

Vehicles are becoming more integrated with Smart City Infrastructure, Facilitating More Efficient and Safer Transportation. This includes Communication with Traffic Signals, Real-Time Parking Availability Information, and Interaction with Other Connected Devices in the Urban Environment



## Market Overview

There is pressure on the automotive sector to innovate and create new technology that will enhance safety, emissions, and driving pleasure. The requirements of smart cities are driving the development of many of these new technologies. The emergence of smart cities presents novel prospects for the automotive sector to innovate solutions that enhance the driving experiences. For instance, the development of new technologies namely advanced traffic management systems and driverless vehicles is being driven by the demand for better traffic management and congestion relief. Another significant force behind vehicle innovation is the requirement for increased safety, considering the creation of driverless cars and advanced driver assistance systems (ADAS). In addition, the development of new technologies is also being driven by the demand for reduced emissions and increased sustainability.

In the near future, resource optimization, air quality improvement, and traffic congestion management in smart cities will all be facilitated by connected automobiles. Cities may improve the way they manage parking, public transportation, traffic flow, and other aspects of city life by gathering and evaluating data from sensors integrated into automobiles, roads, and other transportation infrastructure. In an effort to improve safety and potentially lower traffic fatalities, the automotive sector is also investing on self-driving vehicles.

When it comes to public transport, governments are also adopting clever solutions. The advantages of smart transport systems are being tapped into by public transit, ranging from enhanced traffic monitoring to traffic light control. For instance, in Stockholm, buses that are running late can interact directly with the traffic signals along the route to receive priority and facilitate passenger flow.

## Client Challenges



The client wanted to enter into the market with smart cities transportation solution. The main objective of the client was to align their product and solution offerings with upcoming customer demand towards smart mobility in relation with traffic congestion and encouraging higher productivity. In addition, the client wanted to resolve the parking problems associated with the transportation in urban areas. With this, both the company and government will make more money from different transportation services by making their system more functional.

### Following are the requirements asked by the client:

- Total addressable market size (TAM) and YoY growth rate on both regional as well as on country level for different product type and application
- Current and future technological trends along with the challenges faced during implementation
- Market opportunities and attractiveness assessment
- Regulatory requirements and compliance imposed by different government bodies on country level
- Company comparative analysis considering key vendors and market disruptors including market share, trackable revenue, product differentiation, strategic developments, technological utilization, pricing analysis, R&D initiatives, strengths and weaknesses among others
- Investment strategy, projects and funding by different players and government
- Demand and Supply gap in terms of company level

## DBMR Approach/Research Methodology

Data Bridge Market Research conducted an in-depth study on estimating, analyzing and validating the overall market which incorporates identifying relevant trends, and providing actionable insights to guide the client. DBMR followed the tripod model for analyzing and validating data to provide valuable insights based on client requirements. DBMR's approach or research methodology for analyzing and estimating the entire market is explained below:

Our approach involves the usage of both primary as well as the secondary research data to estimate, analyze and validate the data.

DBMR conducted secondary and primary research for both top-down and bottom-up method for data analysis and validation. This approach was utilized to access both qualitative as well as quantitative data for each mentioned segments on global, regional and country level data.

In secondary research, we have studied different sources including government associations, whitepaper, and journals from recognized authors along with company's annual report, SEC filing, press releases and others. U.S. DEPARTMENT OF TRANSPORTATION, Smart Cities Association, American Library Association (ALA), European Commission, Intelligent Transport magazine, Global Development Research Center, Asia Society and others are few of the sources referred while deriving

The same has been validated by conducting primary research via LinkedIn, cold calling, e-mail interaction, and others. Moreover, questionnaire and discussion guide was prepared which incorporates both structured and unstructured data points in order to conduct a discussion based approach.

### Above methodology was followed to analyze client requirement:

- Company analysis was done based on trackable revenue generated by company, product/solution offerings, strength & weakness, market share, geographical scope, pricing strategies, strategic initiatives, applications, investment and funding among others in order to identify key vendors, prospect vendors, market disruptors and niche players to gain competitive advantage.
- Factors such as drivers, restraints, opportunities and challenges affecting the overall market was also studied
- Thorough assessment of the regulatory standards along with the in-depth research to analyze potential customers for this market was also conducted. Moreover, close collaboration with the client's stakeholders and government helps us to identify specific applications or use cases where this market could bring significant value
- Impact of both internal and external factors namely compatibility & complexity issue, presence of substitute technology, regulatory environment & cooperation, COVID-19, Russia-Ukraine war on both demand and supply side

**Hence, by following the above mentioned approach, market insights were provided to the client accordingly.**

## Outcome and Business Impact

With different strategic initiatives, the client came up with different IoT-enabled infrastructure solution which included smart city applications including smart parking, connected lighting, smart benches, and smart bins. Even the company had collaborated with local government in to prevent pedestrian accidents by using an AI-powered system that automatically optimizes traffic conditions. This system will have communication capabilities with neighboring smart car connections and neighboring intersections

Utilization of sensor helped in detecting empty spaces whereas, display boards and warning lights are also used to notify people when a place becomes available

Created an intelligent transport management system that uses big data, intelligent IoT, and business intelligence to analyze data sets from many services on a single dashboard. This will lead to more dynamic and efficient bus service operations at the ticketing, in-station, and in-journey stages

**Thus, company's continuous contribution towards global smart transport is giving governments and transport providers the ability to create safer, more sustainable, and intelligent cities.**

## Conclusion:

Data Bridge Market Research has provided in-depth insights in relation with the smart cities transportation market to cater each requirement. Adding to this, the report's factual and consolidated information will help the client to evaluate the company's growth in terms of technology, penetration and can also be further utilized for decision making and future planning. Apart from this, the client can even access/capture the business opportunities from the reports' information.

