

## Emergent BioSolutions (EBS - \$34.44)

### Multiple reasons to own EBS over the coming quarters

We recently spent time with the management of EBS and we come away incrementally more positive on the name given the multiple catalysts that could help drive further appreciation of the stock over the next 6-12 months. The biggest upcoming catalyst for EBS remains the ongoing licensure of Building 55 (we anticipate 1H16) and the next follow-on contract from the USG for the continued procurement of BioThrax (we anticipate early to mid-2016). Potential ex-US sales of BioThrax remain a distinct possibility in the 2017-2018 timeframe too, should the USG not buy EBS' total supply once production triples to 25M doses/year when Building 55 is on line. EBS continue to reiterate that they expect to buy an additional asset by year-end 2015 in the CBRNE (chemical, biologic, radioactive, nuclear, explosive) space to bring in immediately accretive assets where EBS manufacturing expertise can improve margins. Reiterate Buy rating, \$40 PT.

- **Diversification the goal, but BioThrax remains the driver.** At ~70% of EBS product sales – and expected to remain there – BioThrax remains the key product to watch at EBS despite the recent acquisitions of Cangene & RSDL. With Building 55 likely on-line in 1H16 (sBLA filing 3Q15) the focus turns to the next BioThrax procurement contract from the USG. Given the ~\$100M that the USG has spent to help validate Bldg. 55 we believe that a 20M dose/year contract (at a lower ~\$17/dose price point) is realistic. We anticipate the next USG contract is likely an early-mid 2016 event.
- **Ex-US sales a real possibility in 2017-2018 timeframe.** Without excess capacity for the past 10 years, it has been difficult to truly target ex-US sales of BioThrax outside of the \$1M-\$2M annually. We model the extra 5M doses not purchased by the USG being priced in the \$40-\$50/dose range for ex-US sales.
- **Additional acquisition likely in 2H15.** EBS targeting products, divisions, and entire companies in the CBRNE (chemical, biologic, radioactive, nuclear, explosive) space to bring in immediately accretive assets where EBS manufacturing expertise can improve margins.
- **Reiterate Buy rating, \$40 price target.** Our PT is based on a sum-of-the-parts with a base business DCF value of \$31/share, cash (net of debt) and accounts receivable at the end of 2016 of \$5/share, and a pipeline/tech value of \$4/share.

### Earnings Estimates: (per share)

(Dec)	1Q	2Q	3Q	4Q	FY	P/E
<b>FY16E</b>	0.01	0.50	0.55	0.88	1.95	17.7x
<b>FY15E</b>	(0.50)A	0.22	0.63	0.98	1.50	23.0x
<b>FY14A</b>	(0.40)	0.25	0.54	0.75	1.19	28.9x
<b>FY13A</b>	(0.19)	0.31	0.36	0.33	0.99	34.8x

Source: Laidlaw & Company estimates

Healthcare / Biotechnology

Ticker: **EBS**  
Rating: **Buy**  
Price Target: **\$40.00**

### Trading Data:

Last Price (07/17/2015)	\$34.44
52-Week High (07/13/2015)	\$34.49
52-Week Low (10/15/2014)	\$19.31
Market Cap. (MM)	\$1,320
Shares Out. (MM)	38.36

### Analyst

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**Pipeline remains a potential for upside surprise.** EBS is under USG contract to develop a follow-on version of BioThrax that can be lyophilized (freeze dried) for dry storage at room temperate called NuThrax (anthrax vaccine adsorbed with CPG 7909 adjuvant). This is expected to enter phase 3 trials in 2016, with an 18-month clinical trial timeline. The USG recently funded the NuThrax trial with an up to \$31M development contract.

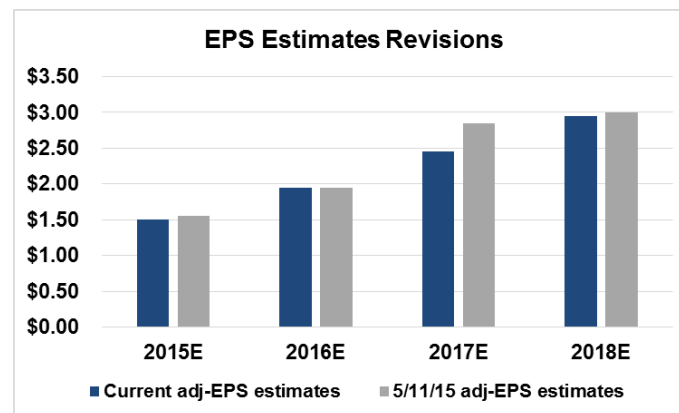
**Adjusting revenue & EPS estimates.** We have revised our 2Q15 revenue & EPS estimates from \$148.7M and \$0.48 to \$118.8M and \$0.22 respectively to more accurately reflect our current expectations for the recovery of BioThrax sales from the 1Q15 shut-down. We now anticipate a more back-end loaded BioThrax sales ramp in 2015. Management has reiterated their 2Q15 total revenues of \$105M-\$120M, and full year total revenues of \$510M-\$540M. We have adjusted our 2015-2018 revenues from \$536M, \$598M, \$657M, and \$738M to \$536M, \$598M, \$657M, and \$738M respectively. We have adjusted our 2015-2018 EPS from \$1.55, \$1.95, \$2.85, and \$3.00 to \$1.50, \$1.95, \$2.45, and \$2.95 respectively.

**Figure 1: Valuation**

Sum-of-the-parts valuation: EBS		
Segment	Valuation (000's)	Per share value
DCF of base business	\$1,508,808	\$31
Cash+USG AR (net debt), '16E	\$254,224	\$5
Technology value	\$200,000	\$4
<b>SUM</b>	<b>\$1,963,032</b>	<b>\$40</b>
Shares out '16E (000)		48,524

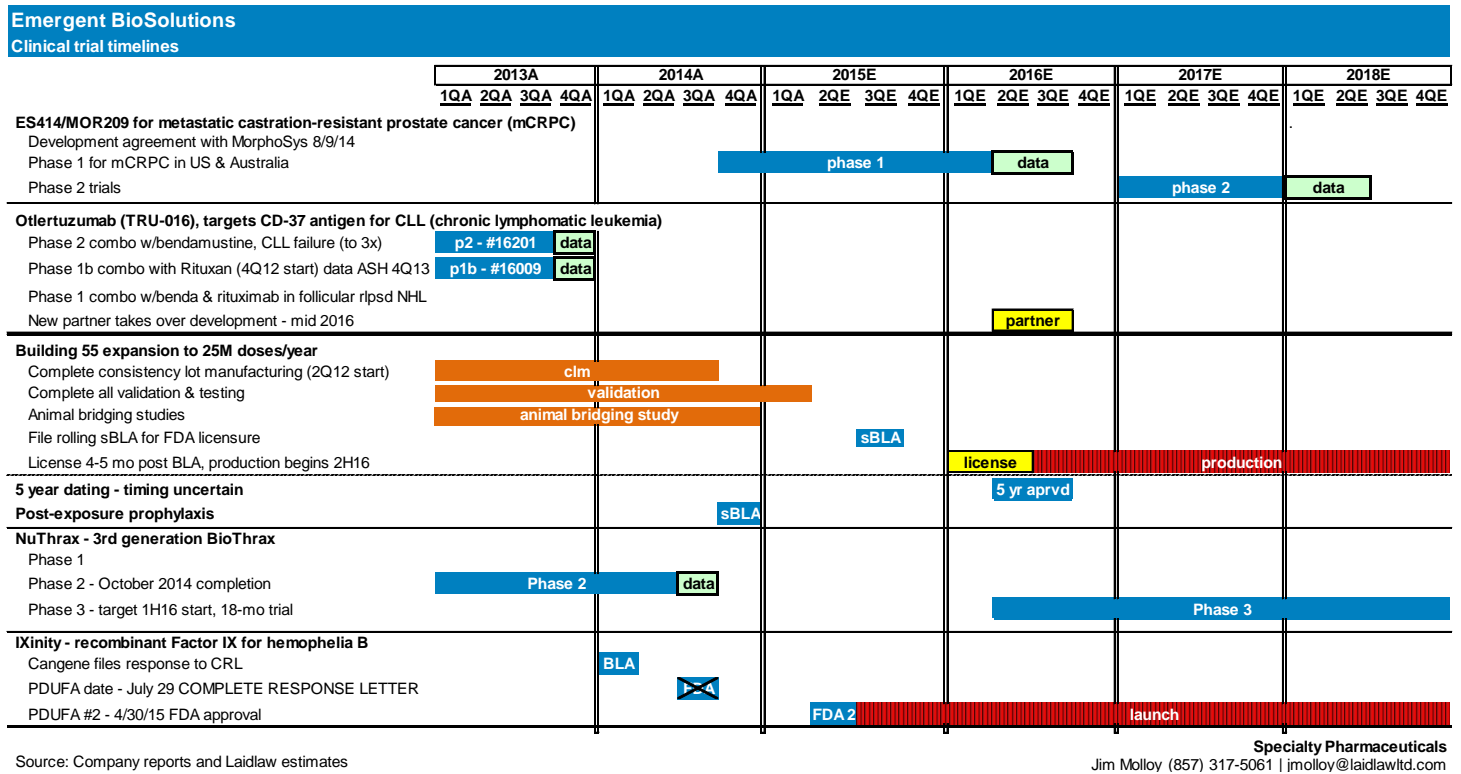
Source: Company reports; Laidlaw & Company estimates

**Figure 2: Annual EPS Revisions**



Source: Company reports; Laidlaw & Company estimates

Figure 3: Clinical Trials Timeline



Source: Bloomberg LP: Company reports; Laidlaw & Company estimates

Figure 4: Quarterly Income Statement

Emergent BioSolutions Quarterly income statement										
(\$000 except per share)	2014A				2014A Year	2015E				2015E Year
	1QA	2QA	3QA	4QA		1QA	2QE	3QE	4QE	
BioThrax - US sales	\$24,544	\$67,500	\$66,000	\$87,900	\$245,944	\$0	\$55,000	\$97,500	\$126,000	\$278,500
BioThrax - OUS sales										
Other Biodefense	2,500	7,275	11,675	10,911	32,350	11,945	7,000	7,500	8,000	34,445
<b>Total Biodefense</b>	<b>27,044</b>	<b>74,775</b>	<b>77,675</b>	<b>98,811</b>	<b>278,305</b>	<b>11,945</b>	<b>62,000</b>	<b>105,000</b>	<b>134,000</b>	<b>312,945</b>
<b>Total Biosciences</b>	<b>8,723</b>	<b>3,494</b>	<b>6,782</b>	<b>11,050</b>	<b>30,060</b>	<b>6,345</b>	<b>14,250</b>	<b>14,750</b>	<b>15,075</b>	<b>50,420</b>
Contract manufacturing	2,726	9,187	9,433	9,589	30,935	12,243	9,500	9,500	9,500	40,743
Contracts & grants	15,391	22,869	44,064	28,525	110,849	33,099	33,000	33,000	33,000	132,099
<b>Total revenues</b>	<b>\$53,884</b>	<b>\$110,325</b>	<b>\$137,954</b>	<b>\$147,975</b>	<b>\$450,138</b>	<b>63,633</b>	<b>118,750</b>	<b>162,250</b>	<b>191,575</b>	<b>\$536,208</b>
<b>Expenses</b>										
COGS	16,997	31,607	30,423	29,185	108,212	16,048	34,063	40,138	38,230	128,478
<b>Gross margin</b>	<b>36,887</b>	<b>78,718</b>	<b>107,531</b>	<b>118,790</b>	<b>341,926</b>	<b>47,585</b>	<b>84,688</b>	<b>122,113</b>	<b>153,345</b>	<b>407,730</b>
% product sales	56%	64%	68%	76%	68%	47%	60%	69%	76%	68%
R&D	30,256	37,401	44,207	38,965	150,829	38,702	38,750	38,750	39,000	155,202
SG&A	24,089	27,155	27,692	28,705	107,641	33,393	30,875	42,185	50,193	156,646
<b>Operating income</b>	<b>(17,458)</b>	<b>14,162</b>	<b>35,632</b>	<b>51,120</b>	<b>83,456</b>	<b>(24,510)</b>	<b>15,063</b>	<b>41,178</b>	<b>64,152</b>	<b>95,882</b>
Interest expense	3,535	3,621	1,810	1,174	10,140	1,661	1,750	1,750	2,000	7,161
Interest income, net	40	31	59	190	320	82	150	150	175	557
Other income/(expense)	512	1,322	420	672	2,926	100	500	500	500	1,600
<b>Pretax income (loss)</b>	<b>(20,441)</b>	<b>11,894</b>	<b>34,301</b>	<b>50,808</b>	<b>76,562</b>	<b>(25,989)</b>	<b>13,963</b>	<b>40,078</b>	<b>62,827</b>	<b>90,878</b>
Tax exp/(benefit)	(5,805)	2,465	9,269	16,192	22,121	(7,169)	3,630	10,420	16,335	23,217
Loss to non-ctrl interest					-					
<b>Adjusted Net Income</b>	<b>(14,636)</b>	<b>9,429</b>	<b>25,032</b>	<b>34,616</b>	<b>54,441</b>	<b>(18,820)</b>	<b>10,332</b>	<b>29,657</b>	<b>46,492</b>	<b>67,662</b>
Non-cash charges	(5,600)	(4,400)	(3,200)	(4,500)	(17,700)	(2,700)	(4,000)	(4,000)	(4,000)	(14,700)
<b>GAAP net income</b>	<b>(20,236)</b>	<b>5,029</b>	<b>21,832</b>	<b>30,116</b>	<b>36,741</b>	<b>(21,520)</b>	<b>6,332</b>	<b>25,657</b>	<b>42,492</b>	<b>52,962</b>
<b>EPS ex non-cash items</b>	<b>(\$0.40)</b>	<b>\$0.25</b>	<b>\$0.54</b>	<b>\$0.75</b>	<b>\$1.19</b>	<b>(\$0.50)</b>	<b>\$0.22</b>	<b>\$0.63</b>	<b>\$0.98</b>	<b>\$1.50</b>
<b>EPS as reported</b>	<b>(\$0.55)</b>	<b>\$0.13</b>	<b>\$0.47</b>	<b>\$0.65</b>	<b>\$0.80</b>	<b>(\$0.57)</b>	<b>\$0.13</b>	<b>\$0.54</b>	<b>\$0.89</b>	<b>\$1.18</b>
Fully diluted shares (000)	36,854	38,333	46,557	46,391	45,803	37,949	46,949	47,299	47,649	44,962
<b>Margin &amp; expense analysis</b>										
Gross Margin (% prod. sales)	56%	64%	68%	76%	68%	47%	60%	69%	76%	68%
Op margin (% prod. sales)	-45%	16%	38%	43%	25%	-80%	18%	32%	40%	24%
Taxes	28%	21%	27%	32%	29%	28%	26%	26%	26%	26%
Net margin	-27%	9%	18%	23%	12%	-30%	9%	18%	24%	13%
<b>Year-over-year change</b>										
Net revenue	25%	34%	55%	51%	44%	18%	8%	18%	29%	19%
R&D	5%	27%	53%	30%	26%	28%	4%	-12%	0%	3%
SG&A	20%	36%	26%	19%	34%	39%	14%	52%	75%	46%
Operating income	54%	-12%	96%	133%	65%	40%	6%	16%	25%	15%
Net income	120%	-17%	86%	183%	50%	29%	10%	18%	34%	24%

Source: Company reports and Laidlaw estimates

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Source: Bloomberg LP; Company reports; Laidlaw &amp; Company estimates

Figure 5: Annual Income Statement

<b>Emergent BioSolutions</b>						
<b>Annual income statement</b>						
(\$'000 except per share)	2014A	2015E	2016E	2017E	2018E	Comments
BioThrax - US sales	\$245,944	\$278,500	\$328,000	\$335,000	\$350,000	2015E guide: \$270M-\$285M - reinstated 4/22/15
BioThrax - OUS sales				\$40,000	\$78,000	Excess Bldg 55 production sold OUS
Other Biodefense	<u>32,350</u>	<u>34,445</u>	<u>34,000</u>	<u>36,750</u>	<u>43,500</u>	RSDL, BAT, other Biodefense here
<b>Total Biodefense</b>	<b>278,305</b>	<b>312,945</b>	<b>362,000</b>	<b>411,750</b>	<b>471,500</b>	
<b>Total biosciences</b>	<b>30,060</b>	<b>50,420</b>	<b>62,750</b>	<b>65,700</b>	<b>70,850</b>	WinRHo; HepaGam, Ixinity, other Bioscience here
Contract manufacturing	30,935	40,743	39,000	40,000	41,000	Acquired with Cangene 3Q13
Contracts & grants	110,849	132,099	134,000	140,000	155,000	Offset in R&D
<b>Total revenues</b>	<b>\$450,138</b>	<b>\$536,208</b>	<b>\$597,750</b>	<b>\$657,450</b>	<b>\$738,350</b>	2015E guide: \$510M-\$540M - reinstated 4/22/15
<b>Expenses</b>						
COGS	108,212	128,478	150,065	163,923	174,834	
<b>Gross margin</b>	<b>341,926</b>	<b>407,730</b>	<b>447,685</b>	<b>493,528</b>	<b>563,516</b>	
% product sales	68%	68%	68%	68%	70%	Cangene impacts margins
R&D	150,829	155,202	159,750	166,250	181,750	
SG&A	107,641	156,646	155,415	157,163	171,975	
<b>Operating income</b>	<b>83,456</b>	<b>95,882</b>	<b>132,520</b>	<b>170,115</b>	<b>209,791</b>	
Interest expense	10,140	7,161	7,250	7,250	7,250	
Interest income, net	320	557	775	1,000	1,275	
Other inc/(exp)	2,926	1,600	2,000	2,000	2,000	
<b>Pretax income</b>	<b>76,562</b>	<b>90,878</b>	<b>128,045</b>	<b>165,865</b>	<b>205,816</b>	
Tax expense	22,121	23,217	33,292	43,125	53,512	
Loss to non-cont. int	0	0	0	0	0	
<b>Adj-Net income</b>	<b>54,441</b>	<b>67,662</b>	<b>94,753</b>	<b>122,740</b>	<b>152,304</b>	2015E Adj. guide: \$60M-\$70M - reinstated 4/22/15
Non-cash charges	(17,700)	(14,700)				
<b>GAAP net income</b>	<b>36,741</b>	<b>52,962</b>				2015E GAAP: \$50M-\$60M - reinstated 4/22/15
<b>EPS ex non-cash items</b>	<b>\$1.19</b>	<b>\$1.50</b>	<b>\$1.95</b>	<b>\$2.45</b>	<b>\$2.95</b>	25% EPS CAGR 2014-2018E
<b>EPS as reported</b>	<b>\$0.80</b>	<b>\$1.18</b>				
Fully diluted shares (000)	45,803	44,962	48,524	50,049	51,649	
<b>Margin &amp; expense analysis</b>						
Gross Margin	68%	68%	68%	68%	70%	
Operating margin	25%	24%	29%	33%	36%	
Taxes	29%	26%	26%	26%	26%	Guide: high 20% range
Net margin	12%	13%	16%	19%	21%	
<b>Year-over-year change</b>						
Net revenue	44%	19%	11%	10%	12%	
R&D	26%	3%	3%	4%	9%	
SG&A	34%	46%	-1%	1%	9%	
Operating income	65%	15%	38%	28%	23%	
Net income	50%	24%	40%	30%	24%	
EPS	21%	27%	30%	26%	20%	

Source: Company reports and Laidlaw estimates

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Source: Bloomberg LP; Company reports; Laidlaw &amp; Company estimates

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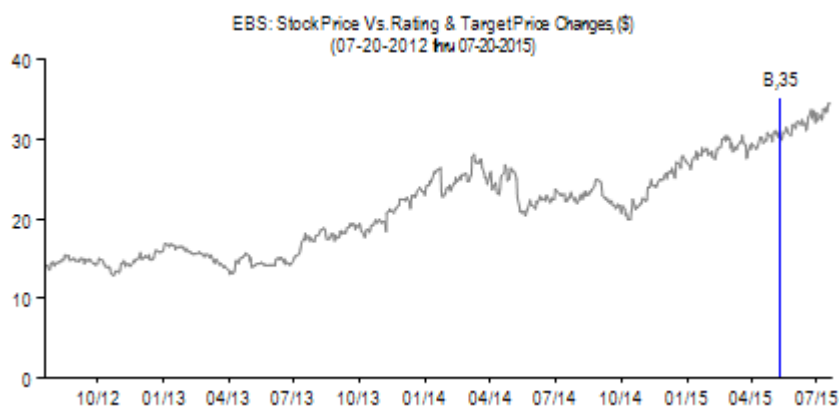
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#### Rating and Price Target Change History



#### 3 Year Rating Change History

Date	Rating	Closing Price (\$)
05/11/2015	Buy (B)	31.11

#### 3 Year Price Change History

Date	Target Price (\$)	Closing Price, (\$)
05/11/2015	35.00	31.11

Source: Laidlaw & Company

Created by: Blue-Compass.net

Laidlaw & Company Rating System*		% of Companies Under Coverage With This Rating	% of Companies for which Laidlaw & Company has performed services for in the last 12 months	
			Investment Banking	Brokerage
<b>Strong Buy (SB)</b>	Expected to significantly outperform the sector over 12 months.	0.00%	0.00%	0.00%
<b>Buy (B)</b>	Expected to outperform the sector average over 12 months.	75.00%	32.14%	7.14%
<b>Hold (H)</b>	Expected returns to be in line with the sector average over 12 months.	3.57%	0.00%	0.00%
<b>Sell (S)</b>	Returns expected to significantly underperform the sector average over 12 months.	0.00%	0.00%	0.00%

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