

# LiDCO Group Plc

## Interim Results Presentation

Six months to 31 July 2015

13 October 2015

**Matt Sassone**

Chief Executive Officer

**Paul Clifford**

Finance Director



Emergency Room



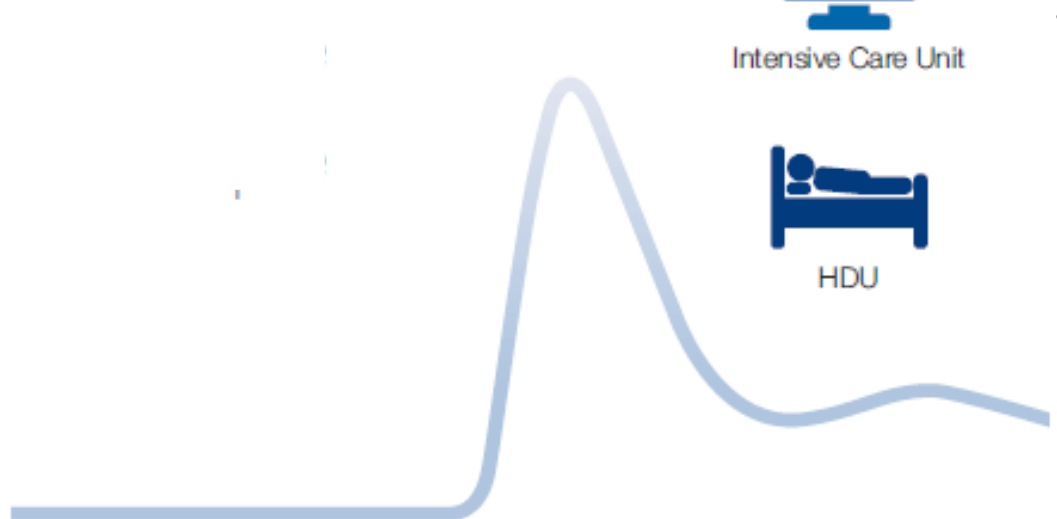
Operating Room



Intensive Care Unit



HDU



- AIM listed medical devices company
- LiDCO is a supplier of minimally and non-invasive hemodynamic equipment
- Addressing a potential \$2bn market with comprehensive product solutions addressing intensive care and high-risk surgical patient pathways
- Use of LiDCO's patented technology has been shown to significantly reduce morbidity and complications, length of stay and overall costs associated with major surgery
- Year of transition as Matt Sassone takes over from founding CEO, Terry O'Brien

# LiDCO's Product Offering

LiDCO



## SmartCard

- ✓ Flexible approach - Single card payment
- ✓ Pathway approach across perioperative period



## Non-Invasive

- ✓ Unique two finger cuff
- ✓ Flexibility across the perioperative pathway
- ✓ Continuous non invasive blood pressure



## Minimally Invasive

- ✓ Arterial line
- ✓ Patented user display
- ✓ Validated PulseCO™ algorithm



## Calibrated

- ✓ Added Lithium calibration – ICU focus

# Why LiDCO?

## LiDCO hemodynamic monitoring Powering the clinical pathway



### Safe

- ✓ Calibrated cardiac output values from existing radial and venous catheters
- ✓ Dual finger cuff for non-invasive use
- ✓ Extensively validated including when used with vasoactive drugs<sup>1, 2, 3</sup>

### Proven

- ✓ Only arterial waveform analysis algorithm unchanged in 15 years
- ✓ Over 200 clinical studies<sup>4</sup>
- ✓ Improved patient outcomes<sup>5, 6, 7, 8</sup>

### Flexible

- ✓ Switch from non-invasive to invasive with the same disposable
- ✓ LiDCO*rapid* can be calibrated with any valid cardiac output measurement
- ✓ Hemodynamic management across the whole clinical pathway<sup>6</sup>

### Unique

- ✓ Single disposable for both invasive and dual cuff non-invasive monitoring
- ✓ Non-invasive CNAP calibrated to brachial arm cuff
- ✓ Depth of anaesthesia monitoring<sup>9</sup>

1 Hadan M, Sweeney D, Finley M. The effects of vasoactive drugs on pulse pressure + stroke volume variation in post-operative ventilated patients (2011). *Journal of Critical Care*. Jun; 26 (3): 303-311. doi:10.1016/j.jcc.2010.08.015

2 Mora B, Ica J, Bivarirang B, Srinivasan K, Parricka E, Antermit H, J Dvorzhak, M (2011) Validation of cardiac output measurement with the LiDCO™ pulse contour system in patients with impaired left ventricular function after cardiac surgery. *Anaesthesia* 66(8):675-81

3 Dyer R, Rarcy J, Reed A, Strathie G, Lombard C, Anthony J, James M (2011) Comparison between pulse waveform analysis and thermodilution cardiac output determination in patients with severe pre-eclampsia. *Brit Journal of Anaesthesia* 108 (1): 77 - 81

4 <http://www.lioco.com/outcomes/outcomes.php>

5 Pearse R, Dawson D, Fearnot J, Rhodes A, Grounds RM, Bennett ED (2005) Early goal-directed therapy after major surgery reduces complications and duration of hospital stay. A randomised, controlled trial. *Crit Care* 9 (3): 687-693

6 S. Huddart, C. J. Peden, M. Swart, B. McCormick, M. Dickinson, M. A. Mohammed and N. Quinley (2014) Use of a Care Bundle to Reduce Mortality after Emergency Laparotomy. *British Journal of Surgery* 2014. doi:10.1002/bjs.9558

7 Thomson R, Mearns H, Valencia O, Al-Subais N. Goal Directed therapy following cardiac surgery and the incidence of acute kidney injury. *Journal of Critical Care* (2014), doi: 10.1016/j.jcc.2014.06.011

8 Hata J, Stotts C, Shelsky C, Rajman E, Frazier A, Wang J, Nickel E (2011) Reduced mortality with noninvasive hemodynamic monitoring of shock. *J Crit Care* vol 26 (2):224. E1-8

9 Gan T, Glas P, Windsor A, Payne F, Rosow C, Sebel P, Manberg P. Bispectral index monitoring allows faster emergence and improved recovery from propofol, alfentanil, and nitrous oxide anaesthesia. *IS5™ Utility Study Group*. (1997) *Anesthesiology* 87(4):805-815

# Overview – Six months to 30 July 2015



- Surgery disposables (excluding 3<sup>rd</sup> party products) revenue up 2% to £1.48m (2014: £1.45m).
- Total revenue down 3% to £3.60m (2014: £3.71m)
- Loss before tax\* £525,000 (2014: £190,000) after planned increase in sales infrastructure costs
- 5 year agreement signed with US group purchasing organisation MedAssets working on behalf of a large US healthcare group comprising 38 hospitals across 8 states
- 65 monitors sold/placed in the period (2014: 128); 29 surgical monitors (2014: 33) installed in the UK
- Development of LiDCO*rapid*<sup>v3</sup> Unity product on track with registration expected later this year
- Cash at period end £1.39m (31 Jan 2015: £1.51m). Company remains debt free and well-funded

\* *before share based payments and exceptional cost*

# Income Statement Summary

- Total revenue decreased by 3%
  - 2% increase in surgical disposables
  - Reduced UK ICU disposables
  - In-market sales in Japan growing but no sales to distributor
  - Reduced US & EU monitors sales
  - EU & ROW revenues up 8%
- Margin 80% (2014: 82%)
  - ICU disposables 84%
  - Surgery disposables 96%
- Overheads (before exceptional cost) up by £201,000 after planned increase in UK sales infrastructure

	6 months to July 2015 £'000	6 months to July 2014 £'000
Revenue	<b>3,603</b>	3,708
Cost of sales	<b>(1,229)</b>	(1,192)
Gross profit	<b>2,374</b>	2,516
Administrative expenses	<b>(2,945)</b>	(2,744)
Exceptional cost	<b>(120)</b>	-
Total costs	<b>(3,065)</b>	<b>(2,744)</b>
Operating loss	<b>(691)</b>	(228)
Net finance income / (expense)	<b>2</b>	(2)
Loss before tax	<b>(689)</b>	(230)
Income tax	<b>(3)</b>	(14)
Loss after tax	<b>(692)</b>	(244)
Loss before tax, share based payment and exceptional cost	<b>(525)</b>	(190)

# Revenues by Region

	6 months to July 2015				6 months to July 2014			
	Monitors	Disposables	Other	Total	Monitors	Disposables	Other	Total
	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000
<b>LiDCO sales</b>								
<b>UK</b>	205	1,342	162	1,709	180	1,466	140	1,786
<b>US</b>	20	468	5	493	118	462	5	585
<b>Japan</b>	8	-	-	8	-	-	-	-
<b>Europe</b>	33	240	6	279	84	203	8	295
<b>Rest of World</b>	145	123	3	271	137	75	2	214
	<b>411</b>	<b>2,173</b>	<b>176</b>	<b>2,760</b>	519	2,206	155	2,880
<b>3rd party sales</b>								
<b>UK</b>	-	843	-	843	-	828	-	828
<b>Total sales</b>	<b>411</b>	<b>3,016</b>	<b>176</b>	<b>3,603</b>	519	3,034	155	3,708

- **UK:** Disposables sales impacted by continuation of some de-stocking within the NHS
- **US:** Focus during Q1 on the major hospital group evaluation. Stronger H2 expected
- **Japan:** In-market sales by our distributor are growing, although this is yet to translate into new orders
- **EU & ROW:** Revenues up 8% as we continue to expand internationally

**Stronger H2 expected in all territories**

# Cash Flow and Working Capital

- H1 benefit from collection of high year end receivables in January 2015
- Receivables reduced by £661k in period
- Inventory down £43k and further reduction expected in H2
- Product development cost of £287k and should be lower in H2
- Closing cash £1.39m
- Well funded and no borrowings
- Expect H2 to be cash neutral/generative

	6 months to July 2015 £'000	6 months to July 2014 £'000
Loss before tax	(689)	(230)
Net cash flow from operating activities	315	(90)
Cash used in investing	(439)	(422)
Net cash flow before financing	(124)	(512)
Net cash flow - financing	0	(52)
Net change in cash	(124)	(564)
Opening cash	1,509	2,373
Closing cash	1,385	1,809

**Well funded with no borrowings**



## Supporting the use of hemodynamic monitoring

*Intraoperative goal directed hemodynamic therapy in non-cardiac surgery: a systematic review and meta-analysis.*

*Javier Ripollés, et al*

*Brazilian Society of Anaesthesia 2015*

- **Meta-analysis of 29 randomised controlled trials**
- **Analysing the effect of GDHT (Goal Directed Hemodynamic Therapy) in adult non-cardiac surgery patients**
- **The authors concluded (with high statistical significance  $p < 0.001$ ) that the use of GDHT with minimally invasive monitoring decreases post-operative complications and that “potential cost savings resulting from GDHT were substantial”**

## Validating LiDCO's technology

*Evaluation of the utility of the Vigileo FloTrac™, LiDCO™, USCOM and CardioQ™ to detect hypovolaemia in conscious volunteers: a proof of concept study.*

*E. O'Loughlin, et al*

*Anaesthesia 2015*

- **Difference from baseline stroke volume (a measure of the circulation's ability to fill the heart effectively) was detected quickest by the LiDCOrapid device after only 2.5% blood loss**
- **USCOM device detected after three times as much blood had been lost (7.5%)**
- **Deltex CardioQ and Edwards FloTrac devices detected after five times as much blood had been lost (12.5%)**

**Wealth of clinical evidence supporting use**

## Today

- Recognised global brand
- Strong clinical heritage
- Direct in UK & US
- Sold in 40 countries globally
- Licencing arrangement with ICU Medical

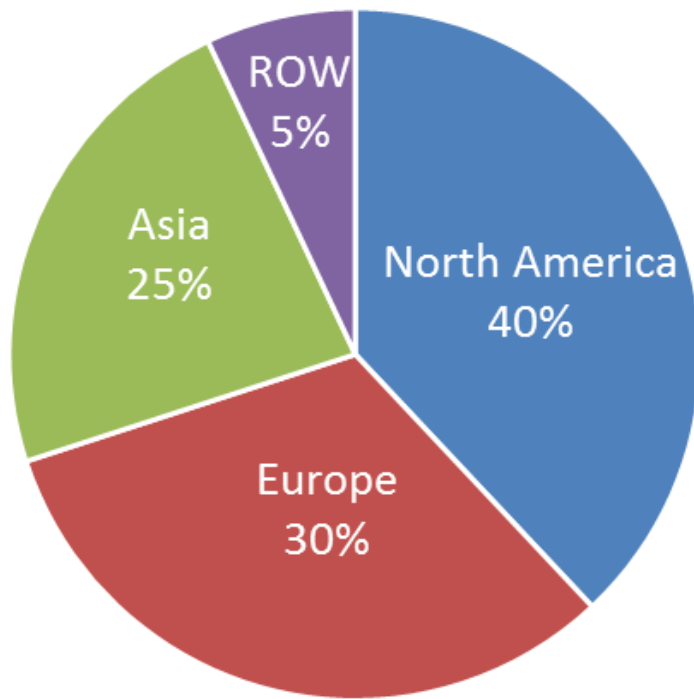
## Drivers for greater growth

- 1 Commercial focus
- 2 Geographical expansion
- 3 Focus on specific market applications
- 4 Maintain technology leadership

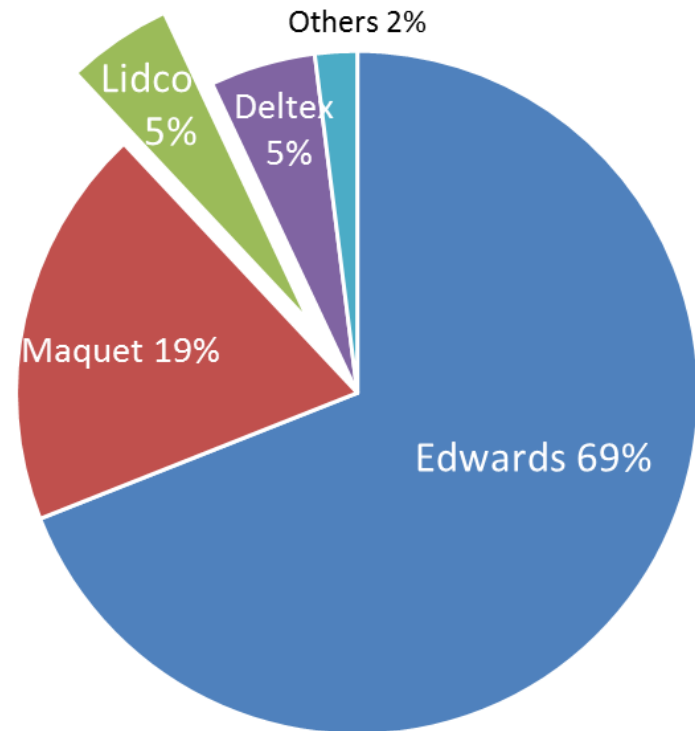
Sales execution phase of LiDCO's evolution 

# Market Dynamics

## Global Market



## Competitive Landscape



*Source: Management estimates*

# USA Market

LiDCO



- Largest market for hemodynamic monitoring with positive market dynamics
- Growing interest in Enhanced Surgical Recovery (ERAS) and Perioperative Surgical Home (PSH) programmes







- 5 year agreement signed with US group purchasing organisation MedAssets working on behalf of a large US healthcare group following a competitive multi-site evaluation for non-invasive hemodynamic monitoring



- Royalty license arrangement
- Have submitted a 510(k) with the US FDA for their new hemodynamic monitor (Cogent) that incorporates LiDCO technology.
- This is expected to produce an attractive complementary royalty stream once Cogent is launched.

Strategic levers to address attractive market

# USA Market

	Group Purchasing Organisations	Regional Healthcare Networks	Large University Hospitals	Individual Accounts
<b>No. of Hemodynamic equipment providers</b>	<i>N/A at present</i>	<i>Sole or Dual source</i>	<i>Multiple</i>	<i>Sole</i>
<b>Sales Coverage Required</b>	<i>LOW</i>			<i>HIGH</i>
<b>Training Intensity</b>	<i>HIGH</i>			<i>LOW</i>
<b>Market Access Approach</b>	<i>Relatively Small Direct Team + 3rd party training support</i>			<i>Large Direct Team</i>
<b>Costs</b>	<i>Flexible Cost Base (opportunity responsive)</i>			<i>High Installed Cost Base</i>

- Will build team in line with growing business
- Focus on embedding our technology as part of mandated clinical protocols within large healthcare networks, as demonstrated by our MedAssets agreement, rather than only focus on an individual account approach which is very resource intensive

**Staged investments to take advantage of opportunities**



- 158 out of 293 NHS hospitals (54%) use LiDCO products
- Increasing existing base of approximately 450 LiDCOrapid monitors will drive growth of surgery disposables
- Surgical disposables gross margin of 96%
- UK has led the way in adoption of fluid monitoring in high-risk surgery patients. Significant opportunities exist in targeted applications:

## Focus on target applications of use

<b>High risk elective Surgery</b>	Over <b>50,000</b> patients per annum [Colorectal 20,000; Vascular 20,000]
<b>Emergency laparotomy Surgery</b>	Over <b>30,000</b> patients per annum
<b>Cardiac Surgery</b>	Over <b>30,000</b> patients per annum
<b>Emergency Orthopaedic Surgery</b>	Over <b>70,000</b> patients per annum
<b>Sepsis</b>	Over <b>100,000</b> patients per annum

Source: NHS data

Year	LiDCOrapid monitors			LiDCOrapid disposables		
	H1	H2	Total	H1	H2	Total
2008/09	7	20	27	45	862	907
2009/10	15	19	34	995	1,530	2,525
2010/11	20	25	45	2,315	3,610	5,925
2011/12	19	30	49	4,745	3,990	8,735
2012/13	27	50	77	6,295	8,560	14,855
2013/14	74	46	120	11,015	12,555	23,570
2014/15	33	40	73	10,860	13,550	24,410
2015/16	29			10,750		

## Fundamentals of UK market remain attractive

# UK Market – Focused Approach



- Approximately 30,000-50,000 emergency laparotomies are done in the UK each year with an average mortality of 15%
- One of the highest risk hospital patient populations
- Cardiac output monitoring was used in fewer than 15% of all cases

*Use of a pathway quality improvement care bundle to reduce mortality after emergency laparotomy (Huddart et al. British Journal of Surgery 2014)*



- ELPQuiC pathway is a 5 step care bundle. Part of the pathway is goal directed fluid therapy using a cardiac output monitor
- The overall adjusted risk of 30-day mortality significantly decreased from 15.6% to 9.6% (p=0.001)
- The study's authors concluded that 5.97 more lives saved per 100 patients treated overall compared with outcomes before implementation of ELPQuiC bundle

**Focusing on the right high risk surgical patient groups**

# Distribution Markets

## Europe

- Clear focus on markets where we can be #1 or #2
- GDT protocol projects underway in target countries
- Working with next generation of KOLs to develop clinical studies

## Middle East

- Rapidly growing adoption of GDT
- KOL activity to embed technology
- Expanding distribution efforts across the region

## Secondary Markets

- Planning to work with master distribution management companies to better enable internal resources to focus on priority markets

## Japan

- Working with strategic partners to take market share from major incumbent
- Exploiting reimbursement to drive sales of LiDCO*rapid*
- Launching CNAP

## Asia

- Chinese registration expected next year
- Assessing options in India
- New distribution partners been signed in key markets

**Prioritising countries where LiDCO can become #1 or #2**



## Current LiDCO Offering

## Future Development

### Connectivity

- USB connectivity, Ethernet connection for remote access

### Monitoring

- Medtronic's BIS™ and CNSystem's CNAP modules

### Algorithm

- Arterial waveform algorithm PulseCO™ unchanged for 15 years

### Platform

- Consistent monitor platform to enable efficient customer upgrades

### User-ability

- Patented Graphical User Interface (GUI)

- HL7 language for embedding into hospital electronic patient records

- Fully flexible monitor with multi-source calibration capabilities


- Improvements to PulseCO™ to increase analytical power

- Refreshed look to re-enforce leadership position

- Improved aesthetics to increase customer interaction experience



Future



Embedded into every stage of patient care protocols  
with the flexibility to adapt to different needs  
during the care continuum

# Concluding Remarks

- High margin products with scalable business model
- Large, growing, attractive, global market
- Company in sales execution phase
- Gaining traction in the US without investing heavily
- UK stable with opportunities to expand further
- Platforms for greater growth in key identified markets
- New product developments on track
- Company remains debt free and well-funded

**Year of transition and the Board remains confident and excited about LiDCO's future growth prospects to deliver significant and sustainable shareholder value in the medium-term and beyond. We expect a profitable H2 2015.**

# Appendices

# Unit Sales/Installations by Region

Unit sales (incl placed monitors)	6 months to July 2015		6 months to July 2014	
	Monitors	Disposables	Monitors	Disposables
	Units	Units	Units	Units
<b>Surgery products</b>				
UK	29	10,750	33	10,860
US	6	3,285	30	3,530
Japan	-	-	-	-
Europe	5	2,595	13	1,990
Rest of World	8	1,075	23	1,155
<b>Surgery total</b>	<b>48</b>	<b>17,705</b>	<b>99</b>	<b>17,535</b>
<b>ICU products</b>				
UK	14	3,910	18	5,740
All other territories	3	3,355	11	2,446
<b>ICU total</b>	<b>17</b>	<b>7,265</b>	<b>29</b>	<b>8,186</b>
<b>Total LiDCO products</b>	<b>65</b>	<b>24,970</b>	<b>128</b>	<b>25,721</b>

# Arterial Line and Non-Invasive Disposables Market

Addressed by LiDCO*rapid*<sup>v2</sup>

LiDCO



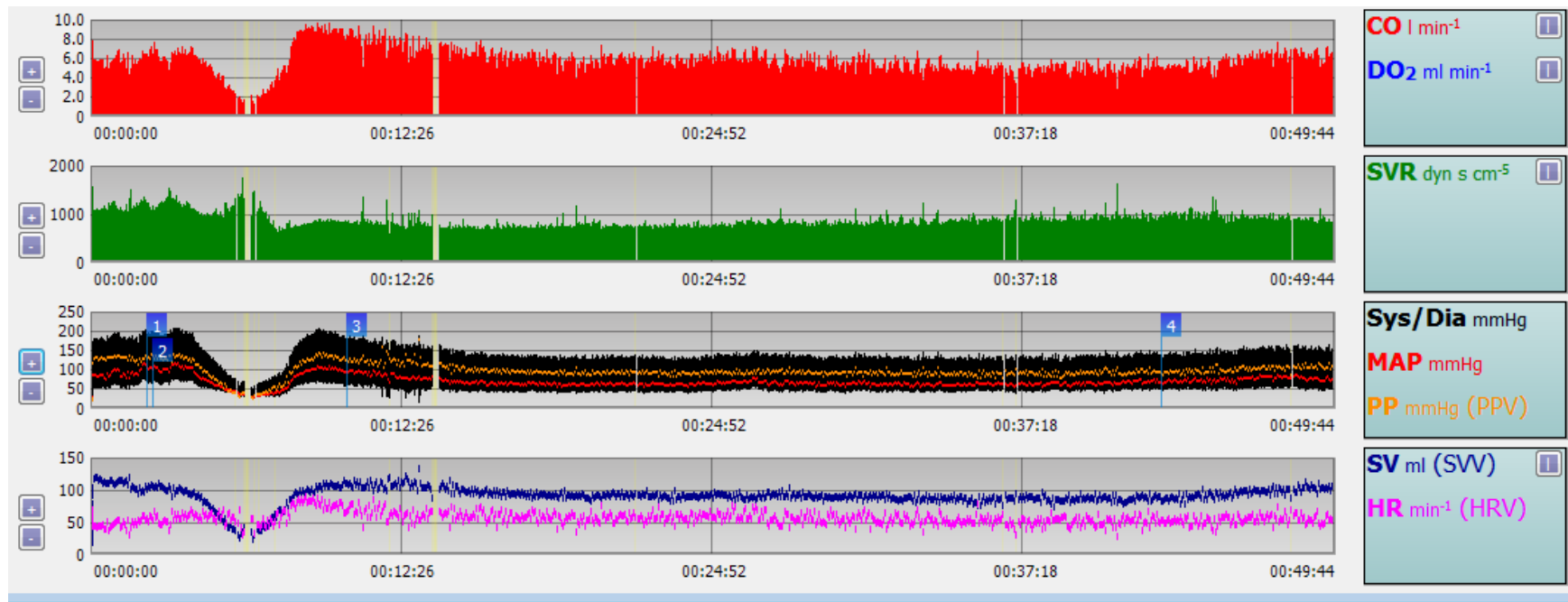
## Peri-operative Surgical Fluid & Hemodynamic Monitoring Market

Territory	UK	US	JAPAN	EU
Arterial line pts.	340,000	1,700,000	680,000	2,560,000
Non arterial line pts	340,000	1,700,000	680,000	2,560,000
Total pts. / annum	680,000	3,400,000	1,360,000	5,120,000
Average price Disposable (\$)	\$102	\$195	\$420	\$150
Disposable market value / annum	<b>\$70m</b>	<b>\$660m</b>	<b>\$570m</b>	<b>\$770m</b>

Total market for disposables addressed by LiDCO*rapid*<sup>v2</sup> \$2,071m

Source: Management estimates from published data

# Blood flow fall across induction and its correction using LiDCOrapid



# Balance Sheet

LiDCO

	31 July 2015	31 July 2014	31 Jan 2015
	£'000	£'000	£'000
Non-current assets	2,966	2,689	2,868
<b>Current assets</b>			
Inventory	2,076	2,262	2,119
Trade & other receivables	2,156	1,777	2,941
Cash	1,385	1,809	1,509
Total current assets	5,617	5,848	6,569
<b>Current liabilities</b>			
Trade & other payables	(1,377)	(1,176)	(1,596)
Deferred income	(134)	(186)	(121)
Borrowings	-	(90)	-
Total current liabilities	(1,511)	(1,452)	(1,717)
Net current assets	4,106	4,396	4,852
Net assets	7,072	7,085	7,720

# Summary Cash Flow

	6 months ended 31 July 2015 £'000	6 months ended 31 July 2014 £'000	Year ended 31 January 2015 £'000
Loss before tax	(689)	(230)	238
Net cash inflow/(outflow) from operating activities	315	(90)	274
<b>Cash flows from investing activities</b>			
Purchase of plant, property & equipment	(132)	(193)	(363)
Purchase of intangible assets	(309)	(234)	(635)
Finance income	2	5	7
Net cash used in investing activities	(439)	(422)	(991)
Net cash outflow before financing	(124)	(512)	(717)
<b>Cash flows from financing activities</b>			
Finance expense	-	(7)	(12)
Repayment of finance lease	-	(85)	(175)
Issue of ordinary share capital	-	40	40
Net cash outflow from financing activities	-	(52)	(147)
Net Increase/(decrease) in cash and cash equivalents	(124)	(564)	(864)
Opening cash and cash equivalents	1,509	2,373	2,373
Closing cash and cash equivalents	1,385	1,809	1,509