



# Urban Challenges Handbook

— Making Public Transport  
Safe for All

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Shared experiences from a three-year collaboration  
of six multilateral projects

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Photo: Fundação de Ciência, Tecnologia e Inovação (CITINOVA)

# Foreword

Trying to solve urban challenges is as difficult as it is important. How can it be done? The answers are as many as the challenges, but when the Swedish Institute initiated the Urban Challenges project in 2019, we did so with an eye on methods that are known as a founding part of Swedish society – cooperation and mutual learning from different sectors.

By inviting people from different parts of society and from different countries to collaborate on actual issues, our hope was that these meetings would spark new ideas, which turned out well.

Even though most of the project has been done during Covid-19, we've been amazed to see the interest in cooperation and knowledge sharing. And while the project didn't go according to the initial plan, it has been great to see how far we've come. Some of the cases have met with more obstacles than others, and even though Urban Challenges has come to an end, we see the interest and drive continue, and look forward to following their future success.

Through this project and booklet of shared experiences, we hope to inspire others to continue and to keep cooperating and learning from each other to create more safe and sustainable cities.

Lastly, we would like to thank everyone who has been part of this journey by contributing with their thoughts and ideas, and especially to the case owners, who have had the courage to share their challenges in the hopes of creating safe public transport for all.

Madeleine Sjöstedt  
Director-general, Swedish Institute



Making  
public  
transport  
safe for all

# Introduction

*Urban Challenges – making public transport safe for all* was a collaborative project between representatives from Brazil, Colombia, Mexico and Sweden during 2019–2021. The aim was to create safer public transport with a focus on vulnerable communities. It was an initiative by the Swedish Institute in partnership with Impact Hub Stockholm and the Impact Hub Network in Latin America.

Even though the main goal was to create safer public transportation, the project aimed for transversal and multidisciplinary solutions, allowing for the identification of assumptions, barriers and opportunities that could be replicated in other locations and contexts.

It is important to follow up on the work done over the two years of the project. This handbook is meant as a guide and resource to inspire local authorities, governments, companies and organisations in other cities around the world to implement some of the practices exemplified.

For complex problems like these, it is necessary to involve multiple stakeholders and utilise a systemic and strategic approach. That can only be attained by a well-built advocacy strategy at a high decision-making level.

## Terminology

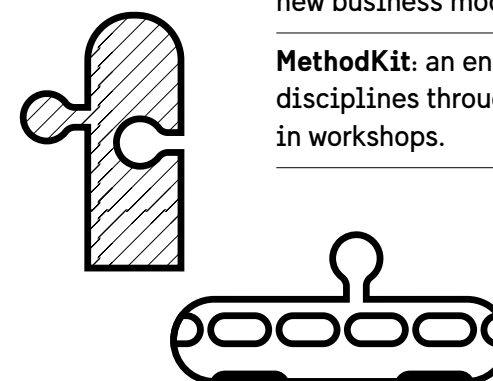
**Quadruple helix concept:** collaborative work with representation from government, business, academia and non-profit organisations.

**Theory of change:** defines long-term goals and then maps backward to identify necessary preconditions.

**Open space methodology:** a technique for running meetings where the participants create and manage the agenda themselves.

**Business model canvas:** a strategic template used for developing new business models and documenting existing ones.

**MethodKit:** an encyclopaedia of physical decks of cards that summarise disciplines through visual language, used for planning and discussions in workshops.



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**HerCity toolbox:** a toolbox containing nine building blocks as a digital guideline on how to co-plan cities from a girl's perspective.

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**Design thinking:** a non-linear, iterative process to understand users, challenge assumptions, redefine problems and create innovative solutions to prototype and test. It is most useful to tackle problems that are ill-defined or unknown.

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## Overview of Urban Challenges

The project's focus came about through an initial survey that revealed safety and great insecurity in public transport as a major problem. Many respondents also included pollution, for which increased use of public transport could be an effective part of the solution.

The focus of the project had close ties to Sustainable Development Goal (SDG) 11, 'Make cities and human settlements inclusive, safe, resilient and sustainable', especially Target 11.2, 'By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons'.

The approach was to focus on SDG 11, but the plan was also set on collaboration and experience sharing; thus, SDG 17 (partnerships for the goals) became of equal importance during the project.

In 2019, a two-day workshop took place in Medellín, Colombia, with more than 60 representatives from the public and private sectors, academia and NGOs. The goal of the workshop was for the participants – the problem solvers – to form teams around six real-life challenges. Each case was represented by a case owner – an organisation with the mandate to implement solutions. The case owners were Brasilia State Secretariat for Transport and Mobility (Brasilia, Brazil), Fundação de Ciência, Tecnologia e Inovação (CITINOVA) (Fortaleza, Brazil), Secretaría de Movilidad (Naucalpan de Juárez, México), Transmetro (Barranquilla, Colombia), Transmilenio (Bogotá, Colombia) and MTR Nordic (Stockholm, Sweden).

## Structure, tools and methods

The work was done through a quadruple helix concept, where experts from the public and private sector, academia and non-profit organisations (NGOs) came together to find solutions to real problems in safe public transport.

Impact Hub's methodology centred on acting as a neutral platform, where key actors from different sectors could feel supported and confident in their role. Each case was driven locally by a project manager whose main role was to support the case owner and facilitate collaboration.

In parallel with the hands-on work, there was ongoing focus on generating communication, networking and skill-building opportunities. There were monthly online sessions designed to improve networking and listen to stories by experts. The purpose was to build global connections that could potentially allow learnings from cities around the globe to be applied locally. This benefited not only the professionals investing their time and expertise in Urban Challenges, but also the projects themselves.

Throughout, project partners and other stakeholders participated in the process and evaluation of the methodology. An impact measurement workshop was held that proved crucial to ensure that all participants had the same knowledge about impact projects, impact logic, how to best move from theory to practice, and how to create key indicators.

At the beginning of Urban Challenges, the Theory of Change was applied to all cases as a starting point for the teams to visualise the end goal and then take steps back to structure required steps to get there. The Theory of Change not only helps articulate the needed work but also has the potential to reveal potential risks in the plan.

After this initial step, each case owner and team chose which development process to continue with (which methods and tools to use), as priorities, needs and context differed between projects. The methods and tools used included target population interviews, surveys, stakeholder mapping, open space methodology, as well as specific tools such as MethodKit, Design Thinking, and the HerCity Toolbox.



Photo: Impact Hub Mexico City



**Cases –  
challenges,  
solutions**

**and  
lessons  
learned**







# 66%

of the respondents were concerned with lack of public safety at bus stops

## Fortaleza

Fortaleza, the capital of the Brazilian state of Ceará, has a population of about 2.7 million people, 4.2 million in the greater metropolitan area. Problems related to security at bus stops and buses had caused the local government to react.

When the Urban Challenges project started, the implementation of a number of interventions and campaigns by the local government were already underway, such as monitoring systems in buses, panic buttons for drivers, and random police appearances inside vehicles.

Crimes on or near public transport has reduced as a result, but user satisfaction regarding security has not improved to any great extent. The annual satisfaction survey conducted among public transport users showed that the main factors of dissatisfaction are public safety (66%) and comfort at bus stops (45%).

# 45%

of the respondents found bus stops uncomfortable



Photos: Fundação de Ciência, Tecnologia e Inovação (CITINOVA)

## Target solutions

One of the goals was therefore to increase civil society's perception of safety and comfort when using public transport.

The case owners presented the need to:

- Improve data collection on the problem
- Reduce the number of robberies
- Increase safety but also users' perception of safety when using public transport

Following the assumption that urban quality has an effect on a population's perception of security, the pilot project proposed to upgrade the public space around eight bus stops through urban regeneration and technology, with the purpose to improve public transport users' experience.

## Main challenges and achievements

Although the Covid-19 pandemic was a set-back which delayed activities, it did not prevent the project from moving forward.

Having the full support of the Secretariat of Public Services was crucial to gain access to other relevant agencies within the municipality, such as the Secretariat of Public Safety, which provided data regarding crimes occurring in the vicinity of bus stops throughout the city. This information was fundamental to start selecting the bus stops that would undergo upgrades.

By October 2020, the city of Fortaleza entered an election period. Luckily, the new administration chose to include the project in its agenda. However, with the change of government, the public offices in charge of the project changed, which challenged the case owners to engage with the new staff and a larger group of stakeholders.

The new government plan:

- Increased expectations to renovate bus stops in the city to 200 by the end of 2024
- Gave the team access to resources from other agencies of the municipality
- Increased possibility to complete the pilot project

## Tools and methods used

**Requalification and data crossing:** the selected bus stops are located between the top 10% in terms of demand at night time and in terms of the highest number of crimes.

**Validation:** the selected bus stops validation was carried out by on-site visits as well as by coordinating information with the transportation provider.



**Open space methodology:** in terms of interventions, a workshop was set up with the participation of the problem solvers. The workshop resulted in a lot of ideas and perspectives, which had to be reduced to a feasible implementation plan.

**Business model canvas:** used to build the implementation plan, and to quickly define and communicate the concept. The tool was applied to better arrange the multitude of aspects and ideas brought by the workshop and to bring clarity to what was most feasible.

**Theory of change:** used to articulate what positive changes were expected. The tool was first used to clarify the problem and the expected result, and a second time after the design of the pilot to assist case owners to plan the impact survey.

## Expected future outcomes

The project is currently undergoing the implementation of the pilot solution. Through urban intervention (pavement, public lighting, sheltered bus stops); installation of technology (monitoring cameras and wi-fi); and safety actions in collaboration with the Secretariat of Public Safety, the project is expected to tackle dissatisfaction and improve the perception of public transport safety.

After the renovation of the eight pilot bus stops, surveys will be conducted and compared to surveys completed before the project. The outcome will be used to draft an expansion plan to 200 bus stops throughout the city.

## Lessons learned

The case owners, thanks to the support of local government, discovered that relevant data was already available, and all they needed was to put them together. Before conducting original research, it might be a good idea to first see what data is readily available.

Changes in public offices can have both positive and negative effects on projects. Be aware of and stay informed about upcoming elections. Having an agency within the municipality aimed at innovation as case owner was key to capturing the attention of decision-making individuals, which propelled the initiative further than anticipated.

The inclusion of the project on the new administration's plan raised expectations, increased the goal to renovate 200 bus stops rather than 8, and also meant having access to resources from existing contracts and other agencies of the municipality.



Transmetro reported a major problem with attacks and vandalism against buses and bus stations, including personal injuries and forced route deviations.

The goal was to reduce attacks and vandalism by

# 30%



## Barranquilla

Barranquilla, the capital district of the Atlántico Department in Colombia with a population of 2.2 million people, is the largest city and third largest port in the northern Caribbean Coast region. The main public transport system is Transmetro, which transports about 150.000 passengers per day.

Transmetro reported a major problem with attacks and vandalism against buses and bus stations, including personal injuries and forced route deviations. The identified groups known to have carried out the attacks included football fans, moto-taxis, local gangs, and general civil society.

## Target solutions

The proposed solution was to work with transport system users and general civil society to generate solutions. By launching a call for solutions, civil society and organisations would propose interventions that would increase the appropriation and sense of ownership while reducing attacks and vandalism on infrastructure.

The case owners presented the need to:

- Reduce the number of attacks and vandalism by 30% (compared to 2019 indicators)
- Create a measurement for increased ownership
- Create a strategy around public ownership of the transport system
- Involve civil society and establish a connection between the public and the transport system

Photos: Transmetro



## Main challenges and achievements

Transmetro has a team that is deployed daily to check on buses and stations and report back to central. This gave the project first-hand information regarding attacks and vandalism. However, the proposed solutions could not be executed to completion due to Covid-19, social unrest, and internal challenges at Transmetro.

There was political instability both locally and nationally. The city council faced budget cuts, which caused Transmetro to stop operations for several days, in turn impacting the continuation of the project. On a national level, the civil unrest of 2021 affected operations of the public transport as it suffered multiple attacks from civilians.

Due to these external circumstances, there were numerous challenges in information flow that affected the understanding of the situation and the evolution of the project. Furthermore, the team had multiple rearrangements among their members, making progress slow with changes in priorities as new members came into the team.

The team still managed to engage with the local community in creating solutions to generate ownership over the transport system. A partnership was set up with three private and public institutions to engage in the campaign.

## Tools and methods

**Theory of change:** helped define the expected impact and the actions to take, whether the work contributes towards achieving the envisioned impact or if there is another way that should be considered.

**Call for solutions:** the main goal was to gather solutions from citizens on how to generate ownership and safe spaces inside the transport systems. The best solutions were going to be co-implemented between the citizens and Transmetro.

**Action plan and Milestones mapping:** create an action plan to follow.

## Lessons learned

Although the project could not be satisfactorily completed, the project delivered some learning points for those that want to create similar initiatives in the future.

When starting a new project with partners, align expectations and the desired vision of the future among all participants. Set a timeline, assign tasks and keep a very clear flow of communication, as it is key to understanding the situation of each partner.



In sectors where women have difficulties to access certain roles, barriers remain high.

Only about

**1.5%**

of the bus drivers were female in 2021

## Bogotá

Bogotá is the capital city of Colombia and one of the 30 largest cities in the world. It has an estimated population of 8 million people in the capital district and about 11 million in the metro area.

According to Transmilenio, the city's biggest transport company, it is estimated that only about 1.5 per cent of the bus drivers were female in 2021. In sectors where women have difficulties to access certain roles, barriers remain high and factors that lead to their exclusion are reinforced. This gap might be an indication of deeper problems in society regarding gender equality, exclusionary policies in the labour market, sexual violence and harassment against women, wage discrimination and occupational segregation.

Key institutions in the city, including Transmilenio, the Secretariat of Women, and the Secretariat of Mobility of Bogota are working to find ways to tackle these issues.

## Target solutions

The target solution was to promote gender inclusion and security in the transport system, with a special focus on identifying and finding best practices to overcome barriers for the involvement of women in traditionally male dominated jobs such as bus drivers.

Photo: Hinterhof/shutterstock.com



## Main challenges and achievements

The project faced several challenges for its implementation. Apart from the disruption from the Covid-19 pandemic, the change of the representatives from the public and private institutions meant there was a slower learning pace with the need for constant adjustments.

The project was initially focused on the development and adaptation of training operators and collaborators of Transmilenio to identify, recognise and act in situations of gender violence by using virtual tools.

There were more than 395 surveys conducted among employees and contractors of Transmilenio to advance the comprehension of their knowledge and prejudices on sexual harassment in the system, which is a key source of data for current and future actions. However, the team working on the project identified that other institutions were already working on a similar solution, so the focus of the project was changed.

The new focus provided a better understanding of barriers for women to access and sustain job opportunities inside the transport sector thanks to the participation of over 50 people from both public and private sector, including women currently working as bus drivers. The project also managed to identify best-case practices to tackle these barriers.

## Tools and methods used

**Surveys:** an internal survey was conducted with 395 employees and the direct input of experts of gender and violence in order to identify conducts and beliefs. The planning process involved the direct input of area leaders in order to be able to have a broad involvement of different key areas inside the organisation.

**Participatory interviews:** design thinking workshops were implemented with an emphasis on hearing directly from women employed in the transport system about their challenges and their views on potential solutions. This qualitative data collection instrument was aimed at understanding accounts of specific events and daily experiences of the women. A great moderator proved key to be able to implement this process successfully.

**Discourse analysis technique:** for the systematisation of the data collected in the participatory interviews, a discourse analysis technique was carried out, which included labelling, disaggregating and aggregating the information. This allowed for the discovery of new valuable insights.

**Best case practices framework:** potential solutions were organised with this method in order to prioritise the main data and communicate it to be practical and easier to replicate. The format should be the same for all examples in order to facilitate the comparison between cases.

## Expected future outcomes

A Manual of Best practices will be published. The aim is to directly contribute to providing specific feedback not only about the barriers but potential ways to solve them, for the design and execution of a programme to train and support the licensing process of 450 women as drivers of electric buses called 'Econduccción: Project for the qualification of women in non-conventional jobs in the transport system in Bogotá', with the support of the Transport Gender Lab of Inter-American Bank (IDB) and the French Agency of Cooperation.

'The execution of the programme in all its phases will influence subsequent design exercises and project execution in the transport sector aiming to close the gender gaps, broadening the employment context for women, their incidence, recognition and access to jobs in a differential and rights-cantered framework that will take into account their particularities and interests'

Camila Gómez, Social Management Office, Secretariat of Mobility of Bogotá

## Lessons learned

'The main output of the project was being able to document and disseminate information on good practices to close gender gaps, especially, contrasting the theory with what happens in the reality of the sector.'

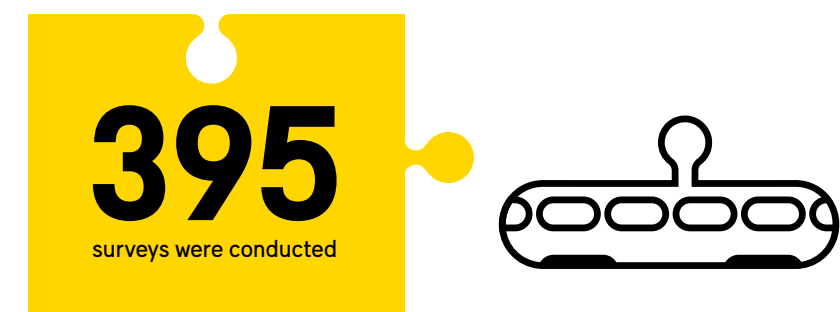
Daniela Mora, Department of Rights and Policy Design, Secretariat of Women of Bogotá

'One key result was getting feedback in all stages of the process from different perspectives and roles that are part of the employment processes around how to achieve equity and equal rights in the transport sector.'

Camila Gómez, Social Management Office, Secretariat of Mobility of Bogotá

'I hope that, in the future, this Manual of Best Practices will allow us to open a global conversation about the working conditions of women in public transport systems and learn from other experiences in public policy on how to overcome them.'

Natalia Dominguez, Office of Gender, Population and Human Rights of the Security Department, Transmilenio S.A







233

women answered  
the questionnaire

## Target solutions

Case owners aimed to achieve the following results:

- To create safe infrastructure for women to walk freely within the city
- To Increase perceptual and actual security of women in public spaces
- To cause a change in the norms and culture in support of gender equality in the area

Results could not be achieved without a pilot project in a smaller area.

The team targeted an area connecting two major universities as the perfect site for the initial project. The route contained underground passageways that lacked security, an old and difficult problem to solve for the government. For pedestrians, there is simply no way around it.

## Main challenges and achievements

Part of the short-term approach to the problem was to raise awareness campaigns and minor interventions, but the Covid-19 pandemic postponed these events.

It became clear that there was no way to really solve the problem of insecurity in this specific route without large-scale street remodelling, which would require massive investments and a lot of time and effort. A systemic and strategic approach to the problem would be necessary, necessitating the main office of the local government making it a top priority.

For the first time, a dialogue between different institutions and stakeholders was established, which was a success in itself. Even though the case owners managed to involve all necessary stakeholders, they were forced to face bureaucratic barriers within the local government.

## Tools and methods used

**Stakeholder mapping:** since collaboration was key, all the stakeholders of the project were gathered on one map. The main benefit of a stakeholder map is to get a visual representation of all the people who can influence the project and how they are connected. This was important to engage relevant actors with clarity about which role each of them would have.

**Open Space methodology:** case owners hosted a workshop by gathering civil society movements, academia and representatives of different government agencies. It worked as a brainstorming session and resulted in a lot of ideas and perspectives regarding the underground passage issue.

## Brasilia

Brasilia, the capital of Brazil, is a landmark in the history of town planning. Every element – from the layout of the residential and administrative districts to the symmetry of the buildings themselves – were planned to be in harmony with the city's overall design. Since its inauguration in 1960, Brasilia has preserved its original guiding principles, leading to its inclusion on UNESCO's List of World Heritage Sites in 1987.

Preserving Brasilia requires assessing present-day issues and demands relating to the city. A lack of infrastructure on walkways, as well as a culture of violence towards women, creates an unsafe environment that makes women hesitant to move freely in public spaces in the same way as men due to safety concerns.

A 2019 questionnaire answered by 233 women showed moderate fear within pedestrian areas. The identified problems included insufficient lighting and the presence of unknown men.

The targeted area contained underground passageways that lacked security.



Women feel hesitant to move freely in public spaces in the same way as men due to safety concerns.





## Expected future outcomes

Case owners successfully engaged multiple stakeholders involved in six other reports and/or projects involving the requalification of the underground passageways, with the aim to get the appropriate agency to prepare a unified project to tackle the problem. This report is under analysis and might still bring important advancements in the near future.

Case owners began with a massive user survey at the intended intervention site and related areas, but the pandemic forced them to put it on hold.

Case owners thought of a new approach to the challenge, which would shift perspective from the lack of infrastructural security within the underground passage to creating a thematic route to engage students and tourists to walk by foot and to enjoy the possibilities offered throughout the way. In order to move forward with this concept, the Secretary of Mobility will try to engage new relevant partners, from culture and tourism agencies.

## Lessons learned

When faced with obstacles that are too difficult to overcome, it is beneficial to try to find alternative solutions and additional collaborative partners.

A lack of infrastructure on walkways, as well as a culture of violence towards women, creates an unsafe environment.



Foto 3: escada de acesso à passarela  
Falta de guarda corpo e corrimão

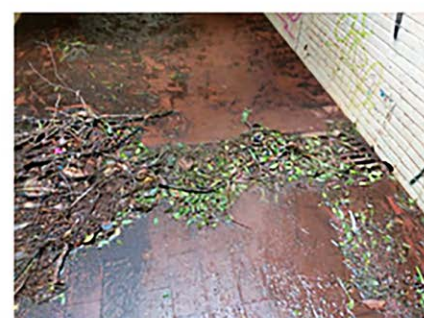


Foto 4: túnel acúmulo de lixo verde, folhas e galhos de árvores próximas ao acesso das passarelas



Foto 5: escada de acesso a passarela  
Revestimentos degradados



Foto 6: túnel da passarela  
Revestimentos degradados pela ação do tempo e vândalos

Photos: State Secretariat for Transport and Mobility – SEMOB



The lack of lightning, deterioration of the area, lack of maintenance and slow transit have all contributed to an increase in violence.

# 22

million people live in this area



## Mexico City

The Metropolitan Zone of the Valley of Mexico (ZMVM) is the area formed by Mexico City, the municipalities of the State of Mexico, and one in the State of Hidalgo. This area has a population of around 22 million inhabitants. The ETRAM Cuatro Caminos is located in the municipality of Naucalpan de Juárez, State of Mexico, bordering Mexico City.

The poor conditions of the north zone of the Modal Transfer Centre (CETRAM), commonly known as Mexipuerto, causes complicated journeys for more than 400,000 users. The lack of lightning, deterioration of the area, lack of maintenance, informal commerce and slow transit have all contributed to an increase in violence.

## Target solutions

The project proposal sought to reduce the levels of violence through easy and efficient ways with low-cost technology, short-term solutions, involving mainly neighbours, citizens and authorities.

## Main challenges and achievements

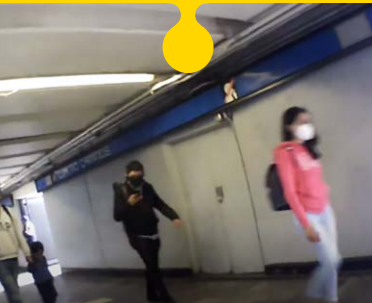
The main challenges arose in the planning of the methodology. Covid-19 prevented the collection of information to be done in person. Instead, virtual surveys were done.

During the project the case owner changed supervisor twice due to an election period, which slowed down the process of adding the project to the case owner's agenda.

Photos: Impact Hub Mexico City



97

respondents participated  
in the survey

The project also faced citizens' distrust, worsened by the pandemic and the lack of punctual actions of the government.

A survey with 97 respondents delivered a good overview of the problems with concrete situations and problems. Two design thinking workshops were carried out with the purpose to determine the limits of the problem and obtain and validate a list of ideas.

The list of ideas and possible solutions were:

1. Improvement on the concentration of users per space
2. Additional signs inside and outside the station
3. Establish public transportation stops and drop-off points
4. Place speed bumps at crosswalks
5. Establish outlets for informal commerce
6. Widening of sidewalks
7. Place more traffic agents outside the Metrobus station
8. Carry out tactical urban planning actions at crosswalks
9. Use an app that provides route information to users

Another achievement was the established network of collaboration among academia, authorities, citizens, stakeholders and entrepreneurs who are working to solve the main challenges.

## Tools and methods used

Design thinking methodology: the general problem was defined into two main issues, both of which emerged from the launched survey with input from the case owner.

On-site visit: an on-site visit plus video documentation was carried out to showcase the general Mexipuerto experience.

Virtual survey: based on the above, a virtual survey was directed to the users.

## Expected future outcomes

The project is on standby, pending for the case owner to organise the action plan and present it to the person in charge of the Ministry of Mobility. The idea is for the results to be reviewed and its development plan agreed upon. If the work loses momentum, there is concern that the results and insights do not lead to further action and stay only documented. Impact Hub Mexico City seeks to maintain the relationships generated, involve more entrepreneurs, citizens and experts to continue solving what was started.

## Lessons learned

It is a great benefit to involve and listen to those directly affected by the problem.

Photo: Impact Hub Mexico City



Drug dealing and criminality at the Flemingsberg station occurs regularly.

# Stockholm

Stockholm, the capital of Sweden with a population of 1.6 million people, has more than 780,000 people travel by public transport each day. The various means of transport – buses, metros, commuter trains, local rails services and boats – are coordinated with a constantly growing transport network.

The Stockholm case centres on the suburban district Flemingsberg, which was selected because of open drug trade near the train station. MTR Nordic incident reporting show that drug dealing and criminality at the Flemingsberg station occurs regularly, which may have a negative impact on travellers' feeling of security and general perception of the district.

The project's goal was to identify and promote cross-functional collaboration between key actors on the issue of safety and security at the train station and surrounding areas.

780'

780,000 people travel by  
public transport each day

Photos: Michael715/shutterstock.com  
Melker Dahlstrand/imagebank.sweden.se



## Target solutions

A survey from the Swedish Transport Administration show that only one third of the inhabitants in Flemingsberg travel by public transportation. A regional objective involves boosting public transportation use to 70 per cent and improving the perception of safety in public transport among locals to 90 per cent.

## Main challenges and achievements

First, the current situation was evaluated, followed by a public analysis based on prior research, observation, local engagements workshops, and semi-structured interviews.

One significant concern was a lack of up-to-date and appropriate data. During the data collection phase of the study, it was discovered that the data was either irrelevant to the project, out of date, or missing. None of the stakeholders had data that could measure the real-time feeling of security of the travellers in Flemingsberg.

Both Region Stockholm and Greater Stockholm Local Transit Company (SL) run regular polls on Stockholm's public transportation, though not on specific locations. Collecting new and updated data would have taken a lot of time, resources and effort.

With a diverse and large number of stakeholders comes a range of expectations and priorities, part of the reason why a collaboration agreement in development did not formalise. Several high-level meetings with key stakeholders were held. The agreement was not finalised because there were uncertainties of the level of commitment that would be required, including financing and responsibilities. It did, however, result in strong new connections among prominent stakeholders.

Four sessions of activities with residents were held, including 'the urban walk', in which participants went around specific locations in Flemingsberg to identify areas of concern and give an honest assessment. The MethodKit was used to run the other three workshops digitally. The outcome was a list of what locals want to be done to increase their sense of security.

A HerCity workshop was held with a local primary school to get a child and girls' perspective. A Minecraft model of Flemingsberg was developed, and the students were given different regions in the game to explore design ideas on how to make the public spaces feel safer. The results were put in an extended report format to share with the stakeholders and other relevant decision makers.

The Church of Sweden plays a very important role in Flemingsberg and has the trust of residents. Eleven church employees took part in an interview and expressed their perspectives on what needs to be done to make Flemingsberg a safer and more inclusive environment.

A group of students from the Stockholm School of Economics did a proposal on how to gather insightful data on the feeling of security from travellers. They came up with the following solutions: 1) A mobile data collection feature integrated in the metro app to capture real-time data from travellers of their feeling of security; 2) physical touch screens inside the train stations with survey-based data collection functions. Based on this collaboration, the following semester, case owner MTR partnered with the University to develop a business model for security matters.

## Expected future outcomes

In the short term, all collected data will be synthesised and shared with Huddinge Municipality and real estate company Faberge as a lessons learned/ best practices manual to help decide the next steps and, as a result, develop an action plan. The long-term aim is to carry out and expand the planned action plan throughout all of Stockholm's municipalities.

## Lessons learned

'Being part of the project has helped advance the agenda for better public transport, by learning by mistakes, realising we need better collection of data; that there's a bigger interest for the feeling of security; the importance of having an agreement of understanding with all relevant stakeholders; and how difficult it is to create this document in a way that everyone of interest signs.'

Jan Magnusson, Safety and security officer at MTR Nordic



Left to right:  
Magnus Lindqvist,  
Karin Regina de  
Castro Marins,  
Gabriela Rodriguez.



Photo: Impact Hub Medellín

## In conclusion

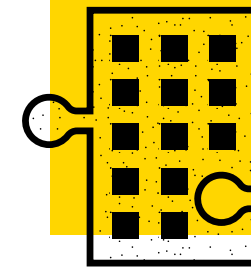
The purpose of Urban Challenges was to provide a neutral platform to encourage dialogues among stakeholders that normally would not partner together. The initiative set out to inspire innovative solutions from different perspectives. It was a multilateral bridge of collaboration with stakeholders that included authorities, experts in the field and citizens to work together to solve complex situations.

Working on projects for great improvement in public services necessitates the capability of engaging decision-makers at a high level of government. Additionally, these individuals have to perceive potential benefits of using innovative and participative methods, which might not be familiar to them.

It is important to have a strategy and plan that guides the process, but it's also important to understand that shifts in priorities can happen and outer circumstances – such as Covid, election periods, civil unrest and changes in administrations – may interfere. For such a complex project, engaging relevant actors to build a common goal can be seen as a great accomplishment. In some of the cases, however, changes of representatives from the public and private institutions led to a slower learning pace than expected.

A recurring issue for projects within Latin American government actors is the need to navigate the uncertainty of politics. Due to the constant changes in administrations and staff, one needs to pursue results based on the idea that the work must also be of benefit to those holding public office at the moment.

As mentioned in the main challenges per case, it is clear that in order to solve these issues holistically, it is imperative to plan for large investment and allocated time and effort from decision-making individuals at the local authorities.





# Credits

## Organisations and partners

| Lead organisation  |
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| <b>Impact Hub Medellín:</b><br>Federico Restrepo, Project manager Barranquilla case  |
| <b>Impact Hub Mexico City:</b><br>Mario Romero, Overview local project manager<br>Joab Jiménez, Project manager Naucalpan de Juárez case   |
| Case owners, stakeholders  |
| <b>Brasília, Brazil</b><br>Case owner: State Secretariat for Transport and Mobility (SEMOB)<br>Valter Casimiro Silveira, Secretary of Transport and Mobility<br>Bruno Terra, Active Mobility Coordinator<br><br>Stakeholders: Irina Storni (Secretary of State for Women); Ilka Teodoro (Regional Administration of the Plano Piloto); Andar a pé, Rodas da paz, IAB, ARQ, Rede urbanidades, No setor, UNB, TSE, ITHAKA – SH, 3º Batalhão da Polícia Militar, CODEPLAN, SEDUH, Forro de vitrola. |
| <b>Fortaleza, Brazil</b><br>Case owners: Fundação de Ciência, Tecnologia e Inovação (CITINOVA) – Agency within the Municipality of Fortaleza:<br>Luís Alberto Sabóia, President<br>Victor Macêdo, Vice-President<br>Mariana Gomes, Focal Point<br><br>Stakeholders: Urban Transportation Company of Fortaleza; Secretariat of Public Safety; Secretariat of Regional Management; Secretariat of Infrastructure; Secretariat of Public Services; Traffic Agency                                   |
| <b>Naucalpan de Juárez, México</b><br>Secretariat of Mobility in the State of Mexico – Francisco Quintero<br>Transport Institute of the State of Mexico – Jorge Cruz, Miguel Angel Cerbón  |
| <b>Barranquilla, Colombia</b><br>Transmetro  |

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| <b>Bogotá, Colombia</b><br>Case owner: Transmilenio – Gabriel Burbano, Natalia Dominguez<br><br>Stakeholders: Transport Gender Lab of the Interamerican Development Bank, French Agency of Cooperation |
| <b>Stockholm, Sweden</b><br>Case owner: MTR Nordic – Jan Magnusson<br><br>Stakeholders: Catarina Klockerud & Krista Nikola (Huddinge Municipality); Therese Friedma (Fabeg);                           |

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Index

References for tools, platforms and resources

Barranquilla

transmetro.gov.co  
theoryofchange.org  
planetb.com.au

Bogota

transmilenio.gov.co  
movilidadbogota.gov.co/web  
sdmujer.gov.co  
tglab.iadb.org/en

Brasilia

semob.df.gov.br  
rodasdapaz.org.br  
unb.br  
tse.jus.br  
codeplan.df.gov.br  
seduh.df.gov.br  
mulher.df.gov.br

Fortaleza

fortaleza.ce.gov.br  
seinf.rr.gov.br  
digital.fortaleza.ce.gov.br

Mexico

smovilidad.edomex.gob.mx  
swedenabroad.se/es/embajada/mexico-mexico-city

Stockholm

mtr.com.hk  
huddinge.se  
fabege.se  
changershub.se  
methodkit.com  
globalutmaning.se  
unhabitat.org  
svenskakyrkan.se  
tryggaesverige.org  
sh.se/english/sodertorn-university  
hercity.unhabitat.org  
glot.org/home  
pataleta.net



