

## CONTENTS LIST

1	EXECUTIVE SUMMARY .....	31
1.1.1	<i>Pipelay</i> .....	32
1.1.2	<i>Heavy Lift</i> .....	33
1.1.3	<i>IRM</i> .....	34
1.1.4	<i>Combined Demand</i> .....	35
1.1.5	<i>Vessel Fleet</i> .....	36
1.1.6	<i>Combined Supply and Demand</i> .....	37
1.1.7	<i>Utilisation and residual demand</i> .....	38
2	GLOBAL MARKET CONTEXT .....	41
2.1	CREDIT MARKET TURMOIL .....	42
2.2	OIL PRICE & ACTIVITY .....	44
2.3	PRIMARY ENERGY CONSUMPTION .....	47
2.4	PROVED OIL & GAS RESERVES.....	49
2.5	OIL & GAS PRODUCTION .....	50
2.6	OFFSHORE MARKET OVERVIEW .....	51
2.7	SUPPLY CONSTRAINTS.....	53
2.8	SUPPLY AND DEMAND MODEL.....	54
2.8.1	<i>Global market context</i> .....	55
2.9	GLOBAL CAPEX BY REGION .....	55
2.10	GLOBAL CAPEX BY MARKET SECTOR .....	57
2.10.1	<i>Global Platform Dynamics</i> .....	57
2.10.2	<i>Global Line Dynamics</i> .....	58
2.10.1	<i>Global Subsea Completion Dynamics</i> .....	58
2.10.1	<i>Global Single Point Mooring Dynamics</i> .....	59
2.11	SUPPLY AND DEMAND.....	60
2.11.1	<i>Vessel Fleet</i> .....	60
2.11.2	<i>Newbuilds</i> .....	61
2.11.3	<i>Combined Supply and Demand</i> .....	62
2.12	UTILISATION AND RESIDUAL DEMAND.....	64
2.13	MARKET CONCERNS.....	66
2.13.1	<i>Residual demand</i> .....	66
2.13.1	<i>Global financial market</i> .....	67
3	PIPELAYING AND HEAVY LIFT MARKETS.....	69
3.1	PIPELAY INTRODUCTION .....	69
3.2	GLOBAL DEMAND .....	69
3.2.1	<i>Demand segmented by capex (regions)</i> .....	69
3.2.2	<i>Demand segmented by length (km)</i> .....	70
3.2.3	<i>Demand segmented by vessel days</i> .....	72

3.3	REGIONAL DEMAND .....	76
3.3.1	<i>Africa</i> .....	76
3.3.2	<i>Asia</i> .....	77
3.3.3	<i>Australasia</i> .....	78
3.3.4	<i>Europe</i> .....	78
3.3.5	<i>Latin America</i> .....	79
3.3.6	<i>Middle East and Caspian Sea</i> .....	80
3.3.7	<i>North America</i> .....	81
3.4	GLOBAL SUPPLY .....	82
3.5	REGIONAL SUPPLY .....	84
3.5.1	<i>Africa</i> .....	84
3.5.2	<i>Asia</i> .....	85
3.5.3	<i>Australasia</i> .....	85
3.5.4	<i>Europe</i> .....	86
3.5.5	<i>Latin America</i> .....	86
3.5.6	<i>Middle East and Caspian</i> .....	87
3.5.7	<i>North America</i> .....	87
3.5.8	<i>Global Supply</i> .....	88
3.6	COMBINED SUPPLY AND DEMAND .....	88
3.7	VOIDS/RESIDUAL DEMAND .....	90
3.8	DAYRATE ANALYSIS .....	92
3.9	PROJECT LIST/MAJOR PROJECT CASE STUDIES 2008 .....	92
3.10	HEAVY LIFT MARKET INTRODUCTION .....	92
3.11	GLOBAL DEMAND .....	93
3.11.1	<i>Demand segmented by capex (installation phase)</i> .....	93
3.11.2	<i>Demand segmented by vessel days</i> .....	95
3.11.3	<i>Demand segmented by lift group</i> .....	96
3.12	REGIONAL DEMAND .....	97
3.12.1	<i>Africa</i> .....	97
3.12.2	<i>Asia</i> .....	97
3.12.3	<i>Australasia</i> .....	98
3.12.4	<i>Europe</i> .....	99
3.12.5	<i>Latin America</i> .....	99
3.12.6	<i>Middle East and Caspian</i> .....	100
3.12.7	<i>North America</i> .....	101
3.13	GLOBAL SUPPLY .....	102
3.14	REGIONAL SUPPLY .....	104
3.14.1	<i>Africa</i> .....	104
3.14.2	<i>Asia</i> .....	105
3.14.3	<i>Australasia</i> .....	106
3.14.4	<i>Europe</i> .....	106
3.14.5	<i>Latin America</i> .....	107
3.14.6	<i>Middle East and Caspian</i> .....	107
3.14.7	<i>North America</i> .....	108
3.14.8	<i>Global Supply</i> .....	108

3.15	COMBINED SUPPLY AND DEMAND .....	109
3.16	VOIDS/RESIDUAL DEMAND .....	111
3.17	DAYRATE ANALYSIS.....	113
3.18	PROJECT LIST/MAJOR PROJECT CASE STUDIES 2008 .....	114
4	IRM MARKET .....	115
4.1	GLOBAL DEMAND FOR VESSEL FUNCTIONALITY .....	115
4.2	REGIONAL DEMAND .....	117
4.2.1	<i>Africa</i> .....	117
4.2.2	<i>Asia</i> .....	118
4.2.3	<i>Australasia</i> .....	118
4.2.4	<i>Europe</i> .....	119
4.2.5	<i>Latin America</i> .....	119
4.2.6	<i>Middle East and Caspian</i> .....	120
4.2.7	<i>North America</i> .....	121
4.3	GLOBAL SUPPLY .....	121
4.4	REGIONAL SUPPLY .....	122
4.4.1	<i>Africa</i> .....	122
4.4.2	<i>Asia</i> .....	123
4.4.3	<i>Australasia</i> .....	124
4.4.4	<i>Europe</i> .....	124
4.4.5	<i>Latin America</i> .....	125
4.4.6	<i>Middle East and Caspian</i> .....	126
4.4.7	<i>North America</i> .....	127
4.4.8	<i>Global Vessels</i> .....	128
4.5	COMBINED SUPPLY AND DEMAND .....	129
4.6	VOIDS/RESIDUAL DEMAND .....	130
4.7	DAYRATE ANALYSIS.....	132
4.8	PROJECT LIST/CASE STUDIES 2008.....	132
5	GLOBAL OVERVIEW OF VESSEL TYPES AND DEFINITIONS .....	133
5.1	CRANE VESSELS .....	134
5.1.1	<i>Cumulative numbers</i> .....	134
5.1.2	<i>Newbuilds</i> .....	135
5.1.3	<i>Lift capacity</i> .....	135
5.1.4	<i>Major operational regions</i> .....	136
5.1.5	<i>Major operators and their fleets</i> .....	137
5.1.6	<i>Global demand</i> .....	138
5.1.7	<i>Voids</i> .....	138
5.1.8	<i>Utilisation</i> .....	139
5.1.9	<i>Dayrates</i> .....	139
5.2	LAY VESSELS .....	140
5.2.1	<i>Cumulative numbers</i> .....	140
5.2.2	<i>Newbuilds</i> .....	140

5.2.3	<i>Lay type and diameter bands</i>	141
5.2.4	<i>Major operational regions</i>	142
5.2.5	<i>Major operators and their fleets</i>	142
5.2.6	<i>Global demand</i>	143
5.2.7	<i>Voids</i>	144
5.2.8	<i>Utilisation</i>	144
5.2.9	<i>Dayrates</i>	144
5.3	PIPE BURIAL/TRENCH VESSELS	145
5.3.1	<i>Cumulative numbers</i>	145
5.3.2	<i>Newbuilds</i>	145
5.3.3	<i>Trenching type and vessel equipment</i>	146
5.3.4	<i>Major operational regions</i>	146
5.3.5	<i>Major operators and their fleets</i>	147
5.3.6	<i>Global demand</i>	147
5.3.7	<i>Voids</i>	147
5.3.8	<i>Utilisation</i>	148
5.3.9	<i>Dayrates</i>	148
5.4	ACCOMMODATION VESSELS	148
5.4.1	<i>Cumulative numbers (days and units)</i>	149
5.4.2	<i>Accommodation capacity</i>	149
5.4.3	<i>Major operational regions</i>	150
5.4.4	<i>Major operators and their fleets</i>	151
5.4.5	<i>Global demand</i>	151
5.4.6	<i>Voids</i>	152
5.4.7	<i>Utilisation</i>	154
5.4.8	<i>Dayrates</i>	154
5.5	WELL INTERVENTION VESSELS	155
5.5.1	<i>Cumulative numbers</i>	155
5.5.2	<i>Newbuilds</i>	155
5.5.3	<i>Major operational regions</i>	155
5.5.4	<i>Major operators and their fleets</i>	156
5.5.5	<i>Global demand</i>	156
5.5.6	<i>Voids</i>	157
5.5.7	<i>Utilisation</i>	157
5.5.8	<i>Dayrates</i>	158
5.6	HEAVY TRANSPORTATION VESSELS	158
5.6.1	<i>Cumulative Numbers</i>	158
5.6.2	<i>New-builds</i>	159
5.6.3	<i>Lift Capacities</i>	159
5.6.4	<i>Transportation Capacities</i>	160
5.6.5	<i>Major Operational Regions</i>	160
5.6.6	<i>Major Operators and their fleets</i>	160
5.6.7	<i>Global Demand</i>	161
5.6.8	<i>Voids</i>	161
5.6.9	<i>Utilisation</i>	162

5.6.10	<i>Dayrates</i> .....	162
5.7	MSV/DSV VESSELS .....	162
5.7.1	<i>Cumulative numbers</i> .....	162
5.7.2	<i>Newbuilds</i> .....	163
5.7.3	<i>Increase in importance</i> .....	163
5.7.4	<i>Major operational regions</i> .....	164
5.7.5	<i>Major operators and their fleets</i> .....	165
5.7.6	<i>Global demand</i> .....	165
5.7.7	<i>Voids</i> .....	166
5.7.8	<i>Utilisation</i> .....	167
5.7.9	<i>Dayrates</i> .....	167
5.8	ANCHOR HANDLERS.....	168
5.8.1	<i>Sector Background</i> .....	168
5.8.2	<i>Major Players</i> .....	168
5.8.3	<i>Demand Drivers</i> .....	169
5.8.4	<i>Market Outlook</i> .....	169
6	APPENDICES & NOTES.....	171
6.1	SUPPLY/DEMAND METHODOLOGY .....	171
6.1.1	<i>Vessel Type Demand Markets</i> .....	171
6.1.2	<i>Vessel Market Phases Definitions</i> .....	172
6.1.3	<i>Industry sector model hierarchy</i> .....	173
6.1.4	<i>Hierarchy Demand Placing</i> .....	174
6.1.5	<i>Vessel Supply Days: Supply is driven by vessels</i> .....	175
6.1.6	<i>Vessel Capabilities – Water Depth and Environment</i> .....	176
6.1.7	<i>Vessel Capability – Lift/Lay</i> .....	177
6.1.8	<i>Demand Methodology Overview</i> .....	178
6.1.9	<i>Demand Base Days/Functions Applied</i> .....	179
6.1.10	<i>Demand Factor Definitions</i> .....	180
6.1.11	<i>Demand Groups – Water Depth/Environments</i> .....	181
6.1.12	<i>Demand Groups – Lay/Lift</i> .....	182
6.2	DEFINED REGIONS/ COUNTRIES LIST.....	183
6.3	GLOSSARY, ACRONYMS AND ABBREVIATIONS.....	184
6.4	GLOBAL FORECASTS COMPARISON .....	186
6.4.1	<i>Introduction</i> .....	186
6.4.2	<i>Forecast Methodology</i> .....	186

## LIST OF FIGURES

Figure 1-1 Global Offshore Capex (US \$m) by Region 2003-2012 .....	31
Figure 1-2 Global Line TIC (US \$m) 2003-2012.....	32
Figure 1-3 Global Line Install Vessel Days 2003-2012 .....	33
Figure 1-4 Heavy Lift Demand Days by Market Sector (Main Phase of Installation) 2003-2012 .....	33
Figure 1-5 Heavy Lift Demand Days by Region (All Phases of Installation) 2003-2012.....	34
Figure 1-6 Global IRM Demand Days by Region 2003-2012 .....	34
Figure 1-7 Global IRM Demand Days by Market Phase 2003-2012 .....	35
Figure 1-8 Global Demand Days by Market Sector 2003-2012.....	35
Figure 1-9 Global Demand Days by Region 2003-2012.....	36
Figure 1-10 Cumulative Vessel Fleet 2003-2012 .....	36
Figure 1-11 Vessel Fleet by Function 2003-2007.....	37
Figure 1-12 Vessel Fleet by Function 2008-2012.....	37
Figure 1-13 Global Offshore Supply and Demand 2003-2012 .....	37
Figure 1-14 Shallow Water Supply/Demand 2003-2012 .....	38
Figure 1-15 Deepwater Supply/Demand 2003-2012.....	38
Figure 1-16 Global Residual Demand 2003-2012.....	39
Figure 2-1 Cumulative Vessel Fleet by Primary Function 2003-2012 .....	41
Figure 2-2 Global Vessel Fleet 2003-2007.....	41
Figure 2-3 Global Vessel Fleet 2008-2012.....	41
Figure 2-4: Infield System's Reference Oil Price View .....	43
Figure 2-5: WTI spot price 1986-2003.....	45
Figure 2-6: WTI spot price 2003-2008.....	45
Figure 2-7: Offshore fields & WTI crude oil price.....	45
Figure 2-8: Offshore platforms & WTI crude oil price .....	46
Figure 2-9: Subsea Units 1960-2014 .....	46
Figure 2-10: Primary energy consumption 1965 – 2007 – by region.....	47
Figure 2-11: Primary energy consumption 2007 – by fuel.....	47
Figure 2-12: Proved oil reserves 1987 – 2007 – by region.....	49
Figure 2-13: Proved gas reserves 1987 – 2007 – by region.....	49
Figure 2-14: Oil production 1965 – 2007 – by region .....	50
Figure 2-15: Gas production 1970 – 2007 – by region .....	50
Figure 2-16: Offshore reserves 1923-2014 – by region.....	51
Figure 2-17: Offshore reserves 1998-2014 – by type.....	51
Figure 2-18: New production capacity (BPDE) – by type .....	52
Figure 2-19: New production capacity (BPDE) – by region .....	52
Figure 2-20: Map of future oil & gas fields.....	52
Figure 2-21: Global construction/fabrication supply/demand.....	53
Figure 2-22: Specialist vessel supply/demand dynamics 2003-2012.....	53
Figure 2-23 Global Offshore Capex (US \$m) by Region 2003-2012.....	56
Figure 2-24 Global Offshore Capex Regional share 2003-2007 .....	56
Figure 2-25 Global Offshore Capex Regional share 2008-2012 .....	56
Figure 2-26 Global Offshore Capex by WD Grouping 2003-2012.....	56

Figure 2-27 Water Depth Capex Share 2003-2007.....	57
Figure 2-28 Water Depth Capex Share 2008-2012.....	57
Figure 2-29 Platform Installation Capex by Region 2003-2012.....	57
Figure 2-30 Platform Installation Capex by WD Grouping 2003-2012.....	57
Figure 2-31 Global Line TIC by Region 2003-2012.....	58
Figure 2-32 Global Line TIC by WD Grouping 2003-2012.....	58
Figure 2-33 Global Subsea Completion TIC by Region 2003-2012.....	59
Figure 2-34 Subsea Completion TIC by WD Grouping 2003-2012.....	59
Figure 2-35 SPM TIC by Region 2003-2012.....	60
Figure 2-36 Cumulative Vessel Fleet 2003-2012.....	60
Figure 2-37 Vessel Fleet by Function 2003-2007.....	61
Figure 2-38 Vessel Fleet by Function 2008-2012.....	61
Figure 2-39 Vessel Newbuilds Fleet 2003-2012.....	61
Figure 2-40 Vessel Newbuilds by Function 2003-2007.....	61
Figure 2-41 Vessel Newbuilds by Function 2008-2012.....	61
Figure 2-42 Global vessel newbuild capex 2003-2012.....	62
Figure 2-43 Vessel newbuild capex 2003-2012 - adjusted.....	62
Figure 2-44 Global Vessel Supply/Demand 2003-2012.....	63
Figure 2-45 Shallow Water Supply/Demand 2003-2012.....	63
Figure 2-46 Combined Deepwater Supply/Demand 2003-2012.....	63
Figure 2-47 Global Residual Demand 2003-2012.....	64
Figure 2-48 Shallow Water Residual Demand 2003-2012.....	65
Figure 2-49 Combined Deepwater Residual Demand 2003-2012.....	65
Figure 2-50 Global Unfulfilled Demand Days 2003-2012.....	66
Figure 2-51 Global Unfulfilled Demand Days Segmented by Water Depth 2003-2012.....	67
Figure 3-1 Global Line TIC (US \$m) 2003-2012.....	69
Figure 3-2 Global Line TIC Regional Share 2003-2007.....	69
Figure 3-3 Global Line TIC Regional Share 2008-2012.....	69
Figure 3-4 Global Line TIC (US \$m) by Water Depth 2003-2012.....	70
Figure 3-5 Line TIC Water Depth Share 2003-2007.....	70
Figure 3-6 Line TIC Water Depth Share 2008-2012.....	70
Figure 3-7 Global Line Installations (km) 2003-2012.....	71
Figure 3-8 Line Installation (km) Regional Share 2003-2007.....	71
Figure 3-9 Line Installation (km) Regional Share 2008-2012.....	71
Figure 3-10 Global Line Install Vessel (Days) 2003-2012.....	72
Figure 3-11 Line Installation (days) Regional Share 2003-2007.....	72
Figure 3-12 Line Installation (days) Regional Share 2008-2012.....	72
Figure 3-13 Line Install days by Water Depth Grouping 2003-2012.....	73
Figure 3-14 Line Install (days) Water Depth % Share 2003-2007.....	73
Figure 3-15 Line Install (days) Water Depth % Share 2008-2012.....	73
Figure 3-16 Line Install Days by Environmental Condition 2003-2012.....	74
Figure 3-17 Line Install Environment Condition Share % 2003-2007.....	74
Figure 3-18 Line Install Environment Condition Share % 2008-2012.....	74
Figure 3-19 Line Install Days by Diameter Group 2003-2012.....	74
Figure 3-20 Line Install Demand % by diameter group 2003-2007.....	75

Figure 3-21 Line Install Demand % by diameter group 2008-2012 .....	75
Figure 3-22 Line Install Demand Days by Pipe Type 2003-2012 .....	75
Figure 3-23 Line Install Demand Share by Pipe Type 2003-2007 .....	75
Figure 3-24 Line Install Demand Share by Pipe Type 2008-2012 .....	75
Figure 3-25 African Pipelay Vessel Demand Days by Country 2003-2012 .....	76
Figure 3-26 African Pipelay Demand Country Share 2003-2007 .....	77
Figure 3-27 African Pipelay Demand Country Share 2008-2012 .....	77
Figure 3-28 Asian Pipelay Vessel Demand Days by Country 2003-2012 .....	77
Figure 3-29 Asian Pipelay Demand Country Share 2003-2007 .....	78
Figure 3-30 Asian Pipelay Demand Country Share 2008-2012 .....	78
Figure 3-31 Australasian Pipelay Vessel Demand Days by Country 2003-2012 .....	78
Figure 3-32 European Pipelay Vessel Demand Days by Country 2003-2012 .....	79
Figure 3-33 European Pipelay Demand Country Share 2003-2007 .....	79
Figure 3-34 European Pipelay Demand Country Share 2008-2012 .....	79
Figure 3-35 Latin American Pipelay Vessel Demand Days by Country 2003-2007 .....	80
Figure 3-36 Latin America Pipelay Demand Country Share 2003-2007 .....	80
Figure 3-37 Latin America Pipelay Demand Country Share 2008-2012 .....	80
Figure 3-38 Middle East and Caspian Sea Pipelay Vessel Demand Days by Country 2003-2012 .....	81
Figure 3-39 Middle East and Caspian Pipelay Country Demand Share 2003-2007 .....	81
Figure 3-40 Middle East and Caspian Pipelay Country Demand Share 2008-2012 .....	81
Figure 3-41 North American Pipelay Vessel Demand Days by Country 2003-2012 .....	81
Figure 3-42 North American Pipelay Demand Country Share 2008-2012 .....	82
Figure 3-43 Primary Function Lay Vessel Numbers 2003-2012 .....	82
Figure 3-44 Lay Vessel Supply by diameter group 2003-2012 – excluding unknown capabilities .....	83
Figure 3-45 High End Pipelay Vessel Numbers 2003-2012 .....	83
Figure 3-46 Middle End Pipelay Vessel Numbers 2003-2012 .....	84
Figure 3-47 Low End Vessel Numbers 2003-2012 .....	84
Figure 3-48 Regional Pipelay Vessel Supply .....	84
Figure 3-49 African Pipelay Vessel Class Percentage .....	85
Figure 3-50 Asian Pipelay Vessel Class Percentage .....	85
Figure 3-51 Australasian Pipelay Vessel Class Percentage .....	86
Figure 3-52 European Pipelay Vessel Class Percentage .....	86
Figure 3-53 Latin American Pipelay Vessel Class Percentage .....	87
Figure 3-54 Middle East and Caspian Pipelay Vessel Class Percentage .....	87
Figure 3-55 North American Pipelay Vessel Class Percentage .....	88
Figure 3-56 Global Capable Pipelay Vessel Class Percentage .....	88
Figure 3-57 Global Pipelay (main phase) Supply/Demand 2003-2012 .....	89
Figure 3-58 Primary Function Lay Supply Days 2003-2012 .....	89
Figure 3-59 Line Install Main Phase Demand Days 2003-2012 .....	89
Figure 3-60 High End Pipelay Vessel Supply/Demand 2003-2012 .....	89
Figure 3-61 Medium End Pipelay Vessel Supply/Demand 2003-2012 .....	90
Figure 3-62 Low End Pipelay Vessel Supply/Demand 2003-2012 .....	90
Figure 3-63 Line Install Market Residual Demand 2003-2012 .....	91
Figure 3-64 Line Install Market Residual Demand by Water Depth Grouping 2003-2012 .....	91
Figure 3-65 Heavy Lift Market Demand by Market Sector 2003-2012 .....	93

Figure 3-66 Heavy Lift Market Capex by Market Sector 2003-12.....	93
Figure 3-67 Heavy Lift Market Capex by Water Depth 2003-2012.....	94
Figure 3-68 Heavy Lift Market Capex by Region 2003-2012.....	94
Figure 3-69 Heavy Lift Market Demand Vessel Days by Region 2003-2012.....	95
Figure 3-70 Heavy Lift Market Demand Region Share 2003-2007.....	95
Figure 3-71 Heavy Lift Market Demand Region Share 2008-2012.....	95
Figure 3-72 Heavy Lift Market Demand by Water Depth 2003-2012.....	95
Figure 3-73 Heavy Lift Demand by Lift Group 2003-2012 (Days).....	96
Figure 3-74 Heavy Lift Grouping Demand by Region 2008-2012.....	97
Figure 3-75 African Heavy Lift Demand by Country 2003-2012.....	97
Figure 3-76 Asian Heavy Lift Demand by Country 2003-2012.....	98
Figure 3-77 Australasian Heavy Lift Demand by Country 2003-2012.....	98
Figure 3-78 European Heavy Lift Demand by Region 2003-2012.....	99
Figure 3-79 Latin American Heavy Lift Demand by Country 2003-2012.....	100
Figure 3-80 Middle East and Caspian Heavy Lift Demand 2003-2012.....	101
Figure 3-81 North American Heavy Lift Demand 2003-2012.....	102
Figure 3-82 Global Crane Vessel Supply 2003-2012.....	102
Figure 3-83 Global Crane Vessel Supply by Lift Group 2003-2012.....	102
Figure 3-84 Top End Crane Vessel Numbers 2003-2012.....	103
Figure 3-85 High End Crane Vessel Numbers 2003-2012.....	103
Figure 3-86 Medium/Low End Crane Vessel Numbers 2003-2012.....	104
Figure 3-87 Regional Crane Vessel Supply.....	104
Figure 3-88 African Crane Vessel Supply.....	105
Figure 3-89 Asian Crane Vessel Supply.....	105
Figure 3-90 Australasian Crane Vessel Supply.....	106
Figure 3-91 European Crane Vessel Supply.....	106
Figure 3-92 Latin American Crane Vessel Supply.....	107
Figure 3-93 Middle East and Caspian Crane Vessel Supply.....	107
Figure 3-94 North American Crane Vessel Supply.....	108
Figure 3-95 Global/Unknown Crane Vessel Supply.....	109
Figure 3-96 Global Heavy Lift Combined Supply/Demand 2003-2012.....	109
Figure 3-97 Medium/Light Group Heavy Lift Combined Supply/Demand 2003-2012.....	110
Figure 3-98 Heavy Lift Group Combined Supply/Demand 2003-2012.....	110
Figure 3-99 Very Heavy Lift Group Combined Supply/Demand 2003-2012.....	111
Figure 3-100 Heavy Lift Residual Demand (Main Phase) 2003-2012.....	112
Figure 3-101 Heavy Lift Residual Demand (Main, Pre and Post Phases) 2003-2012.....	112
Figure 4-1 Global IRM Demand Days by Region 2003-2012.....	115
Figure 4-2 IRM Demand Regional Share 2003-2007.....	115
Figure 4-3 IRM Demand Regional Share 2008-2012.....	115
Figure 4-4 Global IRM Demand Days by Market Phase 2003-2012.....	116
Figure 4-5 Global IRM Demand Days by Water Depth Grouping 2003-2012.....	116
Figure 4-6 IRM Demand Water Depth Share 2003-2007.....	117
Figure 4-7 IRM Demand Water Depth Share 2008-2012.....	117
Figure 4-8 African IRM Demand by Country 2003-2012.....	117
Figure 4-9 Asian IRM Demand by Country 2003-2012.....	118

Figure 4-10 Australasian IRM Demand by Country 2003-2012.....	118
Figure 4-11 European IRM Demand by Country 2003-2012.....	119
Figure 4-12 Latin American IRM Demand by Country 2003-2012.....	120
Figure 4-13 Middle East and Caspian IRM Demand by Country 2003-2012.....	120
Figure 4-14 North American IRM Demand by Country 2003-2012.....	121
Figure 4-15 Primary Function MSV/DSVs Supply Days 2003-2012.....	122
Figure 4-16 Primary Function MSV/DSV Vessel Numbers 2003-2012.....	122
Figure 4-17 Primary Function MSV/DSVs Supply Days by Water Depth 2003-2012.....	122
Figure 4-18 African DSV Supply.....	123
Figure 4-19 African MSV Supply.....	123
Figure 4-20 Asian DSV Supply.....	123
Figure 4-21 Asian MSV Supply.....	123
Figure 4-22 Australasian DSV Supply.....	124
Figure 4-23 Australasian MSV Supply.....	124
Figure 4-24 European DSV Supply.....	125
Figure 4-25 European MSV Supply.....	125
Figure 4-26 Latin American DSV Supply.....	126
Figure 4-27 Latin American MSV Supply.....	126
Figure 4-28 Middle East and Caspian DSV Supply.....	126
Figure 4-29 Middle East and Caspian MSV Supply.....	126
Figure 4-30 North American DSV Supply.....	127
Figure 4-31 North American MSV Supply.....	127
Figure 4-32 Global DSV Supply.....	128
Figure 4-33 Global MSV Supply.....	128
Figure 4-34 IRM Supply/Demand 2003-2012.....	129
Figure 4-35 IRM Residual Demand 2003-2012.....	130
Figure 4-36 IRM Residual Demand by Water Depth 2003-2012.....	131
Figure 5-1 Offshore Vessel Fleet 2003-2012.....	133
Figure 5-2 Global Vessel Fleet 2003-2007.....	133
Figure 5-3 Global Vessel Fleet 2008-2012.....	133
Figure 5-4 Vessel Newbuilds 2003-2012.....	134
Figure 5-5 Crane Vessel Numbers 2003-2012.....	134
Figure 5-6 Crane Vessel Newbuilds 2003-2012.....	135
Figure 5-7 1000T+ Lift Capacity Vessels 2003-2012.....	135
Figure 5-8 5000T+ Lift Capacity Vessels 2003-2012.....	136
Figure 5-9 <1000T Lift Capacity Vessels 2003-2012.....	136
Figure 5-10 Crane Vessels by Region 2003-2012.....	137
Figure 5-11 Global Crane Vessel Demand 2003-2012.....	138
Figure 5-12 Low End Crane Vessel Supply/Demand 2003-2012.....	138
Figure 5-13 Heavy Grouping Supply/Demand 2003-2012.....	139
Figure 5-14 Very Heavy Grouping Supply/Demand 2003-2012.....	139
Figure 5-15 Lay Vessel Supply 2003-2012.....	140
Figure 5-16 Lay Vessel Newbuild Figures 2003-2012.....	140
Figure 5-17 0-12" Lay Diameter Vessel Numbers 2003-2012.....	141
Figure 5-18 12-24" Lay Diameter Vessel Numbers 2003-2012.....	141

Figure 5-19 24"+ Lay Diameter Vessel Numbers 2003-2012 .....	141
Figure 5-20 Lay Vessels by Region .....	142
Figure 5-21 Global Pipelay Demand 2003-2012 .....	143
Figure 5-22 Lay Vessel Supply/Demand 2003-2012 .....	144
Figure 5-23 PBT Vessels 2003-2012 .....	145
Figure 5-24 PBT Vessel Newbuilds 2003-2012 .....	146
Figure 5-25 PBT Vessels by Region .....	146
Figure 5-26 PBT Demand 2003-12 .....	147
Figure 5-27 PBT Supply Demand 2003-2012 .....	148
Figure 5-28 Accommodation Vessels by Hull Type 2003-2012 (Vessel Units) .....	149
Figure 5-29 Accommodation Vessel by Berthing Group 2004-2013 .....	150
Figure 5-30 Accommodation Vessels by Region .....	150
Figure 5-31 Accommodation Fleet by Operator .....	151
Figure 5-32 Global Accommodation Demand by Region 2003-2012 (Vessel Days) .....	152
Figure 5-33 Accommodation Supply/Demand in Harsh Environments 2003-2012 .....	153
Figure 5-34 WS Vessel Numbers 2003-2012 .....	155
Figure 5-35 WS Vessel Newbuilds 2003-2012 .....	155
Figure 5-36 WS Vessels by Region .....	156
Figure 5-37 Well Intervention Demand 2003-2012 .....	157
Figure 5-38 Well Intervention Supply/Demand 2003-2012 .....	157
Figure 5-39 Heavy Transportation Vessels by Grouping 2003-2012 (vessel units) .....	158
Figure 5-40 Heavy Transportation Vessel Newbuilds 2003-2012 .....	159
Figure 5-41 Heavy Transport Demand by Project Type 2003-2012 (vessel days) .....	161
Figure 5-42 Heavy Transport Supply/Demand 2003-2012 .....	162
Figure 5-43 Global MSV/DSV vessel numbers 2003-2012 .....	162
Figure 5-44 MSV/DSV Vessel Newbuilds 2003-2012 .....	163
Figure 5-45 Global Fleet by Primary Function 2003-2007 .....	164
Figure 5-46 Increased Prominence of MSV/DSVs 2008-2012 .....	164
Figure 5-47 DSVs by Region .....	164
Figure 5-48 MSVs by Region .....	164
Figure 5-49 IRM Global Demand 2003-2012 .....	166
Figure 5-50 Global Pre and Post Installation Vessel Demand 2003-2012 .....	166
Figure 5-51 Combined MSV/DSV Supply Demand 2003-2012 .....	167

**LIST OF TABLES**

Table 2-1: Primary energy consumption 1987 – 2007 – by region .....	47
Table 2-2: Primary energy consumption 1987 – 2007 – by region .....	47
Table 2-3: Primary energy consumption 2007 – by fuel .....	48
Table 2-4: Primary energy consumption 2007 – by fuel .....	48
Table 2-5: Oil inter-area movements 2007 .....	48
Table 2-6: Gas trade movements 2007 .....	48
Table 2-7: Proved oil reserves 1987 – 2007 – by region .....	49
Table 2-8: Proved oil reserves 1987 – 2007 – by region .....	49
Table 2-9: Proved gas reserves 1987 – 2007 – by region .....	49
Table 2-10: Oil production 1987 – 2007 – by region .....	50
Table 2-11: Oil production 1987 – 2007 – by region .....	50
Table 2-12: Gas production 1987 – 2007 – by region .....	50
Table 2-13: Gas production 1987 – 2007 – by region .....	51
Table 3-1 Lift Group Definitions .....	96

## This Report

This report concentrates on key market information within the sector and aims to provide the headline information, figures and statistics required to understand the main drivers, size and value of the various constituent elements.

This report is designed as a business tool and as such makes no apologies for its forthright style.

## Outline structure of Report

The first chapters of this report outline the global market context for specialist vessels in terms of Capex and total global supply/demand. This analysis is then segmented into the 3 main markets of Pipelay, Heavy Lift and IRM before closing with a breakdown of specific vessel types and their associated demand.

## Clarity & Terminology

Within the context of this report a consistent set of terms is used to ensure clarity and comparability. The most important of these are:

Deepwater - fields or development activity in water depths  $\geq 500\text{m}$ .  
 Ultra-deepwater - fields or development activity in water depths  $\geq 1500\text{msw}$  (unless stated ultra-deepwater is a subset of deepwater).

Regions – A definitive list of which countries are classified within which region is appended to this report. If a different country/region classification is required, then please contact Infield directly.

Wherever possible the colour representation of regions, status, development type, operator etc. has been maintained throughout the report.

## Specialist Vessels Database Online

With the purchase of *Global Perspectives – Specialist Vessel Market Update*, free access to the **Specialist Vessel Database (Standard)**

for a twelve-month period is included. The **Specialist Vessels Database** is data set that identifies the capabilities of over 1,400 individual vessels across the entirety of the offshore market. The information stored within the database includes ranges from high end Pipelay vessels to the emergent market of Multi Support vessels.

- ACC – Accommodation vessel
- AHTS – Anchor Handling Tug Supply Vessel
- CV- Crane Vessel used for the installation of offshore infrastructure
- PBT – Pipeline Burying/Trench Vessel
- DSV – Dive Support Vessel
- SV – Survey Vessel
- HT – Heavy Transport/Heavy lift Vessel
- WS – Well Service Vessel
- LAY – Pipe/Cable Laying vessel
- MSV – Multi Support Vessel used primary for IRM projects.

The data contains information for vessels dating from the 1950's and includes newbuilds until 2012.

The service is available through the Internet at <http://www.infieldlive.com> and a subscription form is included with this report. **Specialist Vessels Database Online** is updated on a weekly basis. More frequent updates and expanded coverage may be arranged. Existing users of Infield Systems' Databases may modify their current arrangements and should contact us for details.

## Data Sources

The base data used in this study relate to fields brought on-stream over the 2003–2007 period, or which are currently under development or being planned or considered for development for the 2008–2012 period. Fields are referred to, in the historic period, as '**projects**' and to those in the future period as '**prospects**.' It is also important to differentiate between basic field information and the market information which are '**forecasts**'. The methodology used to derive these forecasts

from the information contained within the Infield Systems database is outlined at the beginning of the market section.

The information on the floating production projects and prospects was taken from the Infield Systems database during the Q2 2008. Data given elsewhere in the text are drawn from a wide range of publications, national and international statistics and internal analysis by Infield Systems. Where appropriate, the relevant source has been cited. This information has been supplemented by our own contacts with operators, contractors and suppliers worldwide.