

Intelligent Transportation System Market by Offerings (Interface Board, Sensor, Camera, Monitoring & Detection), Mode (Roadways, Railways, Airways, Maritime) System (Advanced Traffic Management, ITS-enabled Transportation) - Global Forecast to 2029

Market Report | 2024-07-19 | 281 pages | MarketsandMarkets

AVAILABLE LICENSES:

- Single User \$4950.00
- Multi User \$6650.00
- Corporate License \$8150.00
- Enterprise Site License \$10000.00

Report description:

The global intelligent transportation system market is expected to reach USD 70.7 billion in 2029 from USD 50.7 billion in 2024, at a CAGR of 6.9% during the forecast period. Integrating ITS technologies in intelligent cities facilitates real-time traffic management, automated public transportation systems, and improved safety measures, driving demand for sophisticated, intelligent transportation system infrastructure and services.

"Aviation segment is expected to grow at the highest CAGR during the forecast period."

It is expected that aviation will have highest growth rate in the segment for intelligent transportation system market. As part of the transport sector, the aviation industries always focus on safety and security. ITS technologies help improve these important aspects with advanced surveillance systems that support automated safety checks and real-time data analytics. Essential investments in airport infrastructure, including the construction of new airports and the expansion of existing ones, make provisions for increased capacity to handle future passengers and flights. Besides, with the enactment of a number of pro-aviation policies like finance infrastructure, subsidization, and liberalization of airspace by various governments around the world, there is considerable support for aviation.

"Hardware segment is dominating the intelligent transportation system market."

The hardware segment is dominating the intelligent transportation system market. It relies on physical infrastructure, such as sensors, cameras, traffic signals, and communication devices, for data collection and transmission. These hardware components form part of the real-time monitoring and management of transport networks. Advanced technologies such as V2X communication, automated toll collection, and traffic management systems need robust and reliable hardware.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scott-international.com

www.scott-international.com

"The North America is projected to dominate the intelligent transportation system market."

North America has a well-developed transportation infrastructure, particularly the US and Canada. This provides a solid foundation for implementing and expanding ITS technologies. This will, therefore, provide a solid base for implementing and increasing the use of ITS technologies. North America also forms the base of most of the world's leading technology companies and top research institutions driving innovation in ITS. It could have benefited from advancements in artificial intelligence, machine learning, IoT, and big data analytics that form the backbone of sophisticated ITS solutions.

-□By Company Type: Tier 1 - 35%, Tier 2 - 20%, and Tier 3 - 45%

-□By Designation: C-level Executives - 35%, Directors - 45%, and Others - 20%

-□By Region: North America- 20%, Europe - 30%, Asia Pacific- 40% and RoW- 10%

Siemens (Germany), Hitachi Ltd. (Japan), Cubic Corporation (US), Conduent Incorporated (US), Kapsch TrafficCom AG (Austria), Denso Corporation (Japan), Teledyne Technologies Incorporated (US), Indra Sistemas S.A. (Spain), Garmin Ltd. (US), and Tomtom International BV (Netherlands), are some of the key players in the intelligent transportation system market.

The study includes an in-depth competitive analysis of these key players in the intelligent transportation system market, with their company profiles, recent developments, and key market strategies.

Research Coverage

This research report categorizes the intelligent transportation system market by mode (Roadways, Railways, Airways, and Maritime), by offerings (Hardware (Interface Board, Sensor, Surveillance Camera, Telecommunication Network, Monitoring and Detection System, Others), Software (Visualization Software, Video Detection Management Software, Transit Management Software, Others), and Services (Business & Cloud Service, Support & Maintenance Service)), by roadways by system (Advanced Traffic Management System, Advanced Traveler Information System, ITS-Enabled Transportation Pricing System, Advanced Public Transportation System, and Commercial Vehicle Operations (CVO) System), roadways by application (Fleet Management and Asset Monitoring, Intelligent Traffic Control (Traffic Monitoring System, Traffic Signal Control System, Traffic Enforcement Camera, Variable Traffic Message Signboard), Collision Avoidance, Parking Management, Passenger Information Management, Ticketing Management, Emergency Vehicle Notification, Automotive Telematics) railways by application (Rail-Running Operation & Collision Avoidance, Passenger Information Management, Smart Ticketing, Security & Surveillance, Emergency Notification, others) aviation by application (Security & Surveillance, Shuttle Bus Tracking, Traveler Information Management, Smart Ticketing, Aircraft Management, Emergency Notification, Others) maritime by application (Real-Time Weather Information Tracking, Container Movement Scheduling, Emergency Notification, Others) and by region (North America, Europe, Asia Pacific, and RoW). The report's scope covers detailed information regarding the major factors, such as drivers, restraints, challenges, and opportunities, influencing the growth of the intelligent transportation system market. A detailed analysis of the key industry players has been done to provide insights into their business overview, solutions, and services; key strategies; Contracts, partnerships, agreements, new product & service launches, mergers and acquisitions; and recent developments associated with the intelligent transportation system market. This report covers the competitive analysis of upcoming startups in the intelligent transportation system market ecosystem.

Reasons to buy this report

The report will help market leaders and new entrants with information on the closest approximations of the revenue numbers for the overall intelligent transportation system market and its subsegments. It will also help stakeholders understand the competitive landscape and gain more insights to better position their businesses and plan suitable go-to-market strategies. The report also helps stakeholders understand the market pulse and provides information on key market drivers, restraints, challenges, and opportunities.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

The report provides insights on the following pointers:

- Analysis of key drivers (Rapid urbanization to fuel the demand for intelligent transportation systems, Government initiatives to increase road safety, Rising developments of smart cities globally, Rising demand for mobility services), restraints (High upfront costs of implementation, Stagnation or sluggish growth in infrastructure sector), opportunities (Growing public-private partnerships, Growing demand from emerging economies), and challenges (Complexity of data management and privacy) influencing the growth of the intelligent transportation system market
- Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product & service launches in the intelligent transportation system market
- Market Development: Comprehensive information about lucrative markets - the report analyses the intelligent transportation system market across varied regions.
- Market Diversification: Exhaustive information about new products & services, untapped geographies, recent developments, and investments in the intelligent transportation system market
- Competitive Assessment: In-depth assessment of market shares, growth strategies and service offerings of leading players like Siemens (Germany), Hitachi Ltd. (Japan), Cubic Corporation (US), Conduent Incorporated (US), Kapsch TrafficCom AG (Austria), Denso Corporation (Japan), Teledyne Technologies Incorporated (US), Indra Sistemas S.A. (Spain), Garmin Ltd. (US), and Tomtom International BV (Netherlands) among others in the intelligent transportation system market.

Table of Contents:

1□INTRODUCTION□	26
1.1□STUDY OBJECTIVES□	26
1.2□MARKET DEFINITION□	26
1.3□INCLUSIONS AND EXCLUSIONS□	27
1.4□STUDY SCOPE□	27
1.4.1□MARKETS COVERED□	27
1.4.2□YEARS CONSIDERED□	29
1.5□CURRENCY CONSIDERED□	29
1.6□UNIT CONSIDERED□	29
1.7□STAKEHOLDERS□	29
1.8□SUMMARY OF CHANGES□	30
1.9□IMPACT OF RECESSION□	30
2□RESEARCH METHODOLOGY□	31
2.1□RESEARCH DATA□	31
2.1.1□SECONDARY DATA□	32
2.1.1.1□Key secondary sources - organizations□	32
2.1.1.2□Secondary sources□	32
2.1.2□PRIMARY DATA□	33
2.1.2.1□Primary interviews with experts□	33
2.1.2.2□Key data from primary sources□	34
2.1.2.3□Key industry insights□	35
2.1.2.4□Breakdown of primaries□	35
2.2□FACTOR ANALYSIS□	36
2.3□MARKET SIZE ESTIMATION METHODOLOGY□	37
2.3.1□BOTTOM-UP APPROACH□	37
2.3.1.1□Approach to arrive at market size using bottom-up analysis (demand side)□	37
2.3.2□TOP-DOWN APPROACH□	38

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

2.3.2.1	Approach to arrive at market size using top-down analysis (supply side)	38
2.4	DATA TRIANGULATION	39
2.5	RESEARCH ASSUMPTIONS	40
2.6	RESEARCH LIMITATIONS	40
2.7	PARAMETERS CONSIDERED TO ANALYZE RECESSION IMPACT ON INTELLIGENT TRANSPORTATION SYSTEM MARKET	41
2.8	RISK ASSESSMENT	41
3	EXECUTIVE SUMMARY	42
4	PREMIUM INSIGHTS	46
4.1	ATTRACTIVE OPPORTUNITIES FOR PLAYERS IN INTELLIGENT TRANSPORTATION SYSTEM MARKET	46
4.2	INTELLIGENT TRANSPORTATION SYSTEM MARKET, BY MODE	46
4.3	INTELLIGENT TRANSPORTATION SYSTEM MARKET, BY OFFERING	47
4.4	ROADWAYS: INTELLIGENT TRANSPORTATION SYSTEM MARKET, BY APPLICATION AND REGION	47
4.5	INTELLIGENT TRANSPORTATION SYSTEM MARKET, BY REGION	48
5	MARKET OVERVIEW	49
5.1	INTRODUCTION	49
5.2	MARKET DYNAMICS	49
5.2.1	DRIVERS	50
5.2.1.1	Rapid urbanization across regions	50
5.2.1.2	Government initiatives to increase road safety	50
5.2.1.3	Rising development of smart cities globally	51
5.2.1.4	Increasing demand for mobility services	51
5.2.2	RESTRAINTS	52
5.2.2.1	High upfront costs of implementation	52
5.2.2.2	Slow technology adoption in emerging economies	53
5.2.3	OPPORTUNITIES	53
5.2.3.1	Growing public-private partnerships	53
5.2.3.2	Growing demand from emerging economies	54
5.2.4	CHALLENGES	54
5.2.4.1	Complexity of data management and privacy	54
5.3	VALUE CHAIN ANALYSIS	55
5.4	ECOSYSTEM ANALYSIS	56
5.5	INVESTMENT AND FUNDING SCENARIO	58
5.6	PRICING ANALYSIS	58
5.6.1	PRICING ANALYSIS OF ITS HARDWARE BY KEY PLAYERS	58
5.7	AVERAGE SELLING PRICE TREND	59
5.8	TRENDS/DISRUPTIONS IMPACTING CUSTOMERS	59
5.9	TECHNOLOGY ANALYSIS	60
5.9.1	KEY TECHNOLOGIES	60
5.9.1.1	Vehicle to Everything	60
5.9.1.2	Data Analytics	60
5.9.2	COMPLEMENTARY TECHNOLOGY	61
5.9.2.1	Internet of Things (IoT)	61
5.9.2.2	5G	61
5.9.3	ADJACENT TECHNOLOGY	61

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

5.9.3.1	Artificial Intelligence	61
?		
5.10	IMPACT OF AI ON INTELLIGENT TRANSPORTATION SYSTEM MARKET	62
5.10.1	INTRODUCTION	62
5.10.2	FUTURE OF INTELLIGENT TRANSPORTATION SYSTEMS: ADVANCEMENTS DRIVEN BY AI	63
5.11	PORTER'S FIVE FORCES ANALYSIS	65
5.12	KEY STAKEHOLDERS & BUYING CRITERIA	67
5.12.1	KEY STAKEHOLDERS IN BUYING PROCESS	67
5.12.2	BUYING CRITERIA	68
5.13	CASE STUDY ANALYSIS	69
5.13.1	INTELLIGENT TRANSPORT SYSTEM IMPLEMENTED IN DEHRADUN INDIA	69
5.13.2	ANALOG AND DIGITAL COMBINED IN SHENZHEN TO CREATE INTELLIGENT TRANSPORT SYSTEM	69
5.13.3	CUBIC CORPORATION TRAFFIC MANAGEMENT SOLUTION DEPLOYED IN MEXICO	70
5.13.4	INTELLIGENT TRANSPORT SYSTEM IMPLEMENTED IN EGYPT	70
5.14	TRADE ANALYSIS	71
5.14.1	IMPORT SCENARIO	71
5.14.2	EXPORT SCENARIO	71
5.15	PATENT ANALYSIS	72
5.16	KEY CONFERENCES & EVENTS IN 2024 & 2025	75
5.17	TARIFF ANALYSIS	75
5.18	REGULATORY LANDSCAPE	76
5.18.1	REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS	76
5.18.2	SAFETY STANDARDS FOR INTELLIGENT TRANSPORT SYSTEM	79
6	PROTOCOLS FOR INTELLIGENT TRANSPORTATION SYSTEMS	80
6.1	INTRODUCTION	80
6.2	SHORT RANGE	80
6.2.1	WAVE (IEEE 802.11)	80
6.2.2	WPAN (IEEE 802.15)	81
6.3	LONG RANGE	81
6.3.1	WIMAX (IEEE 802.11)	81
6.3.2	OFDM	81
6.4	IEEE 1512	81
6.5	TRAFFIC MANAGEMENT DATA DICTIONARY	82
6.6	OTHERS	82
7	EVOLUTION OF TECHNOLOGIES IN INTELLIGENT TRANSPORTATION SYSTEMS	83
7.1	INTRODUCTION	83
7.2	AUTONOMOUS VEHICLES	83
7.3	PLATOONING	83
7.4	SMART ROADS	84
7.5	DRONE DELIVERY	84
8	INTELLIGENT TRANSPORTATION SYSTEM MARKET, BY MODE	85
8.1	INTRODUCTION	86
8.2	ROADWAYS	88
8.2.1	INCREASING NEED TO ENHANCE ROAD SAFETY TO FUEL GROWTH	88
8.3	RAILWAYS	88
8.3.1	EFFICIENCY AND RELIABILITY DRIVE DEMAND IN RAILWAYS	88
8.4	AVIATION	88

8.4.1	GROWING NEED FOR AUTOMATIC SURVEILLANCE TO BOOST GROWTH	88
8.5	MARITIME	89
8.5.1	HIGH DEMAND FOR MARITIME SAFETY AND SECURITY TO DRIVE GROWTH	89
9	INTELLIGENT TRANSPORTATION SYSTEM MARKET FOR ROADWAYS, BY OFFERING	90
9.1	INTRODUCTION	91
9.2	HARDWARE	93
9.2.1	INTERFACE BOARDS	94
9.2.1.1	Multifunctional boards	94
9.2.1.1.1	Growing demand due to versatility	94
9.2.1.2	Vehicle detection boards	95
9.2.1.2.1	Increasing use due to accuracy	95
9.2.1.3	Communication boards	95
9.2.1.3.1	Growing demand to facilitate real-time data exchange	95
9.2.2	SENSORS	96
9.2.2.1	Vehicle detection sensors	96
9.2.2.1.1	Increasing use of vehicle detection sensors in road safety	96
9.2.2.2	Pedestrian presence sensors	96
9.2.2.2.1	Growing demand in traffic management	96
9.2.2.3	Speed sensors	96
9.2.2.3.1	Increasing use in detecting and tracking vehicle speed	96
9.2.3	SURVEILLANCE CAMERAS	97
9.2.3.1	Thermal cameras	97
9.2.3.1.1	Growing use due to high accuracy	97
9.2.3.2	AID cameras	97
9.2.3.2.1	Increasing use in computer vision	97
9.2.4	TELECOMMUNICATION NETWORKS	98
9.2.4.1	Fiber optic cables	98
9.2.4.1.1	High data speed and large data capacity lead to increasing use	98
9.2.4.2	Copper lines	99
9.2.4.2.1	High demand due to reliability and compatibility	99
9.2.4.3	Wireless media	99
9.2.4.3.1	Increasing demand in short-range wireless applications	99
9.2.5	MONITORING & DETECTION SYSTEMS	100
9.2.5.1	Automatic number plate recognition system	100
9.2.5.1.1	Growing use in security and traffic management	100
9.2.5.2	Intelligent traffic controllers	100
9.2.5.2.1	Increasing use in remote monitoring	100
9.2.6	OTHERS	101
9.2.6.1	Linked traffic controllers	101
9.2.6.1.1	Find application in optimizing traffic flow	101
9.2.6.2	Variable message signboards	101
9.2.6.2.1	Safety considerations to drive adoption	101
9.3	SOFTWARE	102
9.3.1	VISUALIZATION SOFTWARE	103
9.3.1.1	Increasing complexity of transportation networks to drive segment	103
9.3.2	VIDEO DETECTION MANAGEMENT SOFTWARE	103

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

9.3.2.1	Segment propelled by necessity to enhance traffic monitoring	103
9.3.3	TRANSIT MANAGEMENT SOFTWARE	104
9.3.3.1	Increasing use to streamline operations and management of public transit systems	104
9.3.4	OTHERS	104
9.4	SERVICES	104
9.4.1	BUSINESS & CLOUD SERVICES	105
9.4.1.1	Flexibility and scalability to drive growth	105
9.4.2	SUPPORT & MAINTENANCE SERVICES	105
9.4.2.1	Ensure performance of ITS components	105
10	INTELLIGENT TRANSPORTATION SYSTEM MARKET FOR ROADWAYS, BY SYSTEM	106
10.1	INTRODUCTION	107
10.2	ADVANCED TRAFFIC MANAGEMENT	109
10.2.1	INCREASING DEMAND DUE TO RAPID URBANIZATION	109
10.3	ADVANCED TRAVELER INFORMATION	110
10.3.1	GROWING USE TO IMPROVE TRAFFIC EFFICIENCY	110
10.4	ITS-ENABLED TRANSPORTATION PRICING	111
10.4.1	REDUCED TRANSPORT CONGESTION - KEY DRIVER	111
10.5	ADVANCED PUBLIC TRANSPORTATION SYSTEM	113
10.5.1	TECHNOLOGICAL ADVANCEMENTS IN TRANSPORTATION TO DRIVE GROWTH	113
10.6	COMMERCIAL VEHICLE OPERATIONS	114
10.6.1	NEED FOR STREAMLINED OPERATIONS TO INCREASE USAGE	114
11	INTELLIGENT TRANSPORTATION SYSTEM MARKET FOR ROADWAYS, BY APPLICATION	116
11.1	INTRODUCTION	117
11.2	FLEET MANAGEMENT & ASSET MONITORING	119
11.2.1	REGULATORY COMPLIANCE AND SAFETY REQUIREMENTS TO FUEL DEMAND	119
11.3	INTELLIGENT TRAFFIC CONTROL	119
11.3.1	TRAFFIC MONITORING SYSTEMS	120
11.3.1.1	Rapid urbanization to drive demand	120
11.3.2	TRAFFIC SIGNAL CONTROL SYSTEMS	120
11.3.2.1	Technological advancements to lead to high demand	120
11.3.3	TRAFFIC ENFORCEMENT CAMERAS	121
11.3.3.1	Emerging as effective solution to traffic management	121
11.3.4	VARIABLE TRAFFIC MESSAGE SIGNBOARDS	121
11.3.4.1	Growing use due to versatility	121
11.4	COLLISION AVOIDANCE	121
11.4.1	INCREASE IN ROAD SAFETY CONCERNS TO BOOST GROWTH	121
11.5	PARKING MANAGEMENT	122
11.5.1	URBANIZATION AND TECHNOLOGICAL ADVANCEMENTS TO DRIVE DEMAND	122
11.6	PASSENGER INFORMATION MANAGEMENT	123
11.6.1	AVAILABILITY OF REAL-TIME DATA AT EVERY STOP - KEY DRIVER	123
11.7	TICKETING MANAGEMENT	124
11.7.1	INCREASING USE DUE TO OPERATIONAL EFFICIENCY	124
11.8	EMERGENCY VEHICLE NOTIFICATION	124
11.8.1	COMMUNICATION OF APPROACHING EMERGENCY VEHICLES TO DRIVE GROWTH	124

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

11.9	AUTOMOTIVE TELEMATICS	125
11.9.1	STREAMLINED FLEET MANAGEMENT TO INCREASE DEMAND	125
12	INTELLIGENT TRANSPORTATION SYSTEM MARKET FOR RAILWAYS,	
	BY APPLICATION	127
12.1	INTRODUCTION	128
12.2	RAIL-RUNNING OPERATION & COLLISION AVOIDANCE	130
12.2.1	SAFETY REGULATIONS TO DRIVE SEGMENT GROWTH	130
12.3	PASSENGER INFORMATION MANAGEMENT	130
12.3.1	GROWING USAGE TO MEET CUSTOMER DEMAND FOR INSTANT INFORMATION	130
12.4	SMART TICKETING	131
12.4.1	INCREASING USE TO ENHANCE OPERATIONAL EFFICIENCY	131
12.5	SECURITY & SURVEILLANCE	132
12.5.1	VULNERABILITY TO SECURITY THREATS NECESSITATES USE	132
12.6	EMERGENCY NOTIFICATION	133
12.6.1	NEED FOR WIDE-SCALE COMMUNICATION IN EMERGENCIES TO DRIVE DEMAND	133
12.7	OTHER APPLICATIONS	134
13	INTELLIGENT TRANSPORTATION SYSTEM MARKET FOR AVIATION,	
	BY APPLICATION	135
13.1	INTRODUCTION	136
13.2	SECURITY & SURVEILLANCE	138
13.2.1	RISING FOCUS ON SECURITY BY GOVERNMENTS TO DRIVE SEGMENT	138
13.3	SHUTTLE BUS TRACKING	139
13.3.1	RISING DEMAND FOR REAL-TIME BUS TRACKING TO AVOID DELAYS	139
13.4	TRAVELER INFORMATION MANAGEMENT	140
13.4.1	STRINGENT REGULATIONS BY AVIATION AUTHORITIES TO BOOST GROWTH	140
13.5	SMART TICKETING	141
13.5.1	INCREASING DEMAND FOR PASSENGER CONVENIENCE TO DRIVE SEGMENT	141
13.6	AIRCRAFT MANAGEMENT	142
13.6.1	EXPANDING GLOBAL FLEET OF PRIVATE AND CORPORATE AIRCRAFT TO DRIVE SEGMENT	142
13.7	EMERGENCY NOTIFICATION	143
13.7.1	SAFETY AND SECURITY CONCERNS LEAD TO ADOPTION OF EMERGENCY SYSTEMS	143
13.8	OTHER APPLICATIONS	144
14	INTELLIGENT TRANSPORTATION SYSTEM MARKET IN MARITIME,	
	BY APPLICATION	146
14.1	INTRODUCTION	147
14.2	FREIGHT ARRIVAL & TRANSIT	149
14.2.1	RISING INTERNATIONAL TRADE VOLUME TO FUEL DEMAND	149
14.3	REAL-TIME WEATHER INFORMATION TRACKING	150
14.3.1	RISING NEED TO INCREASE EFFICIENCY IN MARITIME OPERATIONS TO FUEL DEMAND	150
14.4	CONTAINER MOVEMENT SCHEDULING	150
14.4.1	INCREASING USAGE TO MITIGATE PORT CONGESTION	150
14.5	EMERGENCY NOTIFICATION	151
14.5.1	WIDE-SCALE ADOPTION TO MONITOR AND REDUCE CHANCES OF MARINE ACCIDENTS	151
14.6	OTHER APPLICATIONS	152
15	INTELLIGENT TRANSPORTATION SYSTEM MARKET, BY REGION	154
15.1	INTRODUCTION	155
15.2	NORTH AMERICA	156

15.2.1	NORTH AMERICA: RECESSION IMPACT	159
15.2.2	US	159
15.2.2.1	Increasing public and private collaborations to drive market	159
15.2.3	CANADA	159
15.2.3.1	Government and private investments in intelligent transportation systems to drive growth	159
15.2.4	MEXICO	160
15.2.4.1	Modernization of public transit through ITS to boost market	160
15.3	EUROPE	160
15.3.1	EUROPE: RECESSION IMPACT	163
15.3.2	GERMANY	163
15.3.2.1	Collaborations to drive deployment of ITS products	163
15.3.3	FRANCE	164
15.3.3.1	Rising focus on sustainable mobility to drive demand	164
15.3.4	UK	164
15.3.4.1	Government and private partnerships for revival of public transportation to fuel growth	164
15.3.5	ITALY	164
15.3.5.1	Government initiatives to promote ITS to propel growth	164
15.3.6	SPAIN	165
15.3.6.1	EU aid to modernize transportation network to fuel growth	165
15.3.7	BELGIUM	165
15.3.7.1	Goal to achieve emission-free public transportation to drive demand	165
15.3.8	DENMARK	165
15.3.8.1	Developments in transportation system to boost market	165
15.3.9	AUSTRIA	165
15.3.9.1	Growing adoption of ITS to manage urban congestion	165
15.3.10	SWEDEN	166
15.3.10.1	Adoption of online standards to increase usage of ITS	166
15.3.11	REST OF EUROPE	166
15.4	ASIA PACIFIC	166
15.4.1	ASIA PACIFIC: RECESSION IMPACT	169
15.4.2	CHINA	169
15.4.2.1	Investment in R&D to drive market	169
15.4.3	JAPAN	169
15.4.3.1	Emphasis on innovation to drive market growth	169
15.4.4	INDIA	169
15.4.4.1	Indigenous ITS solutions by government to boost market	169
15.4.5	SOUTH KOREA	170
15.4.5.1	Government initiatives for cooperative ITS to drive market	170
15.4.6	AUSTRALIA	170
15.4.6.1	Upgrades to existing ITS to fuel growth	170
15.4.7	REST OF ASIA PACIFIC	170
?		
15.5	REST OF THE WORLD	170
15.5.1	ROW: RECESSION IMPACT	172
15.5.1.1	GCC Countries	173
15.5.1.1.1	Road safety concerns and demand for accessible transportation options to fuel market	173
15.5.1.2	Rest of Middle East	173

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

15.5.1.2.1	Rapid urbanization to drive market	173
15.5.2	SOUTH AMERICA	174
15.5.2.1	Growing economy and government investments to drive market growth	174
16	COMPETITIVE LANDSCAPE	175
16.1	OVERVIEW	175
16.2	KEY PLAYER STRATEGIES	175
16.2.1	PRODUCT PORTFOLIO	176
16.2.2	REGIONAL FOCUS	176
16.2.3	MANUFACTURING FOOTPRINT	176
16.2.4	ORGANIC/INORGANIC STRATEGIES	176
16.3	REVENUE ANALYSIS OF TOP COMPANIES	176
16.4	MARKET SHARE ANALYSIS	177
16.5	COMPANY VALUATION AND FINANCIAL METRICS	180
16.6	BRAND/PRODUCT COMPARISON	181
16.7	COMPANY EVALUATION MATRIX: KEY PLAYERS	181
16.7.1	STARS	181
16.7.2	EMERGING LEADERS	182
16.7.3	PERVASIVE PLAYERS	182
16.7.4	PARTICIPANTS	182
16.7.5	COMPANY FOOTPRINT	184
16.8	COMPANY EVALUATION MATRIX: STARTUPS/SMES	189
16.8.1	PROGRESSIVE COMPANIES	189
16.8.2	RESPONSIVE COMPANIES	189
16.8.3	DYNAMIC COMPANIES	189
16.8.4	STARTING BLOCKS	189
16.8.5	COMPETITIVE BENCHMARKING OF KEY STARTUPS/SMES	191
16.9	COMPETITIVE SCENARIO	193
16.9.1	PRODUCT LAUNCHES	193
16.9.2	DEALS	194
16.9.3	EXPANSIONS	198
16.9.4	OTHER DEVELOPMENTS	198
	?	
17	COMPANY PROFILES	202
17.1	KEY PLAYERS	202
17.1.1	SIEMENS	202
17.1.1.1	Business overview	202
17.1.1.2	Products/Solutions/Services offered	204
17.1.1.3	Recent developments	205
17.1.1.3.1	Other developments	205
17.1.1.4	MnM view	206
17.1.1.4.1	Right to win	206
17.1.1.4.2	Strategic choices	206
17.1.1.4.3	Weaknesses and competitive threats	206
17.1.2	HITACHI, LTD.	207
17.1.2.1	Business overview	207
17.1.2.2	Products/Solutions/Services offered	209
17.1.2.3	Recent developments	210

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

17.1.2.3.1	Deals	210
17.1.2.3.2	Other developments	210
17.1.2.4	MnM view	210
17.1.2.4.1	Right to win	210
17.1.2.4.2	Strategic choices	210
17.1.2.4.3	Weaknesses and competitive threats	211
17.1.3	CUBIC CORPORATION	212
17.1.3.1	Business overview	212
17.1.3.2	Products/Solutions/Services offered	212
17.1.3.3	Recent developments	214
17.1.3.3.1	Product launches	214
17.1.3.3.2	Deals	214
17.1.3.3.3	Expansions	215
17.1.3.3.4	Other developments	215
17.1.3.4	MnM view	216
17.1.3.4.1	Right to win	216
17.1.3.4.2	Strategic choices	216
17.1.3.4.3	Weaknesses and competitive threats	216
17.1.4	CONDUENT, INC.	217
17.1.4.1	Business overview	217
17.1.4.2	Products/Solutions/Services offered	218
17.1.4.3	Recent developments	220
17.1.4.3.1	Other developments	220
17.1.4.4	MnM view	221
17.1.4.4.1	Right to win	221
17.1.4.4.2	Strategic choices	221
17.1.4.4.3	Weaknesses and competitive threats	221
17.1.5	KAPSCH TRAFFICOM AG	222
17.1.5.1	Business overview	222
17.1.5.2	Products/Solutions/Services offered	224
17.1.5.3	Recent developments	225
17.1.5.3.1	Deals	225
17.1.5.3.2	Other developments	225
17.1.5.4	MnM view	226
17.1.5.4.1	Right to win	226
17.1.5.4.2	Strategic choices	226
17.1.5.4.3	Weaknesses and competitive threats	226
17.1.6	DENSO CORPORATION	227
17.1.6.1	Business overview	227
17.1.6.2	Products/Solutions/Services offered	229
17.1.6.3	Recent developments	230
17.1.6.3.1	Product Launches	230
17.1.6.3.2	Other Developments	230
17.1.7	TELEDYNE TECHNOLOGIES INCORPORATED	231
17.1.7.1	Business overview	231
17.1.7.2	Products/Solutions/Services offered	233
17.1.7.3	Recent developments	234

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

17.1.7.3.1	Product Launches	234
17.1.7.3.2	Deals	234
17.1.7.3.3	Expansions	235
17.1.8	INDRA SISTEMAS, S.A.	236
17.1.8.1	Business overview	236
17.1.8.2	Products/Solutions/Services offered	238
17.1.8.3	Recent developments	239
17.1.8.3.1	Deals	239
17.1.8.3.2	Other developments	240
17.1.9	GARMIN LTD.	241
17.1.9.1	Business overview	241
17.1.9.2	Products/Solutions/Services offered	243
17.1.9.3	Recent developments	245
17.1.9.3.1	Deals	245
17.1.10	TOMTOM INTERNATIONAL BV	246
17.1.10.1	Business overview	246
17.1.10.2	Products/Solutions/Services offered	248
17.1.10.3	Recent developments	249
17.1.10.3.1	Product Launches	249
17.1.10.3.2	Deals	249
17.1.10.3.3	Expansions	250
17.1.10.3.4	Other developments	251
17.2	OTHER PLAYERS	251
17.2.1	VERRA MOBILITY	251
17.2.2	SWARCO	252
17.2.3	ST ENGINEERING	253
17.2.4	ITERIS, INC.	254
17.2.5	Q-FREE	255
17.2.6	SERCO GROUP PLC	256
17.2.7	EFKON GMBH	257
17.2.8	LANNER	258
17.2.9	SENSYS GATSO GROUP AB	259
17.2.10	TAGMASTER	260
17.2.11	RICARDO	261
17.2.12	TRANSMAX PTY LTD.	262
17.2.13	DAKTRONICS, INC.	263
17.2.14	GEOTOLL	264
17.2.15	CELLINT	265
18	ADJACENT MARKET	266
18.1	INTRODUCTION	266
18.2	ELECTRONIC TOLL COLLECTION MARKET, BY TECHNOLOGY	266
18.3	RADIO-FREQUENCY IDENTIFICATION	267
18.3.1	LARGE-SCALE UTILIZATION IN ETC SYSTEMS TO ACCELERATE SEGMENT GROWTH	267
18.4	DEDICATED SHORT-RANGE COMMUNICATION	269
18.4.1	HIGH ADOPTION OF DSRC TECHNOLOGY-BASED ETC SYSTEMS IN EUROPE TO FUEL MARKET GROWTH	269
18.5	OTHER TECHNOLOGIES	270

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

19 APPENDIX 272

19.1 INSIGHTS FROM INDUSTRY EXPERTS 272

19.2 DISCUSSION GUIDE 273

19.3 KNOWLEDGESTORE: MARKETSANDMARKETS? SUBSCRIPTION PORTAL 277

19.4 CUSTOMIZATION OPTIONS 279

19.5 RELATED REPORTS 279

19.6 AUTHOR DETAILS 280

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Intelligent Transportation System Market by Offerings (Interface Board, Sensor, Camera, Monitoring & Detection), Mode (Roadways, Railways, Airways, Maritime) System (Advanced Traffic Management, ITS-enabled Transportation) - Global Forecast to 2029

Market Report | 2024-07-19 | 281 pages | MarketsandMarkets

To place an Order with Scotts International:

- ☐ - Print this form
- ☐ - Complete the relevant blank fields and sign
- ☐ - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User	\$4950.00
	Multi User	\$6650.00
	Corporate License	\$8150.00
	Enterprise Site License	\$10000.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>
Address*	<input type="text"/>	City*	<input type="text"/>

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Zip Code*	<input type="text"/>	Country*	<input type="text"/>
		Date	2025-05-20
		Signature	<div></div>