

Global Smart Highway Construction Market Size Study, by Solution (Monitoring and Detection Systems, Display, Software, Others), by Deployment (On-Premises, Cloud-Based), by Technology (Smart Transportation System, Smart Traffic Management, Communication & Networking, Others), and Regional Forecasts 2022-2032

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Abstracts

The Global Smart Highway Construction Market is valued approximately at USD 34.85 billion in 2023 and is anticipated to grow with a healthy growth rate of more than 20.0% over the forecast period 2024-2032. The smart highway construction market is driven by the increasing government investments worldwide aimed at enhancing real-time information systems for road conditions and traffic management. Smart highways, particularly in hazardous and hilly regions, offer significant safety benefits by providing warnings about oncoming traffic and potential landslides. Additionally, these highways generate energy, which can be used for road lighting and powering electric vehicles. As the global population and the number of vehicles on the road continue to rise, the scarcity of land for new road construction necessitates the development of smart, safe, pollution-free, and decongested transportation solutions. The proliferation of smart city initiatives further propels the growth of the smart highway construction market, driving industries to innovate and develop new technologies.

Smart transportation management systems leverage digital sensors to collect and store data, providing real-time predictions and alerts for issues like landslides, severe weather, and traffic congestion. Companies are continuously innovating in this space; for instance, in September 2021, Alcatel-Lucent Enterprise launched new versions of its OmniSwitch 6900 line, designed for enterprise data centers and core networks as part

of its Digital Age Networking (DAN) strategy.

The smart highway construction market is segmented based on solution, deployment, technology, and region. The solution segment includes monitoring and detection systems, display, software, and others. Deployment is categorized into on-premise and cloud-based. Technology segments cover smart transportation systems, smart traffic management, communication & networking, and others. The market is analyzed across North America, Europe, Asia-Pacific, and LAMEA.

Key regions considered in the Smart Highway Construction Market study include North America, Europe, Asia Pacific, Latin America, and the Middle East & Africa. North America holds a dominant position in the smart highway construction market, primarily due to its advanced infrastructure, significant technological advancements, and substantial investments in smart city projects. The United States, in particular, has been at the forefront of implementing smart highway solutions, driven by the need to enhance traffic management, reduce congestion, and improve road safety. The region's commitment to innovation, supported by strong government initiatives and collaborations between public and private sectors, has fostered the development and deployment of intelligent transportation systems. Additionally, North America's focus on integrating renewable energy sources and sustainable practices in highway construction further propels its leadership in this market. On the other hand, Asia Pacific is projected to register fastest growth during the forecast period 2024-2032. The market in the region is being driven by factors such as rising government funding, rising adoption of smart transportation technologies and rising urbanization and infrastructure development.

Major market players included in this report are:

Transstroy India Ltd

Alcatel-Lucent Enterprise

Huawei Technologies Co. Ltd.

VINCI Construction

IBM Corporation

Heijmans N.V.

ABB Ltd.

Cisco Systems, Inc.

Colas Group

Nippon Koei Co. Ltd.

Siemens AG

Schneider Electric

Kapsch TrafficCom

Indra Sistemas

General Electric

The detailed segments and sub-segment of the market are explained below:

By Solution:

Monitoring and Detection Systems

Display

Software

Others

By Deployment:

On-Premise

Cloud-Based

By Technology:

Smart Transportation System

Smart Traffic Management

Communication & Networking

Others

By Source of Energy:

Solar

Wind

Vibration

By Source of Funding:

Government Funding

Other Funding

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Italy

Rest of Europe

Asia-Pacific

China

Japan

India

South Korea

Rest of Asia-Pacific

Latin America

Brazil

Mexico

Rest of Latin America

Middle East

Saudi Arabia

South Africa

Rest of Middle East and Africa

Years considered for the study are as follows:

Historical year – 2022

Base year – 2023

Forecast period – 2024 to 2032

Key Takeaways:

Market Estimates & Forecast for 10 years from 2022 to 2032.

Annualized revenues and regional level analysis for each market segment.

Detailed analysis of geographical landscape with Country level analysis of major regions.

Competitive landscape with information on major players in the market.

Analysis of key business strategies and recommendations on future market approach.

Analysis of competitive structure of the market.

Demand side and supply side analysis of the market.

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