

**Automotive V2X Market by Connectivity (DSRC, and Cellular), Communication (V2V, V2I, V2P, V2G, V2C, and V2D), Vehicle Type (Passenger Cars, and Commercial Vehicles), Propulsion (ICE and EV), Unit, Offering, Technology and Region - Global Forecast to 2028**

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**Report description:**

The global automotive V2X market is projected to grow from USD 2.6 billion in 2022 to USD 19.5 billion by 2028, at a CAGR of 39.7%. Parameters such as increase in demand for connected vehicles, along with increase in demand for autonomous mobility. In addition, the advancements in 5G technology, paired with government support for V2X technology will create new opportunities for this market.

"DSRC segment is expected to be the largest market during the forecast period, by connectivity."

Dedicated Short-Range Communications (DSRC) of the automotive V2X market is projected to be the largest segment during the forecast period. DSRC is based on IEEE 802.11p connectivity, which is a Wi-Fi offshoot. It runs in the unlicensed 5.9 GHz frequency band. This connectivity is called Wireless Access for Vehicular Environments (WAVE) and ITS-G5 in the European Cooperative Intelligent Transport Systems (C-ITS). The V2X communication through DSRC goes outside line-of-sight, unlike sensors that include radar, cameras, and LiDAR. This connectivity mainly covers V2I and V2V cases, offering speed limit alerts, electronic parking, toll payments, and collision warnings. The functional aspects of DSRC include low latency (~2 ms), short range (under 1 km), and high reliability. The primary aspect driving the DSRC V2X market is the ability to effectively communicate among fast-moving vehicles at a data rate ranging from 3-27 Mbps over a distance of at least 300 m. DSRC connectivity has matured over the years since its introduction more than 10 years back. It has already been tested and deployed. These factors would also drive the growth of this segment.

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"North America is expected to have significant growth during the forecast period."

The North American region is estimated to demonstrate significant growth during the forecast period. The North American automotive industry is one of the fastest-growing industries at a global level. Home to the big three-Ford Motors, General Motors, and Fiat Chrysler Automobiles, the automotive market in the US has favored passenger cars with advanced comfort and safety technologies. The US is the largest market in the region and accounts for more than two-thirds of the overall market, followed by Mexico and Canada. The market is dominated by American OEMs such as Ford Motors, General Motors, and Fiat- Chrysler Automotive, along with established European and Asian OEMs such as Toyota (Japan), Nissan (Japan), Honda (Japan), Hyundai/Kia (South Korea), BMW Group (Germany), and Volkswagen Group (Germany). The continuous progression of safety regulations in North American countries, such as the possibility of mandatory installation of rear-view cameras in the US, and discussion on mandates regarding V2V communication, would drive the North American connected car market in the coming years. The presence of key automotive players such as Qualcomm Incorporated and HARMAN International would help drive the North American V2X market.

"Electric vehicles segment is estimated to be the promising segment in the automotive V2X market during the forecast period"

Electric vehicles is expected to be the promising segment by propulsion during the forecast period. Electric vehicles represent a significant step forward in curbing pollution-related environmental concerns. However, the growing energy demands for electric vehicles also pose major challenges to the stability of the power grid. This is expected to increase the demand for Vehicle-to-Grid (V2G) technology. V2G enables EVs to export their unused battery capacity back to the grid to fill gaps in renewable energy generation. Electric vehicles equipped with V2X enable an additional V2G (vehicle-to-grid) function compared to ICE vehicles. The V2G function enables the regulation of EV charging rates or returning the electricity to the grid if not required by the EV. This communication helps improve the economic, environmental, and operational aspects of EVs. The V2V and V2I communications offer high safety and fuel economy, and this, along with V2G, offers improved performance when compared to V2X-equipped ICE vehicles. This primary factor would drive the EV V2X market during the forecast period. Many top vehicle manufacturers, such as Nissan, offer V2X-equipped EVs. In addition, companies such as Virta Global (Finland), Nuvve Holding Corp. (US), and AC Propulsion, Inc. (US), among others offer V2X technology for end-users.

In-depth interviews were conducted with CEOs, marketing directors, other innovation and technology directors, and executives from various key organizations operating in this market.

-□By Company Type: OEMs - 21%, Tier I - 31%, and Tier II - 48%

-□By Designation: CXOs - 40%, Directors - 35%, and Others - 25%

-□By Region: North America - 30%, Europe - 50%, Asia Pacific - 15%, and RoW - 5%

The automotive V2X market is dominated by major players including Qualcomm Incorporated (US), Autotalks (Israel), Continental AG (Germany), Cohda Wireless (Australia), and Robert Bosch GmbH (Germany). These companies have strong product portfolio as well as strong distribution networks at the global level.

Research Coverage:

The report covers the automotive V2X market, in terms of Connectivity (DSRC, and Cellular), Communication (V2V, V2I, V2P, V2G, V2C, and V2D), Vehicle Type (Passenger Cars, and Commercial Vehicles), Propulsion (Internal Combustion Engines, and Electric Vehicles), Unit (On-Board Units, and Roadside Units), Offering (Hardware, and Software), Technology (Automated Driver Assistance, Intelligent Traffic Systems, Emergency Vehicle Notification, Passenger Information System, Fleet & Asset Management, Parking Management System, Line of Sight, Non-line of Sight, Backing, and Others), and Region (Asia Pacific, Europe, North America, and Row). It covers the competitive landscape and company profiles of the major players in the automotive V2X market ecosystem.

The study also includes an in-depth competitive analysis of the key players in the market, along with their company profiles, key

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observations related to product and business offerings, recent developments, and key market strategies.

#### Key Benefits of Buying the Report:

- The report will help market leaders/new entrants in this market with information on the closest approximations of revenue numbers for the overall automotive V2X market and its subsegments.
- This report will 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 pulse of the market and provides them information on key market drivers, restraints, challenges, and opportunities.
- The report also helps stakeholders understand the current and future pricing trend of different automotive V2Xs based on their capacity.

#### Table of Contents:

1□INTRODUCTION□	25
1.1□STUDY OBJECTIVES□	25
1.2□MARKET DEFINITION□	26
TABLE 1□AUTOMOTIVE V2X MARKET DEFINITION, BY COMMUNICATION□	26
TABLE 2□AUTOMOTIVE V2X MARKET DEFINITION, BY VEHICLE TYPE□	27
TABLE 3□AUTOMOTIVE V2X MARKET DEFINITION, BY CONNECTIVITY□	27
TABLE 4□AUTOMOTIVE V2X MARKET DEFINITION, BY UNIT□	27
1.2.1□INCLUSIONS AND EXCLUSIONS□	28
TABLE 5□AUTOMOTIVE V2X MARKET: INCLUSIONS AND EXCLUSIONS□	28
1.3□STUDY SCOPE□	29
FIGURE 1□MARKETS COVERED□	29
1.3.1□YEARS CONSIDERED□	29
1.4□CURRENCY CONSIDERED□	30
TABLE 6□CURRENCY EXCHANGE RATES□	30
1.5□PACKAGE SIZE□	30
1.6□STAKEHOLDERS□	30
1.7□SUMMARY OF CHANGES□	31
2□RESEARCH METHODOLOGY□	32
2.1□RESEARCH DATA□	32
FIGURE 2□AUTOMOTIVE V2X MARKET: RESEARCH DESIGN□	32
FIGURE 3□RESEARCH DESIGN MODEL□	33
2.1.1□SECONDARY DATA□	33
2.1.1.1□Key secondary sources for automotive V2X market□	34
2.1.1.2□Key data from secondary sources□	35
2.1.2□PRIMARY DATA□	36
FIGURE 4□BREAKDOWN OF PRIMARY INTERVIEWS□	36
2.1.2.1□List of primary participants□	37
2.2□MARKET SIZE ESTIMATION□	37
FIGURE 5□RESEARCH METHODOLOGY: HYPOTHESIS BUILDING□	38
2.2.1□BOTTOM-UP APPROACH□	39
FIGURE 6□AUTOMOTIVE V2X MARKET SIZE: BOTTOM-UP APPROACH□	39
2.2.2□TOP-DOWN APPROACH□	39
FIGURE 7□TOP-DOWN APPROACH: AUTOMOTIVE V2X MARKET□	39
FIGURE 8□AUTOMOTIVE V2X MARKET: MARKET ESTIMATION NOTES□	40

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FIGURE 9	AUTOMOTIVE V2X MARKET: RESEARCH DESIGN AND METHODOLOGY FOR ICE VEHICLES- DEMAND SIDE	41
FIGURE 10	AUTOMOTIVE V2X MARKET: RESEARCH DESIGN AND METHODOLOGY FOR ELECTRIC VEHICLES- DEMAND SIDE	42
2.3	DATA TRIANGULATION	43
FIGURE 11	DATA TRIANGULATION METHODOLOGY	43
2.4	FACTOR ANALYSIS	44
FIGURE 12	FACTOR ANALYSIS: AUTOMOTIVE V2X MARKET	44
FIGURE 13	FACTOR ANALYSIS FOR MARKET SIZING: DEMAND AND SUPPLY SIDES	45
2.5	RESEARCH ASSUMPTIONS	46
2.6	RESEARCH LIMITATIONS	47
3	EXECUTIVE SUMMARY	48
TABLE 7	C-V2X EQUIPPED VEHICLES LAUNCHED IN CHINA	48
FIGURE 14	AUTOMOTIVE V2X MARKET OVERVIEW	49
FIGURE 15	AUTOMOTIVE V2X MARKET, BY REGION, 2022-2028	50
FIGURE 16	AUTOMOTIVE V2X MARKET, BY CONNECTIVITY, 2022 VS. 2028	50
FIGURE 17	KEY PLAYERS IN AUTOMOTIVE V2X MARKET	51
4	PREMIUM INSIGHTS	52
4.1	ATTRACTIVE OPPORTUNITIES IN AUTOMOTIVE V2X MARKET	52
FIGURE 18	INCREASING FOCUS TOWARD AUTONOMOUS MOBILITY AND CONNECTED CAR TECHNOLOGY TO BOOST GROWTH OF AUTOMOTIVE V2X MARKET	52
4.2	AUTOMOTIVE V2X MARKET, BY COMMUNICATION	52
FIGURE 19	V2V TO BE DOMINANT SEGMENT OF AUTOMOTIVE V2X MARKET (USD MILLION)	52
4.3	AUTOMOTIVE V2X MARKET, BY CONNECTIVITY	53
FIGURE 20	DSRC TO BE LARGER SEGMENT OF AUTOMOTIVE V2X MARKET (THOUSAND UNITS)	53
4.4	AUTOMOTIVE V2X MARKET, BY PROPULSION	53
FIGURE 21	INTERNAL COMBUSTION ENGINES TO REMAIN LARGER MARKET SEGMENT (THOUSAND UNITS)	53
4.5	AUTOMOTIVE V2X MARKET, BY OFFERING	54
FIGURE 22	SOFTWARE TO BE LARGER SEGMENT OF AUTOMOTIVE V2X MARKET IN 2022 (USD MILLION)	54
4.6	AUTOMOTIVE V2X MARKET, BY VEHICLE TYPE	54
FIGURE 23	PASSENGER CARS TO HAVE LARGER SHARE OF AUTOMOTIVE V2X MARKET, 2022 VS. 2028 (THOUSAND UNITS)	54
4.7	AUTOMOTIVE V2X MARKET, BY UNIT	55
FIGURE 24	ON-BOARD UNITS TO HAVE LARGER SHARE OF AUTOMOTIVE V2X MARKET, 2022 VS. 2028 (THOUSAND UNITS)	55
4.8	AUTOMOTIVE V2X MARKET, BY TECHNOLOGY	55
FIGURE 25	AUTOMATED DRIVER ASSISTANCE TO BE LARGEST MARKET SEGMENT, 2022 VS. 2028 (USD MILLION)	55
4.9	AUTOMOTIVE V2X MARKET, BY REGION	56
FIGURE 26	ASIA PACIFIC PROJECTED TO BE LARGEST MARKET FOR AUTOMOTIVE V2X	56
5	MARKET OVERVIEW	57
5.1	INTRODUCTION	57
FIGURE 27	KEY ELEMENTS OF VEHICLE-TO-EVERYTHING (V2X)	57
TABLE 8	COMPARISON OF V2X TECHNOLOGIES	58
5.2	MARKET DYNAMICS	59
FIGURE 28	AUTOMOTIVE V2X MARKET: MARKET DYNAMICS	59
5.2.1	DRIVERS	59
5.2.1.1	Increasing demand for fully autonomous driving and safe vehicles	59
TABLE 9	SAFETY FACTS CONCERNING V2X COMMUNICATION	60
FIGURE 29	ROAD TRAFFIC INJURIES FACT	60
5.2.1.2	Concerns over environmental pollution	60
TABLE 10	ENVIRONMENTAL POLLUTION FACTS	61

5.2.1.3	Developments in connected car technology and growing collaborations	61
FIGURE 30	IMPACT OF CONNECTED VEHICLES	61
5.2.2	RESTRAINTS	62
5.2.2.1	Latency/reliability challenges	62
5.2.2.2	Lack of infrastructure for proper functioning	62
5.2.3	OPPORTUNITIES	63
5.2.3.1	Government support for V2X technology	63
5.2.3.2	Advancements in 5G technology	63
FIGURE 31	HIGH-SPEED DATA AND PERFORMANCE LEVEL	63
TABLE 11	SPEED COMPARISON OF VARIOUS NETWORK TYPES	64
TABLE 12	5G-V2X USE CASE PERFORMANCES	64
5.2.3.3	Development in autonomous vehicles	64
FIGURE 32	US L3 AND L4 AUTONOMOUS CAR MARKET, 2018 VS. 2022 VS. 2025 (THOUSAND UNITS)	65
5.2.4	CHALLENGES	65
5.2.4.1	Vulnerability to cyberattacks	65
TABLE 13	BASE STANDARDS FOR SECURITY AND PRIVACY DEVELOPED BY EUROPEAN TELECOMMUNICATIONS STANDARDS INSTITUTE (ETSI)	66
TABLE 14	AUTOMOTIVE V2X MARKET: IMPACT OF MARKET DYNAMICS	66
5.3	AUTOMOTIVE V2X MARKET SCENARIOS (2022-2028)	67
FIGURE 33	AUTOMOTIVE V2X MARKET FUTURE TRENDS & SCENARIOS, 2022-2028 (USD MILLION)	67
5.3.1	MOST LIKELY SCENARIO	67
TABLE 15	AUTOMOTIVE V2X MARKET (MOST LIKELY), BY REGION, 2022-2028 (USD MILLION)	67
5.3.2	OPTIMISTIC SCENARIO	68
TABLE 16	AUTOMOTIVE V2X MARKET (OPTIMISTIC), BY REGION, 2022-2028 (USD MILLION)	68
5.3.3	PESSIMISTIC SCENARIO	68
TABLE 17	AUTOMOTIVE V2X MARKET (PESSIMISTIC), BY REGION, 2022-2028 (USD MILLION)	68
5.4	MACROECONOMIC INDICATORS	69
5.4.1	GDP TRENDS AND FORECASTS FOR MAJOR ECONOMIES	69
TABLE 18	GDP TRENDS AND FORECASTS FOR MAJOR ECONOMIES, 2018-2026 (USD BILLION)	69
5.4.2	WORLD MOTOR VEHICLE PRODUCTION STATISTICS IN 2021	70
TABLE 19	WORLD MOTOR VEHICLE PRODUCTION STATISTICS IN 2021 (THOUSAND UNITS)	70
5.5	TRENDS & DISRUPTIONS IMPACTING MARKET	71
FIGURE 34	REVENUE SHIFT DRIVING AUTOMOTIVE V2X MARKET GROWTH	71
6	INDUSTRY TRENDS	72
6.1	INTRODUCTION	72
6.2	PORTER'S FIVE FORCES ANALYSIS	72
FIGURE 35	PORTER'S FIVE FORCES: AUTOMOTIVE V2X MARKET	72
TABLE 20	AUTOMOTIVE V2X MARKET: IMPACT OF PORTER'S FIVE FORCES	73
6.2.1	THREAT OF SUBSTITUTES	73
6.2.2	THREAT OF NEW ENTRANTS	73
6.2.3	BARGAINING POWER OF BUYERS	73
6.2.4	BARGAINING POWER OF SUPPLIERS	73
6.2.5	INTENSITY OF COMPETITIVE RIVALRY	74
6.3	AUTOMOTIVE V2X MARKET ECOSYSTEM	74
FIGURE 36	AUTOMOTIVE V2X MARKET: ECOSYSTEM ANALYSIS	74
TABLE 21	AUTOMOTIVE V2X MARKET: ROLE OF COMPANIES IN ECOSYSTEM	75
6.4	VALUE CHAIN ANALYSIS	76

FIGURE 37	VALUE CHAIN ANALYSIS OF AUTOMOTIVE V2X MARKET	76
6.5	TECHNOLOGICAL ANALYSIS	77
TABLE 22	C-V2X TECHNICAL ADVANTAGES OVER IEEE 802.11P (ITS-G5 OR DSRC)	77
6.5.1	CELLULAR V2X (C-V2X)	78
TABLE 23	CUMULATIVE GAIN WHILE USING 5G NR (NEW RADIO) C-V2X	78
6.5.1.1	LTE-V2X	78
6.5.1.2	5G-V2X	79
6.6	PATENT ANALYSIS	79
FIGURE 38	PUBLICATION TRENDS (2015-2021)	79
6.6.1	LEGAL STATUS OF PATENTS (2012-2021)	80
FIGURE 39	LEGAL STATUS OF PATENTS FILED FOR AUTOMOTIVE V2X (2012-2021)	80
6.6.2	TOP PATENT APPLICANTS (2012-2021)	80
FIGURE 40	AUTOMOTIVE V2X, BY APPLICANT	80
TABLE 24	IMPORTANT PATENT REGISTRATIONS RELATED TO AUTOMOTIVE V2X MARKET	81
6.7	CASE STUDY	83
6.7.1	PILOT PROJECT ON VIRGINIA SMART ROAD	83
6.7.2	VEHICLE POSITIONING ACCURACY IN NEW YORK	83
6.7.3	TOWARDS ZERO ROAD SAFETY STRATEGY	84
6.7.4	PREPARING ROADS FOR AUTONOMOUS VEHICLES	84
6.7.5	PILOT PROJECT ON SAN DIEGO ROADWAYS	84
6.8	REGULATORY OVERVIEW	85
TABLE 25	REGULATIONS FOR AUTOMOTIVE V2X	85
TABLE 26	US AND EU SPECIFICATION STANDARDS	85
7	AUTOMOTIVE V2X MARKET, BY OFFERING	86
7.1	INTRODUCTION	87
FIGURE 41	SOFTWARE SEGMENT TO HOLD LARGER MARKET SHARE, BY VALUE, BY 2028 (USD MILLION)	87
TABLE 27	AUTOMOTIVE V2X MARKET, BY OFFERING, 2018-2021 (USD MILLION)	87
TABLE 28	AUTOMOTIVE V2X MARKET, BY OFFERING, 2022-2028 (USD MILLION)	88
7.1.1	OPERATIONAL DATA	88
TABLE 29	HARDWARE AND SOFTWARE OFFERED BY KEY PLAYERS	88
7.1.2	ASSUMPTIONS	89
TABLE 30	ASSUMPTIONS: OFFERING	89
7.1.3	RESEARCH METHODOLOGY	89
7.2	HARDWARE	89
7.2.1	INCREASING FOCUS ON AUTONOMOUS MOBILITY AND ROAD SAFETY	89
TABLE 31	V2X HARDWARE MARKET, BY REGION, 2018-2021 (USD MILLION)	90
TABLE 32	V2X HARDWARE MARKET, BY REGION, 2022-2028 (USD MILLION)	90
7.3	SOFTWARE	91
7.3.1	DEPLOYMENT OF 5G	91
TABLE 33	V2X SOFTWARE MARKET, BY REGION, 2018-2021 (USD MILLION)	91
TABLE 34	V2X SOFTWARE MARKET, BY REGION, 2022-2028 (USD MILLION)	91
7.4	KEY PRIMARY INSIGHTS	92
8	AUTOMOTIVE V2X MARKET, BY COMMUNICATION	93
8.1	INTRODUCTION	94
FIGURE 42	V2G SEGMENT TO HOLD LARGEST MARKET SHARE, BY VALUE, BY 2028 (USD MILLION)	94
TABLE 35	AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (THOUSAND UNITS)	94
TABLE 36	AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (THOUSAND UNITS)	95

TABLE 37	AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (USD MILLION)	95
TABLE 38	AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (USD MILLION)	95
8.1.1	OPERATIONAL DATA	96
TABLE 39	VEHICLES EQUIPPED WITH VARIOUS V2X COMMUNICATIONS	96
8.1.2	ASSUMPTIONS	96
TABLE 40	ASSUMPTIONS: BY COMMUNICATION	96
8.1.3	RESEARCH METHODOLOGY	97
?		
8.2	V2V	97
8.2.1	FOCUS ON ROAD SAFETY	97
TABLE 41	V2V MARKET, BY REGION, 2018-2021 (THOUSAND UNITS)	97
TABLE 42	V2V MARKET, BY REGION, 2022-2028 (THOUSAND UNITS)	98
TABLE 43	V2V MARKET, BY REGION, 2018-2021 (USD MILLION)	98
TABLE 44	V2V MARKET, BY REGION, 2022-2028 (USD MILLION)	98
8.3	V2I	99
8.3.1	IMPROVEMENT IN ROAD INFRASTRUCTURE	99
TABLE 45	V2I MARKET, BY REGION, 2018-2021 (THOUSAND UNITS)	99
TABLE 46	V2I MARKET, BY REGION, 2022-2028 (THOUSAND UNITS)	99
TABLE 47	V2I MARKET, BY REGION, 2018-2021 (USD MILLION)	100
TABLE 48	V2I MARKET, BY REGION, 2022-2028 (USD MILLION)	100
8.4	V2G	100
8.4.1	INCREASING SALES OF ELECTRIC VEHICLES	100
TABLE 49	V2G MARKET, BY REGION, 2018-2021 (THOUSAND UNITS)	101
TABLE 50	V2G MARKET, BY REGION, 2022-2028 (THOUSAND UNITS)	101
TABLE 51	V2G MARKET, BY REGION, 2018-2021 (USD MILLION)	101
TABLE 52	V2G MARKET, BY REGION, 2022-2028 (USD MILLION)	101
8.5	V2P	102
8.5.1	PEDESTRIAN SAFETY CONCERNS	102
TABLE 53	V2P MARKET, BY REGION, 2018-2021 (THOUSAND UNITS)	102
TABLE 54	V2P MARKET, BY REGION, 2022-2028 (THOUSAND UNITS)	103
TABLE 55	V2P MARKET, BY REGION, 2018-2021 (USD MILLION)	103
TABLE 56	V2P MARKET, BY REGION, 2022-2028 (USD MILLION)	103
8.6	VEHICLE-TO-CLOUD (V2C)	104
8.7	VEHICLE-TO-DEVICE (V2D)	104
8.8	KEY PRIMARY INSIGHTS	104
9	AUTOMOTIVE V2X MARKET, BY PROPULSION	105
9.1	INTRODUCTION	106
FIGURE 43	AUTOMOTIVE V2X MARKET, BY PROPULSION, 2022 VS. 2028 (THOUSAND UNITS)	107
TABLE 57	AUTOMOTIVE V2X MARKET SIZE, BY PROPULSION, 2018-2021 (THOUSAND UNITS)	107
TABLE 58	AUTOMOTIVE V2X MARKET SIZE, BY PROPULSION, 2022-2028 (THOUSAND UNITS)	107
9.1.1	OPERATIONAL DATA	108
TABLE 59	CARS EQUIPPED WITH V2X (BY PROPULSION)	108
9.1.2	ASSUMPTIONS	108
TABLE 60	ASSUMPTIONS: BY PROPULSION	108
9.1.3	RESEARCH METHODOLOGY	108
?		
9.2	INTERNAL COMBUSTION ENGINES	109

9.2.1	REVIVAL OF ICE VEHICLE PRODUCTION	109
TABLE 61	INTERNAL COMBUSTION ENGINES V2X MARKET SIZE, BY REGION, 2018-2021 (THOUSAND UNITS)	109
TABLE 62	INTERNAL COMBUSTION ENGINES V2X MARKET SIZE, BY REGION, 2022-2028 (THOUSAND UNITS)	109
9.3	ELECTRIC VEHICLES	110
9.3.1	GROWING ADOPTION OF ELECTRIC VEHICLES GLOBALLY	110
TABLE 63	ELECTRIC VEHICLES V2X MARKET SIZE, BY REGION, 2018-2021 (THOUSAND UNITS)	111
TABLE 64	ELECTRIC VEHICLES V2X MARKET SIZE, BY REGION, 2022-2028 (THOUSAND UNITS)	111
9.4	KEY PRIMARY INSIGHTS	111
10	AUTOMOTIVE V2X MARKET, BY CONNECTIVITY	112
10.1	INTRODUCTION	113
TABLE 65	DSRC VS. C-V2X, PHYSICAL LAYER MAIN PARAMETERS	113
TABLE 66	COMPARISON BETWEEN DSRC AND C-V2X	114
FIGURE 44	AUTOMOTIVE V2X MARKET, BY CONNECTIVITY, 2022 VS. 2028 (THOUSAND UNITS)	114
TABLE 67	AUTOMOTIVE V2X MARKET SIZE, BY CONNECTIVITY, 2018-2021 (THOUSAND UNITS)	115
TABLE 68	AUTOMOTIVE V2X MARKET SIZE, BY CONNECTIVITY, 2022-2028 (THOUSAND UNITS)	115
10.1.1	OPERATIONAL DATA	115
TABLE 69	COMPANIES OFFERING V2X PRODUCTS (BY CONNECTIVITY)	115
10.1.2	ASSUMPTIONS	116
TABLE 70	ASSUMPTIONS: BY CONNECTIVITY	116
10.1.3	RESEARCH METHODOLOGY	116
10.2	DSRC (DEDICATED SHORT-RANGE COMMUNICATIONS)	116
10.2.1	EFFECTIVE NON-LINE OF SIGHT AWARENESS	116
TABLE 71	DSRC V2X MARKET SIZE, BY REGION, 2018-2021 (THOUSAND UNITS)	117
TABLE 72	DSRC V2X MARKET SIZE, BY REGION, 2022-2028 (THOUSAND UNITS)	117
10.3	CELLULAR	118
10.3.1	ADVENT OF 5G NETWORK	118
FIGURE 45	C-V2X ARCHITECTURE	118
FIGURE 46	C-V2X IMPACT ON DRIVING EXPERIENCE AND SMART CITY DEVELOPMENT	119
FIGURE 47	CELLULAR-V2X SOLUTION FOR CONNECTED VEHICLE CHALLENGES	119
TABLE 73	PERFORMANCE OF DSRC VS. CELLULAR	120
TABLE 74	V2X STANDARDS FOR VARIOUS COMMUNICATION RANGES	120
TABLE 75	CELLULAR MARKET SIZE, BY REGION, 2018-2021 (THOUSAND UNITS)	120
TABLE 76	CELLULAR MARKET SIZE, BY REGION, 2022-2028 (THOUSAND UNITS)	121
10.4	KEY PRIMARY INSIGHTS	121
?		
11	AUTOMOTIVE V2X MARKET, BY TECHNOLOGY	122
11.1	INTRODUCTION	123
FIGURE 48	AUTOMATED DRIVER ASSISTANCE SEGMENT TO HOLD LARGEST MARKET SHARE, BY VALUE, BY 2028 (USD MILLION)	123
TABLE 77	AUTOMOTIVE V2X MARKET, BY TECHNOLOGY, 2018-2021 (USD MILLION)	124
TABLE 78	AUTOMOTIVE V2X MARKET, BY TECHNOLOGY, 2022-2028 (USD MILLION)	124
11.1.1	OPERATIONAL DATA	125
TABLE 79	VARIOUS V2X TECHNOLOGIES BY COMMUNICATION TYPE	125
11.1.2	ASSUMPTIONS	125
TABLE 80	ASSUMPTIONS: BY TECHNOLOGY	125
11.1.3	RESEARCH METHODOLOGY	126
11.2	V2V	126
11.2.1	INCREASING FOCUS ON AUTONOMOUS MOBILITY	126



11.2.2	AUTOMATED DRIVER ASSISTANCE	126
TABLE 81	V2V MARKET, BY TECHNOLOGY, 2018-2021 (USD MILLION)	127
TABLE 82	V2V MARKET, BY TECHNOLOGY, 2022-2028 (USD MILLION)	127
11.3	V2I	127
11.3.1	RIISING FOCUS ON TRAFFIC CONGESTION	127
TABLE 83	V2I MARKET, BY TECHNOLOGY, 2018-2021 (USD MILLION)	127
TABLE 84	V2I MARKET, BY TECHNOLOGY, 2022-2028 (USD MILLION)	128
11.3.2	INTELLIGENT TRAFFIC SYSTEMS (ITS)	128
TABLE 85	ITS SERVICES	128
11.3.3	EMERGENCY VEHICLE NOTIFICATION	129
11.3.4	PASSENGER INFORMATION SYSTEMS	129
11.3.5	FLEET AND ASSET MANAGEMENT	129
11.3.6	PARKING MANAGEMENT SYSTEMS	130
11.4	V2P	130
11.4.1	GROWING CONCERNS PERTAINING TO PEDESTRIAN SAFETY	130
TABLE 86	V2P MARKET, BY TECHNOLOGY, 2018-2021 (USD MILLION)	130
TABLE 87	V2P MARKET, BY TECHNOLOGY, 2022-2028 (USD MILLION)	130
11.4.2	LINE OF SIGHT	131
11.4.3	NON-LINE OF SIGHT	131
TABLE 88	RANKING OF STATE PEDESTRIAN FATALITY RATES (2019)	131
11.4.4	BACKING	132
11.5	KEY INDUSTRY INSIGHTS	132
12	AUTOMOTIVE V2X MARKET, BY VEHICLE TYPE	133
12.1	INTRODUCTION	134
TABLE 89	GLOBAL PASSENGER CARS AND COMMERCIAL VEHICLES PRODUCTION DATA, 2021 (THOUSAND UNITS)	134
TABLE 90	GLOBAL SALES DATA OF PASSENGER CARS AND COMMERCIAL VEHICLES OVER YEARS (MILLION UNITS)	134
FIGURE 49	AUTOMOTIVE V2X MARKET, BY VEHICLE TYPE, 2022 VS. 2028 (THOUSAND UNITS)	135
TABLE 91	AUTOMOTIVE V2X MARKET SIZE, BY VEHICLE TYPE, 2018-2021 (THOUSAND UNITS)	135
TABLE 92	AUTOMOTIVE V2X MARKET SIZE, BY VEHICLE TYPE, 2022-2028 (THOUSAND UNITS)	135
TABLE 93	AUTOMOTIVE V2X MARKET SIZE, BY VEHICLE TYPE, 2018-2021 (USD MILLION)	136
TABLE 94	AUTOMOTIVE V2X MARKET SIZE, BY VEHICLE TYPE, 2022-2028 (USD MILLION)	136
12.1.1	OPERATIONAL DATA	136
TABLE 95	PASSENGER CARS EQUIPPED WITH V2X	136
12.1.2	ASSUMPTIONS	137
TABLE 96	ASSUMPTIONS: BY VEHICLE TYPE	137
12.1.3	RESEARCH METHODOLOGY	137
12.2	PASSENGER CARS	137
12.2.1	GROWING DEMAND FOR PREMIUM VEHICLES	137
TABLE 97	FATALITIES CAUSED BY PASSENGER CARS	138
TABLE 98	PASSENGER CARS: V2X MARKET SIZE, BY REGION, 2018-2021 (THOUSAND UNITS)	138
TABLE 99	PASSENGER CARS: V2X MARKET SIZE, BY REGION, 2022-2028 (THOUSAND UNITS)	139
TABLE 100	PASSENGER CARS: V2X MARKET SIZE, BY REGION, 2018-2021 (USD MILLION)	139
TABLE 101	PASSENGER CARS: V2X MARKET SIZE, BY REGION, 2022-2028 (USD MILLION)	139
12.3	COMMERCIAL VEHICLES	140
12.3.1	GROWTH FROM STRONG ROAD TRANSPORTATION SECTOR	140
TABLE 102	COMMERCIAL VEHICLES: V2X MARKET SIZE, BY REGION, 2022-2028 (THOUSAND UNITS)	140
TABLE 103	COMMERCIAL VEHICLE V2X MARKET SIZE, BY REGION, 2022-2028 (USD MILLION)	140

12.4	KEY PRIMARY INSIGHTS	141
13	AUTOMOTIVE V2X MARKET, BY UNIT	142
13.1	INTRODUCTION	143
FIGURE 50	AUTOMOTIVE V2X MARKET, BY UNIT, 2022 VS. 2028 (THOUSAND UNITS)	144
TABLE 104	AUTOMOTIVE V2X MARKET SIZE, BY UNIT, 2018-2021 (THOUSAND UNITS)	144
TABLE 105	AUTOMOTIVE V2X MARKET SIZE, BY UNIT, 2022-2028 (THOUSAND UNITS)	144
TABLE 106	AUTOMOTIVE V2X MARKET SIZE, BY UNIT, 2018-2021 (USD MILLION)	144
TABLE 107	AUTOMOTIVE V2X MARKET SIZE, BY UNIT, 2022-2028 (USD MILLION)	145
13.1.1	OPERATIONAL DATA	145
TABLE 108	COMPANIES OFFERING RSU AND OBU	145
13.1.2	ASSUMPTIONS	146
TABLE 109	ASSUMPTIONS: BY UNIT	146
13.1.3	RESEARCH METHODOLOGY	146
13.2	ON-BOARD UNITS (OBUS)	147
13.2.1	DEMAND FOR SAFETY AND V2V COMMUNICATION	147
13.3	ROADSIDE UNITS (RSUS)	147
13.3.1	SMART CITIES	147
13.4	KEY PRIMARY INSIGHTS	148
14	AUTOMOTIVE V2X AFTERMARKET, BY OFFERING	149
14.1	INTRODUCTION	150
FIGURE 51	SOFTWARE SEGMENT TO HOLD LARGER MARKET SIZE, BY VALUE BY 2028 (USD MILLION)	150
TABLE 110	AUTOMOTIVE V2X AFTERMARKET, BY REGION, 2022-2028 (THOUSAND UNITS)	151
TABLE 111	AUTOMOTIVE V2X AFTERMARKET, BY REGION, 2022-2028 (USD MILLION)	151
TABLE 112	AUTOMOTIVE V2X AFTERMARKET, BY OFFERING, 2022-2028 (USD MILLION)	151
14.1.1	OPERATIONAL DATA	152
TABLE 113	TOP INDUSTRIES FOR V2X MARKET IN NORTH AMERICA	152
14.1.2	ASSUMPTIONS	152
TABLE 114	ASSUMPTIONS: OFFERING (AFTERMARKET)	152
14.1.3	RESEARCH METHODOLOGY	152
14.2	HARDWARE	153
14.2.1	INCREASING FOCUS ON INFRASTRUCTURAL ACTIVITIES	153
TABLE 115	V2X HARDWARE AFTERMARKET, BY REGION, 2022-2028 (USD MILLION)	153
14.3	SOFTWARE	154
14.3.1	ADVENT OF 5G NETWORK TO SUPPORT SEGMENT GROWTH	154
TABLE 116	V2X SOFTWARE AFTERMARKET, BY REGION, 2022-2028 (USD MILLION)	154
14.4	SERVICES	155
14.4.1	FLEET MANAGEMENT	155
14.4.2	AUTOMOTIVE ADVANCED DRIVER-ASSISTANCE SYSTEMS (ADAS)	155
14.4.3	TELEMATICS	155
14.4.4	CYBERSECURITY	156
14.4.5	AUTONOMOUS DRIVING	156
14.4.6	CHALLENGES FACED BY FLEET OPERATORS FOR V2X SERVICES	156
14.4.6.1	Hardware and software/firmware design challenge	156
14.4.6.2	Integration of data with existing and past database	156
14.4.6.3	Data privacy and security	156
14.4.6.4	Supporting infrastructure availability	156
14.5	KEY PRIMARY INSIGHTS	157

?

15 AUTOMOTIVE V2X MARKET, BY REGION 158

15.1 INTRODUCTION 159

TABLE 117 V2X SHORT-RANGE ENVIRONMENT 159

FIGURE 52 AUTOMOTIVE V2X MARKET (ICE), BY REGION, 2022 VS. 2028 160

TABLE 118 AUTOMOTIVE V2X MARKET (ICE AND EV), BY REGION, 2018-2021 (THOUSAND UNITS) 160

TABLE 119 AUTOMOTIVE V2X MARKET (ICE AND EV), BY REGION, 2022-2028 (THOUSAND UNITS) 160

TABLE 120 AUTOMOTIVE V2X MARKET (ICE AND EV), BY REGION, 2018-2021 (USD MILLION) 161

TABLE 121 AUTOMOTIVE V2X MARKET (ICE AND EV), BY REGION, 2022-2028 (USD MILLION) 161

TABLE 122 AUTOMOTIVE V2X MARKET (ICE), BY REGION, 2018-2021 (THOUSAND UNITS) 161

TABLE 123 AUTOMOTIVE V2X MARKET (ICE), BY REGION, 2022-2028 (THOUSAND UNITS) 162

TABLE 124 AUTOMOTIVE V2X MARKET (ICE), BY REGION, 2018-2021 (USD MILLION) 162

TABLE 125 AUTOMOTIVE V2X MARKET (ICE), BY REGION, 2022-2028 (USD MILLION) 162

TABLE 126 AUTOMOTIVE V2X MARKET (EV), BY REGION, 2018-2021 (THOUSAND UNITS) 163

TABLE 127 AUTOMOTIVE V2X MARKET (EV), BY REGION, 2022-2028 (THOUSAND UNITS) 163

TABLE 128 AUTOMOTIVE V2X MARKET (EV), BY REGION, 2018-2021 (USD MILLION) 163

TABLE 129 AUTOMOTIVE V2X MARKET (EV), BY REGION, 2022-2028 (USD MILLION) 163

15.2 ASIA PACIFIC 164

FIGURE 53 ASIA PACIFIC: AUTOMOTIVE V2X MARKET SNAPSHOT 165

TABLE 130 ASIA PACIFIC: AUTOMOTIVE V2X MARKET, BY COUNTRY, 2018-2021 (THOUSAND UNITS) 165

TABLE 131 ASIA PACIFIC: AUTOMOTIVE V2X MARKET, BY COUNTRY, 2022-2028 (THOUSAND UNITS) 166

TABLE 132 ASIA PACIFIC: AUTOMOTIVE V2X MARKET, BY COUNTRY, 2018-2021 (USD MILLION) 166

TABLE 133 ASIA PACIFIC: AUTOMOTIVE V2X MARKET, BY COUNTRY, 2022-2028 (USD MILLION) 166

15.2.1 CHINA 167

15.2.1.1 Strong government support toward C-V2X technology 167

TABLE 134 CHINA: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (THOUSAND UNITS) 167

TABLE 135 CHINA: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (THOUSAND UNITS) 168

TABLE 136 CHINA: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (USD MILLION) 168

TABLE 137 CHINA: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (USD MILLION) 168

15.2.2 JAPAN 169

15.2.2.1 Increased performance and reduced costs of V2X 169

FIGURE 54 V2X SYSTEMS IN JAPAN 170

TABLE 138 JAPAN: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (THOUSAND UNITS) 171

TABLE 139 JAPAN: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (THOUSAND UNITS) 171

TABLE 140 JAPAN: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (USD MILLION) 171

TABLE 141 JAPAN: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (USD MILLION) 171

15.2.3 SOUTH KOREA 172

15.2.3.1 Growing government initiatives toward 5G-V2X 172

TABLE 142 SOUTH KOREA: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (THOUSAND UNITS) 172

TABLE 143 SOUTH KOREA: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (THOUSAND UNITS) 173

TABLE 144 SOUTH KOREA: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (USD MILLION) 173

TABLE 145 SOUTH KOREA: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (USD MILLION) 173

15.2.4 INDIA 174

15.2.4.1 Improving infrastructure for installation of RSUs 174

TABLE 146 INDIA: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (THOUSAND UNITS) 174

TABLE 147 INDIA: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (USD MILLION) 174

15.2.5 AUSTRALIA 175

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15.2.5.1	Increasing number of tests and trials	175
15.2.6	TAIWAN	175
15.2.6.1	Technological advancements and R&D	175
15.3	EUROPE	176
FIGURE 55	EUROPE: AUTOMOTIVE V2X MARKET, 2022 VS. 2028 (USD MILLION)	176
TABLE 148	EUROPE: AUTOMOTIVE V2X MARKET, BY COUNTRY, 2018-2021 (THOUSAND UNITS)	177
TABLE 149	EUROPE: AUTOMOTIVE V2X MARKET, BY COUNTRY, 2022-2028 (THOUSAND UNITS)	177
TABLE 150	EUROPE: AUTOMOTIVE V2X MARKET, BY COUNTRY, 2018-2021 (USD MILLION)	177
TABLE 151	EUROPE: AUTOMOTIVE V2X MARKET, BY COUNTRY, 2022-2028 (USD MILLION)	178
15.3.1	GERMANY	178
15.3.1.1	Increase in C-V2X trials and tests	178
TABLE 152	GERMANY: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (THOUSAND UNITS)	179
TABLE 153	GERMANY: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (THOUSAND UNITS)	179
TABLE 154	GERMANY: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (USD MILLION)	179
TABLE 155	GERMANY: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (USD MILLION)	179
15.3.2	ITALY	180
15.3.2.1	Testing of V2X for truck platooning	180
TABLE 156	ITALY: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (THOUSAND UNITS)	180
TABLE 157	ITALY: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (THOUSAND UNITS)	181
TABLE 158	ITALY: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (USD MILLION)	181
TABLE 159	ITALY: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (USD MILLION)	181
15.3.3	FRANCE	182
15.3.3.1	Government funded projects to drive market	182
TABLE 160	FRANCE: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (THOUSAND UNITS)	182
TABLE 161	FRANCE: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (THOUSAND UNITS)	182
TABLE 162	FRANCE: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (USD MILLION)	183
TABLE 163	FRANCE: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (USD MILLION)	183
15.3.4	UK	183
15.3.4.1	Government initiatives for connected and autonomous vehicles	183
TABLE 164	UK: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (THOUSAND UNITS)	184
TABLE 165	UK: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (THOUSAND UNITS)	184
TABLE 166	UK: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (USD MILLION)	184
TABLE 167	UK: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (USD MILLION)	184
15.3.5	SPAIN	185
15.3.5.1	Growing traffic and safety concerns	185
TABLE 168	SPAIN: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (THOUSAND UNITS)	185
TABLE 169	SPAIN: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (THOUSAND UNITS)	186
TABLE 170	SPAIN: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (USD MILLION)	186
TABLE 171	SPAIN: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (USD MILLION)	186
15.4	NORTH AMERICA	187
FIGURE 56	NORTH AMERICA: AUTOMOTIVE V2X MARKET SNAPSHOT	187
TABLE 172	NORTH AMERICA: AUTOMOTIVE V2X MARKET, BY COUNTRY, 2018-2021 (THOUSAND UNITS)	188
TABLE 173	NORTH AMERICA: AUTOMOTIVE V2X MARKET, BY COUNTRY, 2022-2028 (THOUSAND UNITS)	188
TABLE 174	NORTH AMERICA: AUTOMOTIVE V2X MARKET, BY COUNTRY, 2018-2021 (USD MILLION)	188
TABLE 175	NORTH AMERICA: AUTOMOTIVE V2X MARKET, BY COUNTRY, 2022-2028 (USD MILLION)	188
15.4.1	US	189
15.4.1.1	High sales of V2V/V2I-enabled cars coupled with trials related to V2X	189

TABLE 176	US: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (THOUSAND UNITS)	189
TABLE 177	US: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (THOUSAND UNITS)	190
TABLE 178	US: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (USD MILLION)	190
TABLE 179	US: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (USD MILLION)	190
15.4.2	CANADA	191
15.4.2.1	Entry of more vehicles equipped with V2X	191
TABLE 180	CANADA: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (THOUSAND UNITS)	191
TABLE 181	CANADA: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (THOUSAND UNITS)	191
TABLE 182	CANADA: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (USD MILLION)	192
TABLE 183	CANADA: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (USD MILLION)	192
15.4.3	MEXICO	193
15.4.3.1	Improving infrastructure facilities	193
TABLE 184	MEXICO: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (THOUSAND UNITS)	193
TABLE 185	MEXICO: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (THOUSAND UNITS)	193
TABLE 186	MEXICO: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2018-2021 (USD MILLION)	193
TABLE 187	MEXICO: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (USD MILLION)	194
15.5	REST OF THE WORLD	194
FIGURE 57	ROW: AUTOMOTIVE V2X MARKET, BY COUNTRY, 2022 VS. 2028 (USD MILLION)	194
TABLE 188	REST OF THE WORLD: AUTOMOTIVE V2X MARKET, BY COUNTRY, 2022-2028 (THOUSAND UNITS)	195
TABLE 189	REST OF THE WORLD: AUTOMOTIVE V2X MARKET, BY COUNTRY, 2022-2028 (USD MILLION)	195
15.5.1	ARGENTINA	195
15.5.1.1	Future technological advancements	195
TABLE 190	ARGENTINA: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (THOUSAND UNITS)	195
TABLE 191	ARGENTINA: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (USD MILLION)	196
?		
15.5.2	BRAZIL	196
15.5.2.1	Government initiatives to curb pollution and growing vehicle sales	196
TABLE 192	BRAZIL: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (THOUSAND UNITS)	196
TABLE 193	BRAZIL: AUTOMOTIVE V2X MARKET, BY COMMUNICATION, 2022-2028 (USD MILLION)	197
16	COMPETITIVE LANDSCAPE	198
16.1	OVERVIEW	198
16.2	MARKET RANKING ANALYSIS	198
FIGURE 58	AUTOMOTIVE V2X MARKET: MARKET RANKING, 2021	198
16.3	COMPETITIVE SCENARIO	199
TABLE 194	NEW PRODUCT LAUNCHES, 2016-2021	200
16.3.1	DEALS	202
TABLE 195	DEALS, 2017-2021	202
16.3.2	EXPANSIONS	213
TABLE 196	EXPANSIONS, 2017-2019	213
16.4	COMPETITIVE LEADERSHIP MAPPING (V2X SOLUTION PROVIDERS)	214
16.4.1	STARS	214
16.4.2	EMERGING LEADERS	214
16.4.3	PERVASIVE PLAYERS	214
16.4.4	PARTICIPANTS	214
FIGURE 59	AUTOMOTIVE V2X SOLUTION PROVIDERS MARKET: COMPETITIVE LEADERSHIP MAPPING, 2021	215
16.5	COMPETITIVE LEADERSHIP MAPPING (OEMS)	216
16.5.1	PROGRESSIVE COMPANIES	216

16.5.2 □ RESPONSIVE COMPANIES □ 216

16.5.3 □ DYNAMIC COMPANIES □ 216

16.5.4 □ STARTING BLOCKS □ 216

FIGURE 60 □ AUTOMOTIVE OEMS IN V2X MARKET: COMPETITIVE LEADERSHIP MAPPING, 2021 □ 217

**Automotive V2X Market by Connectivity (DSRC, and Cellular), Communication (V2V, V2I, V2P, V2G, V2C, and V2D), Vehicle Type (Passenger Cars, and Commercial Vehicles), Propulsion (ICE and EV), Unit, Offering, Technology and Region - Global Forecast to 2028**

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