

Underwater Acoustic Communication Market by Interface Platform (Sensor Interface, Acoustic Modem), Application (Environmental Monitoring, Pollution Monitoring, Hydrography, Oceanography), Communication Depth, End User and Region - Global Forecast to 2028

Market Report | 2023-01-04 | 193 pages | MarketsandMarkets

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Report description:

Underwater acoustic communication market size is valued at USD 2.1 billion in 2023 and is anticipated to be USD 3.5 billion by 2028; growing at a CAGR of 11.0% from 2023 to 2028. The growing deployment of acoustic navigation for underwater positioning and increasing use of underwater communication by oil & gas industry is expected to grow the market at an estimated rate. Intensifying need for reliable and secure communication in defense and homeland security

Underwater wireless communication is used by several end users, especially from the aerospace & defense, oil & gas, and homeland security segments. Reliable and secure communication is one of the major concerns for these end users. The data collected by defense, homeland security, and other end users contain crucial information that needs to be secured throughout the communication channel so that it can be protected from intruders.

Growing demand for environmental monitoring and seafloor mapping

Acoustic sensing contains various sonar devices for seafloor mapping, submersible navigation, and underwater objects. The Nippon Foundation and the General Bathymetric Chart of the Oceans (GEBCO) plan to cooperate globally to map the whole seafloor topography by the end of 2030. The detailed charted topography of the whole ocean will aid in understanding marine geology, utilizing marine mineral and renewable energy resources, monitoring marine geohazards, and providing route surveys for underwater cables and pipelines.

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The security threats in underwater communications can be divided into passive and active attacks, in accordance with the actions taken by the intruders. In a passive attack, intruders simply try to obtain data, while in an active attack, they attempt to inject, alter, or delete data by introducing malicious nodes. In either case, the concept of authenticated data access offers a high-level solution, which can prevent IoUT network both from passive data extraction and from active data injection.

The breakup of primaries conducted during the study is depicted below:

- By Company Type: Tier 1 - 38 %, Tier 2 - 28%, and Tier 3 -34%

- By Designation: C-Level Executives - 40%, Directors - 30%, and Others - 30%

- By Region: North America- 35%, Europe - 20%, Asia Pacific - 35%, RoW - 10%

The key players operating in the RF signal chain components market include few globally established players such as KONGSBERG (Norway), Sonardyne International (UK), EvoLogics GmbH (Germany), Thales (France), Teledyne Technologies Incorporated (US), L3Harris (US), Ultra (UK), Sonardyne International (UK), EvoLogics GmbH (Germany), Moog, Inc. (US) and Nortek (Norway).

Research Coverage

The report segments the underwater acoustic communication market and forecasts its size based on region (North America, Europe, Asia Pacific, and ROW), By Sensor Interface (Sensor Interface, Acoustic Modem, and Others), Communication Depth (Shallow Water, Medium Water, Long Water, and Full Ocean), by Application (Environmental Monitoring, Pollution Monitoring, Climate Monitoring, Hydrography, Oceanography, and Others), by End User (Oil & Gas, Military & Defense, Homeland Security, Scientific Research & Development). The report also provides a comprehensive review of market drivers, restraints, opportunities, and challenges in the underwater acoustic communication market. The report also covers qualitative aspects in addition to the quantitative aspects of these markets.

Key Benefits of Buying This Report

- This report includes market statistics pertaining to by interface platform, communication depth, application, end user and region.

- Major market drivers, restraints, challenges, and opportunities have been detailed in this report.

- Illustrative segmentation, analyses, and forecasts for the market based interface platform, communication depth, application, end user and region have been conducted to provide an overall view of the underwater acoustic communication market.

- The report includes an in-depth analysis and ranking of key players.

Table of Contents:

1	INTRODUCTION	27
1.1	STUDY OBJECTIVES	27
1.2	MARKET DEFINITION	27
1.3	STUDY SCOPE	28
1.3.1	MARKETS COVERED	28
FIGURE 1 UNDERWATER ACOUSTIC COMMUNICATION MARKET: SEGMENTATION		28
1.3.2	REGIONAL ANALYSIS	28
1.3.3	YEARS CONSIDERED	29
1.3.4	INCLUSIONS AND EXCLUSIONS	29
1.4	CURRENCY CONSIDERED	30
1.5	LIMITATIONS	30
1.6	STAKEHOLDERS	30
1.7	SUMMARY OF CHANGES	31
2	RESEARCH METHODOLOGY	32
2.1	RESEARCH DATA	32
FIGURE 2 RESEARCH DESIGN		32
2.1.1	SECONDARY AND PRIMARY RESEARCH	33
2.1.2	SECONDARY DATA	33

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2.1.2.1	Secondary sources	34
2.1.3	PRIMARY DATA	34
2.1.3.1	Key data from primary sources	35
2.1.3.2	Key industry insights	35
2.1.3.3	Breakdown of primaries	36
2.2	MARKET SIZE ESTIMATION	36
FIGURE 3	PROCESS FLOW OF MARKET SIZE ESTIMATION	36
2.2.1	BOTTOM-UP APPROACH	37
FIGURE 4	MARKET SIZE ESTIMATION: BOTTOM-UP APPROACH	37
2.2.2	TOP-DOWN APPROACH	37
2.2.2.1	Approach to derive market size using supply-side analysis	37
FIGURE 5	MARKET SIZE ESTIMATION: TOP-DOWN APPROACH	37
2.3	MARKET BREAKDOWN AND DATA TRIANGULATION	38
FIGURE 6	DATA TRIANGULATION	38
2.4	RESEARCH ASSUMPTIONS	39
2.4.1	LIMITATIONS	39
?		
3	EXECUTIVE SUMMARY	40
FIGURE 7	ACOUSTIC MODEM SEGMENT TO HOLD LARGEST SHARE OF UNDERWATER ACOUSTIC COMMUNICATION MARKET DURING FORECAST PERIOD	40
FIGURE 8	MEDIUM WATER SEGMENT TO HOLD LARGEST SHARE OF UNDERWATER ACOUSTIC COMMUNICATION MARKET DURING FORECAST PERIOD	41
FIGURE 9	ENVIRONMENTAL MONITORING SEGMENT TO HOLD LARGEST SHARE OF UNDERWATER ACOUSTIC COMMUNICATION MARKET IN 2023	41
FIGURE 10	SCIENTIFIC RESEARCH & DEVELOPMENT SEGMENT TO HOLD LARGEST SHARE OF UNDERWATER ACOUSTIC COMMUNICATION MARKET DURING FORECAST PERIOD	42
FIGURE 11	ASIA PACIFIC UNDERWATER ACOUSTIC COMMUNICATION MARKET TO REGISTER HIGHEST CAGR DURING FORECAST PERIOD	43
4	PREMIUM INSIGHTS	44
4.1	ATTRACTIVE OPPORTUNITIES FOR PLAYERS OPERATING IN UNDERWATER ACOUSTIC COMMUNICATION MARKET	44
FIGURE 12	GROWING NEED FOR ENVIRONMENTAL MONITORING AND SEA FLOOR MAPPING	44
4.2	UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY INTERFACE PLATFORM	45
FIGURE 13	ACOUSTIC MODEM SEGMENT TO DOMINATE UNDERWATER ACOUSTIC COMMUNICATION MARKET BETWEEN 2023 AND 2028	45
4.3	UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COMMUNICATION DEPTH	45
FIGURE 14	MEDIUM WATER SEGMENT TO DOMINATE UNDERWATER ACOUSTIC COMMUNICATION MARKET BETWEEN 2023 AND 2028	45
4.4	UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION	46
FIGURE 15	ENVIRONMENTAL MONITORING SEGMENT TO LEAD UNDERWATER ACOUSTIC COMMUNICATION MARKET BETWEEN 2023 AND 2028	46
4.5	ASIA PACIFIC UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER AND COUNTRY	46
FIGURE 16	SCIENTIFIC RESEARCH & DEVELOPMENT SEGMENT AND CHINA TO HOLD LARGEST SHARES OF ASIA PACIFIC UNDERWATER ACOUSTIC COMMUNICATION MARKET IN 2028	46
4.6	UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COUNTRY	47
FIGURE 17	INDIA TO REGISTER HIGHEST CAGR IN UNDERWATER ACOUSTIC COMMUNICATION MARKET BETWEEN 2023 AND 2028	47
5	MARKET OVERVIEW	48
5.1	INTRODUCTION	48

5.2 MARKET DYNAMICS 49

FIGURE 18 UNDERWATER ACOUSTIC COMMUNICATION MARKET: DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES 49

5.2.1 DRIVERS 50

FIGURE 19 ANALYSIS OF IMPACT OF DRIVERS ON UNDERWATER ACOUSTIC COMMUNICATION MARKET 50

5.2.1.1 Increasing adoption of underwater acoustic modems in oil & gas industry 50

5.2.1.2 Growing need for reliable and secure communication in defense and homeland security sectors 51

5.2.1.3 Rising deployment of acoustic navigation for underwater positioning 51

5.2.2 RESTRAINTS 51

FIGURE 20 ANALYSIS OF IMPACT OF RESTRAINTS ON UNDERWATER ACOUSTIC COMMUNICATION MARKET 51

5.2.2.1 Limited speed of data transmission and delayed delivery rates in underwater communication 52

5.2.3 OPPORTUNITIES 52

FIGURE 21 ANALYSIS OF IMPACT OF OPPORTUNITIES ON UNDERWATER ACOUSTIC COMMUNICATION MARKET 52

5.2.3.1 Use of 5G network for underwater communication 52

5.2.3.2 Growing demand for environmental monitoring and seafloor mapping 53

5.2.4 CHALLENGES 53

FIGURE 22 ANALYSIS OF IMPACT OF CHALLENGES ON UNDERWATER ACOUSTIC COMMUNICATION MARKET 53

5.2.4.1 Bandwidth limitation associated with underwater acoustic communication 53

5.2.4.2 Security threat in underwater communication 54

5.3 SUPPLY CHAIN ANALYSIS 54

FIGURE 23 SUPPLY CHAIN ANALYSIS: MAJOR VALUE ADDED BY ORIGINAL EQUIPMENT MANUFACTURERS 54

5.4 ECOSYSTEM ANALYSIS 56

FIGURE 24 UNDERWATER ACOUSTIC COMMUNICATION MARKET: ECOSYSTEM ANALYSIS 56

5.5 YC-YCC SHIFT: UNDERWATER ACOUSTIC COMMUNICATION MARKET 57

FIGURE 25 YC-YCC SHIFT: UNDERWATER ACOUSTIC COMMUNICATION MARKET 57

5.6 AVERAGE SELLING PRICE OF UNDERWATER ACOUSTIC COMMUNICATION PRODUCTS OFFERED BY KEY PLAYERS 58

FIGURE 26 AVERAGE SELLING PRICE OF UNDERWATER ACOUSTIC COMMUNICATION PRODUCTS OFFERED BY KEY PLAYERS 58

5.6.1 AVERAGE SELLING PRICE TREND ANALYSIS 58

TABLE 1 AVERAGE SELLING PRICE OF UNDERWATER ACOUSTIC COMMUNICATION PRODUCTS, BY INTERFACE PLATFORM, 2019-2022 (USD) 58

5.7 TECHNOLOGY ANALYSIS 59

5.7.1 INTERNET OF UNDERWATER THINGS (IOUT) 59

5.8 PORTER'S FIVE FORCES ANALYSIS 59

TABLE 2 UNDERWATER ACOUSTIC COMMUNICATION MARKET: PORTER'S FIVE FORCES ANALYSIS 59

5.8.1 INTENSITY OF COMPETITIVE RIVALRY 60

5.8.2 THREAT OF SUBSTITUTES 60

5.8.3 BARGAINING POWER OF BUYERS 60

5.8.4 BARGAINING POWER OF SUPPLIERS 60

5.8.5 THREAT OF NEW ENTRANTS 60

?

5.9 KEY STAKEHOLDERS AND BUYING CRITERIA 61

5.9.1 KEY STAKEHOLDERS IN BUYING PROCESS 61

FIGURE 27 INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR TOP THREE APPLICATIONS 61

TABLE 3 INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR TOP THREE APPLICATIONS (%) 61

5.9.2 BUYING CRITERIA 62

FIGURE 28 KEY BUYING CRITERIA FOR TOP THREE APPLICATIONS 62

TABLE 4 KEY BUYING CRITERIA FOR TOP THREE APPLICATIONS 62

5.10 CASE STUDY ANALYSIS 63

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TABLE 5	ACOUSTIC DOPPLER CURRENT PROFILER (ADCP)-BASED MONITORING SYSTEMS AID OPERATIONS IN DARWIN HARBOUR	63
TABLE 6	INNOVASEA'S VR2W SOLUTIONS FACILITATE COST-EFFICIENT FISH TRACKING	64
5.11	TRADE ANALYSIS	65
TABLE 7	IMPORT DATA OF BASE STATIONS OF APPARATUS FOR TRANSMISSION OR RECEPTION OF VOICE, IMAGES, OR OTHER DATA, BY COUNTRY, 2017-2021 (USD MILLION)	65
TABLE 8	EXPORT DATA OF BASE STATIONS OF APPARATUS FOR TRANSMISSION OR RECEPTION OF VOICE, IMAGES, OR OTHER DATA, BY COUNTRY, 2017-2021 (USD MILLION)	65
5.12	PATENT ANALYSIS	66
FIGURE 29	TOP 10 COMPANIES WITH HIGHEST NUMBER OF PATENT APPLICATIONS IN LAST 10 YEARS	66
TABLE 9	NUMBER OF PATENTS REGISTERED RELATED TO UNDERWATER ACOUSTIC COMMUNICATION MARKET IN LAST 10 YEARS	67
FIGURE 30	NUMBER OF PATENTS GRANTED PER YEAR, 2011-2021	68
TABLE 10	NOTABLE PATENTS RELATED TO UNDERWATER ACOUSTIC COMMUNICATION MARKET	68
5.13	KEY CONFERENCES AND EVENTS, 2023-2024	71
TABLE 11	UNDERWATER ACOUSTIC COMMUNICATION MARKET: DETAILED LIST OF CONFERENCES AND EVENTS	71
5.14	TARIFF ANALYSIS	73
TABLE 12	TARIFF FOR HS CODE 851761 EXPORTED BY CHINA (2021)	73
5.14.1	STANDARDS AND REGULATORY LANDSCAPE	73
5.14.1.1	Regulatory bodies, government agencies, and other organizations	73
TABLE 13	NORTH AMERICA: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS	73
TABLE 14	EUROPE: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS	74
5.14.2	REGULATORY ANALYSIS	74
?		
6	UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY INTERFACE PLATFORM	75
6.1	INTRODUCTION	76
FIGURE 31	ACOUSTIC MODEM SEGMENT TO HOLD LARGEST MARKET SHARE DURING FORECAST PERIOD	76
TABLE 15	UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY INTERFACE PLATFORM, 2019-2022 (USD MILLION)	76
TABLE 16	UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY INTERFACE PLATFORM, 2023-2028 (USD MILLION)	77
TABLE 17	UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY INTERFACE PLATFORM, 2019-2022 (THOUSAND UNITS)	77
TABLE 18	UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY INTERFACE PLATFORM, 2023-2028 (THOUSAND UNITS)	77
6.2	SENSOR INTERFACE	78
6.2.1	INCREASING ADOPTION OF UNDERWATER SENSORS IN ENVIRONMENTAL MONITORING	78
TABLE 19	SENSOR INTERFACE: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COMMUNICATION DEPTH, 2019-2022 (USD MILLION)	78
TABLE 20	SENSOR INTERFACE: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COMMUNICATION DEPTH, 2023-2028 (USD MILLION)	78
6.3	ACOUSTIC MODEM	79
6.3.1	RIISING USE OF ACOUSTIC MODEMS TO TRANSFER INFORMATION COST-EFFECTIVELY	79
TABLE 21	ACOUSTIC MODEM: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COMMUNICATION DEPTH, 2019-2022 (USD MILLION)	79
TABLE 22	ACOUSTIC MODEM: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COMMUNICATION DEPTH, 2023-2028 (USD MILLION)	80
TABLE 23	ACOUSTIC MODEM: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY OFFERING, 2019-2022 (USD MILLION)	80
TABLE 24	ACOUSTIC MODEM: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY OFFERING, 2023-2028 (USD MILLION)	80
6.3.2	HARDWARE	80
6.3.2.1	Hardware acoustic modems have operating range of up to few kilometers	80
6.3.3	SOFTWARE	81

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6.3.3.1 Coupling software acoustic modems reduce per node cost of acoustic communication 81

6.4 OTHERS 81

TABLE 25 OTHERS: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COMMUNICATION DEPTH, 2019-2022 (USD MILLION) 81

TABLE 26 OTHERS: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COMMUNICATION RANGE, 2023-2028 (USD MILLION) 82
?

7 UNDERWATER ACOUSTIC COMMUNICATION MARKET,
BY COMMUNICATION DEPTH 83

7.1 INTRODUCTION 84

FIGURE 32 MEDIUM WATER SEGMENT TO REGISTER HIGHEST CAGR IN UNDERWATER ACOUSTIC COMMUNICATION DURING
FORECAST PERIOD 84

TABLE 27 UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COMMUNICATION DEPTH, 2019-2022 (USD MILLION) 84

TABLE 28 UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COMMUNICATION DEPTH, 2023-2028 (USD MILLION) 85

7.2 SHALLOW WATER 85

7.2.1 GROWING ENVIRONMENTAL MONITORING IN SHALLOW WATERS 85

TABLE 29 SHALLOW WATER: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2019-2022 (USD MILLION) 85

TABLE 30 SHALLOW WATER: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 86

7.3 MEDIUM WATER 86

7.3.1 GROWING USE OF ENVIRONMENTAL MONITORING SYSTEMS IN OIL & GAS INDUSTRY TO DETECT PIPE LEAKAGE IN MEDIUM
WATER RANGE 86

TABLE 31 MEDIUM WATER: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2019-2022 (USD MILLION) 87

TABLE 32 MEDIUM WATER: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 87

7.4 LONG WATER 87

7.4.1 GROWING USE OF UNDERWATER ACOUSTIC COMMUNICATION TO CONDUCT TELEMETRY IN ICE-COVERED REGIONS 87

TABLE 33 LONG WATER: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2019-2022 (USD MILLION) 88

TABLE 34 LONG WATER: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 88

7.5 FULL OCEAN 89

7.5.1 INCREASING USE OF ACOUSTIC SIGNALS FOR EXPLORATION OF NATURAL RESOURCES 89

TABLE 35 FULL OCEAN: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2019-2022 (USD MILLION) 89

TABLE 36 FULL OCEAN: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 89

8 UNDERWATER ACOUSTIC COMMUNICATION, BY OPERATING RANGE 90

8.1 INTRODUCTION 90

8.2 SHORT RANGE 90

8.3 MEDIUM RANGE 90

8.4 LONG RANGE 90

TABLE 37 LIST OF FEW COMPANIES WITH PRODUCT OFFERINGS, BY OPERATING RANGE 91

?

9 UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION 92

9.1 INTRODUCTION 93

FIGURE 33 ENVIRONMENTAL MONITORING SEGMENT TO REGISTER HIGHEST CAGR BETWEEN 2023 AND 2028 93

TABLE 38 UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2019-2022 (USD MILLION) 94

TABLE 39 UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 94

9.2 ENVIRONMENTAL MONITORING 94

9.2.1 UNDERWATER ACOUSTIC COMMUNICATION SYSTEMS HELP GOVERNMENTS IN ENVIRONMENTAL MONITORING 94

TABLE 40 ENVIRONMENTAL MONITORING: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2019-2022 (USD
MILLION) 95

TABLE 41 ENVIRONMENTAL MONITORING: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2023-2028 (USD
MILLION) 95

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TABLE 42	ENVIRONMENTAL MONITORING: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COMMUNICATION DEPTH, 2019-2022 (USD MILLION)	95
TABLE 43	ENVIRONMENTAL MONITORING: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COMMUNICATION DEPTH, 2023-2028 (USD MILLION)	96
TABLE 44	ENVIRONMENTAL MONITORING: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2019-2022 (USD MILLION)	96
TABLE 45	ENVIRONMENTAL MONITORING: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2023-2028 (USD MILLION)	96
9.3	POLLUTION MONITORING	97
9.3.1	GROWING USE OF UNDERWATER ACOUSTIC COMMUNICATION SYSTEMS TO MONITOR POLLUTION CAUSED BY OIL SPILLS	97
TABLE 46	POLLUTION MONITORING: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2019-2022 (USD MILLION)	97
TABLE 47	POLLUTION MONITORING: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2023-2028 (USD MILLION)	97
TABLE 48	POLLUTION MONITORING: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COMMUNICATION DEPTH, 2019-2022 (USD MILLION)	98
TABLE 49	POLLUTION MONITORING: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COMMUNICATION DEPTH, 2023-2028 (USD MILLION)	98
TABLE 50	POLLUTION MONITORING: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2019-2022 (USD MILLION)	98
TABLE 51	POLLUTION MONITORING: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2023-2028 (USD MILLION)	99
9.4	CLIMATE MONITORING	99
9.4.1	GROWING NEED FOR CLIMATE MONITORING WITH RISE IN GLOBAL WARMING	99
TABLE 52	CLIMATE MONITORING: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2019-2022 (USD MILLION)	99
TABLE 53	CLIMATE MONITORING: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2023-2028 (USD MILLION)	100
TABLE 54	CLIMATE MONITORING: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COMMUNICATION DEPTH, 2019-2022 (USD MILLION)	100
TABLE 55	CLIMATE MONITORING: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COMMUNICATION DEPTH, 2023-2028 (USD MILLION)	100
TABLE 56	CLIMATE MONITORING: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2019-2022 (USD MILLION)	101
TABLE 57	CLIMATE MONITORING: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2023-2028 (USD MILLION)	101
9.5	HYDROGRAPHY	101
9.5.1	INCREASED RESEARCH RELATED TO OCEAN MAPPING AND SEABED NAVIGATION	101
TABLE 58	HYDROGRAPHY: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2019-2022 (USD MILLION)	102
TABLE 59	HYDROGRAPHY: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2023-2028 (USD MILLION)	102
TABLE 60	HYDROGRAPHY: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COMMUNICATION DEPTH, 2019-2022 (USD MILLION)	102
TABLE 61	HYDROGRAPHY: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COMMUNICATION DEPTH, 2023-2028 (USD MILLION)	103
TABLE 62	HYDROGRAPHY: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2019-2022 (USD MILLION)	103
TABLE 63	HYDROGRAPHY: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2023-2028 (USD MILLION)	103
9.6	OCEANOGRAPHY	104
9.6.1	EXTENSIVE USE OF OCEANOGRAPHY FOR SCIENTIFIC RESEARCH AND DEVELOPMENT	104
TABLE 64	OCEANOGRAPHY: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2019-2022 (USD MILLION)	104
TABLE 65	OCEANOGRAPHY: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2023-2028 (USD MILLION)	104
TABLE 66	OCEANOGRAPHY: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COMMUNICATION DEPTH, 2019-2022 (USD MILLION)	105

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TABLE 67	OCEANOGRAPHY: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COMMUNICATION DEPTH, 2023-2028 (USD MILLION)	105
TABLE 68	OCEANOGRAPHY: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2019-2022 (USD MILLION)	105
TABLE 69	OCEANOGRAPHY: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2023-2028 (USD MILLION)	106
9.7	OTHERS	106
TABLE 70	OTHERS: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2019-2022 (USD MILLION)	106
TABLE 71	OTHERS: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2023-2028 (USD MILLION)	107
TABLE 72	OTHERS: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COMMUNICATION DEPTH, 2019-2022 (USD MILLION)	107
TABLE 73	OTHERS: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COMMUNICATION DEPTH, 2023-2028 (USD MILLION)	107
TABLE 74	OTHERS: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2019-2022 (USD MILLION)	108
TABLE 75	OTHERS: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2023-2028 (USD MILLION)	108
10	UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER	109
10.1	INTRODUCTION	110
FIGURE 34	OIL & GAS SEGMENT TO REGISTER HIGHEST CAGR IN UNDERWATER ACOUSTIC COMMUNICATION MARKET DURING FORECAST PERIOD	110
TABLE 76	UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2019-2022 (USD MILLION)	110
TABLE 77	UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2023-2028 (USD MILLION)	111
10.2	OIL & GAS	111
10.2.1	GROWING NEED FOR RELIABLE COMMUNICATION IN OIL & GAS INDUSTRY	111
TABLE 78	OIL & GAS: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2019-2022 (USD MILLION)	112
TABLE 79	OIL & GAS: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2023-2028 (USD MILLION)	112
TABLE 80	OIL & GAS: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2019-2022 (USD MILLION)	112
TABLE 81	OIL & GAS: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2023-2028 (USD MILLION)	113
10.3	MILITARY & DEFENSE	113
10.3.1	INCREASED SPENDING ON DEFENSE SECTOR	113
TABLE 82	MILITARY & DEFENSE: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2019-2022 (USD MILLION)	114
TABLE 83	MILITARY & DEFENSE: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2023-2028 (USD MILLION)	114
TABLE 84	MILITARY & DEFENSE: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2019-2022 (USD MILLION)	114
TABLE 85	MILITARY & DEFENSE: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2023-2028 (USD MILLION)	115
10.4	HOMELAND SECURITY	115
10.4.1	INCREASED DEPLOYMENT OF UNDERWATER ACOUSTIC SENSORS IN DEFENSE SYSTEMS OF CRITICAL INFRASTRUCTURES	115
TABLE 86	HOMELAND SECURITY: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2019-2022 (USD MILLION)	116
TABLE 87	HOMELAND SECURITY: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2023-2028 (USD MILLION)	116
FIGURE 35	ASIA PACIFIC TO REGISTER HIGHEST CAGR IN UNDERWATER ACOUSTIC COMMUNICATION MARKET FOR HOMELAND SECURITY SEGMENT DURING FORECAST PERIOD	117
TABLE 88	HOMELAND SECURITY: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2019-2022 (USD MILLION)	117
TABLE 89	HOMELAND SECURITY: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2023-2028 (USD MILLION)	117
10.5	SCIENTIFIC RESEARCH & DEVELOPMENT	118
10.5.1	GROWING USE OF SEA EXPLORATION AND OCEAN MAPPING SYSTEMS IN SCIENTIFIC RESEARCH AND DEVELOPMENT FOR UNDERWATER ACOUSTIC COMMUNICATION	118
TABLE 90	SCIENTIFIC RESEARCH & DEVELOPMENT: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION,	

2019-2022 (USD MILLION) 118

TABLE 91 SCIENTIFIC RESEARCH & DEVELOPMENT: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 119

TABLE 92 SCIENTIFIC RESEARCH & DEVELOPMENT: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2019-2022 (USD MILLION) 119

TABLE 93 SCIENTIFIC RESEARCH & DEVELOPMENT: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2023-2028 (USD MILLION) 119

10.6 MARINE 120

10.6.1 RISING NEED FOR UNDERWATER ACOUSTIC COMMUNICATION IN MARINE CONSERVATION 120

FIGURE 36 POLLUTION MONITORING SEGMENT TO REGISTER HIGHEST CAGR IN UNDERWATER ACOUSTIC COMMUNICATION MARKET FOR MARINE SEGMENT DURING FORECAST PERIOD 120

TABLE 94 MARINE: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2019-2022 (USD MILLION) 121

TABLE 95 MARINE: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 121

TABLE 96 MARINE: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2019-2022 (USD MILLION) 121

TABLE 97 MARINE: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2023-2028 (USD MILLION) 122

11 UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION 123

11.1 INTRODUCTION 124

FIGURE 37 ASIA PACIFIC TO REGISTER HIGHEST CAGR IN UNDERWATER ACOUSTIC COMMUNICATION MARKET DURING FORECAST PERIOD 124

TABLE 98 UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2019-2022 (USD MILLION) 124

TABLE 99 UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2023-2028 (USD MILLION) 125

11.2 NORTH AMERICA 125

FIGURE 38 NORTH AMERICA: SNAPSHOT OF UNDERWATER ACOUSTIC COMMUNICATION MARKET 126

TABLE 100 NORTH AMERICA: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2019-2022 (USD MILLION) 127

TABLE 101 NORTH AMERICA: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 127

TABLE 102 NORTH AMERICA: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2019-2022 (USD MILLION) 127

TABLE 103 NORTH AMERICA: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2023-2028 (USD MILLION) 128

TABLE 104 NORTH AMERICA: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COUNTRY, 2019-2022 (USD MILLION) 128

TABLE 105 NORTH AMERICA: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COUNTRY, 2023-2028 (USD MILLION) 128

11.2.1 US 129

11.2.1.1 Increasing offshore activities and spending by US Navy 129

11.2.2 CANADA 129

11.2.2.1 Expanding oil & gas industry 129

11.2.3 MEXICO 129

11.2.3.1 Growing adoption of autonomous underwater vehicles (AUVs) 129

11.3 EUROPE 130

FIGURE 39 EUROPE: SNAPSHOT OF UNDERWATER ACOUSTIC COMMUNICATION MARKET 130

TABLE 106 EUROPE: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2019-2022 (USD MILLION) 131

TABLE 107 EUROPE: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 131

TABLE 108 EUROPE: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2019-2022 (USD MILLION) 131

TABLE 109 EUROPE: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2023-2028 (USD MILLION) 132

TABLE 110 EUROPE: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COUNTRY, 2019-2022 (USD MILLION) 132

TABLE 111 EUROPE: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COUNTRY, 2023-2028 (USD MILLION) 132

11.3.1 GERMANY 133

11.3.1.1 Increasing use of ROVs in offshore drilling activities 133

11.3.2 UK 133

11.3.2.1 Increasing use of UUVs in defense sector to combat maritime threats 133

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11.3.3	FRANCE	133
11.3.3.1	Increased investments by French Navy in deployment of UUVs	133
11.3.4	ITALY	134
11.3.4.1	Rising R&D investments	134
11.3.5	SPAIN	134
11.3.5.1	Growing adoption of UUVs to control and monitor sea traffic	134
11.3.6	REST OF EUROPE	134
11.4	ASIA PACIFIC	134
FIGURE 40	ASIA PACIFIC: SNAPSHOT OF UNDERWATER ACOUSTIC COMMUNICATION MARKET	135
TABLE 112	ASIA PACIFIC: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2019-2022 (USD MILLION)	136
TABLE 113	ASIA PACIFIC: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2023-2028 (USD MILLION)	136
TABLE 114	ASIA PACIFIC: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2019-2022 (USD MILLION)	136
TABLE 115	ASIA PACIFIC: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2023-2028 (USD MILLION)	137
TABLE 116	ASIA PACIFIC: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COUNTRY, 2019-2022 (USD MILLION)	137
TABLE 117	ASIA PACIFIC: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY COUNTRY, 2023-2028 (USD MILLION)	137
11.4.1	CHINA	138
11.4.1.1	Growing adoption of unmanned systems in marine industry	138
11.4.2	JAPAN	138
11.4.2.1	Increased border and security concerns	138
11.4.3	INDIA	138
11.4.3.1	Increased offshore oil and gas production	138
11.4.4	REST OF ASIA PACIFIC	138
11.5	ROW	139
TABLE 118	ROW: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2019-2022 (USD MILLION)	139
TABLE 119	ROW: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY APPLICATION, 2023-2028 (USD MILLION)	139
TABLE 120	ROW: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2019-2022 (USD MILLION)	140
TABLE 121	ROW: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY END USER, 2023-2028 (USD MILLION)	140
TABLE 122	ROW: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2019-2022 (USD MILLION)	140
TABLE 123	ROW: UNDERWATER ACOUSTIC COMMUNICATION MARKET, BY REGION, 2023-2028 (USD MILLION)	141
11.5.1	MIDDLE EAST & AFRICA	141
11.5.1.1	Increased use of underwater acoustic communication in oil & gas industry	141
11.5.2	SOUTH AMERICA	141
11.5.2.1	High government-led investments in oil & gas exploration	141
12	COMPETITIVE LANDSCAPE	142
12.1	OVERVIEW	142
12.2	STRATEGIES ADOPTED BY KEY PLAYERS/RIGHT TO WIN	142
TABLE 124	OVERVIEW OF STRATEGIES ADOPTED BY KEY PLAYERS IN UNDERWATER ACOUSTIC COMMUNICATION MARKET	142
12.3	REVENUE ANALYSIS OF TOP FIVE PLAYERS	144
FIGURE 41	FIVE-YEAR ANNUAL SEGMENTAL REVENUE OF TOP FIVE PLAYERS IN UNDERWATER ACOUSTIC COMMUNICATION MARKET, 2017-2021	144
12.4	MARKET SHARE ANALYSIS OF KEY PLAYERS IN UNDERWATER ACOUSTIC COMMUNICATION MARKET, 2021	144
FIGURE 42	MARKET SHARE ANALYSIS OF KEY PLAYERS IN UNDERWATER ACOUSTIC COMMUNICATION MARKET, 2021	144
TABLE 125	UNDERWATER ACOUSTIC COMMUNICATION MARKET: DEGREE OF COMPETITION	145
FIGURE 43	UNDERWATER ACOUSTIC COMMUNICATION MARKET: RANKING ANALYSIS	145
12.5	COMPANY EVALUATION QUADRANT, 2021	146
12.5.1	STARS	146
12.5.2	EMERGING LEADERS	146

12.5.3	PERVASIVE PLAYERS	146
12.5.4	PARTICIPANTS	146
FIGURE 44	UNDERWATER ACOUSTIC COMMUNICATION MARKET (GLOBAL): COMPANY EVALUATION QUADRANT, 2021	147
?		
12.6	COMPETITIVE BENCHMARKING	148
TABLE 126	COMPANY APPLICATION FOOTPRINT (21 COMPANIES)	148
TABLE 127	COMPANY REGIONAL FOOTPRINT (21 COMPANIES)	149
TABLE 128	OVERALL COMPANY FOOTPRINT	150
12.7	STARTUP/SMALL AND MEDIUM-SIZED ENTERPRISE (SME) EVALUATION QUADRANT, 2021	151
12.7.1	PROGRESSIVE COMPANIES	151
12.7.2	RESPONSIVE COMPANIES	151
12.7.3	DYNAMIC COMPANIES	151
12.7.4	STARTING BLOCKS	151
FIGURE 45	UNDERWATER ACOUSTIC COMMUNICATION MARKET (GLOBAL): STARTUP/SME EVALUATION QUADRANT, 2021	152
TABLE 129	UNDERWATER ACOUSTIC COMMUNICATION MARKET: LIST OF KEY STARTUPS/SMES	153
TABLE 130	UNDERWATER ACOUSTIC COMMUNICATION MARKET: COMPETITIVE BENCHMARKING OF KEY STARTUPS/SMES	153
12.8	COMPETITIVE SCENARIO AND TRENDS	154
12.8.1	PRODUCT LAUNCHES	154
TABLE 131	UNDERWATER ACOUSTIC COMMUNICATION MARKET: PRODUCT LAUNCHES, 2020-2022	154
12.8.2	DEALS	155
TABLE 132	UNDERWATER ACOUSTIC COMMUNICATION MARKET: DEALS, 2020-2022	155
13	COMPANY PROFILES	157
13.1	INTRODUCTION	157
13.2	KEY PLAYERS	157
	(Business Overview, Products Offered, Recent Developments, and MnM View)*	
13.2.1	TELEDYNE TECHNOLOGIES INCORPORATED	157
TABLE 133	TELEDYNE TECHNOLOGIES INCORPORATED: COMPANY OVERVIEW	158
FIGURE 46	TELEDYNE TECHNOLOGIES INCORPORATED: COMPANY SNAPSHOT	158
TABLE 134	TELEDYNE TECHNOLOGIES INCORPORATED: PRODUCT LAUNCHES	159
TABLE 135	TELEDYNE TECHNOLOGIES INCORPORATED: DEALS	160
13.2.2	KONGSBERG	161
TABLE 136	KONGSBERG: COMPANY OVERVIEW	161
FIGURE 47	KONGSBERG: COMPANY SNAPSHOT	162
TABLE 137	KONGSBERG: PRODUCT LAUNCHES	163
TABLE 138	KONGSBERG: DEALS	164
13.2.3	THALES	165
TABLE 139	THALES: COMPANY OVERVIEW	165
FIGURE 48	THALES: COMPANY SNAPSHOT	166
TABLE 140	THALES: DEALS	167
13.2.4	L3HARRIS TECHNOLOGIES, INC.	168
TABLE 141	L3HARRIS TECHNOLOGIES, INC.: COMPANY OVERVIEW	168
FIGURE 49	L3HARRIS TECHNOLOGIES, INC.: COMPANY SNAPSHOT	169
13.2.5	ULTRA	171
TABLE 142	ULTRA: COMPANY OVERVIEW	171
FIGURE 50	ULTRA: COMPANY SNAPSHOT	172
TABLE 143	ULTRA: DEALS	173
13.2.6	SONARDYNE INTERNATIONAL	174

TABLE 144 SONARDYNE INTERNATIONAL: COMPANY OVERVIEW 174

TABLE 145 SONARDYNE INTERNATIONAL: PRODUCT LAUNCHES 175

TABLE 146 SONARDYNE INTERNATIONAL: DEALS 175

13.2.7 EVOLOGICS GMBH 176

TABLE 147 EVOLOGICS GMBH: COMPANY OVERVIEW 176

TABLE 148 EVOLOGICS GMBH: PRODUCT LAUNCHES 176

13.2.8 MOOG, INC. 177

TABLE 149 MOOG, INC.: COMPANY OVERVIEW 177

FIGURE 51 MOOG, INC.: COMPANY SNAPSHOT 178

13.2.9 NORTEK 179

TABLE 150 NORTEK: COMPANY OVERVIEW 179

TABLE 151 NORTEK: PRODUCT LAUNCHES 179

13.2.10 SHIMADZU CORPORATION 180

TABLE 152 SHIMADZU CORPORATION.: COMPANY OVERVIEW 180

FIGURE 52 SHIMADZU CORPORATION: COMPANY SNAPSHOT 181

TABLE 153 SHIMADZU CORPORATION: PRODUCT LAUNCHES 182

* Business Overview, Products Offered, Recent Developments, and MnM View might not be captured in case of unlisted companies.

13.3 OTHER PLAYERS 183

13.3.1 AQUATIC SENSOR NETWORK TECHNOLOGY 183

13.3.2 RTSYS 184

13.3.3 THELMA BIOTEL 184

13.3.4 HYDROACOUSTIC INC. 185

13.3.5 BALTROBOTICS 186

13.3.6 LINKQUEST INC. 187

13.3.7 DSPCOMM 188

13.3.8 JASCO APPLIED SCIENCES 189

13.3.9 DRUMGRANGE LTD 189

13.3.10 HYDROMEAL 190

13.3.11 UNDERWATER COMMUNICATIONS & NAVIGATION LABORATORY 190

13.3.12 SAAB 191

13.3.13 SUBNERO PTE. LTD. 191

13.3.14 PANALYTICS 192

13.3.15 DELRESEARCH LLC. 192

?

14 APPENDIX 193

14.1 DISCUSSION GUIDE 193

14.2 KNOWLEDGESTORE: MARKETSandMARKETS' SUBSCRIPTION PORTAL 196

14.3 CUSTOMIZATION OPTIONS 198

14.4 RELATED REPORTS 198

14.5 AUTHOR DETAILS 199

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