The Fixed Platforms Market:
Over the last 12 months the modern myth that the days of boom and bust had come to an end has been well and truly dispelled. In times of uncertainty and pessimism offshore industry tend to ‘go back to basics’, project price scheduling gates are often reviewed downwards, or at least scaled back, and investments with tangible and immediate returns are prioritised. To this end the fixed platform market has, due to its comparatively low Capex requirements, established engineered designs, and focus on operating in deeper waters, remained historically more insulated than other sectors to changing economic fortunes. Infield retain a positive forecast for the period 2009 to 2013, seeing capital expenditure relating to the global fixed platform market in excess of US$80bn. This represents an increase of over fifty percent in expenditure levels as compared with the preceding period 2004 to 2008, which witnessed investment of US$54bn. This rise is driven by both sustained growth in an industry which has increased its regional diversity profile, and recent project cost escalation, all in the context of the rapid ascent, and subsequent collapse of crude prices, which peaked at US$147 a barrel in July 2008 and haven’t moved above $50 since November 2008. All in all we expect over one-thousand eight hundred fixed platform installations in water depths up to a maximum of three hundred and seventy meters.

Whilst traditionally the most prolific fixed platform market has been that of the Gulf of Mexico, as the global economy has moved away from its established US – European axis, demand for energy has done likewise, and this has encouraged positive growth in many frontier hydrocarbon regions. It is no surprise then that Asia is forecast to see both the largest number of fixed platforms installed, and the largest amount of financial investment. On a country level within Asia the performance of Vietnam, where a four-fold increase in installed fixed platform structures is forecasted over the next five years, is particularly notable. Globally in absolute installations we expect fixed platforms to have a constant annual growth rate of over two percent.

Growth in Asia is coupled with slight stagnation in North America, a market now well established, and considered as mature. In the US those wishing to take advantage of the large installed base of export lines, onshore refining facilities, and an energy hungry local populous, are being forced to move into deeper waters, and as a result fixed projects are no longer suitable solutions. Subsequently North America is the only region that shows a fall in our five year forecast, however it must be noted that on average North American fixed platform installations are deployed in typically deeper waters, and therefore on a per unit basis they are likely to command more capital investment.

In terms of the type of platform solution being chosen. Piled platforms remain the most dominant type of installation. These types of platform represented close to seventy percent of installations from 2004 to 2008, we expect their popularity to increase between 2009 and 2013, where they will grow to represent over eighty percent of the market.

Who is buying the Market Update Reports?
Organisations range from fully integrated oil companies, national oil companies, contractors, service and supply companies, manufacturers and industry consultants located in over 40 countries worldwide. The market forecast reports are used by senior management, industry and financial analysts and consultants for strategic decision making.

Why you should buy this report:
- Infield’s modelling process, OFFPEX, is based upon a unique “bottom up approach”. The component by component, project by project process is robust and has a proven track record.
- The report contains the latest information on the probable impact of the current economic circumstances on the offshore oil and gas sector.
- Utilise the Infield five year forecast for strategic decision making.
- It is an independent and up-to-the-minute analysis of floating production systems sector.
- Appraise the report’s region by region, country by country, sector by sector capital expenditure and project numbers analysis for each of the elements within the market.

Report Contents:
- **Summary & Conclusions** provides an executive overview of the global fixed platform forecast in terms of units and value taking into consideration the condition of the offshore industry and its current challenges.
- **Global Market Context** looks at the supply and demand issues within the industry, offshore market overview, comparative analysis of the conventional and surf markets with forecast development costs of major projects. Analysis of commodity pricing, price versus activity levels analysis, geopolitical overview including discussions on operator types, including National Oil Companies.
- **Regional Analysis & Forecasts** provides for each region (Africa, Asia, Australasia, Europe, Latin America, and North America) an overall forecast with analysis by type of platform, including Caisson, CPT, Gravity, Jack-up, Piled by country, water depth and by total weight for both units and spend in Capital Investment terms.
- **Component Analysis & Forecasts** provides forecasts for each element of the fixed platform sector.
- **Global Forecasts** provides a comparative analysis of this reports forecast to the 2008 forecast in the previous edition, along with review and analysis of variance in terms of activity and expenditure. All of the regional and sector forecasts are brought together to complete the global fixed platform market using conventional and alternative model profiles.

Please note report images are from the 2008 edition.
Purchasers will receive 12 months’ free access to either the European or Asia Pacific region for Fixed Platforms Online Database. Access provides a facilities listing of all projects being planned or considered for the period 2009 to 2013, detailing:

- Operator
- Owners & Yards
- Facility Name
- Facility Type
- Water Depth
- Location
- Total Weight
- Jacket Weight
- Topside Weight
- Project Status
- Topside Function
- Installation Date
- Decommissioning Year
- Manned / Unmanned
- Access Means
- Production / Injection Wells
- Numbers of Piles

Subscriptions can be upgraded to include all platforms worldwide, both operational and planned and data sets from the Offshore Energy Database.

The Infield Worldwide Offshore Database provides detailed and up to date information about all offshore fields, worldwide. The earliest project on Infield is Bibi Eibat which came on stream in 1923 in Azerbaijan. The furthest ahead are decommissioning projects not expected to proceed for several decades. Infield comprises 8,450 offshore fields in 127 countries, involving over 700 operators and more than 1,100 participant companies. Infield is updated daily so clients can expect to be kept informed of new information as and when it happens.

- Shallow Water Fields
- Deepwater Water Fields
- Fixed Platforms
- Floating Production Systems
- Subsea Equipment; Trees, Manifolds, Templates & Subsea Processing
- Trunk Lines, Pipelines Flexible Flowlines
- Control Lines & Umbilicals
- Single Point Moorings
- Specialist Vessels
- Field Operators & Ownership
- FPSO Owners
- Manufacturers

Subscriptions can be upgraded to include all platforms worldwide, both operational and planned and data sets from the Offshore Energy Database.

The Infield Energy Analysts

Infield is an independent energy research and analysis organisation that is dedicated to the provision of accurate and up-to-date data, market sector reports, mapping, analysis and forecasts to the offshore oil and gas and associated marine industries. Infield services clients in over 40 countries from a wide range of organisations including E&P companies, contractors, manufacturers, government agencies and the financial community. Infield is widely acknowledged as the definitive independent information resource and has been involved in many US$bn of merger, acquisition and transaction market due diligence.

Other Global & Regional Perspectives Reports:

- Deep & Ultra-deepwater Market Update
- Pipelines & Control Lines Market Update
- Fixed Platforms Market Update
- Subsea Market Update
- Floating Production Market Update
- Specialist Vessels Market Update
- LNG / GTL Market Update
- FPSO Leasing Market Update
- Accommodation Vessel Market Update
- Asia Pacific Market Update

To secure your copy of The Global Perspectives Fixed Platforms Market Update 2009/13, please complete the order form below or buy online at www.infieldlive.com. Infield Systems Limited accepts payment by bank transfer, credit card (Visa, MasterCard or American Express) or by cheque. Delivery is upon receipt of payment. For credit card purchases please supply the billing address.

Multiple copy discount and corporate wide licences are available; please contact a member of the Infield Team for details.

By purchasing this document, your organisation agrees that it will not copy or allow to be copied in part or whole or otherwise circulated in any form any of the contents without prior written and specific permission from Infield Systems Limited. Our standard terms and conditions are available either upon request or at www.infieldlive.com.

Please supply the Fixed Platforms Market Update Report 2009/13 to my organisation for £2,200.00, excluding delivery (Printed Report delivery to the UK is £12.00, delivery outside UK is £65.00 by DHL). I have read and fully understand the terms and conditions of sale located at www.infieldlive.com.

<table>
<thead>
<tr>
<th>Name:</th>
<th>Card Type:</th>
<th>MasterCard / Visa / Amex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card Number:</td>
<td>Expiry Date:</td>
<td>Security Code:</td>
</tr>
<tr>
<td>EU Vat Number:</td>
<td>Signature:</td>
<td></td>
</tr>
</tbody>
</table>

Infield Systems Limited, Suite 502, 1 Alie Street, London E1 8DE, UK
T: +44 (0) 20 7423 5000 F: +44 (0) 20 7423 5050 E: data@infield.com W: www.infieldlive.com
CONTENTS LIST

1 SUMMARY & CONCLUSIONS ............................................................................................................................................................................................................... 25
2 GLOBAL MARKET CONTEXT ...................................................................................................................................................................................................... 29
  2.1 INTRODUCTION ............................................................................................................................................................................................................. 29
  2.2 CREDIT MARKET TURMOIL .................................................................................................................................................................................................. 29
  2.3 OIL PRICE & ACTIVITY .................................................................................................................................................................................................... 31
  2.4 PRIMARY ENERGY CONSUMPTION .......................................................................................................................................................................................... 34
  2.5 PROVED OIL & GAS RESERVES ............................................................................................................................................................................................... 36
  2.6 OIL & GAS PRODUCTION ..................................................................................................................................................................................................... 37
  2.7 OFFSHORE MARKET OVERVIEW ........................................................................................................................................................................................... 38
  2.8 SUPPLY CONSTRAINTS ........................................................................................................................................................................................................ 40
3 REGIONAL ANALYSIS & FORECASTS .......................................................................................................................................................................................... 41
  3.1 INTRODUCTION ............................................................................................................................................................................................................... 41
  3.2 AFRICA ................................................................................................................................................................................................................................. 42
  3.3 ASIA ................................................................................................................................................................................................................................................. 51
  3.4 AUSTRALASIA ....................................................................................................................................................................................................... 60
  3.5 EUROPE ........................................................................................................................................................................................................................................ 69
  3.6 LATIN AMERICA .......................................................................................................................................................................................................... 78
  3.7 MIDDLE EAST & CASPIAN ................................................................................................................................................................................................. 86
  3.8 NORTH AMERICA ......................................................................................................................................................................................................... 95
4 SECTOR ANALYSIS & FORECASTS .......................................................................................................................................................................................... 105
  4.1 METHODOLOGY ............................................................................................................................................................................................................. 105
  4.2 INTRODUCTION ............................................................................................................................................................................................................... 106
  4.3 FIXED PLATFORMS BY TYPE ............................................................................................................................................................................................... 107
    4.3.1 Gravity Based Platforms .................................................................................................................................................................................................... 107
    4.3.2 Piled Platforms .......................................................................................................................................................................................................... 113
    4.3.3 Caisson Platforms ...................................................................................................................................................................................................... 119
    4.3.4 Suction Pile Platforms .................................................................................................................................................................................................. 125
    4.3.5 Jack-Up Platforms ...................................................................................................................................................................................................... 127
    4.3.6 Gravity/Jack-Up Fixed Platform .......................................................................................................................................................................................... 134
    4.3.7 CPT Platforms ........................................................................................................................................................................................................ 137
5 GLOBAL FORECASTS COMPARISON ......................................................................................................................................................................................... 139
  5.1 INTRODUCTION ............................................................................................................................................................................................................... 139
  5.2 FORECAST COMPARISON 2008 v 2007 ...................................................................................................................................................................................... 139
  5.3 FIXED PLATFORM VARIANCE .............................................................................................................................................................................................. 140
6 APPENDICES .................................................................................................................................................................................................................. 145
  6.1 DEFINED REGIONS/COUNTRIES LIST ...................................................................................................................................................................................... 145
LIST OF FIGURES

Figure 1-1: Global Fixed Platform Units (Nos.) by Region 2004-2013 25
Figure 1-2: Global Fixed Platform Units (%) by Region 2009-2013 25
Figure 1-3: Twenty Year Fixed Installations v Brent Spot (Average Annual Price) 26
Figure 1-4: Global Fixed Platform Capex (US $m) Forecast by Region 2004-2013 28
Figure 1-5: Global Fixed Platform Capex (%) Forecast by region 2009-2013 28
Figure 2-1: WTI spot price 1986-2003 32
Figure 2-2: WTI spot price 2003-2008 32
Figure 2-3: Offshore fields & WTI crude oil price 32
Figure 2-4: Offshore platforms & WTI crude oil price 33
Figure 2-5: Subsea Units 1960-2014 33
Figure 2-6: Primary energy consumption 1965 – 2007 – by region 34
Figure 2-7: Primary energy consumption 2007 – by fuel 34
Figure 2-8: Proved oil reserves 1987 – 2007 – by region 36
Figure 2-9: Proved gas reserves 1987 – 2007 – by region 36
Figure 2-10: Oil production 1965 – 2007 – by region 37
Figure 2-11: Gas production 1970 – 2007 – by region 37
Figure 2-12: Offshore reserves 1923-2014 – by region 38
Figure 2-13: Offshore reserves 1998-2014 – by type 38
Figure 2-14: New production capacity (BPDE) – by type 39
Figure 2-15: New production capacity (BPDE) – by region 39
Figure 2-16: Map of future oil & gas fields 39
Figure 2-17: Global construction/fabrication supply/demand 40
Figure 2-18: Specialist vessel supply/demand dynamics 2003-2012 40
Figure 3-1: Graphical Illustration of Defined Regions 41
Figure 3-2: Africa - Regional Graphic 42
Figure 3-3: Africa Fixed Platform Units (Nos) by Country 2004-2013 43
Figure 3-4: Africa Fixed Platform Units (%) by Country 2009-2013 43
Figure 3-5: Africa Fixed Platform Capex (US $m) by Country 2004-2013 44
Figure 3-6: Africa Fixed Platform Capex (%) by Country 2009-2013 44
Figure 3-7: Africa Fixed Platform Units (Nos.) by Type 2004-2013 45
Figure 3-8: Africa Fixed Platform Capex (US $m) by Type 2004-2013 46
Figure 3-9: Africa Fixed Platform Capex (%) by WD Range 2009-2013 47
Figure 3-10: Africa Fixed Platform Units (%) by WD Range 2004-2013 47
Figure 3-11: Africa Fixed Platform Capex (US$ millions) by WD Range 2004-2013 48
Figure 3-12: Africa Fixed Platform Capex (%) by WD Range 2009-2013 48
Figure 3-13: Africa Fixed Platform Units (Nos.) by Total Weight Band (Metric Tonnes) 2004-2013 49
Figure 3-14: Africa Fixed Platform Units by Total Weight Band (Metric Tonnes) 2009-2013 49

© Infield Systems Limited 2009
LIST OF TABLES

Table 1-1: Global Fixed Platform Units (Nos.) by Region 2004-2008................................................................. 25
Table 1-2: Global Fixed Platform Units (Nos.) by Region 2009-2013 ................................................................. 26
Table 1-3: Global Fixed Platform Capex (US $m) by Region 2004-2008 ........................................................... 27
Table 1-4: Global Fixed Platform Capex (US $m) by Region 2009-2013 ........................................................... 27
Table 2-1: Primary energy consumption 1987 – 2007 – by region ................................................................. 34
Table 2-2: Primary energy consumption 1987 – 2007 – by region ................................................................. 34
Table 2-3: Primary energy consumption 2007 – by fuel ........................................................................... 34
Table 2-4: Primary energy consumption 2007 – by fuel ........................................................................... 35
Table 2-5: Oil inter-area movements 2007 ................................................................................................. 35
Table 2-6: Gas trade movements 2007 ................................................................................................... 35
Table 2-7: Proved oil reserves 1987 – 2007 – by region ........................................................................ 36
Table 2-8: Proved oil reserves 1987 – 2007 – by region ........................................................................ 36
Table 2-9: Proved gas reserves 1987 – 2007 – by region ........................................................................ 36
Table 2-10: Oil production 1987 – 2007 – by region .............................................................................. 37
Table 2-11: Oil production 1987 – 2007 – by region .............................................................................. 37
Table 2-12: Gas production 1987 – 2007 – by region .............................................................................. 37
Table 2-13: Gas production 1987 – 2007 – by region .............................................................................. 38
Table 3-1: Africa Fixed Platform Units (Nos.) by Country (Selected) 2004-2008 ........................................... 43
Table 3-2: Africa Fixed Platform Units (Nos.) by Country (Selected) 2009-2013 ........................................... 43
Table 3-3: Africa Fixed Platform Capex (US $m) by Country (Selected) 2004-2008 ................................. 44
Table 3-4: Africa Fixed Platform Capex (US $m) by Country (Selected) 2009-2013 ................................. 44
Table 3-5: Africa Fixed Platform Units (Nos.) by Type 2004-2008 ........................................................... 45
Table 3-6: Africa Fixed Platform Units (Nos.) by Type 2009-2013 ........................................................... 45
Table 3-7: Africa Fixed Platform Capex (US $m) by Type 2004-2008 ........................................................ 45
Table 3-8: Africa Fixed Platform Capex (US $m) by Type 2009-2013 ........................................................ 45
Table 3-9: Africa Fixed Platform Units (Nos) by WD Range 2004-2008 ...................................................... 46
Table 3-10: Africa Fixed Platform Units (Nos) by WD Range 2009-2013 .................................................... 46
Table 3-11: Africa Fixed Platform Capex (US $m) by WD Range 2004-2008 ............................................. 47
Table 3-12: Africa Fixed Platform Capex (US $m) by WD Range 2009-2013 ............................................. 47
Table 3-13: Africa Fixed Platform Units (Nos.) by Total Weight Band (Metric Tonnes) 2004-2008 .......... 48
Table 3-14: Africa Fixed Platform Units (Nos.) by Total Weight Band (Metric Tonnes) 2009-2013 .......... 48
Table 3-15: Africa Fixed Platform Units (Nos.) by Total Weight Band (Metric Tonnes) 2004-2008 .......... 49
Table 3-16: Africa Fixed Platform Units (Nos.) by Total Weight Band (Metric Tonnes) 2009-2013 .......... 49
Table 3-17: Asia Fixed Platform Units (Nos.) by Country (Selected) 2004 ................................................ 51
Table 3-18: Asia Fixed Platform Units (Nos.) by Country (Selected) 2009-2013 ........................................ 51
Table 3-19: Asia Fixed Platform Capex (US $ millions) by Country (Selected) 2004-2008 ....................... 53
Table 3-20: Asia Fixed Platform Capex (US $ millions) by Country (Selected) 2009-2013 ....................... 53
Table 3-21: Asia Fixed Platform Units (Nos.) by Type 2004-2008 ........................................................... 54
Table 3-22: Asia Fixed Platform Units (Nos.) by Type 2009-2013 ........................................................... 54
Table 3-23: Asia Fixed Platform Capex (US $ millions) by Type 2004-2008 ............................................. 55
Table 3-24: Asia Fixed Platform Capex (US $ millions) by Type 2009-2013 ............................................. 55
Table 3-25: Asia Fixed Platform Units (Nos.) by WD Range 2004-2008 .................................................. 55

© Infield Systems Limited 2009 13
Table 3-26: Asia Fixed Platform Units (Nos.) by WD Range 2009-2013 .......................... 55
Table 3-27: Asia Fixed Platform Capex (US$ millions) by WD Range 2004-2008 ............... 56
Table 3-28: Asia Fixed Platform Capex (US$ millions) by WD Range 2009-2013 .................. 56
Table 3-29: Asia Fixed Platform Units (Nos.) by Total Weight Band (Metric Tonnes) 2004-2008 .............. 57
Table 3-30: Asia Fixed Platform Units (Nos.) by Total Weight Band (Metric Tonnes) 2009-2013 ............ 57
Table 3-31: Asia Fixed Platform Capex (US$ millions) by Total Weight Band (Metric Tonnes) 2004-2008 .... 58
Table 3-32: Asia Fixed Platform Capex (US$ millions) by Total Weight Band (Metric Tonnes) 2009-2013 ... 58
Table 3-33: Australasian Fixed Platform Units (Nos.) by Country 2004-2008 ......................... 60
Table 3-34: Australasian Fixed Platform Units (Nos.) by Country 2009-2013 ......................... 60
Table 3-35: Australasian Fixed Platform Capex (US$ millions) by Country 2004-2008 ............... 62
Table 3-36: Australasian Fixed Platform Capex (US$ millions) by Country 2009-2013 ............... 62
Table 3-37: Australasian Fixed Platform Units (Nos.) by Type 2004-2008 ............................. 63
Table 3-38: Australasian Fixed Platform Units (Nos.) by Type 2009-2013 ............................. 63
Table 3-39: Australasian Fixed Platform Capex (US$ millions) by Type 2004-2008 ...................... 63
Table 3-40: Australasian Fixed Platform Capex (US$ millions) by Type 2009-2013 ...................... 63
Table 3-41: Australasian Fixed Platform Units (Nos.) by WD Range 2004-2008 ....................... 64
Table 3-42: Australasian Fixed Platform Units (Nos.) by WD Range 2009-2013 ....................... 64
Table 3-43: Australasian Fixed Platform Capex (US$ millions) by WD Range 2004-2008 ............... 65
Table 3-44: Australasian Fixed Platform Capex (US$ millions) by WD Range 2009-2013 ............... 65
Table 3-45: Australasian Fixed Platform Units (Nos.) by Total Weight Band (Metric Tonnes) 2004-2008 .......... 66
Table 3-46: Australasian Fixed Platform Units (Nos.) by Total Weight Band (Metric Tonnes) 2009-2013 .......... 66
Table 3-47: Australasian Fixed Platform Capex (US$ millions) by Total Weight Band (Metric Tonnes) 2004-2008 ............ 67
Table 3-48: Australasian Fixed Platform Capex (US$ millions) by Total Weight Band (Metric Tonnes) 2009-2013 ......... 67
Table 3-49: Europe Fixed Platform Units (Nos.) by Country (Selected) 2004-2008 ..................... 69
Table 3-50: Europe Fixed Platform Units (Nos.) by Country (Selected) 2009-2013 ..................... 69
Table 3-51: Europe Fixed Platform Capex (US$ millions) by Country (Selected) 2004-2008 ............... 71
Table 3-52: Europe Fixed Platform Capex (US$ millions) by Country (Selected) 2009-2013 ............... 71
Table 3-53: Europe Fixed Platform Units (Nos.) by Type 2004-2008 ............................................. 72
Table 3-54: Europe Fixed Platform Units (Nos.) by Type 2009-2013 ............................................. 72
Table 3-55: Europe Fixed Platform Capex (US$ millions) by Type 2004-2008 ............................. 73
Table 3-56: Europe Fixed Platform Capex (US$ millions) by Type 2009-2013 ............................. 73
Table 3-57: Europe Fixed Platform Units (Nos.) by WD Range 2004-2008 .............................. 73
Table 3-58: Europe Fixed Platform Units (Nos.) by WD Range 2009-2013 .............................. 73
Table 3-59: Europe Fixed Platform Capex (US$ millions) by WD Range 2004-2008 ....................... 74
Table 3-60: Europe Fixed Platform Capex (US$ millions) by WD Range 2009-2013 ....................... 74
Table 3-61: Europe Fixed Platform Units (Nos.) by Total Weight Band (Metric Tonnes) 2004-2008 ............. 76
Table 3-62: Europe Fixed Platform Units (Nos.) by Total Weight Band (Metric Tonnes) 2009-2013 ............ 76
Table 3-63: Europe Fixed Platform Capex (US$ millions) by Total Weight Band (Metric Tonnes) 2004-2008 .......... 77
Table 3-64: Europe Fixed Platform Capex (US$ millions) by Total Weight Band (Metric Tonnes) 2009-2013 .......... 77
Table 3-65: Latin America Fixed Platform Units (Nos.) by Country 2004-2008 ......................... 77
Table 3-66: Latin America Fixed Platform Units (Nos.) by Country 2009-2013 ......................... 78
Table 3-67: Latin America Fixed Platform Capex (US$ millions) by Country 2004-2008 ....................... 79
Table 3-68: Latin America Fixed Platform Capex (US$ millions) by Country 2009-2013 ....................... 79
Table 3-69: Latin America Fixed Platform Units (Nos.) by Type 2004-2008 .............................. 80

© Infield Systems Limited 2009