CRO BENCHMARK REPORT - FINANCIAL PERFORMANCE BENCHMARKING & COMPETITIVE LANDSCAPE ASSESSMENT OF LEADING CROs
Executive Summary

The biopharmaceutical industry is currently facing significant headwinds. The blockbuster era is over, development costs are skyrocketing, uncertainty exists around regulatory and reimbursement, patent cliffs, generic erosion, and a sluggish global economy all have industry executives losing sleep at night. To respond to these pressures, biopharmaceutical companies have been changing the way they approach virtually every aspect of their business, including research and development. To remain competitive, drug makers are intensely focusing on generating more value and productivity out of every dollar spent on R&D. The challenge of accelerating pharmaceutical product development while controlling costs creates a difficult balancing act for industry executives. Through the use of strategic outsourcing with third-party vendors, drug makers can maximize their internal resources while at the same time entering into risk-sharing agreements with CROs to generate significant cost savings.

The CRO Sector Posted Strong Growth in 2012

GlobalData’s 2013 CRO Benchmark Report – The total combined peer group revenue from these leading CRO companies increased 10.2% year-to-year, from $12.4 billion in 2011 to $13.6 billion in 2012. Largely fueling the growth in the CRO sector was Quintiles, which independently contributed approximately $397 million to the $1.2 billion peer group increase.

Quintiles’ revenue grew by 12.1% year-on-year to $3.7 billion in 2012, considerably larger than its next closest rival, Covance, at $2.1 billion. Quintiles was effective at turning its order backlog into revenue, and garnering new orders in its clinical services business especially in markets abroad, in Europe and Asia. In fact, most of the companies in this report saw positive year-on-year growth rates in 2012, ranging from 4.0% (Covance) to 22.8% (WuXi), with the exception of Charles River, which saw a slight year-on-year revenue decline of 1.1% largely due to unfavorable foreign exchange rates. The sector posted strong growth in 2012, outpacing the 6.8% increase in aggregate corporate revenue the same peer group recorded in 2011.

Figure below shows the combined peer group revenue and average operating margin.

Combined Peer Group Revenue ($m) and Average Operating Margin, 2010–2012

Source: GlobalData; Company SEC filings.
Executive Summary

Strategic acquisitions and partnerships carried out by CROs also helped to drive revenue higher for the peer group. Just before the close of FY12, Patheon completed its $255 million deal to acquire Banner Pharmacaps, one of the world’s largest manufacturers of proprietary softgel capsules for the pharmaceutical and nutrition industries. The purchase of Banner fills gaps in Patheon’s current product lines and also expands its geographic reach into markets in Mexico and Latin America.

Catalent Pharma Solutions made significant investments in its clinical trial business when it bought Aptuit’s Clinical Trials Supplies (CTS) business in February for $410 million. The all-cash transaction transformed Catalent into one of the largest global providers of clinical supply solutions and adds analytical chemistry, respiratory product development and regulatory consulting services to its mix. The private CRO sector also saw its fair share of acquisitions. Clinipace Worldwide broadened its therapeutic expertise and regional footprint in Europe with its buy of Paragon Biomedical. Known principally as an oncology CRO, Clinipace will now have the talent, and resources to offer its clients services for managing clinical trials in the areas of immunology, infectious disease, cardiovascular and CNS. While traditionally known for its work in IT outsourcing, the industry giant Accenture purchased Octagon Research Solutions, complementing its data management capabilities with Octagon’s proprietary software platform and deep regulatory knowledge.

Accenture now has a fully integrated global business service empowered by customizable technology, which will allow its pharmaceutical clients the ability to bring drugs to the market faster.

The peer group average operating margin increased 60 basis points to 8.2% in 2012, from 7.6% in 2011. GlobalData attributes the increase to not only higher sales revenue, but to service providers implementing re-organization plans. Companies such as Covance and Parexel shuttered operations and laid off hundreds of employees across the globe in efforts to help stem the profit losses in their early-phase segments – a trend which will continue into the near future as demand for early-stage work is being tasked to niche CROs and academic research labs.

CROs Focusing on Delivering Service Value to SMBs

CROs are adding new capabilities specifically aimed at helping small and mid-sized biopharmaceutical companies (SMBs) optimize value and minimize risk. In a post-patent cliff world, small and mid-sized pharma and biotech companies will become the heart and soul of the drug industry, and will be responsible for the lion’s share of the innovation the industry will see in the future.
GlobalData believes CROs are ramping up their services to meet the requirements of small and mid-sized pharma and biotech companies, who tend to have varied needs and much smaller budgets compared with their ‘Big Pharma’ brethren, hence requiring different outsourcing strategies.

Allume is a comprehensive go-to-market service introduced by Quintiles that combines consulting, clinical services, commercial expertise and information technology. The service helps SMBs efficiently launch new products and shorten timelines to peak sales, while retaining strategic and corporate control of their assets. Biopharma companies are looking for new ways to optimize product value, expedite market access, and mitigate commercialization risk. Allume Quintiles achieves this by simplifying and organizing the complex, resource-intensive launch planning process, leaning on Quintiles’ 15 years of market entry experience. To maximize value, companies must plan product launch much earlier in the drug development process, especially when preparing to enter new geographic markets. Through Allume, Quintiles provides the strategic thinking, deep therapeutic insight, and local market access knowledge to help its customers design roadmaps to navigate a pathway to successful commercialization.

Not surprisingly, Parexel followed suit. However, instead of launching a service line, Parexel created the Parexel BioPharm Unit – a dedicated division of the company to focus solely on the unique needs of small and mid-sized biopharmaceutical companies to help them achieve their development goals. Parexel’s internal research has found that 81% of all on-going development programs are originating from sponsors outside of the top 25 pharmaceutical companies – a significant growth opportunity that Parexel wants to capitalize on with its new delivery model. Under a collaborative team-based approach, Parexel’s BioPharm Unit provides SMBs the opportunity to accelerate patient recruitment, increase the speed of study start-up, and improve overall efficiency for meeting critical development milestones.

**Evolving Strategic Partnership Model**

Over the past five years, a wave of strategic partnerships between biopharmaceutical companies and CROs has been put in place to drive more flexibility, reduce costs, and extend expertise. Collaborations have evolved from simple transactional relationships into multi-year, highly integrated strategic engagements focused on shared objectives, mutual investment, and involvement in clinical trial design and drug plan development. The growth of contract research outsourcing will primarily be driven by the need of biopharmaceutical companies to improve research and development in mature and emerging markets.
Executive Summary

Today, many biopharmaceutical companies are engaging clinical research organizations through this more integrated approach, aimed at optimizing performance and minimizing risk.

While the number of licensing deals fell slightly, from 40 in 2011 to 36 in 2012, the total licensing deal value soared to $958.9 million in 2012, a 159% increase when compared with 2011. We attribute the growth in deal value to a number of significant partnerships being struck over the past few years for which contract revenues are now beginning to be realized.

Figure depicts the total number of licensing deals, and deal values from 2008 through 2012.

GlobalData believes that strategic partnerships provide companies with higher levels of integration, alignment and collaboration that will support industry success. Merck engaged Quintiles in a five-year clinical development collaboration to essentially reshape its entire R&D machine.

The pharma giant just announced a major shakeup to streamline its operating model and aggressively manage its cost structure. The company spent $8.2 billion in R&D in 2012 (which was down from $11.1 billion in 2010), yet has very little to show for it, as the company has a very weak late-stage pipeline. However, GlobalData expects the partnership with Quintiles will play a major role when the company reviews its R&D apparatus this year.

Covance was also busy signing deals with large pharma outfits. Over the past couple of years, Covance booked multi-year outsourcing deals with Bayer Healthcare, Eli Lilly, and Sanofi to conduct a variety of market access and R&D services including discovery support, toxicology, central lab, and managing Phase I–IV clinical trials. Over the next 10 years Covance will be paid handsomely for its work. The contracts from these three drug makers alone will add close to $4 billion to the company’s coffers.
Executive Summary

BRICs and Other Emerging Regions Represent Huge Untapped Markets for Clinical R&D

With lower overall costs, better recruitment and retention rates, strong investigator networks and populations in need of novel treatments, conducting studies in the emerging markets is a strategic necessity. Biopharmaceutical companies with less experience in conducting trials in the emerging markets may need on-the-ground expertise to ensure their project is tailored to local patients and complies with regional regulations. Other drug makers that already have the experience in the region may need operational support or advice on how to ensure locally conducted trials satisfy the needs of global regulatory bodies, to mitigate costly clinical trial disruptions. CROs with the ability to deliver cost- and time-saving efficiencies to clients without compromising patient safety and data quality will be able to yield higher returns from emerging markets.

GlobalData’s CRO Benchmark Report estimates that total peer group revenue in the Emerging Markets from these leading CRO companies increased by 14.6% to $394.1 million in 2012. The emerging markets in Asia, Central and South America and in Eastern Europe have remained attractive regions for pharmaceutical outsourcing due to easy access to large patient pools, low labor and manufacturing costs and highly skilled medical workforce.

The globalization of clinical trials has led many CROs and other service providers to expand their strategic investments in emerging markets, especially in Asia. Most CROs are growing their infrastructures in China, while others take a different approach – deciding to acquire the capabilities of domestic companies or launch subsidiaries to handle the workload. In May of 2013, Parexel announced it opened its sixth facility in China, in the town of Shenyang. The site will not only add to the company’s presence in the region, but will serve as a hub for driving its MyTrials clinical informatics platform. Charles River Laboratories purchased a controlling stake in Vital River, China’s largest provider of laboratory animal models for use in preclinical research. Meanwhile, PPD (BioDuro) and Quintiles (Kun Tuo) established subsidiaries in China to strengthen their ability to provide biopharmaceutical clients in Asia with a comprehensive range of capabilities, from drug discovery services to regulatory submissions preparation.
# Table of Contents

## 1 Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Table of Contents</td>
<td>7</td>
</tr>
<tr>
<td>1.1</td>
<td>List of Tables</td>
<td>16</td>
</tr>
<tr>
<td>1.2</td>
<td>List of Figures</td>
<td>16</td>
</tr>
<tr>
<td>2</td>
<td>Introduction</td>
<td>19</td>
</tr>
<tr>
<td>2.1</td>
<td>Report Scope</td>
<td>19</td>
</tr>
<tr>
<td>2.1.1</td>
<td>GlobalData Selection Criteria</td>
<td>20</td>
</tr>
<tr>
<td>2.1.2</td>
<td>Companies Financially Benchmarked</td>
<td>20</td>
</tr>
<tr>
<td>2.1.3</td>
<td>Other Companies Covered</td>
<td>20</td>
</tr>
<tr>
<td>2.2</td>
<td>Upcoming Reports</td>
<td>21</td>
</tr>
<tr>
<td>2.3</td>
<td>Recently Published Reports</td>
<td>21</td>
</tr>
<tr>
<td>2.4</td>
<td>GlobalData’s Benchmarking Methodology</td>
<td>22</td>
</tr>
<tr>
<td>2.5</td>
<td>GlobalData CRO Benchmark Leader: EPS Corporation</td>
<td>22</td>
</tr>
<tr>
<td>3</td>
<td>CRO Market Dynamics</td>
<td>24</td>
</tr>
<tr>
<td>3.1</td>
<td>Outsourcing Service Delivery Models</td>
<td>24</td>
</tr>
<tr>
<td>3.1.1</td>
<td>Fully Integrated Service Model</td>
<td>24</td>
</tr>
<tr>
<td>3.1.2</td>
<td>Functional Service Model</td>
<td>25</td>
</tr>
<tr>
<td>3.1.3</td>
<td>The Bottom Line: Use a Hybrid Approach</td>
<td>26</td>
</tr>
<tr>
<td>3.2</td>
<td>Quintiles Goes Public</td>
<td>26</td>
</tr>
<tr>
<td>3.2.1</td>
<td>Quintiles IPO Raises $947M, Pricing an Increased Number of Shares at Top Range</td>
<td>26</td>
</tr>
<tr>
<td>3.3</td>
<td>Weak Demand for Preclinical Services Causes CROs to Economize</td>
<td>27</td>
</tr>
<tr>
<td>3.4</td>
<td>CROs Are Transitioning into Becoming Experts in Biologics Manufacturing</td>
<td>28</td>
</tr>
</tbody>
</table>
Table of Contents

3.4.1 WuXi Will Become a Leader in Biologics Manufacturing through its Multi-pronged Strategy .......................................................................................................................... 29

3.4.2 Catalent Opens New Manufacturing Center for Biologic Drug Development .............. 31

3.4.3 ShangPharma Inks Two mAb Partnerships ..................................................................... 32

3.5 Emerging Locations in Asia Will See the Greatest Investment and Growth ................. 33

3.5.1 Location, Location – Footprint Growth Has Become More Important than Cost Reduction ....................................................................................................................................... 33

3.5.2 Will Concerns about Patient Safety Bring Down the Indian Clinical Trial Market? ........ 35

3.6 eClinical Technologies Will be Key Drivers to Accelerating Time-to-Market .................. 37

3.6.1 Icon and Cerner Team Up to Streamline Late-Phase Studies ......................................... 37

3.6.2 Parexel Introduces MyTrials Platform ............................................................................. 38

3.6.3 INC Research Expands Partnership with Medidata Solutions ......................................... 39

3.6.4 Quintiles Unveils its Next-Generation Infosario Analytics Platform ............................ 39

3.6.5 Covance Launches Xcellerate to Increase Clinical Trial Optimization ...................... 40

4 Collaboration and Acquisition Strategies ........................................................................ 41

4.1 Overview .............................................................................................................................. 41

4.2 M&A Analysis ....................................................................................................................... 45

4.2.1 KKR Makes a Splash into CRO Biz with PRA Buy ......................................................... 45

4.2.2 Quintiles Invests in Personalized Medicine .................................................................... 46

4.2.3 Patheon Completes Purchase of Banner Pharmacaps .................................................. 46

4.2.4 Clinipace Doubles in Size with Paragon Buyout ......................................................... 47

4.2.5 Accenture Complements its R&D Service Offerings with Acquisition of Octagon .... 47

4.2.6 Catalent Pharma Buys Aptuit’s CTS Business ............................................................... 48
Table of Contents

4.2.7 Charles River and Covance Expand Microbial Identification Capabilities .................. 48
4.3 Strategic Partnerships with Large Pharmaceutical Clients ........................................ 49
  4.3.1 Quintiles and Merck Serono Announce Innovative Clinical Development Partnership 49
  4.3.2 Charles River and AstraZeneca Align to Accelerate Drug Development ............... 50
  4.3.3 Covance Deals ....................................................................................................... 50
  4.3.4 Pfizer Improves Clinical Trial Flexibility with Icon and Parexel Partnership .......... 51
  4.3.5 Aptuit and GSK Extend Strategic Alliance .............................................................. 51
  4.3.6 INC Research Enters into FSP Collaboration with Astellas .................................. 52
  4.3.7 PRA Announces Strategic Biosimilar Development Agreement with Amgen .......... 52
  4.3.8 Parexel and Catalent Combine Core Competencies to Streamline Supply Chain .... 53

5 Financial Management .................................................................................................. 54
  5.1 CRO Market Competitive Landscape Assessment .................................................... 55
    5.1.1 As Quintiles Goes, So Goes the CRO Market ....................................................... 55
  5.2 Financial Management: Heat Map ............................................................................ 57
    5.2.1 Quintiles Was the Financial Management Leader in 2012 ................................... 57
  5.3 Financial Performance Metrics ................................................................................ 58
    5.3.1 Revenue ............................................................................................................... 58
    5.3.2 Revenue Growth YtY ......................................................................................... 60
    5.3.3 Operating Income ............................................................................................... 62
    5.3.4 Operating Income Growth YtY .......................................................................... 63
    5.3.5 Operating Margin ............................................................................................... 65

6 Expense Management ................................................................................................ 67
  6.1 CRO Market Competitive Landscape Assessment .................................................... 67
# Table of Contents

6.1.1 Cost Containment Remains a Strategic Driver for CROs ................................................ 67  
6.2 Expense Management: Heat Map ........................................................................................ 69  
6.2.1 CMIC Was the Expense Management Leader in 2012.................................................... 69  
6.3 Expense Performance Metrics .............................................................................................. 70  
6.3.1 S,G&A Expense .............................................................................................................. 70  
6.3.2 G&A Expense as a Percentage of Revenue ................................................................. 72  
6.3.3 S&M Expense as a Percentage of Revenue ................................................................. 73  
6.3.4 Total OpEx as a Percentage of Revenue ....................................................................... 74  
7 Services Analysis ....................................................................................................................... 76  
7.1 Overview .............................................................................................................................. 76  
7.2 Clinical Laboratory Services Landscape Assessment ........................................................... 78  
7.2.1 Demand for Clinical Lab Services is Fueling Overall Market Growth ......................... 78  
7.2.2 Expand Delivery of Clinical Laboratory Services ........................................................ 80  
7.2.3 Quintiles Forms New Biomarker Research and Development Company ................. 81  
7.3 Revenue and Growth Leaders .............................................................................................. 82  
7.3.1 Revenue ......................................................................................................................... 82  
7.3.2 Revenue Growth YtY ..................................................................................................... 84  
7.4 Manufacturing Services Landscape Assessment .................................................................. 85  
7.4.1 Catalent Solidifies its Position as a Leading Provider of CMO Services ...................... 85  
7.4.2 Aptuit Launches New Approach to CMC ...................................................................... 87  
7.4.3 API Supply Agreements ................................................................................................. 87  
7.5 Revenue and Growth Leaders .............................................................................................. 88  
7.5.1 Revenue ......................................................................................................................... 88
# Table of Contents

7.5.2 Revenue Growth YtY .......................................................................................................... 90

7.6 Advisory and Support Services Landscape Assessment ..................................................... 91

7.6.1 Catalent’s Acquisition of Aptuit’s CTS Business Drove Advisory Revenues in 2012 .......... 91

7.6.2 Strategic Advisory Services .......................................................................................... 93

7.6.3 Staffing and Customer Support Services ....................................................................... 94

7.7 Revenue and Growth Leaders ............................................................................................ 96

7.7.1 Revenue ......................................................................................................................... 96

7.7.2 Revenue Growth YtY ...................................................................................................... 98

8 Regional Analysis ..................................................................................................................... 100

8.1 Overview ............................................................................................................................. 100

8.2 North America Landscape Assessment .............................................................................. 103

8.2.1 Pharma’s Large Revenue Base in North America Continues to Drive CRO Sector Growth ................................................................. 103

8.3 Regional Developments ..................................................................................................... 105

8.3.1 Covance Collaborates with M2Gen and BioPontis Alliance ........................................ 105

8.3.2 AMRI Signs Agreement to License its Novel Tubulin Inhibitor Program to Chai Therapeutics ................................................................................. 106

8.3.3 Ockham Completes Acquisition of Nexus Oncology ..................................................... 107

8.3.4 Synteract and HCR Combine to Form Multinational CRO ............................................. 107

8.3.5 Accelovance Buys Radiant’s CRO Division .................................................................. 107

8.3.6 Frontage Inks Deal with AtheroNova ............................................................................ 108

8.3.7 Pharm-Olam Completes Phase III Ophthalmology Study for InSite Vision ................. 108

8.4 Revenue and Growth Leaders ............................................................................................ 109
# Table of Contents

8.4.1 Revenue ................................................................. 109

8.4.2 Revenue Growth YtY ............................................. 111

8.5 Europe Landscape Assessment .................................... 112

8.5.1 European CRO Market Witnessed a Significant Pullback in Growth ........................ 112

8.6 Regional Developments .............................................. 114

8.6.1 TFS International Acquires Italian CRO Dimensione Ricerca ................................ 114

8.6.2 Quintiles Signs Deal to Bring Almirall’s LAMA Therapy to the UK ......................... 114

8.6.3 Icon Selected by European Pharma Companies as a Global Strategic Partner ........ 115

8.6.4 CromSource Adds Early-Phase Research Unit in Partnership with CRC ................ 115

8.6.5 Covance Inks Tech Transfer Deal with France’s Inserm Transfert SA ....................... 116

8.7 Revenue and Growth Leaders ...................................... 116

8.7.1 Revenue .................................................................. 116

8.7.2 Revenue Growth YtY ............................................... 118

8.8 Asia-Pacific Landscape Assessment .............................. 120

8.8.1 APAC Market Remains Hot for Clinical Outsourcing ............................................. 120

8.9 Regional Developments .............................................. 123

8.9.1 Japanese CROs Grow their Domestic Footprints .................................................... 123

8.9.2 AMRI Drives SmartSourcing Strategy in Japan ....................................................... 123

8.9.3 Covance-BML Boost Clinical Trial Lab in Japan ....................................................... 124

8.9.4 Frontage Hired by Local Chinese Clients to Develop Drugs Overseas .................... 124

8.10 Revenue and Growth Leaders ..................................... 125

8.10.1 Revenue ................................................................. 125

8.10.2 Revenue Growth YtY ............................................... 126
# Table of Contents

8.11 Emerging Markets Landscape Assessment ................................................................. 128
  8.11.1 BRICs and Other Emerging Regions Still Represent Huge Untapped Markets for R&D 128
8.12 Regional Developments .............................................................................................. 130
  8.12.1 Central and Latin America .................................................................................... 130
  8.12.2 Emerging EMEA ................................................................................................... 131
  8.12.3 China .................................................................................................................... 134
  8.12.4 India .................................................................................................................... 135
  8.12.5 Rest of Asia ......................................................................................................... 137
8.13 Revenue and Growth Leaders .................................................................................... 139
  8.13.1 Revenue ............................................................................................................... 139
  8.13.2 Revenue Growth YtY .......................................................................................... 141
9 Resource Management Strategies ................................................................................... 143
  9.1 Overview .................................................................................................................... 144
  9.2 Operations and Global Service Delivery ..................................................................... 145
    9.2.1 Expand Strategic Investment in Emerging Markets to Support Business Growth .... 145
    9.2.2 PPD and Icon Grow Bioassay Capabilities in the US and Europe ......................... 149
    9.2.3 EPS Corporation Separates Business Units to Streamline Efficiency .................. 151
    9.2.4 AMRI Realigns its Drug Discovery Services ....................................................... 151
    9.2.5 Laboratory Accreditations and Certifications ...................................................... 151
  9.3 Firm Utilization: Heat Map ....................................................................................... 153
    9.3.1 Covance Was the Firm Utilization Leader in 2012 ............................................. 153
  9.4 Firm Utilization Metrics ............................................................................................. 154
    9.4.1 Headcount Growth YtY ..................................................................................... 154
# Table of Contents

9.4.2  Revenue per Employee ................................................................. 155
9.4.3  Clinical Services Revenue per Clinical Services Employee ................. 157
9.4.4  G&A Expense per G&A Employee .................................................. 158
9.4.5  S&M Expense per S&M Employee ................................................ 159
9.5   Human Capital Leadership Changes ............................................... 160
9.5.1  Source Therapeutic and Regional Expertise to Boost Clinical Operations 160
9.6   Capital Management: Heat Map ..................................................... 162
9.6.1  EPS Was the Capital Management Leader in 2012 due to its Higher Liquidity 162
9.7   Capital Structure Metrics ............................................................... 163
9.7.1  Debt/Equity Ratio ....................................................................... 163
9.7.2  Current Ratio ............................................................................. 164
9.7.3  Cash Ratio ................................................................................. 165
9.8   Share Offerings and Debt Restructurings ....................................... 166
9.8.1  Proceeds from Share Repurchases Used to Pay-down Debt and Finance Acquisitions 166

10  Future Outlook ............................................................................... 167
10.1  CRO Market ............................................................................... 167
10.2  Vendor Positioning ....................................................................... 169

11  Appendix ....................................................................................... 170
11.1  Research Methodology ................................................................. 170
11.1.1  Coverage ................................................................................. 170
11.1.2  Secondary Research .................................................................. 171
11.2  About the Author ........................................................................ 172
11.2.1  Adam Dion, Industry Analyst .................................................. 172
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.3</td>
<td>Director, Healthcare Industry Dynamics</td>
<td>173</td>
</tr>
<tr>
<td>11.4</td>
<td>Global Head of Healthcare</td>
<td>173</td>
</tr>
<tr>
<td>11.5</td>
<td>About the Industry Dynamics Team</td>
<td>173</td>
</tr>
<tr>
<td>11.6</td>
<td>About GlobalData</td>
<td>174</td>
</tr>
<tr>
<td>11.7</td>
<td>Disclosure Information</td>
<td>174</td>
</tr>
<tr>
<td>11.8</td>
<td>Disclaimer</td>
<td>174</td>
</tr>
</tbody>
</table>
1.1 List of Tables

Table 1: GlobalData Benchmark Rankings, Contract Research Organizations, 2012 ........................................ 23
Table 2: Financial Management Composite Scores, 2012 .................................................................................. 57
Table 3: Expense Management Composite Scores, 2012 .............................................................................. 69
Table 4: Infrastructure Investments, Emerging Markets, 2012–2013 ......................................................... 147
Table 5: Infrastructure Investments, US and Europe, 2012–2013 ................................................................. 150
Table 6: Recent Laboratory Accreditations and Certifications, Worldwide, 2012–2013 ......................... 152
Table 7: Firm Utilization Composite Scores, 2012 ...................................................................................... 153
Table 8: Key Leadership Changes, 2012–2013 ............................................................................................. 160
Table 9: Capital Management Composite Scores, 2012 .............................................................................. 162
Table 10: Share Offerings and Debt Restructurings, 2012–2013 ............................................................... 166

1.2 List of Figures

Figure 1: Contract Research Organization Deals and Deal Values ($m), 2008–2012 ...................................... 42
Figure 2: Number of M&A Deals and Deal Values ($m), 2008–2012 .............................................................. 43
Figure 3: Number of Licensing Deals and Deal Values ($m), 2008–2012 ...................................................... 44
Figure 4: Leading CRO Landscape Assessment – FY2012 Revenue Growth vs. Operating Margin .... 56
Figure 5: Revenue ($m) by Company, 2012 .................................................................................................. 59
Figure 6: Revenue Growth by Company, 2012 ............................................................................................ 61
Figure 7: Operating Income ($m) by Company, 2012 .................................................................................. 62
Figure 8: Operating Income Growth by Company, 2012 .......................................................................... 64
Figure 9: Operating Margin by Company, 2012 ......................................................................................... 66
Figure 10: Leading CRO Landscape Assessment – FY2012 S,G&A Expense vs. Total OpEx ............ 68
Figure 11: S,G&A Expense ($m) by Company, 2012 .................................................................................. 70
# Table of Contents

Figure 12: G&A Expense as a Percentage of Revenue by Company, 2012 .......................................................... 72
Figure 13: S&M Expense as a Percentage of Revenue by Company, 2012 ......................................................... 73
Figure 14: Total OpEx Spending as a Percentage of Revenue by Company, 2012 ............................................. 74
Figure 15: Combined Peer Group Revenue ($m) by Service Line, 2010–2012 ..................................................... 77
Figure 16: Clinical Lab Services Landscape, 2012 .......................................................................................... 79
Figure 17: Clinical Laboratory Services Revenue ($m) by Company, 2012 ...................................................... 83
Figure 18: Clinical Laboratory Services Revenue Growth by Company, 2012 ............................................... 84
Figure 19: Manufacturing Services Landscape, 2012 ................................................................................... 86
Figure 20: Manufacturing Services Revenue ($m) by Company, 2012 ............................................................ 89
Figure 21: Manufacturing Services Revenue Growth by Company, 2012 ..................................................... 90
Figure 22: Advisory and Support Services Landscape, 2012 ....................................................................... 92
Figure 23: Advisory and Support Services Revenue ($m) by Company, 2012 .................................................. 97
Figure 24: Advisory and Support Services Revenue Growth by Company, 2012 .......................................... 99
Figure 25: Combined Peer Group Revenue ($m) by Region, 2010–2012 ......................................................... 102
Figure 26: North America Landscape Assessment, 2012 ............................................................................... 104
Figure 27: North America Revenue ($m) by Company, 2012 ....................................................................... 110
Figure 28: North America Revenue Growth by Company, 2012 ................................................................. 111
Figure 29: Europe Landscape Assessment, 2012 ............................................................................................ 113
Figure 30: Europe Revenue ($m) by Company, 2012 ..................................................................................... 117
Figure 31: Europe Revenue Growth by Company, 2012 ............................................................................. 118
Figure 32: APAC Landscape Assessment, 2012 .............................................................................................. 122
Figure 33: APAC Revenue ($m) by Company, 2012 ....................................................................................... 125
Figure 34: APAC Revenue Growth by Company, 2012 ............................................................................... 127
Figure 35: Emerging Markets Landscape Assessment, 2012 ...................................................................... 129
Table of Contents

Figure 36: Emerging Markets Revenue ($m) by Company, 2012 ................................................................. 140
Figure 37: Emerging Markets Revenue Growth by Company, 2012 .............................................................. 142
Figure 38: Headcount Growth by Company, 2012 ..................................................................................... 154
Figure 39: Revenue per Employee (In $ Thousands) by Company, 2012 ........................................................ 156
Figure 40: Clinical Srvcs Revenue per Clinical Srvcs Employee (In $ Thousands) by Company, 2012 .......... 157
Figure 41: G&A Expense per G&A Employee (In $ Thousands) by Company, 2012 ................................................ 158
Figure 42: S&M Expense per S&M Employee (In $ Thousands) by Company, 2012 ........................................ 159
Figure 43: Debt-to-Equity Ratio by Company, 4Q12 ................................................................................... 163
Figure 44: Current Ratio by Company, 4Q12 ............................................................................................... 164
Figure 45: Cash Ratio by Company, 4Q12 ................................................................................................... 165
Figure 46: CRO Benchmark Peer Group, Global Market Forecast, ($bn), 2012–2017 ................................. 167
Figure 47: CRO Benchmark Vendor Position and 2013 Growth Projections .................................................. 169
2 Introduction

2.1 Report Scope

The CRO Benchmark Report applies GlobalData’s proprietary ranking methodology to compare the competitive positions of 11 leading CRO companies on 17 financial metrics. These companies are analyzed based on financial performance, cost-containment, capital structure and firm utilization to illustrate the different strategies these companies are using to increase value for their shareholders. Throughout the report, GlobalData’s Industry Dynamics Team provides you with expert insight, expanding on each of the metrics discussed. In addition to the financial metrics, this report discusses trends impacting the CRO marketplace, along with partnering and acquisition activity, and operations strategy. This report also provides drill-down analyses of three service lines and four geographies, examining each of these segments’ revenue and growth leaders, and business development strategies. Lastly, this report provides GlobalData’s outlook on the CRO sector and each company’s future competitive position.

Key Questions Answered

- What specific strategies are these CROs employing to gain market share?
- What drivers accounted for the revenue growth for the company over the past year?
- Which trends will affect the CRO marketplace over the next few years?
- What particular services or capabilities are my competitors developing?
- Who are the revenue and growth leaders in each service line and geography?
- What specific business development activities are taking place, in terms of partnerships or M&A?
- How are CROs growing their physical infrastructures and human resources to better serve the needs of their customers?
- What region-specific operations and capabilities are CROs adding to gain share in emerging markets?
Introduction

Key Benefits

This report will enable you to:

- Analyze and track the strategies that these CROs are using to gain share in the increasingly competitive market
- Understand the underlying financial metrics that differentiate certain companies from the pack in terms of growth and profitability, spending and asset structure
- Organize your sales and marketing strategy to identify companies with proprietary technologies to maximize opportunities for strategic investment or partnerships
- Use this information as an independent source for your due diligence and transaction strategy

2.1.1 GlobalData Selection Criteria

The CRO market is highly fragmented, made up of some 1,000 individual companies, most of which are privately owned. These companies vary significantly in size and breadth of services – from a four-person bioanalysis research lab in Thailand to companies like Quintiles and Covance, which have tens of thousands of employees in over 100 countries across the globe. GlobalData identified 11 CROs on which to apply its benchmarking methodology, providing a foundation for strategic discussion and analysis. GlobalData’s coverage examines these CROs from a unique company-centric lens – combining financial performance and resources allocation with partnering activity and regional developments to assess a company’s overall strategy. This type of coverage is unlike any other analysis available, and delivers a consistent view into the evolution of these companies’ corporate growth. We also covered some 30 other privately held CROs to give our analysis more specificity and granularity.

2.1.2 Companies Financially Benchmarked

AMRI, Catalent, Charles River, CMIC, Covance, EPS, Icon, Parexel, Patheon, Quintiles and WuXi

2.1.3 Other Companies Covered

Accelovance, Accovion, Aptuit, Asklep, BioRasi, Chiltern, Clinipace, ClinStar, CromSource, DKSH, Frontage, INC Research, Novella Clinical, Novotech, Ockham, Octagon Research Solutions, Paragon Biomedical, Pharmaron, Pharm-Olam, PPD, PRA International, PSI, QPS, ReSearch Pharmaceutical Services, Synexus, Syngene, SynteractHCR, and TFS International
Introduction

2.2 Upcoming Reports

Report dates are to be determined, and titles are subject to change

**PharmaLeaders (2013):** India Benchmark Report – Competitive Analysis of Leading Players in India

**PharmaLeaders (2013):** BRIC Benchmark Report – Competitive Analysis of Leading Players in BRICs

**PharmaSphere (2013):** Deal-making Trends in APAC

**PharmaSphere (2013):** Deal-making Trends in CALAM

**PharmaSphere (2013):** Healthcare IT Services (Cloud) Strategy Report

2.3 Recently Published Reports

**PharmaSphere (2013):** Global Deal-making and Operations Strategies in the CRO Market

**PharmaSphere (2013):** Global Biosimilars Strategy – Regulatory Landscape, Key Drivers, Markets & Trends

**PharmaSphere (2013):** Early-Stage Technology Transfer Collaborations – Enabling Platform Technologies & Deal Synergies between Academia and the Pharmaceutical Industry


**PharmaLeaders (2012):** Large Pharmaceutical Benchmark Report
Introduction

2.4 GlobalData’s Benchmarking Methodology

GlobalData’s CRO Benchmark Report ranks leading CRO companies on 17 financial metrics. These metrics include company-specific data such as revenues, margins, expenses and balance sheet ratios, which are weighted and combined into an aggregate composite score that leads to a rank of each company’s overall financial performance. The ranking scale ranges from 1.00–10.00, with the average being 5.00, and higher rankings representing better overall performance. GlobalData believes one of the many strengths of our proprietary ranking methodology is that company rankings are data-driven and empirical, not subjective or whimsical. It is important to note that these rankings are retrospective and are intended to help illustrate the strategies that companies are using to succeed financially, and should not be considered as an endorsement by GlobalData, or a recommendation to purchase any securities. It is essential to recognize that there are many factors that determine the success of any company, not just financial performance, such as clinical pipeline, leadership of management and organizational structure, which are not accounted for directly in our methodology. The rankings are primarily intended to serve as an impetus for analytical discussion, and for examining a company’s relative competitive position in a very dynamic industry.

2.5 GlobalData CRO Benchmark Leader: EPS Corporation

EPS Corporation was GlobalData’s CRO Benchmark Leader in 2012, with an overall score of 6.08. EPS' leadership status was driven by the company’s significantly higher expense and capital management metrics. The company’s Capital Management (CM) composite score was 8.52, much greater than the peer group average of 5.00. EPS benefits from having a strong cash position and low debt, allowing it to meet its current obligations more easily than its peers.

EPS' aggregate Expense Management (EM) composite score was 6.04, which was third behind regional rivals WuXi (6.11) and CMIC (6.79). EPS is one of the smaller CROs analyzed in this report, which means the company spends less on S,G&A compared with rivals, a fact that certainly helped to push the company’s EM score higher. Also, the company’s rationalization programs and the organizational restructuring that it has put in place to drive cost synergies are also bearing fruit, allowing the company to keep its fixed cost structure low compared with its peer group.
Introduction

Table 1 shows each company’s individual composite scores and overall score for 2012.

<table>
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<tr>
<th>GD Rank</th>
<th>Company</th>
<th>Financial Management</th>
<th>Expense Management</th>
<th>Resources Management</th>
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</tbody>
</table>

Source: GlobalData.

Key:
- Green represents an area where the company is outperforming its peers
- Red represents an area where the company is currently challenged versus peers

Note: Scale (1.00–10.00), Avg. Score = 5.00

Meanwhile, Patheon was GlobalData’s CRO Benchmark laggard in 2012, with an overall score of 3.74. Contributing to the company’s laggard status were very low scores for Financial Management (FM) and Capital Management (CM) metrics. Patheon’s aggregate score was 2.57 for FM and 2.73 for CM, both very low when compared with the peer group average of 5.00. Rounding out the bottom three laggards were Icon at 4.29 and Parexel at 4.71.
5 Financial Management

The Financial Management (FM) section benchmarks each company’s financial performance on a number of leading financial indicators. These metrics examine each company’s revenue performance and cost structure. We then use our proprietary ranking system to illustrate which companies are performing the best on each metric. The Industry Dynamics team then discusses the specific drivers and strategies companies are implementing to gain a competitive advantage against their respective peer group.

Key Questions Answered

- What drivers accounted for the revenue growth for the company over the past year?
- Is the company experiencing downward pressure on its margins?
- How is the company controlling its cost structure?
- What is driving G&A and S&M expenses?
- Is the company restructuring to improve its margins?
- Has the company’s cost structure remained stable over the past year, or has this mix changed, and why?
5.1 CRO Market Competitive Landscape Assessment

5.1.1 As Quintiles Goes, So Goes the CRO Market

GlobalData’s 2013 CRO Benchmark Report estimates that total peer group revenue from these leading CRO companies increased 10.2% year-to-year, from $12.4 billion in 2011 to $13.6 billion in 2012. In fact, all of these companies saw positive year-on-year growth rates in 2012, ranging from 4.0% (Covance) to 22.8% (WuXi), with the exception of Charles River, which saw a slight year-on-year revenue decline of 1.1% largely due to unfavorable foreign exchange rates. The sector posted strong growth in 2012, outpacing the 6.8% increase in aggregate corporate revenue the same peer group recorded in 2011.

Largely fueling the growth in the CRO sector was Quintiles, which independently contributed approximately $397 million to the $1.2 billion peer group increase. Quintiles’ revenue grew by 12.1% year-on-year to $3.7 billion in 2012, considerably larger than its next closest rival, Covance, at $2.1 billion. Quintiles was effective at turning its order backlog into revenue, and garnering new orders in its clinical services business especially in markets abroad, in Europe and Asia.

While Quintiles demonstrated organic growth, others looked for opportunities to grow core businesses externally through acquisition. For example, Icon buttressed its operations based in Asia with the acquisition of BeijingWits Medical Limited, a leading CRO in China with deep local regulatory expertise. In addition, Catalent made a splash in 2012 with its $400 million purchase of Aptuit’s clinical trials business, building additional scale and capabilities in the company’s clinical services business to better meet its customers’ needs globally. The acquisition of Aptuit’s clinical trial business transferred to Catalent six production and distribution sites, including one site in Singapore, representing the company’s first entry into the Asian market.

Figure 4 displays the competitive position of these leading CRO companies on three financials metrics: (1). Average Corporate Revenue Growth Rate, (2). Average Operating Margin, and (3). Size of Revenue. The purpose of combining all three of these metrics is to provide a landscape view of the CRO market, assessing each company’s financial performance against its respective peer group. We provided 2011 averages (in black) in Figure 4 to help illustrate the year-to-year trend.
Figure 4: Leading CRO Landscape Assessment – FY2012 Revenue Growth vs. Operating Margin

As illustrated in Figure 4, the 2012 peer group average corporate revenue growth rate was 11.2%, up from 8.6% in 2011. The 2012 peer group average operating margin increased 60 basis points to 8.2% in 2012, from 7.6% in 2011. GlobalData attributes the margin growth to the higher combined peer group revenue, and to cost-containment and organizational restructuring. To this end, a number of companies, including Icon, AMRI and Patheon, each announced either the continuation or initiation of rationalization programs intended to shave overhead and streamline operations, thereby bolstering margins.
Regional Analysis

8 Regional Analysis

The Regional Analysis section benchmarks each company’s financial performance in four geographic markets: North America, Europe, APAC, and Emerging Markets. The Industry Dynamics team then discusses each region in terms of revenue size and growth leaders, along with an examination of geographic strategies, and business development activities.

Key Questions Answered

- Who are the revenue and growth leaders in each region?
- How is this region performing against the overall peer group?
- What region-specific operations and capabilities are companies adding to grow market share?
- What business development activities are taking place in the region, in terms of partnerships or M&A?
- Are companies growing their physical and human resources to better serve the needs of local customers?

8.1 Overview

Pharmaceutical companies operating in the mature markets of the US and Europe are facing strong headwinds on a number of fronts. The patent cliff is eroding the corporate earnings of many global pharmaceutical companies like Pfizer, GSK, and AstraZeneca. Meanwhile the cost of bringing a drug to market remains at an all-time high – costing approximately $1.9 billion and taking over 13 years to get to patients. The US pharma giant Merck just announced a major shakeup to streamline its operating model and aggressively manage its cost structure. Merck spends about $8 billion a year in R&D, yet has very little to show for it, as the company has a very weak late-stage pipeline, but stressed in its release to investors its intention to rebuild its pipeline after the review of its R&D apparatus has been completed.

Moreover, the regulatory environment remains unclear, particularly how state-wide exchange of the Patient Affordable Care Act (PACA) will be implemented. Across the pond, the sovereign debt crisis in countries like Portugal, Italy, Greece, and Spain is leaving governments with no options but to cut deeply into healthcare spending in attempts to balance their books.
Regional Analysis

Now that all of these forces (and many others not mentioned) have coalesced, pharmaceutical firms are responding with aggressive cost-cutting – to an extent that the industry has never seen. One way drug companies are trying to soften the blow from the mature markets is to outsource their clinical development work to low-cost regions, particularly to BRIC and other emerging markets in Asia. GlobalData believes this could lead to a boom for CROs and other ancillary sectors that provide services to pharmaceutical companies.

GlobalData segments the CRO market into four regions: North America, Europe, APAC, and Emerging Markets. The purpose of this segmentation is to provide a geographic drill-down analysis discussing the revenue and growth leaders within each market, while at the same time highlighting significant regional trends and strategies.

As expected, all regions examined in GlobalData’s 2013 CRO Benchmark Report witnessed positive year-on-year revenue growth rates. As illustrated in Figure 25 below, GlobalData estimates that total peer group revenues in North America from these leading CRO companies increased 14.4% in 2012 to $6.1 billion. The major driver of this growth was Quintiles, which contributed $254.4 million to the $764 million increase in North America revenues in 2012. Quintiles achieved this through delivering on its internal backlog of deferred revenues, and through its acquisitions of two US-based companies – Expression Analysis, a genomics testing provider to industry and to the US government; and Advion Bioservices, a pathology lab located in North Carolina.

Meanwhile, growth in the CRO sector in Europe was sluggish. GlobalData estimates that total peer group revenues in Europe from these leading CRO companies increased modestly, by 4.4% in 2012, to $4.9 billion. While Quintiles was largely the reason for the growth in the US, the European CRO market was driven higher by a number of foreign and domestic CROs winning business in the region. Icon signed an agreement with its Dublin-based neighbor, Shire Specialty Pharmaceuticals, to bring a number of its Phase II drugs through its clinic. In addition, Quintiles penned a long-term deal to commercialize Almirall’s respiratory drugs in the UK. Emerging markets in Europe, such as Russia, Hungary, the Ukraine and Poland, still remain hot spots for clinical outsourcing. Local players in this region tend to be niche/specialty-based CROs with therapeutic and regulatory expertise, which is highly sought after by pharmaceutical companies to hasten commercialization. One of the many CROs matching this description was ClinStar, a privately held CRO based in Russia, which was acquired by PRA as part of its strategy to expand its presence into Central and Eastern European markets.
Regional Analysis

Lastly, pivoting off its acquisition of Warsaw’s Osteomed, Synexus focused its efforts to the south, establishing the company’s fourth site in South Africa by opening a new location in Pretoria.

Figure 25: Combined Peer Group Revenue ($m) by Region, 2010–2012

The ‘pharma-emerging’ regions in Central America Latin America (CALAM) and in Asia are the fastest-growing markets for clinical outsourcing. As illustrated above, GlobalData’s 2013 CRO Benchmark Report estimates that total peer group revenues in APAC from these leading companies grew by 14.8% year-to-year to approximately $2.3 billion. Similarly, we estimate that total peer group revenues in emerging markets from these leading CROs increased to $394.1 million, representing a 14.6% year-on-year increase. One of the main reasons for the growth in outsourcing to CALAM and APAC is the access to large patient populations which are required to run late-phase clinical trials, and cost implications. Biopharmaceutical companies are increasingly leaning on local CROs like China’s CMIC and WuXi as proxies for entering Asia in search of opportunities to snag their own pieces of this region’s growth.
9 Resource Management Strategies

The Resource Management (RM) section discusses how each company is deploying its physical, human and financial resources. GlobalData benchmarks each company’s performance on several utilization and balance sheet metrics. We use our proprietary ranking system to illustrate which companies are performing the best on each metric. The Industry Dynamics team then discusses the specific drivers and strategies companies are implementing to gain a competitive advantage against their respective peer group.

A company’s physical resources include the expansion of manufacturing plants, services facilities and supply agreements; human resources includes changes to executive leadership, headcount attrition and employee utilization; and capital management consists of the company’s debt structure, and cash position.

Key Questions Answered

- Is the company investing in services capabilities to meet customer demand?
- Is the company experiencing any manufacturing issues that could disrupt its supply chain and increase delivery time for its products?
- Is S,G&A headcount being used efficiently to maximize the company’s bottom line?
- Is headcount rationalization contributing to margin growth?
- What is the company’s operating leverage?
- Is the company paying down its debt to improve cash flow?
- If an unforeseen event occurs, does the company have enough cash on hand to sustain operations for the next twelve months?
Resource Management Strategies

9.1 Overview

In a concerted effort to be more responsive to clients’ needs, contract service providers are growing their infrastructure footprints in emerging markets to meet the surge in demand from clients for clinical drug trials. The larger presence in BRIC and other emerging markets like Singapore and Taiwan will help CROs expand both their client lists and revenue bases. Service providers are presenting their clients with a full lifecycle of integrated services, including the sourcing of intermediates and APIs, discovery biology and late-stage clinical development services, and even market access and regulatory consulting. For example, Covance increased its focus in Asia by doubling its central lab space in Singapore. The additional space will allow Covance to offer new capabilities in anatomic pathology and nutritional chemistry to clients, adding to its already impressive suite of clinical services.

On top of growing their physical resources, CROs are also reaching out to local human capital with the regional expertise to run these new operations. For instance, Germany-based Accovion appointed two managing directors for the new subsidiaries the company established in Russia and the Czech Republic. Synergy Research Group (SynRG), a leading CRO in Russia, followed with a similar move when it hired an expert in Ukraine’s regulatory system to manage clinical trial activities in its new operation in Kiev.

While CROs are heavily investing in expanding operations overseas, many CROs are looking internally at their own operations for ways to reduce costs and streamline processes to improve service delivery. In the US, AMRI is entering its third phase of a restructuring program which it announced back in 2010. As part of the company’s new SmartSourcing strategy – an approach which combines shaving overhead with new marketing and branding initiatives – AMRI shuttered plants in Bothell, WA, and in Budapest, Hungary, and offshored the discovery services at these sites to lower-cost labor pools in Singapore and India. Meanwhile, companies such as EPS and CMIC spun-off strategic business units as separate entities to improve decision-making and customer service. EPS did this with its Global Research division and its regional headquarters in China, and CMIC hopes to clarify its business model by splitting its CRO segment. Each company expects the creation of the individual businesses to accelerate growth, strengthening their competitive positions in the CRO market.
9.2 Operations and Global Service Delivery

9.2.1 Expand Strategic Investment in Emerging Markets to Support Business Growth

Many biopharmaceutical services providers are meeting the increase in client demand for clinical development capabilities by expanding their footprints into high-growth markets in BRIC and Asia. In May of 2013, Parexel announced it is opening a new office in Shenyang, China. The office further expands Parexel's service scope, local expertise and presence in China, which includes locations in Beijing, Chengdu, Guangzhou, Shanghai and Hong Kong. The Shenyang office will also enable the company to drive its Perceptive eClinical technology solutions into the Asia-Pacific market. This will give clinical trial sponsors in China access to the MyTrials platform in addition to Parexel's extensive medical and clinical expertise. Parexel will also lean on its existing collaboration with Shenyang Pharmaceutical University to train graduates on clinical trial procedures, data management and pharmacovigilance. This partnership gives students and alumni the opportunity to work alongside Parexel staff who are involved in regional and global clinical trials (Parexel, press release, May 16, 2013).

PPD’s subsidiary BioDuro outlined its plan to establish a new state-of-the-art laboratory in Shanghai, strengthening its ability to provide biopharmaceutical clients in Asia with an extensive range of customized drug discovery services. The 72,000-square-foot lab will offer clients integrated services, including drug metabolism and pharmacokinetic (DMPK) studies, bioanalytical, discovery biology and oncology services, as well as an extensive library of assays for testing. This facility, along with BioDuro’s 110,000-square-foot lab in Beijing, will enable PPD to better support the business needs of its Asian clients through a consistent and fully integrated research portfolio, from target identification through post-approval services (PPD, press release, May 15, 2013).

The opening of a plant in Shanghai was preceded by PPD’s bioanalytical operation in Brazil being certified by the country’s Agencia Nacional de Vigilancia Sanitaria (ANVISA). This validates that PPD has met the agency’s stringent biopharmaceutical safety guidelines (PPD, press release, April 1, 2013). The agency will only accept or approve products for sale that have had all of the bioassay work done at a certified facility in Brazil. This uniquely positions PPD to conduct bioanalytical work on its clients’ compounds that will be marketed in Brazil, enhancing the company’s portfolio of laboratory services in Latin and South America.
Resource Management Strategies

Outside of China, CROs are also expanding operations to meet client demand in other rapidly growing emerging markets such as Singapore, South Korea and India. In April of 2013, Covance touted that it is expanding its central lab in Singapore by 50% to meet clients’ increased focus in Asia. The expansion is the latest in Covance’s regional growth strategy as it continues its investment in Singapore – a country it has been operating in for over a decade. Covance’s central laboratory will increase in size to 29,000 square feet, the largest of its kind in Singapore. This lab effectively doubles the company’s genomics footprint, while also adding capabilities in anatomic pathology and nutritional chemistry. The lab will service not only Covance’s clients in Singapore, but also clients in Taiwan, Hong Kong, the Philippines, India and Australia. GlobalData believes this expansion will help Covance to better serve both its local and multinational customers’ R&D needs in key therapeutic areas like oncology and metabolic diseases.

South Korea has made major progress in establishing centers of excellence and state-of-the-art facilities for clinical trials, and has developed a transparent and well-organized regulatory infrastructure for clear approval pathways. INC Research is growing its presence in South Korea with a new office located in Gangnam-gu, the heart of Seoul’s business district (INC Research, press release, September 12, 2012). The location provides INC with easy access to patients, clients and business partners. The team at this facility will focus studies around strategically important therapeutic areas, help customers take advantage of the benefits of conducting clinical trials in the region and leverage local support resources. INC Research has accomplished this by securing KFDA accreditation at its investigative sites and by forming relationships with clinical trial support organizations such as KoNECT.
9.2.3 EPS Corporation Separates Business Units to Streamline Efficiency

In a concerted effort to speed up decision-making and clarify profit responsibility, Tokyo-based EPS Corporation announced it has spun-off two of its business units as separate entities. The notification came after the company’s Board of Directors approved the decision on May 1, 2013. EPS’ satellite headquarters in Suzhou, China and its Global Research division, which manages its CRO operations overseas, were officially separated from the company beginning in July 2013. The operation in China employs more than 300 people domestically and internationally, and has developed expertise in managing clinical trials for both pharmaceutical and medical device companies. Meanwhile, EPS’ Global Research division comprises approximately 200 employees responsible for commercial activities being carried out across Asia. As a result of the separations, GlobalData expects EPS will recognize greater internal synergies, creating a more agile management structure that can meet the challenges of the diversifying needs, and increasing sophistication of its pharmaceutical clients.

9.2.4 AMRI Realigns its Drug Discovery Services

AMRI has taken further steps to integrate and realign its in vitro biology services with its drug discovery services. The company declared it is closing its office in Bothell, WA, eliminating 24 FTEs as it continues to rationalize its footprint by transitioning analytical services to Singapore. This move complements AMRI’s announcement that it has shifted computational chemistry services from its site in Budapest, Hungary to its research center in Hyderabad, India. As a result, in the first quarter of 2012, the company recorded an asset impairment charge of $4.4 million with the company’s decision to close its Bothell facility; and a $4.0 million property and equipment impairment charge by ceasing operations in Budapest. AMRI hopes that these initiatives to reduce the company’s workforce will provide it with the right capacity and a more balanced cost structure to effectively provide contract services to new and existing clients.

9.2.5 Laboratory Accreditations and Certifications

Laboratory certifications are a testament to a CRO’s ability to meet stringent domestic and international standards for quality and process. These certifications are important to service providers because it tells prospective clients that their clinical and manufacturing practices have been inspected and approved by regulatory bodies, which instill greater trust and confidence in the work agreed upon under contract.
Resource Management Strategies

9.4 Firm Utilization Metrics

9.4.1 Headcount Growth YtY

9.4.1.1 AMRI and Catalent

GlobalData estimates that AMRI's headcount decreased by 4.3% year-to-year, to approximately 1,329 Full-Time Equivalents (FTEs) in 2012. We attribute the decline in headcount to AMRI's efforts to cut costs and streamline operations by shuttering its plants in Washington and Hungary, accounting for about 124 FTEs. The 4.3% reduction in headcount was significantly lower than its peer group, which reported an average headcount increase of 10.1% during 2012. Meanwhile, Catalent's headcount increased 6.1% to approximately 8,700 FTEs in 2012, an increase of 500 FTEs from 2012, due to its acquisitions of Aptuit's clinical trials business.

Figure 38 illustrates the estimated year-to-year headcount growth by company for 2012.

Figure 38: Headcount Growth by Company, 2012

Source: GlobalData Estimates & Company SEC filings.
Conversely, Parexel and Patheon were laggards in 2012 on this metric. Both companies saw their headcount increase, by 20.3% and 20.5% respectively, considerably higher than the 10.1% peer group average. Parexel’s headcount increased to approximately 12,695 FTEs to support growth in its clinical research services business in the US and in Asia, whereas Patheon saw its headcount increase to 4,700 FTEs due to its acquisitions of Sobel and Banner Pharmacaps.

9.4.2 Revenue per Employee

9.4.2.1 EPS Corp

EPS Corp has a very high employee utilization rate, and was the peer group leader on revenue per employee in 2012. GlobalData estimates the company generates approximately $269,000 in revenue per FTE, far outpacing its peer group average of $151,000. EPS’ 9.9% revenue growth was enough to outpace its 8.0% rise in headcount, which GlobalData estimates to be 1,517 FTEs at the end of 2012. We also attribute the company’s leadership status on this metric to the company beginning to reap the benefits of its operational realignment, which drove its employee utilization higher.
Appendix

11 Appendix

11.1 Research Methodology

GlobalData’s dedicated research and analysis teams consist of experienced professionals with marketing, market research and consulting backgrounds in the pharmaceutical industry, and advanced statistical expertise.

GlobalData adheres to the codes and practices of the European Pharmaceutical Market Research Association (EphMRA, ephra.org).

All GlobalData databases are continuously updated and revised. The following research methodology is followed for all databases and reports.

11.1.1 Coverage

The objective of updating GlobalData’s coverage is to ensure that it represents the most up-to-date vision of the industry possible. Changes to the industry taxonomy are built on the basis of extensive research of company, association and competitor sources. GlobalData aims to cover all major news events and deals in the pharmaceutical industry, updated on a daily basis. Company coverage is based on three key factors: revenues, products, and media attention/market potential.

- The estimated revenues of all major companies, including private and governmental, are gathered and used to prioritize coverage
- Companies which are making the news or which are of particular interest due to their innovative approach are prioritized
Appendix

11.1.2 Secondary Research

The research process begins with exhaustive secondary research on internal and external sources being carried out to source qualitative and quantitative information relating to each market. The secondary research sources that are typically referred to include, but are not limited to:

- Company websites, annual reports, financial reports, broker reports, investor presentations, and US Securities and Exchange Commission (SEC) filings
- Industry trade journals, scientific journals, and other technical literature
- Internal and external proprietary databases; Relevant patent and regulatory databases
- National government documents, statistical databases, and market reports; Procedure registries
- News articles, press releases, and web-casts specific to the companies operating in the market.
Appendix

11.2 About the Author

11.2.1 Adam Dion, Industry Analyst

Adam Dion, MSc.

Mr. Dion is an Analyst in the Healthcare Industry Dynamics Team at GlobalData. Mr. Dion is an author of GlobalData’s PharmaLeaders benchmark reports which rank the competitive positions of the top companies in the pharmaceutical, biotech, and CRO/CMO and generic drug manufacturing sectors. Adam is the lead author of the Pharmaceutical Benchmark Report and the Innovative Mid-Cap Biotech Benchmark Report. Adam also provides coverage of trends in the healthcare IT space, including mHealth and cloud computing.

Prior to joining GlobalData, Mr. Dion was an Analyst with Technology Business Research, a leading market research and consulting firm. In this role, he was responsible for coverage of blue-chip hardware, software and BPO companies, such as Dell, Apple, SAP, Acer, Wipro and Tata Consultancy, analyzing these companies’ go-to-market and vertical integration strategies, financial forecasting and competitive benchmarking. Adam also has been involved in a number of primary market studies in the consumer space, analyzing the market penetration of tablets, Netbooks, e-readers and mobile devices. His analytical commentary has been quoted by leading sources, such as The Wall Street Journal, Bloomberg, Forbes, Financial Times, The Guardian, PharmaLive, Drug Discovery News, ComputerWorld and eWeek. Adam received his B.S. in Neuroscience from Merrimack College, and M.S. in Marketing from the University of New Haven.
11.3 Director, Healthcare Industry Dynamics

Joshua Owide, B.S.

Mr. Owide is the Director of the Healthcare Industry Dynamics Team at GlobalData. Prior to joining GlobalData, Mr. Owide was a senior pharmaceutical company analyst at Datamonitor, covering large-cap companies from the US, EU and Japan. Prior to joining Datamonitor, Joshua undertook a bioinformatics studentship at the Ludwig Institute for Cancer Research where he analyzed a genome wide RNAi screen identifying the importance of specific proteins in cell morphology. Joshua holds a B.S. in Physiology from the University of Leeds (UK) where he conducted and published research in molecular biology.

11.4 Global Head of Healthcare

Bonnie Bain, Ph.D.

Dr. Bain is Global Head of Healthcare for GlobalData, managing the Medical and Pharmaceutical arms of the business. Prior to this role, she was Vice President and Global Research & Analysis Director for Informa where she oversaw the global strategy and operations for Datamonitor Healthcare’s syndicated business. Dr. Bain has over 15 years’ experience in the healthcare sector and a proven track record of developing innovative solutions on both the client and vendor sides of the business. Prior to joining Informa, Bonnie was Director of Product Development at Wood Mackenzie where she oversaw development and management of two product lines. Bonnie also worked for several years at Decision Resources as an Analyst and Project Manager. On the client side of the industry, Bonnie worked for several years as a Senior Manager in Marketing Strategy and Analytics at Boston Scientific where her work contributed to the successful commercialization of the first ever Access and Visualization Platform at the company. She has a PhD in Biochemistry and Molecular Biology from Purdue University and was a Post-Doctoral Fellow in Molecular Pharmacology at The University of Miami School of Medicine.

11.5 About the Industry Dynamics Team

GlobalData’s Industry Dynamics Team strives to provide an in-depth series of reports based on solid financial and strategic analysis to help clients make informed decisions. Our PharmaLeaders and PharmaSphere portfolios gives clients access to premium-level analysis on an industrywide basis on established and emerging players within the global pharmaceutical marketplace.
11.6 About GlobalData

GlobalData is a leading global provider of business intelligence in the Healthcare industry. GlobalData provides its clients with up-to-date information and analysis on the latest developments in drug research, disease analysis, and clinical research and development. Our integrated business intelligence solutions include a range of interactive online databases, analytical tools, reports and forecasts. Our analysis is supported by a 24/7 client support and analyst team.

GlobalData has offices in New York, San Francisco, Boston, London, India, Korea, Tokyo, and Singapore.

11.7 Disclosure Information

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