

CHAPTER

LATIN AMERICA
FOCUS ON

INFRASTRUCTURE AND ECO-EFFICIENCY

SEPTEMBER, 2020



SUSTAINABLE AND ECO-EFFICIENT INFRASTRUCTURE

For Latin America, good infrastructure means economic development, growth, and competitiveness. Citizens aspire for the development of living spaces that allow them to meet their basic needs, where electricity and potable water are continually and readily accessible, that their homes have protection against disasters, and that the streets don't flood. Mobility is crucial as citizens look for reasonable costs and times, and that the air that they breathe is pure and less contaminated.

These needs seem to be mere wishes that each day appear to be further out of reach due to the lack of investment in infrastructure in the region. At the same time, this has created a higher level of consciousness and the evolution of new urban developments that are more eco-efficient, sustainable, and that have a positive impact on citizens and the environment.

Let us observe how the main elements in eco-efficiency and infrastructure perform in the digital world. Based on conversations and mentions across social media and trusted government and associated publications in each country, we can also zoom in on tendencies and search volumes using the world's leading search engine, Google.

This study aims to encourage companies or investors to identify opportunities in the market by targeting both the public and private sectors.

In Latin America, there is great interest specifically in mobility, the interaction between cities, and the coordination of production and consumption.

Governments seek to implement strategic alliances with the private sector, create markets, and promote the application of new technologies principally in the design and construction of homes. They are also interested in transportation systems and providing citizens with education and civic culture to transform cultural barriers to consumption.



Over
2.700
government
related mentions



Over
40.200
conversations



Over
500.000
searches

THE CHALLENGES OF THE REGION IN ECO-EFFICIENCY OR SUSTAINABLE INFRASTRUCTURE



Financing: Latin American financial systems are one of the least developed, with competitive lag, and very high costs and intermediation margins.



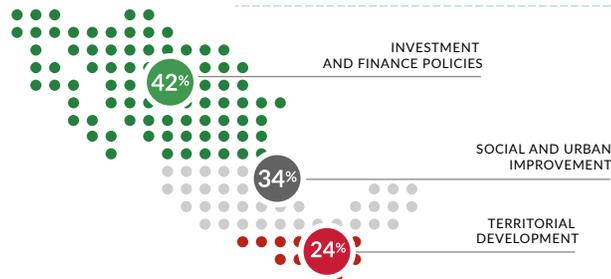
Credit options: Credit in the region is short term while the financing needs of eco-efficient infrastructure are long term.

WHAT ARE THE GOVERNMENTS OF THE REGION PURSUING?

Using our web intelligence tools, we tracked the official sources of the governments in the region, International Organizations, and the leading news sources to understand what they talk about or publish about eco-efficiency in each of the countries.

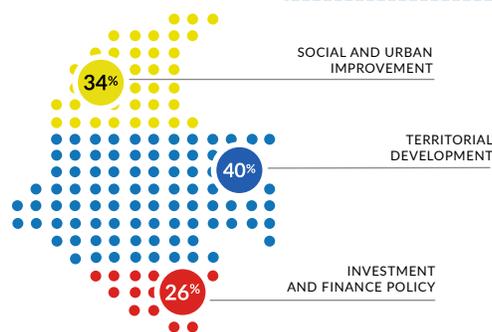
The period analyzed was: August 2019 - August 2020.

MEXICO



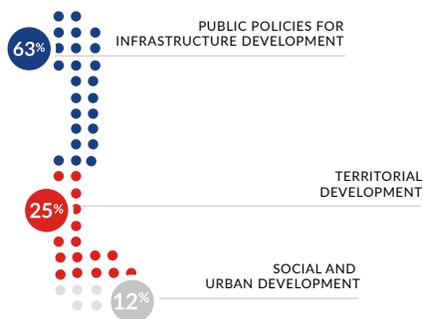
- Generation of investment and finance policies.
- Sustainable credit programs for cities sponsored by the National Bank of Public Works and Services.
- Private sector alliances that will increase the flow of money towards public infrastructure, comprehensively improve neighborhoods, and urban housing.
- Investment focused on home improvement.
- Intelligent urban planning, mainly in the Capital.
- Development of the territories in Northern Mexico.
- foreign investment for large road projects, public infrastructure, and energy renovation.

COLOMBIA



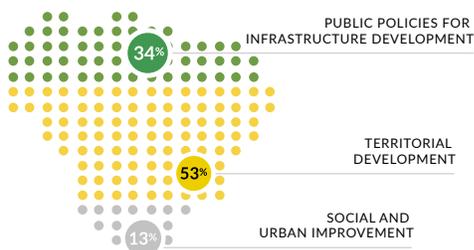
- Adapting public transportation systems to electric power.
- Improving air quality in cities.
- Connecting the most remote areas of the country.
- A Strong emphasis on infrastructure.
- Improving mobility between states.
- Strengthening the region's economy and the communities' well-being through infrastructure projects.
- Energy efficiency for road construction.
- Large investments for the construction of smart roads and sustainable mobility.
- Strong tax incentives for the general population due to electric mobility conventions.

CHILE



- Getting long-term focus by the Ministry of Housing and Urban Planning and the Ministry of Public Works for urban infrastructure investment.
- Efficient connection between political, economic, private, social, and academic actors.
- Programs that provide drinking water and sanitation to rural areas.
- Public policies for mobility and urban transport.
- Smart traffic light systems.
- Improvements and incentives for the construction and use of bicycle lanes.
- Improvement of public spaces.

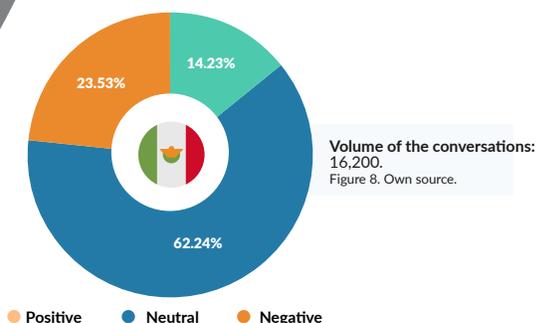
BRAZIL



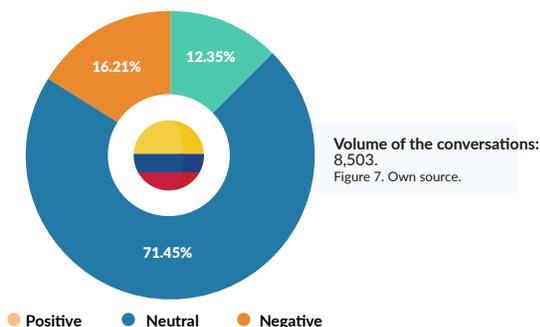
- Incentives and bonds that expedite the objectives for sustainable infrastructure through the Ministry of the Economy.
- Prioritizing public work projects that benefit job creation.
- Priority to sustainable urban projects with financial relief called green bonds.
- Financial benefits from the government for entrepreneurs and small to medium-sized businesses for territorial development and urban social improvement.
- The Search for projects and entrepreneurship for basic sanitation in cities.
- The Search for solutions for urban mobility.
- Technologies to improve air quality.

AND WHAT DO CITIZENS SAY?

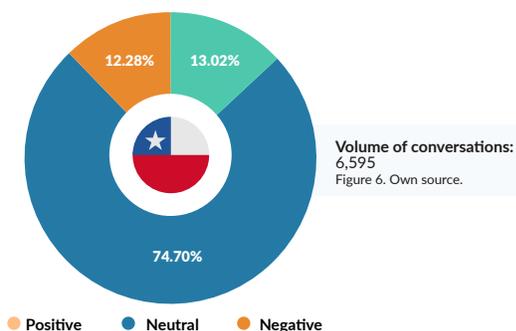
Through social listening, we extracted the most relevant topics of conversation regarding sustainable infrastructure to interpret the tonalities of the discussions among citizens in these countries.



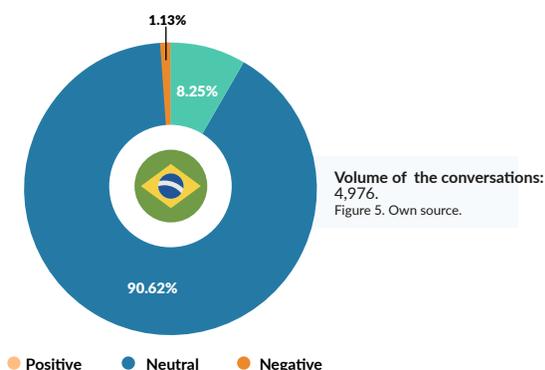
Conversations **in Mexico** currently present a neutral sentiment quota and are positive when publications concern the integral development of public works: roads, the interurban train project, the promotion of employment in infrastructure projects; and as is the case in Colombia, negative sentiment increases with opinions or criticisms of projects that have inconsistencies or that give light to corruption.



In Colombia, citizens are not very familiar with the term sustainable infrastructure, the trend for conversations on this topic is neutral, the publications that increase reactions on the internet are those that promote responsible and sustainable investment in the country. The trends that increase negative sentiment the most are those that criticize the management and investment of money for infrastructure, that promote there be no political favors or corruption in concessions and projects.



In Chileans, conversations remain in a positive-neutral position. The most influential topics are urban mobility, especially those publications that explain strategies to speed up transportation and mobility. News of talks about the improvement of home water metering systems has also obtained a high level of influence. On the other hand, concerning eco-efficiency in homes, people interacted positively with communications that contained information on subsidies for thermal conditioning, an initiative by Chile to reduce energy consumption in homes, using green roofs and renewable energy.



In Brazil, conversations remain neutral on the issue of infrastructure. The levels of influence on the part of citizens increase when company initiatives that promote work on infrastructure projects for communities, and environmental improvement, thus changing the reality of basic sanitation are published, since this means employment, development, and action towards sustainability.

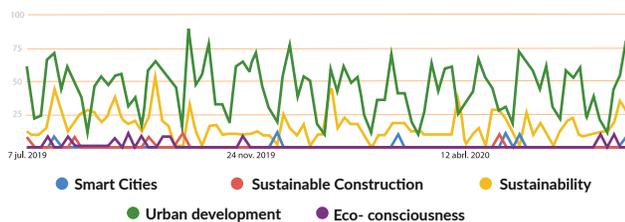
AND WHAT ARE THEY LOOKING FOR CONCERNING

INFRASTRUCTURE OR ECO-EFFICIENCY IN CITIES?

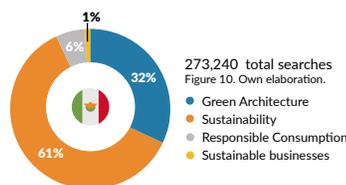
Using Google keyword planner, data on search volumes from each of the countries is collected using keywords then the main search categories are defined permitting us to visualize the composition of queries identifying which ones most frequently register on the internet.

- ✓ In these countries, around 2,567 terms are related to eco-efficiency, infrastructure, and sustainability.
- ✓ The most significant being bioclimatic architecture, green roofs & terraces, facades, and bioclimatic cities.
- ✓ Referring to eco-efficiency, the most searched word is sustainability with a high correlation in all four countries to consultations on SDGs, sustainable city projects, and the Brundtland report. (The latter accumulates 15,000 searches, with significant interest in all four countries).
- ✓ The term eco-efficiency is not just related to city infrastructure; also with infrastructure for the fields, consumption, responsible production, and sustainable agriculture.
- ✓ It can be inferred that sustainable urban infrastructure is not a very clear or recognized issue among citizens; There is still a lack of knowledge about the principles of smart or eco-efficient development in cities and the territorial development of rural areas.
- ✓ The academic sector, architects and civil engineers are those most interested in the development of sustainable urban real estate projects that are efficient, intelligent and that promote the progress of community life: Flood protection for Large Buildings, increasing green roofs that reduce heating of constructed surfaces; saving energy inside the spaces and in turn reducing the need for cooling systems, and increasing green spaces for rest and socialization. Finally, the intelligent infrastructure that mainly allows the recycling and reuse of rainwater.

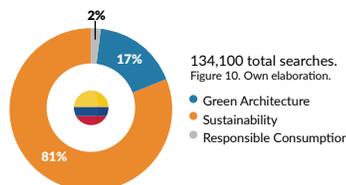
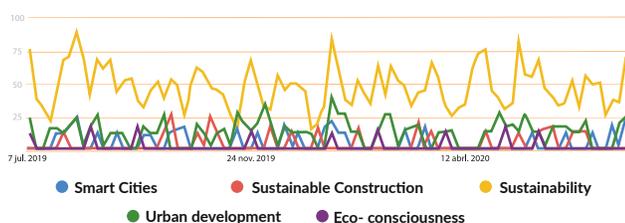
Search trends compared by keywords, from July 2019 to July 2020. Google Trends.



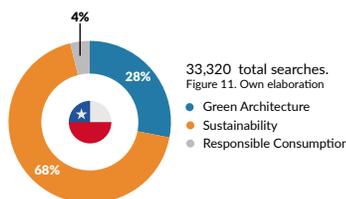
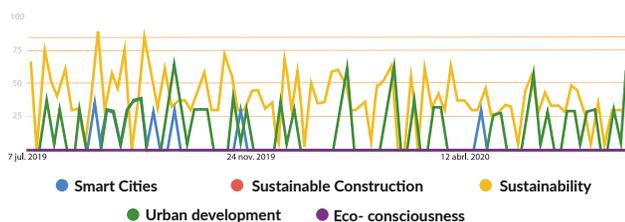
Monthly searches



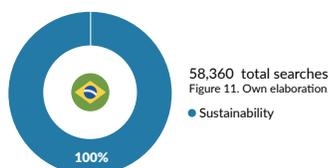
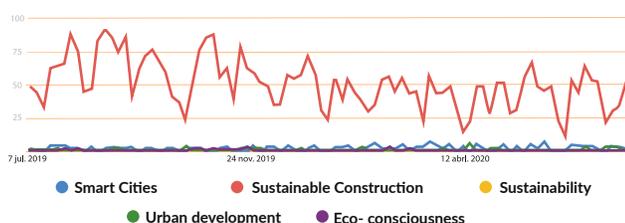
In Mexico, searches are directed towards concepts in the **urban development** category, with urban planning and space, and a development plan being the main concepts associated with the search. In increasing respect for this search can be found sustainability and ecology.



In Colombia, one of the top searches was for **smart cities** with the majority of the queries focused in Barranquilla; **sustainable construction** is immediately associated with sustainability; the latter being the most important since it increases associated searches such as **sustainable mobility, rural development**, and the land-use plan are highly associated with this search.



In Chile, urban development is the most relevant search trend: the main related topics are urban planning and space, and economic development. The search trends for concepts such as bioclimatic architecture, eco-efficiency, green roofs, or smart cities are not significant.



Brazil in particular does not associate search terms such as **eco-efficiency and bioclimatic architecture**; however, it is the term sustainability that connects searches to these words specifically: economic development, eco-efficiency <what is eco-efficiency?>, urbanism, poverty, green cities, urban parks.

PRIMARY OPPORTUNITIES FOR BUSINESS AND ENTREPRENEURSHIP



Opportunities for financing and directing investment flows for **infrastructure projects** that connect rural or remote areas of the countries.



Smart cities and smart mobility solutions for capitals and main urban centers.



Efficient architecture and sustainable construction solutions that **include integration with nature and energy efficiency.**



Everything related to management, **sanitation, and use of water.**



Technology to improve air quality.



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Transformation

Sustainable
Agriculture

ABOUT RUBICA

For over 10 years, RUBICA has formed strategic partnerships with a multitude of companies worldwide that are looking to become part of the Latin American digital market. Applying a unique model of co-creation and knowledge transfer, RUBICA converts ideas into results with their experienced team of consultants in digital marketing strategy, communication, business development and innovation, entrepreneurship, big data and intelligent business practices.

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