely not a threat. The majority of people working under the umbrella of PH are self employed or work purely on commission
- IRT could be a threat but PH is working towards neutralising this perceived threat by working with the COCT.

6.12. Weaknesses In The National Infrastructure

- The lack of a proper public transport infrastructure is actually a strength for the services being offered
6.13. **Risks Linked To The Possible Occurrence Of Natural Disasters**

- Very low, as none has occurred for the last 300 years


- The reputation of PH can suffer if the service is not launched properly in terms of:
  - No proper training of operators who will be delivering the service
  - Call centre not functioning properly
  - Call centre management and agents not trained accordingly
  - Services not advertised and marketed properly
  - Minimal commitment to this project from PH management
  - Minimal commitment to this project from PH operators
7. Projections for the New Service

The initial cost for infrastructure layout for the new services is only the upgrading of Peninsula Holdings’ communication infrastructure. The cost for the additional capacity in the telephone and data installation is R2,500.

The monthly expenditure is given in the tables below and attached to this document.

Although the monthly expenditure includes all items that must be factored into the calculations, the actual monthly expenditure can be reduced because most of the items are already paid for by the current Peninsula Holdings infrastructure. The new services can therefore reduce the financial risk by lowering the initial monthly expenditure. As a result the new services are profitable from the outset.

In terms of minimum requirements for the first month, the following gives the absolute necessities to be covered by the new services:

<table>
<thead>
<tr>
<th></th>
<th>Oct-11</th>
<th>Nov-11</th>
<th>Dec-11</th>
<th>Jan-12</th>
<th>Feb-12</th>
<th>Mar-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Expenditure</td>
<td>1400.00</td>
<td>1400.00</td>
<td>1400.00</td>
<td>1400.00</td>
<td>1400.00</td>
<td>1400.00</td>
</tr>
<tr>
<td>Salaries</td>
<td>0.00</td>
<td>5000.00</td>
<td>8000.00</td>
<td>8000.00</td>
<td>8000.00</td>
<td>10000.00</td>
</tr>
<tr>
<td>Administration – Tel, Line rental etc.</td>
<td>4450.00</td>
<td>4450.00</td>
<td>4450.00</td>
<td>4450.00</td>
<td>4450.00</td>
<td>4450.00</td>
</tr>
<tr>
<td>Financial</td>
<td>400.00</td>
<td>400.00</td>
<td>400.00</td>
<td>400.00</td>
<td>400.00</td>
<td>400.00</td>
</tr>
<tr>
<td>Information Technology</td>
<td>1800.00</td>
<td>1800.00</td>
<td>1800.00</td>
<td>1800.00</td>
<td>4700.00</td>
<td>4700.00</td>
</tr>
<tr>
<td>Legal</td>
<td>200.00</td>
<td>200.00</td>
<td>200.00</td>
<td>200.00</td>
<td>200.00</td>
<td>200.00</td>
</tr>
<tr>
<td>Marketing</td>
<td>2900.00</td>
<td>2900.00</td>
<td>2900.00</td>
<td>2900.00</td>
<td>2900.00</td>
<td>2900.00</td>
</tr>
<tr>
<td>Staff Expenses</td>
<td>200.00</td>
<td>285.00</td>
<td>336.00</td>
<td>336.00</td>
<td>336.00</td>
<td>370.00</td>
</tr>
<tr>
<td>Operating Expenses</td>
<td>14430.00</td>
<td>28570.00</td>
<td>79890.00</td>
<td>89570.00</td>
<td>128740.00</td>
<td>166580.00</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>10819.00</td>
<td>19956.00</td>
<td>58287.00</td>
<td>66031.00</td>
<td>95272.00</td>
<td>126204.00</td>
</tr>
<tr>
<td>Nett Profit</td>
<td>11350.00</td>
<td>16435.00</td>
<td>19486.00</td>
<td>19486.00</td>
<td>22386.00</td>
<td>24420.00</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>3611.00</td>
<td>8614.00</td>
<td>21603.00</td>
<td>23539.00</td>
<td>33468.00</td>
<td>40376.00</td>
</tr>
<tr>
<td>Nett Profit</td>
<td>-7739.00</td>
<td>-7821.00</td>
<td>2117.00</td>
<td>4053.00</td>
<td>11082.00</td>
<td>15956.00</td>
</tr>
</tbody>
</table>

Figure 10: Minimum requirements and projections for first months

The minimum break-even point will happen in month 3 when profits will exceed expenses. The Operating Expenses as projected will be lower as PH Head Office is at the moment covering quite a few of the expenses as stated above.
7.1. First Year Income Projection Highlights

![Income Projection Graph](image)

Figure 11: Income projection graph

7.2. Income Statement Summary

<table>
<thead>
<tr>
<th></th>
<th>CURRENT YEAR</th>
<th>PROJ YEAR 1</th>
<th>PROJ YEAR 2</th>
<th>PROJ YEAR 3</th>
<th>PROJ YEAR 4</th>
<th>PROJ YEAR 5</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SALES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash Sales</td>
<td>R 0.00</td>
<td>R 1,912,620.00</td>
<td>R 3,375,739.00</td>
<td>R 3,713,312.90</td>
<td>R 4,084,644.19</td>
<td>R 4,493,115.16</td>
<td>R 17,579,431.25</td>
</tr>
<tr>
<td>Credit Sales</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
</tr>
<tr>
<td>Total Sales</td>
<td>R 0.00</td>
<td>R 1,912,620.00</td>
<td>R 3,375,739.00</td>
<td>R 3,713,312.90</td>
<td>R 4,084,644.19</td>
<td>R 4,493,115.16</td>
<td>R 17,579,431.25</td>
</tr>
<tr>
<td><strong>Cost of Goods Sold</strong></td>
<td>R 0.00</td>
<td>R 1,388,721.00</td>
<td>R 2,447,957.70</td>
<td>R 2,692,753.47</td>
<td>R 2,962,028.82</td>
<td>R 3,258,230.56</td>
<td>R 12,749,691.55</td>
</tr>
<tr>
<td>Opening Stock</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
</tr>
<tr>
<td>Purchases</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
</tr>
<tr>
<td>Closing Stock</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
</tr>
<tr>
<td>Total Cost of Goods Sold</td>
<td>R 0.00</td>
<td>R 1,388,721.00</td>
<td>R 2,447,957.70</td>
<td>R 2,692,753.47</td>
<td>R 2,962,028.82</td>
<td>R 3,258,230.56</td>
<td>R 12,749,691.55</td>
</tr>
<tr>
<td><strong>GROSS PROFIT</strong></td>
<td>R 0.00</td>
<td>R 523,899.00</td>
<td>R 927,781.30</td>
<td>R 1,020,559.43</td>
<td>R 1,122,615.37</td>
<td>R 1,234,884.60</td>
<td>R 4,829,739.70</td>
</tr>
</tbody>
</table>

**Operating Expenses**

<p>|                  | R 0.00       | R 53,400.00 | R 58,295.00 | R 64,124.50 | R 70,536.95 | R 77,590.65 | R 323,947.10 |
| Administration &amp; Advertising &amp; Promotions | R 0.00       | R 34,800.00 | R 37,990.00 | R 41,789.00 | R 45,967.90 | R 50,564.69 | R 211,111.59 |
| Labour           | R 0.00       | R 99,000.00 | R 131,000.00 | R 144,100.00 | R 158,510.00 | R 174,361.00 | R 706,971.00 |
| Merchandise      | R 0.00       | R 44,800.00 | R 61,570.00 | R 67,727.00 | R 74,499.70 | R 81,949.67 | R 330,546.37 |
| Occupancy        | R 0.00       | R 2,400.00  | R 2,620.00  | R 2,882.00  | R 3,170.20  | R 3,487.22  | R 14,559.42  |
| Operations       | R 0.00       | R 16,800.00 | R 18,340.00 | R 20,174.00 | R 22,191.40 | R 24,410.54 | R 101,915.94 |
| Financial        | R 0.00       | R 4,800.00  | R 5,240.00  | R 5,764.00  | R 6,340.40  | R 6,340.40  | R 28,484.80  |</p>
<table>
<thead>
<tr>
<th>Operating Annual Expenses</th>
<th>R 0.00</th>
<th>R 4,083.00</th>
<th>R 4,847.00</th>
<th>R 5,331.70</th>
<th>R 5,864.87</th>
<th>R 5,864.87</th>
<th>R 25,991.44</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Operating Expenses</td>
<td>R 0.00</td>
<td>R 260,083.00</td>
<td>R 319,902.00</td>
<td>R 351,892.20</td>
<td>R 387,081.42</td>
<td>R 424,569.04</td>
<td>R 1,743,527.66</td>
</tr>
<tr>
<td>TRADING INCOME</td>
<td>R 0.00</td>
<td>R 263,816.00</td>
<td>R 607,879.30</td>
<td>R 668,667.23</td>
<td>R 735,533.95</td>
<td>R 810,315.57</td>
<td>R 3,086,212.05</td>
</tr>
<tr>
<td>Non-Operating Income(Expense)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest Income</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
</tr>
<tr>
<td>Depreciation</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
</tr>
<tr>
<td>Interest Expense - Short Term</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
</tr>
<tr>
<td>Interest Expense - Long Term</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
</tr>
<tr>
<td>Total Non-Operating Income(Expense)</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
</tr>
</tbody>
</table>

**Operating INCOME (LOSS)**

<table>
<thead>
<tr>
<th>Before Tax</th>
<th>R 0.00</th>
<th>R 263,816.00</th>
<th>R 607,879.30</th>
<th>R 668,667.23</th>
<th>R 735,533.95</th>
<th>R 810,315.57</th>
<th>R 3,086,212.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income Taxes</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
</tr>
<tr>
<td>NET INCOME (LOSS)</td>
<td>R 0.00</td>
<td>R 263,816.00</td>
<td>R 607,879.30</td>
<td>R 668,667.23</td>
<td>R 735,533.95</td>
<td>R 810,315.57</td>
<td>R 3,086,212.05</td>
</tr>
<tr>
<td>Dividends</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
<td>R 0.00</td>
</tr>
<tr>
<td>NET INCOME (LOSS)</td>
<td>R 0.00</td>
<td>R 263,816.00</td>
<td>R 607,879.30</td>
<td>R 668,667.23</td>
<td>R 735,533.95</td>
<td>R 810,315.57</td>
<td>R 3,086,212.05</td>
</tr>
<tr>
<td>CUMULATIVE NET INCOME (LOSS)</td>
<td>R 0.00</td>
<td>R 263,816.00</td>
<td>R 871,695.30</td>
<td>R 1,540,362.53</td>
<td>R 2,275,896.48</td>
<td>R 3,086,212.05</td>
<td>R 3,086,212.05</td>
</tr>
</tbody>
</table>

*Figure 12: Income statement summary*
Demand Responsive Transport as integration to urban regular transport service: a case in Cape Town

Giannini Monica
Head of International Cooperation, PluService
SS Adriatica Sud 228/d, Senigallia (AN) - Italy
+39 0717999654, +39 0717999680, m.giannini@pluservice.net

ABSTRACT

The STADIUM project, co-funded by the EC under the FP7, started in May 2009 and involves partners in Europe, South Africa and India.

As a demonstration activity in South Africa, the partners have implemented a special Demand Responsive Transport (DRT) system with the support of a local transport operator. The system composed of an AVM control centre and a booking centre was demonstrated during the FIFA Soccer World Cup in Cape Town in June – July 2010 to manage the so-called Last Mile Service. After the World Cup, the on-board equipment and control centre have been used to provide assistance and manage different flexible transport services (Demand Responsive Services). Due to the relevance of the minivan transport sector (para transit) in Cape Town and in whole South Africa, the Stadium demo activity aims at improving its performances supporting a demand-responsive transport system. The paper will describe the DRT-AVM control centre implemented in Cape Town by the Stadium partners and the services run by the local minibus taxi operator. The demo activities of the Stadium Project in South Africa presented various levels of innovation and research, both in the technical solution adapted to the South African context and in the business models adopted.

The paper will demonstrate how a DRT system can be successfully used to manage complementary services integrated with urban transport. The demo in South Africa will be considered as a starting point for future studies and applications of flexible transport in the context of public transport.
DRT: AN IMPLEMENTATION IN CAPE TOWN WITH THE STADIUM PROJECT

The Stadium South Africa demonstrator aimed at introducing ITS on a portion of a local minibus taxi operator’s fleet: the project introduced an AVM and a DRT system. The activities performed in Cape Town – supported by the local transport operator Peninsula Holdings – dealt with passenger city transport from/to the Central Station during FIFA Soccer World Cup 2010. A fleet of minibus taxis were equipped with on-board technology for localization and communication with the control centre, which included 4 servers and a PC workstation for the call centre operator. The software on board and in the control centre was designed and realized according to specific mobility needs aroused during the SWC, yet considering sustainability of the system beyond the event. The second phase of the demonstration, after the SWC, aims at managing new mobility services with the system provided by Stadium. The new services will be based on the location of vehicles and on the booking system and will provide flexible solutions based on passengers’ needs. During the project there was a study of the new business models for the implementation of flexible transport systems in the City of Cape Town. Such models were introduced to the City of Cape Town for issuing new licenses allowing the integration of demand-responsive transport with the local public transport system. The testing in South Africa, made possible by the European project Stadium, paved the way for an applied study of new schemes based on a transport model: the minibus taxi industry, absent in Europe. Some models are replicable in other urban and extra-urban contexts and particularly interesting is the applicability to the context of diffuse city which will be developed more deeply by some Stadium project partners.

BACKGROUND INFORMATION – THE URBAN PUBLIC TRANSPORT IN SOUTH AFRICA

The European Project Stadium is included in the context of the so-called SICA projects, that is the projects in which the European Commission encourages cooperation with third countries, and most of all with Emerging Countries, such as South Africa. Such collaborations may generate stimuli and innovative solutions which may not be so successful in Europe-only contexts. The implementation of ITS systems in Emerging Countries may, at first sight, seem incoherent or improper, yet the application in different cultural contexts mainly steers the creation of new business models which may be successfully reapplied in Europe. Some general information on the transport context in South Africa can better clarify the evolution of the Stadium project. The minibus taxi industry in South Africa plays a major role in passenger transport. In time, transport through minibus taxis has established itself to fill the lack of
public transport and has expanded more and more, thus becoming today the transport mode used by about 70% of passengers in South Africa. Almost 150,000 minibus taxis run throughout the country. The minibus taxis are mainly used by disadvantaged and poor citizens that do not have access to private vehicles. Nevertheless, the South African cities are facing serious traffic and pollution problems which require better public transport as a solution. The Stadium project aims at providing a demonstration of how the minibus taxi industry can make use of a DRT+AVM system to foster integration of services with urban regular transport.

The following figure shows the minibus taxi users’ satisfaction with respect to the minibus taxis on a four-point rating scale: Very satisfied, Satisfied, Dissatisfied and Very dissatisfied, and the following can be noted:

- Users are mostly satisfied with the distances to or from minibus taxi ranks, travel time (or service speed), peak period frequency, waiting time for taxis and off-peak service frequency
- Users are mostly dissatisfied with safety, vehicle roadworthiness, quality of ranking facilities and crowding inside taxis and driver behaviour
- Users are generally satisfied with features that are closely associated with a demand-responsive public transport service such as distance to route, waiting time, and service frequency

![Figure 1: Satisfaction ratings by minibus taxi users (National Household Travel Survey)](image)
The DRT system and monitoring control centre implemented in Cape Town by the Stadium partners resulted in concrete in the so called Last Mile service operated during the Soccer World Cup as an extension of the Airport shuttle, taking passengers arriving at the Civic centre (via the airport shuttle from the airport) to their final destination.

What has been implemented in South Africa:
- On-Board Equipment for a fleet of vehicles (GPS, OBU, screen, card reader, CCTV, passenger counter)
- A control centre for the monitoring of vehicles
- A booking centre for the management of new on demand services
- Training to drivers and call centre operators
- Assistance to visitors during SWC

![Fig. 2: Overview of the Last Mile service provided from Central Terminal in Cape Town](image)

![Fig. 3: One of Peninsula Holdings’ vehicles used in the Stadium project](image)
After the World Cup the partners worked to adapt the system to new transport services and implemented a business plan to make the system sustainable (new transport services using the DRT and AVM system provided)

![Fig. 4: screenshots of interfaces developed by Stadium partner PluService for DRT and Automatic Vehicle Monitoring in Cape Town](image_url)

The system resulted suitable to manage a number of services that Peninsula Holdings intends to provide in Cape Town. Some of the new public transport services to be offered by Peninsula Holdings are the following:

- **Loop Service** – This service will be based on current operations where the driver will deviate slightly off existing routes to pick up potential commuters who placed a call to the call centre.

- **Point-to-Point Service** – This service is a metered type of Taxi service but at a reduced rate for groups of passengers. This service will be aimed at Major Hotel Groups, Back Packing Lodges, Bed and Breakfast sites.

- **Mall Shuttle** – This service will be a dedicated loop type service for residents such as housewives who need to be picked up and driven to the designated mall for that area. Bookings can be done to be picked up from home and taken to the mall and back home again.

- **Contract Services** – This contract service can be offered to companies to Transport their workers to work in the mornings and back home again in the evenings.
• **Last Mile Service** – This service will complement the City’s Airport Shuttle Service into the City by offering the commuter a service from the City’s Civic Centre Station to his final destination.

To achieve the above, PH has established a call centre at its premises and is outfitting a number of Taxis with ITS (Intelligent Transport Systems) equipment in order to provide a monitored, safe and efficient service to the commuter. PH is using the equipment and system provided by Stadium.

**THE DRT CONCEPT AS INTEGRATION TO URBAN REGULAR TRANSPORT SERVICE**

**Principles of the DRT solution**

The DRT software is an internationally tested and proven flexible scheduling application. It is basically an ITS solution integrating the principles of “booking” and “scheduling”. The software provides a routing as output of the processing of the requests. Passengers can place a booking for a trip telephonically through a call centre or via the Internet on a dedicated website. The call centre operators log the requests and the scheduling program gives out the routes for the vehicles. This can be done up to a short period (minutes) before the vehicle starts its route. Real time requests are slotted in with existing routes if possible. DRT systems are used worldwide and offer a mobility solution in case of weak demand and/or services dedicated to the disabled and the elderly. The service is also used to determine the demand of public transport on non-existing routes.

**New DRT concepts for urban transport**

The usual concept of DRT must be modified to be adapted to new services and provide a better answer to travelers’ demand. The service needs technological support, mostly for the localization of vehicles and management of real-time transport requests (i.e. when the request arrives after the vehicle departs). In recent years – and with the support of cutting-edge technologies in the fields of communication and localization – there is higher diffusion of solutions for flexible or demand-responsive transport in support to public transport, both urban and extra-urban.

The use of a bus (i.e. shuttle) for DRT is actually a rapid and customized solution for small groups of people that, for instance, require a transfer to the airport, need to reach a final destination after a long-distance journey, move from an interchange node to the other or simply need to reach destinations scarcely served by public transport. The use of DRT service to bridge the gaps between transport modes has been studied extensively and implemented partially within the Stadium project.

One of the reasons why the DRT has always been considered scarcely appealing by public
transport operators is that it is not very rewarding, yet it has high implementation costs. All this caused it to be considered as service addressing disadvantaged segments of the population, rural areas or as a complement to local transport in off-peak service hours (publicly financed social service).

The Stadium Project tested a hybrid DRT in an urban context and demonstrated its validity in various forms:

- Support to mobility management during big events
- Integration to mass transport services, such as BRT
- Integration to the regular service of minibus taxi

Monitoring of passengers allows minibus taxis to continue boarding passengers along the route, ensuring, at the same time, the service to booked passengers just by making planned route variations or managed in real-time by the system. This is one of the innovations introduced by the Stadium project.

Currently, the phase for data collection and system assessment is being implemented in Cape Town. One of the next steps for the partners responsible of the testing phase is the feasibility study for the sustainability of the system in other European and non-European contexts.

REFERENCES

(5) Giannini, M and Van Zyl, K, “An ITS solution integrated to the IRT architecture in Cape Town within the FP7 project Stadium”, Proceedings of ITS World Congress 2010, BUSAN, South Korea