

Quito, Ecuador

16-20 October 2016



EcoMobility
An ICLEI Initiative



INSTITUTO METROPOLITANO DE
PLANIFICACION URBANA IMPU

EcoMobility Days 2016 Quito Report



#emdQuito

Contents

Forewords	3
EcoMobility Days 2016 Quito: an overview	6
Changing the way we think, plan and implement EcoMobility	8
Our commitment to the future generations	9
Build more to get more	11
Financing options for urban mobility	13
Rewarding entrepreneurship in urban mobility	14
Planning with cause and integration	16
Clean, green and safe mobility in our cities	18
State of Latin America in EcoMobility	20
Safe cities for children are safe cities for all	22
Mobility as a Service	24
Active mobility for active cities	26
The role of mobility in creating liveable cities	28
About EcoMobility	29
Speakers	34

Forewords



From 17 to 20 October, people from around the world gathered in Quito, a city with 2,5 million inhabitants, to discuss key urban issues at the United Nations Conference on Housing and Sustainable Urban Development (Habitat III).

Urban mobility is one of the core issues discussed on this occasion. With just 23% of the population in Quito using private vehicles, traffic congestion is still one of the biggest problems we face daily. Additionally, 56% of the carbon footprint of Quito comes from the transport sector.

To address these challenges, we are currently working to improve mobility, placing people at the center. Our efforts include increasing the public spaces for people and moving towards increased access to public transport and active mobility.

We came to the EcoMobility Days looking forward to learning from the experience of other cities in implementing ecomobility. We were glad to also be able to share our own successes and challenges with cities from all over the world, which are also committed to sustainable mobility.

I hope that this report will help inspire others to embark on the path towards ecomobility.

Eduardo Del Pozo Fierro,
Deputy Mayor, City of Quito



It is with great satisfaction that I would like to share with you the report of the EcoMobility Days 2016 Quito.

I am very grateful to the city of Quito for hosting the EcoMobility Days event and being a very active Alliance city. I also thank the partner organizations who made the EcoMobility Days 2016 Quito possible. I finally want to thank all the other Alliance cities that took part in the event and shared their valuable experience in advancing EcoMobility in our cities.

In order to contribute to the advancement of ecomobility globally, the city of Kaohsiung will host the EcoMobility World Festival in October 2017.

I hereby cordially invite all cities and mobility actors to this revolutionary experiment in our city, to share their expertise and work together on making urban mobility sustainable.

I hope that this report will help share the outcomes of the EcoMobility Days 2016 Quito to inspire other cities to advance their ecomobility. I would finally like once again to express my gratitude to all the people involved in making the EcoMobility Days 2016 a success.

Chen Chu,
Mayor, City of Kaohsiung
EcoMobility Alliance Chair (2016 – 2017)

Preface



It is with great pleasure that I present this report on the EcoMobility Days 2016 Quito, co-organised by the EcoMobility Alliance and the Metropolitan Institute of Urban Planning (IMPU), Quito. The EcoMobility Days 2016 Quito took place between 16 - 20 October 2016 in Quito, Ecuador as nations convened to adopt the new urban agenda during the United Nations Conference on Housing and Sustainable Urban Development (Habitat III).

Ecomobility is critical to building low-carbon, healthy and enjoyable cities. The EcoMobility Alliance seeks to inspire local leaders to make public transport safer, create public spaces, and increase safety for cyclists and pedestrians. By facilitating peer-to-peer learning, the Alliance allows cities to help each other and accelerate change. Local innovation is also driven by cooperation across continents and regions as was shown during the EcoMobility Days 2016.

The city of Quito opened its doors to the EcoMobility Alliance cities as well as to participants of the Habitat III conference to meet and share experiences on delivering sustainable urban mobility.

We have summarized the EcoMobility days in this report where we wish to convey the innovation and enthusiasm that emerged throughout the event. Cities demonstrated during these five days their great commitment to ecomobility. Alliance cities and local governments from across the world presented their efforts delivering sustainable urban mobility in their specific context.

During the conference, the 2016 Global MobiPrize was awarded to innovative entrepreneurs, enterprises, and cities that are working to develop smart and sustainable transportation around the world. Participants of the EcoMobility Days 2016 explored the challenges to finance sustainable urban mobility and implement mobility in the context of the Sustainable Development Goals. A great number of critical topics were covered during the conference, including clean vehicles and clean air in cities, as well as safe and healthy routes to school. Finally, taking advantage of the great attendance of the conference by Latin American cities, participants also had the opportunity to hear from specific ecomobility efforts in these cities on topics such as active mobility and public transport.

We would like to extend our appreciation to all partner organizations and cities that made the EcoMobility Days possible. Our most sincere gratitude also to the city of Quito, a city committed to ecomobility, for its generous hospitality and support. We hope to have more city exchanges as this one in the future to accelerate the road towards ecomobility in cities.

Gino Van Begin,
Secretary General,
ICLEI - Local Governments for Sustainability

Organised by



Sponsored by



Co-sponsored by



EcoMobility Days 2016 Quito: an overview

From 16 to 20 October in Quito, Ecuador, the EcoMobility Days gathered local representatives, change-makers from the public and the private sectors, and urban mobility enthusiasts.

In total, over 60 speakers from more than 25 countries exchanged practices, visions of the future of urban mobility and concrete tools and methodology during an intense 5-day program attended by over 250 participants.

The EcoMobility days were organized by the ICLEI EcoMobility Alliance, with support from partners such as FIA Foundation, EUROCLIMA and various other organizations working in the area of urban mobility. EcoMobility Days is a part of the technical workshop series of the EcoMobility Alliance and an effort to equip local governments to implement the New Urban Agenda, which was also being discussed at the UN's Habitat III conference held during the same time in Quito, Ecuador.

The EcoMobility Days combined the main elements that the Alliance offers its members, supporting them in enhancing sustainable mobility, good practice exchanges, tools and methodology trainings and offering a space for high-level discussions on the future of urban mobility.

All throughout the five days, more than 15 cities across the world presented their efforts in terms of sustainable urban mobility. The great number of presentations represented the diversity of challenges and the solutions local governments intend to overcome these challenges. La Paz, Bolivia, which had buses specially designed to be able to reach its populations living at a higher ground, while Boulder, USA, created bike lanes that can serve as flood control, or the city-state of Singapore which established pedestrian nights and pedestrian weekends on major roads to demonstrate the more important use of public space by giving it back to people.



67 Speakers from more than **25** countries

Over **250** participants from around the world

Many participants and speakers testified the importance of ecomobility and underlined that the exchanges helped them find solutions applicable to their local context as well as ideas for fundraising. A great number of city representatives had the opportunity to establish direct contact with other cities facing similar challenges and learn from one another.



To equip cities with concrete implementation tools and build capacity, two out of the five days were dedicated to methodology and training. On October 17, the Alliance, in partnership with the SMART Institute at the University of Michigan and the Institute of Urban Planning of Quito Metropolitan Area, organized a workshop on discovering, designing and implementing a multi-modal transportation system for the city of Quito. Participants were invited to work in small multi-disciplinary groups on real maps of Quito current transportation system and find ways to improve it and discover the potential for using existing networks. The workshop was held following the methodology developed by the SMART Center at the University of Michigan.

On October 20, the Alliance offered, in partnership with GIZ and the Ministry of Urban Development and support from Dario Hidalgo (WRI Cities) and Carlosfelipe Pardo (despacio), a full training to explore the role of urban mobility in creating liveable cities. Over 30 city officials and urban planners with direct implementation capacity in developing cities participated in this training course.

Finally, throughout the five days, many sessions focused on key challenges cities are facing such as the issue of clean vehicles, air quality, road safety with a focus on women and children and the future of urban mobility in general. Experts from the mobility sector from institutions such as FIA Foundation, EUROCLIMA, ITDP, WRI Cities, Walk21 and WWF shared their visions based on their global perspective, confronting it to the local perspective of representatives from cities working on the ground. These sessions showcased the great amount of solutions that already exist and the need for political courage to implement them. As the Urban Renovation Director from the city of Cali reminded: “[when it comes to urban mobility], it is a decision, to build the city for the majority”.

Exchanges throughout the five days were very rich and demonstrated once more the importance of the topic in cities, whether in economic, environmental or social terms. With the adoption of the New Urban Agenda, cities are encouraged to pursue their efforts and such exchange opportunities will be all the more needed to accelerate action.



"Cities must not be built around automobiles but around people"

*-Eduardo Del Pozo Fierro,
Deputy Mayor,
City of Quito*

Changing the way we think, plan and implement ecomobility

Opening of the EcoMobility Days Quito



October 16, 2016

City leaders, heads of transport, thought leaders and change-makers gathered in Quito, Ecuador for the first day of the EcoMobility Days 2016 Quito to share experiences and explore options for the improvement of urban mobility situation in their cities.

The central learning from experiences of over 10 cities is that urban mobility based on fossil fuels is not the way forward. The current urban mobility development patterns are detrimental to the environmental, societal and economic growth of cities. Excessive automobile dependence leads to worsening air quality, dangerous streets and creates unliveable cities. All the change makers present in Quito acknowledged that the urban mobility in our cities needs integrated, clean, safe and affordable transport systems.

“It is a decision, to build the city to mobilise the majority or the cars”.

*- Nelson Londoño,
Urban Renovation Director,
City of Cali, Colombia*



From reducing emissions to improving social inclusion

Our commitments to future generations

Led by the city of Quito, which was represented by the deputy mayor Mr. Eduardo Del Pozo, all the cities presented their current efforts and future plans for creating an ecomobile future through changes in urban planning, integrating different transport modes and giving the streets back to the people.



The EcoMobility Alliance chair, the City of Kaohsiung, represented by Ms. Tsai Po-Ying, Deputy Secretary-General, highlighted that transformation in urban mobility is not an easy task although an essential one. Kaohsiung city will implement the EcoMobility World Festival in October 2017; during the festival, the city will close its touristic Hamasen neighbourhood to cars for the entire month. During October 2017, Hamasen in Kaohsiung City will be a haven for ecomobile vehicles. Biking and walking will replace the short trips made on motorcycles, public transport services will be increased and tightly integrated into the neighbourhood design to increase access to them.

The city noted that moving away from personal automobiles by providing viable alternatives will help the city to reduce the over 90% dependence on personal motor vehicles in the neighbourhood. The city's move does not come without resistance from the residents and the businesses. The city is conducting regular public participation activities to increase the awareness of the residents and the local businesses on the drawbacks of motorisation. The residents and businesses are also informed of the many advantages of a people friendly urban area with examples from various cities around the world.

The mayor of Suwon city, Mr. Yeom Tae-Young, agreed with Kaohsiung city's approach. Suwon, the first city in the world to have hosted the EcoMobility World Festival in 2013, had faced similar resistance from the residents and local businesses. Suwon city had also engaged in methodical public participation approaches with the residents and successfully got the buy-in from the residents of the Haenghungdong neighbourhood where the 2013 festival was implemented.

Looking back on the results of the festival, Mayor Yeom recognized that the festival had been a success, increasing air quality as well as the economy and quality of life in the neighbourhood. Mayor Yeom also highlighted that a festival is no easy task for a city leader and that an unwavering political will and a very rigorous public participation approach are essential for the success of an EcoMobility World Festival.

Urban mobility plays a very important role in creating social cohesion, and integrated mobility systems increase the access to goods and services in a city. This was very evidently demonstrated by Mayor Frederico Gutiérrez of Medellín, Colombia. The city was once a very violent city to live in and it managed to turn into one of the nicest cities to live in. Medellín went through a thorough introspection of its urban development, looking for ways to plan for a more inclusive city and focusing, in particular, on changing the way people moved through the city.

The mobility system was enriched by introducing integrated transportation that included a bus rapid transit (BRT), a subway and a cable car system. The integration of these modes increased the access to the city for people who were otherwise being excluded from jobs and essential services. The city is currently encouraging entrepreneurship in urban mobility to make the existing transport system more innovative.

An often-forgotten element of urban mobility is the transport of goods or freight. Many cities do not realise the benefits that they can achieve with freight management as freight often does not make it to the urban mobility plans. The city of Almada, Portugal is one of the first Alliance cities to focus on the urban freight issue.

Through an EU-funded project, the city of Almada has developed a baseline and a dedicated freight plan to manage the current situation. After conducting a study in a pilot site, Almada found that managing freight in the study site had a potential to reduce GHG emissions by close to 1,300 tons of CO₂/year and to reduce the current 1,550 freight trips per day. The city is aiming to achieve this saving by shifting the freight delivery mode from motorised modes to non-motorised and cleaner vehicles. Parking regulations are also being amended for commercial vehicles and urban consolidation centres are being provided to reduce the trips and trip lengths or urban freight.



“Walkability is an important indicator of quality of life in a city”

- Torben Heinemann, Head of Transport Department, Leipzig, Germany

Build more to get more

Investing on infrastructure for ecomobility

Cities should be built for people and mobility should increase their access to goods and services. Unfortunately, cities that have prioritised private automobile mobility in their planning have turned out to be disadvantageous for people from a health, safety, and economic perspectives.

Planning cities with people as the focus helps to create liveable cities. Leipzig, Germany, is one of such cities that has managed to reverse the trend of a declining population. In the 80s, Leipzig was a thriving industrial city and, shortly after the unification, a large number of people moved to the western part of Germany. Since then, the city has implemented various activities to address the declining population and urban renewal was at the core.

Urban design and urban mobility have played a crucial role in reversing the trend. Leipzig is one of the oldest cities with a tram network. The city implemented its first tram line in 1872 and now has over 148 kilometers of tram network making it the 10th largest network in the world. In addition to the mere implementation of a tram network, the city ensured that the network would be accessible and is affordable for people and that it would be integrated with the other existing transport modes in the city.



Prioritising public transport in Leipzig meant that the city had to reduce the appeal for personal automobiles (predominantly cars). This was done by increasing parking fees by 200% in 2011 and reducing parking spaces in the city centre from 870 to 225 in 10 years. The reclaimed parking spaces were given back to the people by expanding the existing walking and cycling facilities and creating public spaces explained Mr. Torben Heinemann, Head of Transport from the City of Leipzig.

The total extent of the bicycle network in Leipzig to date is 444 km; this includes bicycle paths and bicycle lanes. The result of the vigorous investment and priority for cycling over the past 25 years led to an increase in bicycle use close to 350% (5.2% in 1990 to 17,3% in 2015). Additionally, being a culturally rich city, creating a city that favoured walking and cycling with a strong integration of public transport brought various cultural opportunities to Leipzig. The city is currently in the process of exploring venues to expand its tram network and share its experience with cities worldwide.

An equally culturally rich city from the other side of the Atlantic is San Miguel de Allende, Mexico. The UNESCO world heritage city is a popular tourist destination for its historic colonial buildings and rich culture. Over the time the city has become automobile dependent and the city has realised that pedestrians need to be the priority of urban mobility, followed by cyclists and public transport, in the words of Mr. Marco Antonio Rodriguez, head of transport of the city. The city is willing to learn from other cities and currently has plans to create a public transport system that is integrated, accessible, affordable and safe. The city plans to create a dedicated bicycle network, making it safer for people to use bicycles. The city also plans to create public spaces that are accessible for people with special needs and create a system that is energy efficient and less polluting.

CITY EFFORTS ON ECOMOBILITY

The following cities presented their efforts on sustainable urban mobility:

- Quito, Ecuador
- Kaohsiung, Chinese Taipei
- Medellin, Colombia
- Suwon, South Korea
- Almada, Portugal
- Belo Horizonte, Brazil
- Boulder, USA
- San Miguel de Allende, Mexico
- Leipzig, Germany
- La Paz, Bolivia

Located at an altitude of 3,600 m and on a hilly terrain, La Paz, Bolivia, implemented a public transport system that serves the needs of the people. With a distinct branding, high capacity buses and a strong public awareness campaign, La Paz has developed a bus-based public transport called PumaKatari. The buses have been specifically designed for La Paz, to be adapted to the city's challenging topography.

La Paz used to be filled with traffic and a survey had found that about 80% of the population felt that the mobility system in La Paz contributed to a worsened quality of life. The same survey had also found that 76% of the respondents could not trust the public transport system due to the poor quality of service.

The introduction of PumaKatari changed the perception of people on public transport. PumaKatari buses operate on 6 routes, with a total of 141 buses having each a capacity of 61 passengers. The system serves the hilly areas and areas without any prior transport connection. PumaKatari carries around 43,000 people every day. Since the introduction of the PumaKatari, 91% of the users are satisfied by the service, and 95% felt that they are treated cordially by the staff of PumaKatari. The system also integrates bicycles, which can be carried on the front of the buses. PumaKatari is also integrated with the existing cable car system in La Paz.

The next step for the city will be to implement a bus rapid transit (BRT) system. The experience from the PumaKatari bus system will help design the BRT system. It will be implemented in the city centre where space will be taken from personal automobiles to create a dedicated bus lane.



Financing options for urban mobility

A cross-sectorial answer for cities

While cities are developing innovative ways to advance EcoMobility in cities, the probably most cited challenge remains access to finance. To address this topic, city leaders, development banks and organisations working with cities shared their experiences to find innovative ways to finance EcoMobility.

The central idea discussed consists in linking urban mobility development projects to various other infrastructure projects. Due to the cross-sectorial nature of urban mobility and the myriad benefits and co-benefits EcoMobility has on social, economic and environmental sectors bundling urban mobility developments can easily be achieved.

Councillor Matthew Appelbaum, from the City of Boulder, CO, USA, for instance, presented how the city was able to build more bicycle lanes by designing them so they could double as a flood control area. Thanks to this link, the project could receive more resources, helping to develop the bicycle network in the city. The city also managed to raise investment for the public transport system by exploring measures such as land-value capture for developing the Boulder district.

Other mechanisms such as cross-subsidising through fuel taxes, parking pricing and measuring the true cost of automobile infrastructure can also increase funding for EcoMobility.

Dr. Eduardo Vasconcellos, advisor to the CAF Development bank, highlighted that the share of public and non-motorised transport in many Latin American cities is higher with 68% (42% public transport+ 26% walking and cycling) than the share of private motor vehicles (32%). Yet, the price of public transport varies between 15 – 25% of the minimum salary. When coupled with a poor infrastructure and low quality service, depending on public transport for everyday commute becomes unattractive. This leads to an annual increase of 4% in personal cars and 13% in motorcycles. The increase in motorisation also contributes to fatalities of which 52% are found among pedestrian and cyclists.

Additionally, personal automobiles consume 85% of the road space and consume 66% of the energy. In order to improve urban mobility, Dr. Vasconcellos proposed that automobile drivers should pay the real cost of the trip, including the externalities and that funding for road safety, should be increased.

The research from Brazil, presented by Ms. Clarisse Linke, country director of ITDP Brazil, further supported the idea to reallocate funding from personal automobile to public transport. Ms. Linke expressed that mobility modes that carry more people need to have a larger share of the transport budget than the low capacity personal automobile infrastructure. She also insisted on the possibility to use road safety as a tool to bring change in urban mobility, making the streets more appealing by increasing safety.

Providing quality infrastructure and service for public transport helps to change people's behaviour. This was very much reflected in the experience of Belo Horizonte, Brazil. Between 2002 and 2012 the city witnessed a 50% loss in public transport users leading to a 50% increase in personal automobiles. The Greenhouse Gas (GHG) inventory of the city in 2013 showed that urban mobility contributed to 53% of the urban GHG emissions. This led the city to decide to bolster the existing sustainable urban mobility plan (SUMP) and implement a high-quality bus-based public transport system. This is how the Belo Horizonte's MOVE BRT system was created.

The BRT system is 23 kilometers long with 5 integrated terminals and 40 transfer stations. According to Mr. Ramon Victor Cesar, CEO Belo Horizonte Transport (BHTRANS), the system is carrying close to 500,000 passengers per day, which is 13.5% more than its estimated capacity. The system serves 1/3rd of the daily transport demand in the city. Through intelligent fare collection, dedicated and segregated bus lanes, travel time was reduced between 20% and 50% (depending on the departure station). The city aims to further expand the success of the BRT system and create a larger network to increase the access to more people in the city.

“Innovation can allow cities to develop a sustainable urban transport system despite low resources”

-Matthew Appelbaum, Councillor of the City of Boulder, USA



Rewarding entrepreneurship in urban mobility

MOBIPRIZE AWARD CEREMONY 2016

Encouraging entrepreneurship accelerates the implementation of ecomobility in cities. ICLEI EcoMobility has partnered with the University of Michigan's Sustainable Mobility and Accessibility Research and Transformation (SMART) Center, to promote entrepreneurial achievements from around the world on a global stage. ICLEI supports the SMART Center's "MobiPrize" awarded annually to entrepreneurs from around the world for achievements that support advancement in urban mobility.

In addition to the MobiPrize, ICLEI also supports the "Mobi Enterprising city/state/nation award". The award highlights efforts by city/state/nations to encourage entrepreneurship.



Federico Gutiérrez, Mayor of Medellín:
Enterprising City MobiPrize Winner

AWARDING NEW MOBILITY

Two years ago, in 2014, Medellín (Colombia) was ranked as the most innovative city in the world by The Wall Street Journal and Citigroup, before world cities like Tel Aviv and New York. Sustainable mobility is one of the areas that show important characteristics of innovation in the city. The Agency for Cooperation and Investment for Medellín and Metropolitan Area (ACI) submitted the application for the Enterprising city/state/nation award, which highlights the integrated sustainable transportation system. This system includes the Metro of Medellín (Metro, Metrocable, and Metroplús), and EnCicla -public bicycle system. The jury was very impressed with Medellín's efforts making it the winner of the Enterprising city/state/nation award. It was applauded in particular for investing in building the New Mobility Industry cluster development (around railway technologies) and supporting innovative and integrated transportation solutions.



The Ann Arbour, MI-based Current Motor won the Michigan MobiPrize. The solution that won Current Motor the award was the Mini-fleet-in-a-Box. It is a shipping container containing 4 electric cargo motorcycles. The container opens up to provide the zero emissions vehicles with solar power. Current Motor is a new, early-stage company that makes all of its quality products in Michigan. The MobiPrize jury felt that this initiative should be rewarded for its unique product that provides an energy independent solution which improves access to remote locations. Cities can implement electric mobility powered by renewable sources straight "out of the box" with the Mini-fleet-in-a-Box. For more information visit www.currentmotor.com.

INNOVATORS

By converting city public transport data into an accessible and mobile friendly interface, WhereisMyTransport (WIMT) platform allows cities, transport operators, and commuters to make informed transport choices. WhereisMyTransport was awarded the 2016 Global Grand MobiPrize by an eminent jury. The platform currently works with emerging cities to centralise and communicate across their public transport systems. WIMT also works with systems as they are, from informal taxi networks to high-speed light rail. More information on the solution is available from www.wherismytransport.com/



Jump In Jump Out (JiJo) created a location-based mobile application that connects passengers to vehicles. With JiJo, every vehicle can become a shared vehicle. The app is real time and dynamic. JiJo figures out matching trips and notifies users automatically. The MobiPrize jury rewarded the initiative for its efforts in encouraging sharing rides in India through a very interesting business model that involves cabs, private cars, and other vehicles. The jury particularly appreciated the blending of information through the SmartShehar dashboard that links ride sharing with public transit info, and even with women's safety apps. JiJo, the Mumbai-based firm was awarded the Mobi-x: Best Indian Enterprise award.



Planning with cause and integration

The city of Quito underwent the SMART Mapping workshop with various participants

DESIGNING

Public transport in Quito is the most prevalent form of transportation, covering over 60% of trips. However, the allocation of space between buildings remains heavily oriented towards personal vehicles. This results in congested roads and other negative effects including poor air quality. The City of Quito and its future aspirations call for a more efficient, multi-modal, connected, fair, engaging and empathetic approach to design and policy.

The city of Quito underwent the SMART Mapping workshop with various participants including a full range of Quito-based transport-relevant leaders across all sectors and additional international counterparts. The exercise revealed existing and potential transportation assets and even more importantly connectivity (the New Mobility Grid) in Quito.

The session also helped to identify short and long-term interventions, synergies, transformations, enabling technologies, new business models and policies, and concrete directions for the local multi-modal transportation system.

DEVELOPMENT

SMART at the University of Michigan has developed a simple, practical, and integrative 4-step approach to achieving these goals – SMART Mapping Workshop. It has been applied in over 20 cities across five continents. ICLEI EcoMobility and SMART have also implemented this methodology in cities of the EcoMobility Alliance.

The session employed a practical yet transformative approach to achieving and accelerating seamless, IT-enabled, multi-modal, sustainable transportation in regions, towns, and neighbourhoods.



THE METHODOLOGY

The 4-step methodology of the session was the following:

- Convening – bringing together government from all levels and relevant departments, businesses large and small, citizens' groups and non-profit organizations (and sometimes selected citizens)
- Mapping – a catalyst for engagement and action: identifying the existing multi-modal connectivity grid and proposing innovations and solutions that solve problems, fill gaps, and improve liveability, environmental sustainability, and economic vitality. Existing and successful examples of solutions and enterprises that can be customized and applied to Quito were drawn from ICLEI's network of cities; from the SMART Mobi Platform, and from ongoing research and case gathering.
- Piloting / implementing – exploring short term and long term transport solutions to pilot and implement.
- Evolving and promoting the New Mobility



Clean, green and safe mobility in our cities

Strong political determination will provide base conditions

The most important ingredient to create a mobility system in cities that is safe, affordable, efficient and environmentally friendly (EcoMobility) is a strong political will. City leaders need a bold vision to create cities that are made for people and a clear plan to enforce this vision. This was the main message from a panel discussion involving the German Federal Ministry for Economic Cooperation (BMZ) at the EcoMobility Days. Once a political will is established the next challenge includes changing the mindset of people to adopt an ecomobile lifestyle and to accommodate innovative urban mobility strategies.

Quito's Director of Mobility Planning, Mr. Marcelo Narvaez, highlighted the efforts that the city is making to develop a people friendly urban mobility system. He insisted on the need to link urban mobility with urban planning.

“Improving fuel quality is already a huge part of the solution to reduce air pollution linked to mobility”

- Sebastian Galarza, Researcher and Program Lead, Centro Mario Molina, Chile

Mr. Jan Karremans, Director of Technical Assistance of the EUROCLIMA program, presented Latin American cities as being at the forefront of implementing economically effective and energy efficient urban mobility systems. He also reminded that integrated urban mobility systems should be the ultimate goal for any city planning EcoMobility.

Mr. Clayton Lane, CEO, Institute for Transportation and Development Policy (ITDP) raised the urgency for cities to change the paradigm. Mr. Lane reminded participants that “there is only one shot in getting our cities right” and that with a strong political will and decisions that put people at the centre of planning, cities can solve their urban mobility challenges.





In addition to planning and people centred urban mobility, mobility innovation is key to accelerating the paradigm shift to EcoMobility. Accommodating our city infrastructure and policies to allow people friendly mobility innovations such as light electric vehicles that are human scale will help to switch from otherwise inefficient modes of mobility.

The FIA Foundation works with national level governments to promote fuel efficiency. Through the Global Fuel Efficiency Initiative (GEFI), FIA Foundation supports over 100 countries to achieve fuel efficiency, through cleaner vehicles and policies. Addressing fuel efficiency has the potential to yield \$2 trillion in fuel savings by 2025, reduce costs on fuel imports and reduce around 33 Gt of CO₂ emissions, which is equivalent to 300 coal fired power stations. Ms. Sheila Watson, Executive Director of GEFI and Deputy Director at FIA Foundation, said that electric mobility will be an integral part of future mobility, yet it should part of an integrated urban mobility system to amplify its benefits.

Innovation in urban mobility can be accelerated in cities by bringing cities and businesses on the same stage. EcoMobility Days 2016 Quito has achieved this by bringing one of the most innovative companies in the sector of electric vehicles, BYD, to the event. BYD's Director of Sustainability, Mr. Adalberto Maluf, reminded that electric mobility should not be limited to personal vehicles. Greater benefits can be reaped by moving towards electric public transport. In Latin America, 44% of the PM_{2.5} (fine particles suspended in air) emissions are from buses running on unclean diesel fuel. Excessive PM_{2.5} concentrations in a city lead to public health issues, such as respiratory illnesses or even death. Mr. Maluf also showed technologies including electric freight delivery and electric personal automobiles. Examples from Bogota and Sao Paulo have shown that electric and hybrid buses have a lower energy and maintenance costs and lower lifecycle costs compared to conventional diesel buses. He also explained that adoption and scale up of electric vehicles can be accelerated with innovative preferential financing.

The City of Changwon, Korea, has increased the number of electric vehicles through a comprehensive policy framework and incentives. The city has introduced an extensive public awareness program to encourage people to shift to electric vehicles. Policy reforms such a reduced parking fee (almost 50%) for electric vehicles gave a preferential treatment to electric vehicle owners. This resulted in a reduction of 763 tons of CO₂ between 2014 - 2015. The efforts of Changwon made it the Korean city with the highest number of electric vehicles as of December 2015 (354 vehicles deployed).

In addition to low carbon vehicles and clean vehicles, Ms. Maria Krautzberger, German Environmental Agency (UBA), reminded that integrating these strategies with the basic non-motorised transport such as walking and cycling will multiply the benefits and balance the excessive dependence on technology.

The state of EcoMobility in Latin American cities

A region with innovative solutions to urban mobility

In Latin America, 3.7 million deaths are attributed annually to air pollution, and 90% of the particulates, NO_x (nitrogen oxides produced during combustion) and PM_{2.5} (fine particles suspended in air) come from trucks and buses. Mr. Sebastian Galarza, from the Centro Mario Molina Chile, highlighted the benefits of cleaner vehicles to reduce the air quality and directly impact public health. Immediately moving to low sulfur fuels and on a longer term moving to low or zero carbon fuels is the path for many Latin American cities. Countries can achieve this in Latin America through stringent standards and allowing latest vehicle technologies. Mr. Galarza also highlighted that globally, the net present value (NPV) of health gains by 2050 would reach \$18 trillion while the total costs of desulfurization and emission controls are estimated at \$1.1 trillion.

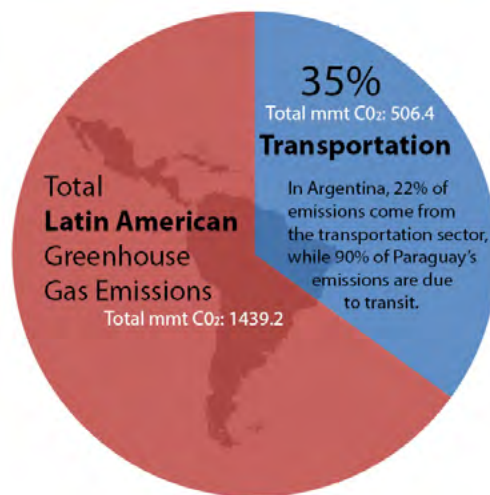
**“Looking for quick wins?
In Latin America, 0,01% of
the fleet (buses and taxis)
represent over 40% of the
emissions!”**

- Adalberto Maluf, Director of Marketing, Sustainability and new businesses, BYD Brazil

Medellin, Colombia, is such a city that has successfully integrated its transport modes to create social cohesion. By integrating the transport modes, the city has reduced the average travel time from 90 min to 30 min. With the implementation of a cable car system and escalators, the otherwise disconnected residents living at a higher ground now have better access to jobs and services in the city. The increase of public spaces and mobility options with innovative transport modes such as shared bicycles and a bus rapid transit system has greatly contributed to transforming Medellin into a liveable city.

Under the leadership of Mayor Jamie Lerner, the City of Curitiba, Brazil, has brought to the world an innovative urban transport system, the Bus Rapid Transit (BRT). Whilst implementing the BRT the city has also undergone a major transformation through the linkage of urban mobility and urban transport. The high capacity BRT trunk corridor is lined with high density mixed land use and the feeder systems to the trunk corridor serve the lesser density areas. Despite the changes in political leadership, the advancement of urban mobility focussing on moving people remained constant. The system as of 2016 has 91 lines served by 333 buses serving the movements of 45% of the population. The BRT system through its specially designed stations offers a level boarding and descending making it easier for wheelchairs. By introducing buses running on bio-fuels, hybrid fuels, and electricity, the city makes an effort to move away from fossil-fuels to promote energy efficiency and reduce air pollution. The city conducts regular customer surveys to measure the performance of the public transport system and also self-assesses the bus operators on their quality of service and frequency.

Public participation is essential to the success of any urban development efforts; this applies also to urban mobility. Rosario, Argentina, has therefore included public participation in its strategy to create ecomobility. To create an integrated urban mobility plan the city brought together citizens, national and international mobility experts. This work allowed identifying 3 major axes for urban



Source: Center for Clean Air Policy 2012

mobility, namely, the promotion of public transport, the development of non-motorised transport, and individual motorised mobility. The approach follows the following principles: avoid, shift, and improve. By creating exclusive bus lanes and a Bus Rapid Transit system, Rosario has given priority to public transport. The Mi Bici (My bicycle) public bike sharing scheme has opened the doors for shared mobility and also encouraged the use of non-motorised transport. The bicycles are also given priority on the streets through dedicated bike lanes and increased bike parking facilities, both measures ensuring the safety of the bicycle and the rider. The historic city centre is being renovated to increase the space for pedestrians and cyclists; space is reclaimed to people by reducing the lane widths for automobiles. By providing street furniture and green areas, the historic centre's appeal will increase for non-motorists. Ms. Eleonora Piriz, Manager of Integrated Planning of Rosario, underlined that managing mobility from the perspective of people requires new methodologies of analysis, instances of tests and risks, technical creativity but above all a strong political will.

To increase public participation in cities there is also a strong need for information dispersal among the public about the transport system. Quito, Ecuador, has successfully utilised technology to disseminate information about the public transport in addition to improving the quality of the service. Extensive surveys in Quito have concluded that, in order to increase the use of public transport, one crucial element is to deliver better information to passengers. By integrating the digital trends in information delivery, the city of Quito showed bus routes into the first ever visual map in Quito. The map was implemented for the newly developed BRT system and the trolley bus system. The city also shares the information with popular transit platforms such as Google, Citymapper etc. Using smartphone apps the city has mapped the routes and created a timetable system for the public transport. The system is also linked with the bike sharing system biciQ, showing the nearest bicycle rental station. Reflecting back, Quito reminded other cities on the course of digitalising their urban transport information delivery that inter-institutional cooperation should be done right from the beginning of the project. By involving universities and local NGOs the on ground mapping can be made easier and also obtain more accurate data.

In order to support the mitigation efforts on climate change, the European Union, through its EUROCLIMA project supports 18 Latin America and the Caribbean (LAC) countries. The EUROCLIMA project supports LAC countries by promoting innovative financing that helps cities shift to clean and efficient public transport. Addressing urban mobility will enable countries to save up to 10% of their GDP, which is otherwise lost in air pollution, congestion, road safety or due to inaction. Using innovative financing tools such as blending funds, public-private partnership (PPP), finance readiness programs etc. provides countries with the conditions to implement EcoMobility. Furthermore, the involvement of the private sector through innovative solutions creates a win-win situation. Mr. Jan Karremans, Director Technical Assistance of EUROCLIMA project, mentioned that, in addition to installing innovative financing tools, the project also influences policies that bring a greater cohesion between urban land use and transport planning.

“Thanks to our clean fuel operations we save almost 200 tons of CO2 valued as social benefit in almost \$20,000 million and our users save in average 16 min of travel time”

- Luz Dary Botero, Planning Director,
Medellín Metro, Colombia



Safe cities for children are safe cities for all

Some of the most relevant mobility aspects

Road injuries and respiratory infections endanger the lives of youth between the age of 1 and 19 in both developed and developing countries. Road injuries and respiratory infections rank among the top 5 causes of death among children in the world. In order to reverse this trend, various organisations have come together to explore the way out and make our world safe and healthy for children and FIA foundation is one of the most active.

Road crashes are the #1 killer of 15 to 29 years old and soon expected to be the first cause of death for 4 to 15 years old.

- Road safety fact sheet, FIA Foundation, 2015

Safe and clean urban mobility plays a crucial role in reducing road accidents and air pollution. Through the Global Initiative for Child Health and Mobility (GICHM), FIA Foundation brings together national and international agencies to highlight the importance of creating safe cities for children. Research from AMEND in Sub-Saharan African cities shows that a vast majority of children walk to school. Unsafe conditions for walking, such as the lack of footpaths, the lack of safe crossings and high vehicle speeds make children the victims of road accidents and expose them to poor air quality. Through the GICHM, cities are encouraged to implement safe conditions and design safer cities. The initiative addresses directly the Sustainable Development Goals (SDGs) of the United Nations. Mr. Saul Billingsley, Executive Director, FIA Foundation, called for cities to make footpaths and speed humps the “polio vaccine” for road injuries.

A safe route to school is a prerequisite for every child and teenager going to school. A route to school that is safe to walk and/or bicycle also creates a sense of security among the parents and encourages them to let their children go to school by foot or on a bicycle. To create safe school routes, it is important to have a proper street design that enables comfortable walking and cycling conditions.

In order to change the current situation, the World Resources Institute (WRI) in Brazil worked with a community of São Miguel Paulista, in São Paulo, Brazil. A survey was conducted involving 3 schools in the community with a total of 951 students. It revealed the most frequent problems were bad sidewalks, poor road safety and the fear of being mugged. Though children liked to walk, the prevailing unsafe conditions deterred them from walking. Children were asked to draw a sketch of their trip to school with interesting results. The kids who traveled to school using a motor vehicle drew a straight road with traffic lights, while children who walked or biked to school were able to draw a colorful route with parks, markets, stores or social interactions. WRI aims to implement through this project a special program called School Paths. In this program, WRI will work with local retailers, who will act as social guards to increase safety on the streets.

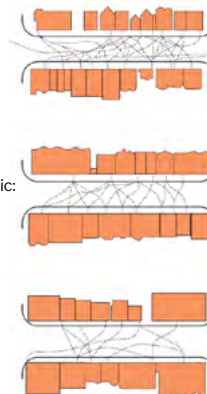
Pedestrian flow across the street according to vehicle traffic density

Light vehicle traffic:
3 friends per person
0.3 acquaintances

Moderate vehicle traffic:
1.3 friends per person
4.1 acquaintances

Heavy vehicle traffic:
0.9 friends per person
3.1 acquaintances

Source: Rogers R., Gumuchdjan P., 2000



Walkable cities are not just cities where people walk a lot. Walkable cities are cities where people feel invited to walk. Several cities in developing countries have very high walking rates, yet the trend shows that these numbers are decreasing. One reason for such a decline in walking is the loss of space for walking. Social groups that cannot afford public transport, bicycling or do not have a personal motor vehicle are forced to walk in these cities.

In addition, an increase in motorisation leads to physical inactivity. Physical inactivity is an epidemic killing over 5 million people a year globally. The international research of 2016 in The Lancet “Physical activity in relation to urban environments in 14 cities worldwide” found that those living in walking and cycling friendly neighbourhood did as much as 90 minutes more exercise a week than those who lived elsewhere. The study also found that increased public spaces such as parks and high public transport density also influences the walking levels in the study cities. Ms. Bronwen Thornton, Development Director of Walk21, also highlighted the importance of collecting “proper” walking data. She reminded that proper measurement of the walking situation in cities can reveal a much higher level of walking and thus help create the necessary facilities to cater for the high level of walking.



Singapore is often lauded as one of the best cities for ecomobility. The city-state, over the years, has successfully transformed itself from a developing country into a developed economy. The growth in the economy, quality of life and income was possible along Singapore's stringent efforts to reduce the dependence on personal automobiles. Mr. Aw Tuan Kee, Director of the Centre for Liveable Cities, explained the transition in Singapore. In 1956, Singapore had a per capita GDP of 1,580 S\$, and by 2016 the country's GDP rose to S\$ 72,711. The city also faced challenges such as the rapid growth of informal settlements and faced severe environmental pollution. The city foresees a population growth up to 6.5 million people by 2030, compared to the 2014's 5.6 million.

Urban transport is one of the areas where the city expects to see great pressure. In order to cater for the urban mobility needs, the city aims to develop a more inclusive and people friendly mobility, instead of catering for the automobile movement. The three central pillars of the future management of urban mobility consist of deterring private motorisation, promoting public transport and creating a safe and inclusive mobility through walking and cycling. By engaging with national and international experts, the city has developed a national cycling plan and aims to build 700 km of connected bicycle lanes/paths by 2030. The city also creates safe walking conditions for people using public transport through sheltered walkways. Through public awareness activities such as car-free evenings, PARK(ing) days or inclusive streets, the city has taken space from cars and shown better ways of using the space that is usually occupied by automobiles. With an international partnership with other cities such as Seoul, Singapore has documented the efforts to create people friendly and inclusive transport.

Mobility as a Service

Integrating various transport modes in a city

Mobility as a Service or MaaS is an effort to deter personal automobile dependence and shift the trend towards EcoMobility. MaaS is achieved by integrating various transport modes in a city through technology and infrastructure. A common MaaS technology strategy consists of using a smart card system to pay for transport. Countries like Korea and Hong Kong have implemented a smart card technology that can be used for both means of transport and at utility stores. MaaS offers commute for people and goods based on the needs.

In the short term, implementing MaaS concepts lead to a decline in vehicle ownership and thus help to reduce the GHG emissions and improving air quality. The positive effects of MaaS can be concretised by linking MaaS concepts with policy and legislative frameworks. An experimental MaaS trial in the city of Gothenburg called Ubigo, resulted in a reduced use and ownership of private cars and increase in public transport usage. Umeå, Sweden, has decided to use MaaS to integrate its urban mobility and create a fossil fuel free public transport system by 2020.

MaaS solutions can also help increase gender equity or help health transport. For instance, the Priyadarshini Taxi service in India is a MaaS example of a taxi service operated by women. The Zambike service in Zambia operates a bicycle based taxi service called Zambulance. This service allows saving one life every two weeks per vehicles and it costs US \$1,000 for one Zambulance saves 26 lives every year.

**“Walking is not just a transport mode, is a mode of living.
We must build on: connectivity, permeability and safety”**

- Bronwen Thornton, Development Director for Walk21



“Provide incentives to buy electric vehicles and promoting investment in infrastructure for e-mobility”

- Kulwant Singh, Urban Policy Specialist



MaaS also brings together city officials with innovators and entrepreneurs. Urban mobility is thriving with various innovations and several successful entrepreneurial ventures that often do not get recognised at a global level. While some examples like the Velib and autolib bike and car sharing from Paris are well known, the EcoCabs (India), MellowCabs (South Africa) and Moovit (Israel) are some of the less known successful MaaS solutions.

Urban bicycle sharing enables cities to encourage cycling in cities. One such effort is being made by the City of Hyderabad, India, through the Hyderabad Bicycling Club (HBC). A tripartite memorandum of understanding was signed among the Hyderabad Metro Rail Company, UN-HABITAT and Hyderabad Bicycling Club to integrate cycling with the upcoming Metro Rail project in the city. The target of the project is to setup 300 bike stations with 10,000 bikes at 63 metro rail stations. By using a smart card system users will be able to rent a bicycle from the system and use the bicycle paths provided by the city. In 2019, the project is expected to generate 20 million trips a year, leading to a reduction of 2,500 tons of CO₂ per year. Several public awareness-raising activities are being conducted by HBC to increase the appeal of cycling in Hyderabad.

As urban mobility is mainly driven by people’s needs and it provides various opportunities for innovation. For innovators to flourish, a confident start is necessary. To boost entrepreneurs, 1776 makes a variety of resources available, explained Mr. David Zipper, Managing Director of 1776. Start-ups receive visibility from international decision makers and get a chance to learn new skills in entrepreneurship through mentors including mayors of cities, leading industrialists and fellow entrepreneurs.

MaaS concepts can be successfully implemented when there is a strong policy and legislative framework integration. To achieve the integration there needs to be a buy-in from the decision makers. To increase the awareness of city and national level decision makers, the SOLUTIONS project brings together organisations working in the area of innovative urban mobility and cities planning to implement innovative urban mobility. The Urban Electric Mobility Initiative (UEMI) works with cities to create enabling conditions for implementing electric mobility and integrating various transport modes.

Active mobility for active cities

Promoting walking, cycling and liveable cities

The quality of a city can be improved when active mobility, promoting walking, cycling and liveable cities are promoted. The city of Cuenca, Ecuador, is an example where the current transport development is being inverted. The traditional approach in Cuenca is to prioritise personal automobiles, while walking, cycling and public transports are given the last priority. The city has realised that this traditional approach is not sustainable and does not create a people friendly city. The city plans to inverse the transport pyramid and give the first priority to walking and cycling and then public transport. As a first step, the city is renovating various streets restricting the access to pedestrians and cyclists.

Mr. Vladimir Glasinovic, Santiago, Chile, presented the key elements to a gradual implementation of ecomobility. The first consists of identifying the priority areas. The second key element is stakeholder involvement and engagement. It is essential to bring together the various stakeholders involved in implementing EcoMobility. This can be achieved through public consultations, territorial dialogues, citizens' observatory or holding dialogues with stakeholders. It is also important to measure the progress as measurement gives a feedback to improve. Performing a complete project evaluation and communicating the results to the users enables a positive feedback loop and encourages usage. Another strategy to give citizens more information on the project is to generate digital images of the transformed space. Such a visualisation of the transformed place gives people a better idea of how the area will look like in the future. Finally, Mr. Glasinovic also highlighted the importance of sharing the experiences at a regional and a global level to gain recognition for the work done and also learn from other similar examples.



“The more segregated bike paths we create, the more people will bike in the city!”

– Iván De la Lanza,
Design, Culture and Bicycle
Infraestructure Director, Mexico City

A city of 450,000 people to the west of Seoul, Siheung City, Korea, has successfully implemented policies and infrastructural changes to create a safe, clean and healthy city. To increase the access to the city, policies and infrastructure prioritise walking and cycling. Bicycle use is encouraged by providing bike sharing systems and integrating bicycling with public transport. To increase safety on the streets, the city has reduced the residential speed limit from 60 km/h to 30 km/h. In all major arterials, the speed has been reduced from 80 km/h to 70 km/h. Special zones are dedicated for children and elderly where the maximum speed limit is 30 km/h. By conducting regular public awareness activities involving children, the city has reduced traffic accidents from 12.3 per 100,000 inhabitants in 2013 to 6.05 per 100,000 in 2015 (more than a 50% reduction).

Tel Aviv-Yafo is the city at the heart of Israel with over 400,000 people living in the core city and more than 1 million living in the metropolitan region. Nearly 50,000 cars enter the city centre daily during the morning peak hour. In order to reduce the negative externalities of excessive motorisation, the city aims to shift from the current inefficient mobility to more efficient mobility modes. The city aims to encourage electric mobility and integrate walking, cycling and public transport. The city is already the home for many innovative transport solutions such as moovit and waze. Tel Aviv Yafo also is planning to implement shared mobility to deter personal car use.



The core of Mexico City has a population of nearly 9 million people and 50% of the trips are less than 8 kilometers. The 30% of automobile trips cost the city 10 billion dollars annually and the average commute time by car is around 4 hours. In order to address the increasing automobile dependence, Mexico City aims at prioritising cycling and walking. After a very successful public awareness campaign and involvement of various cycling related stakeholders the city has experienced a 45% increase in bicycle trips resulting in 145,000 daily bicycle trips. The city achieved this through integrated policy, infrastructure, and public engagement. The introduction of the EcoBici bike sharing system was also a catalyst for Mexico's success. The bike sharing system costs 20\$ for an annual membership provides a free 45 min ride on each rental. The bike share system was also successful in promoting gender equity and in the first 5 years of implementation the system has reduced 2,650 tons of CO2 or saved 8,000 trees. Due to the modal integration and safe cycling facilities, 8 of 10 trips on the EcoBici are linked with a public transport system (BRT, train or the subway). Through public engagement activities involving the drivers of BRT and other transport modes, the respect for cyclists has been increased. Critical masses in the city made the otherwise unseen cyclists visible.

The role of mobility in creating liveable cities

It has been proven time and time again in many cities that building automobile friendly infrastructure will not solve the traffic challenges in cities. This approach not only worsens air quality but also affects other areas such as quality of life, accessibility and worsens congestion. By increasing the mobility options and access to these options, ecomobility can become more attractive in cities. Cities that have provided favorable, safe and accessible walking and cycling infrastructure along with integration to affordable and effective public transport systems have successfully increased the share in these modes.

To address liveability in cities, urban mobility plays a crucial role due to its cross sectorial nature. Mobility affects the quality of life, public health, air quality and may save lives. To explore this and as part of the EcoMobility Days 2016 Quito, a training course titled “Towards Livable Cities- The Role of Urban Mobility” was organized by GIZ SUTP, ICLEI Ecomobility, Ministerio de Desarrollo Urbano y Vivienda (MIDUVI) with the support from WRI Ross Center for Cities. Over 30 city officials, academics, and participants of the HABITAT III conference took part in this training.

The one-day training course was organized to generate knowledge on livability and its impact on urban mobility, linked to the topics discussed at the Habitat III conference in Quito. This full day expert dialogue described the challenges of creating livable cities and the role that urban mobility can have to increase liveability while reducing carbon emissions and improving travel conditions for citizens. To provide greater insights on such issues, the course described key elements of liveability and focused on sustainable mobility and its components. It also provided an overview of the available tools and policies to implement such measures and presented various resources that were useful to this topic in cities of the developing world.



Experts conducting the training included Mr. Carlos Felipe Pardo, Executive Director of Despacio; Mr. Santhosh Kodukula, Program Manager of EcoMobility; Dr. Dario Hidalgo from EMBARQ; and Mr. Nicolás Estupiñán, international transport policy advisor from CAF- Development Bank of Latin America. Experts provided important input on different aspects of the course which ranged from diverse aspects of the topic of urban mobility and liveable cities including policies, land-use planning, accessibility, public transport reform, non-motorized transport, Travel demand Management, integration and sustainable mobility in the context of Latin America.

Numbers revealed that around 80% of the population is urban in Latin America, and the figures continue growing. This is also the case in Ecuador with 70% of urban population. Along with high urban population growth, motorization rates are growing, in particular, those from motorcycles. Challenges in Latin America were presented, including lack of coordination among institutions influencing urban mobility and land use plans. The uncoordinated approach leads to negative impacts such as traffic-related fatalities, air quality diseases, and high CO2 emissions. Priorities need to be re-established in favor of people and active mobility, shifting conventional urban planning towards infrastructure for EcoMobility.

In regards to a transport reform, cities need to continue innovating and adapting. Latin America already offers excellent examples of national policies that helped cities invest in EcoMobility such as Brazil, Colombia, and Mexico. There are also good examples of tools such as “restrictive car parking policies in (and around) city-centers has proven to be an extremely effective measure to reduce car use and promote cycling.”

Finally, participants were involved in an interactive exercise of allocating fictional funds available for various mobility projects. The exercise revealed that EcoMobility investments are not only inexpensive but also effective in terms of size when compared to capital intensive public transport projects and car-friendly infrastructure. Around 10-25% of the urban areas are however occupied by roads and around 5% of the Gross domestic product (GDP) is spent on transport subsidies.

About EcoMobility

ICLEI and EcoMobility

ICLEI - Local Governments for Sustainability is the leading global network of more than 1,500 cities, towns and regions committed to building a sustainable future.

ICLEI works with its network cities on urban mobility through the Ecomobile city agenda. ICLEI brings together cities, experts, development agencies and change makers under the EcoMobility program to jointly explore, design and implement solutions for cities to create efficient, environmentally friendly and socially inclusive transport.

EcoMobility is a term used by ICLEI and the cities working with ICLEI to describe travel through integrated, socially inclusive, and environmentally friendly options such as walking, cycling and public transport. By enabling citizens and organizations to access goods, services, and information in a sustainable manner, EcoMobility supports citizen's quality of life, increases travel choices, and promotes social cohesion.

Under the Ecomobility program ICLEI works with cities through 3 initiatives:

- ➔ The EcoMobility SHIFT
- ➔ EcoMobility World Festival
- ➔ EcoMobility Alliance



EcoMobility SHIFT

The EcoMobility SHIFT scheme is a total quality management tool created by academia, nongovernmental organizations and cities for use and implementation by and in cities. The tool enables cities to measure the performance of urban mobility, to create a baseline and to identify areas for further development, ultimately helping cities to change their urban transport development trajectory and mobility plans.

By using EcoMobility SHIFT and acting upon the resulting assessments, cities will see improvements not only in the areas of transportation and mobility, but also in related areas such as health, economy and the environment, leading to an overall improvement in citizens' quality of life.

EcoMobility World Festivals and Congresses

NEXT ECOMOBILITY WORLD FESTIVAL:

October 2017
- Kaohsiung, Chinese Taipei



Be a part of the next EcoMobility World Festival 2017 taking place in Kaohsiung.



www.ecomobilityfestival.org

The EcoMobility World Festival series was initiated to show that an ecomobile lifestyle can be promoted in cities all over the world. The Festival transforms a neighbourhood and demonstrates the possibilities of an innovative and forward-thinking urban transportation culture.

The EcoMobility Congress series enables international actors, united by a shared interest in sustainable transportation, to come together to share good practices and spark synergies in a setting that promotes creative collaboration, local initiatives and the EcoMobility agenda.

PAST ECOMOBILITY WORLD FESTIVALS

Through the 2015 Festival, the City of Johannesburg triggered a behavioural change from private car use towards EcoMobility and kick-started the process of decongesting Sandton, the main business district of South Africa.

October 2015
- Johannesburg, South Africa

The EcoMobility World Festival 2013 was the world's first monthlong presentation of an innovative and forward-thinking urban transportation culture. Instead of using private automobiles, residents in Suwon City used a combination of walking, cycling and public transport, as well as various other ecomobile modes for an entire month.

September 2013
- Suwon, South Korea

www.ecomobility.org/alliance

The EcoMobility Alliance

A group of enthusiastic cities with a common goal: to create and implement urban mobility strategies that prioritize people and the environment.

Local improvements

Innovation as well as mobility improvements in Alliance cities through access to information, tools and partners.

Performance measurement with the EcoMobility SHIFT assessment tool, a verified tool developed by ICLEI.

Joint initiatives

Thematic working groups that allows for collaborative actions, fundraising and cooperation with partner organizations.

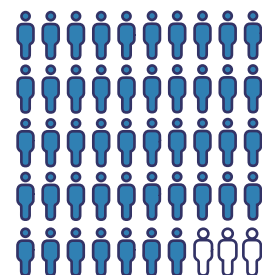
Joint program of activities in selected areas including low carbon urban mobility plans and urban freight (EcoLogistics).

Global outreach

Showcasing the progress of EcoMobility pioneers.

City voices at a global level bringing the collective voice of participating cities to the global stage in discussions and debates on sustainable urban transport.

Total population influenced:
47,400,000 persons



EcoMobility Alliance Cities



Thematic working groups

- Intelligent transport systems (ITS)
 - Sustainable Urban Mobility Plans
 - Non-motorized transport
 - Clean air and vehicles
 - Public transport
 - Electric mobility
 - Road safety
 - Urban freight



EcoMobility Alliance Secretariat

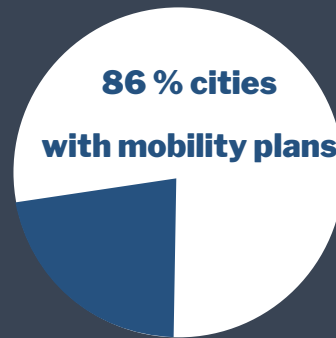


ICLEI, Kaiser-Freidrich-Str. 7
53113, Bonn Germany



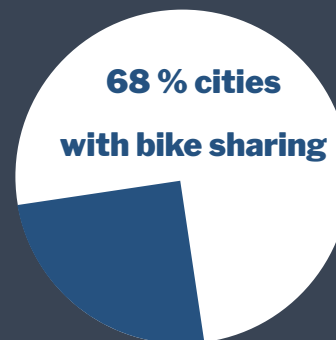
Mobility Plans

There are currently 19 EcoMobility Alliance cities with Urban Mobility Plans to ensure that EcoMobility is developed.



Shared mobility

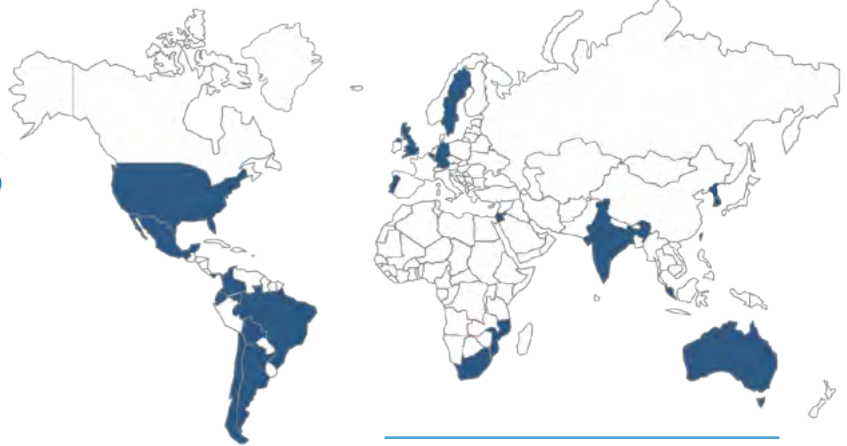
There are currently 15 EcoMobility Alliance cities with bike sharing systems which have proven to be safe and efficient in providing convenient urban mobility and promoting a shift from private vehicles.



**Total cycling paths:
5159 kms**

(average of 234 kms per city)

Speakers



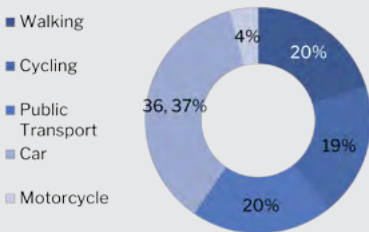
Countries represented

EcoMobility Alliance City: Boulder, USA



Matthew Appelbaum

**Council Member
City of Boulder**



Clarisse Cunha Linke

**Country Director,
ITDP Brazil**



Mahonar D.V.

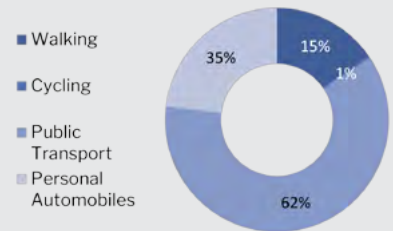
**Chairman, All
India Cycling
Federation &
Hyderabad Cycling
Club**

EcoMobility Alliance City: Quito, Ecuador



Eduardo Del Pozo

**Deputy Mayor,
City of Quito**



Lauren Flanagan

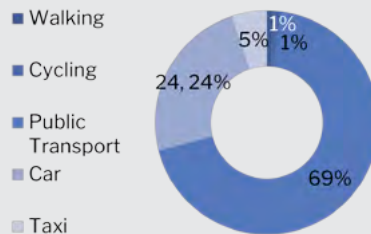
**Founder, Current
Motor**

EcoMobility Alliance City: Mexico City, Mexico



Ivan De La Lanza

**Director of
the cycling
department
Mexico City**

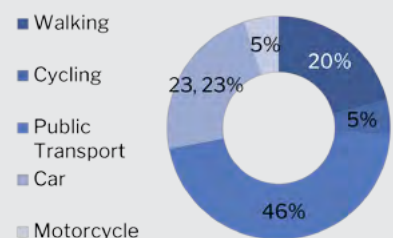


EcoMobility Alliance City: Curitiba, Brazil



Ismael França

**Project
Coordinator, URBS,
Curitiba, Brazil**



Saul Billingsley

**Executive Director,
FIA Foundation**



Luz Dary Botero

**Planning Director,
Medellin Metro**



Alfonso Cadiz

**Executive Director
of 3CV, Chile**



Ching-Fu Chen

**Director General,
Kaohsiung city
government**



Devin De Vries

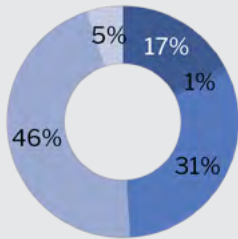
**Co-Founder,
WhereIsMyTransport**

EcoMobility Alliance City:
Almada, Portugal



Catarina Freitas
Director, Environment, Climate, Energy and Mobility, Almada

- Walking
- Cycling
- Public Transport
- Car
- Combined



Marco Fuentes
Transport Service Manager, La Paz, Bolivia



Sebastian Galarza
Progam Lead, Centro Mario Molina Chile



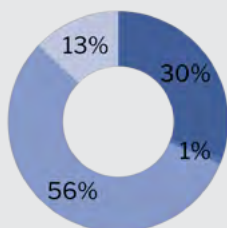
Vladimir Glasinovic
Gerente Proyecto Nueva Alameda Providencia, Santiago de Chile

EcoMobility Alliance City:
Medellin, Colombia



Federico Gutierrez Zulaga
Mayor of Medellin, Colombia

- Walking
- Cycling
- Public Transport
- Car



Jaime Guzmán
Secretary of Mobility, Cuenca, Ecuador



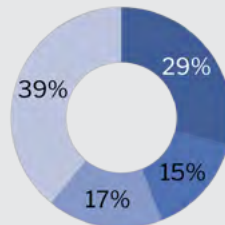
Leo Heilman
Regional Director, Latin America and the Caribbean, UNEP

EcoMobility Alliance City:
Leipzig, Germany



Torben Heinemann
Head of Transport, Leipzig, Germany

- Walking
- Cycling
- Public Transport
- Car



Andres Jarrin
Transport Specialist, Secretary of Planning Quito



Johannes Karremans
Director Technical Assistance, EUROCLIMA



Yunsig Kim
Mayor, Siheung, Korea



Robin King
Director, Urban Development, WRI



Santhosh Kodukula
EcoMobility Program Manager, ICLEI



Maria Krautzberger
President, Federal Environment Agency (UBA), Germany



Emelie Karre
Programme Manager, WWF, Sweden



Oliver Lah
Project Coordinator, Wuppertal Institute



Clayton Layne
CEO, ITDP



Meital Lehavi
Deputy Mayor, Tel Aviv-Yofo, Israel



Nelson Londoño
Urban Renovation Director, Cali, Colombia



Adalberto Maluf

Director of Sustainability, BYD, Brazil



Guilherme Medeiros

Coordinator, Florianopolis, Brazil



Marcelo Narvaez

Director of Mobility Planning, Quito, Ecuador



Jeffrey Nolish

Mobility Specialist, Detroit, USA



Itzel Obregon

EcoMobility Officer, ICLEI



Jose Ordoñez

Executive Director, IMPU, Quito, Ecuador



CarlosFelipe Pardo

Executive Director, Despacio, Colombia



Margarita Parra

Environmental Program Office, Hewlett Foundation



Eugenio Prieto

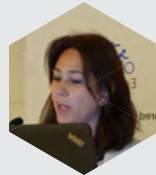
General Director, Metropolitan Area, Medellin, Colombia



Tania Rodiger-Vorwerk

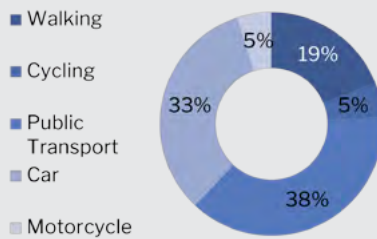
Deputy Director General, BMZ, Germany

EcoMobility Alliance City:
Rosario, Argentina



Eleonora Piriz

Manager of Comprehensive Planning Area, Rosario, Argentina

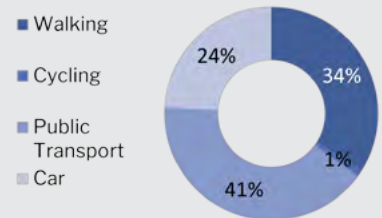


EcoMobility Alliance City:
San Miguel de Allende, Mexico



Marco Antonio Rodriguez

Head of Transport, San Miguel Allende, Mexico

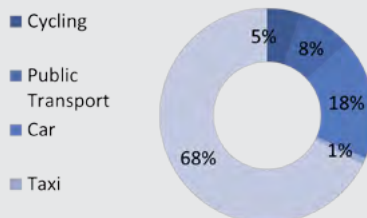


EcoMobility Alliance City:
Kaohsiung, Chinese Taipei



Tsai Po-Ying

Deputy Secretary General, Kaohsiung, Taiwan



Margareta Rönngren

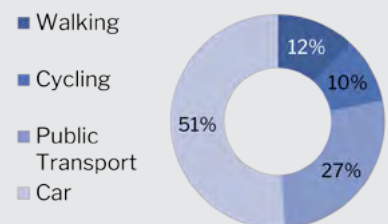
Deputy Mayor, Ume, Sweden

EcoMobility Alliance City:
Changwon, Korea



Ahn Sang-soo

Mayor, Changwon, Korea





Louise Scholtz

Manager Energy and Urban Futures, WWF



Ha Seung-Woo

Head of EV Policy Team, Changwon, Korea



Kulwant Singh

Urban Development Specialist, UN HABITAT



Carlos Sousa

Director, AGENEAL, Almada, Portugal



Chetan Temkar

Founder, SmartShehar



Bronwen Thornton

Development Director, Walk 21



Viviana Tobon

Mobility Director, Metropolitan Area Medellin, Colombia



Aw Tuan Kee

Director, Centre for Liveable Cities, Singapore



Eduardo Vasconcellos

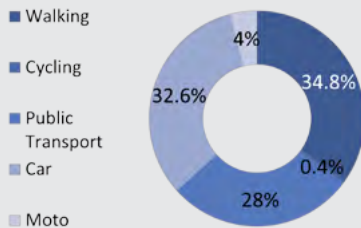
Advisor, CAF, Brazil

EcoMobility Alliance City:
Belo Horizonte, Brazil



Ramon Victor Cesar

President, BHTRANS, Belo Horizonte, Brazil



Daniely Votto

Urban Governance Manager, WRI Brazil



Sheila Watson

Deputy Director, FIA Foundation



Jeffrey Witte

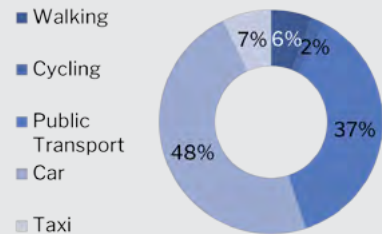
Executive Director, Amend

EcoMobility Alliance City:
Suwon, South Korea



Tae Young Yeom

Mayor, Suwon, Korea



Susan Zielinski

Managing Director, SMART, University of Michigan, USA



Monika Zimmermann

Deputy Secretary General, ICLEI



David Zipper

Managing Director, 1776

Imprint:

EcoMobility Days Quito Report

The publication shall be cited in full as “EcoMobility Days Quito report 2016, ICLEI – Local Governments for Sustainability, 2016”

Authors:

Santhosh Kodukula, Itzel Obregon and Eléonore François

Design & Layout:

Santhosh Kodukula and Itzel Obregon

The material of this publication is copyrighted. Requests to reproduce the material, in part or in full, should be in writing to the World Secretariat of ICLEI – Local Governments for Sustainability. ICLEI encourages the active dissemination and use of this report, and permission to reproduce will usually be granted without charge if the reproduction is for non-commercial purposes.

All rights reserved © ICLEI e.V. 2016

Photographs:

©Santhosh Kodukula, ©Itzel Obregon and ©Eléonore François

Related publications:

Ecomobility Alliance Report 2012-2015 available at www.ecomobility.org/resources/

Get in Touch

ICLEI, Kaiser-Freidrich-Str. 7
53113, Bonn Germany



@ecomobility_ #emdQuito



ecomobility@iclei.org



www.ecomobility.org