

# SUSTAINABLE CITIES CONSULTATION

Results Report on the perception of almost 10,000  
Brazilians about cities sustainable development

OCTOBER 2018 TO FEBRUARY 2019

**colab**

**UN HABITAT**  
FOR A BETTER URBAN FUTURE



RESULTS REPORT

# Sustainable Cities Consultation

October 2018 to February 2019

**2019**

**colab**

**UN**  **HABITAT**  
FOR A BETTER URBAN FUTURE

#### DISCLAIMER:

The designations used as well as the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of country, territory, city or area or of its authorities. The analyses, conclusions, recommendations and opinions of this publication do not necessarily reflect views of the United Nations Human Settlements Programme, the United Nations or its Member States. The information contained in this publication is provided without warranty of any kind, either express or implied, including, but not limited to, warranties of marketability, fitness for a particular purpose and non-infringement.

Specifically, UN-Habitat makes no warranties or representations as to the accuracy or integrity of such data. Under no circumstances shall UN-Habitat be liable for any loss, damage, liability or expense incurred or endured that allegedly results from the use of this publication, including, without limitation, any errors of failure or omission in connection therewith. The use of this publication is at the user's own risk. Under no circumstances will UN-Habitat or its affiliates be liable for any direct, indirect, incidental, special or consequential damages, even if UN-Habitat has been advised of the possibility of such damages. Extracts may be reproduced without permission, provided that the source is acknowledged.

#### ACKNOWLEDGEMENTS:

##### **Main Authors:**

Beatriz González Mendoza, Claudio Acioly, Gabriela Zaltman, Gustavo Maia, Luciana Tuszel, Luiza Jardim

##### **Contributors:**

Humberto Dantas (chapter 1), Angelo Hermeto, Caio Castro, Fernando Lopes, Otávio Braga and Pedro Ogeda (econometric analysis, presented in section 5.3), Cesar Cano, Isadora Peixoto and Pedro Torres (review), Dalila Ramalho, Gustavo Carvalho and Paulo Pandolfi (operation at the Sustainable Cities Consultation), Samara Resende (chapter 8).

**Funding:** The project is funded by the United Nations Development Fund (UN Development Account).

##### **Design and layout:**

Maysa Crowder

A UN-Habitat and Colab working document, first published in Nairobi in 2019 Copyright © United Nations Human Settlements Programme 2019

#### **ALL RIGHTS RESERVED**

United Nations Human Settlements Programme (UN-Habitat)

P.O. Box 30030, 00100 Nairobi GPO KENYA

Tel: 254-020-7623120 (Main Office)

[www.unhabitat.org](http://www.unhabitat.org)

HS Number: HS/011/20E

ISBN Number:(Volume) 978-92-1-132839-4

Cover Photo: Antartis / Depositphotos

## SUMMARY

1.	DEMOCRATIC CHALLENGES AND POLITICAL PARTICIPATION: WHAT MAKES SENSE TODAY?	9
2.	THE PROJECT " ACCOUNTABILITY SYSTEMS FOR MEASURING, MONITORING AND REPORTING ON SUSTAINABLE CITY POLICIES IN LATIN AMERICA".	13
3.	ABOUT THE ORGANIZATIONS	15
4.	THE SUSTAINABLE CITIES CONSULTATION	19
	4.1 The 2018-2019 edition	19
	4.2 Consultation methodology	25
5.	RESULTS FROM BRAZIL	27
	5.1 Profile	27
	5.2 Results	29
	5.3. Econometric analysis	33
6.	RESULTS BY CITY	37
	6.1 Niterói	38
	6.2 São Paulo	40
	6.3 Santo André	42
	6.4 Rio de Janeiro	44
	6.5 Teresina	46
	6.6 Juiz de Fora	48
	6.7 Porto Alegre	50
	6.8 Recife	52
	6.9 Caçapava	54
	6.10 Curitiba	56
7.	HOW TO MANAGE THE SUSTAINABLE DEVELOPMENT GOALS AT THE MUNICIPAL LEVEL	59
	7.1 Global agenda — local implementation	59
	7.2 The importance of data	60
	7.3 Shared and collaborative Governance	61
8.	THE COLLABORATIVE PUBLIC ADMINISTRATION TRIANGLE	63
	8.1 Efficient management and services	64
	8.2 Social participation in decision-making	66
	8.3 Commitment for the benefit of citizenship	68

## FIGURES:

2.1: *The 2030 Agenda for Sustainable Development Goals*

3.2.1: *Screenshot of the Colab application*

3.2.2: *Screenshot of the Colab platform for governments*

4.1.1: *Consultation results screen*

4.1.2: *Consultation home screen*

4.1.3: *Example of a consultation question*

4.1.4: *Example of a consultation question*

4.2.1 *Table of consultation questions by field*

5.1.1: *Map of Brazil with georeferenced participations*

5.1.2: *Chart of the distribution by state of respondents in Brazil*

5.1.3: *Chart of the distribution by municipality of respondents in Brazil*

5.1.4: *Chart of the distribution by gender of respondents in Brazil*

5.1.5: *Chart of the distribution by age group of respondents in Brazil*

5.1.6: *Chart of the distribution by education of respondents in Brazil*

5.2.1: *Perception of participants from Brazil*

5.2.2: *Charts of all responses in Brazil*

5.3.1: *Chart of municipalities diverging from model prediction*

5.3.2: *Report access QR code*

6.1.1: *Map of Niterói with georeferenced participations*

6.1.2: *Chart of distribution by gender, age and education of respondents from Niterói*

6.1.3: *Perception of participants from Niterói*

6.1.4: *Charts of all answers from Niterói*

6.2.1: *Map of São Paulo with georeferenced participations*

6.2.2: *Chart of distribution by gender, age and education of respondents from São Paulo*

6.2.3: *Perception of participants from São Paulo*

6.2.4: *Charts of all answers from São Paulo*

6.3.1: *Map of Santo André with georeferenced participations*

6.3.2: *Chart of distribution by gender, age and education of respondents from Santo André*

6.3.3: *Perception of participants from Santo André*

6.3.4: *Charts of all answers from Santo André*

6.4.1: *Map of Rio de Janeiro with georeferenced participations*

6.4.2: *Chart of distribution by gender, age and education of respondents from Rio de Janeiro*

6.4.3: *Perception of participants from Rio de Janeiro*

6.4.4: *Charts of all responses from Rio de Janeiro*

6.5.1: *Map of Teresina with georeferenced participations*

6.5.2: *Chart of distribution by gender, age and education of respondents from Teresina*

6.5.3: *Perception of participants from Teresina*

6.5.4: *Charts of all answers from Teresina*

6.6.1: *Map of Juiz de Fora with georeferenced participations*

6.6.2: *Chart of distribution by gender, age and education of respondents from Juiz de Fora*

6.6.3: *Perception of participants from Juiz de Fora*

6.6.4: *Charts of all answers from Juiz de Fora*

6.7.1: *Map of Porto Alegre with georeferenced participants*

6.7.2: *Chart of distribution by gender, age and education of respondents from Porto Alegre*

6.7.3: *Perception of participants from Porto Alegre*

6.7.4: *Charts of all answers from Porto Alegre*

6.8.1: *Map of Recife with georeferenced participations*

6.8.2: *Chart of distribution by gender, age and education of respondents from Recife*

6.8.3: *Perception of participants from Recife*

6.8.4: *Charts of all answers from Recife*

6.9.1: *Map of Caçapava with georeferenced participations*

6.9.2: *Chart of distribution by gender, age and education of respondents from Caçapava*

6.9.3: *Perception of participants from Caçapava*

6.9.4: *Charts of all answers from Caçapava*

6.10.1: *Map of Curitiba with georeferenced participations*

6.10.2: *Chart of distribution by gender, age and education of respondents from Curitiba*

6.10.3: *Perception of participants from Curitiba*

6.10.4: *Charts of all answers from Curitiba*

8.1: *The Collaborative Public Administration Triangle*



The world is rapidly becoming urbanized and in times of change cities as well as local governments have the continuing responsibility to ensure a safe and prosperous urban environment that provides a high quality of life for its population and creates equal opportunities for all. Different urban actors and change agents are introducing new ideas, innovative approaches and solutions to address the challenges we face in the twenty-first century. I am pleased to note the cooperation between UN-Habitat and Colab to develop innovative tools to strengthen the dialogue between citizens and local authorities, providing a broad view of the citizens' perception about the urbanization challenges faced by Brazilian cities today.

The UN-Habitat and Colab public consultation aims to generate national impact within the Brazilian context, while simultaneously raising awareness of the Sustainable Development Goals at a global level. Within the spirit of collaboration and joint people-centered initiatives to achieve a better and sustainable urban world, it aligns with the Sustainable Development Goal 11 (SDG 11) and the New Urban Agenda. UN-Habitat is proud to facilitate and participate in this partnership that brings together citizens, local authorities and the private sector.

This publication is an initiative that offers the general public an excellent opportunity to have access to the results of the consultation held from 1 October 2018 to 10 February 2019, with the

participation of almost 10,000 Brazilian citizens from over 800 cities. This book presents the general results of this perception at a national level, as well as factsheets for the cities with the greatest participation. This mapping of citizen perception around the ten SDG 11 targets and of responsibility and transparency in Brazilian cities, provides a new perspective on the diagnosis of cities in a more holistic and integrated way.

Thus, I am pleased to present a compilation of the results of the first stage of this public consultation as an essential reading about the situation of Brazilian cities from the citizens' point of view. I invite readers to vigorously engage in this collaborative work between Colab and UN-Habitat to strengthen the dialogue between citizens and local authorities in the planning of more resilient, sustainable and inclusive cities.

A handwritten signature in black ink, appearing to read 'Maimunah', with a long horizontal line extending to the right.

**Ms. Maimunah Mohd Sharif**  
Under-Secretary-General and Executive Director  
UN-Habitat





The 1988 Federal Constitution laid the foundation for social participation in Brazil and proposed new forms of dialogue between public authorities and citizens. In this scenario, new participation mechanisms and spaces emerge and rapidly change with the advances in technology and in forms of interaction.

Information speed and access to resources have changed over time. Every day, development increasingly breaks communications barriers among the most diverse actors. However, it is important to note that we are in a scenario where it is impossible to think of development that is not sustainable.

Moreover, the inclusion of the citizens' point of view and work based on data will help governments make better choices and, thus, be more innovative and collaborative.

The Sustainable Cities Consultation supports what is essential to our country today: attention to development and improvement, sustainability as a "mindset" that should be integrated into any and all actions, and citizen participation, which should be central to the process. These aspects appear in this consultation in such a complementary and integrated way that it becomes difficult to distinguish them — and this is the project's greatest sign of success.

It was a pleasure for us to lead this process with UN-Habitat. Months of learning and shared

growth has proven that collaborative management is the key to solving complex problems, and demonstrated the need for the Sustainable Cities Consultation to be carried out regularly, so that the citizens' perceptions of their municipalities will be always up-to-date.

I thank the Colab and UN-Habitat teams and congratulate them for leading and carrying out this project; the main partners Artemisia, Vital Strategies, Instituto Vedacit and Instituto Arapyaú for their support; the other tens of organizations and ambassadors who collaborated in the consultation and foremost the almost 10,000 citizens who contributed to the diagnosis of their municipalities.

In this book, we present the Sustainable Cities Consultation results and render them public, encouraging that these data serve as evidence in the preparation of municipal public policies and guidance for public communication. It is a pleasure to share these results with you, and I am sure that citizens and governments working in collaboration are the key to making cities better for the citizens, with the citizens.

A handwritten signature in black ink that reads "Gustavo Moreira Maia".

**Gustavo Moreira Maia**  
Colab Founder and CEO



## Democratic challenges and political participation: what makes sense today?<sup>1</sup>

Phenomena such as democracy come from challenges that cause questioning, apprehension and uncertainty. If we think about the recent history associated with this concept, we have to go back to the nineteenth century, when the following logic began to be more widely questioned: a "something to lose from an economic point of view" thinking that legitimated the restriction to the right to vote to just a few people. Should the legislative branch, the main symbol of representation, remain faithful to the richest people's interests or should it seek a broader representation of society's wishes? It depends, of course, on how people understand the state responsibilities and interventions in people's lives. If we only think of regulations associated with regular tax collection, property protection, security and infrastructure to meet the interests of producers, it seems conceivable to defend a sort of participation associated with ownership and money. But if minimum human survival conditions, especially those associated with worker-employer relations for example, make sense in the intervention and regulation of the state agenda, this would need to change. What is obvious to us today was a topic of debates and struggles in countries like England and the United States around two hundred years ago.

When people started to think that voting should be accessible to different social strata, one of the most important concerns was associated with the following question: does it make sense that a man who has little education be worth the same as a very well-educated man when facing the responsibility of choosing those who would represent what is best for society? The answer was not as easy as it would be today. Thus, there were those who recorded their thoughts in the form of tables where a greater weight was given to the

vote of people who had more years of education, and this ended up not being effective.

Let us note that the extension of suffrage to a more representative group of society faced its dilemmas. The result, however, gave rise to the sentence that best symbolizes a broader form of representative democracy: "one man, one vote, one value". That is, each person had the right to one vote and each vote was worth the same as the others.

The discomforts of that time were not limited to such a fact. If everyone had to be worth the same — something quite understandable under our recent democratic principles — two other ideas reflecting concerns and fears of the time remained. First, there would be a threshold for entry into the game, that is, the entry into the list of voters should require at least proof of literacy, so that everyone would be at the same level. Second, choosing is different from being chosen, and if some countries like Brazil previously understood that the more money one had, the greater the access to political rights, especially in case of candidacy to many positions that demanded higher incomes, then from that moment on, literacy, and especially age, would allow for candidates to electoral positions despite assets and income. And thus we entered the twentieth century.

A new era brought new concerns and challenges with it. One of them was born in the previous period (nineteenth century) but was consolidated on a wide-scale between the first decades of the new century and the 1970s. We are talking specifically of the female vote. Rarely attained

---

<sup>1</sup> This chapter is a contribution by Humberto Dantas, doctor in Political Science, researcher at the Master in Smart and Sustainable Cities at Uninove, political educator and advisor at Colab.

before 1901, it was in the following period that we actually witnessed a broader understanding of the perception that men and women think differently, have different demands and, consequently, should cast independent votes. Thus, for instance, in 1932 women started to vote in Brazil; in the 1940s after the World War II, in Italy and France; and in Portugal and Switzerland in the 1970s. Between the nineteenth and twentieth centuries, each country then began to tell its history of access to political rights, understood above all as voting, in different ways.

Still aiming to include, and despite the introduction of the female vote and the kind of suffrage considered universal, from then on, many nations for decades discussed the expansion of the electorate. The main challenges since then involved changes in the minimum age for attaining political rights and the inclusion of ethnic groups related to the realities and conflicts of each nation, as well as the recognition of illiterate persons as agents with political rights. In Brazil, this debate included indigenous peoples between 1965 (Electoral Code), 1973 (Statute of the Indians) and 1988 (Federal Constitution). This document reduced the age for obtaining political rights to 16 years and included illiterate people in a more formal way. Once again, each democracy tells this story in different ways.

Still in the twentieth century, a new challenge took on complex contours. It was not enough to vote, understanding to what extent citizens are represented in their diversity in formal political bodies was also needed. At the end of the nineteenth century, political philosophers realized that due to the general attributes of individuals and their professions, as well as their social and economic statuses, it would be difficult for a parliament, for instance, to reflect the diversities found in the streets. But despite this, at the end of the last century, the United Nations embraced causes related to a greater representation, for example, of women in parliaments and in general politics. Political action must go beyond choice through the vote and must come closer to an effective presence in formal bodies. In Brazil, this meant demanding a minimum percentage of female participants in the

lists of candidates for proportional representation ballots — that is, for parliamentarians — with exception of the Senate, elected by majority of votes. After 20 years of efforts, the country has a majority female electorate, about 40 per cent of women's affiliations to political parties, a recent fulfillment of 30 per cent of candidates in proportional ballots and less than 15 per cent of female deputies and councilwomen throughout the country. Did it work? Apparently not. Other countries, such as Argentina, Bolivia, Sweden, Finland and Norway, have made more progress on this agenda, including the guarantee of seats in parliament.

Later on, and despite all efforts to improve the democratic logic of representation, the twentieth century moved towards its end with a crisis in representative democracy. Dozens of countries have noticed the broad dissatisfaction of citizens with the quality of what has been called "political class". There are many reasons to explain this phenomenon, but it is essential to ask here: is there a solution? The answers focused on the search for challenging alternatives. The main one was associated with what was called participatory democracy. Individuals continue to choose their representatives, but certain decisions demand the use of participation tools to be able to transcend the vote. These instruments can, in general, be initially divided into two large blocks. The first one is present in most countries' constitutions and laws and its instruments are mainly translated as popular consultations (plebiscites and/or referenda) and popular initiative laws. In Brazil, only two national consultations have taken place (1993 and 2005) since the introduction of such tools in the 1988 Constitution, and about ten bills originated from the collection of society's signatures have reached the National Congress. This is very little, especially if we compare this reality with nations such as Switzerland, where a significant percentage of the world's referenda takes place.

On the other hand, the second block of participative actions became widely present in Brazil and put the country on the radar of examples of this nature worldwide. For example, concerning democracy,

the 2002 Human Development Index (HDI) report, used the experience of the Participatory Budgeting as a symbol of society's involvement in decisions beyond voting. Recently, according to the Brazilian Institute of Geography and Statistics (IBGE, Instituto Brasileiro de Geografia e Estatística), thousands of cities have reported experiences of this type. Besides, there are public policy management councils for several thematic areas in all cities of the country, as well as experiences related to participatory governance, participatory legislation, public hearings and many other examples to illustrate this participation phenomenon.

The quantitative challenge of significantly expanding the electoral roll throughout the twentieth century, followed by an attempt at accountability and belonging related to the everyday political reality as a way to contain a general politicians' legitimacy crisis, however, did not end the history of the democratic challenges that we have experienced in the last 200 years. During the first decade of this century, there were many successful examples regarding the expansion of political participation, but there were also disappointments about the use of certain tools. For instance, who effectively occupies these participatory spaces? Has traditional politics subverted part of this logic? Is there time, interest, knowledge and especially awareness on the part of society about such instruments?

Answers to these questions present a new set of challenges, concerns and questions. And two of them are essential. First, formal political education is absolutely necessary to bring quality to the quantitative twentieth century efforts and legitimize current instruments that affect this reality. To this demand, a relevant thinker has given the name of "unfulfilled promise of democracy", namely, the need to instruct citizens, because we must understand democracy as a value to be disseminated and defended by the state, that is, designed as a public policy in the formal field of education. The second set, in turn, involves the advances we are experiencing in current times. How much can technology help us solve problems, participate, share an opinion and build

our reality together? If the experience of social media mixes hatred and intolerance to coexistence and connection, the central challenge is linked to the idea of working on acute differences and capturing perceptions that can contribute to the construction of a more inclusive, fair and, naturally, democratic society. In theory, this is where we are: voting continues to exist, the quantitative unsatisfied voters need to be qualified and involved in decisions, and technology can significantly contribute to this, despite the limitations in access and interest that we still face. And how do we do this? Here we have a complex problem, and ready-made answers are not available. Despite such a fact, and other examples associated with Colab's work, something worth of great attention can be observed: the result of the national consultation linked to Brazilians' feelings about the meaning of sustainable living in cities and communities - SDG 11.

Brazil has 5,570 cities and 85 per cent of its population live in urban areas. To capture the citizens' perceptions is something challenging for the debate and the building of more democratic realities in such a complex context, which is marked by severe inequalities spread over more than 8.5 million square kilometers. Thus, for about three months between 2018 and the beginning of 2019 - with new rounds scheduled for the end of 2019 and 2020 — UN-Habitat and Colab made virtual consultation available. The value of the results is immense, it contributes to some perceptions while challenging us to think about some of the current democratic dilemmas. Who participated? Whom do they represent? What do they know about the topics they have provided opinion on?

More than 9,600 people answered the survey, recording their perceptions of central themes related to SDG 11. With 54.5 per cent of men and 45 per cent of women, there is a discrete disparity to the representativeness of the Brazilian electorate, where 52 per cent are female. With regard to education, the challenge is greater: 12 per cent of the participants have Master's and Doctoral Degrees, and almost half has at least a

full undergraduate diploma, which significantly differs from the national reality. Regionally, 34 cities registered more than 30 participants, with São Paulo, Rio de Janeiro, Minas Gerais, Rio Grande do Sul and Piauí representing the states with most answers - the first three have the largest population in the country. Finally, as far as age is concerned, the discrepancies also exist, but they are not as meaningful or surprising. For example, 25 per cent of the participants are over 50 years old, an index that is not much higher than the representativeness of this public in society, which contradicts initial hypotheses making us think that young people would adhere more to tools of this nature.

What does this all mean? An additional form of participation or a survey that does little to assess our reality? Let us point out that the Brazilian constitutional amendment process between 1987 and 1988 registered the sending of more than 72,000 letters to the Federal Senate. Who could write and request constitutional parameters in

the 1980s? This did not invalidate the Computer Support System for the Constituent Assembly (SAIC, Sistema de Apoio Informático à Constituinte) as a relevant participatory tool at the time. Thus, we should not minimize the capacity of an open digital tool, bringing perception of feelings, measurement of opinion and evaluation of reality, to capture relevant information for public policy making, improvement and debate, as well as consolidation of values. The challenge, therefore, is to diversify participation, disseminate the consultation and seek increasingly inclusive ways to raise citizens' awareness in general to the value attached to the time commitment of an activity of this nature. None of this is very different from the current democratic challenges: transcend the vote, legitimize processes and expect that more prepared people get involved in politics, presenting decisions and opinions, increasingly supported by methods of inclusion and encouragement to the legitimization of participation. In the name of democracy.

## The project "Accountability Systems for Measuring, Monitoring and Reporting on Sustainable City Policies in Latin America"

The Sustainable Cities Consultation, conducted by Colab and UN-Habitat, is part of a UN-Habitat project called "Accountability Systems for Measuring, Monitoring and Reporting on Sustainable City Policies in Latin America". This project is based on two important agendas: the 2030 Agenda and the New Urban Agenda.

The 2030 Agenda was designed in 2015, during the United Nations Summit on Sustainable Development, at the UN headquarters in New York. This Agenda establishes 17 Sustainable Development Goals (SDGs) and their 169 targets, which are around, inter alia, poverty eradication (SDG 1), health and well-being (SDG 3), quality education (SDG 4), gender equality (SDG 5) and reduction of inequalities (SDG 10). SDG 11, on Sustainable Cities and Communities, is what guides the UN-Habitat actions, and also the Sustainable Cities Consultation.

The New Urban Agenda was designed in 2016 at the United Nations Conference on Housing and Sustainable Urban Development, known as Habitat III. It is a document that sets global standards for the achievement of sustainable urban development. This agenda is an extension of the 2030 Agenda, with a focus on making cities and urban settlements more inclusive.

Having six South American cities in its geographical sphere<sup>2</sup>, the project "Accountability Systems for Measuring, Monitoring and Reporting on Sustainable City Policies in Latin America" aims to facilitate the implementation of the Sustainable Development Goals (SDGs) targets contained in the 2030 Agenda through the articulation of local actors.



Figure 2.1: The 2030 Agenda for the Sustainable Development Goals

Source: <http://www.agenda2030.com.br>

SDG11 aims to make cities and human settlements inclusive, safe, resilient and sustainable.

<https://www.un.org/sustainabledevelopment/es/development-agenda/>  
<https://onuhabitat.org.mx/index.php/la-nueva-agenda-urbana-en-espanol>

<sup>2</sup> Trujillo and Chimbote (Peru), La Paz and Tarija (Bolivia) and Rio de Janeiro and Niterói (Brazil).

Due to its importance and complexity, the 2030 Agenda presents a series of challenges related to the need to promote an institutional transition in governments. In order to achieve this objective, it is essential to build a relationship between the state and society based on the principles of open government: transparency, accountability and the creation of spaces for effective citizen participation.

The project grounds its activities on these principles. The premise is that, by encouraging a governance structure that allows for social participation, society can apply greater control over the process, monitor the use of resources, influence their allocation and support the creation of public policies aligned with the Sustainable Development Goals. With more transparency, social control, participation and innovation, the chances of a successful implementation of the SDGs and the achievement of the targets by 2030 increase.

In order to instigate these processes, the project involved the preparation of a series of local reports on transparency and accountability initiatives, a study of training needs and a mapping of local actors. Also, the following international events took place: a meeting of experts at the Economic Commission for Latin America and Caribbean — ECLAC — headquarters in Santiago, Chile; a training meeting in Trujillo, Peru; and an experience exchange event in Niterói. Finally, the Sustainable Cities Consultation presented here in this book is also part of the project aiming to gather the perception of the Brazilian urban population about public policies related to SDG 11.

The project has three expected results to achieve its objective of strengthening the cities' public responsibility systems, namely:

- 1. Increase in the capacity of local government authorities and institutions in selected cities in the Latin American region to design governance initiatives in urban management and planning of sustainable cities;**
- 2. Improvement of the capacity of city stakeholders to monitor the performance of urban management and planning sustainable cities;**
- 3. Increase the knowledge of city stakeholders of the best practices in urban management and accountability systems.**

The project also carried out the Urban Accountability Labs, the last stage of the project to be implemented in each of the six participating cities, where municipalities organized collaborative activities for the implementation of open government public policy proposals aligned with the need to implement the SDGs.

The implementation of the project was coordinated by the UN-Habitat Capacity Development Unit in partnership with ECLAC.

# About the organizations

THE CONSULTATION WITH CITIZENS CARRIED OUT IN BRAZIL, REFERRED TO IN THIS BOOK, WAS CONCEIVED AND CARRIED OUT BY UN-HABITAT IN COOPERATION WITH COLAB.

### 3.1 UN-Habitat

The United Nations Human Settlements Programme (UN-Habitat) is responsible for coordinating the implementation of the human settlements programme within the UN system. Its mission is to "promote socially and environmentally sustainable human settlements development and the achievement of adequate shelter for all". Mandated by the 1978 United Nations General Assembly, UN-Habitat is an institution with great knowledge of the processes of urban development and understands the aspirations of cities and their inhabitants.

Urbanization is one of the global unstoppable and irreversible megatrends of our time. Within 30 years, two-thirds of the world's population will live in urban areas. Uncontrolled and unplanned urban sprawl and inequality are universal concerns, both within cities and across territories. Despite the challenges, urbanization is an opportunity for change at all levels and in all types of human settlements, from small rural communities, villages and market towns, to cities and metropolises.

Research now shows that urbanization can have a positive catalytic effect on development and can also improve living conditions of the most disadvantaged. Cities generate around 80 per cent of the world's GDP, making them a positive and powerful force to address issues such as poverty, social exclusion and spatial inequality, shared prosperity, climate and environment, and various forms of crisis. Above all, sustainable urban transformation presents an opportunity to work with all kinds of actors and communities, in particular those typically excluded from such processes, reinforcing one of the main UN-Habitat goals: "leave no one behind".

UN-Habitat also focuses on the commitment and contribution to the 2030 Agenda implementation, in particular the SDG11, which is "to make cities and human settlements inclusive, safe, resilient and sustainable". UN-Habitat therefore promotes sustainable solutions through operational, experimental and innovative projects that can be adopted and scaled up by countries and other partners. By mobilizing partner networks, including local authorities and policy makers to lead the implementation of state-of-the-art level solutions, UN-Habitat brings about transformational change for the benefit of millions of people.



### 3.2 Colab

Colab is a startup that integrates public administration with technology. With a combination of social participation, efficient management and engagement, Colab provides citizens with a tool for communication with city administrations, where they can monitor various events in their city and talk to the public authorities, as well as participate in public consultations that the government and other bodies make available on the platform.



Figure 3.2.1: Colab Application screenshot

Source: <https://www.colab.re/>

Colab provides the government with a platform to manage and meet all these demands, a tool for direct communication with the citizen and public consultations, as well as a daily monitoring by specialists in order to train civil servants, organize the government's internal administration, and monitor the service provided by these bodies.

This daily monitoring by specialists is part of the premise that the company's services go beyond the simple provision of a technological tool. The team travels to customers and implements an agenda of innovation and collaborative public administration with government teams. The complete program is currently implemented in different municipalities across the country, as well as in some civil society organizations and public companies. In this regard, it is important to emphasize that these experiences with several Brazilian public management actors are a fundamental factor for the entire process of growth and evolution of Colab's performance and impact: there are more than 130 municipalities registered in the platform, more than 210,000 users, and more than 200,000 instances of demands being addressed by municipalities, which are sent to their citizens throughout Brazil.

Colab's entire operation is based on its own methodology, called the Collaborative Public Administration Triangle, which includes three fundamental pillars: (i) social participation in decision-making processes; (ii) efficient management and services; and (iii) engagement for the benefit of citizenship. The methodology is detailed in chapter 8, at the end of this book.

Besides, Colab offers a knowledge and distance education service, which aims to train people who work directly or indirectly with the public sector using this methodology and other instruments for innovation and social participation. These actions are included in the *Colab University*, which promotes distance learning courses, lectures, free online seminars and miniseries, among other content formats, updated with consultation of specialists from all over Brazil.

In the company's trajectory, which began in 2013, Colab received a number of international awards, presenting the company's prominence in technological solutions for governments around the world. These include:

- **best urban app in the world, by New Cities Foundation;**
- **Brazil's most creative business, in a competition promoted by Kauffman Foundation;**
- **best m-government app by the UN; and**
- **start-up with the greatest positive impact potential, by the Inter-American Development Bank (IDB).**

In addition, in 2017 the U.S. Department of State selected Colab as one of the 17 companies with the greatest potential to address and bring creative solutions to the Sustainable Development Goals defined by the UN in the 2030 Agenda.

In this regard, it is worth mentioning the partnership with UN-Habitat, which also resulted in this book. By choosing Colab as the platform for the Public Consultation "Sustainable Cities" launched in 2018, UN-Habitat positioned Colab as a global reference in citizen engagement and analysis of citizens' viewpoints about Brazilian cities.

# colab





## The Sustainable Cities Consultation

### 4.1 The 2018-2019 edition

By means of a digital survey, the Sustainable Cities Consultation has the ultimate objective of measuring the Brazilian population's perception of the achievement of Sustainable Development Goal 11, Sustainable Cities and Communities, in their municipality. This is a partnership signed in May 2018 between Colab and UN-Habitat. The first edition of the evaluation took place between October 2018 and February 2019, with the participation of almost 10,000 citizens.

Citizen participation is an essential element in urban development processes. Often, citizen involvement is a prerequisite for decision-making and is seen as a key element to support long-term development. Today, residents are regularly invited to share their views on plans and proposals prepared by authorities with professionals' help, sometimes in an inclusive manner. More importantly, inhabitants are integrated and encouraged to actively participate in a committed way in the preparation of proposals, plans and their implementation.

However, despite this increase, there are still gaps to be overcome to achieve this synergy in participation. In order to achieve integrated participation, it is necessary to consider the citizens' involvement in the different process stages that range from planning, situational awareness and goal setting, to the programming, design, creation and operation of actions. The United Nations defines citizen participation as "an action or set of actions carried out voluntarily by persons who have their own or collective interests, with the intention of directly or indirectly influencing public affairs, from a perspective of deliberation and public interest, within a framework of plurality and respect for human rights"<sup>3</sup>.

Citizen participation attests to plans and proposals viability, that is, it ensures the main motive and reason for interventions in cities. Besides, those involved acquire a shared responsibility for the success of the implementation, as well as for the follow-up and continuity of these interventions in the long term — an issue widely discussed in Chapter 1, written by Humberto Dantas. For this reason, it is important to develop citizenship that is deeply engaged and informed about environment problems, the various actions that lead to problem solutions, the meeting of needs and the shaping of a sustainable urban development in general. Without an informed, active and involved community in the solution of local problems, it will be difficult to achieve real and effective urban development and improvement.

This consultation carried out by UN-Habitat and Colab is a qualitative study with citizens that aimed to learn about people's social perception of their cities development around the 10 targets of the SDG11, transparency and responsibility, intended to improve individual awareness, moving from an individualistic vision to a community-centered vision.

To bring together substantial and leading elements of citizen discourse on different topics around cities, UN-Habitat and Colab used innovation mechanisms — such as a digital application — that enable greater reach, agility in data collection and, finally, the achievement of a more explicit and representative portrait of the citizen perception. The results obtained were classified according to different contexts and variants, such as territory, age group, gender and level of education.

<sup>3</sup> *What do we understand by citizen participation? UNDP, 2018*  
<http://proyectopnud89477.org/wp-content/uploads/2018/07/Qué-entendemos-por-participación-ciudadana.pdf>

These components helped distinguish the participants' discourse and gather the different perceptions within the Brazilian population. The results of this participatory exercise reveal the need to rethink city development, adding the citizen's view on global indicators such as the SDG, and then evaluate the Brazilian context, in order to translate the results obtained into facts and planning policy processes.

Therefore, the Sustainable Cities project included the elaboration of the consultation process to the final delivery of results and their recommendations — steps carried out jointly by Colab and UN-Habitat. The following sections will describe all the activities implemented for the consultation structuration and execution.

### 🕒 May/2018

---

Since 2017, UN-Habitat has been carrying out the project "Accountability Systems for Measuring, Monitoring and Reporting on Sustainable City Policies in Latin America", with six Latin American cities: Trujillo and Chimbote (Peru), La Paz and Tarija (Bolivia) and Rio de Janeiro and Niterói (Brazil). The project goal is to facilitate the implementation of SDG 11 in municipalities, but exclusively through coordination among local actors, training with public servants, etc.

During the implementation of this project, it became clear to UN-Habitat that an evaluation of the population's perception regarding the achievement of this goal needed to be included in the program in order to complement the existing indicators. Such evaluation had not yet been conducted by any actor, so the data collected would be unique and exclusive.

Aiming to collect these data in a practical and scalable manner, UN-Habitat contacted Colab to design a digital consultation for the population. The tool availability was limited to Brazil, but in the end this was taken as an opportunity to carry out

the consultation with all Brazilian municipalities and use this experience as a pilot for the other two project countries.

UN-Habitat and Colab held first conversations in May to discuss partnership possibilities. Colab presented itself as a well-established instrument in Brazil, with a high number of users, transmission in the different regions and wide experience with digital consultations.

### 🕒 June/2018

---

After concluding that Colab and UN-Habitat would jointly carry out this public consultation with Brazilian citizens, they signed the contract for the tool, partnership and other necessary agreements during the month of June. This step involved the legal arrangements in terms of contract and division of responsibilities and the preparation of an activity list and a schedule for the entire project — initially expected to last until the end of 2018 or early 2019.

The governance structure, present in this stage, is something Colab considers fundamental to ensure the success of a project, since governance is an institutional arrangement that empowers those involved and defines the mechanisms to hold them accountable. To be legitimate, a governance system must be designed to involve those who have an interest in its working, or those who have been allocated to the project. In addition, governance should not only create leadership opportunities, but also enable representation, responsiveness and transparency (VITERITTI, 2009)<sup>4</sup>.

Therefore, the governance structure involved the identification, within the Colab and UN-Habitat teams, of people responsible for all the project stages, the monitoring and communication rituals between the teams.

---

<sup>4</sup> VITERITTI, J. (2009). Why Governance Matters. Em Viteritti J. (Ed.), *When Mayors Take Charge: School Governance in the City* (págs. 1-16). Washington, D.C.: Brookings Institution Press.

## July/2018

For the project execution, Colab had to develop some new functions in the consultation tool. Among them, the main feature was the chart for instant visualization of the result, available to each person at the end of the consultation. This chart, as seen in figure 4.1 below, allowed respondents to compare their response with citizens' general perception of their own city and of Brazil. Answers were grouped by topic and with a pre-defined weight for each question, to allow comparison between topics.



Figure 4.1.1: Consultation results screen

source: <https://consultas.colab.re/cidades-sustentaveis>

In relation to the survey, UN-Habitat structured the first version of the consultation based on guidelines and references sent by Colab and on all SDG 11 targets. Colab then evaluated and modified the survey in order to adapt the language and the question sequence to enable Brazilian citizens' understanding and engagement.

This task involved adapting the survey to ensure that a high volume of people from different Brazilian contexts could understand key questions and topics. Using concepts and guidelines for citizen language, the consultation was developed in a way that was easy and accessible to all citizens. The language of the questions was tested with a sample of citizens before launch, and was adapted to lessen difficulties in understanding and interpreting the text. The objective of this activity was to attract a larger number of citizens and obtain a more accurate diagnosis of the city, regardless of the person's age and education, or technical knowledge on urban issues.

## August/2018

After the final validation of the survey, a test version was made available at Colab in August, in order to be presented at the workshop Urban Accountability Academy for Latin America Mayors and Municipalities (*Academia de Responsabilidad Urbana para alcaldes y municipalidades de latinoamérica*), promoted by UN-Habitat, in Niterói (RJ) from 8 to 10 August 2018. At that moment, the complete consultation participation process could be tested by members of different municipalities participating the event and validated.

## September/2018

The consultation was intended to collect citizens' perception, especially from Rio de Janeiro and Niterói — cities that participate in the UN-Habitat project — but also from other Brazilian municipalities to produce comparison material. Additionally, the organizations discussed the importance of having data that represented different population groups in terms of region, age group, education and gender.

As such, the consultation communication presented challenges. But in the month of September, the team developed a strategy to obtain partners who would disseminate the consultation with their groups and networks, and also sponsors who could subsidize the project with support quotas, so that all the funds would be invested in actions to promote the consultation.

A partnership was then established with Artemisia, a social impact business accelerator based in São Paulo that coordinates with Facebook the *Estação Hack* acceleration program, in which Colab participated in the second group (February 2018). Artemisia contributed to the project by connecting different partners that could support the consultation with dissemination or even sponsorship for the communication.

Finally, Colab developed graphic pieces, texts and suggestions for chronograms so that these partner organizations and Colab itself could publicize the consultation throughout the period of its duration. All the organizations that agreed to support the consultation (not financially) received these kits. At the end of this period, there were more than twenty organizations operating in the country's different regions and sectors

## October/2018

The consultation was launched on 1 October. On 8 October, *Jornal Nacional*, the main Brazilian TV news broadcast by Rede Globo, had the Sustainable Cities Consultation and Colab's role in the newscast, bringing great visibility to participation.

In this period Colab continued to look for sponsors and, through being able to share the results of the first weeks with these potential partners, brought together three organizations that supported the project: Vedacit, Vital Strategies and Instituto Arapyaú.

The consultation was launched with 30 multiple choice questions on topics such as transportation, inclusion, basic services and transparency. Figure 4.1.2 below illustrates the consultation first page, with information about SDG11. Figures 4.1.3 and 4.1.4 are examples of survey questions.



Figure 4.1.2: Consultation home screen

Source: <https://consultas.colab.re/cidades-sustentaveis>

UN Habitat

---

"As pessoas da cidade em que vivo estão se preocupando cada vez mais com a preservação, proteção e conservação dos nossos patrimônios culturais e naturais, quando penso nos últimos dois anos." Indique em que medida você concorda ou discorda com esta afirmação:

---



Escolha 1 opção

Concordo fortemente
  Concordo
  Não concordo nem discordo
  Discordo
  Discordo fortemente

VOLTAR
PRÓXIMA

**Figure 4.1.3:** Example of a consultation question  
 Source: <https://consultas.colab.re/cidades-sustentaveis>

UN Habitat

---

Na cidade em que vivo, há possibilidades de os cidadãos participarem do planejamento urbano local e da gestão local.

---



Escolha 1 opção

Sim
  Não

VOLTAR
PRÓXIMA

**Figure 4.1.4:** Example of a consultation question  
 Source: <https://consultas.colab.re/cidades-sustentaveis>

All questions used the Likert Scale ranging from "I strongly agree" to "I strongly disagree" and provided a perception analysis. There were only a few questions that asked a participant to say "yes or no", such as the question illustrated in figure 4.1.3. These were filter questions that determined whether or not the respondent would view the next questions on that topic. In addition, the questions asked the respondent's opinion on their awareness of a perception change in the last two years, so as to standardize the period to which the citizen would be referring.

The consultation was available in Colab's application for Android and iOS, and on a web page that could be accessed using any browser.

### ⌄ November/2018

In the second month of the consultation, Colab discovered through constant monitoring that the profile among respondents had little diversity. Also, there was a large number of municipalities with less than 10 respondents. They developed then a strategy to diversify their audience.

An Ambassadors Program was launched to create a local network of multipliers for the consultation and engage their communities with face-to-face and digital actions. In the following three months, the Ambassadors Program gathered 164 people from 82 Brazilian cities, impacting more than 1,500 people.

### ⌄ December/2018 and January/2019

The last two months of the consultation were crucial for good monitoring and targeting of the communication pieces, and also for managing the Ambassadors Program. A number of challenges was presented to the ambassadors, and the benefits offered involved Colab materials and access to content on collaborative public management.

## ⌚ February/2019

---

The consultation ended in early February, bringing together 9,606 participants from 829 different municipalities. A preliminary analysis of the results was carried out and presented at the end of the month in a webinar with the participation of Colab and UN-Habitat actors. This webinar had more than 4,000 registrations. At the end of the broadcast, participants received by e-mail an e-book with some consolidated data.

The data analyzed did not differentiate at that moment the perception by municipality, focusing the analysis on the average of the Brazilians' perception. These results will be shown in chapter 5 of this book.

## ⌚ March/2019

---

To further expand the results, a group of economists was hired to develop an econometric model that could analyze the result representativeness, and point out factors that justify a greater or smaller number of participants according to socioeconomic factors in the municipality. This work was carried out in the course of March, and its main conclusions are available in chapter 5. Access to the full report is also available there.

Also, the municipalities with most responses received an analysis of the results by municipality. Recife, for instance, presented the results in a national event organized by the Architecture and Urbanism Council of Pernambuco. The analyses by municipality are available in chapter 6 of this book.

## ⌚ April/2019

---

Aiming to deliver a consolidated report on this experience, and to expand its availability so that a variety of public policy makers could have access to it, Colab and UN-Habitat prepared the first version of this book with all the existing material about the consultation.

## ⌚ May/2019

---

At the end of May, the First UN-Habitat Assembly took place in Nairobi, Kenya. This event presented the main results of the Sustainable Cities Consultation and launched the first edition of this book in a panel on the progress of SDG 11 in Brazil. The Assembly gathered representatives from all countries. Gustavo Maia, Colab CEO, Claudio Acioly, UN-Habitat Head of Capacity Building, and Marina Klemensiewicz, Secretary of Urban Infrastructure of Argentina participated in the panel.

## 4.2 Consultation Methodology

As illustrated so far, the two participating organizations Colab and UN-Habitat jointly designed the consultation process.

This section describes the methodology employed to calculate the values used in the perception charts of the process results. The perception charts presented the consultation results grouping all the questions in 12 fields related to SDG 11 targets. The relationship between the questions and the thematic fields is shown in figure 4.2.1.

Figure 4.2.1: Table of consultation questions by field



<http://bit.ly/relatorio-completo>

Each consultation question related to one of the perception fields.

Citizens could choose only one answer for each question, mostly using the Likert scale format with a 1 to 5 value. Lower values represented negative perceptions of a municipality progress in the relevant field, and higher values represented positive perceptions.

Therefore, in order to obtain the value of a citizen's perception of a certain field, an arithmetic mean of the values associated to the answers to all questions related to that field was calculated.

$$eixo(x) = \frac{\sum_{i=1}^n resposta(i)}{n}$$

In the above equation,  $field(x)$  is the value of the perception related to the field  $x$ , and  $answer(i)$  is the value (1 to 5) associated to the answer to the question with index  $i$ .

To obtain the value of the perception of a certain field for a city, or for Brazil, an arithmetic average of the values of that field for all citizens of that city (or all citizens who answered the consultation, considering Brazil as a whole) was calculated.

$$eixo(x, y) = \frac{\sum_{j=1}^m eixo(x)_j}{m}$$

Na equação acima,  $eixo(x, y)$  é o valor da percepção relacionada ao eixo de nome  $x$  e a cidade  $y$ , e  $eixo(x)_j$  é o valor daquele eixo associado à participação do cidadão de índice  $j$ . Se considerarmos  $y$  como o Brasil nesta equação, obtemos os valores da Tabela 5.2.1

In the above equation,  $field(x, y)$  is the value of the perception related to the field  $x$  and city  $y$ , and  $field(x)$  is the value of that field associated to the participation of the citizen with index  $j$ . If we consider  $y$  as the whole country in this equation, we obtain values as in table 5.2.1

It is worth noting that the answer "I strongly agree" did not always have the same value, changing according to the question associated with it. "I strongly agree" could be worth 5 in one question such as "Access to safe, affordable, accessible and sustainable public transport in the city where I live has improved in the last two years", but it could also be worth 1, as in the question "The level of air pollution in the city where I live has increased in the last two years".

Another important note in relation to the "yes" and "no" questions is that they could mean that the citizen would not answer any more questions related to that field. For each field that started with this type of question, an analysis on a case-by-case basis was performed to define a value that best reflected citizens' perception, even in cases where they ended up "skipping" the other questions in that field.

The calculation of the values of each of the five fields for which this method was used is as follows:

### Adaptation to climate change

*"There are policies related to climate change and disaster resilience in the city where I live. (Resilience means the ability of a city to withstand, respond and adapt to emergencies and disasters)."*

The "no" answer is considered to be as negative as having a 1 value (the lowest possible value) associated with the mean of answers from this field. Therefore, even if participants do not answer the other questions, a 1 value is associated with the field.

### Accountability

*"There are spaces where people can make their complaint when they are dissatisfied with the administration in the city where I live"*

The "no" answer is considered as negative as having a 1 value (the lowest possible value) associated with the mean of answers from this field. Therefore, even if participants do not answer the other questions, a 1 value is associated with the field.

### Disaster resilience

*"In the last two years, my city has been hit by some natural disasters."*

If citizens answer "yes", they go on to the other questions and the value of the field is the simple average of the values of the answers, as in the other fields. But if they answer "no", nothing can be said about their perception: it is not positive or negative. Thus, the value of this answer is not considered in the calculation of the average that results in the values of their city and Brazil as a whole.

### Transparency

*"It is possible to access information about the policies, actions and use of municipal funds in the city where I live."*

The "no" answer is considered as negative as having a 1 value (the lowest possible value) associated to the mean of answers from this field. Therefore, even if participants do not answer the other questions, a 1 value is associated with the field.

### Inclusive and sustainable urbanization

*"There are possibilities for citizens to participate in local urban planning and local management in the city where I live."*

The "no" answer is considered as negative as having a 2 value associated with this field. Therefore, even if participants do not answer the other questions, a 2 value is associated with the field.



# Results From Brazil

The Sustainable Cities Consultation, available between October 2018 and February 2019 in its first edition, had the participation of 9,606 Brazilians from all states and 829 different municipalities. This chapter presents general results for Brazil in terms of respondents' profile and answers obtained, and an econometric analysis based on a model.

## 5.1. Profile

### 9606 PARTICIPANTS IN BRAZIL

Estimated population: 208,494,900 inhabitants (IBGE, 2018)

Figure 5.1.1: Map of Brazil with the georeferenced participations



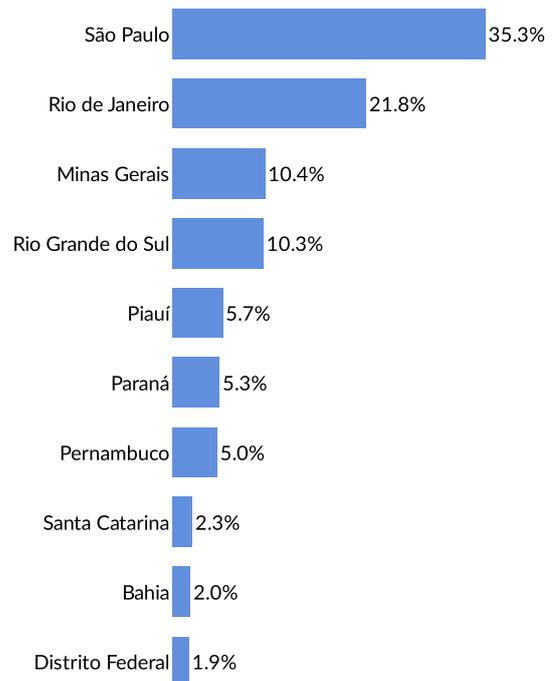
Source:own design

#### i. States

All states had respondents in different municipalities. The three states with most participants were the largest states in population: São Paulo, Rio de Janeiro and Minas Gerais. The chart below shows the distribution in 10 states with most participations.

Figure 5.1.2: Chart of the distribution by state of respondents in Brazil

#### TOP 10 ESTADOS COM MAIS PARTICIPAÇÕES



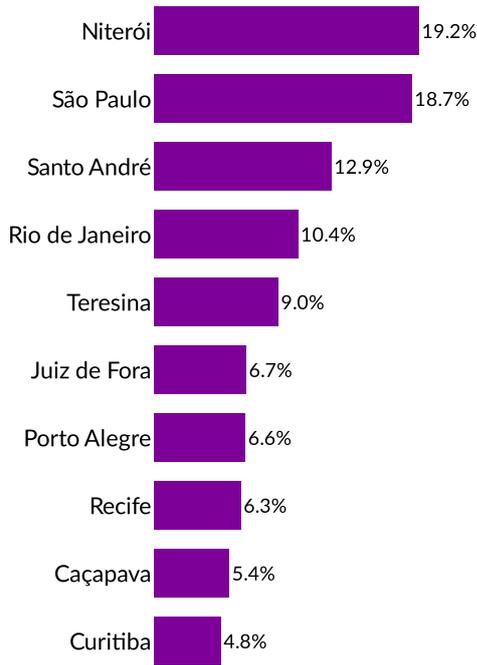
Source:own design

#### ii. Municipalities

As previously mentioned, 829 municipalities had at least one respondent to the consultation. The municipalities with the highest participation rate were Niterói, São Paulo, Santo André, Rio de Janeiro and Teresina, as seen in figure 5.1.3. It is interesting that among the five municipalities with the highest participation rate there was not one from Minas Gerais, which was the third state with the highest participant rate and is Brazil's second state in population after São Paulo. However, Juiz de Fora appeared in sixth place, representing that state with 339 participants.

Figure 5.1.3: Chart of the distribution by municipality of respondents in Brazil

TOP 10 CIDADES COM MAIS PARTICIPAÇÕES



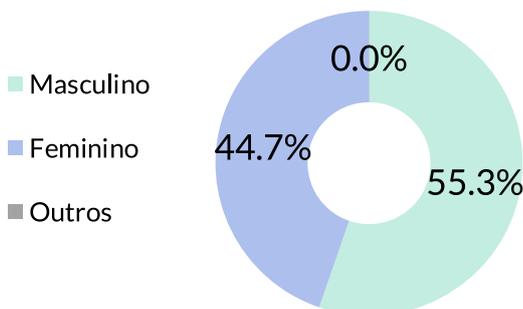
Source: own design

iii. Gender

Gender distribution was 44.7 per cent female and 55.3 per cent male, as shown in figure 5.1.4. There was an option to declare another gender, and it was used by a share of the respondents that represented less than 0.1 per cent of them.

These data show a discrepancy in relation to gender distribution in the Brazilian electoral population, which is 47.4 per cent male and 52.6 per cent female<sup>5</sup>.

Figure 5.1.4: Chart of the distribution by gender of respondents in Brazil



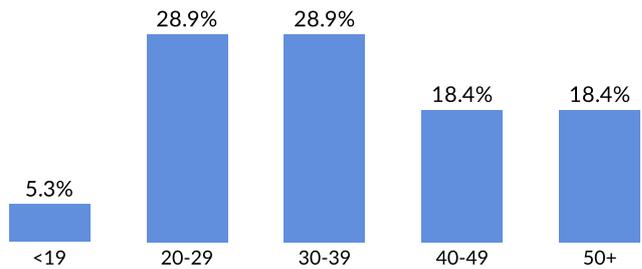
Source: own design

<sup>5</sup> Data obtained on the website of the Superior Electoral Court (TSE), for January 2019.

iv. Age Group

As illustrated in figure 5.1.5, distribution by age group brings an interesting view because it shows a large participation of people over 50 years old, which contradicts the belief that a digital platform such as this could exclude an audience with such profile.

Figure 5.1.5: Chart of the distribution by age group of respondents in Brazil



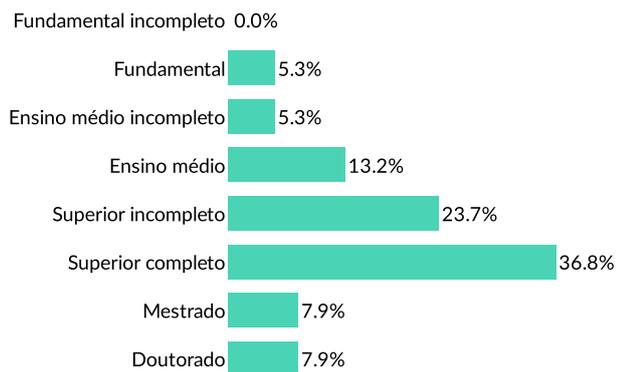
Source: own design

v. Education level

Distribution by education level shows that 52.6 per cent of respondents have at least complete higher education level and another 23.7 per cent have incomplete higher education level, as seen in the chart below. In other words, 76.3 per cent of respondents have at least started undergraduate studies. These data show that the respondents' profile corresponded in their majority to people with a high education level.

This issue received attention during the consultation monitoring, and the project team looked for ways to reach people who had only primary or secondary school levels, but this number was not as expressive and representative of the population as it should. The in-depth analysis in the next subsection of this chapter gives a better understanding of the factors that affect this distribution.

Figure 5.1.6: Chart of the distribution by education level of respondents in Brazil



Source: own design

## 5.2. Results

With regard to the 30 questions answered by citizens, figure 5.2.1 represents the sum of the general perception for each of the 12 consultation fields. In order to properly read this figure, it is important to bear in mind that the closer the green dot is to the chart edges, the better the population's perception of that specific field.

### HOW IS THE PERCEPTION OF PARTICIPANTS IN BRAZIL?

The closer the edges, the closer the city is to be sustainable, according to the participants' perception.

Figure 5.2.1: Perception of participants from Brazil



Source: own design

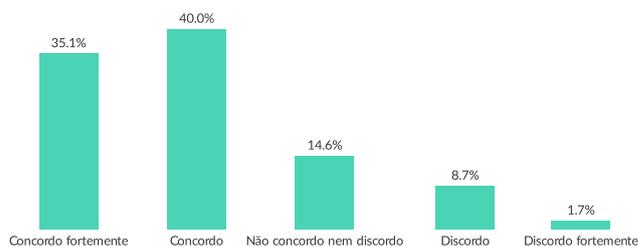
Dimensão	Pontos
Sustainable and resilient buildings	61
Urban life	60
Heritage protection	54
Housing and basic services	53
Environmental impact of cities	53
Transparency	53
Public spaces	52
Accountability	52
Disaster resilience	52
Inclusive and sustainable urbanization	51
Transport accessibility	43
Adaptation to climate change	30

In general, the score for most fields was higher than or near 50, which may indicate that the perception was to some extent more positive than negative. The positive highlight is in the Urban life field, and the negative highlights are in Transport accessibility and in Adaptation to climate change.

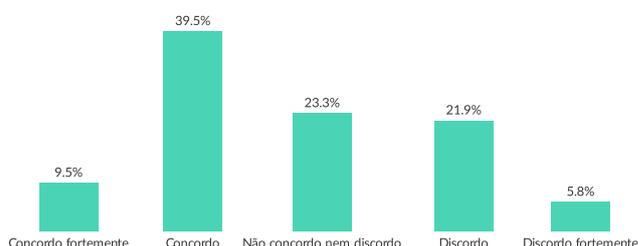
Below are the charts for each of the questions, generated according to the methodology described in section 4.2.

Figure 5.2.2: Charts of all responses in Brazil

1 - "In the city where I live, the number of people living in slums, informal settlements or inadequate housing is increasing in the last two years." Please indicate to what extent you agree or disagree with this statement:



2 - "In the city where I live, the number of people who have adequate access to basic services (drinking water, sanitation, electricity and waste collection) is increasing in the past two years." Please indicate to what extent you agree or disagree with this statement:

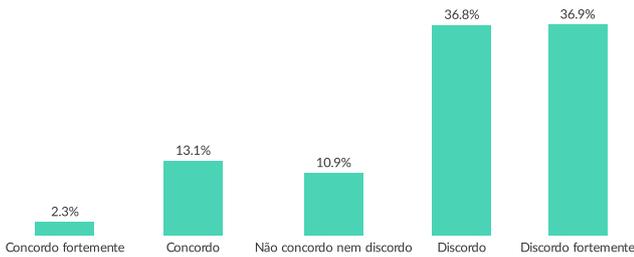


# Sustainable Cities Consultation

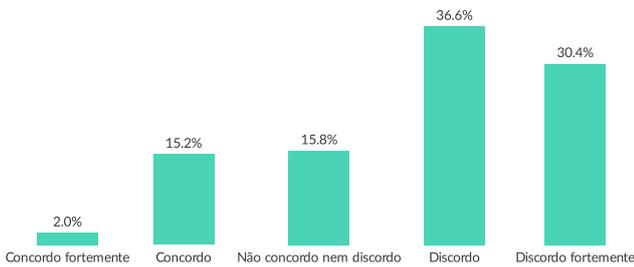
3 - "In the city where I live, considering population growth, land availability has been improving over the past two years." Please indicate to what extent you agree or disagree with this statement:



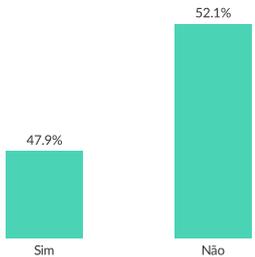
4 - "Access to safe, affordable, affordable and sustainable public transport in the city where I live is improving over the past two years." Please indicate to what extent you agree or disagree with this statement:



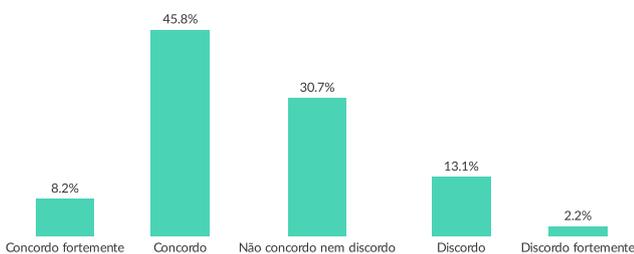
5 - "In the city where I live, access to a secure public transport system for vulnerable people, women, children, people with disabilities and the elderly is improving over the past two years." Please indicate to what extent you agree or disagree with this statement:



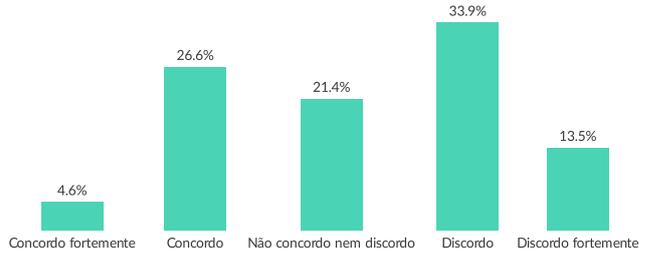
6 - In the city where I live, there are possibilities for citizens to participate in local urban planning and local management. Please indicate to what extent you agree or disagree with this statement:



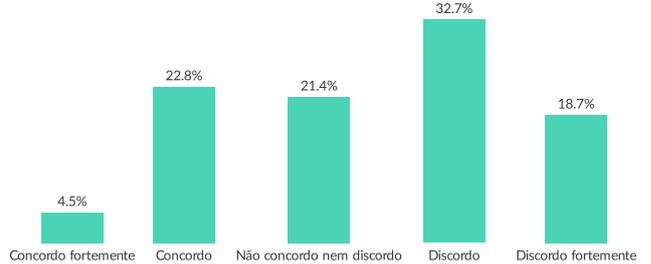
7 - "In the city where I live, the possibilities for citizens to participate in local urban planning and local management have been increasing over the past two years." Please indicate to what extent you agree or disagree with this statement:



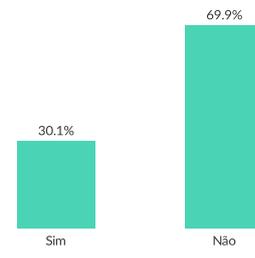
8 - "People in the city where I live are increasingly concerned with the preservation, protection and conservation of our cultural and natural heritage, when I think of the past two years." Please indicate to what extent you agree or disagree with this statement:



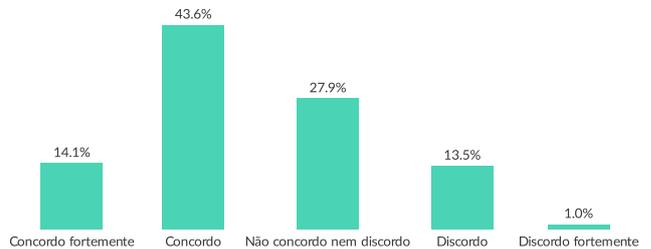
9 - "The concern for my city with the preservation, protection and conservation of our cultural and natural heritage is increasing in the last two years." Please indicate to what extent you agree or disagree with this statement:



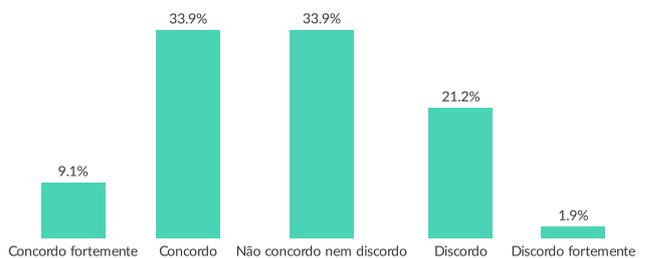
10 - In the past two years, my city has been hit by some natural disaster.



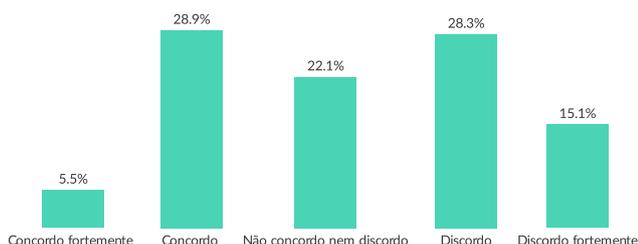
11 - "In the city where I live, compared to two years ago, the number of people negatively affected when disasters happen is increasing" Please indicate to what extent you agree or disagree with this statement:



12 - "In the city where I live, compared to two years ago, the direct economic loss caused by a disaster has been increasing for the past two years. (Direct economic loss is any damage to physical structures, such as buildings and belongings within them.)" Please indicate to what extent you agree or disagree with this statement:



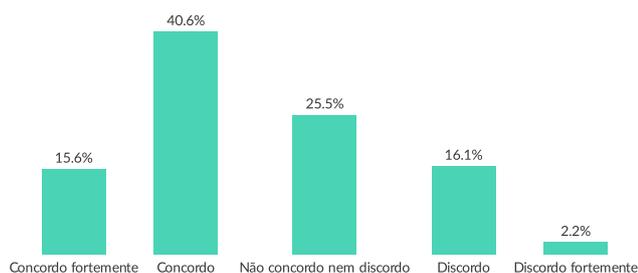
13 - "The quality of waste management (garbage collection and recyclable materials) in the city where I live has been increasing over the past two years." Please indicate to what extent you agree or disagree with this statement:



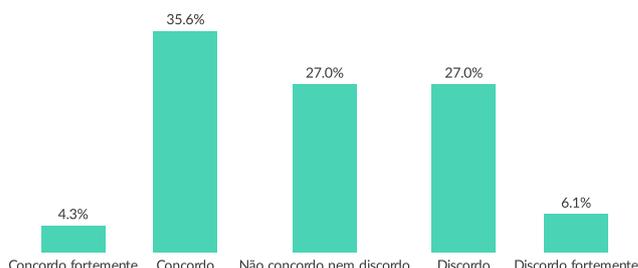
18 - "The number of citizens in the city I live in who are working to create a better urban life is increasing over the past two years." Please indicate to what extent you agree or disagree with this statement:



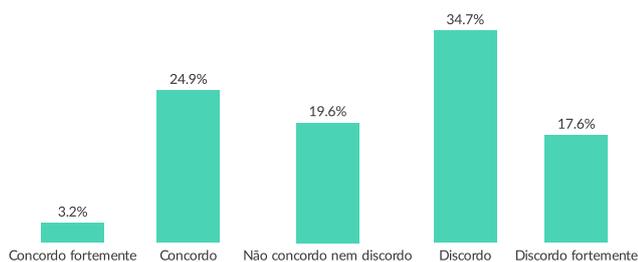
14 - "The level of air pollution in the city where I live has been increasing for the past two years." Please indicate to what extent you agree or disagree with this statement:



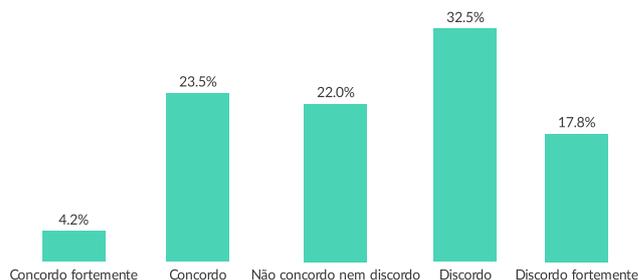
19 - "In the city where I live, the number of local initiatives dedicated to creating better urban life has been increasing over the past two years." Please indicate to what extent you agree or disagree with this statement:



15 - "In the city where I live, access to safe, inclusive, accessible and ecological public spaces has been increasing in the past two years (including for people in vulnerable situations, women, children, people with disabilities and the elderly)." Please indicate to what extent you agree or disagree with this statement:



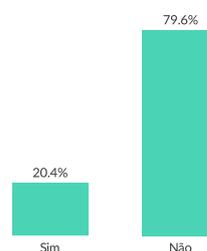
20 - "The City of my city has been making more and more public policies dedicated to creating a better urban life, in the last two years." Please indicate to what extent you agree or disagree with this statement:



16 - "In the city where I live, cases of physical and sexual harassment in public spaces have been on the rise for the past two years." Please indicate to what extent you agree or disagree with this statement:



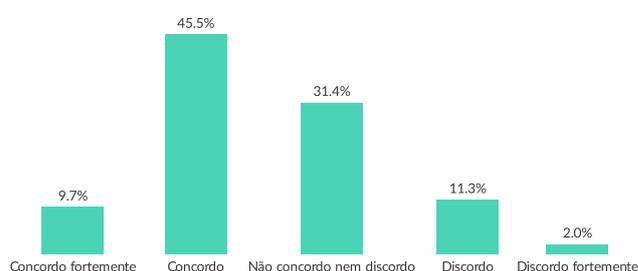
21 - In the city where I live, there are policies related to climate change and resilience to disasters. (Resilience means the ability of a city to resist, respond and adapt to emergencies and disasters).



17 - "In the city where I live, the number of people (whether from the government, NGOs, activists or any other segment of society) working to create a better urban life has been increasing over the past two years." Please indicate to what extent you agree or disagree with this statement:

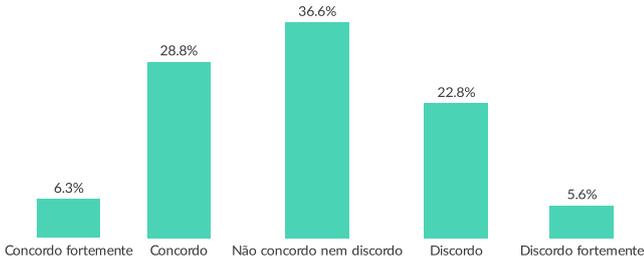


22 - "In the city where I live, these policies related to climate change and resilience to disasters and emergencies have been improving over the past two years." Please indicate to what extent you agree or disagree with this statement:

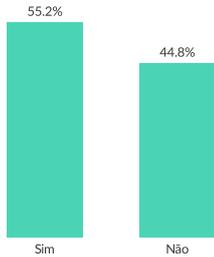


## Sustainable Cities Consultation

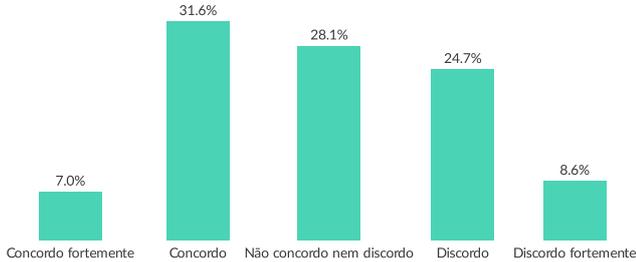
23 - "The city where I live is improving in the construction of sustainable and resistant buildings that use local materials in the last two years. Here, resilience means a building's ability to withstand emergencies and disasters." Please indicate to what extent you agree or disagree with this statement:



24 - In the city where I live, when people are dissatisfied with the City Hall, there are spaces where they can make their complaints.



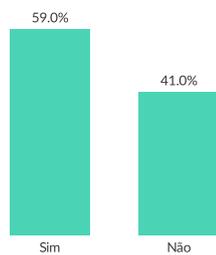
25 - "In the city where I live, the authorities have become increasingly receptive to citizen complaints over the past two years." Please indicate to what extent you agree or disagree with this statement:



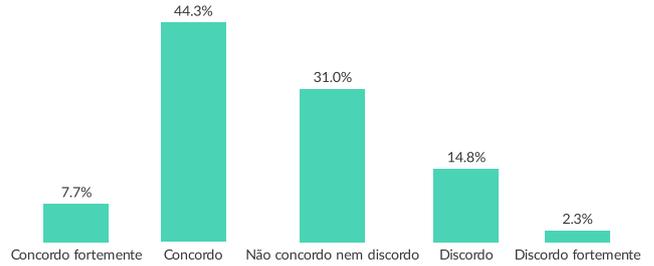
26 - "In the city where I live, the existing mechanisms for the population to make a complaint to the City Hall have been increasing in the last two years." Please indicate to what extent you agree or disagree with this statement:



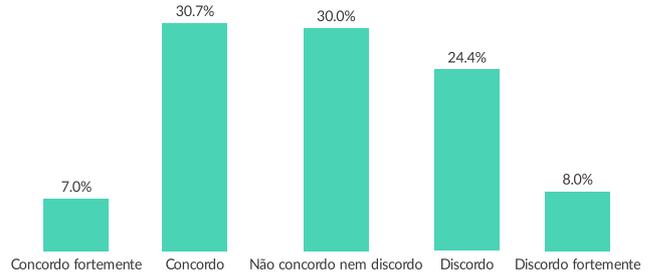
27 - In the city where I live, it is possible to access information about the policies, actions and use of City Hall funds.



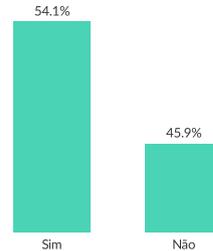
28 - "In the city where I live, it is becoming easier and easier to access information about the policies, actions and use of municipal government resources in the past two years." Please indicate to what extent you agree or disagree with this statement:



29 - "In the city where I live, I feel that the City has improved, in the last two years, in providing this information in a way that is easy for the citizen to understand." Please indicate to what extent you agree or disagree with this statement:



30 - In the city where I live, I have already sought information on the policies, actions and use of City Hall funds.



Source: own design

## 5.3. Econometric analysis

### Consultation Representativeness

The Sustainable Cities Consultation results show the citizens' vision of their immediate urban environment and may be relevant to governments so they can conceive, plan and implement public policies that improve city sustainability. However, before using this research for decision-making, it is necessary to first understand which portion of the Brazilian society is represented in these data.

The answers to the consultation came from an optional survey, answered only by application users or visitors to the consultation website. To understand which portion of the population had access and answered the consultation, the team tested through an econometric model the hypothesis that citizens from cities with higher development and income indices were more likely to answer the survey. They used the following explanatory variables: number of Colab users in the municipality, whether the municipality is or was a Colab client, municipal GDP, population, schooling rate and infant mortality rate.

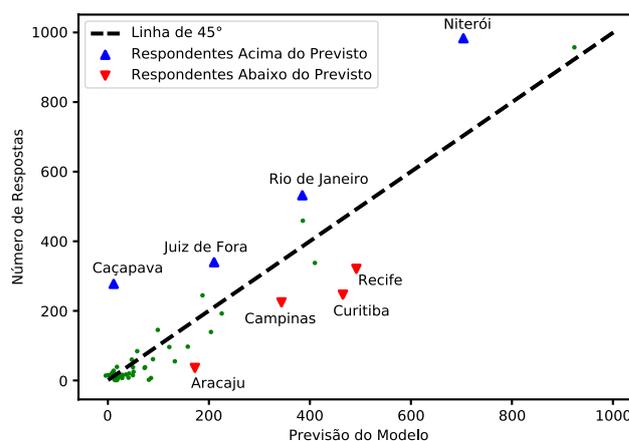
As expected, the number of users and being a current or former Colab client presented a strong positive relationship with the number of responses, that is, the survey is representative of Colab users. However, GDP and schooling rate were not significant. Data did not support the initial hypothesis that participation in the survey is related to the development level of a region.

Considering these results, the team tested the hypothesis that the economic development of a region could partially explain the number of Colab users in a municipality. GDP, population and schooling rate were statistically significant in this model. This means that socioeconomic aspects are in fact relevant for a person to be a Colab user. In addition, the model proved that there was an increase in the expected number of users in municipalities that are Colab current and former clients.

Analysis shows that the consultation is not representative of the Brazilian population because the number of responses in each municipality was on average highly related to the number of application users. Development level of a region and the fact that a municipality is a current or former Colab client impacted this number.

However, some municipalities did not behave as predicted by the model, and it is worth considering which factors not included in the model affected the number of answers. To this end, the team designed a chart showing the number of answers obtained in the survey (vertical axis) and the number of answers predicted by the model (horizontal axis). The points above the dashed line are municipalities that answered more than predicted by the model, while the municipalities below it are those that answered less than predicted.

Figure 5.3.1: Chart of municipalities diverging from model prediction



Source: own design

We believe that in Caçapava, a city in the state of São Paulo with less than 100,000 inhabitants, the implementation of the Ambassador Program — an incentive and reward program for citizens to get other citizens to respond the consultation — influenced the number of answers above the number estimated by the model. Another example of a municipality that behaved above expectations was Niterói, which could be explained by the fact that it is a Colab client since 2014, and its citizens frequently use the platform and participate in all consultations.

An analysis of the municipalities that did not behave as expected proves it difficult to immediately explain the behavior of all cities because several factors influenced the participation of a person in the consultation. Even so, the estimated model manages to partially explain why some cities had more answers than others and the reach of the consultation.

### Answer alignment in the consultation

One of the main features of urban life is the plurality of experiences, ideas and perceptions among people. This research is a unique opportunity to attempt to quantify and clarify this plurality, offering a more complete profile of citizens' opinions. Besides, it is important to identify controversial problems and the source of disagreements when making public policy. A greater understanding of this context can contribute to a debate on controversial issues and offer a foundation for public policy making.

To measure alignment level among respondents, the team developed an index consisting of the absolute difference between the number of positive and negative answers to each question. The index ignores neutral responses to capture only the differences in the population perception of each topic. The difference in absolute value was divided by the total number of answers to obtain a coefficient of easy interpretation between 0 and 1: the closer to 1 the value is, the greater the unanimity in a given question.

Based on this index, the team investigated the possible socioeconomic factors for differences of opinion. They also tested the hypothesis that different points of view on public policies, that is, variations in the alignment index, may be related to income inequalities and, therefore, to differences in the geographic area where the respondents live. To this end, the team used the Gini index, a measurement of inequality whose value magnitude is proportional to the level of inequality. They also used the Human Development Index (HDI) as a control because it makes it possible to analyze the correlation between the designed alignment indicator and the Gini Index in an isolated way, that is, one can isolate the effects of income inequality from the effects of poverty and development.

Results indicate that cities with more inequalities (with higher Gini index) present greater misalignment among their citizens. Therefore, the data indicate that if two very contrasting economic realities are observed within the same city, basic services, initiatives and public policies do not consistently reach all inhabitants. Public administrators should take this reality into account when communicating with the population.

### Analysis of answers according to respondent profile

Do only economic conditions influence how an individual will respond? How do other features in each respondent's profile influence the answer given? For this analysis, the team selected some questions considered relevant for the ten cities with the highest number of responses.

As an example, in the statement regarding an increase in the number of people living in slums and irregular housing, data indicate that the higher the education level, the more likely individuals were to agree with the statement. Gender profile is also noticeable, with men agreeing 9 per cent less than women with the statement. With respect to income, higher-income people were more likely to agree with the statement.

Regarding the statement that the number of people who have adequate access to basic services (drinking water, sanitation, electricity and waste collection) has increased in the last two years, complete primary education level increased by 15 per cent on average the likelihood of a person to agree with the statement, compared to someone who had incomplete primary education level. Older people tended to agree less with the statement, as well as people with higher income. This could mean that people with higher income already have adequate access to basic services and nothing has changed for them in recent years; thus, they did not perceive or know of developments in this area.

The perception of an increase in economic losses caused by environmental disasters positively depended on the age of the respondents and negatively on their income. In other words, data confirm a logical relationship as people living in richer regions of Brazil tend to be less exposed to environmental disasters such as floods and landslides. Therefore, their perception of economic losses caused by these disasters tends to be lower.

In relation to an increase in access to safe, inclusive, accessible and environment-friendly public spaces in the last two years, there was a perception discrepancy between men and women. The results indicate that men tended to agree on average almost 7 per cent less than women with an improvement in accessibility. However, there was a mitigating effect of this result in older men.

Regarding the question about an increase in local initiatives to create a better urban life, results indicate that public policies in this area are better communicated to or focused on higher educated people. Although the effect on individuals with primary and secondary education level was not significant, people with incomplete higher education were 11.5 per cent more likely to agree with the statement than people with incomplete primary education level. For people with an undergraduate diploma and master's degree, the results reached respectively 13 and 13.4 per cent.

The analyses from this study based on econometric models can be extensively and deeply performed for each question and for each city, so that each municipality can review its communication with the population and its plans to make cities more sustainable. Despite their limitations, these data are surely useful for planning and redefinition of public policies.

This section presented a summary of the study developed by a group of economists, who set up an econometric analysis of the results for the first edition of the Sustainable Cities Consultation. The complete study is available online and can be accessed via QR Code shown in figure 5.3.2 or the link below.

Figure 5.3.2: Report access QR code



<http://bit.ly/relatorio-colab>



### Results by city

As mentioned earlier, the Sustainable Cities Consultation captured people's perceptions of SDG 11 in their municipalities. Results reveal this consultation as a fundamental instrument for municipalities to rethink their public policies and public communication of their initiatives.

As presented in chapter 5, the consultation gathered the participation of people from 829 different municipalities. These results can be used both individually to analyze aspects of each city and create public policies that meet relevant needs, and comparatively, allowing municipalities to compare their results with those of other similar municipalities.

All states are represented among the 829 municipalities that had at least one response, and there is great diversity in characteristics of municipalities and in participation volume. The variables that influence this last difference feature

at the end of chapter 5. It is important to mention that municipalities with a low number of responses probably do not present reliable data for the formulation of public policies because they may not be considered a representative sample.

On the other hand, several municipalities had a number of participations in this first edition that immediately brings invaluable information to city administrations. Below are the results by municipality for the first ten cities by number of participants.

These cities are: Niterói (RJ), São Paulo (SP), Santo André (SP), Rio de Janeiro (RJ), Teresina (PI), Juiz de Fora (MG), Porto Alegre (RS), Recife (PE), Caçapava (SP) and Curitiba (PR). These city administrations and other municipalities that are Colab clients received reports. The remaining cities can request Colab or UN-Habitat to access their citizens' diagnosis.

In the section of each city are just a few graphs of the axes that stood out the most. The full report can be found through the QR Code below, or through the link:



<http://bit.ly/relatorio-completo>



## 6.1 NITERÓI (Rio de Janeiro)

- Factsheet**

Population: 487,562 (2010 census)

Region: Southeast of Brazil

MHDI (2010): 0.837

Niterói is a municipality in the Rio de Janeiro metropolitan region, and was the state capital in two periods: from 1834 to 1894 and from 1903 to 1975. Its Municipal Human Development Index (MHDI) is 0.837, the highest in the state of Rio de Janeiro and the seventh in Brazil. Niterói has fifty-two neighborhoods organized in five political-administrative regions.

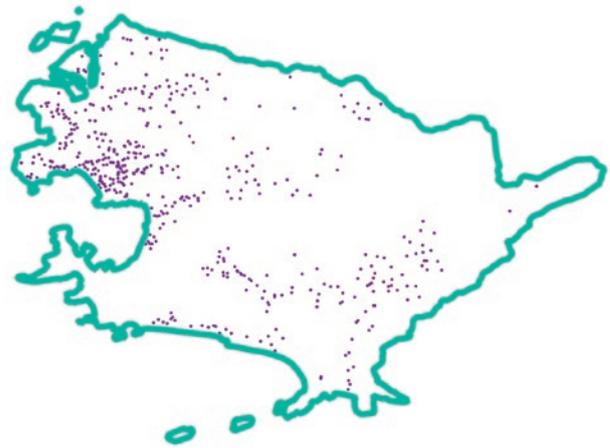
The city stands out as one of the main financial, commercial and industrial centers in the state of Rio de Janeiro. In 2018, Niterói ranked tenth in the Connected Smart Cities general ranking, an important smart cities study comparing all municipalities in Brazil in order to identify the cities with the greatest development potential in the country. Niterói rose eight positions compared to the previous year (2017), and also stood out in tenth place in Technology and Innovation.

Niterói had the largest number of participants in the Sustainable Cities Consultation. This is due to the fact that Niterói’s administration is a Colab user, has already conducted a series of public consultations, and has established a participation culture that encourages the population to answer this kind of survey. In addition, Niterói is one of the six Latin American cities that participate in the UN-Habitat program mentioned earlier in this book.

## 982 PARTICIPANTS IN NITERÓI

Estimated population: 511,786 inhabitants (IBGE, 2018)

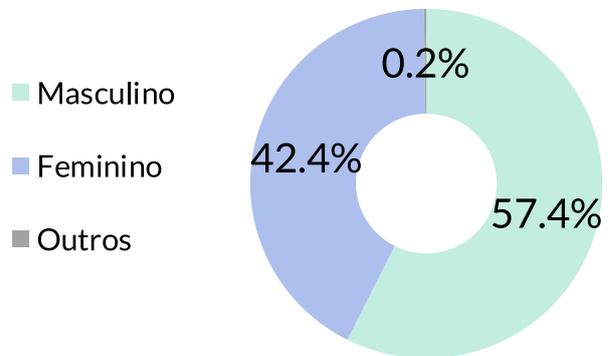
Figure 6.1.1: Map of Niterói with georeferenced participations



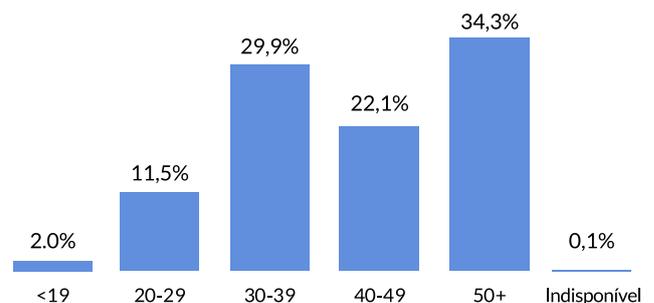
Source: own design

Figure 6.1.2: Chart of distribution by gender, age group and education of respondents from Niterói

### GENRE

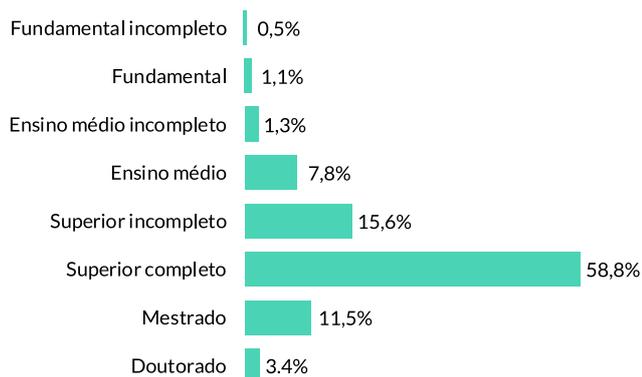


### AGE RANGE



Source: own design

## SCHOOLING



Source: own design

## HOW IS THE PERCEPTION OF THE PARTICIPANTS IN NITERÓI?

The closer the edges, the closer the city is to be sustainable, according to the participants' perception.

Figure 6.1.3: Perception of participants from Niterói



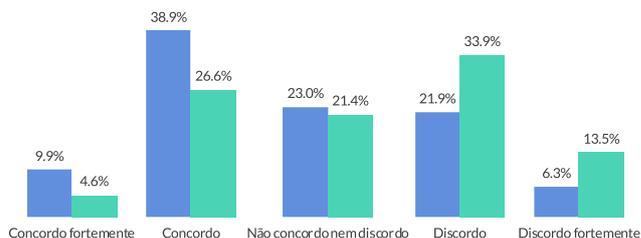
Source: own design

Heritage Protection is the highest scoring field, with 41.9 per cent of the participants agreeing that the attention of municipal administration to preservation, protection and conservation of cultural and natural heritage has increased in the last two years, according to the chart associated with question 9.

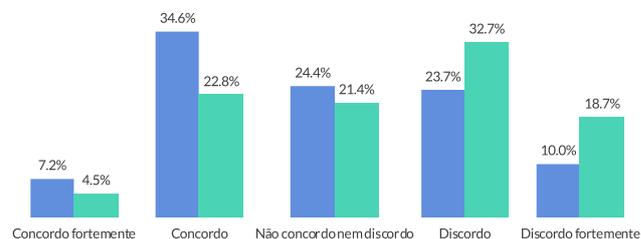
Adaptation to Climate Change is the lowest scoring field, with 70.6 per cent of the participants indicating that there are no "policies related to climate change and resilience to disasters" in the city where they live, as presented in the chart associated with question 21.

Figure 6.1.4: Charts of all answers from Niterói

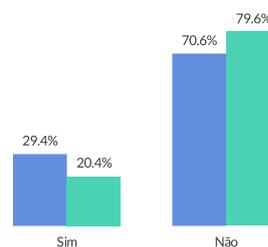
8 - "People in the city where I live are increasingly concerned with the preservation, protection and conservation of our cultural and natural heritage, when I think of the past two years." Please indicate to what extent you agree or disagree with this statement:



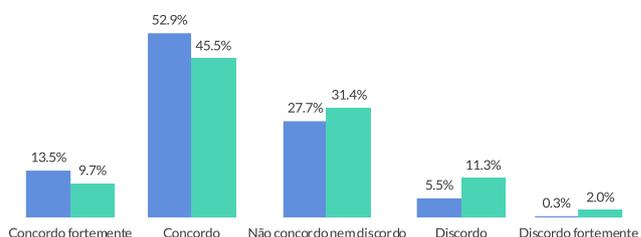
9 - "The concern of the city with the preservation, protection and conservation of our cultural and natural heritage is increasing in the last two years." Please indicate to what extent you agree or disagree with this statement:



21 - In the city where I live, there are policies related to climate change and resilience to disasters. (Resilience means the ability of a city to resist, respond and adapt to emergencies and disasters).



22 - "In the city where I live, these policies related to climate change and resilience to disasters and emergencies have been improving over the past two years." Please indicate to what extent you agree or disagree with this statement:



## 6.2 SÃO PAULO (São Paulo)

- Factsheet**

Population: 11,253,503 (2010 census)

Region: Southeast of Brazil

MHDI (2010): 0.805

São Paulo is the capital of the state of São Paulo and the main financial, corporate and commercial center in South America. With more than 11 million inhabitants, it is the largest city in Brazil, the American continent and the entire southern hemisphere. São Paulo metropolitan region, which encompasses surrounding municipalities, has more than 20 million inhabitants, and represents one of the world's largest urban agglomerations.

In 2018, São Paulo ranked second in the Connected Smart Cities general ranking, an important smart cities study comparing all municipalities in Brazil in order to identify the cities with greatest development potential in the country. In the previous year, São Paulo had come in first place, but was overtaken by Campinas.

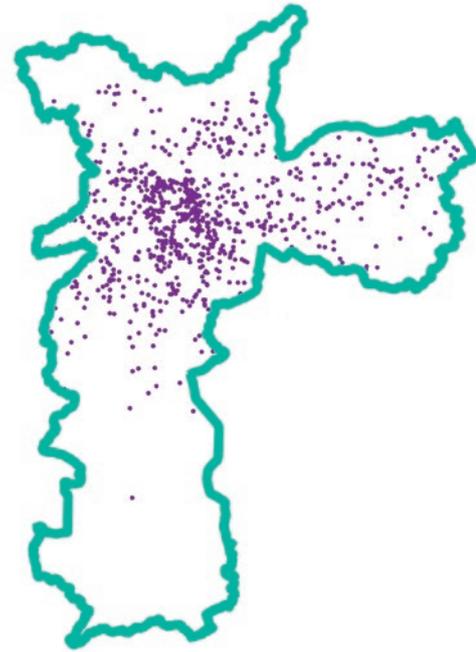
In relation to other Connected Smart Cities ranking criteria, São Paulo ranked first in Mobility and Accessibility and in Urbanism, and was among the 10 best in Governance, Economy, Entrepreneurship, and Technology and Innovation.

São Paulo had the second highest number of participants in the Sustainable Cities Consultation. Despite having the country's largest population, São Paulo did not get the top position in this criterion. Niterói, the municipality that was ahead of it, had a better performance because its administration is a Colab user and its population is thus familiar with answering consultations using Colab's tools.

## 955 PARTICIPANTS IN SÃO PAULO

Estimated population: 12,176,866 inhabitants (IBGE, 2018)

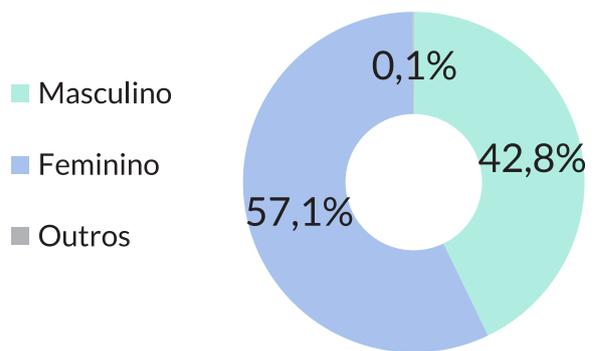
Figure 6.2.1: Map of São Paulo with georeferenced participations



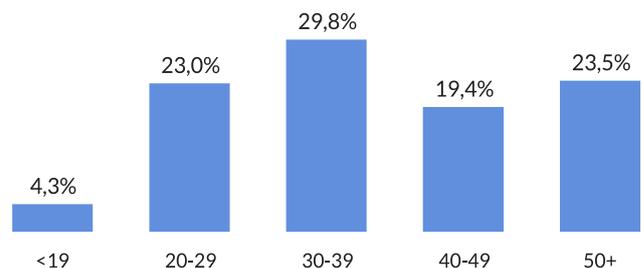
Source: own design

Figure 6.2.2: Chart of distribution by gender, age group and education of respondents from São Paulo

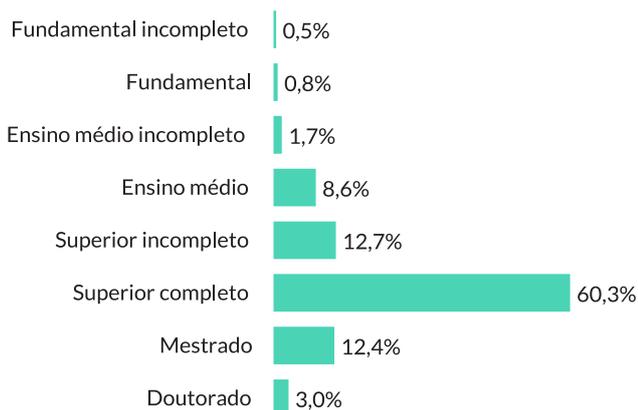
### GENRE



### AGE RANGE



## SCHOOLING



Source: own design

## HOW IS THE PERCEPTION OF PARTICIPANTS IN SÃO PAULO?

The closer the edges, the closer the city is to be sustainable, according to the participants' perception.

Figure 6.2.3: Perception of participants from São Paulo



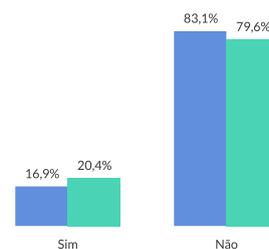
Source: own design

Sustainable and Resilient Buildings is the highest scoring field. According to the chart associated with question 23, 42.9 per cent of the participants agree that the city where they live is improving in the construction of sustainable and resilient buildings using local materials.

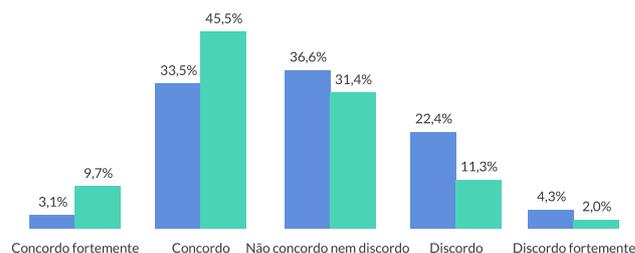
Adaptation to Climate Change is the lowest scoring field, with 83.1 per cent of the participants indicating that there are no "policies related to climate change and disaster resilience" in the city where they live, as presented in the chart associated with question 21.

Figure 6.2.4: Charts of all answers from São Paulo

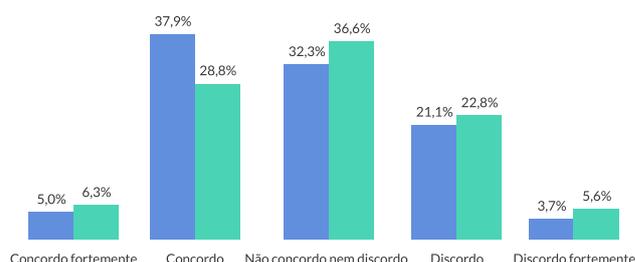
21 - In the city where I live, there are policies related to climate change and resilience to disasters. (Resilience means the ability of a city to resist, respond and adapt to emergencies and disasters).



22 - "In the city where I live, the policies related to climate change and resilience to disasters and emergencies have been improving over the past two years." Please indicate to what extent you agree or disagree with this statement:



23 - "The city where I live is improving in the construction of sustainable and resistant buildings that use local materials in the last two years. Here, resilience means a building's ability to withstand emergencies and disasters." Please indicate to what extent you agree or disagree with this statement:



Source: own design

To access the graphs of all questions, use the QR Code on page 39 or access: <http://bit.ly/relatorio-completo>

### 6.3 SANTO ANDRÉ (São Paulo)

- Factsheet**

Population: 676,407 (2010 census)

Region: Southeast of Brazil

MHDI (2010): 0.815

Santo André is a municipality in São Paulo metropolitan region. The city has the fifth largest population of the state, and the twenty-fifth of the country.

Santo André had the third largest number of participants in the Sustainable Cities Consultation. This is due to the fact that Santo André’s administration is a Colab user, has already conducted a series of public consultations, and has established a culture of participation that encourages the population to answer this kind of survey.

#### 657 PARTICIPANTS IN SANTO ANDRÉ

Estimated population: 716,109 inhabitants (IBGE, 2018)

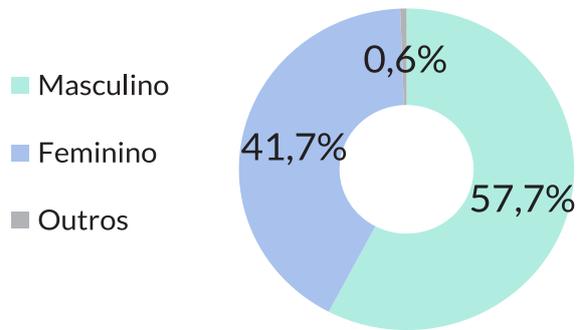
Figure 6.3.1: Map of Santo André with georeferenced participations



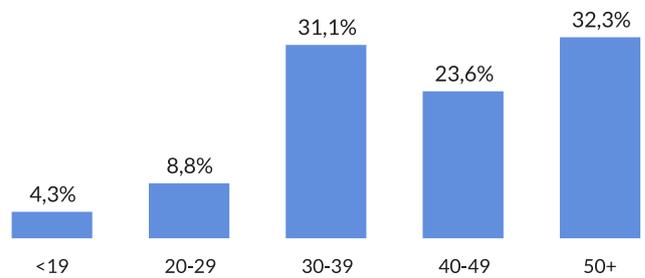
Source: own design

Figure 6.3.2: Chart of distribution by gender, age group and education of respondents from Santo André

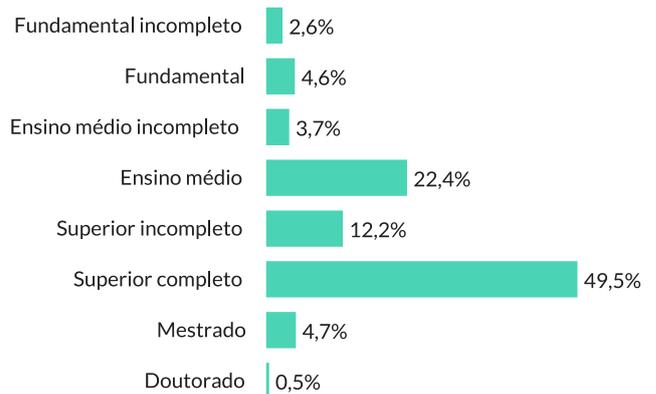
#### GENRE



#### AGE RANGE



#### SCHOOLING



Source: own design

## HOW IS THE PERCEPTION OF THE PARTICIPANTS IN SANTO ANDRÉ?

The closer the edges, the closer the city is to be sustainable, according to the participants' perception.

Figure 6.3.3: Perception of participants from Santo André



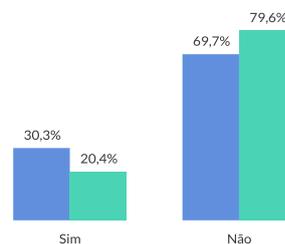
Source: own design

Sustainable and Resilient Buildings is the highest scoring field. According to the chart associated with question 23, 46.4 per cent of the participants agree that the city where they live is improving in the construction of sustainable and resilient buildings using local materials.

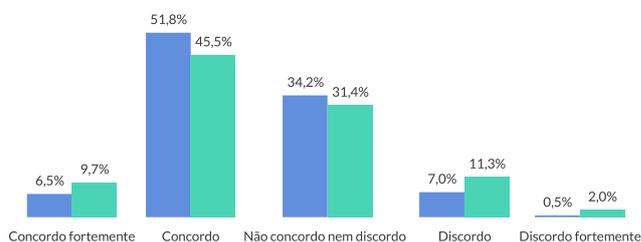
Adaptation to Climate Change is the lowest scoring field, with 69.8 per cent of the participants indicating that there are no policies related to climate change and resilience to disasters in the city where they live, as seen in the chart associated with question 21.

Figure 6.3.4: Charts of all answers from Santo André

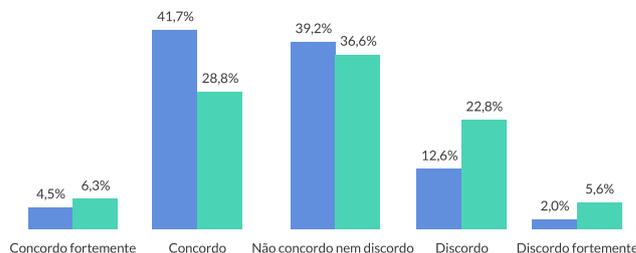
21 - In the city where I live, there are policies related to climate change and resilience to disasters. (Resilience means the ability of a city to resist, respond and adapt to emergencies and disasters).



22 - "In the city where I live, these policies related to climate change and resilience to disasters and emergencies have been improving over the past two years." Please indicate to what extent you agree or disagree with this statement:



23 - "The city where I live is improving in the construction of sustainable and resistant buildings that use local materials in the past two years. Here, resilience means a building's ability to withstand emergencies and disasters." Please indicate to what extent you agree or disagree with this statement:



Source: own design

To access the graphs of all questions, use the QR Code on page 39 or access: <http://bit.ly/relatorio-completo>

## 6.4 RIO DE JANEIRO (Rio de Janeiro)

- Factsheet**

Population: 6,320,446 (2010 census)

Region: Southeast of Brazil

MHDI (2010): 0.799

Rio de Janeiro is the capital of the state of Rio de Janeiro and the largest international tourist destination in Brazil and Latin America. Its metropolitan region is the second largest metropolis in the country. UNESCO has classified part of Rio de Janeiro, known as the Wonderful City, as a World Heritage Site. It was the capital of Brazil until 1968, when it was transferred to Brasília.

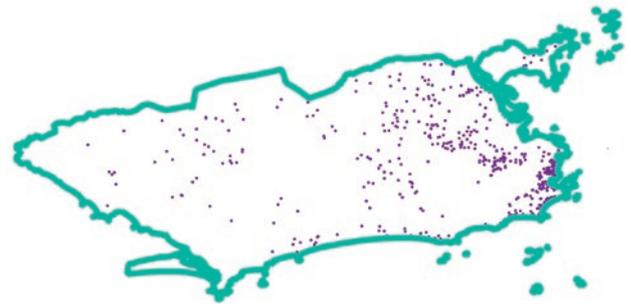
In 2018, Rio de Janeiro ranked sixth in the Connected Smart Cities general ranking, an important smart cities study comparing all municipalities in Brazil in order to identify the cities with greatest development potential in the country. With first place in the ranking, the municipality stood out in Entrepreneurship, and Technology and Innovation. It ranked third in Economy and Mobility and Accessibility, and seventh in Education.

Rio de Janeiro had the fourth highest number of participants in the Sustainable Cities Consultation. This is due to the fact that Rio de Janeiro has one of the largest populations in Brazil, and also because it is one of the six Latin American cities in the UN-Habitat program mentioned earlier in this book.

## 533 PARTICIPANTS IN RIO DE JANEIRO

Estimated population: 6,688,927 inhabitants (IBGE, 2018)

Figure 6.4.1: Map of Rio de Janeiro with georeferenced participations



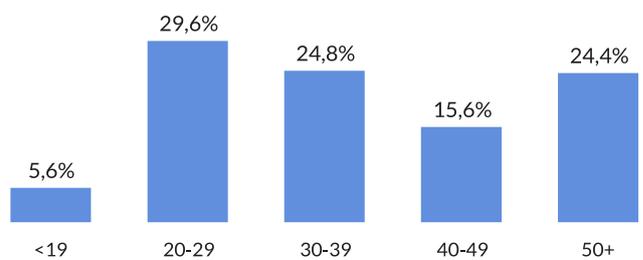
Source: own design

Figure 6.4.2: Chart of distribution by gender, age group and education of respondents from Rio de Janeiro

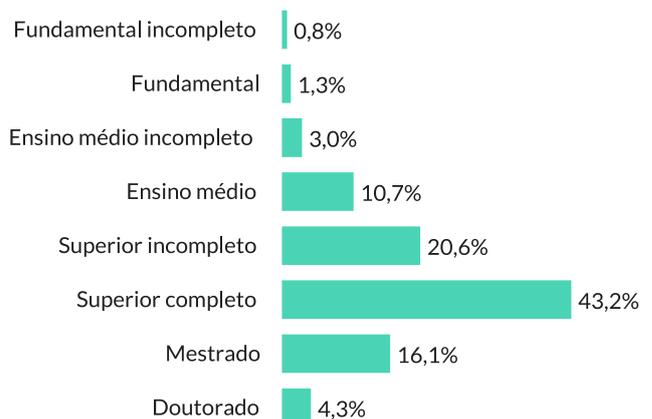
### GENRE



### AGE RANGE



### SCHOOLING



Source: own design

## HOW IS THE PERCEPTION OF THE PARTICIPANTS IN RIO DE JANEIRO?

The closer the edges, the closer the city is to be sustainable, according to the participants' perception.

Figure 6.4.3: Perception of participants from Rio de Janeiro



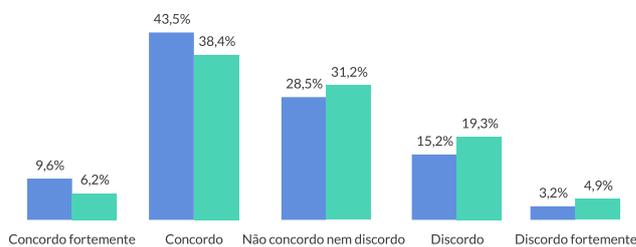
Source: own design

In the citizens' perception, Urban Life is the field with highest score, with 53.1 per cent of participants agreeing to some extent with an increase in the number of people who act to create a better urban life, as illustrated in the chart associated with question 17.

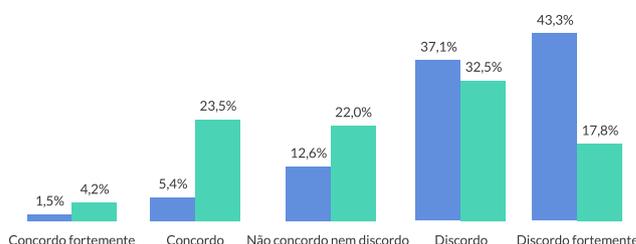
Adaptation to Climate Change is the lowest scoring section, with 78.4 per cent of the participants indicating that there are no "policies related to climate change and resilience to disasters" in the city where they live, as seen in the chart associated with question 21.

Figure 6.4.4: Charts of all answers from Rio de Janeiro

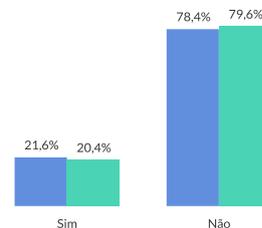
17 - "In the city where I live, the number of people (whether from the government, NGOs, activists or any other segment of society) working to create a better urban life has been increasing over the past two years." Please indicate to what extent you agree or disagree with this statement:



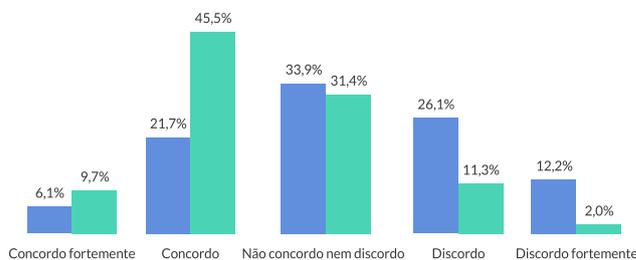
20 - "My city has been making more and more public policies dedicated to creating a better urban life, in the last two years." Please indicate to what extent you agree or disagree with this statement:



21 - In the city where I live, there are policies related to climate change and resilience to disasters. (Resilience means the ability of a city to resist, respond and adapt to emergencies and disasters).



22 - "In the city where I live, these policies related to climate change and resilience to disasters and emergencies have been improving over the past two years." Please indicate to what extent you agree or disagree with this statement:



Source: own design

To access the graphs of all questions, use the QR Code on page 39 or access: <http://bit.ly/relatorio-completo>

## 6.5 TERESINA (Piauí)

- Factsheet**

Population: 814,230 (2010 census)

Region: Northeast of Brazil

MHDI: 0.751

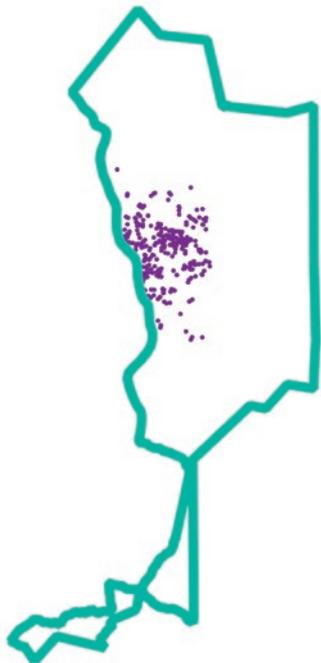
Teresina is the capital and largest city of the state of Piauí. Its Metropolitan Region has more than one million inhabitants. Teresina is considered the most developed capital in the Northeast Region of Brazil, mostly in education, health, employment and economy.

Teresina had the fifth highest number of participants in the Sustainable Cities Consultation. This is due to the fact that Teresina’s administration is a Colab user, has already conducted a series of public consultations, and has established a culture of participation that encourages the population to answer this kind of survey.

### 460 PARTICIPANTS IN TERESINA

Estimated population: 861,442 inhabitants (IBGE, 2018)

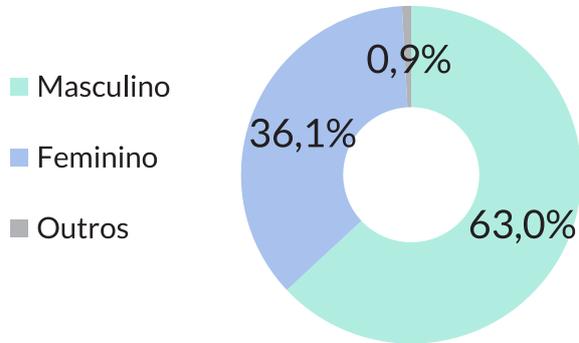
Figure 6.5.1: Map of Teresina with georeferenced participations



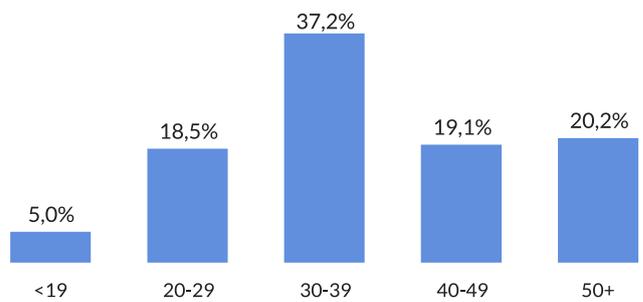
Source: own design

Figure 6.5.2: Chart of distribution by gender, age group and education of respondents from Teresina

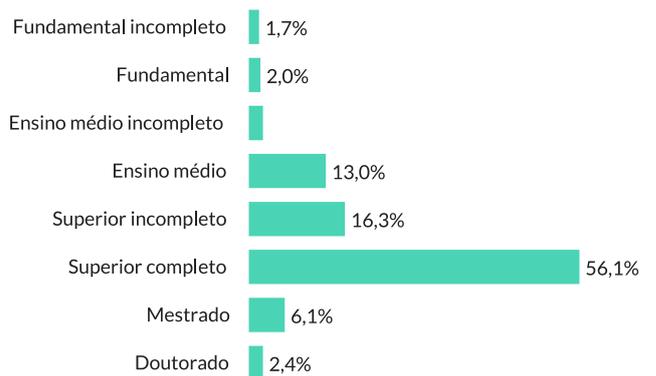
#### GENRE



#### AGE RANGE



#### SCHOOLING



Source: own design

## HOW IS THE PERCEPTION OF PARTICIPANTS IN TERESINA?

The closer the edges, the closer the city is to be sustainable, according to the participants' perception.

Figure 6.5.3: Perception of participants from Teresina



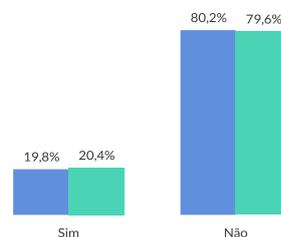
Source: own design

Sustainable and Resilient Buildings is the highest scoring field. According to the chart associated with question 23, 42.9 per cent of the participants agree that the city where they live is improving in the construction of sustainable and resilient buildings using local materials.

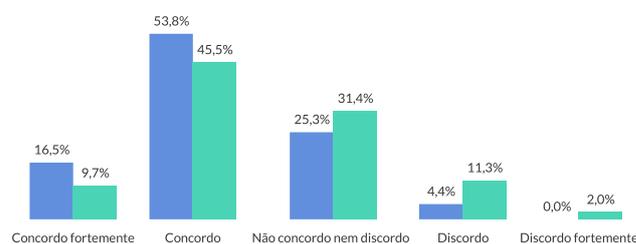
Adaptation to Climate Change is the lowest scoring field, with 80.2 per cent of the participants indicating that there are no “policies related to climate change and resilience to disasters” in the city where they live, as seen in the chart associated with question 21.

Figure 6.5.4: Charts of all answers from Teresina

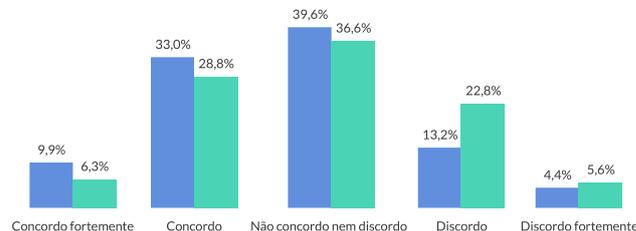
21 - In the city where I live, there are policies related to climate change and resilience to disasters. (Resilience means the ability of a city to resist, respond and adapt to emergencies and disasters).



22 - “In the city where I live, these policies related to climate change and resilience to disasters and emergencies have been improving over the past two years.” Please indicate to what extent you agree or disagree with this statement:



23 - “The city where I live is improving in the construction of sustainable and resistant buildings that use local materials in the last two years. Here, resilience means a building’s ability to withstand emergencies and disasters.” Please indicate to what extent you agree or disagree with this statement:



Source: own design

To access the graphs of all questions, use the QR Code on page 39 or access: <http://bit.ly/relatorio-completo>

## 6.6 JUIZ DE FORA (Minas Gerais)

- Factsheet**

Population: 516,247 (2010 census)

Region: Southeast of Brazil

MHDI (2010): 0.778

Juiz de Fora is a municipality in the state of Minas Gerais, and the state fourth largest population. The city has an important cultural tradition in arts and crafts and theater.

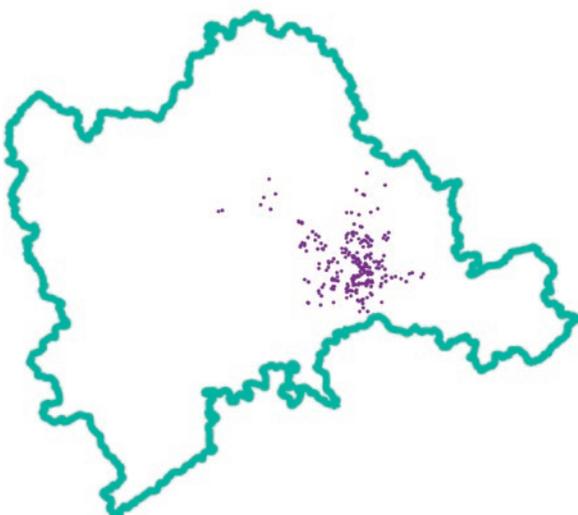
In 2018, Juiz de Fora ranked seventh in the Urbanism field of the Connected Smart Cities general ranking, an important smart cities study comparing all municipalities in Brazil in order to identify the cities with greatest development potential in the country. The municipality rose five positions in Urbanism in relation to the previous year (2017).

Juiz de Fora had the sixth highest number of participants in the Sustainable Cities Consultation. This is due to the fact that Juiz de Fora’s administration is a Colab user, has already conducted a series of public consultations, and has established a participation culture that encourages the population to answer this kind of survey.

### 341 PARTICIPANTS IN JUIZ DE FORA

Estimated population: 564,310 inhabitants (IBGE, 2018)

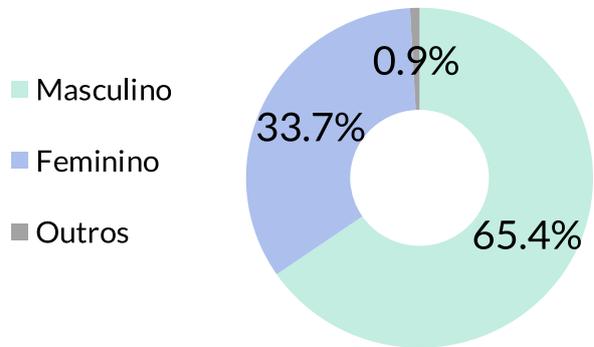
Figure 6.6.1: Map of Juiz de Fora with georeferenced participations



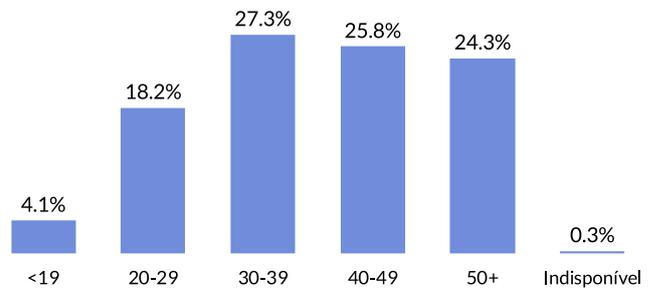
Source: own design

Figure 6.6.2: Chart of distribution by gender, age group and education of respondents from Juiz de Fora

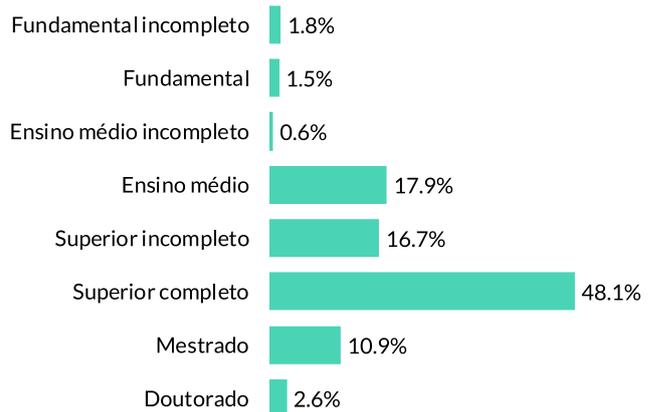
#### GENRE



#### AGE RANGE



#### SCHOOLING



Source: own design

## HOW IS THE PERCEPTION OF THE PARTICIPANTS IN JUIZ DE FORA?

The closer the edges, the closer the city is to be sustainable, according to the participants' perception.

Figure 6.6.3: Perception of participants from Juiz de Fora



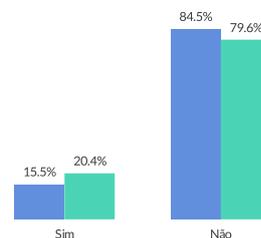
Source: own design

Sustainable and Resilient Buildings is the highest scoring field. According to the chart associated with question 23, 45.3 per cent of the participants agree that the city where they live is improving in the construction of sustainable and resilient buildings using local materials.

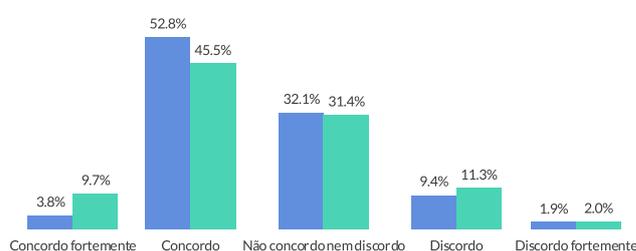
Adaptation to Climate Change is the lowest scoring field, with 84.5 per cent of the participants indicating that there are no "policies related to climate change and resilience to disasters" in the city where they live, as presented in the chart associated with question 21.

Figure 6.6.4: Charts of all answers from Juiz de Fora

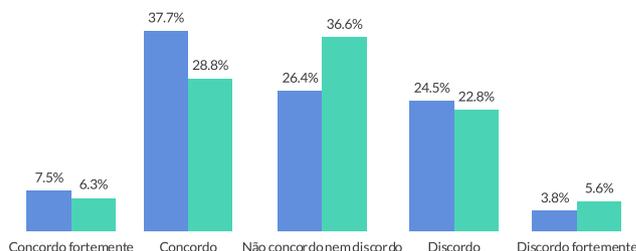
21 - In the city where I live, there are policies related to climate change and resilience to disasters. (Resilience means the ability of a city to resist, respond and adapt to emergencies and disasters).



22 - "In the city where I live, these policies related to climate change and resilience to disasters and emergencies have been improving over the past two years." Please indicate to what extent you agree or disagree with this statement:



23 - "The city where I live is improving in the construction of sustainable and resistant buildings that use local materials in the last two years. Here, resilience means a building's ability to withstand emergencies and disasters." Please indicate to what extent you agree or disagree with this statement:



Source: own design

To access the graphs of all questions, use the QR Code on page 39 or access: <http://bit.ly/relatorio-completo>

## 6.7 PORTO ALEGRE (Rio Grande do Sul)

- Factsheet**

Population: 1,409,351 (2010 census)

Region: South of Brazil

MHDI (2010): 0.805

Porto Alegre is the capital of the state of Rio Grande do Sul, the country’s southernmost state, and the tenth largest population in Brazil. The municipality presents a diverse geography with hills, lowlands and Lake Guaíba, which is the city’s main source of water supply and one of the state’s main industrial centers.

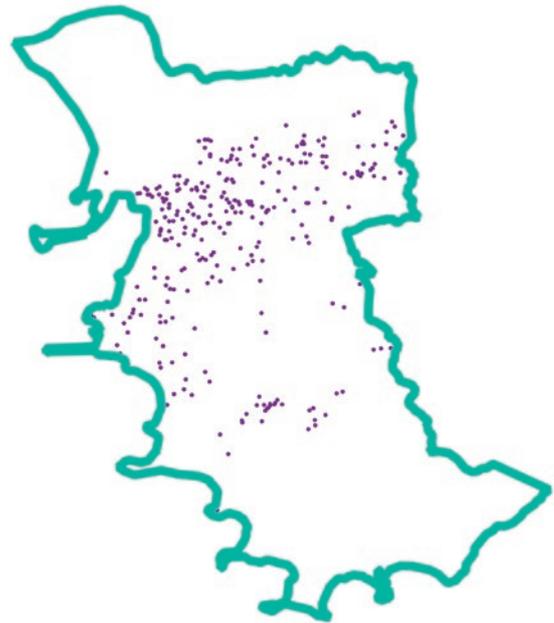
In 2018, Porto Alegre ranked eighth in the Connected Smart Cities general ranking, an important smart cities study comparing all municipalities in Brazil in order to identify the cities with greatest development potential in the country. Porto Alegre rose three positions compared to the previous year (2017). It also stood out in Technology and Innovation with the sixth place. It ranked seventh in Health, fifth in Entrepreneurship and eighth in Economy.

Porto Alegre had the seventh highest number of participants in the Sustainable Cities Consultation.

## 338 PARTICIPANTS IN PORTO ALEGRE

Estimated population: 1,479,101 inhabitants (IBGE, 2018)

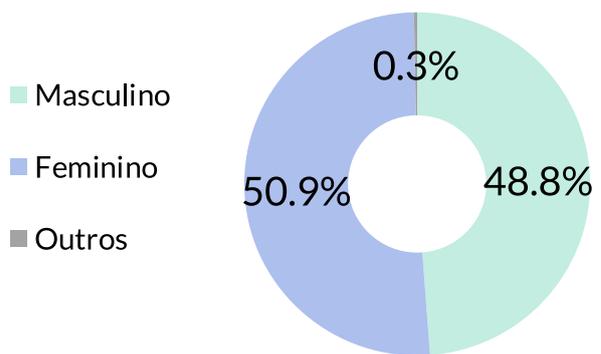
Figure 6.7.1: Map of Porto Alegre with georeferenced participations



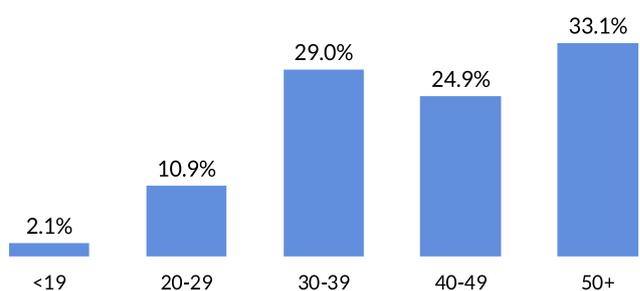
Source: own design

Figure 6.7.2: Chart of distribution by gender, age group and education of respondents from Porto Alegre

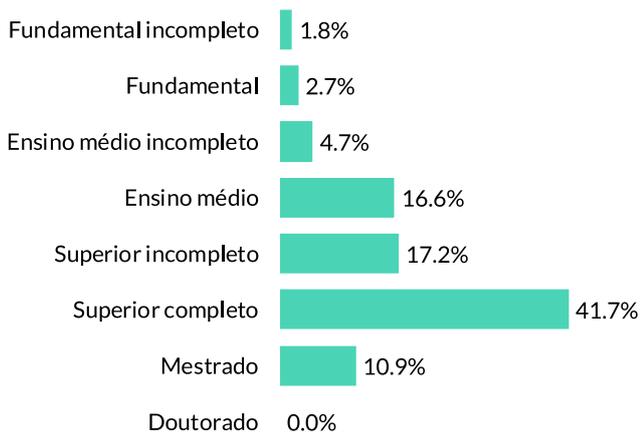
### GENRE



### AGE RANGE



## SCHOOLING



Source: own design

## COMO ESTÁ A PERCEÇÃO DOS PARTICIPANTES EM PORTO ALEGRE?

The closer the edges, the closer the city is to be sustainable, according to the participants' perception.

Figure 6.7.3: Perception of participants in Porto Alegre



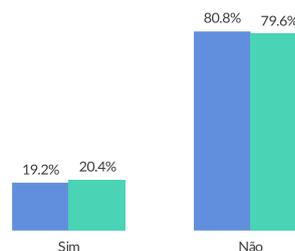
Source: own design

Sustainable and Resilient Buildings is the highest scoring field, with 29 per cent agreeing that the city where they live is improving in the construction of sustainable and resilient buildings using local materials. Despite this, 38 per cent of the participants have no opinion on the subject according to the chart associated with question 23.

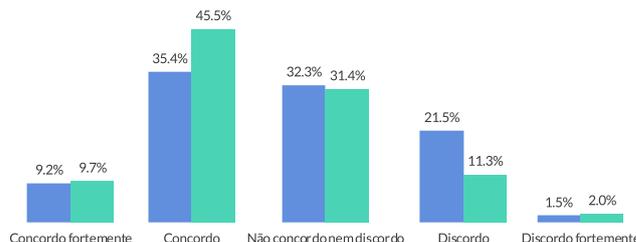
Adaptation to Climate Change is the lowest scoring field, with 80.8 per cent of the participants indicating that there are "no policies related to climate change and resilience to disasters" in the city where they live, as seen in the chart associated with question 21.

Figure 6.7.4: Charts of all answers from Porto Alegre

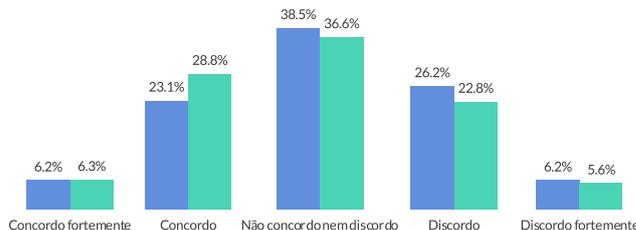
21 - In the city where I live, there are policies related to climate change and resilience to disasters. (Resilience means a city's ability to resist, respond and adapt to emergencies and disasters).



22 - "In the city where I live, these policies related to climate change and resilience to disasters and emergencies have been improving over the past two years." Please indicate to what extent you agree or disagree with this statement:



23 - "The city where I live is improving in the construction of sustainable and resistant buildings that use local materials in the last two years. Here, resilience means a building's ability to withstand emergencies and disasters." Please indicate to what extent you agree or disagree with this statement:



Source: own design

To access the graphs of all questions, use the QR Code on page 39 or access: <http://bit.ly/relatorio-completo>

## 6.8 RECIFE (Pernambuco)

- Factsheet**

Population: 1,537,704 (2010 census)

Region: Northeast of Brazil

MHDI (2010): 0.772

Recife is the capital of the state of Pernambuco, the country's fourth most populated urban settlement, and the richest agglomeration in the North-Northeast region. Recife has great influence on federal politics and a strong cultural tradition. The city is a tourist destination and its geography includes islands, peninsulas and mangroves.

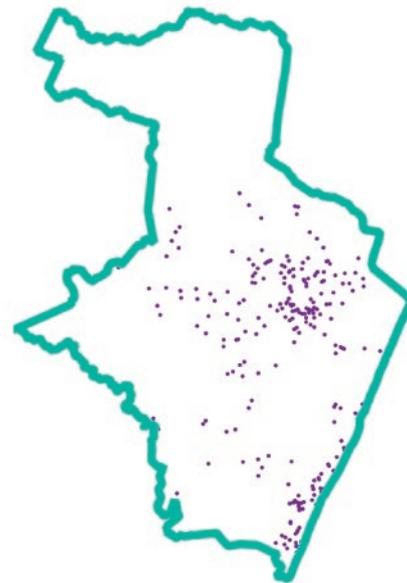
In 2018, Recife was the leading Northeast city in the Connected Smart Cities general ranking, an important smart cities study comparing all municipalities in Brazil in order to identify the cities with greatest development potential in the country. Recife ranked ninth in Mobility and Accessibility, eighth in Technology and Innovation, sixth in Education and Entrepreneurship, and fourth in Governance.

Recife had the eighth highest number of participants in the Sustainable Cities Consultation. It is the country's ninth largest city, which explains its prominence in the consultation. This is also due to the fact that Recife's administration is a Colab user, has already conducted a series of public consultations, and has established a participation culture that encourages the population to answer this kind of survey.

## 321 PARTICIPANTS EM RECIFE

Estimated population: 1,637,834 inhabitants (IBGE, 2018)

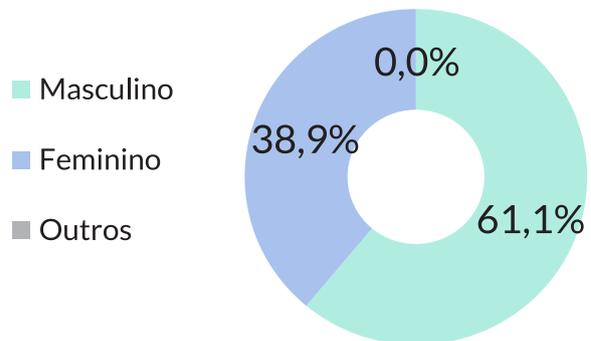
Figure 6.8.1: Map of Recife with georeferenced participations



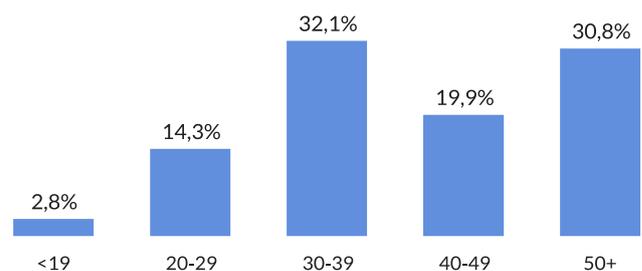
Source: own design

Figure 6.8.2: Chart of distribution by gender, age group and education of respondents from Recife

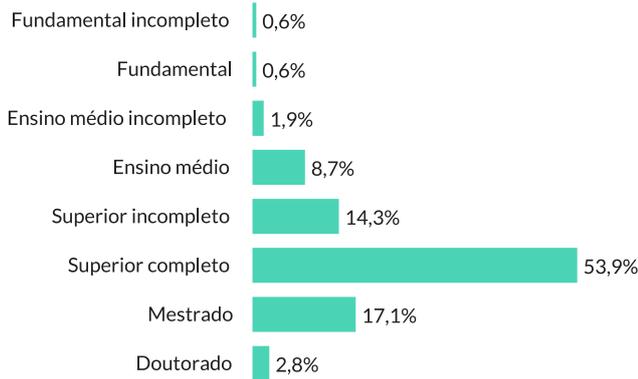
### GENRE



### AGE RANGE



## SCHOOLING



Source: own design

## HOW IS THE PERCEPTION OF PARTICIPANTS IN RECIFE?

The closer the edges, the closer the city is to be sustainable, according to the participants' perception.

Figure 6.8.3: Perception of participants from Recife



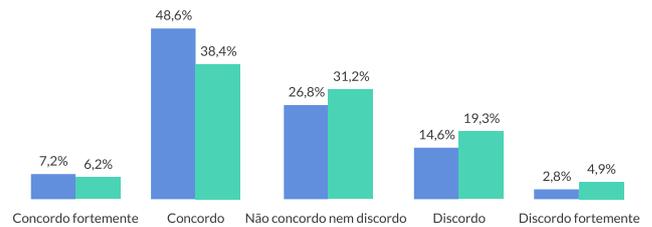
Source: own design

In the citizens' perception, Urban Life is the field with the highest score with 55.8 per cent of the participants agreeing to some extent with an increase in the number of people who act to create a better urban life, as shown in the chart associated with question 17.

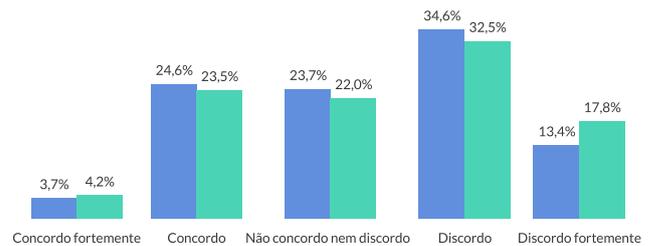
Adaptation to Climate Change is the lowest scoring section, with 81.9 per cent of the participants indicating that there are no "policies related to climate change and disaster resilience" in the city where they live, as presented in the chart associated with question 21.

Figure 6.8.4: Charts of all answers from Recife

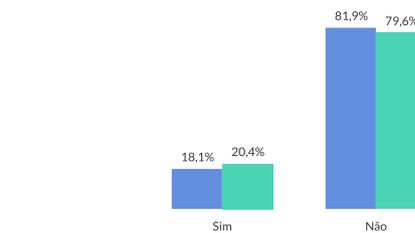
17 - "In the city where I live, the number of people (whether from the government, NGOs, activists or any other segment of society) working to create a better urban life has been increasing over the past two years." Please indicate to what extent you agree or disagree with this statement:



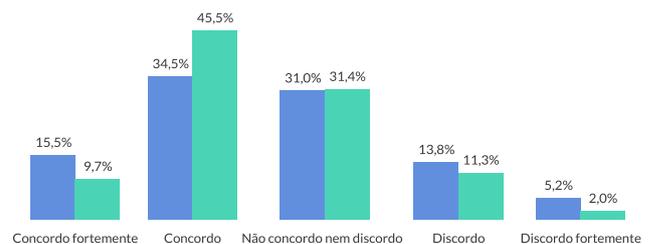
20 - "My city has been making more and more public policies dedicated to creating a better urban life, in the last two years." Please indicate to what extent you agree or disagree with this statement:



21 - In the city where I live, there are policies related to climate change and resilience to disasters. (Resilience means the ability of a city to resist, respond and adapt to emergencies and disasters).



22 - "In the city where I live, these policies related to climate change and resilience to disasters and emergencies have been improving over the past two years." Please indicate to what extent you agree or disagree with this statement:



To access the graphs of all questions, use the QR Code on page 39 or access: <http://bit.ly/relatorio-completo>

## 6.9 CAÇAPAVA (São Paulo)

- Factsheet**

Population: 84,752 (2010 census)

Region: Southeast of Brazil

MHDI (2010): 0.788

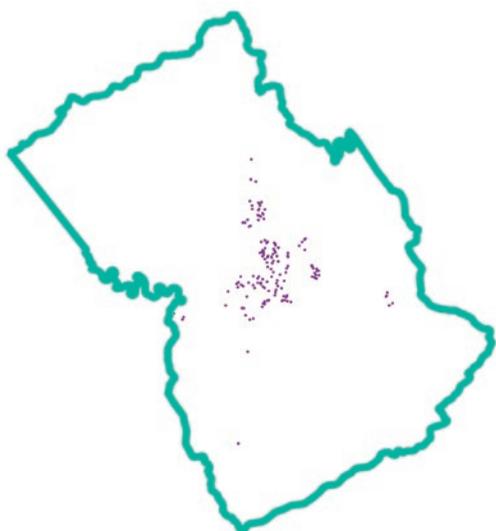
Caçapava is a municipality in the state of São Paulo, located between São José dos Campos and Taubaté in the Vale do Paraíba. It is among the state’s one hundred largest municipalities, and its history is closely related to coffee plantation, which had strong presence the state.

Although Caçapava ranks 330th in Brazilian population, it had the ninth highest number of participants in the Sustainable Cities Consultation because it counted on engagement actions by a young local citizen who joined the Ambassadors Program. This ambassador approached schools and other associations in the city to publicize the Sustainable Cities Consultation, bringing attention to this municipality, never analyzed before.

### 278 PARTICIPANTS EM CAÇAPAVA

Estimated population: 93,488 inhabitants (IBGE, 2018)

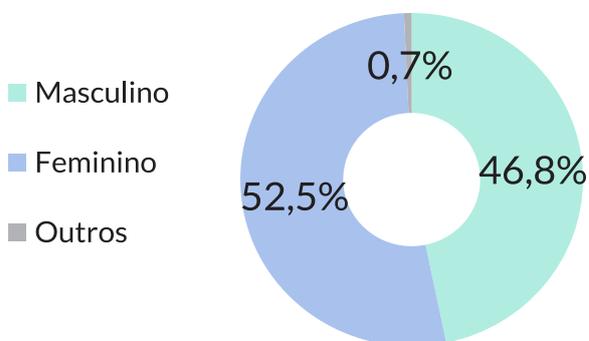
Figure 6.9.1: Map of Caçapava with georeferenced participations



Source: own design

Figure 6.9.2: Gráficos da distribuição de Genre, age range e schooling dos respondentes de Caçapava

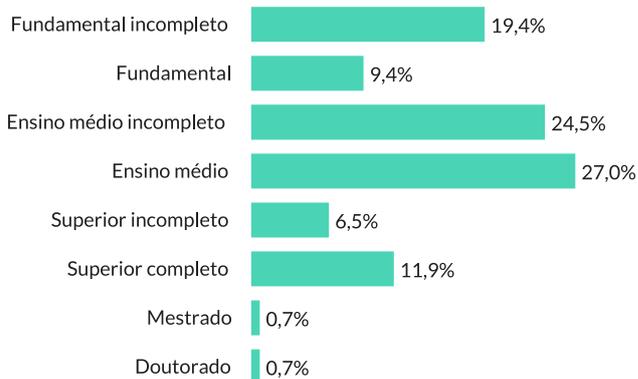
### GENRE



### AGE RANGE



### SCHOOLING



Source: own design

## HOW IS THE PERCEPTION OF PARTICIPANTS IN CAÇAPAVA?

The closer to the ends, the closer the city is to being sustainable, in the perception of the participants.

Figure 6.9.3: Perception of participants from Caçapava



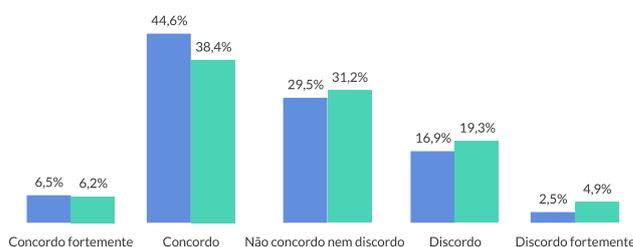
Source: own design

In the participants' perception, Urban Life is the field with the highest score with 51.1 per cent of the participants agreeing to some extent with an increase in the number of people who act to create a better urban life, according to the chart associated with question 17.

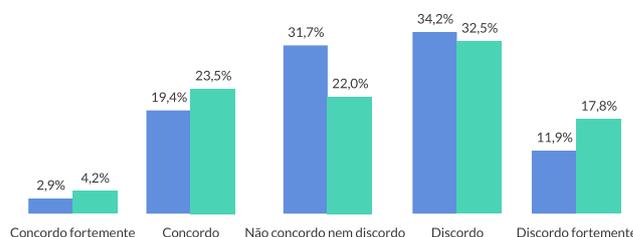
Adaptation to Climate Change is the lowest scoring field, with 84.2 per cent of the participants indicating that there are no "policies related to climate change and resilience to disasters" in the city where they live, as presented in the chart associated with question 21.

Figure 6.9.4: Charts of all answers from Caçapava

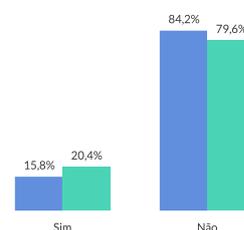
17 - "In the city where I live, the number of people (whether from the government, NGOs, activists or any other segment of society) working to create a better urban life has been increasing over the past two years." Please indicate to what extent you agree or disagree with this statement:



20 - "My city has been making more and more public policies dedicated to creating a better urban life, in the last two years." Please indicate to what extent you agree or disagree with this statement:



21 - In the city where I live, there are policies related to climate change and resilience to disasters. (Resilience means the ability of a city to resist, respond and adapt to emergencies and disasters).



22 - "In the city where I live, these policies related to climate change and resilience to disasters and emergencies have been improving over the past two years." Please indicate to what extent you agree or disagree with this statement:



Source: own design

To access the graphs of all questions, use the QR Code on page 39 or access: <http://bit.ly/relatorio-completo>

## 6.10 CURITIBA (Paraná)

- Factsheet**

Population: 1,751,907 (2010 census)

Region: South of Brazil

MHDI (2010): 0.823

Curitiba is the capital of the state of Paraná, and has the eighth largest population in Brazil. An important commercial center in the country, it is close to Port of Paranaguá, Latin America’s largest port for grain shipment, and Brazil’s third largest container shipping port. Curitiba is reference in Brazil in the area of intelligent cities and public policy.

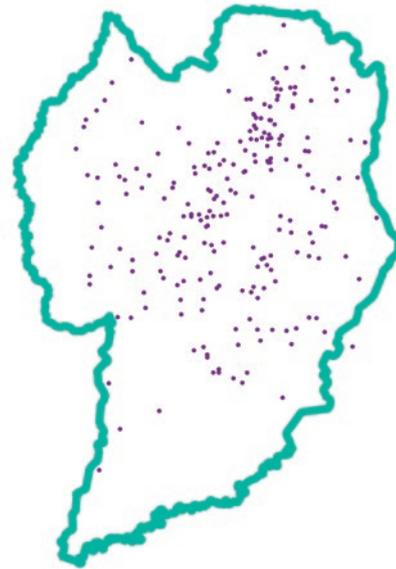
In 2018, Curitiba outdid São Paulo and came first in the Connected Smart Cities general ranking, an important smart cities study comparing all municipalities in Brazil in order to identify the cities with greatest development potential in the country. The municipality ranked second in Urbanism, Entrepreneurship and Governance, third in Technology and Innovation, fifth in Education and in Mobility and Accessibility, and ninth in Economy.

Curitiba had the tenth highest number of participants in the Sustainable Cities Consultation. With one of the 10 largest populations in Brazil, this position corresponds to the expectations. In addition, for standing out as a *smart city*, Curitiba has a strong culture of civic engagement and digital inclusion.

## 247 PARTICIPANTS IN CURITIBA

Estimated population: 1,917,185 inhabitants (IBGE, 2018)

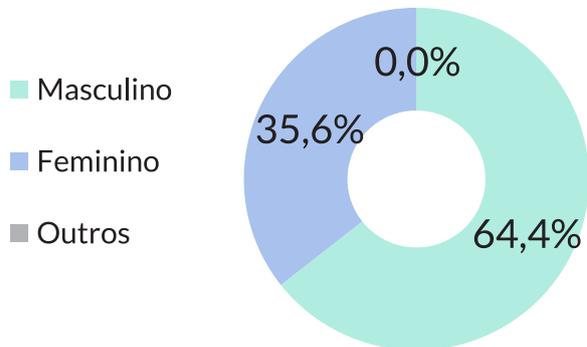
Figure 6.10.1: Map of Curitiba with georeferenced participations



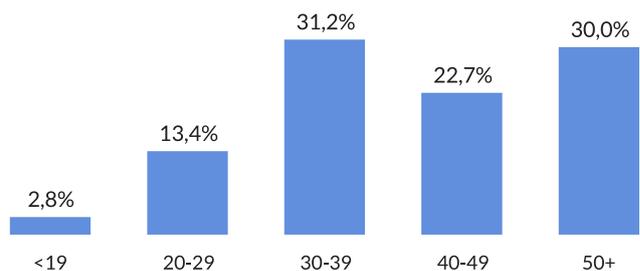
Source: own design

Figure 6.10.2: Chart of distribution by gender, age group and education of respondents from Curitiba

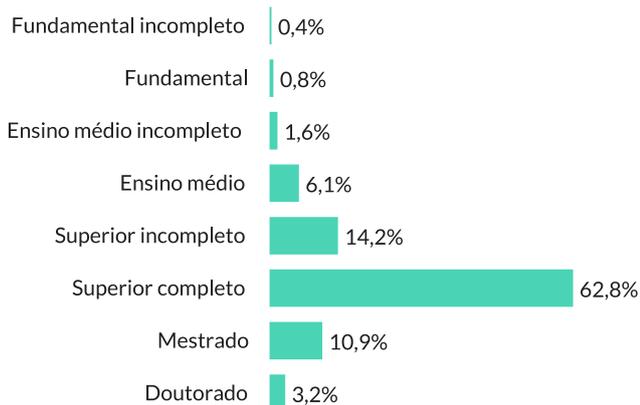
### GENRE



### AGE RANGE



## SCHOOLING



Source: own design

Figure 6.10.3: Perception of participants from Curitiba

## HOW IS THE PERCEPTION OF THE PARTICIPANTS IN CURITIBA?

The closer to the ends, the closer the city is to being sustainable, in the perception of the participants.



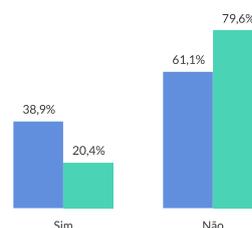
Source: own design

Sustainable and Resilient Buildings is the highest scoring field. According to the chart associated with question 23, 54.2 per cent of the participants agree that the city where they live is improving in the construction of sustainable and resilient buildings using local materials.

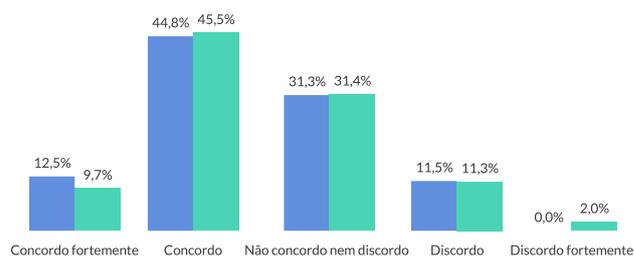
Adaptation to Climate Change is the lowest scoring field, with 61.1 per cent of the participants indicating that there are no "policies related to climate change and resilience to disasters" in the city where they live, as presented in the chart associated with question 21.

Figure 6.10.4: Charts of all answers from Curitiba

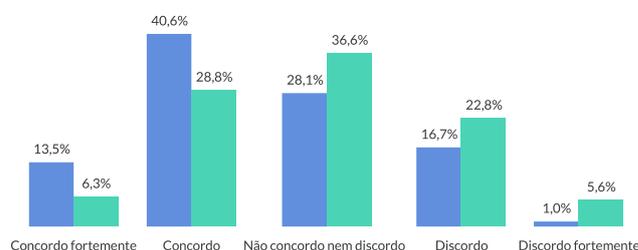
21 - In the city where I live, there are policies related to climate change and resilience to disasters. (Resilience means the ability of a city to resist, respond and adapt to emergencies and disasters).



22 - "In the city where I live, these policies related to climate change and resilience to disasters and emergencies have been improving over the past two years." Please indicate to what extent you agree or disagree with this statement:



23 - "The city where I live is improving in the construction of sustainable and resistant buildings that use local materials in the last two years. Here, resilience means a building's ability to withstand emergencies and disasters." Please indicate to what extent you agree or disagree with this statement:



Source: own design

To access the graphs of all questions, use the QR Code on page 39 or access: <http://bit.ly/relatorio-completo>



# How to manage the Sustainable Development Goals at the municipal level

As previously shown, the Sustainable Cities Consultation produced a relevant number of data related to Brazilian municipalities. Data show the citizens' perception from the perspective of people affected by all city features. The intention in this chapter is not to focus on the perspective of the affected people, but on the ones with responsibilities, and then think about what is needed to implement changes that can transform the population's perception of sustainability in the territory where they live.

There are multiple actors in a city carrying out interventions and also sharing responsibilities to both take care of spaces and provide improvements for the public well-being. In relation to the Sustainable Cities Consultation fields, there are aspects of municipal and state responsibility which can be shared between these two spheres, such as transportation. There are also aspects that can be influenced by the municipal, state, or federal level, such as participation and transparency.

In addition, cities are affected by the private sector, international organizations, civil society organizations, citizens and environmental issues, which should be taken into consideration so their effects can be minimized.

The understanding of this context of multiple actors interfering in one place is fundamental to comprehend the issues that need to be changed in order to achieve the 2030 Agenda. It is possibly the only way to implement it and achieve a scenario close to sustainable development. For this to happen, we stress three premises that need to be taken into consideration: the importance of

applying actions at a local level, the use of data and the importance of involving different actors.

## 7.1 Global Agenda - Local implementation

The first premise is that the 2030 Agenda is a global agenda with local implementation. A first and more quantitative reason for this is that municipalities are directly responsible for the execution of a considerable number of tasks for the achievement of the SDGs, according to commitments of national governments. Around 65 of the 2030 Agenda targets could not be fully achieved without the contribution of regional and local governments.

All the SDGs have targets that are directly related to responsibilities of local and regional governments. Achieving them depends most importantly on the capacity of these governments to promote integrated, inclusive and sustainable territorial development. This development ranges from setting targets and objectives to determining means of implementation and using indicators to measure and monitor progress.

For their achievement, all these steps benefit from the use of social participation. The report *Fostering Participation in Agendas for Sustainable Cities (Construindo a Participação em Agendas para Cidades Sustentáveis)* prepared by Instituto Arapyaú and the Center for Sustainability Studies of the Getulio Vargas Foundation (*GVces for its acronym in Portuguese*) states that local sustainable development agendas should be understood as processes. Their execution may involve social participation in engaging, diagnosing, formulating, implementing, evaluating and monitoring this agenda.

Besides, as the level closest to citizens, local governments have a large share of the responsibility of ensuring that the SDGs do not exclude any person or area, especially because the 2030 Agenda is known as the "People's Agenda"<sup>7</sup>. Therefore, they are responsible for ensuring that all regions are properly included in public policies aligned with the SDGs, and this is done through both data monitoring — described in the second premise — and existing plans and strategies.

This aspect resumes something important about the local application of the SDGs, that it is not required from each municipality to develop an exclusive application plan of the 2030 Agenda, but that the SDGs be integrated into existing plans and agendas, such as the Multiannual Plan, Master Plan and Urban Mobility Plan.

Besides, there are other aspects that stress the importance of the local government level. Cities are able to identify not only urgent needs and development gaps, but also local actors, both from the private sector and civil society. Governments can include them into actions that contribute to the achievement of the 2030 Agenda, and this is connected with the third premise about collaboration.

## 7. 2 The importance of data

The second premise concerns the importance of a data-oriented culture, where data serve both to guide the city's sustainable development plans and to help monitor and evaluate its performance. These data can come from different sources, and one of them, mentioned in the first premise and related to this book, is research conducted with citizens.

The Sustainable Cities Consultation provides a mapping that reveals the population's perception of SDG 11 in their municipality. Results for each question can be used to evaluate the implemented public policies and their communication. Certain topics, if not properly disclosed, will never be known to citizens, who may have a perception that does not include actions undertaken by public authorities.

Besides, the georeferenced data from the Sustainable Cities Consultation allow locating the areas that should be prioritized according to the citizens' perception. Such priority identification is crucial in administrative and political decision-making as each region may need a different focus and encourages planning that places the citizens' needs at the center of the prioritization.

In their planning, it is essential that municipalities set goals that are within their scope of action and that correspond to the mandate of the local government. In other words, it is important to make proposals based on data that consider the needs and governability, adapting the proposal to the municipality social, political and economic context. Besides, it is important to establish project governance — an aspect previously mentioned and further elaborated in the next chapter — and mechanisms to monitor such planning, which should be based on continuous data evaluation.

Therefore, planning should be done with the acknowledgement of existing strategies and their adaptation to integrate the strategic targets linked to the SDGs and the new data consolidated by the Sustainable Cities Consultation. Based on the results of this consultation, the municipalities can integrate the revealed needs into the ongoing planning, instead of waiting for the next cycle of government planning.

Finally, planning is not only about setting strategic goals, but also constant communication and exchange among the involved actors, from diagnosis to the evaluation final stage, which

---

<sup>7</sup> *Building participation in agendas for sustainable cities: Analysis of four experiences in Brazil. Available at: [http://mediadrawer.gvces.com.br/publicacoes-2/original/2017\\_participacao-cidades-s-ustentaveis-final-correcao.pdf](http://mediadrawer.gvces.com.br/publicacoes-2/original/2017_participacao-cidades-s-ustentaveis-final-correcao.pdf)*

feeds a new cycle by providing a diagnosis. Once indicators are selected, monitoring is essential to create evaluation routines and ensure that targets are met.

### 7.3 Shared and collaborative governance

Already briefly mentioned, the third premise is about the involvement of different actors. Within SDG 11, there are issues of state or even federal responsibility. The importance of carrying out actions that include different actors for the success of public policies is widely known. The success of the 2030 Agenda follows the same principle.

It is in cities that the battle for sustainable development will be won or lost, and that is why

the 2030 Agenda became known as a global agenda to be locally implemented. For it to be successful, there must be an exchange of practices between global, national, state and municipal levels, so that these spheres can all learn from one another's experiences, and collaborate in the SDGs implementation. In this scenario, Colab has been developing with several Brazilian municipalities a new public management model based on collaboration, built as a triangle that aims at efficient management, citizen participation in decision-making and society engagement for the benefit of citizens.

Already implemented with proven innovation, this model helps Brazilian municipalities with the implementation of part of the 2030 Agenda. Its methodology is explained in the following chapter.



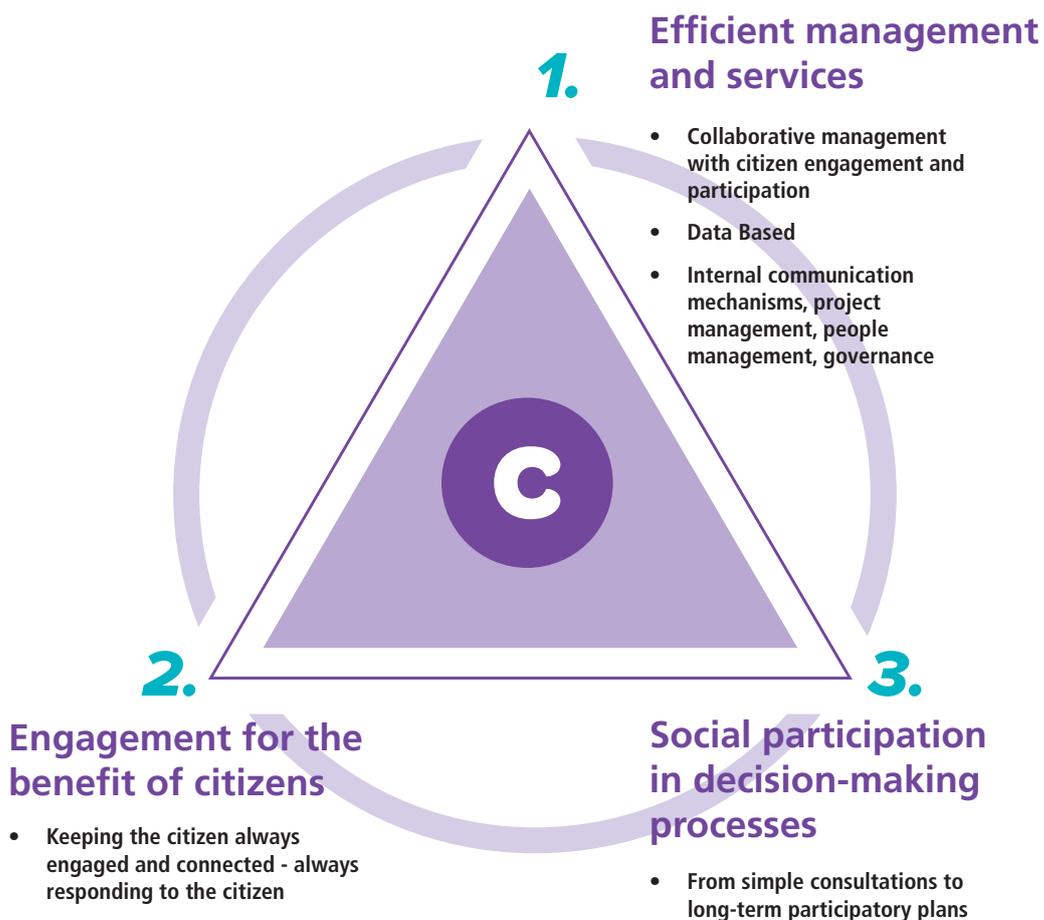
# The Collaborative Public Administration Triangle

Inspired by the strategic triangle designed by Mark Moore<sup>8</sup>, Colab developed its own Collaborative Public Administration Triangle. With years of experience working with the public sector, Colab developed a work methodology that contributes to an open, collaborative, responsive, experimental and co-creative public administration. Bringing together efforts among public administrators, private sector and population, the implementation

of this methodology aims to foster improvements in governments and create public value for society.

The Collaborative Public Administration Triangle developed by Colab presents three fundamental pillars: (I) efficient management and services, (II) social participation in decision-making processes and (III) engagement for the benefit of citizens.

Figure 8.1: The Collaborative Public Administration Triangle



Source: own design

8 MOORE, M. H. *Creating Public Value*. Michigan, Michigan University Press, 1995.

Although each of the three dimensions can be analyzed and conceptualized separately, the triangle represents a nonlinear cycle in which these dimensions interact and strengthen one another. Social participation, for example, contributes to knowing citizens' wishes and expectations in relation to governments, which can lead to a more efficient management when meeting demands. Showing results and increasing citizen satisfaction contribute in turn to a greater involvement from the population in public affairs and its engagement in the transformation of cities.

The following section presents an analysis of each of the Collaborative Public Administration Triangle pillars.

### 8.1 Efficient management and services

The quest for efficient management engenders many transformations in the transition from the old to the new public administration. It mostly undergoes a culture change that prioritizes focus on results, public spending optimization and citizens' satisfaction. It requires more quality in the services provided and, as Coutinho (2000, p.49)<sup>9</sup> states, "quality entails [...] greater effectiveness and efficiency. That is, it requires that the services provided to the public have a real impact on their needs and expectations, while improving the relationship between resources used and obtained results".

Responsible and coherent public management planning is needed to achieve this efficiency: a planning that includes good reality diagnosis, knows how to identify priorities and establishes tangible plans and goals. Public policy making requires an in-depth study of its context, at the risk of becoming ineffective or producing unexpected effects.

Furthermore, it is very important that the different administrative levels communicate. For policies at the national level, the federation, states, federal district and municipalities must align their policies

and join efforts. For that, the administrators need to know the competence of their level and establish their areas of action. There are matters whose legislative competence is exclusive to the federal government; others, however, are of co-occurring competence. In the latter case, the federal government establishes general guidelines and norms, leaving to the other federative levels the additional competence. Besides the alignment between the federative levels, consistency in the bodies and entities of the same sphere is essential. As discussed above, the different areas should be aligned and act jointly to foster collaboration among different sectors.

The federal constitution not only presents efficiency as a public administration principle (art. 37, CF/88), but also encourages more strategic and efficient management, requiring budgeting from different government levels. By means of this planning, public authorities must outline the areas where public resources will be invested, estimate what the tax revenue will be and forecast their expenses. There are three budgeting laws: the Pluriannual Plan (PPA, for its acronym in Portuguese), the Budgeting Guideline Law (LDO, ditto) and the Annual Budgeting Law (LOA, ditto). The PPA presents the administration guidelines, objectives and goals for four years, that is, a medium-term planning with public administration strategic vision. The LDO, on the other hand, comprises annual goals and priorities, taking into account the guidelines established in the PPA. Finally, the LOA, also annually designed, is the budgeting itself: it forecasts the tax revenue and breaks expenses down into different areas.

Budgeting aims to promote responsible public resource management that plan the tax revenue in advance, define strategic investment areas and determine expenses in the short and medium terms. Besides, budgeting reinforces transparency in public management, makes expenses more predictable, and foster social participation through participatory budgeting initiatives.

<sup>9</sup> COUTINHO, M. J. V. *Citizen-oriented public administration: conceptual theoretical framework*. *Revista do Serviço Público*, year 51, n. 3, p.40-73, 2000.

Master Plans are another planning mechanism prescribed in the constitution. A basic instrument of development and urban expansion policy, a master plan is mandatory in municipalities with more than 20,000 inhabitants. The purpose of this document is to present a set of short and long-term proposals for socio-economic development, as well as spatial organization of urban land and infrastructure networks (VILLAÇA, 1999)<sup>10</sup>. Urban policy should regulate the use of property for the benefit of the common good, security, citizens' well-being and environmental balance so cities achieve a well-adjusted and organized growth (Law 10.257/2001, City Statute). Besides city strategic planning, urban policy is also guided by a democratic administration that ensures population participation in the design, execution and monitoring of urban development projects.

In addition to these mechanisms foreseen by the federal constitution, it is essential to stress the importance of principles and values such as efficiency, transparency, publicity and social participation in supporting the planning, which should not be a mere formality to be fulfilled by a document. Similarly, holding public hearings and consultations must not only mean addressing a legal requirement. It must represent true social participation in which citizens are informed and engaged in making improvements. Effectively taking democratic principles into account is essential for the creation of more representative and plural policies.

In other words, efficient management basically involves good project management — which happens both in the planning mentioned above and in the various projects and public policies developed by the government. The implementation of a management perspective contributes to the strengthening of practices related to project and people management in the public sector that incorporates a whole framework of strategies, objectives, goals, and performance and outcome evaluations.

In addition to project management, people management must receive great emphasis. Public administration has incorporated practices for evaluating civil servants' performance and structuring bonuses in accordance with their results, despite a rigid context. Besides, some government agencies introduced more objective criteria for promotions and appointments in order to ensure unbiased and more impersonal choices.

Public administration starts to value strategic planning that shows the institution's mission, vision and values. In this way, civil servants think together of what the organization wants to achieve, the objectives and goals to be monitored, the action plans to be created, what are the performance guiding principles and the external influencing factors. In short, strategic planning contributes to furthering the institution in its quest for results, helping to anticipate threats and making improvement diagnoses.

Similarly, it is worth mentioning the 2016-2019 Digital Governance Strategy (EGD, for its acronym in Portuguese) prepared by the federal government. This strategy is aligned with the efficiency, economy and effectiveness wanted by public administration, and brings together technological innovation, social participation and transparency. The purpose of the EGD is to guide existing digital government initiatives at the federal level, aiming to expand access to information, improve digital public services and encourage social participation.

*Governance structuration broadens possibilities of social participation and collaborative design of innovative policies and initiatives in digital government, in order to offer better services that meet the requirements of transparency and accountability to society (BRASIL, 2016, p.7).*

<sup>10</sup> VILLAÇA, F. A contribution to the history of urban planning in Brazil. In: DEÁK, C.; SCHIFFER, S.R. (Org.) *The urbanization process in Brazil*. São Paulo: EdUSP, p. 169 - 243, 1999.

In addition to the EGD, there are other examples of plan and strategy that guide the performance of public administrators in various government sectors: the national education plan, national culture plan, national public security policy and municipal housing plan.

It is worth mentioning that, although public administration is applying some private sector practices to their work approach, though in a lagged manner, it does not lose its main idiosyncrasy. While the private sector aims at profit, the public sector aims to serve public interest. As Coutinho explains:

*[...] while it is important to achieve efficient public administration, preserving democratic values is a priority. Likewise, the introduction of practices and organizational concepts from the private sector should not replace the state greater objective, the public interest. The primary specificity of the public sector is its eminently political character (COUTINHO, 2000, p. 43).*

Therefore, efficient management in the public sector differs from that of the private sector, as the objective to be achieved by the former is to provide better services, optimize resources and satisfy citizens. And the citizen as a focal point is the differential in the Collaborative Public Administration Triangle.

## 8.2 Social participation in decision-making

Representative democracy, in which citizens choose their representatives by means of voting and the latter act on their behalf, started to present some limitations in meeting society's demands. The allocation of decision-making power to the representatives has not proved sufficient to ensure the legitimacy of their decisions, as representatives are often far away and have interests that differ from

those of the population. Moreover, representatives are not necessarily a faithful portrait of society. The distribution of the population profile often does not correspond to the distribution of those occupying a representative position, so that many groups and agendas are under-represented.

It is impractical to establish direct democracy — in which citizens participate directly in politics without electing representatives — in places with large populations. It is necessary to think of new mechanisms to overcome some of the representative model shortcomings and increase social participation in public decision-making processes.

Social participation is a way of strengthening democracy, allowing citizens to be involved, especially in issues that affect them. Active citizenship includes not only the responsibility to vote, but also the discussion of public problems, debate on new proposals, collaboration in public space and opinion in deliberations.

*Social participation [...] broadens and strengthens democracy, contributes to a culture of peace, dialogue and social cohesion, and is the backbone of social development, equity and justice. We believe that participatory democracy is an excellent method to face and solve fundamental problems in the Brazilian society (LAMBERTUCCI, 2009, p. 71).<sup>11</sup>*

This public administration transition process aims at governance that is more receptive, welcoming to the population actions, and that places the citizen as a collaborative administration protagonist. Tina Nabatchi and Matthew Leighninger (2015, p.14)<sup>12</sup> describe public participation as "the activities by

<sup>11</sup> LAMBERTUCCI, Antonio Roberto. *Social participation in the Lula government*. In: AVRITZER, Leonardo (org.). *National experiences of social participation*. São Paulo: Cortez, 2009. (Participatory Democracy Collection)

<sup>12</sup> NABATCHI, T.; LEIGHNINGER, M. *Public Participation for 21st Century Democracy*. Hoboken New Jersey: John Wiley & Sons. 2015.

which people's concerns, needs, interests and values are included in decisions and actions on issues and public affairs". In this case, it is not enough to allow the citizen to speak, but it is also necessary to be willing to listen to them and take their opinion into account.

Participatory budgeting is another important innovation in social participation in decision-making processes. Mandatory in several Brazilian municipalities (prescribed by the Organic Law of each municipality), participatory budgeting includes citizens in the debate and in decisions on municipal expenditures. The population can establish priority areas in which the municipality should invest, which contributes to decisions about the city's future. This policy encourages citizens' involvement in budgeting, inspection of public expenses and active citizenship.

Participation in decision-making processes can directly contribute to an increase in public action legitimacy. In a scenario in which most acts are carried out within state structure, in an environment restricted to public administrators, population involvement becomes crucial to ensure plurality and representativeness in these actions. The involvement of citizens, the most affected by public actions, gives greater value to government decisions, which promotes consensus and norm acceptance.

Besides legitimacy, participation can produce more efficient policies. The involvement of citizens, their true users, contributes to developing more effective and suitable policies. Citizens have no longer a supporting role and become co-responsible for finding solutions for collective problems.

13 FREITAS, R.K.V.; DACORSO, A.L.R. *Open innovation in management public: analysis of the Brazilian action plan for the Open Government Partnership. Revista de Administração Pública, [s.l.], v. 48, n. 4, p.869-888, Aug. 2014.*

### 8.3 Commitment for the benefit of citizens

The third essential point for the implementation of a collaborative administration is the engagement for the benefit of citizens. In addition to efficient management and social participation, a population effort to build a better society is fundamental. At this point, citizens are required to adopt a more active stance in making improvements, creating public policy and transforming their immediate environment.

The role of citizens in representative democracy should not be restricted to choosing their candidates in election times. On the contrary, the population needs to be involved in day-to-day politics, overseeing government actions, proposing solutions and elaborating policies with administrators. This active participation still encounters some obstacles, such as the lack of interest from the population, mistrust of public administrators and lack of adequate spaces for citizen inclusion.

Engagement requires a continuous citizen participation that creates a relationship between the population and the government. This relationship requires public administrator's commitment to an open and responsive administration that fosters a culture of engagement from within the government. As Bollinger and Dias reason<sup>14</sup>, "an open government, permeable to its population, must take responsibility for the development of citizenship and enable the co-production of public services" (2014, p.17). Likewise, engagement requires that governments share the definition of an agenda and the building of values, ensuring that public proposals created together be considered in the final decision (SABIONI et al., 2016)<sup>15</sup>.

Nabatchi and Leighninger (2015) point out several benefits of citizen engagement in the public administration daily life. The authors argue that population involvement can produce new ideas and initiatives, stimulate citizen action to solve problems, develop new leadership, help in the search for resources and partners, and encourage

public-private collaboration. The authors also show that a strong and solid relationship between the population and public institutions contributes to positive results and the engaged citizens' satisfaction.

Although engagement initiatives are still erratic, it is possible to insert collaborative events in the administration routine. Creating innovation networks and collaborative events, administrators involve citizens and users in public services (BOLLINGER et DIAS, 2014). Establishing a communication channel between government and society can also contribute to citizen engagement. Keeping a constant dialogue with the population favors citizens' mobilization and encourages their involvement in activities. This breaks barriers down in the public sector and brings it closer to the citizen.

Another tool capable of enhancing engagement is technology. The development of virtual environments makes it easier to meet citizens' needs, as it manages to unify service centers in a single environment in a swift, objective and convenient manner. Also, virtual environments create spaces for population participation, promoting consultations and integrating citizens in decision-making processes.

Besides, gamification strategies have a great potential as virtual tools to promote engagement. The term "gamification" refers to the use of mechanisms and processes related to game design to involve users and solve problems. This technique uses game thinking to make participation more attractive and fun (ZOTTI; BUENO, 2013).

<sup>14</sup> BOLLINGER, S.; DIAS, I. *Participação Colaborativa: The place of the public manager in the process of open innovation. VII CONSAD Congress on Public Management, Brasília, 2014. Available at: <http://banco.consad.org.br/handle/123456789/1143>. Access on 31 Jan. 2019.*

<sup>15</sup> SABIONI, M. et al. *Context (in)adequate for citizen engagement in social control. Revista de Administração Pública, v. 50, n. 3, p.477- 500, jun. 2016.*

<sup>16</sup> ZOTTI, A. I. ; BUENO, T. C. D. *Gamification for the strengthening of citizenship: an analysis of SWAPP mGOV2. Simposio sobre la Sociedad de la Información - SSI 2013, 2013, Córdoba. Anales 42a JAIIO - Jornadas Argentinas de Informatica. Buenos Aires: Sociedad Argentina de Informatica, p. 341-364, 2013.*

Gamification can be potentially applied to any project in order to motivate participation, create involvement and fun, and convert users into players. In practice, gamification is the use of typical game tools, such as establishing a set of rules, preparing missions, classifying players and specifying rewards. This tool aims to awaken in users some emotions related to universal human desires, such as effort recognition, status appreciation, rewards, stimulation of competition among users, presentation of results and altruism (ZOTTI; BUENO, 2013).

Besides, game dynamics can make users interact with one another, acting cooperatively and adding efforts to complete missions. Establishing missions to solve a city problem, public authorities foster participation culture towards collaborative governance.





---

The “Sustainable Cities Consultation”, held between October 2018 and February 2019, was the first stage of a project conceived by UN-Habitat and Colab. Citizens expressed in 30 questions their perception of the achievement of SDG 11 in their municipalities on topics such as mobility, housing, social participation and resilience. There were almost 10,000 participants from 829 different municipalities.

This book presents the project, the consultation results, and considerations on sustainable cities and collaborative governance to give public administrators the means to transform their cities into more sustainable spaces.

---

HS Number: HS/011/20E

ISBN Number:(Volume) 978-92-1-132839-4



**colab**

COLAB

contato@colab.re  
www.colab.re

**UN HABITAT**

UNITED NATIONS HUMAN SETTLEMENTS PROGRAMME

P.O. Box 30030, Nairobi 00100, Kenya

T: +254-20-76263120

E: unhabitat-info@un.org