Additive Manufacturing Opportunities in Oil & Gas Markets 2016: A Ten-Year Forecast

Description: The author believes that the Oil and Gas Industry will be the next big adopter of additive manufacturing technologies as evidenced by the increasing use of AM in this industry for the past twelve months. In this new report we explore and identify the major opportunities for AM over the next decade, based on the dynamics on the specific dynamics of the global oil and gas market.

The author believes that this report is the only comprehensive study that provides a complete understanding of the important advantages that AM can bring to firms in the Oil and Gas Industry. Among the reasons to purchase this report are the following. This report includes:

- Examples of what some firms are already achieving from deploying AM in the Oil and Gas Industry. The reader of this report will also gain a better understanding of how AM will make a transition to Oil and Gas Industry use and how the Industry will use AM especially for printed metal components and increasing opportunities for large print volumes
- Guidance on how AM firms can help message their products for the Oil and Gas industry and how to get the Industry behind AM
- Ten-year forecasts of the revenues that can be expected from this interesting sector. These projections cover all relevant technologies, materials, and estimations of printed part volumes
- A comprehensive analysis of the oil and gas industry and its current operating structure specifically as it relates to adoption of various AM technologies, software, and services. The report shows how challenges in the field are matched with potential opportunities for printed parts, models, and tooling
- Analysis based on proprietary staged AM adoption model for the Oil and Gas industry, designed to gauge current and future use of AM
- Data that will provide improved understanding of what is truly capable with AM in the Oil and Gas Industry, as well as a detailed exploration of potential areas of application in order to jump-start internal research and development activities within the Industry.

This report details the most comprehensive collection of areas of exploration for AM in specific oil and gas equipment, systems, and sectors from upstream to midstream and beyond

GE is already printing a variety of metal components for use in its oil and gas operations, while oilfield services companies such as Halliburton are actively exploring the use cases for both rapid prototyping as well as field production of parts. Advocates of AM at these companies believe that AM has the potential to radically alter the cost structure of oil exploration and drilling operations.

Given the importance that these major players in the Oil and Gas Industry are placing on AM, the author believes that it is time for marketing and business development executives at 3DP/AM hardware and materials firms to examine the new revenue streams that oil and gas applications could mean for their companies. This report will help them meet this objective.

The report is also meant to be read by professionals in Oil and Gas Industry to help them better understand the opportunities that AM can bring to the Industry. The author also believes that this report will be invaluable reading to firms that actively involve in investment in either the Oil and Gas Industry, or AM or both.

Although currently behind the curve as compared to similar industries in terms of AM adoption, the potential for explosive growth of AM in the Oil and Gas Industry is now building rapidly thanks to the challenges that the Industry faces due to exploding costs, plunging energy prices, and long delays for project development.

And this report shows where the money will be made and lost as the Oil and Gas Industry rise to meet these challenges.

Reasons to Buy
- The only comprehensive study which synthesizes the unique challenges facing the oil and gas industry and its traditional approach to manufacturing along with a deep understanding of various additive manufacturing technologies, materials, and providers. A truly first-of-its-kind study.

- Application exploration for oil and gas industry stakeholder guidance - getting the oil and gas industry behind additive manufacturing for its own benefit will take improved understanding of what is truly capable with AM, as well as a detailed exploration of potential areas of application in order to jump-start internal research and development activities. This report details the most comprehensive collection of potential areas of exploration for AM in specific oil and gas equipment, systems, and sectors from upstream to midstream and beyond.

- Ten year market forecasts with detailed market data metrics provide the AM industry a strong gauge for measurement of targeted solutions development and marketing to the oil and gas industry, a potentially hugely valuable future adopter of AM technologies and services. Forecasts cover all relevant technologies, materials, and estimations of printed part volumes.

Contents:

Chapter One: Understanding Opportunities for Adoption of Additive Manufacturing Technology in the Oil and Gas Industry
1.1 Oil and Gas Industry Dynamics and Their Influence On Adoption of AM
1.1.1 Relevant Adopting Sectors of the Oil and Gas Industry
1.1.2 Subsea Operations and Considerations for AM
1.1.3 Will Low Oil Prices Smother or Drive Adoption of AM?
1.1.4 Adoption Model for AM in O&G
1.2 Understanding AM Opportunities in Oil and Gas Through Adoption Patterns in Other Industries
1.2.1 Aerospace End Use Component Manufacturing in Turbomachinery
1.2.2 Lessons to be Applied from Medical and Dental Industries Use of 3D Scanning and Modeling
1.2.3 Oil and Gas Industry Could Take Queues from Automotive Industry with Widespread Printing of Sand Molds and Cores
1.3 Extracting Value from Additive Manufacturing in Oil and Gas Operations
1.4 3D Printing Services and the Future of AM in Oil and Gas
1.5 Current Industry Activity and Future Adoption Timelines
1.5.1 Future Opportunity Sizing and Adoption Timelines

Chapter Two: Analyzing Current and Potential Additive Manufacturing Applications for Oil and Gas
2.1 Examining and Applying the Additive Manufacturing Applications Spectrum to the Oil and Gas Industry
2.1.1 Use of Prototyping and Technical Modeling and Its Role in Advancing Acceptance of Additive Manufacturing in Oil and Gas
2.1.2 Indirect Manufacturing Through 3D Printed Tooling Provides Quickly Attainable Benefits
2.2 End Use Printing Applications in Exploration and Upstream Markets
2.2.1 Drill Bits and Drill Components
2.2.2 Sensors and Associated Housings in Oil and Gas Components
2.2.3 Combustion Systems and Turbomachinery
2.2.4 Valve Fittings and Pump Components
2.2.5 Midstream and Refinery Applications of Additive Manufacturing Technology
2.2.1 Heat Exchangers in Natural Gas Compression Systems
2.2.2 Components for Gas Processing and Refinery Operations
2.2.3 Catalytic Reactors and Components
2.3 Creative Tertiary and Downstream Applications of Additive Manufacturing Technology in the Oil and Gas Industry
2.4 Leading Innovators and Potential Market Leader Profiles for AM in Oil and Gas
2.4.1 GE Oil and Gas
2.4.2 Halliburton
2.4.3 Siemens
2.4.4 Royal Dutch Shell
2.4.5 Maersk Oil
2.4.6 3M

Chapter Three: Analysis of Potential for Additive Manufacturing Technologies and Materials in the Oil and Gas Industry
3.1 Metal Additive Manufacturing Technologies and Materials
3.2 Polymer Additive Manufacturing Technologies and Materials
3.3 Profiles of Leading System Manufacturers for the Oil and Gas Industry
3.4 Material Development to Enable Additive Manufacturing in Oil and Gas
3.5 Technology Development to Speed Acceptance of AM in Oil and Gas
3.6 The Role of Software Tools in Additive Manufacturing for Oil and Gas

Chapter Four: Ten Year Market Forecasts
4.1 Forecast Methodology
4.2 Overall Oil and Gas Market Forecast Data
4.3 Oil and Gas AM Hardware Market Data
4.4 Oil and Gas AM Materials Market Data
4.5 Oil and Gas AM Services and Software Market Data

Ordering:

Order Online - http://www.researchandmarkets.com/reports/3753814/

Order by Fax - using the form below

Order by Post - print the order form below and send to

Research and Markets,
Guinness Centre,
Taylors Lane,
Dublin 8,
Ireland.
**Fax Order Form**

To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit

http://www.researchandmarkets.com/contact/

**Order Information**

Please verify that the product information is correct and select the format(s) you require.

- **Product Name:** Additive Manufacturing Opportunities in Oil & Gas Markets 2016: A Ten-Year Forecast
- **Web Address:** [http://www.researchandmarkets.com/reports/3753814/](http://www.researchandmarkets.com/reports/3753814/)
- **Office Code:** SC

**Product Formats**

Please select the product formats and quantity you require:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic (PDF) - Single User:</td>
<td>USD 4495</td>
</tr>
<tr>
<td>Electronic (PDF) - 1 - 5 Users:</td>
<td>USD 5495</td>
</tr>
<tr>
<td>Electronic (PDF) - Enterprisewide:</td>
<td>USD 6495</td>
</tr>
</tbody>
</table>

* The price quoted above is only valid for 30 days. Please submit your order within that time frame to avail of this price as all prices are subject to change.

**Contact Information**

Please enter all the information below in **BLOCK CAPITALS**

- **Title:** [ ] Mr [ ] Mrs [ ] Dr [ ] Miss [ ] Ms [ ] Prof
- **First Name:** ____________________________ **Last Name:** ____________________________
- **Email Address:** *
- **Job Title:** ____________________________
- **Organisation:** ____________________________
- **Address:** ____________________________
- **City:** ____________________________
- **Postal / Zip Code:** ____________________________
- **Country:** ____________________________
- **Phone Number:** ____________________________
- **Fax Number:** ____________________________

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card:

You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check:

Please post the check, accompanied by this form, to:
Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by wire transfer:

Please transfer funds to:

<table>
<thead>
<tr>
<th>Account number</th>
<th>833 130 83</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sort code</td>
<td>98-53-30</td>
</tr>
<tr>
<td>Swift code</td>
<td>ULSBIE2D</td>
</tr>
<tr>
<td>IBAN number</td>
<td>IE78ULSB98533083313083</td>
</tr>
<tr>
<td>Bank Address</td>
<td>Ulster Bank, 27-35 Main Street, Blackrock, Co. Dublin, Ireland.</td>
</tr>
</tbody>
</table>

If you have a Marketing Code please enter it below:

Marketing Code: ______________________________

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp

Please fax this form to:
(646) 607-1907 or (646) 964-6609 - From USA
+353-1-481-1716 or +353-1-653-1571 - From Rest of World