

CHAPTER ONE: INTRODUCTION.....	1
STUDY GOALS AND OBJECTIVES.....	1
REASONS FOR DOING THE STUDY	1
INTENDED AUDIENCE.....	1
SCOPE OF REPORT	2
INFORMATION SOURCES.....	2
ANALYST CREDENTIALS.....	2
RELATED BCC RESEARCH REPORTS.....	2
BCC ON-LINE SERVICES.....	3
DISCLAIMER	3
 CHAPTER TWO: SUMMARY.....	 4
SUMMARY.....	4
<i>SUMMARY TABLE GLOBAL MARKET FOR AUTOMOBILE SENSORS,</i> <i>THROUGH 2017 (\$ MILLIONS).....</i>	 <i>5</i>
<i>SUMMARY FIGURE GLOBAL MARKET FOR AUTOMOBILE</i> <i>SENSORS, 2010-2017 (\$ MILLIONS).....</i>	 <i>5</i>
 CHAPTER THREE: OVERVIEW	 6
DEFINITION OF THE INDUSTRY	6
CONCEPTS IN THE INDUSTRY	6
IMPORTANCE OF THE INDUSTRY.....	6
LIFE CYCLE ASSESSMENT OF SENSORS.....	7
LIFE CYCLE STAGES OF SENSORS.....	7
TECHNOLOGY LIFE CYCLE.....	8
HISTORY OF THROTTLE POSITION SENSORS.....	8
HISTORY OF SPEED SENSORS	8
HISTORY OF SENSORS FOR TPMS.....	9
HISTORY OF AIR BAG CRASH SENSORS	9
HISTORY OF SENSORS FOR ADAPTIVE CRUISE CONTROL.....	10
HISTORY OF MEMS SENSORS	10
HISTORY OF ABS SENSORS	11
MODERN ABS	12
GOVERNMENT REGULATIONS	12
QUALITY STANDARDS IN THE AUTOMOTIVE INDUSTRY	13
 CHAPTER FOUR: TECHNOLOGY.....	 14
OVERVIEW.....	14
TYPES OF SENSORS BASED ON TECHNOLOGY	14
ROTATIONAL MOTION SENSORS.....	15
GAS SENSORS	15
PRESSURE SENSORS	16
PRESSURE SENSORS IN AUTOMOTIVE APPLICATIONS.....	16
ANGULAR AND LINEAR POSITION SENSORS	17

TEMPERATURE SENSORS	17
MASS AIRFLOW SENSOR	18
ACCELEROMETERS	18
OTHER TYPES OF SENSORS.....	19
MICROELECTROMECHANICAL SYSTEMS (MEMS)	
SENSORS IN AUTOMOBILES	19
AUTOMOTIVE SENSORS AND THEIR APPLICATIONS.....	20
CLASSIFICATION OF SENSORS BASED ON APPLICATION	21
SENSORS IN POWER TRAIN APPLICATIONS.....	21
<i>TABLE 1 SENSORS IN POWER TRAIN APPLICATIONS.....</i>	<i>22</i>
SENSORS IN IGNITION CONTROL APPLICATIONS.....	22
<i>TABLE 2 SENSORS IN IGNITION CONTROL APPLICATIONS.....</i>	<i>23</i>
SENSORS IN FUEL CONTROL APPLICATIONS.....	23
<i>TABLE 3 SENSORS IN FUEL CONTROL APPLICATIONS.....</i>	<i>24</i>
SENSORS IN EMISSION CONTROL APPLICATIONS	24
<i>TABLE 4 SENSORS IN EMISSION CONTROL APPLICATIONS.....</i>	<i>25</i>
SENSORS IN ENGINE MANAGEMENT APPLICATIONS	25
<i>TABLE 5 SENSORS IN ENGINE MANAGEMENT APPLICATIONS.....</i>	<i>26</i>
SENSORS IN SPEED/TORQUE MEASUREMENT	
APPLICATIONS	26
<i>TABLE 6 SENSORS IN SPEED/TORQUE MEASUREMENT</i>	
<i>APPLICATIONS</i>	<i>27</i>
SENSORS IN TRANSMISSION CONTROL APPLICATIONS.....	27
<i>TABLE 7 SENSORS IN TRANSMISSION CONTROL APPLICATIONS.....</i>	<i>27</i>
SENSORS IN VEHICLE CONTROL APPLICATIONS	28
<i>TABLE 8 SENSORS IN VEHICLE CONTROL APPLICATIONS.....</i>	<i>28</i>
SENSORS IN BRAKE CONTROL APPLICATIONS	28
<i>TABLE 9 SENSORS IN BRAKE CONTROL APPLICATION.....</i>	<i>29</i>
SENSORS IN STEERING CONTROL APPLICATIONS.....	29
<i>TABLE 10 SENSORS IN STEERING CONTROL APPLICATIONS</i>	<i>30</i>
SENSORS FOR ACTIVE SUSPENSION SYSTEMS.....	30
<i>TABLE 11 SENSORS IN SUSPENSION CONTROL APPLICATIONS.....</i>	<i>31</i>
SENSORS IN TIRE AND WHEEL CONTROL APPLICATIONS.....	31
SENSORS FOR TIRE PRESSURE MONITORING SYSTEMS	31
<i>TABLE 12 SENSORS IN TIRE/WHEEL CONTROL APPLICATIONS.....</i>	<i>32</i>
SENSORS IN COMFORT/CONVENIENCE APPLICATIONS	32
<i>TABLE 13 SENSORS IN COMFORT/CONVENIENCE APPLICATIONS.....</i>	<i>32</i>
SENSORS IN VEHICLE ENVIRONMENT APPLICATIONS	33
<i>TABLE 14 SENSORS IN VEHICLE ENVIRONMENT APPLICATIONS.....</i>	<i>33</i>
SENSORS FOR INTELLIGENT HVAC SYSTEMS.....	33
SENSORS IN VEHICLE LIGHTING CONTROL	
APPLICATIONS	34
<i>TABLE 15 SENSORS IN VEHICLE LIGHTING CONTROL</i>	
<i>APPLICATIONS</i>	<i>34</i>

SENSORS IN DRIVER CONVENIENCE APPLICATIONS.....	34
<i>TABLE 16 SENSORS IN DRIVER CONVENIENCE APPLICATIONS</i>	<i>35</i>
SENSORS IN VEHICLE SAFETY/SECURITY APPLICATIONS.....	35
<i>TABLE 17 SENSORS IN VEHICLE SAFETY/SECURITY APPLICATIONS</i>	<i>35</i>
SENSORS IN VEHICLE SAFETY APPLICATIONS.....	36
<i>TABLE 18 SENSORS IN VEHICLE SAFETY APPLICATIONS</i>	<i>36</i>
SENSORS IN VEHICLE COLLISION CONTROL APPLICATIONS	36
<i>TABLE 19 SENSORS IN VEHICLE COLLISION CONTROL APPLICATIONS</i>	<i>37</i>
SENSORS IN VEHICLE SECURITY APPLICATIONS	37
<i>TABLE 20 SENSORS IN VEHICLE SECURITY APPLICATIONS</i>	<i>38</i>
SENSORS IN ROAD VISIBILITY APPLICATIONS	38
<i>TABLE 21 SENSORS IN ROAD VISIBILITY APPLICATIONS</i>	<i>38</i>
SENSORS IN ALTERNATE FUEL VEHICLE APPLICATIONS	39
<i>TABLE 22 SENSORS IN ALTERNATE FUEL VEHICLE APPLICATIONS</i>	<i>39</i>
AUTOMOBILE APPLICATIONS OF MEMS SENSORS	39
<i>TABLE 23 AUTOMOBILE APPLICATIONS OF MEMS SENSORS</i>	<i>40</i>
MEMS Sensor for Engine Management	40
MEMS Sensor for Occupant Safety Systems.....	41
MEMS Sensors for Chassis Control Systems.....	41
MEMS Yaw Rate Sensors	41
Manufacture of MEMS Sensors	41
DEVELOPMENTS IN AUTO SENSORS	42
PREDICTIVE SENSORS.....	42
SENSOR INTEGRATION AND FUSION.....	43
DATA FUSION AND VIRTUAL SENSORS	43
High Precision Self-calibrating Sensors	43
Soft Sensors	43
DEVELOPMENTS IN AUTOMOBILE ELECTRONICS.....	44
NEW TYPES OF AUTOMOBILE SENSORS	44
Window Pinch Force Sensor.....	44
Wireless Torque Sensor.....	44
Inertial Sensor Combining a Gyroscope and an Accelerometer	45
Surface Acoustic Wave (SAW) Torque Sensor.....	45
Acoustic Engine Oil Quality Sensor.....	45
Urea Dosing Sensor	45
Multisensor Modules	45
On-line Pressure Sensor.....	46
Programmable CMOS Integrated Pressure Sensor	46
Side Air Bag Sensor	46

Microsafing Sensor	47
Advanced Sensing System.....	47
Variable Reluctance Speed Sensor	47
Thick Film Oxygen Sensor	48
Radar-Based Distance Sensor.....	48
Seat Belt Sensor	48
Wireless Wheel Torque Sensor	48
Steering Effort Sensor	49
Force Sensors (to Check Obstruction Detection Systems)	49
Programmable Sensors.....	49
CMOS Sensor.....	49
LIDAR Sensors	49
Radar Sensor.....	50
Millimeter Wave Automotive Sensors	50
DEVELOPMENTS IN AUTOMOBILE SENSOR TECHNOLOGIES	50
ULTRASOUND TECHNOLOGY.....	50
Vision-Based and Image-Based Technology.....	50
Capacitive Proximity Sensor Technology	51
Acoustic Wave Sensor Technology	51
Vehicle “Black Box”.....	52
Microsystem Technology (MST).....	52
SAW Technology Torque Sensing	52
Infrared Sensing	52
Fiber Optics Technology Sensing.....	53
Nano Materials in Automobile Sensing.....	53
MEMS Technology.....	53
SENSORS FOR AUTOMOTIVE TELEMATIC SYSTEMS	54
VEHICLE HIGHWAY SYSTEMS	54
Loop Detectors	54
Infrared Detectors	55
Microwave Detectors	55
Piezoelectric Detectors	55
Video Image Processing.....	56
RESEARCH AND DEVELOPMENT IN AUTOMOTIVE SENSORS	56
PATENT ANALYSIS	56
<i>TABLE 24 U.S. PATENTS BY YEAR OF ISSUE FOR SENSOR AND</i>	
<i> SENSOR TECHNOLOGY, 2006-2011 (NO. OF PATENTS).....</i>	<i>57</i>
<i>TABLE 25 U.S. PATENTS BY COUNTRY FOR SENSORS AND SENSOR</i>	
<i> TECHNOLOGIES (NO. OF PATENTS)</i>	<i>57</i>
<i>TABLE 26 U.S. PATENTS BY COMPANIES FOR SENSORS AND</i>	
<i> SENSOR TECHNOLOGIES (NO. OF PATENTS).....</i>	<i>58</i>
<i>TABLE 27 U.S. PATENTS BY APPLICATIONS FOR SENSORS AND</i>	
<i> SENSOR TECHNOLOGIES (NO. OF PATENTS).....</i>	<i>59</i>
CHAPTER FIVE: GLOBAL MARKET FOR AUTOMOTIVE SENSORS	60

OVERVIEW	60
GLOBAL AUTOMOBILE MARKET	61
<i>TABLE 28 ESTIMATED GLOBAL MARKET FOR AUTOMOBILES, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	62
<i>FIGURE 1 ESTIMATED GLOBAL MARKET FOR AUTOMOBILES, 2008-2017 (QUANTITY IN THOUSANDS)</i>	63
GLOBAL MARKET FOR AUTOMOTIVE SENSORS BASED ON TECHNOLOGY	63
<i>TABLE 29 GLOBAL MARKET FOR AUTOMOTIVE SENSORS BASED ON TECHNOLOGY, THROUGH 2017 (\$ MILLIONS)</i>	64
<i>FIGURE 2 GLOBAL MARKET FOR AUTOMOTIVE SENSORS BASED ON TECHNOLOGY, 2010-2017 (\$ MILLIONS)</i>	64
REGIONAL MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY.....	65
<i>TABLE 30 REGIONAL MARKET FOR AUTOMOTIVE SENSORS BASED ON TECHNOLOGY/APPLICATION, THROUGH 2017 (\$ MILLIONS)</i>	65
<i>FIGURE 3 REGIONAL MARKET FOR AUTOMOTIVE SENSORS BASED ON TECHNOLOGY/APPLICATION, 2010-2017 (\$ MILLIONS)</i>	66
GLOBAL MARKET FOR ROTATIONAL MOTION SENSORS.....	66
<i>TABLE 31 GLOBAL MARKET FOR ROTATIONAL MOTION SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	66
<i>FIGURE 4 GLOBAL MARKET FOR ROTATIONAL MOTION SENSORS, 2010-2017 (\$ MILLIONS)</i>	67
REGIONAL MARKET FOR ROTATIONAL MOTION SENSORS.....	67
<i>TABLE 32 REGIONAL MARKET FOR ROTATIONAL MOTION SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	67
<i>FIGURE 5 REGIONAL MARKET FOR ROTATIONAL MOTION SENSORS, 2010-2017 (\$ MILLIONS)</i>	68
GLOBAL MARKET FOR ANGULAR AND LINEAR POSITION SENSORS	68
<i>TABLE 33 GLOBAL MARKET FOR ANGULAR AND LINEAR POSITION SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	68
<i>FIGURE 6 GLOBAL MARKET FOR ANGULAR AND LINEAR POSITION SENSORS, 2010-2017 (\$ MILLIONS)</i>	69
REGIONAL MARKET FOR ANGULAR AND LINEAR POSITION SENSORS	69
<i>TABLE 34 REGIONAL MARKET FOR ANGULAR AND LINEAR POSITION SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	69
<i>FIGURE 7 REGIONAL MARKET FOR ANGULAR AND LINEAR POSITION SENSORS, 2010-2017 (\$ MILLIONS)</i>	70
GLOBAL MARKET FOR GAS SENSORS.....	70
<i>TABLE 35 GLOBAL MARKET FOR GAS SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	70

<i>FIGURE 8 GLOBAL MARKET FOR GAS SENSORS, 2010-2017 (\$ MILLIONS)</i>	71
REGIONAL MARKET FOR GAS SENSORS	71
<i>TABLE 36 REGIONAL MARKET FOR GAS SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	71
<i>FIGURE 9 REGIONAL MARKET FOR GAS SENSORS, 2010-2017 (\$ MILLIONS)</i>	72
GLOBAL MARKET FOR ACCELEROMETERS.....	72
<i>TABLE 37 GLOBAL MARKET FOR ACCELEROMETERS, THROUGH 2017 (\$ MILLIONS)</i>	72
<i>FIGURE 10 GLOBAL MARKET FOR ACCELEROMETERS, 2010-2017 (\$ MILLIONS)</i>	73
REGIONAL MARKET FOR ACCELEROMETERS	73
<i>TABLE 38 REGIONAL MARKET FOR ACCELEROMETERS, THROUGH 2017 (\$ MILLIONS)</i>	73
<i>FIGURE 11 REGIONAL MARKET FOR ACCELEROMETERS, 2010-2017 (\$ MILLIONS)</i>	74
GLOBAL MARKET FOR PRESSURE SENSORS	74
<i>TABLE 39 GLOBAL MARKET FOR PRESSURE SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	74
<i>FIGURE 12 GLOBAL MARKET FOR PRESSURE SENSORS, 2010-2017 (\$ MILLIONS)</i>	75
REGIONAL MARKET FOR PRESSURE SENSORS.....	75
<i>TABLE 40 REGIONAL MARKET FOR PRESSURE SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	75
<i>FIGURE 13 REGIONAL MARKET FOR PRESSURE SENSORS, 2010-2017 (\$ MILLIONS)</i>	76
GLOBAL MARKET FOR MASS AIRFLOW SENSORS	76
<i>TABLE 41 GLOBAL MARKET FOR MASS AIRFLOW SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	76
<i>FIGURE 14 GLOBAL MARKET FOR MASS AIRFLOW SENSORS, 2010-2017 (\$ MILLIONS)</i>	77
REGIONAL MARKET FOR MASS AIRFLOW SENSORS.....	77
<i>TABLE 42 REGIONAL MARKET FOR MASS AIRFLOW SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	77
<i>FIGURE 15 REGIONAL MARKET FOR MASS AIRFLOW SENSORS, 2010-2017 (\$ MILLIONS)</i>	78
GLOBAL MARKET FOR TEMPERATURE SENSORS	78
<i>TABLE 43 GLOBAL MARKET FOR TEMPERATURE SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	78
<i>FIGURE 16 GLOBAL MARKET FOR TEMPERATURE SENSORS, 2010-2017 (\$ MILLIONS)</i>	79
REGIONAL MARKET FOR TEMPERATURE SENSORS	79

<i>TABLE 44 REGIONAL MARKET FOR TEMPERATURE SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	79
<i>FIGURE 17 REGIONAL MARKET FOR TEMPERATURE SENSORS, 2010-2017 (\$ MILLIONS)</i>	80
GLOBAL MARKET FOR OTHER TYPES OF SENSORS.....	80
<i>TABLE 45 GLOBAL MARKET FOR OTHER TYPES OF SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	80
<i>FIGURE 18 GLOBAL MARKET FOR OTHER TYPES OF SENSORS, 2010-2017 (\$ MILLIONS)</i>	81
REGIONAL MARKET FOR OTHER TYPES OF SENSORS	81
<i>TABLE 46 REGIONAL MARKET FOR OTHER TYPES OF SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	81
<i>FIGURE 19 REGIONAL MARKET FOR OTHER TYPES OF SENSORS, 2010-2017 (\$ MILLIONS)</i>	82
MARKET FOR AUTOMOTIVE SENSORS BASED ON APPLICATION.....	82
<i>TABLE 47 GLOBAL MARKET FOR AUTOMOTIVE SENSORS BASED ON APPLICATION, THROUGH 2017 (\$ MILLIONS)</i>	83
<i>FIGURE 20 GLOBAL MARKET FOR AUTOMOTIVE SENSORS BASED ON APPLICATION, 2010-2017 (\$ MILLIONS)</i>	83
GLOBAL MARKET FOR SENSORS IN POWERTRAIN APPLICATIONS.....	84
<i>TABLE 48 GLOBAL MARKET FOR SENSORS IN POWERTRAIN APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	84
<i>FIGURE 21 GLOBAL MARKET FOR SENSORS IN POWERTRAIN APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	85
REGIONAL MARKETS FOR SENSORS IN POWERTRAIN APPLICATIONS	85
<i>TABLE 49 REGIONAL MARKET FOR SENSORS IN POWERTRAIN APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	85
<i>FIGURE 22 REGIONAL MARKET FOR SENSORS IN POWERTRAIN APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	86
GLOBAL MARKET FOR SENSORS IN IGNITION CONTROL APPLICATIONS.....	86
<i>TABLE 50 GLOBAL MARKET FOR SENSORS IN IGNITION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	87
<i>FIGURE 23 GLOBAL MARKET FOR SENSORS IN IGNITION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	87
REGIONAL MARKETS FOR SENSORS IN IGNITION CONTROL APPLICATIONS.....	88
<i>TABLE 51 REGIONAL MARKET FOR SENSORS IN IGNITION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	88
<i>FIGURE 24 REGIONAL MARKET FOR SENSORS IN IGNITION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	88

GLOBAL MARKET FOR SENSORS IN FUEL CONTROL APPLICATIONS	89
<i>TABLE 52 GLOBAL MARKET FOR SENSORS IN FUEL CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	89
<i>FIGURE 25 GLOBAL MARKET FOR SENSORS IN FUEL CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	89
REGIONAL MARKETS FOR SENSORS IN FUEL CONTROL APPLICATIONS	90
<i>TABLE 53 REGIONAL MARKET FOR SENSORS IN FUEL CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	90
<i>FIGURE 26 REGIONAL MARKET FOR SENSORS IN FUEL CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	90
GLOBAL MARKET FOR SENSORS IN EMISSION CONTROL APPLICATIONS	91
<i>TABLE 54 GLOBAL MARKET FOR SENSORS IN EMISSION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	91
<i>FIGURE 27 GLOBAL MARKET FOR SENSORS IN EMISSION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	91
REGIONAL MARKET FOR SENSORS IN EMISSION CONTROL APPLICATIONS	92
<i>TABLE 55 REGIONAL MARKET FOR SENSORS IN EMISSION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	92
<i>FIGURE 28 REGIONAL MARKET FOR SENSORS IN EMISSION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	92
GLOBAL MARKET FOR SENSORS IN ENGINE MANAGEMENT APPLICATIONS	93
<i>TABLE 56 GLOBAL MARKET FOR SENSORS IN ENGINE MANAGEMENT APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	93
<i>FIGURE 29 GLOBAL MARKET FOR SENSORS IN ENGINE MANAGEMENT APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	93
REGIONAL MARKETS FOR SENSORS IN ENGINE MANAGEMENT APPLICATIONS	94
<i>TABLE 57 REGIONAL MARKET FOR SENSORS IN ENGINE MANAGEMENT APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	94
<i>FIGURE 30 REGIONAL MARKET FOR SENSORS IN ENGINE MANAGEMENT APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	94
GLOBAL MARKET FOR SENSORS IN SPEED/TORQUE MEASUREMENT APPLICATIONS	95
<i>TABLE 58 GLOBAL MARKET FOR SENSORS IN SPEED/TORQUE MEASUREMENT APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	95
<i>FIGURE 31 GLOBAL MARKET FOR SENSORS IN SPEED/TORQUE MEASUREMENT APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	95
REGIONAL MARKET FOR SENSORS IN SPEED/TORQUE MEASUREMENT APPLICATIONS	96

<i>TABLE 59 REGIONAL MARKET FOR SENSORS IN SPEED/TORQUE MEASUREMENT APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	96
<i>FIGURE 32 REGIONAL MARKET FOR SENSORS IN SPEED/TORQUE MEASUREMENT APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	96
GLOBAL MARKET FOR SENSORS IN TRANSMISSION CONTROL APPLICATIONS.....	97
<i>TABLE 60 GLOBAL MARKET FOR SENSORS IN TRANSMISSION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	97
<i>FIGURE 33 GLOBAL MARKET FOR SENSORS IN TRANSMISSION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	97
REGIONAL MARKETS FOR SENSORS IN TRANSMISSION CONTROL APPLICATIONS.....	98
<i>TABLE 61 REGIONAL MARKET FOR SENSORS IN TRANSMISSION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	98
<i>FIGURE 34 REGIONAL MARKET FOR SENSORS IN TRANSMISSION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	98
GLOBAL MARKET FOR SENSORS IN VEHICLE CONTROL APPLICATIONS.....	99
<i>TABLE 62 GLOBAL MARKET FOR SENSORS IN VEHICLE CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	99
<i>FIGURE 35 GLOBAL MARKET FOR SENSORS IN VEHICLE CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	99
REGIONAL MARKETS FOR SENSORS IN VEHICLE CONTROL APPLICATIONS.....	100
<i>TABLE 63 REGIONAL MARKET FOR SENSORS IN VEHICLE CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	100
<i>FIGURE 36 REGIONAL MARKET FOR SENSORS IN VEHICLE CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	100
GLOBAL MARKET FOR SENSORS IN BRAKE CONTROL APPLICATIONS.....	101
<i>TABLE 64 GLOBAL MARKET FOR SENSORS IN BRAKE CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	101
<i>FIGURE 37 GLOBAL MARKET FOR SENSORS IN BRAKE CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	101
REGIONAL MARKETS FOR SENSORS IN BRAKE CONTROL APPLICATIONS.....	102
<i>TABLE 65 REGIONAL MARKET FOR SENSORS IN BRAKE CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	102
<i>FIGURE 38 REGIONAL MARKET FOR SENSORS IN BRAKE CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	102
GLOBAL MARKET FOR SENSORS IN STEERING CONTROL APPLICATIONS.....	103
<i>TABLE 66 GLOBAL MARKET FOR SENSORS IN STEERING CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	103

<i>FIGURE 39 GLOBAL MARKET FOR SENSORS IN STEERING CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	103
REGIONAL MARKETS FOR SENSORS IN STEERING CONTROL APPLICATIONS.....	104
<i>TABLE 67 REGIONAL MARKET FOR SENSORS IN STEERING CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	104
<i>FIGURE 40 REGIONAL MARKET FOR SENSORS IN STEERING CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	104
GLOBAL MARKET FOR SENSORS IN SUSPENSION CONTROL APPLICATIONS.....	105
<i>TABLE 68 GLOBAL MARKET FOR SENSORS IN SUSPENSION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	105
<i>FIGURE 41 GLOBAL MARKET FOR SENSORS IN SUSPENSION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	105
REGIONAL MARKETS FOR SENSORS IN SUSPENSION CONTROL APPLICATIONS.....	106
<i>TABLE 69 REGIONAL MARKET FOR SENSORS IN SUSPENSION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	106
<i>FIGURE 42 REGIONAL MARKET FOR SENSORS IN SUSPENSION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	106
GLOBAL MARKET FOR SENSORS IN TIRE AND WHEEL CONTROL APPLICATIONS.....	107
<i>TABLE 70 GLOBAL MARKET FOR SENSORS IN TIRE AND WHEEL CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	107
<i>FIGURE 43 GLOBAL MARKET FOR SENSORS IN TIRE AND WHEEL CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	108
REGIONAL MARKETS FOR SENSORS IN TIRE AND WHEEL CONTROL APPLICATIONS.....	108
<i>TABLE 71 REGIONAL MARKET FOR SENSORS IN TIRE AND WHEEL CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	108
<i>FIGURE 44 REGIONAL MARKET FOR SENSORS IN TIRE AND WHEEL CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	109
GLOBAL MARKET FOR SENSORS IN DRIVER SUPPORT APPLICATIONS.....	109
<i>TABLE 72 GLOBAL MARKET FOR SENSORS IN DRIVER SUPPORT APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	109
<i>FIGURE 45 GLOBAL MARKET FOR SENSORS IN DRIVER SUPPORT APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	110
REGIONAL MARKET FOR SENSORS IN DRIVER SUPPORT APPLICATIONS.....	110
<i>TABLE 73 REGIONAL MARKET FOR SENSORS IN DRIVER SUPPORT APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	110
<i>FIGURE 46 REGIONAL MARKET FOR SENSORS IN DRIVER SUPPORT APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	111

GLOBAL MARKET FOR SENSORS IN VEHICLE ENVIRONMENT APPLICATIONS	111
<i>TABLE 74 GLOBAL MARKET FOR SENSORS IN VEHICLE ENVIRONMENT APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	111
<i>FIGURE 47 GLOBAL MARKET FOR SENSORS IN VEHICLE ENVIRONMENT APPLICATIONS, 2010- 2017 (\$ MILLIONS)</i>	112
REGIONAL MARKETS FOR SENSORS IN VEHICLE ENVIRONMENT APPLICATIONS	112
<i>TABLE 75 REGIONAL MARKET FOR SENSORS IN VEHICLE ENVIRONMENT APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	112
<i>FIGURE 48 REGIONAL MARKET FOR SENSORS IN VEHICLE ENVIRONMENT APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	113
GLOBAL MARKET FOR SENSORS IN VEHICLE LIGHTING CONTROL APPLICATIONS.....	113
<i>TABLE 76 GLOBAL MARKET FOR SENSORS IN VEHICLE LIGHTING CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	113
<i>FIGURE 49 GLOBAL MARKET FOR SENSORS IN VEHICLE LIGHTING CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	114
REGIONAL MARKETS FOR SENSORS IN VEHICLE LIGHTING CONTROL APPLICATIONS.....	114
<i>TABLE 77 REGIONAL MARKET FOR SENSORS IN VEHICLE LIGHTING CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	114
<i>FIGURE 50 REGIONAL MARKET FOR SENSORS IN VEHICLE LIGHTING CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	115
GLOBAL MARKET FOR SENSORS IN DRIVER CONVENIENCE APPLICATIONS	115
<i>TABLE 78 GLOBAL MARKET FOR SENSORS IN DRIVER CONVENIENCE APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	115
<i>FIGURE 51 GLOBAL MARKET FOR SENSORS IN DRIVER CONVENIENCE APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	116
REGIONAL MARKETS FOR SENSORS IN DRIVER CONVENIENCE APPLICATIONS.....	116
<i>TABLE 79 REGIONAL MARKET FOR SENSORS IN DRIVER CONVENIENCE APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	116
<i>FIGURE 52 REGIONAL MARKET FOR SENSORS IN DRIVER CONVENIENCE APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	117
GLOBAL MARKET FOR SENSORS IN VEHICLE SAFETY/SECURITY APPLICATIONS.....	117
<i>TABLE 80 GLOBAL MARKET FOR SENSORS IN VEHICLE SAFETY/SECURITY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	118
<i>FIGURE 53 GLOBAL MARKET FOR SENSORS IN VEHICLE SAFETY/SECURITY APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	118

REGIONAL MARKET FOR SENSORS IN VEHICLE SAFETY/SECURITY APPLICATIONS	119
<i>TABLE 81 REGIONAL MARKET FOR SENSORS IN VEHICLE SAFETY/SECURITY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	119
<i>FIGURE 54 REGIONAL MARKET FOR SENSORS IN VEHICLE SAFETY/SECURITY APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	119
GLOBAL MARKET FOR SENSORS IN VEHICLE SAFETY APPLICATIONS	120
<i>TABLE 82 GLOBAL MARKET FOR SENSORS IN VEHICLE SAFETY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	120
<i>FIGURE 55 GLOBAL MARKET FOR SENSORS IN VEHICLE SAFETY APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	120
REGIONAL MARKETS FOR SENSORS IN VEHICLE SAFETY APPLICATIONS	121
<i>TABLE 83 REGIONAL MARKET FOR SENSORS IN VEHICLE SAFETY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	121
<i>FIGURE 56 REGIONAL MARKET FOR SENSORS IN VEHICLE SAFETY APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	121
GLOBAL MARKET FOR SENSORS IN VEHICLE COLLISION CONTROL APPLICATIONS	122
<i>TABLE 84 GLOBAL MARKET FOR VARIOUS TYPES OF SENSORS IN VEHICLE COLLISION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	122
<i>FIGURE 57 GLOBAL MARKET FOR VARIOUS TYPES OF SENSORS FOR VEHICLE COLLISION CONTROL, 2010-2017 (\$ MILLIONS)</i>	122
REGIONAL MARKETS FOR SENSORS IN VEHICLE COLLISION CONTROL APPLICATIONS	123
<i>TABLE 85 REGIONAL MARKET FOR SENSORS IN VEHICLE COLLISION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	123
<i>FIGURE 58 REGIONAL MARKET FOR SENSORS IN VEHICLE COLLISION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	123
GLOBAL MARKET FOR SENSORS IN VEHICLE SECURITY APPLICATIONS	124
<i>TABLE 86 GLOBAL MARKET FOR VARIOUS TYPES OF SENSORS IN VEHICLE SECURITY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	124
<i>FIGURE 59 GLOBAL MARKET FOR VARIOUS TYPES OF SENSORS IN VEHICLE SECURITY APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	124
REGIONAL MARKETS FOR SENSORS IN VEHICLE SECURITY APPLICATIONS	125
<i>TABLE 87 REGIONAL MARKET FOR SENSORS IN VEHICLE SECURITY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	125

<i>FIGURE 60 REGIONAL MARKET FOR SENSORS IN VEHICLE SECURITY APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	125
GLOBAL MARKET FOR SENSORS IN ROAD VISIBILITY APPLICATIONS.....	126
<i>TABLE 88 GLOBAL MARKET FOR VARIOUS TYPES OF SENSORS IN ROAD VISIBILITY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	126
<i>FIGURE 61 GLOBAL MARKET FOR VARIOUS TYPES OF SENSORS IN ROAD VISIBILITY APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	126
REGIONAL MARKETS FOR SENSORS IN ROAD VISIBILITY APPLICATIONS	127
<i>TABLE 89 REGIONAL MARKET FOR SENSORS IN ROAD VISIBILITY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	127
<i>FIGURE 62 REGIONAL MARKET FOR SENSORS INROAD VISIBILITY APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	127
GLOBAL MARKET FOR SENSORS IN ALTERNATE FUEL VEHICLE APPLICATIONS.....	128
<i>TABLE 90 GLOBAL MARKET FOR SENSORS IN ALTERNATE FUEL VEHICLE APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	128
<i>FIGURE 63 GLOBAL MARKET FOR SENSORS IN ALTERNATE FUEL VEHICLE APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	128
REGIONAL MARKETS FOR SENSORS IN ALTERNATE FUEL VEHICLE APPLICATIONS.....	129
<i>TABLE 91 REGIONAL MARKET FOR SENSORS IN ALTERNATE FUEL VEHICLE APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	129
<i>FIGURE 64 REGIONAL MARKET FOR SENSORS IN ALTERNATE FUEL VEHICLE APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	129
CHAPTER SIX: ASIA-PACIFIC MARKET FOR AUTOMOTIVE SENSORS	130
ASIA-PACIFIC AUTOMOBILE MARKET.....	130
<i>TABLE 92 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN ASIA-PACIFIC COUNTRIES, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	130
ASIA-PACIFIC MARKET FOR SENSORS BASED ON TECHNOLOGY	130
<i>TABLE 93 ASIA-PACIFIC MARKET FOR AUTOMOTIVE SENSORS BASED ON TECHNOLOGY, THROUGH 2017 (\$ MILLIONS)</i>	131
<i>FIGURE 65 ASIA-PACIFIC MARKET FOR AUTOMOTIVE SENSORS BASED ON TECHNOLOGY, 2010-2017 (\$ MILLIONS)</i>	131
ASIA-PACIFIC MARKET FOR ROTATIONAL MOTION SENSORS.....	132
<i>TABLE 94 ASIA-PACIFIC MARKET FOR ROTATIONAL MOTION SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	132
<i>FIGURE 66 ASIA-PACIFIC MARKET FOR ROTATIONAL MOTION SENSORS, 2010-2017 (\$ MILLIONS)</i>	132
ASIA-PACIFIC MARKET ANGULAR AND LINEAR POSITION SENSORS	133

<i>TABLE 95 ASIA-PACIFIC MARKET FOR ANGULAR AND LINEAR POSITION SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	133
<i>FIGURE 67 ASIA-PACIFIC MARKET FOR ANGULAR AND LINEAR POSITION SENSORS, 2010-2017 (\$ MILLIONS)</i>	133
ASIA-PACIFIC MARKET FOR GAS SENSORS.....	134
<i>TABLE 96 ASIA-PACIFIC MARKET FOR GAS SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	134
<i>FIGURE 68 ASIA-PACIFIC MARKET FOR GAS SENSORS, 2010-2017 (\$ MILLIONS)</i>	134
ASIA-PACIFIC MARKET FOR ACCELEROMETERS.....	135
<i>TABLE 97 ASIA-PACIFIC MARKET FOR ACCELEROMETERS, THROUGH 2017 (\$ MILLIONS)</i>	135
<i>FIGURE 69 ASIA-PACIFIC MARKET FOR ACCELEROMETERS, 2010-2017 (\$ MILLIONS)</i>	135
ASIA-PACIFIC MARKET FOR PRESSURE SENSORS	136
<i>TABLE 98 ASIA-PACIFIC MARKET FOR PRESSURE SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	136
<i>FIGURE 70 ASIA-PACIFIC MARKET FOR PRESSURE SENSORS, 2010-2017 (\$ MILLIONS)</i>	136
ASIA-PACIFIC MARKET FOR MASS AIR FLOW SENSORS	137
<i>TABLE 99 ASIA-PACIFIC MARKET FOR MASS AIRFLOW SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	137
<i>FIGURE 71 ASIA-PACIFIC MARKET FOR MASS AIRFLOW SENSORS, 2010-2017 (\$ MILLIONS)</i>	137
ASIA-PACIFIC MARKET FOR TEMPERATURE SENSORS	138
<i>TABLE 100 ASIA-PACIFIC MARKET FOR TEMPERATURE SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	138
<i>FIGURE 72 ASIA-PACIFIC MARKET FOR TEMPERATURE SENSORS, 2010-2017 (\$ MILLIONS)</i>	138
ASIA-PACIFIC MARKET FOR OTHER TYPES OF SENSORS.....	139
<i>TABLE 101 ASIA-PACIFIC MARKET FOR OTHER TYPES OF SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	139
<i>FIGURE 73 ASIA-PACIFIC MARKET FOR OTHER TYPES OF SENSORS, 2010-2017 (\$ MILLIONS)</i>	140
ASIA-PACIFIC MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION	140
<i>TABLE 102 ASIA-PACIFIC MARKET FOR AUTOMOTIVE SENSORS BASED ON APPLICATION, THROUGH 2017 (\$ MILLIONS)</i>	141
<i>FIGURE 74 ASIA-PACIFIC MARKET FOR AUTOMOTIVE SENSORS BASED ON APPLICATION, 2010-2017 (\$ MILLIONS)</i>	141
ASIA-PACIFIC MARKET FOR SENSORS IN POWERTRAIN APPLICATIONS	142
<i>TABLE 103 ASIA-PACIFIC MARKET FOR SENSORS IN POWERTRAIN APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	142

<i>FIGURE 75 ASIA-PACIFIC MARKET FOR SENSORS IN POWERTRAIN APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	142
ASIA-PACIFIC MARKET FOR SENSORS IN IGNITION CONTROL APPLICATIONS.....	143
<i>TABLE 104 ASIA-PACIFIC MARKET FOR VARIOUS TYPES OF SENSORS IN IGNITION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	143
<i>FIGURE 76 ASIA-PACIFIC MARKET FOR SENSORS IN IGNITION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	143
ASIA-PACIFIC MARKET FOR SENSORS IN FUEL CONTROL APPLICATIONS.....	144
<i>TABLE 105 ASIA-PACIFIC MARKET FOR SENSORS IN FUEL CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	144
<i>FIGURE 77 ASIA-PACIFIC MARKET FOR SENSORS IN FUEL CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	144
ASIA-PACIFIC MARKET FOR SENSORS IN EMISSION CONTROL APPLICATIONS.....	145
<i>TABLE 106 ASIA-PACIFIC MARKET FOR SENSORS IN EMISSION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	145
<i>FIGURE 78 ASIA-PACIFIC MARKET FOR SENSORS IN EMISSION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	145
ASIA-PACIFIC MARKET FOR SENSORS IN ENGINE MANAGEMENT APPLICATIONS.....	146
<i>TABLE 107 ASIA-PACIFIC MARKET FOR SENSORS IN ENGINE MANAGEMENT APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	146
<i>FIGURE 79 ASIA-PACIFIC MARKET FOR SENSORS IN ENGINE MANAGEMENT APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	146
ASIA-PACIFIC MARKET FOR SENSORS IN SPEED/TORQUE MEASUREMENT APPLICATIONS.....	147
<i>TABLE 108 ASIA-PACIFIC MARKET FOR SENSORS IN SPEED/TORQUE MEASUREMENT APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	147
<i>FIGURE 80 ASIA-PACIFIC MARKET FOR SENSORS IN SPEED/TORQUE MEASUREMENT APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	147
ASIA-PACIFIC MARKET FOR SENSORS IN TRANSMISSION CONTROL APPLICATIONS.....	148
<i>TABLE 109 ASIA-PACIFIC MARKET FOR SENSORS IN TRANSMISSION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	148
<i>FIGURE 81 ASIA-PACIFIC MARKET FOR SENSORS IN TRANSMISSION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	148

ASIA-PACIFIC MARKET FOR SENSORS IN VEHICLE CONTROL APPLICATIONS	149
<i>TABLE 110 ASIA-PACIFIC MARKET FOR SENSORS IN VEHICLE CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	149
<i>FIGURE 82 ASIA-PACIFIC MARKET FOR SENSORS IN VEHICLE CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	149
ASIA-PACIFIC MARKET FOR SENSORS IN BRAKE CONTROL APPLICATIONS	150
<i>TABLE 111 ASIA-PACIFIC MARKET FOR SENSORS IN BRAKE CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	150
<i>FIGURE 83 ASIA-PACIFIC MARKET FOR SENSORS IN BRAKE CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	150
ASIA-PACIFIC MARKET FOR SENSORS IN STEERING CONTROL APPLICATIONS	151
<i>TABLE 112 ASIA-PACIFIC MARKET FOR SENSORS IN STEERING CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	151
<i>FIGURE 84 ASIA-PACIFIC MARKET FOR SENSORS IN STEERING CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	151
ASIA-PACIFIC MARKET FOR SENSORS IN SUSPENSION CONTROL APPLICATIONS	152
<i>TABLE 113 ASIA-PACIFIC MARKET FOR SENSORS IN SUSPENSION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	152
<i>FIGURE 85 ASIA-PACIFIC MARKET FOR SENSORS IN SUSPENSION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	152
ASIA-PACIFIC MARKET FOR SENSORS IN TIRE AND WHEEL CONTROL APPLICATIONS.....	153
<i>TABLE 114 ASIA-PACIFIC MARKET FOR SENSORS IN TIRE AND WHEEL CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	153
<i>FIGURE 86 ASIA-PACIFIC MARKET FOR SENSORS IN TIRE AND WHEEL CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	153
ASIA-PACIFIC MARKET FOR SENSORS IN DRIVER SUPPORT APPLICATIONS	154
<i>TABLE 115 ASIA-PACIFIC MARKET FOR SENSORS IN DRIVER SUPPORT APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	154
<i>FIGURE 87 ASIA-PACIFIC MARKET FOR SENSORS IN DRIVER SUPPORT APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	154
ASIA-PACIFIC MARKET FOR SENSORS IN VEHICLE ENVIRONMENT APPLICATIONS	155
<i>TABLE 116 ASIA-PACIFIC MARKET FOR SENSORS IN VEHICLE ENVIRONMENT APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	155
<i>FIGURE 88 ASIA-PACIFIC MARKET FOR SENSORS IN VEHICLE ENVIRONMENT APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	155
ASIA-PACIFIC MARKET FOR SENSORS IN VEHICLE LIGHTING CONTROL APPLICATIONS.....	156

<i>TABLE 117 ASIA-PACIFIC MARKET FOR SENSORS IN VEHICLE LIGHTING CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	156
<i>FIGURE 89 ASIA-PACIFIC MARKET FOR SENSORS IN VEHICLE LIGHTING CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	156
ASIA-PACIFIC MARKET FOR SENSORS IN DRIVER CONVENIENCE APPLICATIONS.....	157
<i>TABLE 118 ASIA-PACIFIC MARKET FOR SENSORS IN DRIVER CONVENIENCE APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	157
<i>FIGURE 90 ASIA-PACIFIC MARKET FOR SENSORS IN DRIVER CONVENIENCE APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	157
ASIA-PACIFIC MARKET FOR SENSORS IN VEHICLE SAFETY/SECURITY APPLICATIONS.....	158
<i>TABLE 119 ASIA-PACIFIC MARKET FOR SENSORS IN VEHICLE SAFETY/SECURITY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	158
<i>FIGURE 91 ASIA-PACIFIC MARKET FOR SENSORS IN VEHICLE SAFETY/SECURITY APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	158
ASIA-PACIFIC MARKET FOR SENSORS IN VEHICLE SAFETY APPLICATIONS.....	159
<i>TABLE 120 ASIA-PACIFIC MARKET FOR SENSORS IN VEHICLE SAFETY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	159
<i>FIGURE 92 ASIA-PACIFIC MARKET FOR SENSORS IN VEHICLE SAFETY APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	159
ASIA-PACIFIC MARKET FOR SENSORS IN VEHICLE COLLISION CONTROL APPLICATIONS.....	160
<i>TABLE 121 ASIA-PACIFIC MARKET FOR SENSORS IN VEHICLE COLLISION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	160
<i>FIGURE 93 ASIA-PACIFIC MARKET FOR SENSORS FOR VEHICLE COLLISION CONTROL, 2010-2017 (\$ MILLIONS)</i>	160
ASIA-PACIFIC MARKET FOR SENSORS IN VEHICLE SECURITY APPLICATIONS.....	161
<i>TABLE 122 ASIA-PACIFIC MARKET FOR SENSORS IN VEHICLE SECURITY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	161
<i>FIGURE 94 ASIA-PACIFIC MARKET FOR SENSORS IN VEHICLE SECURITY APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	161
ASIA-PACIFIC MARKET FOR SENSORS IN ROAD VISIBILITY APPLICATIONS.....	162
<i>TABLE 123 ASIA-PACIFIC MARKET FOR SENSORS IN ROAD VISIBILITY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	162
<i>FIGURE 95 ASIA-PACIFIC MARKET FOR SENSORS IN ROAD VISIBILITY APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	162

ASIA-PACIFIC MARKET FOR SENSORS IN ALTERNATE FUEL VEHICLE APPLICATIONS.....	163
<i>TABLE 124 ASIA-PACIFIC MARKET FOR SENSORS IN ALTERNATE FUEL VEHICLE APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	163
<i>FIGURE 96 ASIA-PACIFIC MARKET FOR SENSORS IN ALTERNATE FUEL VEHICLE APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	163
OVERVIEW OF AUTOMOBILE INDUSTRY IN CHINA	164
<i>TABLE 125 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN CHINA, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	165
MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN CHINA.....	165
MARKET FOR AUTOMOTIVE ...(CONTINUED).....	166
<i>TABLE 126 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN CHINA, THROUGH 2017 (\$ MILLIONS)</i>	167
<i>FIGURE 97 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN CHINA, THROUGH 2017 (\$ MILLIONS)</i>	167
MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN CHINA.....	168
<i>TABLE 127 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN CHINA, THROUGH 2017 (\$ MILLIONS)</i>	168
<i>FIGURE 98 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN CHINA, 2010-2017 (\$ MILLIONS)</i>	168
OVERVIEW OF AUTOMOBILE INDUSTRY IN JAPAN	169
<i>TABLE 128 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN JAPAN, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	170
MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN JAPAN.....	170
<i>TABLE 129 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN JAPAN, THROUGH 2017 (\$ MILLIONS)</i>	170
<i>FIGURE 99 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN JAPAN, 2010 2017 (\$ MILLIONS)</i>	171
MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN JAPAN.....	171
<i>TABLE 130 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN JAPAN, THROUGH 2017 (\$ MILLIONS)</i>	171
<i>FIGURE 100 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN JAPAN, 2010-2017 (\$ MILLIONS)</i>	172
OVERVIEW OF AUTOMOBILE INDUSTRY IN SOUTH KOREA	172
<i>TABLE 131 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN SOUTH KOREA, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	173

MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN SOUTH KOREA	173
<i>TABLE 132 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN SOUTH KOREA, THROUGH 2017 (\$ MILLIONS).....</i>	<i>174</i>
<i>FIGURE 101 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN SOUTH KOREA, THROUGH 2017 (\$ MILLIONS).....</i>	<i>174</i>
MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN SOUTH KOREA	175
<i>TABLE 133 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN SOUTH KOREA, THROUGH 2017 (\$ MILLIONS).....</i>	<i>175</i>
<i>FIGURE 102 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN SOUTH KOREA, 2010-2017 (\$ MILLIONS).....</i>	<i>175</i>
OVERVIEW OF AUTOMOBILE INDUSTRY IN INDIA.....	176
<i>TABLE 134 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN INDIA, THROUGH 2017 (QUANTITY IN THOUSANDS).....</i>	<i>177</i>
MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN INDIA.....	177
<i>TABLE 135 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN INDIA, THROUGH 2017 (\$ MILLIONS).....</i>	<i>177</i>
<i>FIGURE 103 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN INDIA, 2010-2017 (\$ MILLIONS).....</i>	<i>178</i>
MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN INDIA.....	178
<i>TABLE 136 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN INDIA, THROUGH 2017 (\$ MILLIONS).....</i>	<i>178</i>
<i>FIGURE 104 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN INDIA, 2010-2017 (\$ MILLIONS).....</i>	<i>179</i>
OVERVIEW OF AUTOMOBILE INDUSTRY IN TAIWAN	179
<i>TABLE 137 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN TAIWAN, THROUGH 2017 (QUANTITY IN THOUSANDS).....</i>	<i>180</i>
MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN TAIWAN.....	180
<i>TABLE 138 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN TAIWAN, THROUGH 2017 (\$ MILLIONS).....</i>	<i>181</i>
<i>FIGURE 105 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN TAIWAN, 2010-2017 (\$ MILLIONS).....</i>	<i>181</i>
MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN TAIWAN.....	182
<i>TABLE 139 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN TAIWAN, THROUGH 2017 (\$ MILLIONS).....</i>	<i>182</i>
<i>FIGURE 106 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN TAIWAN, 2010-2017 (\$ MILLIONS).....</i>	<i>182</i>

OVERVIEW OF AUTOMOBILE INDUSTRY IN AUSTRALIA.....	183
<i>TABLE 140 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN AUSTRALIA, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	184
MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN AUSTRALIA	184
<i>TABLE 141 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN AUSTRALIA, THROUGH 2017 (\$ MILLIONS)</i>	184
<i>FIGURE 107 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN AUSTRALIA, 2010-2017 (\$ MILLIONS)</i>	185
MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN AUSTRALIA	185
<i>TABLE 142 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN AUSTRALIA, THROUGH 2017 (\$ MILLIONS)</i>	185
<i>FIGURE 108 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN AUSTRALIA, 2010-2017 (\$ MILLIONS)</i>	186
OVERVIEW OF AUTOMOBILE INDUSTRY IN ASEAN COUNTRIES ...	186
<i>TABLE 143 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN ASEAN COUNTRIES, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	187
AUTOMOBILE PRODUCTION IN THAILAND	187
AUTOMOBILE PRODUCTION IN INDONESIA	188
AUTOMOBILE PRODUCTION IN MALAYSIA	189
AUTOMOBILE PRODUCTION IN PHILIPPINES	189
AUTOMOBILE PRODUCTION IN VIETNAM	190
MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN ASEAN COUNTRIES.....	191
<i>TABLE 144 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN ASEAN COUNTRIES, THROUGH 2017 (\$ MILLIONS)</i>	191
<i>FIGURE 109 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN ASEAN COUNTRIES, 2010-2017 (\$ MILLIONS)</i>	192
MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN ASEAN COUNTRIES.....	192
<i>TABLE 145 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN ASEAN COUNTRIES, THROUGH 2017 (\$ MILLIONS)</i>	193
<i>FIGURE 110 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN ASEAN COUNTRIES, 2010-2017 (\$ MILLIONS)</i>	193
CHAPTER SEVEN: EUROPEAN MARKET FOR AUTOMOTIVE SENSORS ...	194
OVERVIEW OF AUTOMOBILE PRODUCTION IN EUROPEAN COUNTRIES.....	194

<i>TABLE 146 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN EUROPEAN COUNTRIES, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	195
EUROPEAN MARKET FOR AUTOMOTIVE SENSORS BASED ON TECHNOLOGY	196
<i>TABLE 147 EUROPEAN MARKET FOR AUTOMOTIVE SENSORS BASED ON TECHNOLOGY, THROUGH 2017 (\$ MILLIONS)</i>	196
<i>FIGURE 111 EUROPEAN MARKET FOR AUTOMOTIVE SENSORS BASED ON TECHNOLOGY, 2010-2017 (\$ MILLIONS)</i>	197
EUROPEAN MARKET FOR ROTATIONAL MOTION SENSORS	197
<i>TABLE 148 EUROPEAN MARKET FOR ROTATIONAL MOTION SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	197
<i>FIGURE 112 EUROPEAN MARKET FOR ROTATIONAL MOTION SENSORS, 2010-2017 (\$ MILLIONS)</i>	198
EUROPEAN MARKET FOR ANGULAR AND LINEAR POSITION SENSORS	198
<i>TABLE 149 EUROPEAN MARKET FOR ANGULAR AND LINEAR POSITION SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	198
<i>FIGURE 113 EUROPEAN MARKET FOR ANGULAR AND LINEAR POSITION SENSORS, 2010-2017 (\$ MILLIONS)</i>	199
EUROPEAN MARKET FOR GAS SENSORS.....	199
<i>TABLE 150 EUROPEAN MARKET FOR GAS SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	199
<i>FIGURE 114 EUROPEAN MARKET FOR GAS SENSORS, 2010-2017 (\$ MILLIONS)</i>	200
EUROPEAN MARKET FOR ACCELEROMETERS.....	200
<i>TABLE 151 EUROPEAN MARKET FOR ACCELEROMETERS, THROUGH 2017 (\$ MILLIONS)</i>	200
<i>FIGURE 115 EUROPEAN MARKET FOR ACCELEROMETERS, 2010- 2017 (\$ MILLIONS)</i>	201
EUROPEAN MARKET FOR PRESSURE SENSORS	201
<i>TABLE 152 EUROPEAN MARKET FOR PRESSURE SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	201
<i>FIGURE 116 EUROPEAN MARKET FOR PRESSURE SENSORS, 2010- 2017 (\$ MILLIONS)</i>	202
EUROPEAN MARKET FOR MASS AIRFLOW SENSORS	202
<i>TABLE 153 EUROPEAN MARKET FOR MASS AIRFLOW SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	202
<i>FIGURE 117 EUROPEAN MARKET FOR MASS AIRFLOW SENSORS, 2010-2017 (\$ MILLIONS)</i>	203
EUROPEAN MARKET FOR TEMPERATURE SENSORS.....	203
<i>TABLE 154 EUROPEAN MARKET FOR TEMPERATURE SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	203

<i>FIGURE 118 EUROPEAN MARKET FOR TEMPERATURE SENSORS, 2010-2017 (\$ MILLIONS)</i>	204
EUROPEAN MARKET FOR OTHER TYPES OF SENSORS.....	204
<i>TABLE 155 EUROPEAN MARKET FOR OTHER TYPES OF SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	204
<i>FIGURE 119 EUROPEAN MARKET FOR OTHER TYPES OF SENSORS, 2010-2017 (\$ MILLIONS)</i>	205
EUROPEAN MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION.....	205
<i>TABLE 156 EUROPEAN MARKET FOR AUTOMOTIVE SENSORS BASED ON APPLICATION, THROUGH 2017 (\$ MILLIONS)</i>	206
<i>FIGURE 120 EUROPEAN MARKET FOR AUTOMOTIVE SENSORS BASED ON APPLICATION, THROUGH 2017 (\$ MILLIONS)</i>	206
EUROPEAN MARKET FOR SENSORS IN POWER TRAIN APPLICATIONS.....	206
<i>TABLE 157 EUROPEAN MARKET FOR SENSORS IN POWER TRAIN APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	207
<i>FIGURE 121 EUROPEAN MARKET FOR SENSORS IN POWER TRAIN APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	207
EUROPEAN MARKET FOR SENSORS IN IGNITION CONTROL APPLICATIONS.....	208
<i>TABLE 158 EUROPEAN MARKET FOR SENSORS IN IGNITION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	208
<i>FIGURE 122 EUROPEAN MARKET FOR SENSORS IN IGNITION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	208
EUROPEAN MARKET FOR SENSORS IN FUEL CONTROL APPLICATIONS.....	209
<i>TABLE 159 EUROPEAN MARKET FOR SENSORS IN FUEL CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	209
<i>FIGURE 123 EUROPEAN MARKET FOR SENSORS IN FUEL CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	209
EUROPEAN MARKET FOR SENSORS IN EMISSION CONTROL APPLICATIONS.....	210
<i>TABLE 160 EUROPEAN MARKET FOR SENSORS IN EMISSION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	210
<i>FIGURE 124 EUROPEAN MARKET FOR SENSORS IN EMISSION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	210
EUROPEAN MARKET FOR SENSORS IN ENGINE MANAGEMENT APPLICATIONS.....	211
<i>TABLE 161 EUROPEAN MARKET FOR SENSORS IN ENGINE MANAGEMENT APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	211
<i>FIGURE 125 EUROPEAN MARKET FOR SENSORS IN ENGINE MANAGEMENT APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	211

EUROPEAN MARKET FOR SENSORS IN SPEED/TORQUE MEASUREMENT APPLICATIONS	212
<i>TABLE 162 EUROPEAN MARKET FOR SENSORS IN SPEED/TORQUE MEASUREMENT APPLICATIONS, THROUGH 2017 (\$ MILLIONS).....</i>	<i>212</i>
<i>FIGURE 126 EUROPEAN MARKET FOR SENSORS IN SPEED/TORQUE MEASUREMENT APPLICATIONS, 2010-2017 (\$ MILLIONS).....</i>	<i>212</i>
EUROPEAN MARKET FOR SENSORS IN TRANSMISSION CONTROL APPLICATIONS.....	213
<i>TABLE 163 EUROPEAN MARKET FOR SENSORS IN TRANSMISSION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS).....</i>	<i>213</i>
<i>FIGURE 127 EUROPEAN MARKET FOR SENSORS IN TRANSMISSION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS).....</i>	<i>213</i>
EUROPEAN MARKET FOR SENSORS IN VEHICLE CONTROL APPLICATIONS.....	214
<i>TABLE 164 EUROPEAN MARKET FOR SENSORS IN VEHICLE CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS).....</i>	<i>214</i>
<i>FIGURE 128 EUROPEAN MARKET FOR SENSORS IN VEHICLE CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS).....</i>	<i>214</i>
EUROPEAN MARKET FOR SENSORS IN BRAKE CONTROL APPLICATIONS	215
<i>TABLE 165 EUROPEAN MARKET FOR SENSORS IN BRAKE CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS).....</i>	<i>215</i>
<i>FIGURE 129 EUROPEAN MARKET FOR SENSORS IN BRAKE CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS).....</i>	<i>215</i>
EUROPEAN MARKET FOR SENSORS IN STEERING CONTROL APPLICATIONS.....	216
<i>TABLE 166 EUROPEAN MARKET FOR SENSORS IN STEERING CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS).....</i>	<i>216</i>
<i>FIGURE 130 EUROPEAN MARKET FOR SENSORS IN STEERING CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS).....</i>	<i>216</i>
EUROPEAN MARKET FOR SENSORS IN SUSPENSION CONTROL APPLICATIONS.....	217
<i>TABLE 167 EUROPEAN MARKET FOR SENSORS IN SUSPENSION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS).....</i>	<i>217</i>
<i>FIGURE 131 EUROPEAN MARKET FOR SENSORS IN SUSPENSION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS).....</i>	<i>217</i>
EUROPEAN MARKET FOR SENSORS IN TIRE AND WHEEL CONTROL APPLICATIONS.....	218
<i>TABLE 168 EUROPEAN MARKET FOR SENSORS IN TIRE AND WHEEL CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)....</i>	<i>218</i>
<i>FIGURE 132 EUROPEAN MARKET FOR SENSORS IN TIRE AND WHEEL CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS).....</i>	<i>218</i>

EUROPEAN MARKET FOR SENSORS IN COMFORT/CONVENIENCE APPLICATIONS.....	219
<i>TABLE 169 EUROPEAN MARKET FOR SENSORS IN DRIVER SUPPORT APPLICATIONS, THROUGH 2017 (\$ MILLIONS).....</i>	<i>219</i>
<i>FIGURE 133 EUROPEAN MARKET FOR SENSORS IN DRIVER SUPPORT APPLICATIONS, 2010-2017 (\$ MILLIONS).....</i>	<i>219</i>
EUROPEAN MARKET FOR SENSORS IN VEHICLE ENVIRONMENT APPLICATIONS	220
<i>TABLE 170 EUROPEAN MARKET FOR SENSORS IN VEHICLE ENVIRONMENT APPLICATIONS, THROUGH 2017 (\$ MILLIONS).....</i>	<i>220</i>
<i>FIGURE 134 EUROPEAN MARKET FOR SENSORS IN VEHICLE ENVIRONMENT APPLICATIONS, 2010-2017 (\$ MILLIONS).....</i>	<i>220</i>
EUROPEAN MARKET FOR SENSORS IN VEHICLE LIGHTING CONTROL APPLICATIONS.....	221
<i>TABLE 171 EUROPEAN MARKET FOR SENSORS IN VEHICLE LIGHTING CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS).....</i>	<i>221</i>
<i>FIGURE 135 EUROPEAN MARKET FOR SENSORS IN VEHICLE LIGHTING CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	<i>221</i>
EUROPEAN MARKET FOR SENSORS IN DRIVER CONVENIENCE APPLICATIONS.....	222
<i>TABLE 172 EUROPEAN MARKET FOR SENSORS IN DRIVER CONVENIENCE APPLICATIONS, THROUGH 2017 (\$ MILLIONS).....</i>	<i>222</i>
<i>FIGURE 136 EUROPEAN MARKET FOR SENSORS IN DRIVER CONVENIENCE APPLICATIONS, 2010-2017 (\$ MILLIONS).....</i>	<i>222</i>
EUROPEAN MARKET FOR SENSORS IN VEHICLE SAFETY/SECURITY APPLICATIONS.....	223
<i>TABLE 173 EUROPEAN MARKET FOR SENSORS IN VEHICLE SAFETY/SECURITY APPLICATIONS, THROUGH 2017 (\$ MILLIONS).....</i>	<i>223</i>
<i>FIGURE 137 EUROPEAN MARKET FOR SENSORS IN VEHICLE SAFETY/ SECURITY APPLICATIONS, 2010-2017 (\$ MILLIONS).....</i>	<i>223</i>
EUROPEAN MARKET FOR SENSORS IN VEHICLE SAFETY APPLICATIONS	224
<i>TABLE 174 EUROPEAN MARKET FOR SENSORS IN VEHICLE SAFETY APPLICATIONS, THROUGH 2017 (\$ MILLIONS).....</i>	<i>224</i>
<i>FIGURE 138 EUROPEAN MARKET FOR SENSORS IN VEHICLE SAFETY APPLICATIONS, 2010-2017 (\$ MILLIONS).....</i>	<i>224</i>
EUROPEAN MARKET FOR SENSORS IN VEHICLE COLLISION CONTROL APPLICATIONS.....	225
<i>TABLE 175 EUROPEAN MARKET FOR SENSORS IN VEHICLE COLLISION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS).....</i>	<i>225</i>

<i>FIGURE 139 EUROPEAN MARKET FOR SENSORS IN VEHICLE COLLISION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	225
EUROPEAN MARKET FOR SENSORS IN VEHICLE SECURITY APPLICATIONS	226
<i>TABLE 176 EUROPEAN MARKET FOR SENSORS IN VEHICLE SECURITY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	226
<i>FIGURE 140 EUROPEAN MARKET FOR SENSORS IN VEHICLE SECURITY APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	226
EUROPEAN MARKET FOR SENSORS IN ROAD VISIBILITY APPLICATIONS	227
<i>TABLE 177 EUROPEAN MARKET FOR SENSORS IN ROAD VISIBILITY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	227
<i>FIGURE 141 EUROPEAN MARKET FOR SENSORS IN ROAD VISIBILITY APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	227
EUROPEAN MARKET FOR SENSORS IN ALTERNATE FUEL VEHICLE APPLICATIONS.....	228
<i>TABLE 178 EUROPEAN MARKET FOR SENSORS IN ALTERNATE FUEL VEHICLE APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	228
<i>FIGURE 142 EUROPEAN MARKET FOR SENSORS IN ALTERNATE FUEL VEHICLE APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	228
OVERVIEW OF AUTOMOBILE INDUSTRY IN GERMANY	229
<i>TABLE 179 PAST DATA AND FUTURE PROJECTIONS FOR AUTOMOBILE PRODUCTION IN GERMANY, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	230
MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN GERMANY.....	230
<i>TABLE 180 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN GERMANY, THROUGH 2017 (\$ MILLIONS)</i>	231
<i>FIGURE 143 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN GERMANY, THROUGH 2017 (\$ MILLIONS)</i>	231
MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN GERMANY.....	232
<i>TABLE 181 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN GERMANY, THROUGH 2017 (\$ MILLIONS)</i>	232
<i>FIGURE 144 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN GERMANY, 2010-2017 (\$ MILLIONS)</i>	232
OVERVIEW OF AUTOMOBILE INDUSTRY IN SPAIN	233
<i>TABLE 182 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN SPAIN, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	234
MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN SPAIN	234
<i>TABLE 183 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN SPAIN, THROUGH 2017 (\$ MILLIONS)</i>	234

<i>FIGURE 145 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN SPAIN, 2010-2017 (\$ MILLIONS)</i>	235
MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN SPAIN	235
<i>TABLE 184 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN SPAIN, THROUGH 2017 (\$ MILLIONS)</i>	235
<i>FIGURE 146 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN SPAIN, 2010-2017 (\$ MILLIONS)</i>	236
OVERVIEW OF AUTOMOBILE INDUSTRY IN FRANCE	236
<i>TABLE 185 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN FRANCE, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	237
MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN FRANCE	237
<i>TABLE 186 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN FRANCE, THROUGH 2017 (\$ MILLIONS)</i>	238
<i>FIGURE 147 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN FRANCE, 2010-2017 (\$ MILLIONS)</i>	238
MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN FRANCE	239
<i>TABLE 187 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN FRANCE, THROUGH 2017 (\$ MILLIONS)</i>	239
<i>FIGURE 148 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN FRANCE, 2010-2017 (\$ MILLIONS)</i>	239
OVERVIEW OF AUTOMOBILE INDUSTRY IN RUSSIA.....	240
<i>TABLE 188 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN RUSSIA, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	240
MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN RUSSIA.....	241
<i>TABLE 189 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN RUSSIA, THROUGH 2017 (\$ MILLIONS)</i>	241
<i>FIGURE 149 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN RUSSIA, 2010-2017 (\$ MILLIONS)</i>	242
MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN RUSSIA.....	242
<i>TABLE 190 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN RUSSIA, THROUGH 2017 (\$ MILLIONS)</i>	242
<i>FIGURE 150 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN RUSSIA, 2010-2017 (\$ MILLIONS)</i>	243
OVERVIEW OF AUTOMOBILE INDUSTRY IN THE U.K.	243
<i>TABLE 191 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN THE U.K., THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	244

MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN THE U.K.	244
<i>TABLE 192 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN THE U.K., THROUGH 2017 (\$ MILLIONS)</i>	245
<i>FIGURE 151 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN THE U.K., 2010-2017 (\$ MILLIONS)</i>	245
MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN THE U.K.	246
<i>TABLE 193 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN THE U.K., THROUGH 2017 (\$ MILLIONS)</i>	246
<i>FIGURE 152 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN THE U.K., 2010-2017 (\$ MILLIONS)</i>	246
OVERVIEW OF AUTOMOBILE INDUSTRY IN TURKEY	247
<i>TABLE 194 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN TURKEY, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	247
MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN TURKEY	247
<i>TABLE 195 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN TURKEY, THROUGH 2017 (\$ MILLIONS)</i>	248
<i>FIGURE 153 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN TURKEY, 2010-2017 (\$ MILLIONS)</i>	249
MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN TURKEY	249
<i>TABLE 196 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN TURKEY, THROUGH 2017 (\$ MILLIONS)</i>	249
<i>FIGURE 154 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN TURKEY, 2010-2017 (\$ MILLIONS)</i>	250
OVERVIEW OF AUTOMOBILE INDUSTRY IN ITALY	250
<i>TABLE 197 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN ITALY, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	251
MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN ITALY	251
<i>TABLE 198 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN ITALY, THROUGH 2017 (\$ MILLIONS)</i>	252
<i>FIGURE 155 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN ITALY, 2010-2017 (\$ MILLIONS)</i>	253
MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN ITALY	253
<i>TABLE 199 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN ITALY, THROUGH 2017 (\$ MILLIONS)</i>	253
<i>FIGURE 156 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN ITALY, 2010-2017 (\$ MILLIONS)</i>	254

OVERVIEW OF AUTOMOBILE INDUSTRY IN CEE COUNTRIES.....	254
<i>TABLE 200 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN CEE COUNTRIES, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	<i>255</i>
AUTOMOBILE INDUSTRY IN CZECH REPUBLIC	255
AUTOMOBILE INDUSTRY IN POLAND	256
AUTOMOBILE INDUSTRY IN SLOVAKIA	257
AUTOMOBILE INDUSTRY IN HUNGARY.....	258
AUTOMOBILE INDUSTRY IN ROMANIA.....	258
AUTOMOBILE INDUSTRY IN UZBEKISTAN	259
AUTOMOBILE INDUSTRY IN SLOVENIA	259
AUTOMOBILE INDUSTRY IN UKRAINE	260
AUTOMOBILE INDUSTRY IN BELARUS.....	260
AUTOMOBILE INDUSTRY IN SERBIA.....	261
MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN CEE COUNTRIES.....	261
<i>TABLE 201 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN CEE COUNTRIES, THROUGH 2017 (\$ MILLIONS)</i>	<i>262</i>
<i>FIGURE 157 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN CEE COUNTRIES, 2010-2017 (\$ MILLIONS)</i>	<i>262</i>
MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN CEE COUNTRIES.....	263
<i>TABLE 202 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN CEE COUNTRIES, THROUGH 2017 (\$ MILLIONS)</i>	<i>263</i>
<i>FIGURE 158 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN CEE COUNTRIES, 2010-2017 (\$ MILLIONS)</i>	<i>263</i>
OVERVIEW OF AUTOMOBILE INDUSTRY IN REST OF EUROPE	264
<i>TABLE 203 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN REST OF EUROPE, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	<i>264</i>
AUTOMOBILE INDUSTRY IN BELGIUM.....	264
AUTOMOBILE INDUSTRY IN SWEDEN	265
AUTOMOBILE INDUSTRY IN PORTUGAL.....	265
AUTOMOBILE INDUSTRY IN AUSTRIA.....	266
AUTOMOBILE INDUSTRY IN THE NETHERLANDS.....	266
AUTOMOBILE INDUSTRY IN FINLAND	267
MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN REST OF EUROPE	267
<i>TABLE 204 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN REST OF EUROPE, THROUGH 2017 (\$ MILLIONS)</i>	<i>268</i>

<i>FIGURE 159 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN REST OF EUROPE, 2010-2017 (\$ MILLIONS)</i>	268
MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN REST OF EUROPE	269
<i>TABLE 205 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN REST OF EUROPE, THROUGH 2017 (\$ MILLIONS)</i>	269
<i>FIGURE 160 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN REST OF EUROPE, 2010-2017 (\$ MILLIONS)</i>	269
CHAPTER EIGHT: NORTH AMERICAN MARKET FOR AUTOMOTIVE SENSORS	
OVERVIEW OF AUTOMOBILE PRODUCTION IN NORTH AMERICAN REGION	270
<i>TABLE 206 PAST PRODUCTION AND FUTURE PROJECTION FOR AUTOMOBILES IN COUNTRIES OF NORTH AMERICAN REGION, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	270
NORTH AMERICAN MARKET FOR AUTOMOTIVE SENSORS BASED ON TECHNOLOGY	271
<i>TABLE 207 NORTH AMERICAN MARKET FOR AUTOMOTIVE SENSORS BASED ON TECHNOLOGY, THROUGH 2017 (\$ MILLIONS)</i>	271
<i>FIGURE 161 NORTH AMERICAN MARKET FOR AUTOMOTIVE SENSORS BASED ON TECHNOLOGY, 2010-2017 (\$ MILLIONS)</i>	272
NORTH AMERICAN MARKET FOR ROTATIONAL MOTION SENSORS	272
<i>TABLE 208 NORTH AMERICAN MARKET FOR ROTATIONAL MOTION SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	273
<i>FIGURE 162 NORTH AMERICAN MARKET FOR ROTATIONAL MOTION SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	273
NORTH AMERICAN MARKET ANGULAR AND LINEAR POSITION SENSORS	274
<i>TABLE 209 NORTH AMERICAN MARKET FOR ANGULAR AND LINEAR POSITION SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	274
<i>FIGURE 163 NORTH AMERICAN MARKET FOR ANGULAR AND LINEAR POSITION SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	274
NORTH AMERICAN MARKET FOR GAS SENSORS.....	275
<i>TABLE 210 NORTH AMERICAN MARKET FOR GAS SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	275
<i>FIGURE 164 NORTH AMERICAN MARKET FOR GAS SENSORS, 2010-2017 (\$ MILLIONS)</i>	275
NORTH AMERICAN MARKET FOR ACCELEROMETERS.....	276
<i>TABLE 211 NORTH AMERICAN MARKET FOR ACCELEROMETERS, THROUGH 2017 (\$ MILLIONS)</i>	276

<i>FIGURE 165 NORTH AMERICAN MARKET FOR ACCELEROMETERS, 2010-2017 (\$ MILLIONS)</i>	276
NORTH AMERICAN MARKET FOR PRESSURE SENSORS	277
<i>TABLE 212 NORTH AMERICAN MARKET FOR PRESSURE SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	277
<i>FIGURE 166 NORTH AMERICAN MARKET FOR PRESSURE SENSORS, 2010-2017 (\$ MILLIONS)</i>	277
NORTH AMERICAN MARKET FOR MASS AIRFLOW SENSORS	278
<i>TABLE 213 NORTH AMERICAN MARKET FOR MASS AIRFLOW SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	278
<i>FIGURE 167 NORTH AMERICAN MARKET FOR MASS AIRFLOW SENSORS, 2010-2017 (\$ MILLIONS)</i>	278
NORTH AMERICAN MARKET FOR TEMPERATURE SENSORS.....	279
<i>TABLE 214 NORTH AMERICAN MARKET FOR TEMPERATURE SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	279
<i>FIGURE 168 NORTH AMERICAN MARKET FOR TEMPERATURE SENSORS, 2010-2017 (\$ MILLIONS)</i>	279
NORTH AMERICAN MARKET FOR OTHER TYPES OF SENSORS	280
<i>TABLE 215 NORTH AMERICAN MARKET FOR OTHER TYPES OF SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	280
<i>FIGURE 169 NORTH AMERICAN MARKET FOR OTHER TYPES OF SENSORS, 2010-2017 (\$ MILLIONS)</i>	281
NORTH AMERICAN MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION	281
<i>TABLE 216 NORTH AMERICAN MARKET FOR AUTOMOTIVE SENSORS BASED ON APPLICATION, THROUGH 2017 (\$ MILLIONS)</i>	282
<i>FIGURE 170 NORTH AMERICAN MARKET FOR AUTOMOTIVE SENSORS BASED ON APPLICATION, 2010-2017 (\$ MILLIONS)</i>	282
NORTH AMERICAN MARKET FOR SENSORS IN POWER TRAIN APPLICATIONS.....	283
<i>TABLE 217 NORTH AMERICAN MARKET FOR SENSORS IN POWER TRAIN APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	283
<i>FIGURE 171 NORTH AMERICAN MARKET FOR SENSORS IN POWER TRAIN APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	284
NORTH AMERICAN MARKET FOR SENSORS IN IGNITION CONTROL APPLICATIONS.....	284
<i>TABLE 218 NORTH AMERICAN MARKET FOR SENSORS IN IGNITION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	285
<i>FIGURE 172 NORTH AMERICAN MARKET FOR SENSORS IN IGNITION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	285
NORTH AMERICAN MARKET FOR SENSORS IN FUEL CONTROL APPLICATIONS.....	286

<i>TABLE 219 NORTH AMERICAN MARKET FOR SENSORS IN FUEL CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	286
<i>FIGURE 173 NORTH AMERICAN MARKET FOR SENSORS IN FUEL CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	286
NORTH AMERICAN MARKET FOR SENSORS IN EMISSION CONTROL APPLICATIONS.....	287
<i>TABLE 220 NORTH AMERICAN MARKET FOR SENSORS IN EMISSION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	287
<i>FIGURE 174 NORTH AMERICAN MARKET FOR SENSORS IN EMISSION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	287
NORTH AMERICAN MARKET FOR SENSORS IN ENGINE MANAGEMENT APPLICATIONS.....	288
<i>TABLE 221 NORTH AMERICAN MARKET FOR SENSORS IN ENGINE MANAGEMENT APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	288
<i>FIGURE 175 NORTH AMERICAN MARKET FOR SENSORS IN ENGINE MANAGEMENT APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	288
NORTH AMERICAN MARKET FOR SENSORS IN SPEED/TORQUE MEASUREMENT APPLICATIONS.....	289
<i>TABLE 222 NORTH AMERICAN MARKET FOR SENSORS IN SPEED/TORQUE MEASUREMENT APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	289
<i>FIGURE 176 NORTH AMERICAN MARKET FOR SENSORS IN SPEED/TORQUE MEASUREMENT APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	289
NORTH AMERICAN MARKET FOR SENSORS IN TRANSMISSION CONTROL APPLICATIONS.....	290
<i>TABLE 223 NORTH AMERICAN MARKET FOR SENSORS IN TRANSMISSION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	290
<i>FIGURE 177 NORTH AMERICAN MARKET FOR SENSORS IN TRANSMISSION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	290
NORTH AMERICAN MARKET FOR SENSORS IN VEHICLE CONTROL APPLICATIONS.....	291
<i>TABLE 224 NORTH AMERICAN MARKET FOR SENSORS IN VEHICLE CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	291
<i>FIGURE 178 NORTH AMERICAN MARKET FOR SENSORS IN VEHICLE CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	291
NORTH AMERICAN MARKET FOR SENSORS IN BRAKE CONTROL APPLICATIONS.....	292
<i>TABLE 225 NORTH AMERICAN MARKET FOR SENSORS IN BRAKE CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	292

<i>FIGURE 179 NORTH AMERICAN MARKET FOR SENSORS IN BRAKE CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	292
NORTH AMERICAN MARKET FOR SENSORS IN STEERING CONTROL APPLICATIONS.....	293
<i>TABLE 226 NORTH AMERICAN MARKET FOR SENSORS IN STEERING CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	293
<i>FIGURE 180 NORTH AMERICAN MARKET FOR SENSORS IN STEERING CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	293
NORTH AMERICAN MARKET FOR SENSORS IN SUSPENSION CONTROL APPLICATIONS.....	294
<i>TABLE 227 NORTH AMERICAN MARKET FOR SENSORS IN SUSPENSION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	294
<i>FIGURE 181 NORTH AMERICAN MARKET FOR SENSORS IN SUSPENSION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	294
NORTH AMERICAN MARKET FOR SENSORS IN TIRE AND WHEEL CONTROL APPLICATIONS.....	295
<i>TABLE 228 NORTH AMERICAN MARKET FOR SENSORS IN TIRE AND WHEEL CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	295
<i>FIGURE 182 NORTH AMERICAN MARKET FOR SENSORS IN TIRE AND WHEEL CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	295
NORTH AMERICAN MARKET FOR SENSORS IN DRIVER SUPPORT APPLICATIONS.....	296
<i>TABLE 229 NORTH AMERICAN MARKET FOR SENSORS IN DRIVER SUPPORT APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	296
<i>FIGURE 183 NORTH AMERICAN MARKET FOR SENSORS IN DRIVER SUPPORT APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	296
NORTH AMERICAN MARKET FOR SENSORS IN VEHICLE ENVIRONMENT APPLICATIONS.....	297
<i>TABLE 230 NORTH AMERICAN MARKET FOR SENSORS IN VEHICLE ENVIRONMENT APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	297
<i>FIGURE 184 NORTH AMERICAN MARKET FOR SENSORS IN VEHICLE ENVIRONMENT APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	297
NORTH AMERICAN MARKET FOR SENSORS IN VEHICLE LIGHTING CONTROL APPLICATIONS.....	298
<i>TABLE 231 NORTH AMERICAN MARKET FOR SENSORS IN VEHICLE LIGHTING CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	298

<i>FIGURE 185 NORTH AMERICAN MARKET FOR SENSORS IN VEHICLE LIGHTING CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	298
NORTH AMERICAN MARKET FOR SENSORS IN DRIVER CONVENIENCE APPLICATIONS.....	299
<i>TABLE 232 NORTH AMERICAN MARKET FOR SENSORS IN DRIVER CONVENIENCE APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	299
<i>FIGURE 186 NORTH AMERICAN MARKET FOR SENSORS IN DRIVER CONVENIENCE APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	299
NORTH AMERICAN MARKET FOR SENSORS IN VEHICLE SAFETY/SECURITY APPLICATIONS.....	300
<i>TABLE 233 NORTH AMERICAN MARKET FOR SENSORS IN VEHICLE SAFETY/SECURITY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	300
<i>FIGURE 187 NORTH AMERICAN MARKET FOR SENSORS IN VEHICLE SAFETY/SECURITY APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	300
NORTH AMERICAN MARKET FOR SENSORS IN VEHICLE SAFETY APPLICATIONS.....	301
<i>TABLE 234 NORTH AMERICAN MARKET FOR SENSORS IN VEHICLE SAFETY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	301
<i>FIGURE 188 NORTH AMERICAN MARKET FOR SENSORS IN VEHICLE SAFETY APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	301
NORTH AMERICAN MARKET FOR SENSORS IN VEHICLE COLLISION CONTROL APPLICATIONS.....	302
<i>TABLE 235 NORTH AMERICAN MARKET FOR SENSORS IN VEHICLE COLLISION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	302
<i>FIGURE 189 NORTH AMERICAN MARKET FOR SENSORS IN VEHICLE COLLISION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	302
NORTH AMERICAN MARKET FOR SENSORS IN VEHICLE SECURITY APPLICATIONS.....	303
<i>TABLE 236 NORTH AMERICAN MARKET FOR SENSORS IN VEHICLE SECURITY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	303
<i>FIGURE 190 NORTH AMERICAN MARKET FOR SENSORS IN VEHICLE SECURITY APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	303
NORTH AMERICAN MARKET FOR SENSORS IN ROAD VISIBILITY APPLICATIONS.....	304
<i>TABLE 237 NORTH AMERICAN MARKET FOR SENSORS IN ROAD VISIBILITY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	304
<i>FIGURE 191 NORTH AMERICAN MARKET FOR SENSORS IN ROAD VISIBILITY APPLICATIONS (\$ MILLIONS)</i>	304

NORTH AMERICAN MARKET FOR SENSORS IN ALTERNATE FUEL VEHICLE APPLICATIONS.....	305
<i>TABLE 238 NORTH AMERICAN MARKET FOR SENSORS IN ALTERNATE FUEL VEHICLE APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	<i>305</i>
<i>FIGURE 192 NORTH AMERICAN MARKET FOR SENSORS IN ALTERNATE FUEL VEHICLE APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	<i>305</i>
MARKETS FOR AUTOMOTIVE SENSORS IN COUNTRIES OF THE NORTH AMERICAN REGION.....	306
<i>TABLE 239 MARKET FOR AUTOMOTIVE SENSORS IN COUNTRIES OF THE NORTH AMERICAN REGION, THROUGH 2017 (\$ MILLIONS)</i>	<i>306</i>
<i>FIGURE 193 MARKET FOR AUTOMOTIVE SENSORS IN COUNTRIES OF THE NORTH AMERICAN REGION, 2010-2017 (\$ MILLIONS)</i>	<i>306</i>
OVERVIEW OF AUTOMOBILE INDUSTRY IN THE U.S.....	307
AUTOMOBILE PRODUCTION FIGURES FOR THE U.S.	308
<i>TABLE 240 PAST PRODUCTION AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN THE U.S., THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	<i>308</i>
MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN THE U.S.	308
<i>TABLE 241 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN THE U.S., THROUGH 2017 (\$ MILLIONS)</i>	<i>309</i>
<i>FIGURE 194 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN THE U.S. 2010-2017 (\$ MILLIONS)</i>	<i>309</i>
MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN THE U.S.....	310
<i>TABLE 242 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN THE U.S., THROUGH 2017 (\$ MILLIONS)</i>	<i>310</i>
<i>FIGURE 195 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN THE U.S., 2010-2017 (\$ MILLIONS)</i>	<i>310</i>
OVERVIEW OF AUTOMOBILE INDUSTRY IN CANADA.....	311
AUTOMOBILE PRODUCTION FIGURES FOR CANADA	311
<i>TABLE 243 PAST PRODUCTION AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN CANADA, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	<i>312</i>
MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN CANADA	312
<i>TABLE 244 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN CANADA, THROUGH 2017 (\$ MILLIONS)</i>	<i>312</i>
<i>FIGURE 196 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN CANADA, 2010-2017 (\$ MILLIONS)</i>	<i>313</i>

MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN CANADA	313
<i>TABLE 245 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN CANADA, THROUGH 2017 (\$ MILLIONS)</i>	314
<i>FIGURE 197 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN CANADA, 2010-2017 (\$ MILLIONS)</i>	314
OVERVIEW OF AUTOMOBILE INDUSTRY IN MEXICO	315
AUTOMOBILE PRODUCTION FIGURES FOR MEXICO	315
<i>TABLE 246 PAST PRODUCTION AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN MEXICO, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	316
MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN MEXICO	316
<i>TABLE 247 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN MEXICO, THROUGH 2017 (\$ MILLIONS)</i>	316
<i>FIGURE 198 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN MEXICO, 2010-2017 (\$ MILLIONS)</i>	317
MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN MEXICO	317
<i>TABLE 248 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN MEXICO, THROUGH 2017 (\$ MILLIONS)</i>	317
<i>FIGURE 199 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN MEXICO, 2010-2017 (\$ MILLIONS)</i>	318
CHAPTER NINE: EMERGING/REST OF WORLD MARKETS FOR AUTOMOTIVE SENSORS	319
OVERVIEW OF AUTOMOBILE PRODUCTION IN REST OF WORLD REGION	319
<i>TABLE 249 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN REST OF WORLD COUNTRIES, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	319
REST OF WORLD MARKET FOR AUTOMOTIVE SENSORS	319
REST OF WORLD MARKET FOR SENSORS BASED ON TECHNOLOGY	320
<i>TABLE 250 REST OF WORLD MARKET FOR AUTOMOTIVE SENSORS BASED ON TECHNOLOGY, THROUGH 2017 (\$ MILLIONS)</i>	320
<i>FIGURE 200 REST OF WORLD MARKET FOR AUTOMOTIVE SENSORS BASED ON TECHNOLOGY (\$ MILLIONS)</i>	321
REST OF WORLD MARKET FOR ROTATIONAL MOTION SENSORS	321
<i>TABLE 251 REST OF WORLD MARKET FOR ROTATIONAL MOTION SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	322
<i>FIGURE 201 REST OF WORLD MARKET FOR ROTATIONAL MOTION SENSORS, 2010-2017 (\$ MILLIONS)</i>	322

REST OF WORLD MARKET FOR ANGULAR AND LINEAR POSITION SENSORS	323
<i>TABLE 252 REST OF WORLD MARKET FOR ANGULAR AND LINEAR POSITION SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	<i>323</i>
<i>FIGURE 202 REST OF WORLD MARKET FOR ANGULAR AND LINEAR POSITION SENSORS, 2010-2017 (\$ MILLIONS)</i>	<i>323</i>
REST OF WORLD MARKET FOR GAS SENSORS	324
<i>TABLE 253 REST OF WORLD MARKET FOR GAS SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	<i>324</i>
<i>FIGURE 203 REST OF WORLD MARKET FOR GAS SENSORS, 2010-2017 (\$ MILLIONS)</i>	<i>324</i>
REST OF WORLD MARKET FOR ACCELEROMETERS	325
<i>TABLE 254 REST OF WORLD MARKET FOR ACCELEROMETERS, THROUGH 2017 (\$ MILLIONS)</i>	<i>325</i>
<i>FIGURE 204 REST OF WORLD MARKET FOR ACCELEROMETERS, 2010-2017 (\$ MILLIONS)</i>	<i>325</i>
REST OF WORLD MARKET FOR PRESSURE SENSORS.....	326
<i>TABLE 255 REST OF WORLD MARKET FOR PRESSURE SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	<i>326</i>
<i>FIGURE 205 REST OF WORLD MARKET FOR PRESSURE SENSORS, 2010-2017 (\$ MILLIONS)</i>	<i>326</i>
REST OF WORLD MARKET FOR MASS AIRFLOW SENSORS.....	327
<i>TABLE 256 REST OF WORLD MARKET FOR MASS AIRFLOW SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	<i>327</i>
<i>FIGURE 206 REST OF WORLD MARKET FOR MASS AIRFLOW SENSORS (\$ MILLIONS)</i>	<i>327</i>
REST OF WORLD MARKET FOR TEMPERATURE SENSORS	328
<i>TABLE 257 REST OF WORLD MARKET FOR TEMPERATURE SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	<i>328</i>
<i>FIGURE 207 REST OF WORLD MARKET FOR TEMPERATURE SENSORS, 2010-2017 (\$ MILLIONS)</i>	<i>328</i>
REST OF WORLD MARKET FOR OTHER TYPES OF SENSORS	329
<i>TABLE 258 REST OF WORLD MARKET FOR OTHER TYPES OF SENSORS, THROUGH 2017 (\$ MILLIONS)</i>	<i>329</i>
<i>FIGURE 208 REST OF WORLD MARKET FOR OTHER TYPES OF SENSORS, 2010-2017 (\$ MILLIONS)</i>	<i>330</i>
REST OF WORLD MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION	330
<i>TABLE 259 REST OF WORLD MARKET FOR AUTOMOTIVE SENSORS BASED ON APPLICATION, THROUGH 2017 (\$ MILLIONS)</i>	<i>331</i>
<i>FIGURE 209 REST OF WORLD MARKET FOR AUTOMOTIVE SENSORS BASED ON APPLICATION, 2010-2017 (\$ MILLIONS)</i>	<i>331</i>
REST OF WORLD MARKET FOR SENSORS IN POWER TRAIN APPLICATIONS.....	331

<i>TABLE 260 REST OF WORLD MARKET FOR SENSORS IN POWER TRAIN APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	332
<i>FIGURE 210 REST OF WORLD MARKET FOR SENSORS IN POWER TRAIN APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	332
REST OF WORLD MARKET FOR SENSORS IN IGNITION CONTROL APPLICATIONS.....	333
<i>TABLE 261 REST OF WORLD MARKET FOR SENSORS IN IGNITION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	333
<i>FIGURE 211 REST OF WORLD MARKET FOR SENSORS IN IGNITION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	333
REST OF WORLD MARKET FOR SENSORS IN FUEL CONTROL APPLICATIONS.....	334
<i>TABLE 262 REST OF WORLD MARKET FOR SENSORS IN FUEL CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	334
<i>FIGURE 212 REST OF WORLD MARKET FOR SENSORS IN FUEL CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	334
REST OF WORLD MARKET FOR SENSORS IN EMISSION CONTROL APPLICATIONS.....	335
<i>TABLE 263 REST OF WORLD MARKET FOR SENSORS IN EMISSION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	335
<i>FIGURE 213 REST OF WORLD MARKET FOR SENSORS IN EMISSION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	335
REST OF WORLD MARKET FOR SENSORS IN ENGINE MANAGEMENT APPLICATIONS.....	336
<i>TABLE 264 REST OF WORLD MARKET FOR SENSORS IN ENGINE MANAGEMENT APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	336
<i>FIGURE 214 REST OF WORLD MARKET FOR SENSORS IN ENGINE MANAGEMENT APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	336
REST OF WORLD MARKET FOR SENSORS IN SPEED/TORQUE MEASUREMENT APPLICATIONS.....	337
<i>TABLE 265 REST OF WORLD MARKET FOR SENSORS IN SPEED/TORQUE MEASUREMENT APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	337
<i>FIGURE 215 REST OF WORLD MARKET FOR SENSORS IN SPEED/TORQUE MEASUREMENT APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	337
REST OF WORLD MARKET FOR SENSORS IN TRANSMISSION CONTROL APPLICATIONS.....	338
<i>TABLE 266 REST OF WORLD MARKET FOR SENSORS IN TRANSMISSION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	338
<i>FIGURE 216 REST OF WORLD MARKET FOR SENSORS IN TRANSMISSION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	338

REST OF WORLD MARKET FOR SENSORS IN VEHICLE CONTROL APPLICATIONS.....	339
<i>TABLE 267 REST OF WORLD MARKET FOR SENSORS IN VEHICLE CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS).....</i>	<i>339</i>
<i>FIGURE 217 REST OF WORLD MARKET FOR SENSORS IN VEHICLE CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS).....</i>	<i>339</i>
REST OF WORLD MARKET FOR SENSORS IN BRAKE CONTROL APPLICATIONS.....	340
<i>TABLE 268 REST OF WORLD MARKET FOR SENSORS IN BRAKE CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS).....</i>	<i>340</i>
<i>FIGURE 218 REST OF WORLD MARKET FOR SENSORS IN BRAKE CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS).....</i>	<i>340</i>
REST OF WORLD MARKET FOR SENSORS IN STEERING CONTROL APPLICATIONS.....	341
<i>TABLE 269 REST OF WORLD MARKET FOR SENSORS IN STEERING CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS).....</i>	<i>341</i>
<i>FIGURE 219 REST OF WORLD MARKET FOR SENSORS IN STEERING CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS).....</i>	<i>341</i>
REST OF WORLD MARKET FOR SENSORS IN SUSPENSION CONTROL APPLICATIONS.....	342
<i>TABLE 270 REST OF WORLD MARKET FOR SENSORS IN SUSPENSION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS).....</i>	<i>342</i>
<i>FIGURE 220 REST OF WORLD MARKET FOR SENSORS IN SUSPENSION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS).....</i>	<i>342</i>
REST OF WORLD MARKET FOR SENSORS IN TIRE AND WHEEL CONTROL APPLICATIONS.....	343
<i>TABLE 271 REST OF WORLD MARKET FOR SENSORS IN TIRE AND WHEEL CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)....</i>	<i>343</i>
<i>FIGURE 221 REST OF WORLD MARKET FOR SENSORS IN TIRE AND WHEEL CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS).....</i>	<i>343</i>
REST OF WORLD MARKET FOR SENSORS IN DRIVER SUPPORT APPLICATIONS.....	344
<i>TABLE 272 REST OF WORLD MARKET FOR SENSORS IN DRIVER SUPPORT APPLICATIONS, THROUGH 2017 (\$ MILLIONS).....</i>	<i>344</i>
<i>FIGURE 222 REST OF WORLD MARKET FOR SENSORS IN DRIVER SUPPORT APPLICATIONS, 2010-2017 (\$ MILLIONS).....</i>	<i>344</i>
REST OF WORLD MARKET FOR SENSORS IN VEHICLE ENVIRONMENT APPLICATIONS.....	345
<i>TABLE 273 REST OF WORLD MARKET FOR SENSORS IN VEHICLE ENVIRONMENT APPLICATIONS, THROUGH 2017 (\$ MILLIONS).....</i>	<i>345</i>
<i>FIGURE 223 REST OF WORLD MARKET FOR SENSORS IN VEHICLE ENVIRONMENT APPLICATIONS, 2010-2017 (\$ MILLIONS).....</i>	<i>345</i>

REST OF WORLD MARKET FOR SENSORS IN VEHICLE LIGHTING CONTROL APPLICATIONS.....	346
<i>TABLE 274 REST OF WORLD MARKET FOR SENSORS IN VEHICLE LIGHTING CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	346
<i>FIGURE 224 REST OF WORLD MARKET FOR SENSORS IN VEHICLE LIGHTING CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	346
REST OF WORLD MARKET FOR SENSORS IN DRIVER CONVENIENCE APPLICATIONS.....	347
<i>TABLE 275 REST OF WORLD MARKET FOR SENSORS IN DRIVER CONVENIENCE APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	347
<i>FIGURE 225 REST OF WORLD MARKET FOR SENSORS IN DRIVER CONVENIENCE APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	347
REST OF WORLD MARKET FOR SENSORS IN VEHICLE SAFETY/SECURITY APPLICATIONS	348
<i>TABLE 276 REST OF WORLD MARKET FOR SENSORS IN VEHICLE SAFETY/SECURITY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	348
<i>FIGURE 226 REST OF WORLD MARKET FOR SENSORS IN VEHICLE SAFETY/SECURITY APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	348
REST OF WORLD MARKET FOR SENSORS IN VEHICLE SAFETY APPLICATIONS	349
<i>TABLE 277 REST OF WORLD MARKET FOR SENSORS IN VEHICLE SAFETY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	349
<i>FIGURE 227 REST OF WORLD MARKET FOR SENSORS IN VEHICLE SAFETY APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	349
REST OF WORLD MARKET FOR SENSORS IN VEHICLE COLLISION CONTROL APPLICATIONS.....	350
<i>TABLE 278 REST OF WORLD MARKET FOR SENSORS IN VEHICLE COLLISION CONTROL APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	350
<i>FIGURE 228 REST OF WORLD MARKET FOR SENSORS FOR VEHICLE COLLISION CONTROL APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	350
REST OF WORLD MARKET FOR SENSORS IN VEHICLE SECURITY APPLICATIONS.....	351
<i>TABLE 279 REST OF WORLD MARKET FOR SENSORS IN VEHICLE SECURITY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	351
<i>FIGURE 229 REST OF WORLD MARKET FOR SENSORS IN VEHICLE SECURITY APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	351
REST OF WORLD MARKET FOR SENSORS IN ROAD VISIBILITY APPLICATIONS.....	352
<i>TABLE 280 REST OF WORLD MARKET FOR SENSORS IN ROAD VISIBILITY APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	352

<i>FIGURE 230 REST OF WORLD MARKET FOR SENSORS IN ROAD VISIBILITY APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	352
REST OF WORLD MARKET FOR SENSORS IN ALTERNATE FUEL VEHICLE APPLICATIONS.....	353
<i>TABLE 281 REST OF WORLD MARKET FOR SENSORS IN ALTERNATE FUEL VEHICLE APPLICATIONS, THROUGH 2017 (\$ MILLIONS)</i>	353
<i>FIGURE 231 REST OF WORLD MARKET FOR SENSORS IN ALTERNATE FUEL VEHICLE APPLICATIONS, 2010-2017 (\$ MILLIONS)</i>	353
MARKET FOR AUTOMOTIVE SENSORS IN REST OF WORLD REGION	354
OVERVIEW OF AUTOMOBILE INDUSTRY IN SOUTH AMERICA.....	354
AUTOMOBILE INDUSTRY IN BRAZIL.....	354
<i>TABLE 282 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN BRAZIL, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	355
BRAZILIAN MARKET FOR AUTOMOTIVE SENSORS BASED ON TECHNOLOGY	355
<i>TABLE 283 BRAZILIAN MARKET FOR AUTOMOTIVE SENSORS BASED ON TECHNOLOGY, THROUGH 2017 (\$ MILLIONS)</i>	356
<i>FIGURE 232 BRAZILIAN MARKET FOR AUTOMOTIVE SENSORS BASED ON TECHNOLOGY, 2010-2017 (\$ MILLIONS)</i>	357
BRAZILIAN MARKET FOR AUTOMOTIVE SENSORS BASED ON APPLICATION	357
<i>TABLE 284 BRAZILIAN MARKET FOR AUTOMOTIVE SENSORS BASED ON APPLICATION, THROUGH 2017 (\$ MILLIONS)</i>	358
<i>FIGURE 233 BRAZILIAN MARKET FOR AUTOMOTIVE SENSORS BASED ON APPLICATION, 2010-2017 (\$ MILLIONS)</i>	358
AUTOMOBILE PRODUCTION IN OTHER SOUTH AMERICAN COUNTRIES.....	358
<i>TABLE 285 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN OTHER SOUTH AMERICAN COUNTRIES, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	359
AUTOMOBILE INDUSTRY IN ARGENTINA	359
AUTOMOBILE INDUSTRY IN VENEZUELA	359
AUTOMOBILE INDUSTRY IN COLOMBIA	360
AUTOMOBILE INDUSTRY IN ECUADOR.....	361
AUTOMOBILE INDUSTRY IN CHILE.....	361
MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN OTHER SOUTH AMERICAN COUNTRIES	361
<i>TABLE 286 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN OTHER SOUTH AMERICAN COUNTRIES, THROUGH 2017 (\$ MILLIONS)</i>	362

<i>FIGURE 234 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN OTHER SOUTH AMERICAN COUNTRIES, 2010-2017 (\$ MILLIONS)</i>	362
MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN OTHER SOUTH AMERICAN COUNTRIES	363
<i>TABLE 287 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN OTHER SOUTH AMERICAN COUNTRIES, THROUGH 2017 (\$ MILLIONS)</i>	363
<i>FIGURE 235 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN OTHER SOUTH AMERICAN COUNTRIES, 2010-2017 (\$ MILLIONS)</i>	363
OVERVIEW OF AUTOMOBILE INDUSTRY IN AFRICAN COUNTRIES.....	364
<i>TABLE 288 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN AFRICAN COUNTRIES, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	364
AUTOMOBILE INDUSTRY IN SOUTH AFRICA	364
AUTOMOBILE INDUSTRY IN EGYPT	365
AUTOMOBILE INDUSTRY IN MOROCCO	365
MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN AFRICAN COUNTRIES.....	366
<i>TABLE 289 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN AFRICAN COUNTRIES, THROUGH 2017 (\$ MILLIONS)</i>	366
<i>FIGURE 236 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN AFRICAN COUNTRIES, 2010-2017 (\$ MILLIONS)</i>	367
MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN AFRICAN COUNTRIES.....	367
<i>TABLE 290 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN AFRICAN COUNTRIES, THROUGH 2017 (\$ MILLIONS)</i>	367
<i>FIGURE 237 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN AFRICAN COUNTRIES, 2010-2017 (\$ MILLIONS)</i>	368
OVERVIEW OF AUTOMOBILE INDUSTRY IN REST OF ASIA COUNTRIES.....	368
<i>TABLE 291 PAST DATA AND FUTURE PROJECTION FOR AUTOMOBILE PRODUCTION IN REST OF ASIA COUNTRIES, THROUGH 2017 (QUANTITY IN THOUSANDS)</i>	369
AUTOMOBILE INDUSTRY IN IRAN	369
AUTOMOBILE INDUSTRY IN PAKISTAN	370
MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN REST OF ASIA COUNTRIES.....	370

TABLE 292 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN REST OF ASIA COUNTRIES, THROUGH 2017 (\$ MILLIONS).....	371
FIGURE 238 MARKET FOR AUTOMOTIVE SENSORS BY TECHNOLOGY IN REST OF ASIA COUNTRIES, 2010-2017 (\$ MILLIONS).....	371
MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN REST OF ASIA COUNTRIES.....	372
TABLE 293 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN REST OF ASIA COUNTRIES, THROUGH 2017 (\$ MILLIONS).....	372
FIGURE 239 MARKET FOR AUTOMOTIVE SENSORS BY APPLICATION IN REST OF ASIA COUNTRIES, 2010-2017 (\$ MILLIONS).....	372
CHAPTER TEN: INDUSTRY STRUCTURE AND COMPETITIVE ANALYSIS.....	
CHALLENGES IN SENSOR INDUSTRY.....	373
COMPETITIVE FACTORS IN THE SENSOR INDUSTRY.....	374
DRIVING FORCES IN THE SENSOR INDUSTRY.....	374
INTERNATIONAL ASPECTS.....	374
MARKET FOR SENSORS IN NORTH AMERICA.....	375
MARKET FOR SENSORS IN JAPAN.....	375
MARKET FOR SENSORS IN CHINA.....	375
MARKET FOR SENSORS IN INDIA.....	376
FACTORS AFFECTING MARKET GROWTH.....	377
FACTORS AFFECTING ... (CONTINUED).....	378
MERGERS, ACQUISITIONS AND JOINT VENTURES IN SENSOR INDUSTRY.....	379
TABLE 294 MAJOR ACQUISITIONS, MERGERS AND JOINT VENTURES IN THE SENSOR INDUSTRY.....	380
TABLE 294 (CONTINUED).....	381
TABLE 294 (CONTINUED).....	382
TABLE 294 (CONTINUED).....	383
TABLE 294 (CONTINUED).....	384
APPENDIX ONE: GOVERNMENT REGULATIONS AND INDUSTRY STANDARDS.....	
TREAD ACT.....	385
TPMS LEGISLATION IN EUROPEAN UNION.....	386
STANDARDS FOR AUTOMOBILE INDUSTRY.....	386
U.S. STANDARDS.....	386
CAFE REGULATIONS.....	387
REGULATIONS AND STANDARDS IN EUROPE AND REST OF WORLD.....	387

APPENDIX TWO: SAMPLE U.S. PATENTS.....	388
<i>TABLE 295 LIST OF SAMPLE U.S. PATENTS ANALYZED</i>	388
<i>TABLE 295 (CONTINUED)</i>	389
<i>TABLE 295 (CONTINUED)</i>	390
<i>TABLE 295 (CONTINUED)</i>	391
<i>TABLE 295 (CONTINUED)</i>	392
<i>TABLE 295 (CONTINUED)</i>	393
<i>TABLE 295 (CONTINUED)</i>	394
<i>TABLE 295 (CONTINUED)</i>	395
<i>TABLE 295 (CONTINUED)</i>	396
<i>TABLE 295 (CONTINUED)</i>	397
<i>TABLE 295 (CONTINUED)</i>	398
<i>TABLE 295 (CONTINUED)</i>	399
<i>TABLE 295 (CONTINUED)</i>	400
 APPENDIX THREE: AUTOMOTIVE MANUFACTURERS	 401
<i>TABLE 296 LIST OF MANUFACTURERS OF AUTOMOTIVE SENSORS</i>	401
<i>TABLE 296 (CONTINUED)</i>	402
<i>TABLE 296 (CONTINUED)</i>	403
<i>TABLE 296 (CONTINUED)</i>	404
<i>TABLE 296 (CONTINUED)</i>	405
<i>TABLE 296 (CONTINUED)</i>	406
<i>TABLE 296 (CONTINUED)</i>	407
<i>TABLE 296 (CONTINUED)</i>	408
<i>TABLE 296 (CONTINUED)</i>	409
<i>TABLE 296 (CONTINUED)</i>	410
<i>TABLE 269 (CONTINUED)</i>	411
<i>TABLE 296 (CONTINUED)</i>	412
<i>TABLE 296 (CONTINUED)</i>	413
<i>TABLE 296 (CONTINUED)</i>	414
<i>TABLE 296 (CONTINUED)</i>	415
 APPENDIX FOUR: LEADING AUTOMOBILE SENSOR MANUFACTURERS	 416
PROFILES OF LEADING AUTOMOBILE SENSOR MANUFACTURERS	416
AB ELECTRONIC LTD.	416
ALEPH AMERICA	416
ALLEGRO MICROSYSTEMS INC.	417
AMERICAN ELECTRONIC COMPONENTS INC.	418
AMERICAN SENSOR TECHNOLOGIES INC.	418
ANALOG DEVICES INC.	419
APPLIED TECHNOLOGY ASSOCIATES.....	419
APTINA IMAGING CORP.....	419
AUTOMOTIVE TECHNOLOGIES INTERNATIONAL INC.....	420

AUTOLIV INC.....	421
Autoliv Electronics America.....	421
BEI SENSORS	422
BOSCH SENSORTEC GMBH.....	422
Bosch Sensortec	423
BOURNS INC.....	423
Bourns Sensors GmbH	423
CASCO PRODUCTS CORP.....	424
CHINA AUTOMOTIVE SYSTEMS INC.....	425
COLIBRYS SA.....	426
Colibrys Inc.....	426
COMUS INTERNATIONAL BVBA.....	426
Comus International Corp.	426
CONTINENTAL AG	427
CORRSYS-DATRON SENSORSYSTEME GMBH.....	428
CROSSBOW TECHNOLOGY INC.....	429
DELPHI CORP.....	430
Body Electronics Product Group.....	430
Mechatronics, Switches and Controls Product Group	430
Security and Vehicle Access Systems Product Group.....	430
DENSO CORP.....	430
DENSO International America.....	431
ELESYS NORTH AMERICA INC.....	432
Zhongshan Elesys Co. Ltd.....	432
FIRST SENSOR AG.....	433
FREESCALE SEMICONDUCTOR INC.	434
GE SENSING	434
HAMLIN ELECTRONICS.....	435
HANS TURCK GMBH & CO. KG	436
Turck Inc.....	436
HELLA KGAA HUECK & CO.....	436
Hella North American Inc.....	436
Hella...(Continued).....	437
HITACHI AUTOMOTIVE SYSTEMS.....	438
Hitachi Automotive Products (USA) Inc.....	438
Hitachi Automotive...(Continued)	439
INFINEON TECHNOLOGIES AG CMR.....	440
Infineon Technologies North America Corp.	440
INTERSEMA SENSORIC SA.....	441
JEWELL INSTRUMENTS LLC.....	442
JUMO GMBH & CO. KG	442
JUMO Process Control Inc.....	442
KAVILCO CORP.....	442
KEY SAFETY SYSTEMS INC.....	443

KISTLER GROUP	444
Kistler Instrument Corp.....	444
MEASUREMENT SPECIALTIES INC.....	444
MELEXIS MICROELECTRONIC SYSTEMS	445
Melexis Inc.....	445
MEMSIC INC.....	446
MEMSIC Semiconductor (Wuxi) Co. Ltd.....	446
MICRALYNE INC.....	447
MICROSTRAIN INC.....	448
MOTION SENSORS INC.	448
MTS SYSTEMS CORP.....	449
NOVOTECHNIK U.S. INC.....	449
NXP SEMICONDUCTORS.....	450
NXP Semiconductors USA Inc.....	450
OMRON CORP.....	450
Omron Corp.... (Continued)	451
PROXIMITY CONTROLS.....	452
RALTRON ELECTRONICS CORP.....	452
SENSATA TECHNOLOGIES B.V.....	453
Sensata Technologies Inc.	453
SENSORAR TECHNOLOGIES AS.....	454
SILICON SENSING SYSTEMS LTD.....	454
SSI TECHNOLOGIES INC.	455
STANDEX ELECTRONICS INC.....	455
ST MICROELECTRONICS	456
THE SHANGHAI NICERA SENSOR CO. LTD.	457
TRW AUTOMOTIVE HOLDINGS CORP.....	457
TT ELECTRONICS PLC.....	458
VISTEON CORP.	458
XENSOR CORP.....	459
LIST OF SENSOR RESEARCH ORGANIZATIONS	459
AUTOMOTIVE RESEARCH AND DEVELOPMENT CENTER	459
AUTOMOTIVE RESEARCH CENTER.....	459
THE BERKELEY SENSOR AND ACTUATOR CENTER	459
APPLIED SENSOR RESEARCH & DEVELOPMENT CORPORATION.....	460
ROBERT BOSCH LLC RESEARCH AND TECHNOLOGY CENTER, NORTH AMERICA	460
CENTER FOR AUTOMOTIVE RESEARCH.....	460
ENGINEERING RESEARCH CENTER FOR WIRELESS INTEGRATED MICROSYSTEMS	460
TOYOTA CENTRAL R&D LABS	460