



Abstracts case studies

INTERFACOM, TECHNOLOGY FOR TAXIS (TAXITRONIC)

Francesc Angles, Vice-President of the firm Interfacom, Barcelona

For 80 years, the firm Interfacom has been supplying taximeters to taxi fleets all over the world. Hardware and software have evolved continuously in line with technological progress and demand, initially incorporating the first microprocessors, then radio systems. These systems included GPS location and job allocation by sending data using non-voice radio trunking over GPRS and GSM networks. The latest innovation is the “All in One” terminal, with a colour touchscreen that acts as a meter, data terminal, credit card payment terminal, thermal printer, satellite navigation system, hands-free function and PTT (push to talk) for short GPRS voice messages . These terminals can be linked to the police emergency centre. It is also possible to link the terminal to a screen that offers a range of passenger services: TV, video, selective advertising, hotel reservation, flight check-in for certain airlines, mobile phone top-up... and other future services, which will earn the driver additional revenue. At this time, in Spain only, there are some 50 small, medium and large Taxitronic centres. We have three in Italy, have just set up a centre in Karlsruhe in Germany and are in the process of installing one in Luxembourg, We have begun work on the electrical installation for the first overseas centre, in Mexico. All these centres are linked to our Customer Service Department by a VPN line. Our customers are our best advertisers.

UNDERGROUND TAXIS OR TAILORED SERVICES: AN ORIGINAL EXPERIMENT. BATNA (ALGERIA)

Farès Boubakour, University Professor, Economics and Management Faculty, University of Batna

In Algeria, the use of clandestine (underground) taxis has grown to the dimensions of a phenomenon. Today, they have become a method of transport in their own right. Two pieces of research (one in 2000 and the other in 2003) reveal the extent and significance of this method of travel. Whilst the first study looked at the clandestines themselves, the aim of the second study was essentially to survey customers in order to find out what prompts them to opt for this type of transport. The results of these studies showed that the transport services provided by the underground taxis meet demand more effectively, are responsive to customers and finally offer a range of services that fulfil customer needs. Therefore, given the quality of service provided by the clandestines, informal transport has become part of life in Batna. People no longer say: “let’s take a cab”, but “let’s take an illegal ”!

FUTURE ROLES FOR THE TAXI IN URBAN TRANSPORTATION SYSTEMS?

Nicolas CARDON, Director, Automobile Department Customers, GfK CR France

GfK Custom Research France, in partnership with IVM, has conducted an international quantitative online survey (Paris, London, New-York, Amsterdam and Lisbon) with 2016 users and potential users of taxis.

At a time when local and national governments are seeking to slash private car use in town centres, the taxi naturally emerges as one of the methods of transportation best suited to urban travel. Its role needs to intensify. In support of these ideas, the results of the GfK survey will help us build up an accurate picture of the taxi's role, to decide what leverage is required to extend that role, and finally to identify what governments and local authorities can do to ensure that taxis meet the needs of urbanites more effectively.

TAXIS: AN APPROPRIATE TOOL FOR DYNAMIC AND LARGE-SCALE ON-DEMAND TRANSPORTATION

Robert Clavel, project manager for innovative transportation, Networks, Transport and Urban Planning Research Centre (CERTU), Lyon

As cities grow, as the range of urban transport widens, traditional transportation solutions, i.e. public transport on regular routes, are coming to seem less and less effective. Different alternative solutions, between the private car with its single driver and mass transit on regular routes, have been tested or implemented over many years, in particular on-demand transport. Dynamic, large-scale on-demand transport, which is the most innovative of such transport in terms of the range of service provided, offers flexibility close to that of the private car.

The paper will notably include:

- A presentation of the concept of dynamic, large-scale on-demand transport
 - Taxis: a first step in implementing such services
 - A of existing technologies that can be used to implement such services
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PARATAXI! THE POTENTIAL FOR FOCUSED DRT (DEMAND RESPONSIVE TRANSPORT) TO SATISFY NEW DEMANDS OUTWITH TRADITIONAL BUS SERVICES

James Cooper, senior research fellow, TRi Head of TRi Taxi Studies Group, Napier University, Edinburgh

The delivery of public transport at all times to peripheral communities and at times of low demand represents a significant challenge to transport operator, local authority and user alike. Since access is an essential pre-requisite to community activities, gaining and maintaining employment, a lack of transport at times when individuals seek to travel to early morning shift starts, home from late evening shift ends, and pretty well at any time on a Sunday, is a fundamental barrier. The development of specialist flexible transport may allow for specific community solutions to be targeted to observed and stated needs. Of these, the need to secure and maintain employment is a major factor in individual participation and security. This paper considers the effectiveness of a variety of non-traditional solutions in providing access to the workplace, and in reducing the access related barriers to employment. The paper considers alternative methods of access, and comments on the impacts of a variety of solutions. This paper introduces the concept of, and methods by which mobility and inclusive access may be enhanced through the application of innovative demand responsive transport solutions, in particular solutions based on use of taxi fleets. Using experiences drawn from a variety of schemes, including those focused on access to work the paper summarises lessons learned, issues arising and transferability of lessons. The paper also provides an initial concept in the appraisal of schemes based on the traffic and community benefits arising. The paper concludes that specific and targeted solutions may be possible without reliance on long term public funding, and in the case of the taxi based projects offer a high ratio of social return to small levels of investment.

DAY-TO-DAY MOBILITY POTENTIAL FOR AN AGEING POPULATION: POTENTIAL FOR NEW “DEMAND-RESPONSIVE TRANSPORT” MARKETS

Virginie Dejoux, doctoral researcher at the INRETS

Jimmy Armoogum, design engineer at the Transport Economics and Sociology Department (DEST), Research Methods for European Surveys of Travel Behaviour (MEST), National Research Institute on Transport and Transport Safety (INRETS), Paris

Yves Bussière, Professor, urbanisation, culture and society (UCS), National Institute for Scientific Research (INRS), University of Quebec, Associate Professor at the Department of Geography, member of the Transport Research Centre (CRT), University of Montréal

Jean-Loup Madre, Director of Research, Transport Economics and Sociology Department (DEST), scientific research director of MEST and Technologies for european surveys of travel behaviour, Paris

With the diminution of public transport, the taxi has taken on a much more important role in the countryside, i.e. in areas where there are particularly high concentrations of older people. In the big cities, the older populations are concentrated in the centres, areas to which suburban households could return as they get older and can no longer rely on automobile dependence. We will show the long-term trends in day-to-day mobility amongst ageing populations, through two examples: one in North America (Montréal Metropolitan Region) and the other in Europe (Ile-de-France Region), where we will highlight the role of the taxi and, more generally, of the potential market for relatively specialised on-demand transport services.

MOPED-TAXIS IN AFRICAN TOWNS SOUTH OF THE SAHARA

Lourdes Diaz Olvera, Didier Plat, Pascal Pochet, researchers at the Transport Economics Laboratory, State National Civil Engineering School (ENTPE), University of Lyon 2

Maïdadi Sahabana, researcher at the Douala Urban Community

Since the 1980s, many African cities have seen the development of the moped-taxi. This new method of public transport meets the specific needs of the population: transport over short distances at low prices, door-to-door service, access to difficult areas, connection with other forms of transport. In parallel, the operating conditions of this form of transport generate significant external negative effects: congestion, atmospheric and noise pollution, traffic accidents. In this paper we consider the different characteristics of the socio-economic, political and local contexts that have led to the emergence of moped-taxis. We then analyse their current role in urban transport. Finally, we look at ways whereby these methods could eventually be incorporated into public transport policy, based on bottom-up initiatives.

THE TAXI, AN INTEGRAL PART OF A SUSTAINABLE PUBLIC MOBILITY SERVICE

Chantal Duchène, Director-General of the Transport Authorities Group (GART), expert adviser to the Council of Europe, Paris

In order to implement mobility policies that reconcile economic efficiency, community support and environmental protection, France's local authorities are moving towards the organisation not only of collective transport services, but more broadly towards a sustainable Public mobility service, which can offer diversified services as an alternative to the single occupancy private car.

Whilst public transport is well-suited to mass transportation, it cannot meet every need. Taxis can provide an adjunct to traditional public transport, providing service in the suburbs and/or in the evening, at night, early in the morning or over the weekend, through on-demand transportation or virtual travel routes.

The speaker will present different French examples of this use of the taxi as an adjunct to public transport and will analyse the successes and problems encountered.

She will also speak about the partnership with GART, an association covering all the French local authorities responsible for organising collective transport, and the National Federation of Private Taxidrivers. A partnership charter was signed in 2003 and since then has led to mutual contributions by speakers at the two institutions' respective conferences and by assistance to members of both of them in the event of problems. This partnership has also led to coordinated contributions at meetings with Government departments reviewing the laws on access to the profession, in order to allow taxis to move into this new market.

THE INCLUSION OF TAXIS INTO THE MAIN COLLECTIVE TRANSPORTATION SYSTEM IN SANTIAGO DE CHILE

Oscar Figueroa, economist, PhD in urban planning, Director of the Masters Programme in Urban Development at the Urban Studies Institute of the Catholic University of Santiago de Chile

Santiago de Chile is in the process of setting up a BRT (Bus Rapid Transit) system. This acknowledges the importance of a hierarchical public transport system, with high-capacity lanes and secondary systems feeding these lanes. The different parts of the system can then specialise, and the taxi can play a major role.

In Santiago, there are two types of taxi service: the traditional taxi, with on-demand services, and the collective taxi, a four-passenger, fixed route car service. Both of them need to fit into the BRT system, to avoid damaging competition between systems and to prevent more congestion.

Competitive tendering has led to licence has been granted to a limited number of cars (without regulation, the number of taxis was previously very large). The result in terms of integration and coordination remains to be seen, since the BRT system has just been introduced.

The proposed paper will describe the background to the project, the terms of the tendering process, its outcome, and a first report on the operation in May.

BETWEEN INNOVATION, MISSED OPPORTUNITIES AND BLOCKAGES. A HISTORY OF PARISIAN TAXIS IN THE FIRST HALF OF THE 20TH CENTURY

Mathieu Flonneau, Lecturer in Modern History, University Paris I Panthéon-Sorbonne, Centre for 20th-Century Social History, Paris

An object of permanent recrimination, Paris's taxis are at the heart of a specific mythology, linked to their heroic beginnings, themselves connected with the very Parisian early days of the world car industry.

Beyond the anecdotal aspects, important as they are in the history of urban representations, our paper will seek to place the role of the taxi within its long-term context in the system of mobilities of the Parisian metropolis.

It will look at the role of the taxi in the beginnings of the automobile system, and the powerplay associated with the "coordination of transportation" legalised in 1937, which created a frozen order (with the establishment of a professional *numerus clausus* and the prohibition of the collective taxis which existed and actively serviced the then fast expanding suburbs, as the archives show), of which the contemporary situation is a direct legacy.

IMPROVING ACCESS TO TAXIS: MEETING THE NEEDS OF DISABLED AND OLDER PEOPLE

Ann Frye, independent consultant and joint chair of the Taxi task force

Mary Crass, principal administrator, transport policy division, ECMT, Paris

Philip Oxley, independent consultant, report author, expert consultant to the International road transport union (IRU) and the European conference of ministers of transport (ECMT) on access to taxi services

Marc Billiet, International Road Transport Union (IRU) Permanent Delegation to the EU

Donald Macdonald, head of bus & coach policy & engineering standards, Department for Transport

Taxis are an ideal form of local transport for many disabled and older people because they provide a door to door, on demand service. However, the design of most vehicles used as taxis in Europe is difficult or impossible for many to use.

Accessibility requirements have been introduced at European level applying to bus construction, rail and air services. There are no equivalent requirements for taxis other than at the most local levels in some countries.

To tackle this anomaly, a joint project between the European Conference of Ministers of Transport (ECMT) and the International Road Transport Union (IRU) brought together manufacturers, operators, policy makers and disabled consumers to review the ergonomic requirements for accessible taxis and to propose design parameters which can be met by a range of vehicle types.

The report also considers ways of promoting the take up of accessible vehicles and explores issues of infrastructure design and the economics of accessible taxi operation.

The presentation will describe the key findings of the project and will highlight the factors which manufacturers, operators, national and local governments need to take on board if taxis are to play their full part in meeting the needs of our disabled and ageing populations.

COLLECTIVE TAXIS AND MOPED-TAXIS: AN INTERMODAL PAIRING FOR BETTER URBAN TRANSPORT INTEGRATION IN LOMÉ

Assogba Guezere, doctoral researcher at the University of Lomé, Assistant Lecturer at the University of Kara

Since 1982, the urban public transport system has disappeared with the winding up of the Municipal Urban Transportation System created by the city of Lomé in 1962. Has in many African cities, private, self-employed operators have moved into the vacant space. Until 1990, collective taxis held a monopoly on urban transport in Lomé. Because of their inability to serve all areas, moped-taxis appeared and have become very popular. Today, almost 70% of journeys are carried out using this form of local transport. Despite its negative appearance, its services have shown that it represents an important and irreplaceable link in the urban transport chain in Lomé, serving isolated neighbourhoods and providing access to the big transport interfaces. In any case, the collective taxi/moped-taxi pairing is doing very well, and involvement by the municipal authorities in its organisation could provide an original additional transport system in Lomé.

CITY NIGHT: DREAM TAXI TIME, TAXI DREAM TIME.

THE FORGOTTEN NIGHT OF PARISIAN TAXIS

Yves Jouffe, sociologist at the City Mobility Transport Laboratory (LVMT), National Civil Engineering School (ENPC), National Research Institute on Transport and Transport Safety (INRETS), Catt University of Marne la Vallée (UMLV), Paris

Night taxis seemed to be the dream transport method for half asleep cities. However, it remains a bitter dream for many night owls abandoned by the strategies of the night service taxis. Their choice of places, times and customers leave a population forgotten by the Parisian taxi.

In addition, this forgotten night is also changing with the emergence of new metropolitan timeframes. Whilst nightwork seems to be replacing party time in the animated centres, there is also the possibility that party nights have moved to an archipelago of isolated and scattered locations in the city, far from the areas served by taxis. Can the night taxi service evolve to become part of a nocturnal public mobility service? Some drivers refer to it, but they all rule out the solution of collective taxis as incompatible with their business and their privileged clientele. Not everybody dreams of the same taxi at night.

THE INTEGRATION OF “MOPED-TAXIS” INTO PUBLIC TRANSPORT IN CAMEROON – GOVERNMENT LEFT BEHIND BY INFORMAL SOLUTIONS: A POTENTIAL SOLUTION TO THE PROBLEM OF MOBILITY AND EMPLOYMENT IN SUB-SAHARAN AFRICA

Pierre Kamdem, PhD in geography, Spaces, Societies, Culture Research Centre (CRESC), University of Paris 13

Célestin Kaffo, **Basile Tatsabong**, geography researchers, National Institute of Cartography (INC), Yaoundé

Louis Marie Diebo, FLSH, Department of Geography, University of Dschang

Since the early 1990s the socio-economic crisis has weakened the role of the State in priority sectors such as public transport. This disengagement has resulted in the closure of transport firms such as SOTUC and the freezing of road maintenance work. As a result, the poor condition of the roads and the State's inability to provide urban transport have undermined people's mobility. As a solution, vulnerable populations have made the moped part of public transport. With an ever-increasing clientele and its cheap and friendly character, this mode of transport has become firmly entrenched, becoming a business sector of significant scale. However, this method of transport is perceived ambivalently, with arguments raging about its prohibition and its legalisation. Nevertheless, it remains an informal reality that needs preserving for greater efficiency.

Key words: urban transport, poverty, mobility, moped-taxi.

COLLECTIVE TAXI SERVICES IN MOROCCO'S BIG CITIES: AN ALTERNATIVE TO THE FAILINGS OF INSTITUTIONAL TRANSPORT SYSTEMS

Julien Le Tellier, geographer, post-Doc at the Ministry of Foreign Affairs, Jacques Berque Centre for Human and Social Science Research (CJB), Rabat

In several Moroccan cities (Casablanca, Rabat-Salé, Tanger, Tétouan, etc.), urban collective taxi services meet mobility needs that are not fulfilled by institutional transport systems. Collective taxis represent a new form of urban transport service. They are described as an emergent, alternative, replacement transport method. However, do they represent a solution for the future?

Collective taxis do not fit in with the transport model that the authorities would like to see and their use is not a panacea (polluting vehicles, dangerous driving). However, changing the law would be problematical, because the collective taxi system is part of a balance between the interests of regional authorities (tax), the earnings of licence holders, the revenues of taxi drivers and a socially useful transport service. The authorities are caught between the desire to change and the difficulty of reform, because the operators, despite the problems they cause, provide cheap mobility services and also form a powerful lobby.

EVALUATION OF COLLECTIVE TAXI SYSTEMS BY EVENT-DRIVEN SIMULATIONS

Eugénie Lioris, doctoral researcher (CERMICS-ENPC) and National IT and Automatic Systems Research Institute (INRIA), Paris

Guy Cohen, Professor at the National School of Civil Engineering (ENPC), member of the Centre for Teaching and Research in Mathematics and Scientific Computation (CERMICS), head of the *Optimization and Systems* team, Paris

Arnaud de la Fortelle, researcher at the Ecole des Mines (CAOR) and for IMARA's project of INRIA, Rocquencourt

The purpose of our project is to provide transportation specialists with a flexible tool for evaluating the performance of collective taxi systems operating in the heart of cities. The challenge of collective taxis is to retain as much as possible of the quality of service of individual taxis while lowering the fares to a level more comparable with public transportation. Designing such a system, optimizing several parameters such as the number of taxis to be put in operation at every hour of the day, tuning algorithms to make decisions about accepting/rejecting customers in the streets, assigning customers to taxis at the dispatching center, etc., are very complex issues for which a purely mathematical model is unconceivable and only event-driven simulations can be seriously considered in order to achieve the best possible performance and answer such questions as: at which level of demand in a given city configuration, a collective taxi system become a competitive transportation system? The talk will describe the main features of the simulation tool we have started to design in order to address such issues.

TAXI WARS AND THE REGULATION OF INFORMAL PUBLIC TRANSPORT IN SOUTH AFRICA

Roland Lomme, Chair of Transportation and Logistics, Conservatoire national des arts et métiers (CNAM), Paris

South Africa is obviously not the only developing country where informal operators make the most of public transport and motorised passenger trips: nearly half of South African commuters use minibus taxis in metropolitan areas and only just over two fifths of them commute in private cars. However, it stands out as a country which has been plagued for the past twenty years by deadly warfare between rival minibus taxi owners and drivers on the roads, by their armed opposition to formal bus companies, as well as to the regulatory efforts of the state. The paper addresses three different issues: - Are "taxi wars" a form of self-regulation for informal transport systems? - Are "taxi wars" a way to resist the regulatory endeavours of the State? - Beyond "taxi wars", what is the best way to assess the comparative advantages of informal public transport in South Africa as compared to formal ones? The author published an article on the topic in *Afrique contemporaine*, autumn 2006.

PITFALLS AND CONFLICTS IN THE INTEGRATION OF TAXIS IN URBAN MOBILITY SYSTEMS

Rosário Macário, Assistant Professor at the Department of Civil Engineering and Architecture at the Instituto Superior Técnico, Lisbon Technical University, and director in Transport, innovation and systems (TIS), Lisbon

The urban mobility system is built on a set of different elements (e.g. services, stations, institutions, etc.) that should give end users the ability to organise their own mobility chain. Taxis are an important element of the system not only because of the connectivity they provide between other modes but also for their ability to provide an effective proxy for the private car with some distinctive comfort characteristics in their use, such as no need to waste time parking, refuelling, planning and providing maintenance, etc., and still a perception of enhanced security.

However, integrating taxis requires several dimensions of integration to be considered, some of them visible to users. These are: physical and logistical integration and, under some circumstances, price integration as well, and also a less visible dimension of organization to ensure the effectiveness of other systems.

This paper describes the organisation of taxis services in Brazil, where the regulatory and organizational frameworks of urban mobility systems are being reformed.

ISTANBUL: UNUSUAL USES THAT QUESTION THE TAXI AS A TRANSPORT METHOD

Joël Meissonnier, socio-anthropologist, teacher and researcher, Galatasaray University, Department of Sociology, Istanbul

After a short presentation of the urban context in Istanbul, a tentacular metropolis, the paper describes the practices and representations relating to taxis, from the point of view of the customer and the driver, from an anthropological perspective. A number of evocative stories recorded in the field show the extent to which the services provided by a “taxi” can be diverse, and that it is important not to have a rigid view of what an Istanbul taxi is. Using the distinction made famous by Georges Amar between a “vehicle” and “mode” of transport, we clarify what should be understood by the word “taxi” in Istanbul, and draw some conclusions from it. On the one hand, we show that taxis are the only modes that has remained outside a widescale price integration of all public transport methods in Istanbul (in the form of a prepaid electro-magnetic ticket). And on the other hand, we show that the customers of taxis and of public transport are a partially overlapping group. In describing these features, we wonder to what extent it would be desirable to complete the process of price integration for all modes of public transport, by extending it to taxis, which would be a world first.

LEARNING LESSONS FROM IMPLEMENTATION OF FLEXIBLE TRANSPORT SERVICES AND GUIDELINES FOR FURTHER INTEGRATION

John Nelson, professor of transport studies, Centre for transport research, University of Aberdeen

Many authorities and operators throughout Europe are experimenting with or considering flexibly delivered public transport systems, of which taxis are an integral part. Many such initiatives have been in response to recent developments in transport telematics. The overall objectives of this paper are: (a) to develop an accessible and user friendly analysis of the provision of telematics-based flexible transport schemes showcasing recent practical experience; and (b) to demonstrate how flexible transport services can contribute to the overall strategy and commitment of statutory authorities to provide citizen mobility within budgetary constraints.

The *paper* is divided into key areas which are relevant for the types of decision that need to be made in either setting up a flexible transport service for the first time, or to make improvements to an existing service. The key areas considered are the economic framework, the technologies employed, issues in service design, managing multiple services, marketing and promotion and, importantly, how these services can be provided sustainably with the use of partnerships.

TAXI SERVICE INTEGRATION IN BUENOS AIRES: THE UNION VIEW

Claudio Palmeyro, Director General of transportation for the City of Buenos Aires

Within the wide range of activities that contribute to the economy of a great city such as Buenos Aires, and more specifically in transportation, the public taxi service plays a prominent role. It provides more journeys per day than the subway and offers a continuous 24-hour service. Including related industries, more than 100,000 families benefit from this activity.

A single taxi system creates a framework for industrial relations. A wider framework is governed by Labour Contract Law and the Collective Work Agreement agreed through labour negotiations.

The taxi union is obviously committed to the rights of taxi workers, but it also has a wider commitment to the future: improvements in the quality of urban life, including safer streets, better mobility and a healthier environment, will enhance their quality of life and working conditions. The union has therefore created a new training institute with the aim of improving services. The union has played a key role in discussions about long-term government decisions on urban mobility and urban issues, which will be further explained in this presentation.

TAXIS ACESSIVEIS - UMA NOVA VERTENTE A DESENVOLVER

Carlos Pereira, head of the surveys, projects and statistics division at SNRIPD, Instituto Nacional de Reabilitação, Lisbon

O táxi surge no conjunto dos transportes públicos como o mais adequado para as pessoas com mobilidade reduzida. As vantagens são evidentes, designadamente por se tratar de um transporte “porta a porta”, por ser um serviço personalizado e ainda por apresentar um elevado grau de disponibilidade. A procura de transportes acessíveis fundamenta-se na autonomia das pessoas com mobilidade reduzida e no envelhecimento da população.

Os estudiosos da demografia na Europa estimam que existam pelo menos 45 milhões de pessoas com algumas deficiências ou incapacidade. A maioria, perto de 70%, terá dificuldades motoras.

Há que definir que acessibilidade se pretende para os táxis.

Ou uma acessibilidade total que permita a utilização por pessoas em cadeira de rodas, ou uma acessibilidade parcial, que facilita o acesso a todos e que exigirá apenas algumas adaptações simples. Será feita uma análise da legislação portuguesa e das condições da indústria de forma a estabelecer um conjunto de recomendações que poderão conduzir mais facilmente à criação de unidades total ou parcialmente acessível.

Aspectos como a fiscalidade, incentivos, formação e procura serão igualmente contemplados no sentido de fundamentarem as propostas mais correctas.

MOBILITY ENTREPRENEURS: TAXIS AND MOTOTAXIS IN RIO DE JANEIRO (BRAZIL)

Catherine Reginensi, anthropologist, Toulouse National Higher School of Architecture (ENSAT)

Sarah Wickenburg, 5th-year architecture student, ENSAT

On the basis of our own experience of travelling round Rio de Janeiro, presentation will be built around a commentary on three urban journeys. These journeys will form the basis of a debate about the role of the taxi as an alternative and inventive urban transport service.

A first journey will show a taxi ride from the airport to where were living.

A second itinerary will take us to Rocinha, considered to be Latin America's biggest favela. We use the mototaxi, a method of transport adapted to the topology of the morro (hills), and one that also gives young people work.

A third journey will be illustrated by street scenes of mototaxis and ecotaxis: visits to Santa Teresa and its unusual architecture, and to Paquetá Island, a neighbourhood of Rio.

WHAT SERVICES IN THE TAXIS OF TOMORROW?

Jean-Cristophe Riat, (Navigation, Communication, Multimedia)

Cristophe Cella, (Animation and Synthesis demonstration vehicle),

PSA Peugeot Citroën/ Direction of research and motor vehicle innovation

Which of us, when travelling for business or pleasure, has not dreamed of using a taxi journey to find out about the city or obtain information on events, of relaxing to our favourite radio station, or getting news on the latest international events?

These are just a few examples of the services built into the demonstration vehicles constructed by PSA Peugeot Citroën in collaboration with Orange and Optimus as part of the “taxis of the future” programme. Through a 20 inch screen, a special amplifier for the rear seats and a “CarBox”, passengers can enjoy a range of audio and video content: several Internet radio and TV programmes (in the language of their choice!), online video games, access to e-mail, connection of portable music devices, WiFi access points, etc.

Taxi drivers are not left out of the loop, since they have the latest innovations in telematic systems, with Citroën's NaviDrive and Peugeot's RT4 technology. In addition to the audio, 3-D navigation and hands-free telephone functions, these systems include an emergency call function and real-time traffic information accessible through an Internet Webcam viewer.

As the two demonstration vehicles show, the latest innovations in multimedia and telecommunications systems, and in particular high-speed 3G/3G+ networks, offer unprecedented prospects for exciting new developments.

ROLE AND FUTURE OF THE COLLECTIVE TAXI IN PONDICHERY (SOUTHERN INDIA) FROM THE PERSPECTIVE OF SUSTAINABLE URBAN DEVELOPMENT

Jeanne Riot, master's degree researcher, Laboratory for the Identity and Knowledge of Changing Territories and Environments (ICOTEM), University of Poitiers

India's collective taxis are the first potential victims of current policies, which seek to develop public transport in a more sustainable way, notably by the introduction of buses that can carry more passengers.

In Pondichery, these collective taxis have special status: they are official and travel on routes assigned by local government. In addition, with its narrow and somewhat inflexible chessboard layout, a legacy of colonialism, the town is a place poorly suited to buses.

This study shows how deregulation makes collective taxis a dirty and unsafe method of transport, whilst ongoing projects could make it possible to integrate them more effectively, whilst reducing pollution levels through the use of new energies. It also enables us to ask once again what we understand by sustainable.

MOPED-TAXIS AND URBAN INSECURITY IN NORTHERN CAMEROON, CASE STUDY ON THE TOWN OF NGAOUNDERE

Abdoulkarim Sadou, doctoral researcher, Department of History, Faculty of Arts and Human Sciences, University of Ngaoundéré

In the 1970s, young people from the towns and villages of Northern Cameroon began to hire bicycles to learn how to ride, amuse themselves or carry out their day-to-day business. Mopeds were rare, only becoming available for hire some years later. The 1980s saw the emergence of the moped-taxi business which, since its formalisation in 1994, was to become part of day-to-day life as a method of urban transport.

In Maroua, Garoua or Ngaoundéré, moped-taxis gradually replaced car-taxis. In Ngaoundéré, the emergence of the moped-taxi phenomenon coincided with an increase in insecurity. Alongside traffic accidents, banditry grew at an astonishing rate: scarcely a night goes by without violence of various kinds, in most of which the involvement of the moped-taxi drivers is established. The disadvantages of moped-taxis are fairly numerous and discourage users. Some prefer to use ordinary taxis to get around in order to avoid the risks of travelling by moped-taxi, so there is a revival of interest in the car-taxi.

THE TAXI, A DIMINISHING TRANSPORT METHOD IN THE CITIES OF CENTRAL AND WEST AFRICA: CASE STUDY OF THE TOWN OF GAROUA IN CAMEROON

Abdoulkarim Sadou, doctoral researcher, Department of History, Faculty of Arts and Human Sciences, University of Ngaoundéré

Garoua is one of the biggest conurbations in Cameroon after Douala, Yaoundé and Bafoussam. In the last 20 years, however, taxis there have gradually been replaced by the moped-taxi. This regression is characterised by a fall in revenues, a drastic slowdown in the rate of licences granted to taxi drivers and a change in the location of the business areas, which have moved out of the urban centre into the suburbs, or even the countryside. This falloff is one of the recent markers specific to the towns of Central and West Africa. The investigations conducted in Garoua on the decline of this method of transport reveal the role of the public authorities, which favour other forms of urban transport, notably the bus and the moped-taxi. There is also the high investment cost of the vehicle, the significant tax and maintenance costs, the poor quality of service provided by many drivers (overcharging, negligence, high pickup charges), the urban structure that is unfavourable to car-taxi traffic, etc. For taxis to return to their original urban context will require a combined effort by the political authorities, the economic operators in this sector and by users.

IRELAND APPROACH: A FUNDAMENTAL REFORM

Mark van Horck, Director of SGS Automotive, France

Ireland, a little country of 4 million people at the western edge of Europe, had the courage to take a big step in managing its taxi fleet.

At the end of the 1990s, the country's economy and tourist population grew so much that there was a marked shortage of taxis in circulation. On its side, the taxi industry was suffering from a lack of recognition because of a virtually non-existent legal framework.

It was then, in December 2000, that the Irish government took the radical decision to deregulate the licensing process and to introduce new regulations.

Deregulation led to a rapid and substantial increase in the number of taxis across the country, and the new rules – requiring a licence for the vehicle and a permit for the driver – raised levels of safety and comfort across the whole industry.

Since 2001, vehicles applying for a new licence as well as those already in circulation, have been subject to a special compliance process – the content of which is decided by the Ministry of Transport – and to a clean technical inspection. These inspections are carried out by the SGS, through its National Car Test System (NCTS), which now issues licences directly at its test centres. The drivers' permits are managed by the police and local authorities.