

HOW NEW TECHNOLOGIES
ARE TRANSFORMING
TRANSPORTATION
IN LATIN AMERICA AND THE CARIBBEAN



Digital economy



Transportation

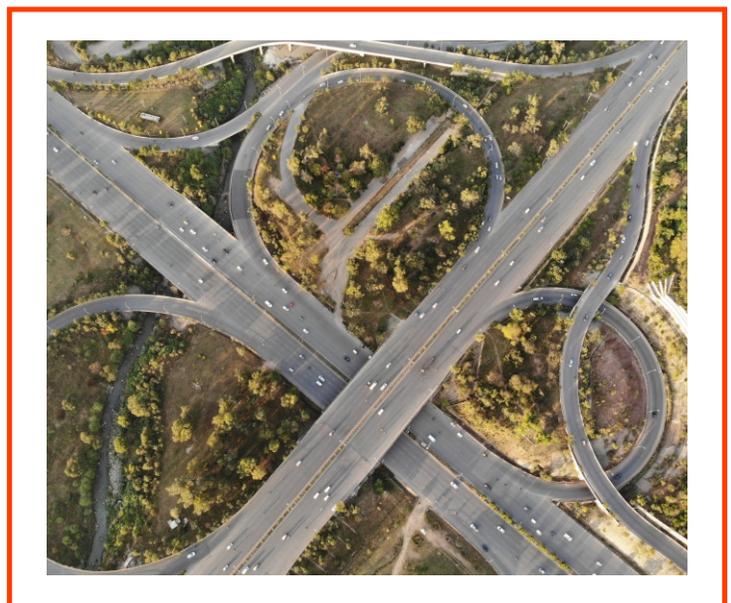
CONTEXT: THE DEVELOPMENT OF A STRATEGIC INDUSTRY IN THE REGION

Transport, designed as a multimodal network of high connectivity, plays a crucial role in the economic development and international trade of LAC. With the help of new technologies, this industry is undergoing transformations that optimize logistics, boost tourism, improve the supply of goods, and redefine the full experiences of users.

Being a large and heterogeneous region, there are substantial differences in the needs and state of infrastructure. However, a common challenge is the lack of infrastructure in rural areas and the congestion of large urban centers.

Additionally, as transport is one of the main sources of pollution, the industry faces a dilemma: it should balance the growth and streamlining of its infrastructure, ensuring that this progress is sustainable and in line with the decarbonization goals established by each country.

"IDB Invest aims to support transport projects that mitigate congestion, improve operational efficiency in passenger and cargo transit, reduce carbon dioxide emissions, and increase climate resilience"



CHALLENGES AND OPPORTUNITIES IN THE TRANSPORT INDUSTRY

The transition to a new form of mobility implies great challenges for the industry. Meanwhile, it creates areas of opportunity with a positive impact on the socioeconomic environment.

SOCIAL



Society's awareness of sustainability and the rise in fossil fuel prices are encouraging the electrification of transport and the exploration of new types of fuel, so achieving a balance between sustainability and access to quality infrastructure is one of the main challenges faced by the region.

REGULATORY



The progress in the development of technologies with application in the transport industry has not been accompanied by relevant regulation. Implementing a regulation that encourages the use of new shared mobility platforms is essential for the development of digital transport services. Regulators should endeavor to keep pace with technology.

TECHNOLOGY



A total of 81% of the region's population lives in urban areas, posing increasing challenges in terms of congestion, air quality, noise pollution, and travel length. New technologies such as IoT, AI, 5G, or Big Data, together with the massive adoption of the internet and smartphones, can be leveraged in today's urban infrastructure to generate value solutions.

SECURITY/CYBERSECURITY



Connectivity and new technologies must be leveraged for the implementation of Intelligent Transport Systems (ITS), which improve operational efficiency, reduce accidents, and alert emergency services in real-time on motorways and highways. In addition, cybersecurity in the industry is vital to protect the privacy and integrity of data, as well as to ensure the safety of people.



INDUSTRY TRENDS

The industry is undergoing a profound transformation. New technologies and the social boost towards a more sustainable future are changing the way we understand mobility, especially in urban areas.

DECARBONIZATION OF TRANSPORT



Decarbonization aims to make its carbon footprint neutral, where carbon emissions are virtually zero and should impact the entire heat chain. Electrification and new propulsion systems are the two main initiatives within this trend.

SMART INFRASTRUCTURES



Transport infrastructure also benefits from the possibilities offered by new technologies, becoming more efficient, safe, and sustainable. These include Smart Roads and Smart Airports, but similar advances can be applied to railways and ports.



AUTONOMOUS VEHICLES



Although it is not a trend that is impacting the region at the moment, great efforts are being made globally to develop this technology and when it reaches sufficient maturity, it has the potential to totally remodel the transport industry in LAC.

DIGITALIZING MOBILITY



The possibility of interconnecting different types of transport and services in real time is transforming mobility, both in urban and interurban areas. This has led to the emergence of TaaS (Transportation as a service) models, which use technologies such as IoT, Big Data and/or AI for their development, and which could serve as enablers of smart cities in the region.



NEW BUSINESS MODELS

The comprehensive transformation of transport, a critical sector, is leading to an advanced value chain and attracting more technologically sophisticated players. This evolution, combined with the industry's liberalization and the support of regulators, promotes the emergence of new business models based on digitalization.

MOBILITY AS A SERVICE (MaaS)

Unique and personalized platform with access to different travel options for end users, using IoT technology for real-time communication of the different transport means.

Predicts transport demand

Spots behavior patterns



Controls the environmental impact

Detects areas with the highest traffic flow

INTELLIGENT LOGISTICS SYSTEMS

New technologies help logistics companies to overcome the infrastructure gap and deficiencies in the management of services, being more efficient, saving costs, and increasing the security of shipments.

nowports

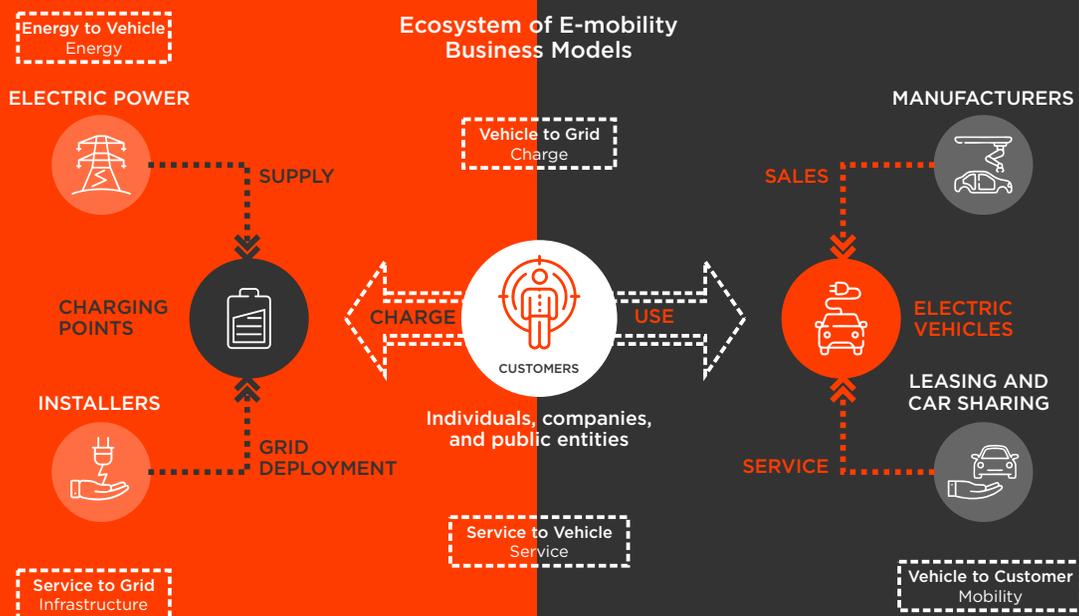
"Faster and more efficient foreign trade"

IoT / Big Data
to improve the value chain

+4000
customers
7
countries

MODELS ASSOCIATED WITH ELECTRIC MOBILITY

Electric mobility is one of the main innovation niches globally, which promotes a wide range of new business models.



SUCCESS CASE: FRETEBRAS

IDB Invest provided a capital investment of USD 14.4 million to Fretebras, the largest online freight transport market in South America. The funds are helping the company develop major technological improvements to its platform, especially pertaining to safety measures for both carriers and freight forwarders.

fretebras

Transformando caminhos.

The Fretebras platform allows truck owner-operators to make use of overcapacity and avoid empty return trips, thereby improving cargo visibility, reducing shipping costs, carbon dioxide emissions, and increasing truck driver revenues.

**USD 16.8
Million**
Investment

2020
Date of
Approval



**We innovate to facilitate
the routine of people who
move around our country.
Always with respect,
transparency, and integrity**

4 Million
Truck Loads

15.000
Freight Forwarders

2 Million
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If you want to know more about how technologies are impacting transportation, click the link to see the details of the report.

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