

Smart Transportation Market by Transportation Mode (Roadways, Railways, Airways, and Maritime), and End User (Government and Commercial Organizations) - Global Forecast to 2029

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Report description:

The Smart Transportation market was estimated to be USD 129.72 billion in 2024 to USD 276.65 billion by 2029 at a Compound Annual Growth Rate (CAGR) of 16.4%. As it is an era of digital transformation, businesses across various industries are integrating cutting-edge technologies such as AI, IoT, and big data to enhance operational efficiency and improve customer experiences. Moreover, the demand for smarter transportation solutions is skyrocketing as governments and organizations focus on optimizing traffic management, reducing congestion, and enhancing safety. These advancements are expected to drive the adoption of smart transportation technologies in roadways, railways, and airways, fostering more sustainable and efficient transportation systems globally.

"In the Roadways segment, the Traffic Management Solution is expected to have the largest market size during the forecast period." In the roadways segment, the traffic management solution is expected to have the largest market size during the forecast period. Traffic management solutions are integral to improving the efficiency and safety of road networks, especially in urban environments. They leverage advanced technologies such as AI, machine learning, IoT sensors, and big data analytics to optimize traffic flow. These systems monitor real-time traffic conditions, manage traffic signal timings, predict congestion, and offer solutions to alleviate bottlenecks. By automating the monitoring and control of traffic, these systems reduce delays and pollution, improve travel times, and contribute to more sustainable urban mobility. For example, Siemens Mobility's Traffic Management Solutions integrates these advanced technologies to adjust traffic signals dynamically, manage public transportation fleets, and enhance overall traffic efficiency, ensuring smoother commutes in cities worldwide.

"In the Railways segment, the Passenger Information Solution will witness the highest growth during the forecast period." The passenger information solution will witness the highest growth in the railways segment during the forecast period. Passenger information solutions provide real-time, actionable data to passengers, helping them make informed travel decisions. These

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solutions are typically powered by digital displays, mobile applications, and automated announcements, providing up-to-the-minute updates on train schedules, delays, cancellations, and platform changes. With the growing demand for seamless and comfortable travel experiences, rail operators are investing in these technologies to improve customer satisfaction and operational efficiency. For example, Alstom's Passenger Information System uses real-time data to inform passengers of travel updates, enabling better coordination of their journey. As the rail industry focuses on enhancing customer experience and streamlining operations, passenger information systems are crucial in improving the overall travel experience, reducing the time passengers wait, and making their journeys more predictable.

"In the Airways segment, the Air traffic Management Solution is expected to have the largest market share during the forecast period."

In the airways segment, the air traffic management solution is expected to have the largest market share during the forecast period. Air traffic management (ATM) systems are pivotal for ensuring air travel's safety, efficiency, and smooth operation. To manage air traffic, these systems use various advanced technologies, including AI, radar, satellite navigation, and real-time data analytics. By optimizing flight routes, reducing delays, and enhancing airspace capacity, ATM systems ensure aircraft can travel safely, efficiently, and with minimal environmental impact. With the growth in global air traffic, these systems are increasingly critical to managing congestion and improving flight safety. For example, Thales' air traffic management solution incorporates predictive analytics and real-time data sharing to enhance air traffic flow and decision-making, improving the efficiency of air traffic controllers and optimizing airspace usage. This ensures reduced delays, smoother flight operations, and enhanced safety across increasingly crowded skies.

Breakdown of primaries

The study contains insights from various industry experts, from solution vendors to Tier 1 companies. The break-up of the primaries is as follows:

-□By Company Type: Tier 1 - 62%, Tier 2 - 23%, and Tier 3 - 15%

-□By Designation: C-level - 50%, D-level - 30%, and Others - 20%

-□By Region: North America - 38%, Europe - 15%, Asia Pacific - 35%, Middle East & Africa - 7%, and Latin America- 5%.

The major players in the Smart Transportation market include Thales Group (France), Huawei (China), Siemens (Germany), Cisco (US), DNV (Norway), Cubic (US), Alstom (France), Toshiba (Japan), Veson Nautical (US), NEC Corporation (Japan), Bentley Systems (US), Indra (Spain), Trimble (US), TomTom (Netherlands), Conduent (US), Kapsch (Austria), Hitachi (Japan), and Descartes (Canada). These players have adopted various growth strategies, such as partnerships, agreements and collaborations, new product launches, enhancements, and acquisitions to expand their Smart Transportation market footprint.

Research Coverage

The market study covers the Smart Transportation market size across different segments. It aims to estimate the market size and the growth potential across various segments, including transportation mode, end user, and region. The transportation mode includes Roadways (Smart Ticketing, Parking Management, Traffic Management, Passenger Information, Intelligent Mobility Solutions, Freight and Fleet Management, Other Roadway Solutions such as GIS Tracking, Safety Management, and Depot Management System), Railways (Railway Smart Ticketing, Passenger Information, Freight Management, Rail Traffic Management, Rail Asset Management, Other Railway Solutions such as GIS Tracking, Security and Safety Solutions, and Advanced Analytics), Airways (Smart Ticketing, Airway Passenger Information, Airport Security Solutions, Freight Management, Air Traffic Management, Other Airway Solutions such as Integrated Operating Center, Queue Management System, and Airport Parking Management), and Maritime (Port and Terminal Management, Maritime Traffic Management, Passenger Information, Other Maritime Solutions such as Smart Ticketing, Real-Time Weather Intelligence, and Maritime Safety and Security Solutions). All share the same services (Consulting, Deployment and Integration, and Support and Maintenance). The regional analysis of the Smart Transportation market covers North America, Europe, Asia Pacific, the Middle East & Africa, and Latin America. The study includes an in-depth competitive analysis of the leading market players, their company profiles, key observations related to product and business

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offerings, recent developments, and market strategies.

Key Benefits of Buying the Report

The report will help market leaders and new entrants with information on the closest approximations of the global Smart Transportation market's revenue numbers and subsegments. It will also help stakeholders understand the competitive landscape and gain more insights to position their businesses better and plan suitable go-to-market strategies. Moreover, the report will provide insights for stakeholders to understand the market's pulse and provide them with information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

1. **Analysis of key drivers** (Increasing demand for smarter and safer transportation, government investments in smart cities, advancements in AI, IoT, and connected infrastructure), restraints (High initial implementation costs, lack of standardized frameworks, privacy and security concerns with data), opportunities (Growing adoption of electric vehicles, rising demand for autonomous transport systems, increased integration of digital technologies in transportation), and challenges (Cybersecurity risks, complexity in integrating new technologies with existing systems, resistance to change in traditional transportation sectors) influencing the growth of the Smart Transportation market.
2. **Product Development/Innovation**: Detailed insights on upcoming technologies, research & development activities, and new product & service launches in the Smart Transportation market.
3. **Market Development**: Comprehensive information about lucrative markets - the report analyses the Smart Transportation market across various regions.
4. **Market Diversification**: Exhaustive information about new products & services, untapped geographies, recent developments, and investments in the Smart Transportation market.
5. **Competitive Assessment**: In-depth assessment of market shares, growth strategies and service offerings of leading players Thales Group (France), Huawei (China), Siemens (Germany), Cisco (US), and DNV (Norway), Cubic (US), Alstom (France), Toshiba (Japan), Veson Nautical (US), NEC Corporation (Japan), Bentley Systems (US), Indra (Spain), Trimble (US), TomTom (Netherlands), Conduent (US), Kapsch (Austria), Hitachi (Japan), and Descartes (Canada), Wartsila (Finland), Bosch (Germany), IEI Integration Corp. (Taiwan), Schneider Electric (France), Transcore (USA), BASSnet (Norway), EKE-Electronics (Finland), Aitek (Italy), Iteris (USA), Inrix (USA), TagMaster (Sweden), Atsuke (Japan), Park+ (India), Appyway (UK), and Efftronics Systems (India).

Table of Contents:

1	INTRODUCTION	43
1.1	STUDY OBJECTIVES	43
1.2	MARKET DEFINITION	43
1.3	STUDY SCOPE	43
1.3.1	MARKET SEGMENTATION	44
1.3.2	INCLUSION AND EXCLUSION	45
1.3.3	YEARS CONSIDERED	45
1.4	CURRENCY CONSIDERED	46
1.5	STAKEHOLDERS	46
1.6	SUMMARY OF CHANGES	47
2	RESEARCH METHODOLOGY	48
2.1	RESEARCH DATA	48
2.1.1	SECONDARY DATA	49
2.1.2	PRIMARY DATA	49
2.1.2.1	Primary interviews with experts	49
2.1.2.2	Breakup of primary interviews	50
2.1.2.3	Key insights from industry experts	50

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2.2	MARKET SIZE ESTIMATION	51
2.2.1	TOP-DOWN APPROACH	51
2.2.1.1	Supply-side analysis	52
2.2.2	BOTTOM-UP APPROACH	53
2.2.2.1	Demand-side analysis	54
2.3	DATA TRIANGULATION	55
2.4	MARKET FORECAST	57
2.5	RESEARCH ASSUMPTIONS	57
2.6	RESEARCH LIMITATIONS	58
3	EXECUTIVE SUMMARY	59
4	PREMIUM INSIGHTS	62
4.1	ATTRACTIVE OPPORTUNITIES FOR KEY PLAYERS IN SMART TRANSPORTATION MARKET	62
4.2	SMART TRANSPORTATION MARKET, BY TRANSPORTATION MODE	62
4.3	SMART TRANSPORTATION MARKET, BY ROADWAYS SOLUTION	63
4.4	SMART TRANSPORTATION MARKET, BY RAILWAYS SOLUTION	63
4.5	SMART TRANSPORTATION MARKET, BY END USER	64
4.6	EUROPEAN SMART TRANSPORTATION MARKET, BY TRANSPORTATION MODE AND COUNTRY	64
4.7	NORTH AMERICAN SMART TRANSPORTATION MARKET, BY TRANSPORTATION MODE AND COUNTRY	65
4.8	ASIA PACIFIC SMART TRANSPORTATION MARKET, BY TRANSPORTATION MODE AND COUNTRY	65
5	MARKET OVERVIEW AND INDUSTRY TRENDS	66
5.1	INTRODUCTION	66
5.2	MARKET DYNAMICS	67
5.2.1	DRIVERS	67
5.2.1.1	Increasing demand for autonomous and connected vehicles	67
5.2.1.2	Technological advancements to enhance customer experience	68
5.2.1.3	Growing government initiatives and PPP models for smart transportation	68
5.2.1.4	Rising urban population and high demographic rates	69
5.2.2	RESTRAINTS	69
5.2.2.1	Integration challenges for new age and legacy systems	69
5.2.2.2	Lack of standardized and uniform technology	70
5.2.2.3	Stringent transportation regulatory policies	70
5.2.3	OPPORTUNITIES	70
5.2.3.1	Leveraging smart city initiatives for growth in smart transportation	70
5.2.3.2	Designing and developing connected vehicles compatible with ITS	71
5.2.3.3	Penetration of analytics in smart transportation	71
5.2.3.4	Decline in vehicle ownership with advancement of MaaS	71
5.2.4	CHALLENGES	72
5.2.4.1	Scalability of smart transportation solutions in large cities	72
5.2.4.2	High initial cost of deployment	72
5.2.4.3	Multiple sensors and touchpoints posing data fusion challenges	72
5.3	EVOLUTION OF SMART TRANSPORTATION	73
5.4	ECOSYSTEM	74
5.5	CASE STUDY	76
5.5.1	CISCO, DAVRA NETWORKS, AND INTEL DELIVERED EDGE ANALYTICS TO SAN DIEGO METROPOLITAN TRANSIT SYSTEM	76
5.5.2	BANE NOR REPLACED NATIONAL TRAIN CONTROL SYSTEMS WITH THALES' SOLUTIONS	77

5.5.3	INTELLIGENT SOFTWARE SYSTEM BY HUAWEI ANALYSED DATA, IMPROVED SURVEILLANCE EFFICIENCY, AND IMPLEMENTED CONVENIENT SURVEILLANCE MANAGEMENT SOLUTIONS FOR QINGHAI-TIBET RAILWAY	78
5.5.4	LUXEMBOURG RAILWAYS EQUIPPED 34 NEW CORADIA TRAINS WITH ALSTOM'S AUTOMATIC TRAIN OPERATION SYSTEM	79
5.6	VALUE CHAIN ANALYSIS	79
5.7	TARIFF AND REGULATORY LANDSCAPE	80
5.7.1	TARIFF DATA (HSN: 853080) - ELECTRICAL SIGNALLING, SAFETY OR TRAFFIC CONTROL EQUIPMENT	80
5.7.2	REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS	82
5.7.3	KEY REGULATIONS	85
5.7.3.1	North America	85
5.7.3.1.1	SCR 17: Artificial Intelligence Bill (California)	85
5.7.3.1.2	S1103: Artificial Intelligence Automated Decision Bill (Connecticut)	85
5.7.3.1.3	National Artificial Intelligence Initiative Act (NAIIA)	86
5.7.3.1.4	The Artificial Intelligence and Data Act (AIDA) - Canada	86
5.7.3.2	Europe	87
5.7.3.2.1	The European Union (EU) - Artificial Intelligence Act (AIA)	87
5.7.3.2.2	General Data Protection Regulation (Europe)	87
5.7.3.3	Asia Pacific	88
5.7.3.3.1	Interim Administrative Measures for Generative Artificial Intelligence Services (China)	88
5.7.3.3.2	The National AI Strategy (Singapore)	88
5.7.3.3.3	The Hiroshima AI Process Comprehensive Policy Framework (Japan)	89
5.7.3.4	Middle East & Africa	89
5.7.3.4.1	The National Strategy for Artificial Intelligence (UAE)	89
5.7.3.4.2	The National Artificial Intelligence Strategy (Qatar)	90
5.7.3.4.3	The AI Ethics Principles and Guidelines (Dubai)	90
5.7.3.5	Latin America	90
5.7.3.5.1	The Santiago Declaration (Chile)	90
5.7.3.5.2	The Brazilian Artificial Intelligence Strategy (EBIA)	91
5.8	PRICING ANALYSIS	92
5.8.1	PRICE TREND OF KEY PLAYERS, BY SOLUTION	92
5.8.2	INDICATIVE PRICING ANALYSIS OF KEY PLAYERS, BY SOLUTION, 2024	93
5.9	TECHNOLOGY ANALYSIS	93
5.9.1	KEY TECHNOLOGIES	93
5.9.1.1	VEHICLE-TO-EVERYTHING (V2X)	93
5.9.1.2	AI & ML	93
5.9.1.3	AUTONOMOUS VEHICLES	94
5.9.1.4	GIS	94
5.9.2	COMPLEMENTARY TECHNOLOGIES	94
5.9.2.1	5G/6G Connectivity	94
5.9.2.2	Digital twin	94
5.9.2.3	ADAS	94
5.9.2.4	Blockchain	95
5.9.3	ADJACENT TECHNOLOGIES	95
5.9.3.1	Augmented Reality (AR)	95
5.9.3.2	Smart sensors & cameras	95
5.9.3.3	Robotics	95
?		
5.10	PATENT ANALYSIS	95

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5.10.1	METHODOLOGY	95
5.10.1.1	List of major patents	96
5.11	TRADE ANALYSIS	99
5.11.1	EXPORT SCENARIO OF ELECTRICAL SIGNALLING, SAFETY, OR TRAFFIC CONTROL EQUIPMENT	99
5.11.2	IMPORT SCENARIO OF ELECTRICAL SIGNALLING, SAFETY, OR TRAFFIC CONTROL EQUIPMENT	100
5.12	PORTER'S FIVE FORCES ANALYSIS	102
5.12.1	THREAT OF NEW ENTRANTS	103
5.12.2	THREAT OF SUBSTITUTES	103
5.12.3	BARGAINING POWER OF BUYERS	103
5.12.4	BARGAINING POWER OF SUPPLIERS	103
5.12.5	INTENSITY OF COMPETITIVE RIVALRY	104
5.13	TRENDS/DISRUPTIONS IMPACTING CUSTOMER BUSINESS	104
5.14	KEY STAKEHOLDERS & BUYING CRITERIA	105
5.14.1	KEY STAKEHOLDERS IN BUYING PROCESS	105
5.14.2	BUYING CRITERIA	106
5.15	KEY CONFERENCES AND EVENTS, 2025-2026	107
5.16	TECHNOLOGY ROADMAP FOR SMART TRANSPORTATION	108
5.16.1	SMART TRANSPORTATION TECHNOLOGY ROADMAP TILL 2030	108
5.16.1.1	Short-term roadmap (2025-2027)	108
5.16.1.2	Mid-term roadmap (2027-2029)	108
5.16.1.3	Long-term roadmap (2029-2031)	108
5.17	IMPACT OF AI/GENERATIVE AI ON SMART TRANSPORTATION MARKET	109
5.17.1	USE CASES OF GENERATIVE SMART TRANSPORTATION	109
5.18	INVESTMENT & FUNDING SCENARIO	111
6	SMART TRANSPORTATION MARKET, BY TRANSPORTATION MODE	112
6.1	INTRODUCTION	113
6.1.1	TRANSPORTATION MODES: SMART TRANSPORTATION MARKET DRIVERS	113
6.2	ROADWAYS	114
6.2.1	SOLUTIONS	115
6.2.1.1	Smart ticketing	118
6.2.1.2	Parking management	119
6.2.1.3	Traffic management	120
6.2.1.4	Passenger information	121
6.2.1.5	Intelligent Mobility Solutions (IMS)	122
6.2.1.6	Freight & fleet management	123
6.2.1.7	Other roadway solutions	124
6.2.2	SERVICES	125
6.2.2.1	Consulting	126
6.2.2.2	Deployment & integration	127
6.2.2.3	Support & maintenance	128
6.3	RAILWAYS	129
6.3.1	SOLUTIONS	130
6.3.1.1	Railway smart ticketing	132
6.3.1.2	Passenger Information Systems (PIS)	133
6.3.1.3	Freight management	134
6.3.1.4	Rail traffic management	135

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6.3.1.5	Rail asset management	136
6.3.1.6	Other railway solutions	137
6.3.2	SERVICES	138
6.3.2.1	Consulting	139
6.3.2.2	Deployment & integration	140
6.3.2.3	Support & maintenance	141
6.4	AIRWAYS	142
6.4.1	SOLUTIONS	144
6.4.1.1	Smart ticketing	145
6.4.1.2	Airway passenger information	146
6.4.1.3	Airport security solutions	147
6.4.1.4	Freight management	148
6.4.1.5	Air Traffic Management (ATM)	149
6.4.1.6	Other airway solutions	150
6.4.2	SERVICES	151
6.4.2.1	Consulting	153
6.4.2.2	Deployment & integration	154
6.4.2.3	Support & maintenance	155
6.5	MARITIME	156
6.5.1	SOLUTIONS	157
6.5.1.1	Port & terminal operations	159
6.5.1.2	Maritime traffic management	160
6.5.1.3	Passenger Information Systems (PIS)	161
6.5.1.4	Other maritime solutions	162
6.5.2	SERVICES	163
6.5.2.1	Consulting	164
6.5.2.2	Deployment & integration	165
6.5.2.3	Support & maintenance	166
?		
7	SMART TRANSPORTATION MARKET, BY END USER	167
7.1	INTRODUCTION	168
7.1.1	END USERS: SMART TRANSPORTATION MARKET DRIVERS	168
7.2	GOVERNMENT	169
7.3	COMMERCIAL ORGANIZATIONS	170
8	SMART TRANSPORTATION MARKET, BY REGION	172
8.1	INTRODUCTION	173
8.2	NORTH AMERICA	174
8.2.1	NORTH AMERICA: MACROECONOMIC OUTLOOK	174
8.2.2	US	184
8.2.2.1	Expansion of smart transportation initiatives, such as intelligent traffic systems and connected vehicle technologies, to address congestion and improve mobility to drive market	184
8.2.3	CANADA	193
8.2.3.1	Rising vehicle numbers and urban congestion, along with advancements in smart transportation infrastructure to propel market	193
8.3	EUROPE	194
8.3.1	EUROPE: MACROECONOMIC OUTLOOK	194
8.3.2	UK	204

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8.3.2.1 Need to improve efficiency of existing transportation infrastructure to fuel demand for smart transportation solutions 204

8.3.3 GERMANY 212

8.3.3.1 Robust economy and technological advancements and need to optimize use of roads, transportation, travel data, traffic management, and system integration to boost market growth 212

8.3.4 FRANCE 213

8.3.4.1 Strong hold on infrastructure development and presence of major players to accelerate market growth 213

8.3.5 SPAIN 213

8.3.5.1 Government initiatives to develop and promote evolution of smart infrastructure to drive market 213

8.3.6 ITALY 214

8.3.6.1 Growing adoption of IoT and analytics and 'Smarter Italy' program by Italian Ministry of Economic Development to bolster market growth 214

8.3.7 NORDICS 222

8.3.7.1 Strong innovation, government support, and sustainability focus to propel market 222

8.3.8 REST OF EUROPE 223

?

8.4 ASIA PACIFIC 224

8.4.1 ASIA PACIFIC: MACROECONOMIC OUTLOOK 224

8.4.2 AUSTRALIA AND NEW ZEALAND 234

8.4.2.1 Increasing investments in transportation network extensions and system upgradation to boost market growth 234

8.4.3 CHINA 235

8.4.3.1 Strong transportation network, increasing investments, and faster economic development to accelerate market growth 235

8.4.4 JAPAN 243

8.4.4.1 Higher adoption of transportation technologies and need to improve safety, operational efficiency, and passenger comfort to boost market 243

8.4.5 SINGAPORE 244

8.4.5.1 Increasing focus on technology-based solutions to minimize labor cost to bolster market growth 244

8.4.6 INDIA 244

8.4.6.1 Need for smart mobility solutions to manage transit to propel market 244

8.4.7 REST OF ASIA PACIFIC 252

8.5 MIDDLE EAST & AFRICA 253

8.5.1 MIDDLE EAST & AFRICA: MACROECONOMIC OUTLOOK 253

8.5.2 KSA 262

8.5.2.1 Increasing government initiatives to drive market 262

8.5.3 QATAR 270

8.5.3.1 Need to improve traffic management system and deliver efficient road infrastructure to bolster market 270

8.5.4 UAE 271

8.5.4.1 Technological advancements and government initiatives to improve transportation infrastructure to boost market growth 271

8.5.5 SOUTH AFRICA 271

8.5.5.1 Rising need for advanced transportation management infrastructure and technological upgradation to foster market growth 271

8.5.6 EGYPT 272

8.5.6.1 Need to improve road network to increase connectivity between cities to boost market growth 272

8.5.7 REST OF MIDDLE EAST & AFRICA 272

8.6 LATIN AMERICA 272

8.6.1 LATIN AMERICA: MACROECONOMIC OUTLOOK 273

8.6.2 BRAZIL 282

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8.6.2.1	Significant scope for development of advanced railway infrastructure to boost market growth	282
8.6.3	MEXICO	290
8.6.3.1	Increased demand for improved transportation infrastructure to fuel market growth	290
8.6.4	REST OF LATIN AMERICA	291
9	COMPETITIVE LANDSCAPE	292
9.1	INTRODUCTION	292
9.2	KEY PLAYER STRATEGIES/RIGHT TO WIN	292
9.3	REVENUE ANALYSIS	293
9.4	MARKET SHARE ANALYSIS	294
9.5	MARKET RANKING ANALYSIS	295
9.6	COMPANY EVALUATION MATRIX: KEY PLAYERS, 2024	296
9.6.1	STARS	296
9.6.2	EMERGING LEADERS	296
9.6.3	PERVASIVE PLAYERS	296
9.6.4	PARTICIPANTS	296
9.6.5	COMPANY FOOTPRINT: KEY PLAYERS, 2024	298
9.6.5.1	Company footprint	298
9.6.5.2	Regional footprint	299
9.6.5.3	Transportation mode footprint	300
9.6.5.4	End-user footprint	301
9.7	COMPANY EVALUATION MATRIX: START-UPS/SMES, 2024	301
9.7.1	PROGRESSIVE COMPANIES	301
9.7.2	RESPONSIVE COMPANIES	301
9.7.3	DYNAMIC COMPANIES	302
9.7.4	STARTING BLOCKS	302
9.7.5	COMPETITIVE BENCHMARKING: START-UPS/SMES, 2024	303
9.7.5.1	Detailed list of key start-ups/SMEs	303
9.7.5.2	Competitive benchmarking of key start-ups/SMEs	304
9.8	COMPETITIVE SCENARIOS & TRENDS	304
9.8.1	PRODUCT LAUNCHES	304
9.8.2	DEALS	306
9.9	BRAND/PRODUCT COMPARISON	314
9.10	COMPANY VALUATION AND FINANCIAL METRICS OF KEY SMART TRANSPORTATION MARKET PROVIDERS	315
10	COMPANY PROFILES	316
10.1	KEY PLAYERS	316
10.1.1	THALES GROUP	316
10.1.1.1	Business overview	316
10.1.1.2	Products/Solutions/Services offered	317
10.1.1.3	Recent developments	319
10.1.1.3.1	Deals	319
10.1.1.4	MnM view	320
10.1.1.4.1	Right to win	320
10.1.1.4.2	Strategic choices	320
10.1.1.4.3	Weaknesses and competitive threats	320
10.1.2	HUAWEI	321
10.1.2.1	Business overview	321

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10.1.2.2	Products/Solutions/Services offered	322
10.1.2.3	Recent developments	324
10.1.2.3.1	Product launches	324
10.1.2.3.2	Deals	324
10.1.2.4	MnM view	325
10.1.2.4.1	Right to win	325
10.1.2.4.2	Strategic choices	325
10.1.2.4.3	Weaknesses and competitive threats	325
10.1.3	SIEMENS	326
10.1.3.1	Business overview	326
10.1.3.2	Products/Solutions/Services offered	327
10.1.3.3	Recent developments	329
10.1.3.3.1	Deals	329
10.1.3.4	MnM view	329
10.1.3.4.1	Right to win	329
10.1.3.4.2	Strategic choices	330
10.1.3.4.3	Weaknesses and competitive threats	330
10.1.4	ALSTOM	331
10.1.4.1	Business overview	331
10.1.4.2	Products/Solutions/Services offered	332
10.1.4.3	Recent developments	333
10.1.4.3.1	Deals	333
10.1.4.4	MnM view	334
10.1.4.4.1	Right to win	334
10.1.4.4.2	Strategic choices	334
10.1.4.4.3	Weaknesses and competitive threats	334
10.1.5	HITACHI	335
10.1.5.1	Business overview	335
10.1.5.2	Products/Solutions/Services offered	336
10.1.5.3	Recent developments	337
10.1.5.3.1	Deals	337
10.1.5.4	MnM view	338
10.1.5.4.1	Right to win	338
10.1.5.4.2	Strategic choices	338
10.1.5.4.3	Weaknesses and competitive threats	338
?		
10.1.6	CISCO	339
10.1.6.1	Business overview	339
10.1.6.2	Products/Solutions/Services offered	340
10.1.6.3	Recent developments	341
10.1.6.3.1	Deals	341
10.1.7	DNV	342
10.1.7.1	Business overview	342
10.1.7.2	Products/Solutions/Services offered	342
10.1.7.3	Recent development	343
10.1.7.3.1	Deals	343
10.1.8	CUBIC	344

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10.1.8.1 Business overview 344
10.1.8.2 Products/Solutions/Services offered 345
10.1.8.3 Recent developments 345
10.1.8.3.1 Product launches 345
10.1.8.3.2 Deals 346
10.1.9 TOSHIBA 347
10.1.9.1 Business overview 347
10.1.9.2 Products/Solutions/Services offered 347
10.1.9.3 Recent developments 348
10.1.9.3.1 Deals 348
10.1.10 VESON NAUTICAL 349
10.1.10.1 Business overview 349
10.1.10.2 Products/Solutions/Services offered 349
10.1.10.3 Recent developments 350
10.1.10.3.1 Deals 350
10.1.11 NEC CORPORATION 351
10.1.11.1 Business overview 351
10.1.11.2 Products/Solutions/Services offered 352
10.1.11.3 Recent developments 353
10.1.11.3.1 Deals 353
10.1.12 BENTLEY SYSTEMS 354
10.1.12.1 Business overview 354
10.1.12.2 Products/Solutions/Services offered 355
10.1.12.3 Recent developments 356
10.1.12.3.1 Deals 356
10.1.13 INDRA 357
10.1.13.1 Business overview 357
10.1.13.2 Products/Solutions/Services offered 358
10.1.13.3 Recent developments 359
10.1.13.3.1 Deals 359
?
10.1.14 TRIMBLE 361
10.1.14.1 Business overview 361
10.1.14.2 Products/Solutions/Services offered 362
10.1.14.3 Recent developments 363
10.1.14.3.1 Deals 363
10.1.15 TOMTOM 365
10.1.15.1 Business overview 365
10.1.15.2 Products/Solutions/Services offered 366
10.1.15.3 Recent developments 368
10.1.15.3.1 Deals 368
10.1.16 CONDUENT 369
10.1.16.1 Business overview 369
10.1.16.2 Products/Solutions/Services offered 370
10.1.16.3 Recent developments 371
10.1.16.3.1 Deals 371
10.1.17 KAPSCH 373

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10.1.17.1	Business overview	373
10.1.17.2	Products/Solutions/Services offered	374
10.1.17.3	Recent developments	375
10.1.17.3.1	Deals	375
10.1.18	DESCARTES	376
10.1.18.1	Business overview	376
10.1.18.2	Products/Solutions/Services offered	376
10.1.18.3	Recent developments	378
10.1.18.3.1	Deals	378
10.1.19	WARTSILA	379
10.1.20	BOSCH	380
10.1.21	IEI INTEGRATION CORP.	381
10.1.22	SCHNEIDER ELECTRIC	382
10.1.23	TRANSCORE	383
10.2	OTHER PLAYERS	384
10.2.1	BASSNET	384
10.2.2	EKE-ELECTRONICS	385
10.2.3	AITEK	386
10.2.4	ITERIS	387
10.2.5	INRIX	388
10.2.6	TAGMASTER	389
10.2.7	ATSUKE	390
10.2.8	PARK+	391
10.2.9	APPYWAY	392
10.2.10	EFFTRONICS SYSTEMS	393
11	ADJACENT/RELATED MARKETS	394
11.1	INTRODUCTION	394
11.1.1	LIMITATIONS	394
11.2	SMART CITIES MARKET - GLOBAL FORECAST TO 2028	394
11.2.1	MARKET DEFINITION	394
11.2.2	MARKET OVERVIEW	395
11.2.2.1	Smart cities market, by focus area	395
11.2.2.2	Smart cities market, by smart transportation	396
11.2.2.3	Smart cities market, by smart building	397
11.2.2.4	Smart cities market, by smart utility	398
11.2.2.5	Smart cities market, by citizen service	399
11.2.2.6	Smart cities market, by region	400
11.3	TRAFFIC MANAGEMENT MARKET - GLOBAL FORECAST TO 2028	401
11.3.1	MARKET DEFINITION	401
11.3.2	MARKET OVERVIEW	401
11.3.2.1	Traffic management market, by component	401
11.3.2.2	Traffic management market, by system	402
11.3.2.3	Traffic management market, by region	403
12	APPENDIX	405
12.1	DISCUSSION GUIDE	405
12.2	KNOWLEDGESTORE: MARKETSandMARKETS' SUBSCRIPTION PORTAL	410
12.3	CUSTOMIZATION OPTIONS	412

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12.4 RELATED REPORTS 412

12.5 AUTHOR DETAILS 413

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