

# IMPACTS Latin America Conference in Quito 22 & 23 September 2004

## Proceedings

### Message from Ms DOUVIN, IMPACTS Europe President

**Mr. Frédy WITWTER** read the speech written by **Ms. Laurence DOUVIN**, President of IMPACTS Europe who was unable to attend the conference.

« Dear Lord Mayor,  
Dear Ladies and Gentlemen, Elected representatives of Cities

First of all, I would like to greet you and express my sincere regrets not to be able to be with you today.

Unexpected political events are keeping me in Paris and deprive me from the pleasure of taking part in this important event which is the birth of a new entity with which IMPACTS Europe and IMPACTS North America Member cities are very happy to collaborate.

Please allow me first to thank warmly the Lord Mayor of Quito, who took the initiative of organising this conference and invited the cities which are attending here.

It is thanks to him that the participation of Latin American cities in Barcelona and Geneva conferences could pave the way for the present conference.

Then, I would like to thank especially Fredy Wittwer and Julio Garcia Ramon, who respectively represent the cities of Geneva and Barcelona because they have played a great part, both at a personal and professional level, in making this conference possible.

For eight years, IMPACTS Europe and IMPACTS North America member cities have been meeting regularly on the occasion of annual conferences and have been working together in different ways: through bilateral or multilateral exchanges, through participating in European programmes, through scanning tours and above all through reflecting on specific themes, very often the most sensitive ones which are tackled from every angle and particularly through evoking cities' experiments with their positive and negative aspects.

Indeed, we have all become aware that we face the same interrogation which is really difficult to answer: how is it possible to increase mobility in order to develop the exchanges and answer a social demand while, at the same time protecting the environment in the context of sustainable development?

All our cities are facing this problem: it is one of the highest challenges of urban civilisations and our living environment of tomorrow will depend on the decisions we take today. The difficulty of this challenge is increased by the fact that financial resources and infrastructures are often insufficient.

That is the reason why sharing our knowledge, our data and our most successful experiences is not only precious but also essential.

That is the reason why it is in the interest of our cities to determine the best chances for success in order to facilitate the emergence of common standards and the implementation of a market which would make the new technologies that can help us, affordable.

We have already studied a large panel of themes during our annual conferences. A lot of cities have, then, used the lessons drawn from these events, to put in place the measures they chose to promote.

In eight years time, these exchanges have proved their effectiveness in many ways and the IMPACTS association has regularly expanded.

In order to be efficient and flexible, a structure like IMPACTS is necessarily light. It is based upon mutual trust between its members, who experience similar difficulties in their cities. It operates with a low but regular membership fee, which enables to have an efficient Secretariat General, necessary for organising the work of an international association.

I therefore wish you a great success. I feel very satisfied to think that, during IMPACTS intercontinental conference in Seattle, in Summer 2005, there will be three continental associations instead of two today and I hope that a number of the Latin American cities that are here today will also participate in this event.

Please receive all my warm regards.”

**Introduction to Impacts North America and NACTO, Ms Patrice GILLESPIE-SMITH, Seattle, Vice-President, Impacts North America & NACTO**

Due to Ms. GILLESPIE-SMITH's delayed plane, **Mr. Jean-Louis GRAINDORGE** took the floor explaining that NACTO means National Association of City Transportation Officials. It was thought about just before the middle of the 90s and became a reality in 1996.

Indeed, in North America, it was difficult to establish cooperation between the major American cities; many of the commissioners did not know each others. So the New York commissioner took the initiative of creating NACTO.

There were simultaneously efforts to set up cooperation between European and North American cities. As IMPACTS Europe was created, NACTO introduced an international section called IMPACTS North America. Cooperation between both has been effective for a lot of years. And **Mr. Jean-Louis GRAINDORGE** hoped that the creation of a new entity will reinforce the partnership between continents.

**Introduction by Mr. Antonio RICAURTE, Mayor of the Metropolitan district of Quito**

**Mr. Antonio RICAURTE**, Mayor welcomed Sr. Arturo CASTILLO , Mayor of Chiclayo, Mr Fredy WITWER, Mr Jean-Louis GRAINDORGE, Architect Hidalgo NUNEZ, the Director of transportation of Quito and all the participating members, international and national delegates, councillors and members of the metropolitan city of Quito, delegates and representatives of the sister cities of Brasilia, Sao Paulo, Buenos Aires, Cordoba, Lima, Mexico, Guatemala, Santo Domingo, Cali, Medellin, Cuenca and Loja to the first IMPACTS Latin America conference.

He reminded that when Geneva decided to invite 17 South American cities in 2003, it was a great pleasure and that it is a honour today to host such an important conference for the development of Latin American countries regarding urbanisation, transportation and transit.

He added that great things are happening in Quito to solve transit issues. A master plan and large projects are put in place to resolve transportation issues taking in mind environmental aspects.

For instance, Quito has implemented the “Metro Quito plan” aiming at integrating all the existing areas and corridors which are in operation and the ones that are planned. This plan has been supported by IMPACTS and the Mayor is very grateful for that.

Finally, **Mr. Antonio RICAURTE** thanked all attendees and opened the conference hoping that that it will enable cities to work jointly and help them to solve some of the major problems they are facing regarding transport.

## **Introducing IMPACTS**

**Mr. Claude DARGENT**, Paris City Councillor moderator gave the floor to Jean-Louis GRAINDORGE .

## **IMPACTS Europe ten years history, Mr. Jean-Louis GRAINDORGE, IMPACTS Europe, Secretary General**

**Mr. Jean-Louis GRAINDORGE** presented the history of IMPACTS Europe through answering a few key questions:

### When was IMPACTS born?

IMPACTS was born ten years ago. The 1<sup>st</sup> event was the first ITS Congress which occurred in Paris in 1994. The idea came then to write a “manifesto” of the cities witnessing that they have something to exchange together.

The second event was the creation of NACTO.

The 1<sup>st</sup> international conference of IMPACTS took place in 1996 and was hosted by New York.

In 1998, IMPACTS Europe was officially created with its statutes. A memorandum was signed then to formalize a partnership and create a federation between IMPACTS Europe and NACTO-IMPACTS North America.

This was possible because at that time one of the theme that was emphasized in cities’ policies regarded sustainable mobility. Besides, in the 90s, at international and national level, the importance of the role of local authorities was more and more perceived.

### Why was IMPACTS created?

In the different continents, Cities have different histories and infrastructures but in the domain of transportation, they are facing the same problems. So they have interest to exchange.

Moreover, in the fields of research & industry regarding the offer of intelligent transport systems and sustainable mobility solutions there is a worldwide organisation, so a federation provides cities with a bigger power when addressing the industry.

### Specificities of IMPACTS

This organisation mainly gathers capitals and metropolitan cities that have a strategic role. It is not an administrative organisation. It is meant to be at a political and decision makers’ level. It is an intercontinental organisation.

### Objectives

Impacts is at first a frame for dialog and exchanges between Cities. This benchmarking activity allows City decision makers to have a common vision regarding the main challenges regarding mobility and transportation issues.

Secondly, impacts provides Cities with opportunities to co-operate with one another and to dialog with Research to define common methods to assess their policies which are sometimes lacking.

Thirdly, Impacts as a whole enables Cities to exchange with industrials and help them to build an offer of products and services which could better meet their functional requirements.

#### List of member cities of IMPACTS EUROPE

Amsterdam, Barcelona, Berlin, Region of Brussels Capital, Budapest, Republic and City of Geneva, Göteborg, London, Paris, Rome, Stockholm and Vienna are IMPACTS Europe members.

The EU was enlarged since May to Central Europe countries, which explained why the last conference took place in Budapest. So IMPACTS Europe is likely to expand further towards Central Europe cities.

#### What is IMPACTS doing?

There are two kinds of events: an annual conference reflecting on a specific subject and an intercontinental conference or scanning tour, which is the opportunity to exchange between Europe and North America in specific domains.

Then, Jean-Louis GRAINDORGE provided a list of topics that were studied within the conferences: Safety and privacy, Transport & Urban economic development, Sustainable communities and public participation, Freight management strategies, Policies dealing with two Wheels and Pedestrians, Public transport & the mobility policies.

As far as possible, the results are disseminated on the internet website [www.impacts.org](http://www.impacts.org). There, can be found all the documents related to the conferences, for instance, the proceedings, the list of participants, etc. Most of it is in English.

The IMPACTS Newsletter is also very important: it is done in collaboration with the London team. The participants have two copies in their participants' package and can go through them. The next one is due for beginning of October. The edition of the Newsletter that will be published in January will contain an extended report of the Quito conference.

**Mr. Claude DARGENT** thanked **Mr. Jean-Louis GRAINDORGE** and introduced **Mr. Pierre SCHMITZ**

**IMPACTS Europe organisation, Mr. Pierre SCHMITZ, IMPACTS Europe treasurer**

**Mr. Pierre SCHMITZ** explained that an association is a legal entity that should have statutes.

IMPACTS Europe is a non profit making association. It is governed by French law. IMPACTS Europe is composed of founding members and card-carrying members. After having made the request and approval from the executive management board, cities – having the status of capitals or local authorities managing metropolitan conglomeration with high population density- may also become card-carrying members.

Member Cities and Local Authorities are represented by elected persons or by people authorised by them. Each city has a titular Delegate and a deputy Delegate.

There are also Individuals who, according to their competencies or their knowledge, could provide inputs for action and development of the association.

The organs of IMPACTS are:

- the Executive Management Board
- the President,
- the Assembly of Delegates.

IMPACTS-EUROPE is directed by an Executive Management Board of at least three members, that is appointed each year by the Assembly of Delegates. The Executive Management Board includes a President, one or several vice-presidents and a Treasurer. These duties are allocated by common agreement at the time of each renewal.

The Executive Management Board:

- Proposes general orientations and action programmes of the association,
- Prepares the budget and keeps the accounts,
- Fixes guidelines concerning publicity of the association and dissemination of the results carried out by its action.

The President represents the association in all the acts of civil life.

He supervises the work of the Executive Management Board.

The President convenes the Assembly of Delegates and chairs its sessions.

The Treasurer collects the subscriptions and the various resources of IMPACTS-EUROPE. He supervises and inspects the accounts of the association.

The Secretary General is appointed by the President upon approval by the Executive Management Board. He is responsible for the daily management of IMPACTS-EUROPE. He assists the Executive Management Board in the achievement of its missions, ensures records are kept correctly, writes the reports of the Executive Management Board and the Assembly of Delegates.

### The Assembly of Delegates

It includes all the Founding Members and Card-carrying Members.

It is convened by the President and meets in ordinary session at least once a year. To deliberate validly, at least half of members must be present or represented .

The President fixes the agenda. He (she) presides the Assembly of Delegates, assisted by the Vice-President(s) The Assembly of Delegates approves the Report of the Executive Management Board concerning the financial situation of the Association and its activities. It votes the amount of subscriptions.

It was précised that the subscription fee amounts normally to 8 000 euros. To favour the membership of Major Cities of the European Union new Member States, their membership fee has been decreased down to 4 000 euros during three years. The individual members only pay 50 euros.

Each Member city or local authority receives one vote for the decision in the Assembly of Delegates.

Delegates cannot receive any payment for the duties entrusted to them, however, they can claim compensation for expenses engendered on the occasion of specific missions within the conditions fixed by the Executive Management Board.

Articles of the statutes can be modified by the Assembly of Delegates on proposal from the Executive Management Board or on request from at least one third of the Members.

In both cases, the proposals for modification are entered in the agenda of the next Assembly of Delegates, which must be sent, by any method, to all members at least fifteen days in advance.

In the framework of the association, two conferences a year are organised: the annual conference with the members of IMPACTS Europe only. During this conference is held the General Assembly of Delegates. The intercontinental conference takes place one year in Europe and the year after in the United States.

There is also cooperation with other association which work in the same topic: POLIS whose members can be all cities and regions – they have 60 members and 7 full time permanent employees, and ERTICO which represents Industry in Europe.

**Mr. Claude DARGENT** thanked **Mr. Pierre SCHMITZ** for his presentation and added that the most important is to exchange between cities but reminding the legal framework is worth of interest before building an association.

**IMPACTS North America & NACTO, Ms Patrice GILLESPIE-SMITH, Seattle, Vice-President, Impacts North America & NACTO**

**Mr. Jean-Louis GRAINDORGE** provided some information about NACTO before Ms GILLESPIE-SMITH's arrival, focussing on the differences between the American and European part.

IMPACTS Europe chose to be organised in a formal way in order to be an entity with its own activities, its own secretariat, perceive some fees from the members and be part of the research programmes. The American choice is different in so far as NACTO and IMPACTS North America have been formed under a very flexible and non-formal way

A flexible organisation like in the US can be positive because it allows cities to come in and come out without formal difficulties, it is more like a club.

Cities are most generally represented by the Commissioner for Transport who is appointed by the Mayor.

**Mr. Claude DARGENT** announced that **Ms GILLESPIE-SMITH** had arrived. He introduced the Questions/Answers time.

### **Questions/Answers**

**Mr. Arturo CHIRINOS**, Mayor of Chiclayo greeted and thanked the City of Quito for organising the Conference and thanked Barcelona and Geneva which have strongly supported the event. He expressed his enthusiasm seeing so many cities willing to become members of the network. He found that Quito is a good choice for meeting, and hoped that next time the conference could take place in a city from Peru or Venezuela.

He insisted on the importance of transportation issues for developing countries and considered that it is all the more precious to start to work together to establish control mechanisms on environmental issues that are caused by automobiles.

**Mr. Fredy WITTWER** explained that all cities from Latin America received an invitation. Today, there are more than 20 cities that agreed to sign the agreement. He felt that this very positive result should encourage to strengthen the on-going process.

He added that environment issues are taking a great part in IMPACTS: the main problem is not only the air but also the noise whose impact is very high on the health. Road safety is also a great concern: all European cities decided to take measures to reduce by 50% the fatalities by 2010 as asked by the European Commission in a Recommendation.

**Mr. Pierre SCHMITZ** remarked that if IMPACTS was founded in order to enable Cities to increase their knowledge of ITS, it has now been developed as a discussion platform on

sustainable mobility policies in large Cities, which means that ITS should only be considered as a tool.

**Mr Mauro RANGHI**, President of Urban Community of Urban Transport, representing the Mayor of Lecheria, Venezuela, congratulated all panel members for making this creation possible.

He thought it was better to come back to Latin American reality and to take advantage of the technological, administrative and organisational experience of European Cities.

His main worry is to organize an interactive transport system that would allow to relate the different cities.

**Ms Patrice GILLESPIE-SMITH** explained that IMPACTS coordinates actions with regard to the administrative and technical part of the organisation and also the financial area. Because not only does it have to deal with the preparation of the projects likely to resolve the cities' problems with regard to mobilisation, transportation and pollution but it has also to create the possibility of having financial support from international organisations in order to be able to achieve the greatest projects.

**Mr. Fredy WITWERT** stressed the fact that it is clear that IMPACTS America Latina will be independent from the two already existing networks in terms of policy, secretariat, finance. But there will be as many links and assistance as possible from the other networks.

Because aspects in the continents are different : an example concerns public transportation that in Europe is financed a great deal by public authorities whereas it is not the case in South America.

**Mr. Jean-Louis GRAINDORGE** reminded that in 1996 when thinking of the statutes, IMPACTS founding members thought about autonomous entities and of a federation, which can give an homogeneity to communication. This was left aside and only a memorandum of understanding was signed but now, the question of a federation could be examined again in order to provide guidelines to organise cooperation.

**Mr. Claude DARGENT** introduced **Ms. Patrice GILLESPIE-SMITH**

**Patrice GILLESPIE-SMITH** gave an overview of NACTO: basically, NACTO foster cooperative approach among larger, central cities on key national transportation issues. The organisation was formed 8 years ago. In the US, a representation before Congress to get funding for local transportation issues and the transportation officials of the largest cities realised that this did not exist. So, now this group is formed of 11 cities representing 25% of the US workforce, all modes of transportations and is expecting to grow.

It is a very political organisation because cities' funding has been increasingly shrinking the last few years. So the goal when dealing with Congress and the administration of the US range from home and security, ITS and a new focus on mega projects, including projects that are more than one billion dollars, which are too complex to be solely funded by local entity.

This group meets with the US secretary of Transportation, Mr MINETA once a year. At that meeting, the secretary is looking for a local prospective.

The current administration does not support the current funding NACTO would like to see, which amounts to 3 hundred billion dollars over a 6 year period. There is yet an increase from their last re-authorization bill but that does not meet the needs of the locals.

She, then, introduced Seattle and invited everybody to the next IMPACTS intercontinental conference in Seattle on 29 to 1<sup>st</sup> July 2005.

She gave an overview of the city:

Seattle is located about 120 miles from Vancouver, the population is 563 000 inhabitants and the greater area is 3.6 million inhabitants. In the next 15 years, the population is expected to grow by 20%.

Seattle is home to amazon.com, Microsoft, Starbucks and a growing biotech industry: there are more than 160 companies and many more relocating to the area. The cruise industry is growing: there were more than half a million passengers coming through this years. Seattle has the fifth largest port in the USA doing extensive trade with the Asian countries.

### Seattle transportation system

The city is constrained like Quito by heights but water is a plus.

Moreover, the American grid system is an advantage compared to the European cities.

Mayor Nichols has run transportation during three years so he put in place improvements: on schedule is a light rail to begin in 2009 as well as a monorail and an expansive street car services in 2008. There is also an extensive trolley bus system like Quito has, it helps greatly going up the steep hills.

The street car system connects the downtown area with the biotech hub, it's been funded more than 50% by the private sector, which is quite unusual in the US.

They are rebuilding a 2.3 mile viaduc. 3 years ago, an earthquake shook up the entire city and compromised the infrastructure so much so that they cannot guarantee the structure will stand another earthquake. 4 billion dollars have to be raised to pay for that, which is not an easy task. So the city is working with the Federal Government through NACTO and has also lobbies acting to defend its interests. It is the number one transportation concern because it does hold up the entire waterfront.

Seawalls have also deteriorated over the years: it is more than 7 years old. Additionally, the ferry dock, which is the third largest ferry system in the world is currently being rebuilt . This will be a huge undertaking. So that is why the northwest part is interested in finding out how major cities are conducting major construction projects.

In 2010, Vancouver will be hosting the winter olympics so Seattle has to be made more attractive by the time when millions of visitors come through it on their way to Vancouver.

Through all these investments, the city hopes to connect all its transportation systems together. Because right now, it cannot guarantee that people can get around without a car: they would like to shift up to 70% relying on mass transit (now it is in the low 50). They are also in the process of creating multimodal hubs where ferries can come in and connect with the light rail system and take people twenty miles north or straight to the airport.

It has taken Seattle quite a while to catch up but investments are being devoted to improve sustainable mobility.

She repeated that they were feeling very proud to host IMPACTS conference next year.

**Mr. Claude DARGENT** said that very important topics have been raised during this first part and that there is one day and a half to discuss them.

*Coffee break*

**Mr. Claude DARGENT** introduced the presentations by each city delegates:

## Roundtable of City Delegates

### Barcelona

**Mr. Julio GARCIA RAMON** explained how the cooperation between Europe and South America was decided and how it was possible to progress to reach the present situation.

This idea was born during the scanning tour in the US in 2002. Barcelona had the best possibilities establishing this relationship and then, it was decided that Barcelona would be in charge of setting up the first contacts with Latin American Cities. Consequently Barcelona invited a first panel to attend the Impacts annual Conference that took place in February 2003 in order to measure how far a cooperation could be possible in spite of the differences existing regarding transport issues

As the majority of the people were very much positive about the interest of such a cooperation, Latin American representatives were invited by Geneva to attend IMPACTS intercontinental conference. There, Quito decided to take the leadership of a proposal to create a third Impacts Continental organisation and Barcelona and Geneva supported the Quito's initiative.

**Mr Julio GARCIA RAMON** thanked Quito for hosting the Conference and also the representatives from the public and private sector for making this conference possible.

### Brussels

**Mr Pierre SCHMITZ** explained that Brussels is a founding member of IMPACTS. At the beginning, Brussels was chosen because they were involved in an European project, "CAPITALS", with Paris, Berlin, Madrid and Rome.

He insisted on the fact that IMPACTS is the only place where public authorities, elected representatives and technicians from the administration can exchange together, confront their opinions – which are often different- and finally understand better each others' point of view.

Another interest is that, at the end, professional relationship evolve into friendship which makes things much easier and more friendly. This way, the information is reliable and real advantages can drawn from that.

### Paris

**Mr. Claude DARGENT** spoke on behalf of Paris. He emphasized that he speaks at a political level. IMPACTS is, according to him, a privileged place to exchange on experiences.

Furthermore, this network is used for further work like it had been the case for the management of freight deliveries. In this domain, IMPACTS initiated the FREDERIC project which can lead to adapted freight delivery vehicles for the city of today: within this frame, Paris had established lot of contacts with Barcelona and London. It also enabled Paris to set up professional travels to the other Cities to concretely measure the results of the solutions and evaluate their transferability.

He added that Paris has learnt a lot during the annual IMPACTS meetings: about the pedestrians/bicycles in Geneva and in Vienna, the cycle tracks in Berlin and Amsterdam, the buses networks in London, the coaches in Roma, parking management in London...

In Paris, a meeting was organised in April 2004 regarding "Which place for PTW in large Cities ?". Thanks to IMPACTS network, Paris could invite representatives from London, Roma, Barcelona and Athens to present their experiences in that domain.

To conclude, he said that each city is particular but that, at the same level of economic, social and urban development, they do face the same problems in the field of transport as in

other fields. Paris thinks that IMPACTS showed them that mistakes can be avoided, that solutions can be optimized through confronting experiences.

## Geneva

**Mr. Frédy WITTEWER** reminded that Geneva joined IMPACTS in 1997. It was important for Geneva to join IMPACTS because it is not a capital, it is not a very big city, the canton is only 400 000 inhabitants. But it is a well-known city because there are a lot of multinational firms and big international associations (Red Cross, World Health Organisation, etc...) that have their headquarters there. So Geneva has a lot of links with mobility.

In Geneva, there is a high level of motorization (650 cars for 1000 inhabitants) so there are many problems to manage the traffic and Geneva is making efforts to develop public transports and find new solutions for improving mobility. Geneva obtained the first Mobility "trophee" in 2000 because of their really integrated policy.

Besides, Switzerland is not part of Europe. So, technically it is difficult to have links with other countries for research programmes. So thanks to IMPACTS, Geneva could participate in European programmes.

**Ms. Patrice GILLESPIE-SMITH** humorously remarked that in the United States everyone thinks they are a transportation engineer! That's why the connections with other cities thanks to IMPACTS are very useful: when people go to Paris and Barcelona, they come back saying 'why don't you try this? Or that?'

For instance, Seattle is looking closely at Barcelona's Ramblas because they would like to achieve something similar on the waterfront and, Seattle looks at congestion pricing in London with a lot of interest because it is an option seriously considered by North America. The way Paris manages its massive transportation is also very attractive for North American cities. What is very exciting is that people travel and see what things look like.

Claude DARGENT thanked the city delegates.

## The outcomes of the IMPACTS conference,

**Mr. Julio GARCIA RAMON, Head of Mobility, Barcelona** explained that at the beginning, IMPACTS was meant for capitals and that Barcelona is not the capital of Spain but the capital of Catalunya. Madrid did not answer IMPACTS's invitation so it was sent to Barcelona who answered positively. Barcelona has been first a very good student, participating in a very moderate and controlled way in front of Paris, Roma. Gradually, Barcelona began to discuss and participate more actively. Barcelona belongs to other cities' s network like POLIS. But it is too big according to Mr. Julio GARCIA RAMON to be able to discuss whereas IMPACTS has maintained a reduced number of cities.

He reminded that he is a University Professor in favour of combining theoretical knowledge with practical knowledge which is essential in transportation issues.

He reminded that IMPACTS also involves private companies, associations... For example, the latter have been involved in the FREDERIC project in a very intensive way and reached very interesting conclusions. Manufacturers could ask cities which type of trucks would suit them best for freight deliveries and to define a common vision. In the field of freight delivery, Barcelona has undertaken a lot of actions (loading/unloading areas, night deliveries) which have been recognised by the other cities. The solutions cannot be found in any manual because it has not been studied theoretically. As cities grow, freight trips have to be rationalised.

He explained that he is stressing this subject because Barcelona has been most involved in it. So there are common interests and other issues that have to be jointly undertaken and that is why IMPACTS is so important.

IMPACTS dealt with many subjects such as economic and demographic issues, road safety, and soft mobility. In Europe, there are more room for these modes (bicycles, pedestrians and PTW) that's why those topics were developed whereas in Latin American cities, the topics to be studied will certainly be different.

He reminded that the aim, in Europe, is to decrease the use of private vehicles and favour mass transportation.

**Mr. Julio GARCIA RAMON** added that IMPACTS is a means for cities to share their experiences. Even bad experiences are good because much more can be learned from bad practices. He therefore advised Latin American cities to exchange on their common issues and experiences.

Besides, what is also important is to provide people with education and training. In this domain, Latin American cities could take advantage from cooperation with European cities and universities.

He also reminded that one important aspect Latin American cities should reflect on, is the way they manage their contracting.

### ***Transport Research European Programmes,***

**Mr. Pierre SCHMITZ** explained the audience that at the beginning, Paris, Rome, Brussels, Paris, Madrid and Berlin were involved in an European project called CAPITALS in association with POLIS. It was an R&D project whose aim was to build a common information platform in the cities' traffic control centres.

After CAPITALS and with the creation of IMPACTS, cities decided to use this mobility information platform for different services (parking management system..) through the CAPITALS ITTS project.

This new project was presented using two databases: tourism and traffic which were put into a common interface, developed in this project using standardised protocols through a common service provider. It enabled to give road, parking information, tourism information traffic status in real time and itineraries. All these services are common in the 5 cities and given to citizens in 6 languages.

**Mr. Pierre SCHMITZ** presented a European programme called Urb-AI programme whose goal is to encourage experience exchange between local authorities of Europe and Latin America through developing networks of local authorities on concrete topics and problems of urban local development.

Launched in 1995, Urb-AI has already brought together more than 430 local authorities around projects affecting topics as various as drug, environment, citizen participation, poverty alleviation, transport, safety, town planning, economic development, the information society or democracy.

During the last 10 years, almost 40 international meetings were organised, bringing together on the whole more than 10,000 people.

13 subject networks coordinate more than 2500 local authorities, associations, NGO, trade unions, universities or companies.

More than 140 projects have already emerged for a total amount of several million of euros. These joint projects involve more than 1250 participations.

What is a thematic network?

A thematic network is made up of a number of partners who wish to work together on a given urban policy issue. Such a network can be described in three ways:

- As a link between local authorities that want to work together.
- As a framework for activities and participation.
- As a "platform" for exchanging ideas and expertise.

What thematic networks are currently operating under the URB-AL programme?

Eight thematic networks were set up during phase I of the URB-AL programme. All the phase I networks "sponsored" joint projects which are still running today.

#### **N° Network   Coordinator**

1. Drugs and urban environment: Santiago de Chile
2. Conservation of historic urban contexts: Province of Vicenza (Spain)
3. Democracy in towns : City of Issy-les-Moulineaux (France)
4. The town as promoter for economic development : City of Madrid (Spain)
5. Urban social policies : City of Montevideo (Uruguay)
6. Urban environmen : City of Málaga
7. Management and control of urbanisation: City of Rosario (Brasil)
8. Urban mobility : Region of Stuttgart

Within the 8<sup>th</sup> network, they have also specific projects such as:

- "Integration of transport planning and urban planning within the scope of sustainability and Local Agenda 21", Arequipa – Peru
- Public Transport promotion towards a sustainable mobility in large urban areas, Madrid
- "CULTURA: The design of a new mobility culture through mobility management, awareness measures and campaigns including information and education with the aim of changing mobility behaviour and enforce use of more sustainable modes of transport in urban areas", City of Graz, Austria
- "Training for bus drivers using new technology for safe, economic and environmentally friendly driving", Region Stuttgart, Germany
- Access of persons with reduced mobility to Public Transport Municipality of Cartagena de Indias, Colombia.

The second part of this programme concerns the following topics:

#### **N° Network   Coordinator**

9. Local finance and participatory budgets  
*Prefeitura Municipal de Porto Alegre - Brasil*
10. Reducing urban poverty  
*Prefeitura Municipal de São Paulo - Brasil*
11. Promoting the role of women in local decision-making bodies  
*Diputación de Barcelona - España*
12. Towns and the information society  
*City of Bremen - Deutschland*
13. Safety in towns

*Ilustre Municipalidad de Valparaíso, Chile*

**Mr. Pierre SCHMITZ** presented another programme:

ALFA (América Latina - Formación Académica) is a programme of co-operation between higher education institutions of the European Union and Latin America.

Participant countries are the Member States of the European Union and the following 18 countries of Latin America: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela

The members are Eligible Higher Education Institutions :

Eligible HEI from each one of the participating countries in the Programme ALFA are the HEIs recognised as such by their respective countries competent authorities.

An ALFA project network needs to gather a minimum of 6 higher education institutions (HEI), 3 being from equal number of different European Union Member states and 3 from three different countries from Latin America countries eligible to the Programme.

Proposals submitted in 2004 and 2005, will be evaluated in accordance with the following timetable:

- Project proposals received until October 30th 2004 included.  
Will be part of the Tenth Round. Will be evaluated in January 2005.
- Project proposals received until April 30th 2005 included.  
Will be part of the Eleventh Round. Will be evaluated in July 2005.
- Project proposals received until October 30th 2005 included.  
Will be part of the Twelfth Round. Will be evaluated in January 2006.

Which co-financing contribution has to be contributed by the network ?

Each network must, as a minimum, contribute with the 25% of the total cost of its own project (15%, when the network presents a project proposal of preparation for mobility).

A distinction should be made between the following types of costs:

- Non-eligible costs: which are not covered by the EC (such as, for example, personnel costs and teachers' fees); They may not be entered within the project total budget.
- Eligible costs totally financed by the network (such as, for example, co-ordination costs: co-ordinator and co-ordination secretary).
- Eligible costs totally financed by the EC or shared by both parties (such as, for example, mobility grants: travel, lodgings, and daily allowances

The addresses of three related websites were reminded:

*6th Framework Programme :*

<http://fp6.cordis.lu/fp6/home.cfm>

*URB-AL :*

[http://europa.eu.int/comm/europeaid/projects/urbal/index\\_en.htm](http://europa.eu.int/comm/europeaid/projects/urbal/index_en.htm)

*aLFA :* [http://europa.eu.int/comm/europeaid/projects/alfa/index\\_en.htm](http://europa.eu.int/comm/europeaid/projects/alfa/index_en.htm)

## **IMPACTS Europe past and current activities,**

### ***Mr. Jean-Louis GRAINDORGE, IMPACTS Europe Secretary General***

He first put the stress on the FREDERIC programme which is a direct consequence of what took place in the framework of the conferences.

In Chicago, in 2000, cities stated that the problem of freight delivery was a big challenge. So it was decided first to establish this topic as the main theme of the Berlin conference in 2001. Then, a scanning tour was organised regarding this theme in October 2002 in Washington, Chicago and New-York. The last step was to submit a project to the European Union which would be different from the classical research projects

The objectives of FREDERIC were to put at the same table people who naturally have not the same interests and try to reach a common vision: cities whose aim was to improve their traffic policy, the automotive industry and the logistic operators.

The consortium was composed of IMPACTS Europe as co-ordinator, The Automotive Firms European Association, The European shippers Council, The European Express Association, Freight Forward International.

There was also cooperation with other European projects which were more research oriented like Best- Ufs and Cityfreight.

The idea was to make progresses in the thinking of the community. So three events had been organised. The 1<sup>st</sup> workshop to come to a common understanding, the 2<sup>nd</sup> workshop to provide a classification of recommendations and the final conference to deepen and verify the results of the workshops, decide the process of dissemination and to draw the basis for further cooperations.

**Mr. Jean-Louis GRAINDORGE** showed the conclusions of the FREDERIC project:

1. Cities do not have a sufficient access to the data necessary for developing a policy. Common methodologies for data collection and policy assessment were seen as a necessity.
2. Simple measures, which mostly consist of easy but carefully planned adaptations of public space could provide quick benefits.
3. Intelligent transport systems (on-board information systems) are a particularly important tool to improve freight traffic.
4. Night delivery has an important potential but still noise reduction has to be improved and all sources of noise have to be taken into consideration
5. From all sides, it was recognized that a certain level of harmonisation of regulations and policies among cities, regions and even countries is essential.
6. Home deliveries whatever they are generated by classical retail or E-Commerce, which are growing very fast in big metropolitan areas, shall be part of the reflection.
7. Service operations, which can be operated by small companies, shall not be ignored, even if their identification remains difficult and despite the difficulties to communicate with them. Best practice and successful methodologies shall be highlighted

All the work that has been achieved is now available on the Frederic website ([www.impacts.org/FREDERIC](http://www.impacts.org/FREDERIC)), there are also a forum and online surveys.

**Mr. Jean-Louis GRAINDORGE** explained that the FREDERIC project entailed an awareness from the stakeholders that to join efforts would lead to further effective proposal. So car manufacturers decided to propose to the European Commission, together with the cities and logistic companies, a new project called FIDEUS (Freight innovative Delivery in European Urban Space) aiming at developing new models of trucks, containers and logistical schemes.

The role of cities will be first to create a forum allowing to follow gradually the different steps of the project and to define two sites in which the different types of vehicles and standardised containers could be experimented.

The contract is not yet signed. Negotiations are underway with the Commission. The project will probably start at the beginning of next year.

### **Transport Research American trends**

**Ms. Patrice GILLESPIE-SMITH, Seattle, Vice-President, Impacts North America & NACTO**

**Ms. Patrice GILLESPIE-SMITH** explained that everyone in the United States is focussed on how to improve the current state of Research.

The crisis of research in the United States is in part due to security issues : further to the terrorist attacks, airlines are going out of business, ports are struggling because the shipping is much more expensive.

At the same time, they are experiencing the same challenges as explained by Jean-Louis GRAINDORGE because of congestion with freight delivery. They are trying to improve their infrastructure considering rail as a real opportunity. Much research has been conducted on how to improve the existing conflict between automobiles and rails and how to eliminate crossings that slow rail down and that eliminate the reliability that is needed with freight delivery.

Much time is also devoted to the use of ITS in particular information on line and also just simple improvements such as variable message signs on highways.

**Ms. Patrice GILLESPIE-SMITH** pinpointed that decisions made years ago with landuse have basically boxed in the quality of life that people would like to experience : they move to suburbs because they want better schools and they realise they have an hour commuting each way.

The reason these subjects are so much investigated is because cities are not sure where to go. For instance Los Angeles which is at capacity needs to invest more in mass transportation but it is now a game of catch up. Thanks to the TRB, cities are getting many ideas from their counterparts all around the world on how to entice more single occupancy vehicle users back into mass transportation.

Finally, the trend that is emerging is to focus on how transportation can be made more environmentally friendly with the use of hybrid buses, natural gas, hybrid automobiles but also with getting more people walking. Many foundations across the country invest millions of dollars to see how can community be changed so that people can walk more. This issue is jeopardising the economy through the impacts on health insurance, life expectancy...

**Cooperating with Latin America, Focus on Quito-Geneva,  
Mr Marcelo NARVAEZ, Head, Traffic Unit, Quito**

In 2003, the City of Quito had contact with Mr. Pere NAVARRO who was then, the Transport Commissioner of Barcelona and with Mr. Frédy WITTWER, International project Manager of the Republic of Geneva.

On 11 February 2004, the Municipal District of the Metropolitan Quito and the Government of the Republic of Geneva signed a convention defining a two years program which was allocated 200 000 CHF (130 000 Euros).

The co-operation aims at :

- Designing a methodology for the elaboration of the Metropolitan Quito Mobility Plan
- Participating in the elaboration of a concept of improvement of the quality of life, based on strategic evaluations of the impacts on environment and security
- Advising on communication, diffusion and information issues and on the organization of public debates regarding transport and urban road management
- Participating to the elaboration of training and qualification courses for the personnel of the Municipality of Quito
- Elaborating a programme for future actions
- Studying and planning the development of ITS
- Evaluate Quito transport system
- Promoting the organisation of a Mobility Observatory of the Metropolitan District of Quito
- Consolidating the current planning process, defining political objectives taking account of the concept of urban sustainability
- Favouring the definition of technical standards and legal basis that could assure continuity of the projects

According to the convention, the Metropolitan District of the Municipality of Quito covers the logistical costs and provides a technical support, Geneva provides expertise, Mr. Frédy WITTWER who works in close contact with the General Transport Directorate.

**Mr Marcelo NARVAEZ** concluded that the Metropolitan District of Quito is expecting, thanks to the cooperation with Geneva, to be able to design a program of institutional fortification regarding mobility management based on a transfer of know how and its adaptation to a specific context.

Then, he presented the Projects in execution:

- The development of the best circulation plan for the Central North Corridor taking into consideration not only buses but also pedestrians. This is done in cooperation with a company from Barcelona.
- The creation of parking lots and their management using a global planning.
- The organisation of the concertation between services to draw up a global perspective for the mobility plan,
- The development of a training program with ICAM (Institute of Municipal Training) and with the Central University of Ecuador.

Results

As a conclusion, the cooperation between Quito and Geneva has been very productive. The cooperation agreement is underway with the special support of Mr. Frédy WITTWER who is nearly a Quito citizen !

The incorporation of sustainability new concepts is now effective but new methods have to be further developed.

Preliminary work for the Mobility Plan has been done through surveys and Mr NARVAEZ hoped that by the end of this year , the plan will start.

Expert missions from Geneva and France have enabled Quito to improve the training in the field of mobility.

## Afternoon

### Mobility Challenges

**Mr. Frédy WITWTER** introduced the afternoon session devoted to the expectations and needs of Latin American cities.

#### **Chiclayo, a sustainable city, Mayor Arturo CASTILLO, Chiclayo**

**Mayor Arturo CASTILLO**, Chiclayo expressed his satisfaction for meeting his friends again within IMPACTS and focused on the importance of reflecting upon mobility and sustainability matters, which constitutes the great challenges for European, North-American and also Latin American cities of tomorrow.

He explained how Chiclayo participates in a pilot project of the « Sustainable Cities » programme supported by the United Nations in 2002. This was announced in a conference held in Lima where Mr. Frédy WITWTER was invited as a speaker to analyse the traffic system in Peru. Then, Mr. WITWTER came to visit Chiclayo to assess the traffic system which was the opportunity for the Mayor and Mr. WITWTER to become friends. It is during that period that Mr. Frédy WITWTER invited Mayor Arturo CASTILLO to IMPACTS Intercontinental conference in Geneva.

In December 2002, Mayor Arturo CASTILLO was elected for the third time Mayor and then, was able to send the new government plan to the United Nations.

He explained that there is currently a big reluctance to carry out the decentralisation process in Peru, which is an obstacle to implement actions.

Chiclayo is one of the most important cities in Peru with Lima, Arequipa and Trujillo. The city of Chiclayo is located on Peru's upper northern coast and has a present population of 520 000 inhabitants (metropolitan area). It is a dynamic centre of the north western part of the country for economical, touristical and cultural exchanges. Chiclayo has an extraordinary geopolitical location.

The city is regularly experiencing rain disasters. The task of promoting the safety and the security of the population is part of the "Sustainable cities" programme and this phase has been mainly achieved. The second aspect of the programme is the "order city" which is being developed in order to make Chiclayo a safer city.

The phase of the "healthy city" concerns the availability of basic services such as drinking water and sewage. The German Government provided a one million dollars initial support for Chiclayo to achieve feasibility studies to show national and international operators that the sewage and drinking water company can attract investors.

Then, there is the phase for the promotion of a cultural and attractive city in a physical manner.

**Mayor CASTILLO** insisted on the fact that the municipality has started to seek other possibilities for cooperation and that they have obtained a support of 500 000 \$ from the Danish government to carry out studies for the modernizing of their public transportation system. Likewise, they have been able to draw the attention of the Geneva Republic so that, hand in hand with the municipality of Barcelona, Chiclayo may reach an agreement on a similar project as in Quito.

Chiclayo is also participating in a project known as GEO 3 with regard to the environment: it concerns 3 cities : Lima, Arequipa and Chiclayo.

**Mayor CASTILLO** reminded that municipalities of Peru have limited economic possibilities: to give an idea, he explained that the government of Peru has only assigned 3.5% of the general budget of the country for the 1800 municipalities of the Republic. Though Chiclayo which is the fourth city in Peru, it receives only 1 200 000 Solis monthly (300 000 euros/month) which has forced the municipality to be creative and to establish development plans and cooperation.

That had been the case during Mayor CASTILLO's first administration with the Chiclayo project 2020. He also remarked that he encountered then fierce opposition from Chiclayo's architects who found it crazy to plan 30 years ahead but the project went on and the transformation of the city that resulted attracted the attention of the German Government that supported then the sewage works and the treatment of salt water and also from the French Government with a 18.5 million \$ financial credit in order to renew the distribution system of drinking water.

As a conclusion, he said what would Chiclayo's architects think now there is a project concerning the 50 years to come regarding the sustainable project of Chiclayo?

**Mr. Fredy WITWER** remarked that Chiclayo was the perfect illustration of what a successful cooperation between cities can achieve.

### **Participation of the private sector in the Quito Public Transport corridor**

**Mr Hidalgo NUNEZ, Director Metropolitan, Quito**

After thanking the audience for their participation and the municipality of Quito, he introduced his presentation which deals with an experience concerning the dialogue between the citizens and the incorporation of the operators of the transportation systems.

Quito is the capital of the Republic of Ecuador, it is located North West of Latin America, it is 2850 m above the sea level and has a population of 1 390 000 people. 80% of the population live in urban areas. The growth rate is 2.6%.

He showed a map of the city and indicated the central city, the metropolitan district area, the suburbs, the location of the future airport. The extension of the central city is of 45 km.

#### The general demand for transportation

There are about 1 800 000 trips a day by bus. The integrated system is made up of "Trole" and "Ecovia" which is in operation and covers 270,000 passengers a day which is approximately 17% of the total demand.

The growth of population is 2.6 and the automotive park is 5.4%. This implies a park of private vehicles and buses of 250,000 vehicles.

The past 3 years, there has been an increase of the motor park of 30, 000 additional vehicles per year.

For 2005, Quito should have 4 times its offer for the road which is impossible so they are concentrating on improving the demands thanks to other mechanisms.

## Who are the actors?

The most important actors are obviously the citizens.

The other actors are the transport operators who are concentrated on 150 routes, run 2,800 buses, there are also school buses and tour buses which amount to 3,000 vehicles and the "inter-parrochial" (between parishes) to 643 buses.

Public transport represents 18% of the total.

Besides, taxis represent 58% of the transport vehicles and the total of vehicles is 15 000.

## The organisation

In the urban areas, there are cooperatives or companies and 1 municipal operator. In the neighbouring municipalities, there are only cooperatives and companies. The total number of operators in the Metropolitan District of Quito is 52 (urban areas) and 21 (neighbouring municipalities).

They have a daily competition with regards to the demand on the roads.

In order to improve the situation, the Mayor of Quito, Mayor MONCAYO, formulated the Quito Master Plan for transportation as a framework guiding the municipality and defining the participation of the private sector in the development of the transportation system of Quito.

It is a guide for the next 20 years and it contains the strategies and a set of programs and projects dealing with the 4 components of the transportation system: public transportation, traffic, road-works and regulation frameworks.

5 keywords govern and guide this policy:

- equity and solidarity ensuring that the benefits made through improving the transportation system be distributed in an equal manner among the population especially keeping in mind the most vulnerable users,

- the modernisation and improvement of the quality of public transportation: for this the Master Plan has foreseen the implementation of the "Metrobus Q" system which is formed by transport of large capacity operating with modern and ecological buses on special roads which gives them the right of way.

- one of the fundamental aspect of the policy is the citizens' participation which should be incorporated in the consensus search of solutions to transportation problems.

The mechanisms used by the municipality have been the neighbourhood councils that have reflected on the requirements and the needs for mobilization to establish the plans that should be used in the Master Plan.

Workshops have also been developed in areas for transportation using the companies in the process of planning and implementation of projects. These plans were presented to professional schools, production chambers, chambers of commerce, transportation and small industries and public forums.

- Of course, the environmental aspect is essential: he explained that as Quito is 2080 m above sea level, it put some limits to the internal combustion engines and make them less efficient. So the air quality has to be an objective in the planning of transportation system in Quito.

The Municipality created a Corporation of vehicle revision of proper functioning, a corporation 'Life for Quito' which protects the health of Quito's inhabitants and which planned the reforestation of 3 million trees in the Metropolitan district and the redevelopment of parks and green areas. More details on air quality will be provided with the presentation of Ing. OVIEDO from CORPAIRE.

- The private sector will be in charge of the provision of the transport services. The Municipal Government will govern, plan, regulate the System of Transport.

### The context of dialogue with the example of the Metrobus Q

The “Metrobus Q” is the planning of an integrated network of transportation services structured in corridors of large capacity with modern systems of charging for the fares and centralised compensation with a modern system of records and centralised operational control.

**Mr Hidalgo NUNEZ** showed a diagram about the structure of these corridors: the 1<sup>st</sup> one is a trolley bus which departs from the southern part of the city. The next one is the 6<sup>th</sup> December corridor which will be operational soon and covers approximately 30 % of today’s demand for public transportation – an important participation of the private sector made it possible - and then the passengers’ Central north and south, the extension of the North eastern corridor from El Recreo to the Southern passenger centre and then, the Western corridor north and south.

Beyond the corridors in the central part of the city, there are five Metropolitan corridors that will have a rationalised transport service structure with direct connections between the central city with the nearby valleys.

The process for the Metrobus Q system uses the traditional planning system of the Municipality. Some of the systems are already implemented such as the Central trolley bus corridor (since 1995).

The project was conceived without the participation of the private sector. It was an operation imposed by the Municipality that excluded the historical operators of transportation.

The investments were exclusively done by the central Government and the municipalities.

The results have been positive for some but there was a social opposition from the older bus drivers or owners that felt they were being stolen.

Moreover, there was a difference in tariffs which made the conventional buses go to conflict with the trolleybus because the latter charged more at that time.

There was also a low or no participation of the citizens in that project.

There was car parking restrictions along this corridor.

Anyway, this project generated positive changes, including a new way of service rendering. It improved the quality of the urban image and proved that Quito was able to modernize its transportation system.

### Another example : Implementation of the North oriental corridor of 6<sup>th</sup> December Avenue.

There was a partial participation of the operators defined by the project and the responsibility of investors was engaged for mobile equipment, one company only was constituted which was a restrictive condition from the Municipality.

### The results

There was truly no investment made for the buses, there was a deficit because the infrastructure constructed was not used for almost two years; this loss of money was assumed by the City as the consequence of a lack of dialogue between the stakeholders. Besides, public opinion was not in favour of this project because there were a lot of problems during the construction, there was a relocation of the demand and a lot of businesses located in the concerned area became troublesome and this created a lack of credibility between the city and the transport operators.

The municipality reacted quickly to try to find a solution: the project was therefore reformulated with the collaboration of the transport operators. To curb the deficit, there was

adjustment of the infrastructure with provisional operation of Trolebuses; this was an emergency operation. Legal instruments were needed for the process of delegation: the municipality structured and formalised the contract for servicing which was the first time it was established.

This allowed to break for the first time the tense relationships between the bus owners and the controlling entity of the Municipality.

This was a very important step forward in the process of implementing the "Metrobus Q".

A fragile private organisation derived from the internal problem of commercial participation between different partners.

There has been severe lack of compliance with the contract parties and there has been a limitation in the improvement of the quality of services.

There still are problems with the system of charging, collection of the fees and the records of operations that would be needed for a high quality service.

And consequently, this situation brought a financial risk.

### North Oriental Ecovia

It was important to continue with the line of conduct adopted by Mayor Paco MONCAYO who had a policy of permanent dialogue.

Without this, he would not have been able to go ahead with the process of relocation of more than 10 000 public sales on the side walks, it would have not been possible to recuperate trash dumps, which is particularly delicate a problem that requires a good consultation of the citizens.

The transport system could not be the exception. So with the North Oriental Ecovia, the dialogue was evident in the process of restructuring and redefining the project.

A permanent technical committee was set up to follow up the process as well as special committee to deal the financial, technical and legal aspects.

### The new Central North Corridor

The objectives tried to define a strategical alliance of winning players to satisfy each party (transport operators, citizens, municipality) and to improve the service of transportation (frequency, travelling time, comfort, safety...)

The third objective was to reduce air pollution through the increase of the speed, the reduction of congestion and the use of EURO3 vehicles.

The fourth objective concerned the improving of the economy of transport operators using the economies of scales through associations, decreasing the energy consumption, eliminating traffic jams and using a centralised organisation.

For this programme, investments will be shared:

The municipality has already spent 13.7 millions US\$ on the roadways, rails, 1.8 million US \$ on bus stops, 2.6 million US \$ on terminals which makes a final cost of 1.3 million US \$ per km.

This is a relatively accessible cost for other similar Latin American cities that have space restrictions.

The operators had the commitment to invest in articulated buses (16 million \$) which had been given the right of way.

Investments in outsourcing have also been foreseen which would be regulated through a mercantile trust that go to 6.5 million\$ related with the system of collection, record of operation and the systems of communication and safety.

As for the participation mechanisms, workshops have been set up to review the project, for the chronogramme and the verification of the investments and financial economic models that will be used for the project.

Information forums were organised with transport organisation, professional schools, suppliers of goods and service associated with transport and with community organisation.

This information effort took about one year and a half and is still going on.

This means permanent work with 746 companies that belong to 19 different operators. They have constituted 3 main operating companies of the 19 and 2 have expressed their interest of continuing to be private operators so for the Central north corridor, there are 3 operators representing 97% of the transport operations in the past.

The main achievement of this process is that there has been a favorable public opinion, and that citizens and nearby businesses have been taken into consideration.

An agreement on the mechanism of dialogue has been reached: even if it is a public transportation project, it will be translated into a business project, it is a system of production where the individual and collective interests have to agree.

An agreement on the level of services to be provided and the level of investments was reached.

An agreement about taking out the old buses was reached but entailed difficulty: 168 old buses will be removed gradually.

### Conclusions

Here are basic conditions for a dialogue to be constructive:

- need for political support for the process. In the case of Quito, the Mayor played an essential role.
- need for sustainable technical proposals from the operators and technicians who can come out with new ideas.
- need for total transparency in the definition of the rights by all participants. This is the most sensitive aspect.

The result of all these considerations is that a project of social transport is technically feasible.

**Mr. Fredy WITWER** remarked that in Europe, this is quite different because the public transportation system is planned and managed by the administration. But the city administration has to cover at least 50% of the price.

The problem is to know whether public transport should be a public service like water or electricity.

### **Environmental measures,**

**Ing. Jorge OVIEDO, CORPAIRE**

**Ing. Jorge OVIEDO** made a presentation on an experience which took place in Quito in order to face the problems linked to air pollution, which are due to the geographical position of the city: it is located 2800 m above sea level with an irregular topography. There is a greater demand for the engines and therefore greater pollution is entailed. Quito has 250 000 vehicles.

The situation became very difficult in the city because there is a problem that derives from the institutional competition mixed with the responsibility of the municipality to face environmental allegations and regulations about the transportation traffic in Quito. Nevertheless, there are national organisations which are responsible for environmental policy

It has been a long and difficult process for the Municipality of Quito to be effectively in charge of environmental control and of the specific situation of the air due to the interference of a national organisation, the National Council for Transit. Consequently, it was decided with this entity to create a corporation called CORPAIRE which deals with the air monitoring in Quito and the management of vehicle revision centres.

## CORPAIRE

So, CORPAIRE is a result of an agreement between the municipality of Quito and the National Council for Transit in order to be able to diminish air pollution. That is to say that a private body was created by the decision of a public entity

The board is composed by the Municipality represented by the Mayor of Quito and other private and public institutions and the National Council for Transit  
In February 2004, the Corporation for Vehicle Revision has joined the network for monitoring the air and gave birth to this new institution.

The objectives of CORPAIRE are :

- to prepare the revision of the vehicles
- to control the technical revision of vehicles
- monitoring of air quality
- provision of information regarding the air quality in the city
- also to establish a new policy for the monitoring of the air

It is therefore to provide reliable data on the concentration of atmospheric polluting agents in the territory of the Metropolitan District of Quito that serve for the planning, formulation, execution and evaluation of policies oriented to the improvement of air quality

### How is CORPAIRE financed ?

The incomes come from the technical revisions of the vehicles, there is a very small percentage to be paid by the owner of the vehicle.

In Quito, there is also the corporation for the Health and the Environment. Each person can contribute giving a percentage of their income tax (25%) to the work of this corporation and a part goes to CORPAIRE for the air monitoring.

Incomes are also generated from the different corporations and then, from non-reimbursable funds from the Inter American Development Bank and the Andinan Corporation.

### The structure

The Board is composed of the Metropolitan City of Quito through the chairmanship of the Mayor, the National Council of Transit, the representation of the Environment Office, the technical school representing the Academics, the National Police, the « Fundacion Natura » representing the NGOs, and the sector of Civil Society which has been working on the subject.

There are departments composing the Network for the Air, especially those working on the information and investigation processing and on the data daily monitoring and the operation and maintenance of the monitoring stations.

Then there is the revision of the vehicles which deals with the people and the control of centres, and computer control of the revision centres

CORPAIRE has two technical units, a technical vehicle revision and the air monitoring station.

There is a publication concerning the vehicle technical revision published in August 2004.

The atmosphere monitoring board is the second unit composed of 9 remote stations for the vehicles and 6 checking points in Quito. Then, there are meteorological stations and a laboratory to analyse those polluting agents.

### Why a monitoring network ?

In order to generate positive changes for the air quality, information is needed about the evolution of the air quality in function of the decisions that have been taken regarding the emissions, the vehicle revision, the industrial control, the implementation of the green area, trees... Since June 2003, information on air quality has been constantly delivered to the citizens.

The « Quiteno index » about air quality was created to transmit in a simple way all the different measures about air quality given every hour, every month, etc. In the future, they will work on a predictable system that will enable to forecast the air quality.

The results of the monitoring network after one year functioning are included in the publication distributed to the different organisations and institutions.

CORPAIRE has been a political experience from the Metropolitan District of Quito in order to have a very effective tool to measure the air quality of the city.

### **Questions/Answers**

**Mr. Frédy WITTWER** remarked that in Geneva, there is a municipal service in charge of the observatory of the environment. This work is quite the same as the one mentioned by Mr. OVIEDO but another essential point is that it is in charge of the impact study for every project.

In Switzerland, for each project even a small one, an impact study is needed that will explain what the impact of the project will be on the environment, on the air quality, the noise, the road safety... If there are negative points, the study has to show which are the measures needed in order to reduce these impacts. This service is very powerful in so far as it can refuse a project. He asked Ing. OVIEDO which kind of power CORPAIRE has in the case one project is not good for the environment.

**Ing. Jorge OVIEDO** explained that in Quito CORPAIRE is not in charge of evaluating a project. The environment impact of a project is measured by the National Office of the Environment of Quito and by the Ministry of Environment of the country.

Mr. Hidalgo NUNEZ was asked to provide further information on the setting of the tariffs and on the compensating process.

**Mr. Hidalgo NUNEZ** precised that it is obvious that the « Trole » project has been successful because it was operated in a good way by the Municipality who managed to balance the financial operation.

As for the « Ecovia » project, it developed the communication but the Municipality was not able to produce the expected effects. With the experience, it would be different now.

With regards to the costs, they analysed that the vehicles which cost them about 800, 000 \$ were convenient to provide economic sustainable services at a specific level. The analyse concluded that it was more profitable to have operations for transportation with great capacity with articulated buses with lower emissions. So the decision was made, based on the technical evaluation of the economic financial part of the project.

Further to some expertise and models generated by the Metropolitan Transportation Office, the tariffs were defined for any type of service to guarantee the economic balancing of the defined rendering of services from the point of view of the citizens.

With regards to the North Central corridor, the tariffs had to cover all the operation costs and the management cost of the private companies had to cover the salaries , a reasonable profit from its operational cost and the depreciation of the capital. All these elements have been analysed in the feasibility study with the operators. These costs have been determined for each type of vehicle (8 types).

**Mr. Jean-Louis GRAINDORGE** precised that last IMPACTS Europe conference in Budapest dealt with public transportation : there is a tendency in Europe towards privatization. The most important question is how to conciliate privatization and public service. The answer can be provided in the contracts signed between the operators and local authorities. And there, Latin American cities could have good examples of contracts.

**Mr. German ARBOLEDA from Cali**, Columbia, explained that, traditionnally, transportation has been operated through scheme of affiliated companies and a series of owners. These owners have often only one bus and rely on this for the income of the family. A certain number of buses that have still useful life may go into the system especially for the feeding of transport and another part for spare parts.

Because there is a big social impact, those people that leave the system will receive money and try to invest this money in other types of business and most often they fail because they know only the field of transportation very well. So he asked how this social impact is dealt with by the Municipality.

**Mr. Hidalgo NUNEZ** agreed with Mr. Jean-Louis GRAINDORGE on the level of service preserved by the contract establishing the rights and obligations. So it is the contract that establishes the level of services and defines what is expected from the transport company and the fees they may charge, etc.

Answering the question from Mr. German ARBOLEDA, he said that the concept of removing operators from the system has been abandoned and replaced by the incorporation of all operators in the new scheme of operations. So when restructuring a business plan, the operators do not necessarily need to be excluded from the system. The Municipality is open to free negotiation so that they can establish mechanisms of compensation. This scheme is very simple but the hard part is the implementation.

The Municipality presented a business plan and told all operators they have a right to participate under specific rules established by the Municipality. These conditions are requirement of investment in articulated buses, the requirement of withdrawal of surplus of buses upon a technical analysis and the obligations of fulfilling the operations according to the system.

According to this process, there has been several internal organisation schemes, some have become companies, some have become consortium other simple associations. Many organisations bought the buses so that when the decision to withdraw the buses was taken, the company had already other buses.

The Municipality had not been thinking about spare parts because these vehicles can be useful elsewhere. Some ideas were given but were not considered : it was suggested they could be reused in other services outside Quito, or parts being recycled like seats, tyres, chassis. But apparently, many owners are receiving a compensation from their partners to be able to buy themselves the vehicles and then sell them to use the money in a more effective

way. The final effects will be appreciated when these contract are signed before November 30, 2004.

**Mr. Mario ZEPEDA, Mexico** wondered if the tariffs have yet been defined for the new Northern corridor. Ecovia and Trolebus charge 25 cents per trip with very high subsidy by the municipality; so, obviously the new tariffs will be higher. He asked Mr. NUNEZ if he thinks it will be profitable, what impacts that will have on the users, what the average wage in Quito is, so these price can be compared. He added that it should be remembered that the cost of transport is part of the cost of living in the city.

**Mr. Hidalgo NUNEZ** answered that in the Northern central corridor, the project was defined taking into consideration the existing tariffs which charge 25 cents. But there will be other tariffs for the Northern Corridor tariffs. The tariffs for the longer corridor are between 25 and 48 cents for instance.

The evaluation is based on the distance so that this project can function under the investments considered. The conventional transport system is currently working at a loss amounting to 20% of the income (theft, people who do not pay...).

When the owners are not the operators which is often the case in Quito, some people own it and other drive it. So, there is a fierce competition, they fight very much for the passengers. This project will allow to have important scales of economy and the operators would be an administered fleet of over 100 vehicles each one with a mixed fleet with articulated buses and conventional buses : the fleet will be composed of 25 articulated buses + 75 conventional buses.

So savings or higher activity is important also for the issue of reduction of operation and management cost of the organisation. These cost of utilisation would be lower and the tariffs should not have to be increased.

In the case of « Trolebus », the Municipality has applied the same tariffs as conventional buses for years. Before, the « Trolebuses » used to have higher tariffs. But the current administration implemented some reforms and increased the volume of operations , so the income is higher.

But one point has to be clarified : the national government bought the « Trolebuses » for the municipality of Quito. This is not the case for the other corridors, consequently, the remuneration of capital and the depreciation of the material have to be considered in this case.

## **IMPACTS America Latina**

**Mr. Fredy WITTWER** opened the new session. It dealt with the creation of IMPACTS America Latina: the statutes, the Committee and the organization.

**Mayor Antonio RICAURTO**, Mayor of the Metropolitan District of Quito, expressed his pride that Quito was chosen to be the host of the first conference of IMPACTS America Latina. He thinks that such a structure and organization would be very useful for providing better transportation systems in Latin American cities. He thanked all the delegates for their participation.

He gave the chair to Maria Cardenas, Quito's City Councillor.

## **Organisation, statutes,**

**Ms. Maria CARDENAS, Quito City Councillor**

**Ms. Maria CARDENAS** welcomed the audience and added that participants received a proposal made by Quito for the creation of IMPACTS Latina America. The project has been based on the IMPACTS Europe statutes.

She suggested the creation of a committee that will be in charge of drawing up the final statutes, taking as a base the proposal of Quito to be presented in writing before 30th October 2004 for approval. She incited cities' representatives who wished to discuss points of the proposal to express themselves before the 30 October.

She repeated that Quito is in a development process concerning transportation and mobility. The City of Quito will host the headquarters of the IMPACTS Latina America permanent Secretariat, being the promoters of this initiative.

It was suggested that the Mayor of Quito should be the 1st president of IMPACTS Latina America for the initial period. The vice president will be the host mayor of the next Conference

The suggested structure of IMPACTS Latina America is very simple : president, treasurer, secretariat, vice president, members and founding members

The proposal for the Executive Committee is that there should be a delegate for Central America, the Caribbean, the Andean zone and the South part so that different realities are represented.

**Ms. Maria CARDENAS** mentioned the attending cities and she asked their delegates to raise hand if they want to be part of the founding members of IMPACTS Latina America.

Buenos Aires, Cordoba, Brasilia, Sao Paulo, Cali, Medellin, Cuenca, Loja, Quito, Guatemala City, Mexico Federal District, Chiclayo, Lima, Santo Domingo, Lecheria, Guadalajara answered yes.

Caracas, La Paz, Porto Alegre and Asuncion expressed their interest.

**Mayor RICAURTE** thanked all the cities and repeated his full commitment representing IMPACTS Latina America with all the responsibilities it entails regarding transport and mobility.

**Ms. Maria CARDENAS** precised that the vice presidencies and other administrative points will be settled on 23rd September to leave time for the representatives to contact their mayors. She precised that this year they celebrate Quito as the Iber capital of the year.

## **Thursday 23 September**

### **Examples of Experiences in Latin American Cities**

**Brasilia (Brasil), Mr. Mauro MENDES COSTA, Federal District Secretary of Transport**

**Mr. Mauro MENDES COSTA** expressed his great satisfaction to participate in the conference. He reminded that Brasilia is on the UNESCO World Heritage List like Quito.

The Federal District of Brasilia has 2 200 000 inhabitants. The Pilot Plan for Brasilia represents a great part of concentration of services and employments because it is the seat of the judicial, executive and legislative powers.

The road network infrastructure mainly consists in wide avenues. A system of computerized control of speed monitors all the routes, and with the greater green area ratio by inhabitant of Brazil, Brasilia has really extremely favourable conditions. The city challenges mainly deal with massive transport.

This establishes a pattern of the displacements with long passages to be crossed between origin and destination through areas of low density and with consequent loss renewal of passengers, increasing the cost per passenger and making the task of supervision difficult since these areas are very extensive to be covered 24 hours a day.

On the other hand, the areas around the Federal District that were empty, now grow and will become satellite cities, establishing a true joint effort between the nucleus close to the city and those which belongs to the quadrilateral area of the Federal capital, which will generate more incoming and outcoming trips.

Consequently, the local infrastructure will not be enough to welcome those supplementary movements which were not foreseen. A practical example which illustrates this fact concerns the Bus Regional terminal located in the downtown area in the heart of the city that has a 600 000 users per day.

#### Public transport in the Federal District

In 1980, the Federal District of Transportation of Brasilia had exclusively conventional transport system with buses that operated on 128 transport lines. Now, there are more than 850 lines ! Alternative transport is now being used as well as a metro system which is not-integrated.

Such services include 2,393 conventional and articulated buses, about 1500 vans, 750 freight vehicles and micro-buses for nearby transport. Beyond the boundaries, and under the control of the Federal Government, lines serve the surrounding areas, crossing border municipalities and operating with around 700 buses. This gives rise to a level of supplies that in some cases, surpasses the demand adapted for a rationalized operation.

This is why the expansion of the Federal District continues and certain places, distant from the centre of Brasilia and with low population density, gives rise to the financial non viability for the operation managed by private organizations.

The subway was a very ambitious project at the time it was conceived, it covers 65% of the total demand, which is developing now. Nevertheless the efficiency, due to the absence of integration, is sometimes really low with the use of not more than 1/5 of the total capacity of its supply.

The operation of public transport suffer, with the competition of the shared traffic that places the buses in conflict with a fleet of particular vehicles that grows, being the national record in the car per habitant relation, with 800,000 vehicles.

#### Simplified diagnosis

The urban culture of the Federal District does not offer ideal conditions neither for the operation of the public transport nor for the pedestrians. Specific solutions must therefore be adopted.

The offer is potentially good but there is a strong need to coordinate the different services. Due to the changes that have occurred in the past few years - given the index of the passengers and the kms – maintaining tariffs compatible with the income of the users, and an adequate level of service is more and more difficult.

The institutional elements like the existence of discounts and the travels free of charge that are granted by law to thousands of users generate impacts in the tariffs and the frauds due to the difficulties of the direct control. There is a necessity for a greater control of the public transport and other services.

### Recent measures

In 2003, the Secretariat of Transport develops the project aiming at implanting an integrated and computerized system of transport for the Federal District. Voted and sanctioned in November 2003 the law 3229 defines a Master Plan of urban transport of the Federal District and the surroundings and also settles down the rules that operators of the public transport of the Federal District shall apply.

The substitution of the the bus fleet has began with the acquisition of 100 new units. The renovation and adjustment of the fleet, including adjustment of no less than 10% of the vehicles was implemented. An electronic ticketing system was introduced which will allow the exact control of all income for bus ticket and reduce the number of frauds.

### Proposals for reviewing the system globally

- Integration measures to maximise the use of the metro
- Rationalisation of the transport system aiming at the reduction of thousands of direct trips of long distance, allowing the displacements between any points of the DF without paying another ticket.
- Installation of ITS sensors in all the vehicles of the public transport of the DF to supervise the operation.
- Change of all the systematics of the control, acting from a power station that would guarantee the operation in real time
- The reduction of conflict between Private and public transport with establishment of priority for the buses in critical points with exclusive corridors.

The integration of the process and automatism should enable the reduction of the travelled mileage and consequently the reduction of cost so that the availability of this type of transport increase with lower costs for the users and the reduction in the travel time.

In this manner, the quality of public transport will be improved and this will attract new users into public transport with considerable effects on lessening the traffic on the roads and improving the environmental effects.

**Mr. Mauro MENDES COSTA** concluded that, in spite of its unique characteristics, Brasilia should have a great interest to exchanging ideas and best practices with Latin American, North American and European Cities.

He invited the participants to visit Brasilia during the next conference.

### **Cali, Columbia, Mr. German ARBOLEDA VELEZ, City Planning Department**

**Mr. German ARBOLEDO** had the pleasure to present the experiences that took place in Cali which had been very difficult to implement due to the differences of points of view existing between politicians and technicians .

Cali has 2, 500 000 inhabitants. Near Cali, there are a number of cities with, for some, more than 250 000 inhabitants. That means the regional integration is very important .

Today, the public transportation system is very slow : the average speed is between 8 and 12 km/h, especially in the central area of the city. The system is very inefficient, the routes have an average 41 km, the buses have an average life of 11.5 years. There is a great over offer because the daily usage is only 45%.

The fleet is made of a series of buses, which are more like trucks, small vehicles called small buses which have increased in the last years and highly contributed to congestion.

The system is characterised by harsh conflicts between drivers as it is often the case in Latin American cities. A company deals with the vehicles, an owner hires a driver according to what the number of passengers he is able to collect. There is a minimum wage and the driver has interest in collecting as many passengers as possible.

There is a great inequality because 95% of the road network is used by private vehicles which transport only 16% of the population.

It's also a very polluting system because 70% of the atmospheric emissions are generated by these private vehicles and by inadequate public transportation vehicles.

There are 1200 deaths/year caused by pneumonia and there is a noise pollution as well which manifests a lack of respect for public space. It is a very unsafe system : the amount of accidents are very high.

### The historical context

In 1990, the city achieved a complete study with a technical & engineering support in order to determine a structure for Cali Public transportation services similar to the ones implemented in other Latin American cities.

In 1994, the City decided to integrate articulated buses but this was stopped by a change in administrative Government who considered implementing a metro system, which is quite a thing for Latin American cities.

In 1996, a law determined the participation of the nation in a project for public transportation.

In 1997, feasibility studies were given to a German firm which suggested to build a light train whereas former studies gave the priority to articulated buses. The National Council of Social and Political Associations approved that light train system that only covers 10% of the city.

In 1999, a public decree created Metro Cali SA and it was agreed between all the municipalities in Columbia that for the use of gasoline, the municipalities pay 25% of the overrate for each gallon that has been consumed. 70% of that overrate is destined for the implementation of the integrated system of public transportation. 30% are given to the municipality because the state contributes for 70% of the project.

In 2000, the Territorial Ordering Plan was approved. Each municipality of Columbia had to prepare a territorial plan that would plan for the next 50 years how the territories will be organised. One of the mandatory elements of this plan is the road and transport structure.

In 2002, technology changed and for 2003, the development plan includes the execution of Cali MOI (western Integrated Massive). The construction phase has already started.

So due to political discussions and to the fact that politicians do not believe in the work of technicians, this has taken so long to implement a real transportation plan.

### Terminology

### *Access corridors*

the main corridors which transport more 60 000 passengers a day in one direction only,

### *Pre-access corridors*

which will become access corridors in the near future transporting between 20 000 and 60 000 passengers a day in one direction,

### *Complementary corridors*

which works as feeding corridors (less than 25 000 passengers a day) in one direction,

### *Principal terminal*

where the access begins and ends with the integration of the interregional system between the different municipalities,

### *Intermediate terminals*

located within the main corridors, they serve as space to transfer between the diverse routes of the SITM,

### *Articulated buses*

which circulate through the access corridors,

### *Pre-access buses*

60 passengers capacity,

### *Feeding buses*

(minimum capacity: 30 passengers) feeding the pre-access and access corridors,

### *Collectors*

Equipments for data collection and sell

### *Fiduciary*

The administration which pays each one of the agents participating in this system,

### *Feeding systems*

which are the one who transport the passengers in the pre-access buses, the operators of the access buses who will provide the travelling material,

### *Managing company*

MetroCali SA is composed of several Cali municipality institutes and the nation which participates as a partner.

There are additional players which are entities of the municipality such as the municipality planning service, « Dagma » the entity administrating environment issues, the company of the urban renovation which is responsible for other projects, « Emsirva » a company responsible for the cleaning of the city, sewage and telephone companies, infrastructure road company and the national police as an enforcement entity.

The integrated system of Public transportation is in a process of structural change within the mobility system of the city : it will change radically the way people travel within the city. This is a social, economic and environmental largest investment of the past 30 years. Cali will have the most modernised integrated system in the world with greater coverage from its

beginning. In the next three years, this system will cover more than 90% of the city. Accesses will be created one after the other during 10 to 15 years.

**Mr. German ARBOLENDO** showed the diagram presenting the general design of the system.

This mobilisation scheme will be maintained for some time.

Thanks to computer softwares, access corridors and feeders were put in place according to maximum geographic coverage, with high speed for normal services over 20 km/hour. The criteria was also to prevent traffic jams in the corridors, terminals and bus stations and to prevent congestion in the buses : having 4 to 5 passengers/ m<sup>2</sup>.

Operationnally, an auxilliary pre-access network was used with the following criteria : transport fees were consolidated to try to serve most of the demand with maximum coverage using the already existing infrastructure. In the pre-access corridors, the pavements will be rehabilitated so that the investments are low. Also, strategic corridors will be consolidated to serve as main corridors in case the demand increases in the future.

The system covers approximately 90% of the trips (the total coverage is 243 km), the other 10% concerns hills that cannot be served . But the operation design integrate this area for a near future as far as it is possible.

Articulated buses are going to be used in the main access corridors and conventional buses in pre-access corridors, even vans in the complementary corridors. Under the main access corridors, they are building 49 kms roadways, 77 bus stations, 11 pedestrian bridges, 5 vehicle bridges, 12 intersections with traffic lights, 5 main terminals...

The cost of this access is 174 million \$.

One of the important characteristic is the management of space which has been taken into consideration in the integration process.

There are now 28 companies with 4400 vehicles.

With STM, there will be 5 main operators 1100 vehicles.

As far as the operation : 9 access, 18 auxilliary routes, 40 feeding routes.

For the control system, there will be an electronic control system, using a satellite tracking and wireless communication system. The recollection of the fees is similar to the one implemented in Bogota : the recollector will maintain all the equipment, and will sell all the tickets. The money will be given to the fiducial agent who will administer all the money from the selling of the tickets and he will pay the system operators.

The tariffs are the same that the ones charged with the current system that is 42 cents.

The investments already done (construction of access, pre-access and complementary including financial costs without including the buses) amounts to 345 millions dollars.

As he mentioned before, Columbia has a commitment of 70% (241 millions \$) and the municipality of Cali through the gasoline tax will pay 30% (104 millions \$).

The private investment in buses will cost approximately 92 million \$.

The system includes integration of the neighbouring urban nuclears (Palmira, Yumbo – 3rd industrial city of Columbia-, Jamundi – a recreational centre-...). From these satellite cities, everyday day, there are important flows of people commuting to Cali centre.

## **Sao Paulo (Brasil), Integrated Transport Systems, Mr. Diogo DE MARCO, Technical Advisor, Secretariat of Transport**

**Mr. Diogo DE MARCO** first provided some data about the city of Sao Paulo. He remarked that in Brasil, they have institutional difficulties as there are several players in the field of transportation : the municipal government which, through the Secretariat office, has two companies, one is « SPTrans » which coordinates all the municipal buses and a traffic engineering company that manages the traffic in the city. There is also the State Government which is responsible for managing the subway, the interurban buses and the trains. There is an agency that controls those organisations.

### General overview

In Sao Paulo, the system is called “Integrated System” because this supposes an integration of the different modalities of mass transportation and especially an integration between buses.

Sao Paulo has a metropolitan region with 39 municipalities with 18 millions inhabitants, the main municipality of Sao Paulo has 10 millions inhabitants. Sao Paulo represents 6% of the national population and 14% of the national gross domestic product.

The need for an integrated system is born from a complicated traffic situation due to the presence of many powered two-wheelers that used the same lanes as the buses creating great traffic jams.

The total fleet amounts to 5 millions vehicles that daily circulate throughout the city. Close to, 15 000 buses are part of the system. So there is a lot of traffic, generating a lot of disorganisation .This lead the municipality to work on an interconnected system.

There are around 20 millions daily motorized trips/ day, with 58% of the trips going into downtown and 14.5 going from the Centre to the neighbouring municipalities.

The modal share between private motorized vehicles and buses is 50/50. 1.7 millions trips are done through the subway which represents 21% of the trips. The subway is very effective but it only runs on 59kms, so, many more rails are needed but this costs a lot per km. Who will pay ?

The train system represents 8% of the users. It went through a process of renovation with the introduction of Spanish trains but this serves principally the periphery of Sao Paulo. The lines were built at the end of the 19th century so it needs renovation.

Buses and vans represent 86% of the total transport. The municipality has the direct control on these modes.

The multiplicity of institutions required a financial balance between the financial part and the operational part. There is also a war between drivers and operators. To deal with this, a regulation was taken so that all the workers would be officially declared to cooperatives and companies.

The government is responsible for the metro, the train companies, the intermunicipal buses and also the taxis (32 000 taxis).

### Historical Situation

There were long radial routes with low frequency overlapping services, some buses were operating while empty, some other full, there was therefore an increase of the operational

cost of the system. There was a radial disorganised pattern of the routes from the Downtown area to the periphery.

The Integrated plan of the urban transport (PITU 2020) foresees the construction of 284 kms for the subway (22 billion \$), of a train connecting the airport and the renovation of 265 kms of railroads. These investments have not been made by now.

This is a kind of vicious circle : the municipality knows what transport plan to implement but does not have the money to implement it.

To break this vicious circle, the city of Sao Paulo decided to invest in the bus system, which is used by the poor population living at the periphery area of Sao Paulo.

The plan used classical concepts of transport integration of the use of soils, segmentation and technical adequation and integrational management organised in the services. Not much investment is needed for the construction of new infrastructure.

After thirty years without any plan with regard to the strategy of the municipality, the Strategic Master Plan of Sao Paulo was made effective by the adoption of a law in September 2002.

Electronic tickets, only one ticket which is a debit card sold in more 1200 outlets. More than 15 000 vehicles use this equipment that reads this card and debit it. The tariff is around 60 cents. And with this electronic ticket, passengers can travel in as many buses they want during two hours.

This was a cultural change for the population who used to spend a lot because they had long distance to travel. Now, many citizens even leave their private cars home and take public transport to go to work, parking costs being very expensive.

So the system is divided into a structural system with 9 000 articulated buses of great capacity even double-articulated buses and a local system with smaller buses and vans.

Another reality is the network of the structural roads of Sao Paulo which are 1200 kms and 3000 kms of local roads.

With this new plan, the city has been divided into great areas and the downtown, with a visual identification of the buses. This is facilitating the perception of the buses especially for tourists and businesses.

The investments were made into the electronic tickets and GPS technology for monitoring. The road priority is given to the buses which makes the traffic more fluid.

Monitoring is done by technology regarding also the information delivered to the user in the terminals with a integrated centre with vehicles using GPS. There are 20 terminals. 30 supplementary ones are planned.

The transfer stations are located in the main avenues and enable passengers to change bus. There are 600 transfer stations. The coverage of the stations is done according to the Barcelona model with a roof protecting the people and the road priority is given to buses with a system of fast lane with signs.

Also a technological change was the opening of the doors on the left hand-side of vehicles. Now, the vehicles entering the system must have 4 doors : 2 doors on the left side and two doors on the right side.

In Latin America, the 90s were the years of change in the fast lanes, the change in people's lives with the integration of the machines. Now the aim is to give power to the people again through coordinating the public transportation system as a social goal.

The aim was also to create changes with very few investments and resources within a very constrained movement and to show it is possible to create great changes with controlled investment with the already existing infrastructure. Furthermore, with a lot of investments in education and with a lot of dialogue with the operators (there have been a lot of problems in the past with the unions), the municipality has been able to implement the planned changes.

### **Medellin, City Projects dealing with transport,**

***Dr. Jose Fernando ANGEL, Secretary for Transport and Traffic***

**Dr. Jose Fernando ANGEL** thanked the city of Quito for its hospitality and on behalf of Mayor Sergio FAJARDO, he renewed the support of Medellin to the creation of IMPACTS America Latina because the exchange of experiences is essential especially regarding the technical aspects for Latin American cities that have big lack of resources and need therefore to be very creative and efficient with a gain in time.

Medellin is located in the central part of Columbia. Medellin metropolitan area is the combination of 6 municipalities. The City is currently working on a participative democratic project.

Medellin's objective is that with the best equipment, the main transportation system remains democratic and participative. This supposes to manage a system that includes various companies buses and to organise a physical integration in order to create a metropolitan system that will cover the whole area.

#### The Metro Scheme

The Metro company was created in 1979 and started operating in 1995. It is a public industrial and commercial company. The metro goes through the six municipalities and it is bi-lined. The total length of the network is 32 km and it counts 28 stations. It is equipped with an automatic control system. It transports one million passengers a year. Special attention has been paid to the environment.

#### Metrocable

Besides, there is the cable area located in the northern part, a very complex social area made of small housings on hills which is impossible for buses to access. The cable is being considered as part of the metro but it is a different line. There is a planning of 8 passengers /m<sup>2</sup>, nothing is underground.

It carries 45 000 passengers planning to reach 600 000 passengers/year. An integration of the tariffs is needed. It was very important to have an institutional support for the renovation of the corridors. The project includes environmental aspects to be taken seriously into consideration. The state has made a lot of investments in the accesses but some particular areas benefit without contributing, which causes some problems.

MetroCable is 2 kms long, has small cabins for 10 passengers, has 4 fixed stations which are part of the same system but the most important is social work in the area with a lot of hills and social and violence problems. The first thing was to initiate discussions with the people to pay them very well for the land, to make them participate in the project and immediately the community changed attitude.

The engineers could enter the area without being taken away their equipment. As a result, the rate of violent deaths in this area was reduced by 20%.

People have hope again, thanks to this project.

In this sector, there is a touristical interest with a very spectacular view of the area. People can enjoy the sight, which will give a new meaning to this neighbourhood !

Another project the municipality is working on is the rehabilitation of this area by creating commercial centres around new places near the stations. Otherwise, the project by itself would end « suffocating ».

### Metroplus

This project aims at reinforcing the current capacities of the metro. For that purpose, 3 new lines will be built : a main corridor of 15,5 km with 21 stations, the Envigado Corridor of 3,78 km and the Itagüi Corridor of 11,27 km. 4 stations to allow the transfer of the passengers from the metro to metroplus will be created.

Metroplus will give an opportunity for reorganizing the whole public transport system and mobility model of the area. In addition, a complete project of urban renovation is linked to the project that will include the creation of new public spaces, the extension and renovation of the public equipments.

The global cost of the project is near 500 millions of pesos. It will be shared between the State (70%) and the local Authorities (30%). About 175 000 entries are expected. The project, whose duration is 18 months, will generate 4 600 direct employments and 6 200 indirect employments.

### Restructuration of the road public transport

The bus system should be a complement to the metro (metro, metrocable, metroplus). So, the SITM restructuration will target the improvement of the collective transport for the whole metropolitan area, deal with the integration of three services : the primary service (metro), the secondary service (metroplus) and the third service ( road collective transport).

One of the main objectives is to improve the current offer by extending the different metropolitan and urban routes, and adapt the fleet to the demand as well as to the topography, in particular articulated buses to be used where necessary.

### The implementation of the SIT M

This plan includes:

- A unique tariff for travelling in the city and the metropolitan area, special tariffs for certain categories of passengers (students...)
- There are 35 000 taxis, which have participated to make the congestion and pollution on the roads. The plan forecasts to create taxi ranks as much in the centre as in the periphery.
- Signs and Plates, for public and private transport, with metropolitan character are studied
- Intensive campaign of citizen culture towards sustainable mobility, directed to the users of transport, conductors of public and private vehicles and as well as to pedestrians and cyclists.

## Guatemala city

**Mr. Rodrigo RODAS, Councillor**

**Mr. Rodrigo RODAS** thanked the Mayor of Quito and IMPACTS network on behalf of the Mayor of Guatemala City.

The Republic of Guatemala has 14 million inhabitants. The Capital, Guatemala City counts 1,2 millions and 3 million people are living in the metropolitan area.

The car park amounts to around 800 000 vehicles out of which 500 000 travel daily in the metropolitan area. The geographical situation of the city is very central and creates a concentration of 4 000 buses in the area. This creates serious congestion problems.

A multi-sectorial commission created the “transportation and vision plan” for the year 2020.

The city has bet on the building on a “Transmetro” : 50% of its infrastructure has been achieved : it consists in the creation of a great transfer central area ; the south-north axis is the first axis built ; it cost 30 million dollars and which will be operating more or less next year.

**Mr. Rodrigo RODAS** presented a video about Transmetro from which the following comments have been extracted:

At present Guatemala has a deficient public transportation system which causes daily problems. Each time there are more vehicles, the streets are not enough. Each day there are hundreds of thousands people travelling from a place to another and the conditions to do that are neither the safest nor the fastest ones. All of this will change in 2004. The first axis of the “Transmetro” is going to be in operation thanks to the investments and to specialised professionals.

“Transmetro” will cover the whole metropolitan area. The first phase will be the construction of the southern axis, this will begin in the downtown centre that will be the transfer central. It will continue through the avenue going to the civil centre. There will be 11 stops, architecture will take care of security and safety of the people thanks to the design of the boarding stations, the prepayment system with electronic cards. There will be security guards that will be guarding the exits and the entrances.

A fleet of 45 articulated buses are going to travel through exclusive roads and according to schedules and determined times entered in a programme so that the exact time can be measured for the bus to go from one point to another. This technology will enable to transport millions of people in exact time.

Through the modernised public transport system, the “Transmetro” will travel at 25 km/h on average and cover 22 km with stops of 22 seconds (before, a vehicle used to take 2 hours to go from one point of the main avenue to its destination).

The construction of “Transmetro” will not only bring security, speed and decongestion of the area but will also create a cleaner environment with less pollution since the buses use technology that reduce emissions of gases.

This will change the face of Guatemala city with a modern public transportation system.

**Mexico,**

**Mr. Mario ZEPEDA, Director of Planning and Mobility, Mexico Federal District**

**Mr. Mario ZEPEDA** thanked IMPACTS network and the municipality of Quito for their efforts in receiving the participants.

He summarized the situation for the city of Mexico.

Mexico was a beautiful city in the middle of a lake. Now, it has 20 millions inhabitants. The geographical limits of the city has greatly progressed since the past century together with the population. In the middle of the XXth century, the population was 5.4 million inhabitants with a surface of 470 km<sup>2</sup>. In 2000, the urban area went beyond the political limits of the federal district to reach 20 million inhabitants !

This brings serious problems as regards mobility and transportation and also to people and merchandises. The area is a continuous urban area whereas it is not the same political area. It has different political, institutional, financial rules.

To face this, the Federal District created a contingent political area for the urban area. A policy established the interdiction to build further housing within the federal district. Incentives for the reunification of the central zones of the city were put in place.

Thanks to that, the growth was stopped. It should evolve by 2020 to reach a population of 9.2 millions inhabitants for the Federal district.

The municipality, in order to organise the mobility, considered the idea that the origin and destination of travels are where people live. But it meant regulating the housing and the use of the lands with its political and social consequences.

This generated a crisis of sustainability : the problem is to transport so many people with the pollution, the noise and the space invasion it entails.

Policies have been compelling industries with polluting agents to settle outside of the valley, limiting the use of the cars, establishing a day without car with a distribution according to the licence plate and colours divided into five units, establishing restriction of vehicles especially during emergency days. The quality of the gasoline has been improved. So efforts have been made but the tasks remaining to be achieved are still important.

### Road network

There is a road network division for the administration with primary roads and main roads, which allow the connections between the regions and the city. It constitutes a very dense network. These roads have three lanes in each direction and are used by private vehicles but also by public transportation.

This circuit allows to surround the city and the building of these main roads implied the destruction of residential areas in the 1980s. But now they are not sufficient enough.

There are 3070 intersections with traffic lights, 1200 are computerized. There are 162 cameras and 1200 public parking places in the Federal District and around 4345 parking meters in total.

### Public transport

There are three companies for *public transport* in the Federal District :

- one owns the lighttrain and the trole bus : the lighttrain has only one line which is 13 km, has 14 units and 54 000 passengers a day. The trole bus which basically operates in the central part of the city has a 454 km network, has 300 units and carries 230 000 passengers each day.
- The bus company is owned by the Government and runs 1640 buses. 100 lines services with 750 000 passengers a day. 1000 new buses will replace the 10 year old buses,
- The metro was founded in 1969 and has 200 kms network with 200 units and transport 4.2 millions passengers who pay a ticket.

Free services are provided for senior citizens and to handicaped people.

Those companies belongs to the Federal District Government and transport 5.2 million passengers everyday.

In addition, *the private sector* also renders transportation services:

- Two bus lines are under concession to the private sector which owns 1200 units,
- Microbuses which amount to 28 000, mobilise - and this is a serious problem- 18 million trips on a daily basis with 106 routes and then
- 106 000 taxis transport 1.1 million passengers.

In total in the metropolitan area of the valley of Mexico, 40 million segments of travels are serviced every day (a segment is composed of habitual movements).

In addition, there are 2.5 millions vehicles that have been registered in the Federal District. There are around 54 000 dellivery vehicles.

The transportation modes have been divided into high capacity transport such as metro, light train, trole bus and the buses which represent 24% of the daily trips ; medium capacity transport are microbuses , they are owned each by one person who hires an operator , they generate everyday a ferocious competition for the fares, represent 55% of the trips which are generated in a very unsafe and inefficient and polluting manner – they often double their capacity (20 seated persons) and are often more than 15 years old -. The city tried to offer the owners 100 000 pesos to change their vehicle.

### Metro project

In February 2005 will be inaugurated the first line of the metro bus which is the scheme recommended by Quito.

There is a metro project for the year 2020, the corridor has a demand of 300 000 passengers/day. To be worth to have the metro, half a million passengers a day are needed. Til 2020, this coming year, a new network will be inaugurated, which will be more economic.

### Responsibilities for the future

The present situation is that during the rush hour, velocity in the main roads of the city is lower than 10 km/hour !

So, the city tackles the idea of having roads with second floor. The Government has started the building of 25 km belonging to the 2<sup>nd</sup> floor and 25 km of under-path tunnels and distributing roads to try to solve the crisis.

The metro is creating a very paradoxical situation : in the year 1999, the city had two more lines than in 1994 and yet the metro transported 1 million people less which entailed financial difficulties. And the cost cannot be raised because it is a service rendered to the Mexico inhabitants who, for the majority of them do not own a car. So tariffs have been kept low. As the park of trains becomes older, a project plans the purchase of 150 millions \$ of 45 trains of 9 cars. So the city has to invest in materials, vehicles and infrastructure.

### **Mobility and Transport in Cordoba (Argentina)**

**Mr. Horacio BOTTA BERNAUS, Secretary for Traffic and Road Education, Cordoba, Argentina**

**Mr. Horacio BOTTA** explained that Cordoba is located in the central part of the republic of Argentina, has 1,5 million inhabitants. It occupies 562 km<sup>2</sup> with a density 2806 inh/km<sup>2</sup>. The car park is 420 000 vehicles. In 2001, Argentina underwent a situation of crisis regarding the public institutions which left very few possibilities to implement policies.

The municipality of Cordoba has decided to organise into a hierarchy an area which was included in the transportation field. The transport and transit area were divided.

Since 2001, the city of Cordoba has become responsible for 33% of the public transportation. The employees and the companies that went bankrupt left a third part of the city without services of transportation generating a monthly deficit of 500 000 \$.

Transportation by bus is deficitary. There are also omnibus and trolebus. The trolebus had to be taken on by the municipality , it is profitable.

**Mr. Horacio BOTTA** showed the different corridors and the different percentages concerning profitability per passenger /km. It appeared that the trolebus stands out of the lot and that it should be developed in the future to compensate the deficit of the buses.

There are alternative means for transportation such as 3793 taxis units, and school buses.

The objective of the transportation policy is:

- the planning of a safe transit,
- the improvement of the road surfaces for the traffic (the current roads are very damaged due to the lack of policy in that domain)
- and the education of the users which should behave in a more responsible way. Signs are installed to warn drivers about dangerous areas where accidents are frequent.

After May 2004, the average number of accidents in Cordoba has been 15/day and one death every 48 hours due to traffic accident.

The hospital of Cordoba which has very modern equipment and trained personnel saw through the first semester of 2003, 20 persons/day injured further to a road accident. Between 10 and 15% of labour accidents were caused by transit accidents for which the companies had to support enormous costs due to the direct and indirect consequences of these accidents.

50% of the fatalities occurred in intersections with traffic lights which does not make sense ! It should be the safest place in the city thought by urban engineers. And the second alarming figure is that 30% of the fatalities in the urban area are pedestrians.

Regarding Transit policies, **Mr. Horacio BOTTA** remarked that in order to have more efficient transportation system, there is a new policy lead in the different cities of Argentina : Buenos Aires, Cordoba, Rosario because so far, the policies consisted in drawing people's attention on message such as « In Argentina, more than 20 people die in traffic so drive carefully » but the question remained what is to drive carefully ? This campaign was not useful even if the signs were put at the most dangerous spots

An education centre for transit has been created and changed all the requirements for the granting of driver's licence and in the future will go directly to the drivers in order to change their behaviours. They do not have personnel incorporated in the control area because obviously the objective is first to train them. This centre has also the role of accompanying the technical diagnosis

He also showed several examples of fantastic vehicles from Argentina

**Mr. Horacio BOTTA** provided some conclusions : first the city constitutes the best place to improve the quality of life of the citizen and the safety. The cities of Argentina are very different with their valleys, mountains, the ice and have different options for their policies. He thinks that it is very encouraging that cities of Latin America join together to exchange experiences.

This should not be reduced to one or two annual meetings.

He asked IMPACTS North America and IMPACTS Europe to take care of the fact that Latin American cities are very different from an economic point of view from their own and need to be considered differently in that sense.

He hoped that cities will have concrete common projects, do research, work jointly which will be more economical and efficient.

At last, he said that the municipality of Cordoba does not have one penny, all the accounts were in the red. That's why he explained that financial issues should be dealt with, not by the executive committee but during the general assemblies.

## **IMPACTS America Latina, Perspectives**

This session was moderated by **Ambassador Horacio SEVILLA**, Director for foreign affairs of the Metropolitan District of Quito.

### **Academic cooperation, Prof. Alberto VITERI, Quito**

**Prof. Alberto VITERI** introduced himself : he has a double function : he is the manager of the municipal transport company and Professor of the post graduate of the Central University of Quito.

He summarized the initiative taken jointly one year ago by the University of Quito and Mr. Fredy WITWER to organise a post graduate course on mobility.

The fundamental objective of the centre is to define mobility as the essential motor of the sustainable development of the cities The cities face difficulties to control their systems of transport. The fast evolution of the conditions of transport in all the great cities requires of the search of new solutions.

The growth of the cities without integrating an integral planning - Mexico is an example - and the subordination of mobility to the effects of this growth characterize problems like: In Latin

America, the limited investments make difficult the maintenance of efficient systems of transport, the quality of the vehicles, and the road infrastructure.

A program of short term action has been settled thanks to the following elements :

- First of all , the Master Plan for Transportation elaborated by the Central University of Quito will start shortly.
- The course developed by Mr. Fredy WITTWER in the University in 2003 and the Cooperation Agreement on Mobility between the Republic of Geneva and the Metropolitan Municipality of Quito.
- Obviously the Conference of Impacts in Geneva in 2004.

This course will take place thanks to the collaboration of 3 institutions :

- the Swiss cooperation
- the Central University of Ecuador
- ICAM which is the training centre of the Municipality of Quito

Thanks to these organisations, a post graduate course will be developed in January 2005 with the Swiss cooperation and the participation of various universities especially from Switzerland, from Latin America, from Barcelona.

### The objectives

The conditions that are favourable to develop such a training centre is the existence of a potential of expertise in Latin America but without sufficient theoretical sustainability for the development of the knowledge regarding mobility.

Besides, it can take advantage of the experiences in cities where mobility is in great expansion and to generalize those experiences to establish transport systems that may respond in a optimal way to the social, economic and environmental development.

The objectives are to transfer information and experiences, through conferences, consultations of expertise, workshops, to create professional charts and have responsible technicians who guarantee a sustainable development of the mobility systems.

It is also to elaborate a program of exchange of information and experiences between the great metropolis and to structure the organization of continuous formation in the area of the sustainable development.

### The structure

The international Center of Urban mobility according to the structure prepared with Fredy WITTWER's help will have the cooperation of IMPACTS Europe and the expansion of IMPACTS America Latina and Central Europe.

The courses will be created according to four trends :

- course of continuous formation
- courses of specialised formation
- technical cooperation
- Investigation and dissemination (workshops, conferences, media information)

The training will be destined to the people responsible for mobility policies, to technicians working in the field, to the students of the cities, members of IMPACTS.

This extensive operation is supported by universities such as:

- the university of Barcelona
- the Observatory of University of mobility of Geneva (OUM),
- the Laboratories of Urban Sociology (LASUR) and of Inter-modality of the transport of the Polytechnical School of Lausanne (LITEP)
- the Central University of Ecuador
- the Engineers' School of the city of Paris, ,
- Lille University (Transitec)

Through the network of Impacts, other partners committed themselves such as local governments, consultancy companies and experts that work in the scope of the transport.

### Methodology and content

The courses will be oriented mainly towards the methodology and principles of sustainable development. They will be documented on the basis of real cases: successes and failures, on technical practices and visits and contacts with organizations of the civil society.

The international Center of Urban mobility will develop a first course divided into four interrelated actions :

- a specific formation integrating road safety
- the continuous formation on urban movement
- the course on technical cooperation
- European program with regard to the mangement of urban roads

This initiative would be developed in Quito, in January 2005. Impacts would help to structure a network - that would allow to integrate universities from the Member Cities – that would organise educational interchanges.

He gave his email [albertoviteri@andinanet.net](mailto:albertoviteri@andinanet.net) for people to ask further details about the training.

### **Collaboration with IMPACTS network, Mr. Jean-Louis GRAINDORGE, IMPACTS Europe**

**Mr. Jean-Louis GRAINDORGE** said he was impressed by the number of cities attending the conference and by the quality of the presentations. He reminded some elements of the global organisation of IMPACTS : IMPACTS is a network of networks. Each organisation created at a continental level has its own autonomy, which means that each has to act independently with regards to their action programs, their financial issues and their organisation.

The cooperation between the different entities could take different forms :

It could be useful to organise what could be the conference of the presidents : for instance the presidents could meet or have a video conference twice a year in order to exchange and make a statement about what they have achieved and what are their plans of action for the future.

The secretariats of the organisation would have to be linked permanently with each other. It would be very important to organise the circulation of documents and the cross-fertilisation of this information. For instance, IMPACTS America Latina could have its own website linked with the existing ones. Besides, IMPACTS America Latina could create its own Newsletter while communicating in the already existing one in special pages.

It is also important to come to the foundation of IMPACTS and to remind that it was created so that people from different cities and continent meet each other. These people are political decision makers, which is a basis.

**Mr. Jean-Louis GRAINDORGE** noted the essential role played by Barcelona and Geneva from the very beginning of the cooperation process and underlined that their strong involvement allowed to progress very quickly to the present result. He hoped that further successful cooperation will be set up between them and Latin American Cities. He finally thanked warmly the city of Quito and especially Horacio NUNES's staff for their kind hospitality and friendship. He addressed special congratulations to Julio GARCIA RAMON and Frédy WITWER who did a great job.

**Ms. Patrice GILLESPIE-SMITH**, NACTO said it was an honour as IMPACTS member to have another continent join the IMPACTS network. Over the last days, it became evident according to her that there are more similarities than differences regarding transport challenges accross the world. It is also clear that cities' common goal is to improve the quality of life of the citizens. She found it fascinating to hear the different contexts of the cities, it provided a good learning opportunity and also a kind of measurement that can be used for further progress.

The recommendations she expressed concerned the fact to have a good staff to lead these efforts and coordinate them. IMPACTS North America has a very active Secretary General, Professor Ilan JURAN, and works in close cooperation to the New York University Rudin Center. Without this staff, she does not believe the progresses would be as advanced as they are today because it involves representatives of 11 busy municipalities and when working as elected official, one is faced with crisis everyday.

She thanked the city of Quito and the ambassador for the wonderful dinner the day before and the experiences it provided.

On behalf of the Mayor of Quito, **Ambassador Horacio SEVILLA** thanked the participants for a valuable contribution that will enable to improve the quality of life of the Latin American citizens.

The conference was closed.

Then, the constitution of IMPACTS America Latina was signed between the different cities.