



# Bankable Project

Safe journey to school. Promoting  
active mobility of adolescents

## Pilot Project Concept 2019



Mexico  
Aguascalientes

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# Urban, Electric Mobility Initiative

UEMI

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## UEMI

**Urban Electric Mobility Initiative (UEMI)** was initiated by UN-Habitat and the SOLUTIONS project and launched at the UN Climate Summit in September 2014 in New York.

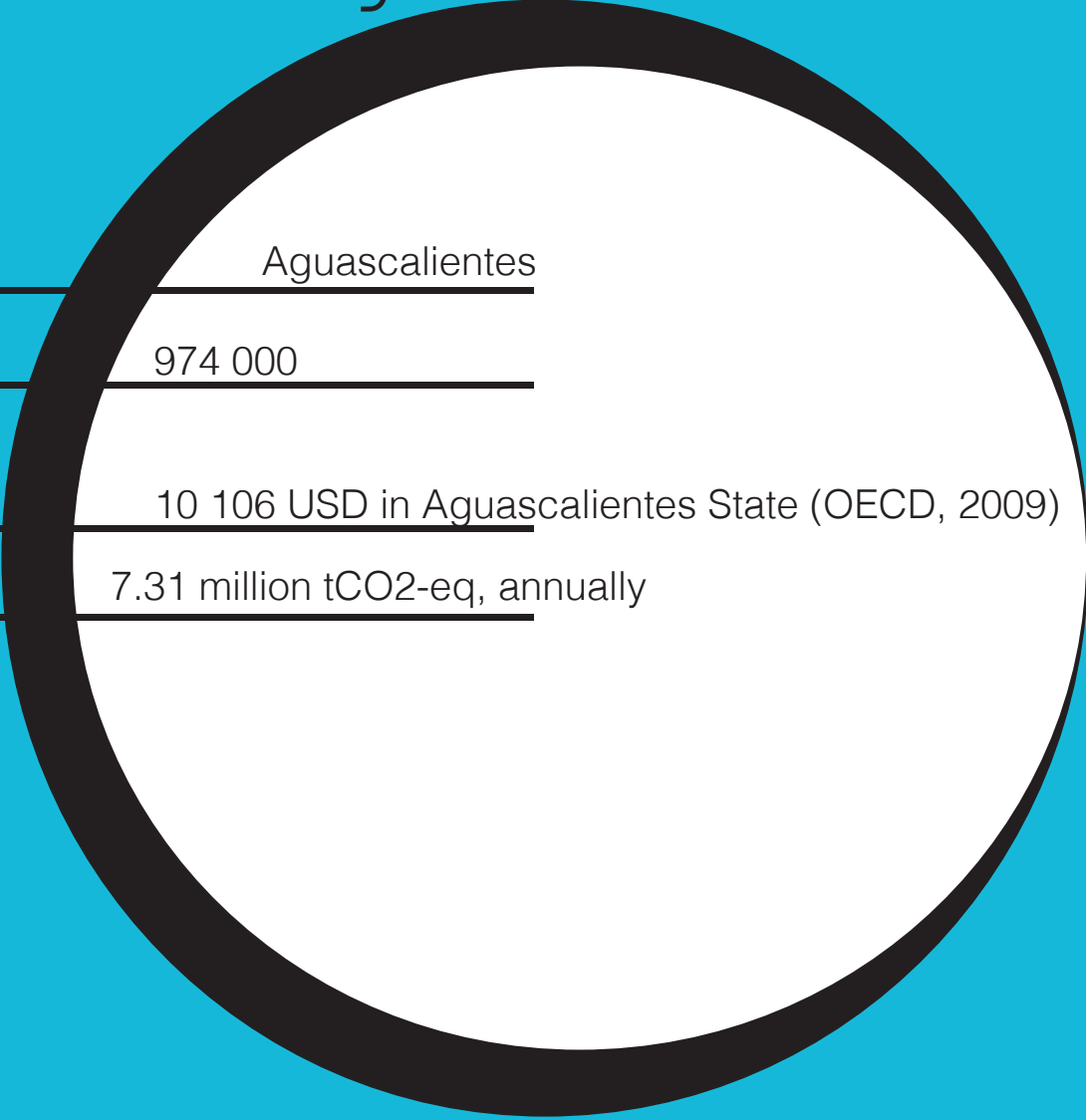
UEMI aims to help phasing out conventionally fueled vehicles and increase the share of electric vehicles (2-,3- and 4-wheelers) in the total volume of individual motorized transport in cities to at least 30% by 2030. The UEMI is an active partnership that aims to track international action in the area of electric mobility and initiates local actions. The UEMI delivers tools and guidelines, generates synergies between e-mobility programmes and supports local implementation actions in Africa, Asia, Europe and Latin America.

## Future Radar

**Future Research,** Advanced Development and Implementation Activities for Road Transport (FUTURE-RADAR) project will support the European Technology Platform ERTRAC (the European Road Transport Research Advisory Council) and the European Green Vehicle Initiative PPP to create and implement the needed research and innovation strategies for a sustainable and competitive European road transport system. Linking all relevant stakeholders FUTURE-RADAR will provide the consensus-based plans and roadmaps addressing the key societal, environmental, economic and technological challenges in areas such as road transport safety, urban mobility, long distance freight transport, automated road transport, global competitiveness and all issues related to energy and environment.

FUTURE-RADAR will also facilitate exchange between cities in Europa, Asia and Latin America on urban electric mobility solutions. The FUTURE-RADAR activities include project monitoring, strategic research agendas, international assessments and recommendations for innovation deployment as well as twinning of international projects and comprehensive dissemination and awareness activities. Overall it can be stated that FUTURE-RADAR provides the best opportunity to maintain, strengthen and widen the activities to further develop the multi-stakeholder road transport research area, for the high-quality research of societal and industrial relevance in Europe.

# Key fact and figures:



City:	Aguascalientes
Population:	974 000
GDP per capita:	10 106 USD in Aguascalientes State (OECD, 2009)
CO2 emissions (total and per capita):	7.31 million tCO2-eq, annually

## Short description of the measure being considered

This project aims to promote active mobility of adolescents through the improvement of road safety at school areas and places where adolescents walk and cycle. The pilot project will be implemented in five out of the twelve schools analyzed in the first stage, and will be the basis to replicate the project in other schools in Aguascalientes.

In the state of Aguascalientes, adolescents aged 12 to 17 years represent 12.3% of the state population (INEGI, 2011). According to the Mexican Youth Institute (IMJUVE, 2017), young people in the country are “the best bet for an integral, fair and lasting development” due to their quantitative representation and their participation as actors of transformation and social renewal. Additionally, adolescence is a stage of physical and emotional changes during the transition from childhood to adulthood, where personality is defined, and independence is shaped (UNICEF, s.d.).

The project comprises five phases: research, merging, pilot, assessment and final design and implementation phase. The scope of the project involves the preliminary work, such as feasibility studies, project design and budgeting, until monitoring processes, and promotion of policy design to ensure continuity and scaling up of the project.



# Action plan

## **Research phase (September 2018 – March 2019):**

Objective: To analyze the factors associated with active mobility of teenagers in their trip to school, under the premise that it is in this transition to adulthood, when young people can adopt a modal shift towards non-motorized mobility (active mobility). This translates into a mobility that does not generate GHG emissions and allows a more active and healthy life, reducing the risks of obesity and diabetes.

### **Methodology:**

- Online survey to adolescents ages 12 and 17, of 5 secondary schools and 7 high schools in Aguascalientes, Mexico.
- Focus groups with parents whose children commutes by an active mode to school and school staff that have an active school travel.
- Expert interviews

## **Merging phase (September 2018 – March 2019):**

Objective: To merge ongoing projects implemented by local authorities with outcomes of the research phase and projects that are being implemented in other cities.

### **Methodology:**

- “Road Safety” workshop by ITDP about main outcomes of “Vision Zero for Youth” that is being implemented in Mexico City.
- Participatory workshops with an inter-institutional team in Aguascalientes to coordinate actions and define the 5 schools and areas where interventions need to be prioritized, based on the results of the research phase to implement a pilot project.

## **Pilot phase (date TBD):**

Objective: To identify the main physical barriers that prevent teenagers from preferring an active mobility in their journey to school in the five selected schools,

### **Methodology:**

- Participatory workshops and tours with school community, local community, local authorities and Universities, to introduce the topic of active mobility, based on results obtained in the research phase. The purpose is to make them identify, physically, the issues presented.
- Public Space design call, to engage local Universities in the design of safe and secure school zones.
- Design and pilot a program to engage community in “a safe journey to school program” where community, local businesses and authorities contributes to the vigilance of a safe and secure arrival of teenagers to school.
- Awareness raising campaigns in schools showing the importance of a modal shift towards active mobility
- Organisation of the Walking and Cycling to School Day in partnership with ITDP and FIA Foundation.
- Design of awareness campaigns on the project and promotion of active mobility.

### **Assessment and final design phase (date TBD):**

Objective: To evaluate the results of the pilot project and design of a model to replicate the process in other schools in Aguascalientes.

#### **Methodology:**

- Monitoring, assessment and reporting of pilot project performance.
- Elaboration of final design of safe areas and urban furniture around schools and monitoring system.
- Definition of an implementation methodology in order to replicate it in other schools in Aguascalientes.
- Elaborate cost analysis of implementation, maintenance and communications plan.

### **Replication and scale-up phase (date TBD):**

Objective: To elaborate a scaling up plan.

- Design of policies that ensures the continuity and scaling up of the project.
- Identify possible financial sources for the scaling-up phase
- Pitch the case with different financial sources based on the results of the pilot projects.

## Policy Environment

Since 2000, Mexico has approved three national strategies and a special program, showing its commitment to address Climate Change. In 2012, Mexico launched its General Law on Climate Change becoming the first developing country to pass a law on the topic. Additionally, it has created organizations and instruments to diminish its greenhouse emissions (GHG) and aims to enhance its capacity for adaptation (INDC, 2015).

In terms of mobility, the National Program for Urban Development 2014-2018 (DOF, 2014) is the first government plan in Mexico to consider sustainable mobility. This program is aimed at prioritizing support for projects that promote sustainable urban mobility in order to break the paradigm focused on increasing infrastructure for private vehicles. The program seeks to facilitate people's access to urban goods, services and equipment, thereby improving the quality of life, raising their productivity, reducing greenhouse gas emissions and facilitating the adaptation of cities to climate change.

At state level, the Mobility Law of the State of Aguascalientes came into force on April 30th, 2018 (DOF, 2018). This law aims to protect the right to mobility, establishing the bases, rules and principles for planning, programming, projection, regulation, coordination, implementation, management and control of mobility of people and transport of goods in the state and its municipalities, through the creation of integral mobility and transport systems. The Law understands right to mobility as the right of every person and community



to have accessible, quality, continuous, efficient, safe, sustainable, sufficient and technologically innovative displacement system, that guarantee mobility under conditions of equality, equity, and that satisfies their needs, contributing to their full development.

At municipal level, a draft of the Mobility Regulation of the Municipality of Aguascalientes is available and is pending to enter into force. Its objective is to regulate and establish the rules of pedestrian traffic, vehicular and promote road safety within the municipality of Aguascalientes, as well as establish the rights, obligations and restrictions of pedestrians and drivers of vehicles on public roads. The hierarchy of mobility in this Regulation prioritizes the mobility of pedestrian, elderly and people with disabilities, cyclists, public transport, cargo transport, private vehicles and users of ecologically sustainable means of transport, in that order.

## Facts and Figures

Worldwide, road accidents are the cause of the death of more than 500 children daily, as well as the severe injuries of thousands of people; 92% of which occur in low- and middle-income countries (ITDP, 2018). Additionally, in 2012, air pollution caused the death of 3 million people and 169 250 children under the age of five; of which 87% also occurred in low- and middle-income countries (WHO, 2016).

In Mexico, most children and young people walk daily to and from school. In 2015, 57% of the children and young people between 3 and 18 years old enrolled in a school, commuted by foot. At national level, the most common modal choice among this age range is walking. However, according to the Institute for Transportation and Development Policy (ITDP, 2018), most Mexican cities have been designed prioritizing motorized transport and encouraging high speeds, placing pedestrians at risk, specifically the youth of Mexico. As a result, road accidents are the leading cause of death for children between 5 and 9 years and the second cause in young people from 10 to 20 years. In 2015 in Aguascalientes, there were 4,386 accidents, of which 200 ended in deaths. Of the people who lost their lives, 33.5% were pedestrians and 4% were cyclists (ONL, 2015).



## Technical Considerations

**Pilot Project**  
**5 schools**  
**Scope:**  
**about 30,000 MXN**  
**(1297 Euro)**

**Large scale**  
**Project**  
**70 schools**  
**about**  
**100,000 Euro**

The pilot project will be implemented in the 5 schools out of 12 that need to be prioritized according to the results of the Research phase. Based on the cost of a similar project implemented by ITDP in Mexico City about 30,000 MXN (1297.96 EUR) were spent in one single intervention (awareness campaigns, research, communications and rest of expenses are not included), for a budget of 100,000 EUR, the project will be expanded to 70 schools. The criteria to prioritize the schools will be the number of enrolled students and its location, school located in primary roads will be prioritized.



# Relevant Stakeholders

CMOV – The General Mobility Coordination of Aguascalientes State main objective is to manage mobility; respecting the concurrence of the fundamental rights for a free transit, based on a mobility policy aimed at guaranteeing the existence of alternatives for the population that allow their effective displacement in conditions of safety, quality, equity and sustainability, which meets the needs of personal development and the well-being of the community as a whole, trying to balance all the elements of state development.

IMPLAN – The Municipal Planning Institute of Aguascalientes elaborates the municipal development plan. In terms of mobility policy, through the Mobility Regulation of the Municipality of Aguascalientes, the Institute encourages specific actions to help reduce the use of motorised vehicles through alternative mobility schemes and prioritizing the mobility of pedestrians, the elderly and people with disabilities, followed by cyclists.

IEA – The Aguascalientes Education Institute aims to provide quality educational services with equity and warmth to train human beings with values, knowledge and relevant skills to achieve a full life that contributes to the development of society. The institute is the link to the education sector and access to schools in the Research and Pilot phase in the project.

UAA – The Autonomous University of Aguascalientes and other local universities will be engaged in the pilot, assessment and final design phase described above.

SSMAA – The Ministry of Sustainability, Environment and Water manages an environmental policy oriented towards the sustainable development of the State of Aguascalientes. It formulates, conduct and evaluate the instruments and procedures in their application in order to provide inhabitants an adequate environment for their welfare and development. As it is an emission-free transport mode, this ministry is a stakeholder of the project.

The Ministry of Urban Development of Aguascalientes Municipality has the purpose of planning, managing, generating and executing public policies of territorial ordering, ensuring decent housing, and urban and rural development. It also seeks to improve the quality of life of Mexicans. This ministry will be part of the inter-institutional engagement process.

Other ministries to be engaged in the City implementation:

- Municipal Institute of the Youth of Aguascalientes
- Ministry of Social Development of Aguascalientes Municipality
- Ministry of Finance of Aguascalientes Municipality
- Ministry of Public Works of Aguascalientes Municipality
- Ministry of Public Security of Aguascalientes Municipality

## Steps towards implementation

Urban Pathways together with UEMI organised a workshop jointly with the Urban Design Team of ITDP Mexico, and the General Coordination of Mobility of the state of Aguascalientes. The event took place on November 16th in the context of the study about the modal choice and road safety of teenagers in their journey to school that Urban Pathways has been conducting since August 2018 in Aguascalientes. The objective of this meeting was to discuss the methodology and outcomes of Vision Zero for Youth, an initiative to reduce the number of road accidents in children and youth that has been carried out by ITDP in school areas in Mexico City. School directors, as well as the education, public health and security authorities of the State of Aguascalientes were invited to participate. Additionally, the meeting explored potential cooperation possibilities in the implementation of this framework in Aguascalientes. According to the CMOV, the response of attendants was positive and cooperative. Additional workshops can be replicated with local universities and community to boost the implementation of a pilot project.

In addition, the CMOV and the Ministry of Planning (SEPLAN) have worked since 2017 on a project of road safety culture through awareness raising for children. The objective of the project is to plan, coordinate and implement cultural and educational campaigns towards a new culture of road safety. The project also seeks to reinforce the contents of the “New Culture of Mobility” in Basic Education (Primary and Secondary) through awareness campaigns.



# Institutions involved in the implementation

## Implementation

Even though this project will have the leadership of the General coordination of the State of Aguascalientes, it requires the coordination and support of several institutions both from the municipal and state, such as: Municipal Institute of the Youth of Aguascalientes, Ministry of Social Development of Aguascalientes Municipality, Ministry of Finance of Aguascalientes Municipality, Ministry of Public Works of Aguascalientes Municipality, Ministry of Public Security of Aguascalientes Municipality, the Aguascalientes Education Institute, the Ministry of Sustainability, Environment and Water, and the Ministry of Urban Development of Aguascalientes Municipality.

The participation of the local community is key to guarantee the sustainability of the project, to promote a culture of mobility from the base of Mexican society, the family.

## Workshops and knowledge transfer

ITDP - The Institute for Transportation and Development Policy is a global nonprofit at the forefront of innovation, providing technical expertise to accelerate the growth of sustainable transport and urban development around the world. Through our transport projects, policy advocacy, and research publications, it works to reduce carbon emissions, enhance social inclusion, and improve the quality of life for people in cities. Currently implementing the "Vision Zero for Youth: Making streets safer one school zone at a time" project in the Mexico City.

WRI – The World Resources Institute is a global research organization that establishes links between climatic preservation, economic opportunities and human well-being. Its mission is to move society toward a model of life that protects the environment and ensures the ability to provide resources to meet the needs of present and future generations. Currently working on the "Children first. Urban redesign to promote safe school trips and public life" project in the state of Colima, Mexico.

## Research and technical advice

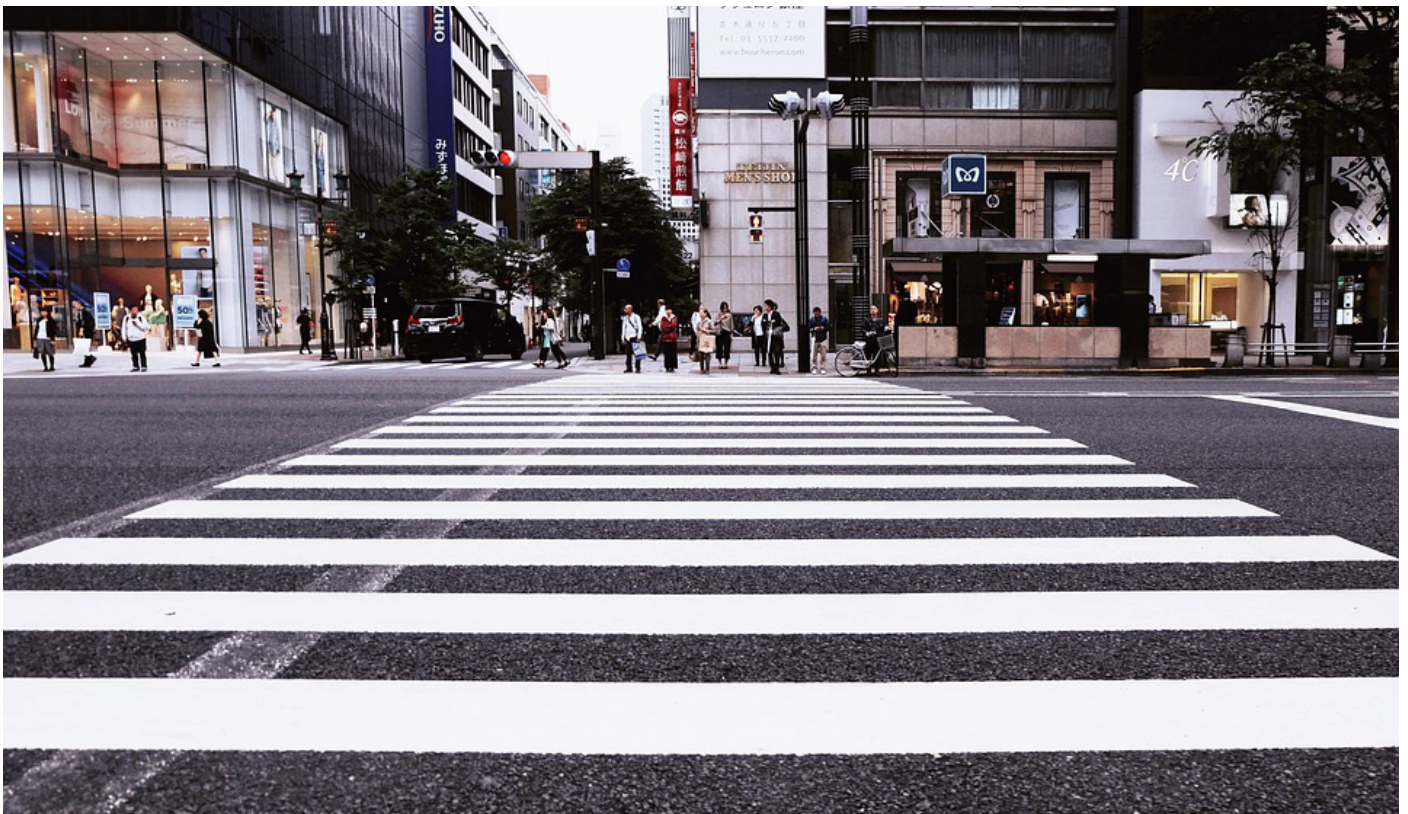
Description of Research phase:

The research seeks to analyze the factors that influence the modal choice of adolescents in Aguascalientes on their trip to school, under the premise that it is in this transition to adulthood, when young people can adopt a modal shift towards non-motorized mobility (active mobility), which does not generate GHG emissions and allows a more active and healthy life, reducing the risks of obesity and diabetes. The research also seeks to identify the risks to which young people are exposed and to provide information that may be useful in the design of public policies towards a modal shift and the promotion of safe active mobility.



## Objectives:

- To determine the factors that influence the modal choice of young people from 12 to 17 years old on their daily commute to school, as well as to identify the determinants that contribute to promoting active mobility among this target group, in a safe manner and that contributes to the efforts to reduce the GHG emissions generated by Aguascalientes.
- To provide useful information for the design of policies that promote modal shift towards safe and healthy active mobility of adolescents on their trip to school in Aguascalientes.
- To provide information to design awareness campaigns for adolescents, in order to discourage them to acquire motor vehicles and create a new culture of active and safe mobility in the city.



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