



PBSC Urban Solutions Recognized as the

2021

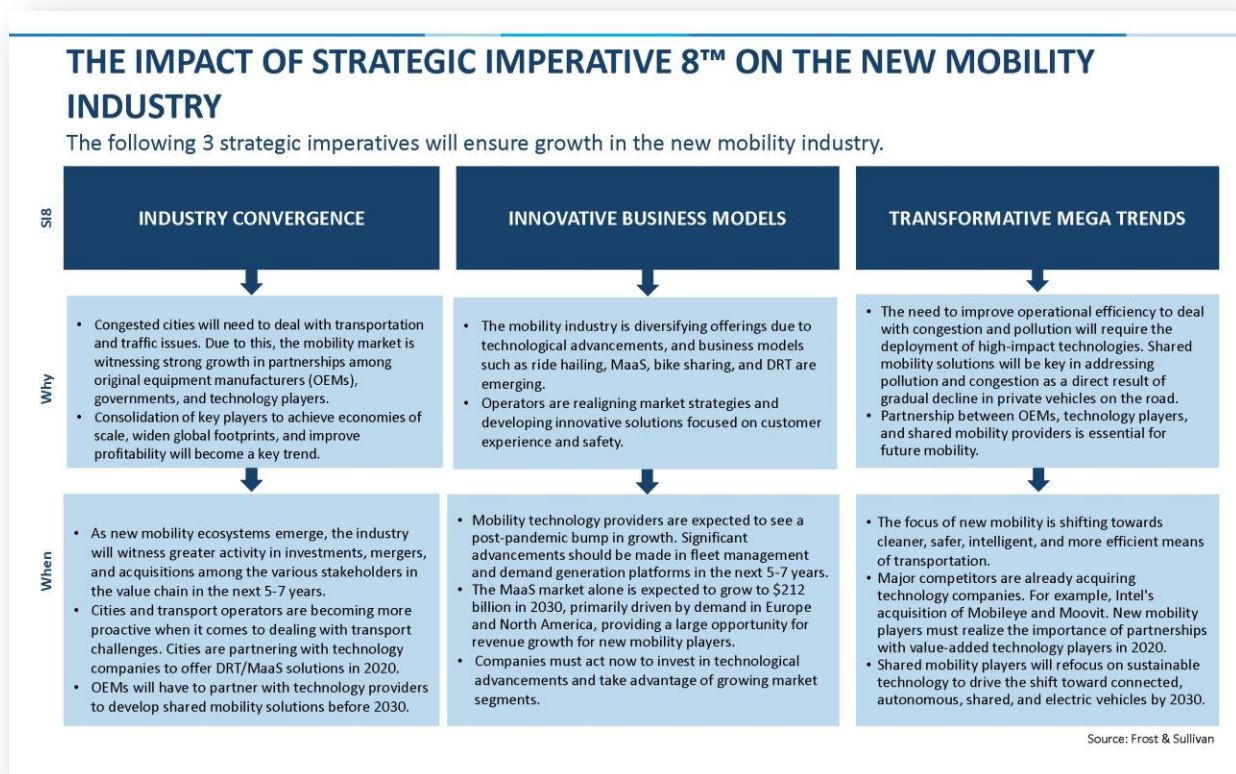
Technology Market Leader

Latin American Bikesharing Industry

Excellence in Best Practices

Strategic Imperatives

Frost & Sullivan identifies three key strategic imperatives that impact the new mobility industry: industry convergence, innovative business models, and transformative Mega Trends. Every company that is competing in the new mobility space is obligated to address these imperatives proactively; failing to do so will almost certainly lead to stagnation or decline. Successful companies overcome the challenges posed by these imperatives and leverage them to drive innovation and growth. Frost & Sullivan’s recognition of PBSC Urban Solutions is a reflection of how well it is performing against the backdrop of these imperatives.



Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions- Market Impact & Customer Impact for each nominated company. PBSC Urban Solutions excels in many of the criteria in the Latin American bikesharing technology Industry.

AWARD CRITERIA	
Growth Strategy Excellence	Technology Leverage
Implementation Excellence	Price/Performance Value
Brand Strength	Customer Purchase Experience
Product Quality	Customer Ownership Experience
Product Differentiation	Customer Service Experience

Growth Strategy Excellence

Canada-based PBSC Urban Solutions is a leading global company that supplies technology and operates public and private bikesharing systems worldwide, with a fleet of over 90,000 bikes and e-bikes, more than 150,000 smart docking stations, and over 400 million trips conducted with PBSC bikes. The company is internationally renowned for its avant-garde technology and operational efficiency and was introduced in Latin America (LATAM) in Guadalajara, Mexico, in early 2014 with the launch of the public bikesharing system called MiBici under the operation of BKT Bici Pública.

PBSC successfully partners with this local operator to supply bicycles, docking stations, an app, operations software, and globally reputed know-how. In only six years, PBSC has scaled its commercial operations and has become the leading technology supplier for the most important and largest public bikesharing systems across LATAM. In late 2018, PBSC secured one of the most successful strategic partnerships with Brazilian operator Tembici, sponsored by Banco Itaú, as the exclusive hardware and software provider. Through this partnership, PBSC has enabled commercially appealing branding and marketing in the largest markets in LATAM.

Implementation Excellence

According to Frost & Sullivan estimations, over 59,500 shared bicycles were in operation across more than 55 cities in LATAM in 2019, with over 30 companies offering services in the market. In addition, with shared scooter micromobility devices, the region had an operational fleet of over 96,100 units in 2019, with estimated market revenue for shared micromobility services of \$560.5 million.

Through strategic partnerships secured over the past years, PBSC currently has over 20,000 shared micromobility devices in operation on a daily basis across 11 cities in LATAM. Moreover, PBSC has the widest geographic presence in LATAM, including in Santiago, Chile; Buenos Aires, Argentina; Guadalajara and Toluca, Mexico; and Rio de Janeiro, Porto Alegre, Recife, Riviera, Salvador, São Paulo, and Vila Velha in Brazil. The company plans to expand to other cities across LATAM where it is

currently positioned with strategic operator partners. In 2019, these LATAM cities accounted for over 34% of the operational bikesharing market, with no close competitor achieving such salient figures as PBSC. The second and third largest competitor bikesharing operators and technology suppliers are only present in two LATAM cities. Other companies with large-scale, free-floating deployments of bikesharing devices across LATAM went out of business in 2020, indicating the vulnerability of these business models.

Technology Leverage and Product Differentiation

Many competitors in LATAM have massively deployed shared micromobility devices across cities without leveraging the technology necessary for the region, considering the specific challenges in each society and geography, such as vandalism, theft, and operational inefficiencies.

With its top anti-theft technology, PBSC has addressed the asset security challenge for the region, with its technology-supplied systems having significantly lower levels of vandalism and theft than systems from previous competitor operators/technology suppliers. PBSC's four bike model (FIT, E-FIT, ICONIC and BOOST) have several characteristics that enable enhanced asset security, such as patented anti-theft locking mechanisms with constant communication protocols with the system and anti-vandalism-designed pieces that cannot be used in other bicycles or equipment. Furthermore, PBSC's docking stations are state of the art in the region. PBSC's smart docks are lightweight, infrastructure-independent modules; easy to manipulate; elegantly built with an urban design; self-sufficiently powered by solar panels, and have integrated kiosk connectors with back-end communications to

“The role of cities, public space, health, and environmental awareness has been revisited amid the COVID-19 pandemic in LATAM. Active micromobility has become a fundamental part of urban mobility governance. All municipal authorities across the region have targets to increase bicycle use and to integrate last-mile micromobility with public transport solutions. PBSC’s technology is playing a vital role in this process.”

- Martin Singla, Industry Analyst

secure permanent operability for both smartphone-enabled locking/unlocking systems and payment interfaces. PBSC's docking stations have been tested across different environments and have been proven to be among the most resilient, corrosion-resistant modules available in the market.

Shared electric bicycles (eBikes) are still in the early stage in LATAM, and even though these bicycles are already being commercialized for private consumers, few bikesharing systems have eBikes in the region. Some of these eBike operators went out of business in early 2020; however, PBSC introduced public eBikes in Brazil, in partnership with Tembici, with

plans to incorporate these devices in all other countries where the company operates. These eBikes are among the best-positioned, highest-performing products in the market, with a 250-watt (W) central motor, with three speeds and pedal-assist up to 32 kilometers per hour (km/h); high-capacity battery with a 70-km range; and an LCD display that shows speed, mileage, and battery life. Along with eBikes, PBSC is introducing smart-charging in LATAM, grid-powered docking stations with smart-charging prioritization for optimal system operation. Another interesting innovation that PBSC has yet to introduce in the region is multimodal docking-charging stations that will allow multiple micromobility devices to be centrally docked and charged within one unified facility.

Furthermore, customers can achieve operational excellence through PBSC's Comet software, a cloud-based platform for bikesharing companies that acts as a unified, 24/7 operational mission control system. The software is powered by artificial intelligence (AI), enables predictive demand analysis, and automates system calibration/balancing and maintenance. In the past, many public bikesharing systems in LATAM were successful during beta testing, where the potential demand is tested; however, these companies failed when scaling up their operations for large metropolitan areas and when dealing with thousands of bikes and potentially tens of thousands of trips daily. With its Comet software, PBSC has proved its operational excellence in LATAM by successfully modeling challenging geographies and mobility behavioral patterns to provide a best-in-class, automated bikesharing fleet management asset.

Brand Strength and Customer Ownership Experience

PBSC secured its technology deployment through strategic partnerships with local operators to build the best-suited brand image and marketing for each LATAM city. Across Brazil, Argentina, and Chile,

“For the past decade, LATAM city governments and business innovators have been testing alternative solutions to private car ownership and motorized mobility to address the severe economic problem of environmental decay, traffic congestion, and degradation of urban quality of life. PBSC’s micromobility technology implemented in the region has the highest level of community adherence and constantly increasing utilization rates, showcasing the relative success of its implementation experience.”

- Martin Singla, Industry Analyst

Tembici-operated systems are known for their bright orange color, eco-friendly branding, and top-quality bikes. Even though demand declined in 2020 because of COVID-19 lockdown measures and mobility restrictions, the overall use of PBSC-supplied systems has not stopped growing year over year. Bikesharing users feel comfortable and safe with PBSC's bicycles because of their solid, lightweight, aluminum frames; motion-powered lighting systems; and reflective wheels. The implementation of top-quality products has reinforced public acceptance and community adherence to shared micromobility systems in LATAM, which are the key to building more sustainable and healthier mobility patterns.

Conclusion

PBSC has excelled across multiple variables in terms of achieving market leadership in LATAM. The company is positioned as the top supplier of bikesharing technology across LATAM markets, with over 20,000 devices operational across the 11 top cities. In addition, the technological robustness of its products, both hardware and operations software, has positioned PBSC as a leading company in terms of introducing innovative market solutions in the LATAM shared micromobility ecosystem, with salient customer acceptance and operational efficiency.

With its strong overall performance, PBSC Urban Solutions has earned Frost & Sullivan's 2021 Market Leadership Award in the LATAM bikesharing technology industry.

What You Need to Know about the Market Leadership Recognition

Frost & Sullivan's Market Leadership Award recognizes the company that achieved the greatest market share resulting from outstanding performance, products, and services.

Best Practices Award Analysis

For the Market Leadership Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

Growth Strategy Excellence: Company demonstrates an ability to consistently identify, prioritize, and pursue emerging growth opportunities

Implementation Excellence: Company processes support efficient and consistent implementation of tactics designed to support the strategy

Brand Strength: Company is respected, recognized, and remembered

Product Quality: Products or services receive high marks for performance, functionality, and reliability at every stage of the life cycle

Product Differentiation: Products or services carve out a market niche based on price, quality, or uniqueness (or some combination of the three) that other companies cannot easily replicate

Technology Leverage: Company is committed to incorporating leading-edge technologies into product offerings to enhance product performance and value

Price/Performance Value: Products or services provide the best value for the price compared to similar market offerings

Customer Purchase Experience: Quality of the purchase experience assures customers that they are buying the optimal solution for addressing their unique needs and constraints

Customer Ownership Experience: Customers are proud to own the company's product or service, and have a positive experience throughout the life of the product or service

Customer Service Experience: Customer service is accessible, fast, stress-free, and of high quality

About Frost & Sullivan

Frost & Sullivan is the Growth Pipeline Company™. We power our clients to a future shaped by growth. Our Growth Pipeline as a Service™ provides the CEO and the CEO's growth team with a continuous and rigorous platform of growth opportunities, ensuring long-term success. To achieve positive outcomes, our team leverages over 60 years of experience, coaching organizations of all types and sizes across 6 continents with our proven best practices. To power your Growth Pipeline future, visit Frost & Sullivan at <http://www.frost.com>.

The Growth Pipeline Engine™

Frost & Sullivan's proprietary model to systematically create on-going growth opportunities and strategies for our clients is fuelled by the Innovation Generator™. [Learn more.](#)

Key Impacts:

- **Growth Pipeline:** Continuous flow of Growth opportunities
- **Growth Strategies:** Proven Best Practices
- **Innovation Culture:** Optimized Customer Experience
- **ROI & Margin:** Implementation Excellence
- **Transformational Growth:** Industry Leadership



The Innovation Generator™

Our six analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.

Analytical Perspectives:

- **Mega Trend (MT)**
- **Business Model (BM)**
- **Technology (TE)**
- **Industries (IN)**
- **Customer (CU)**
- **Geographies (GE)**

