



LiDCO Group Plc Results Presentation

Year ended 31 January 2016

12 April 2016

Matt Sassone

Chief Executive Officer

Paul Clifford

Finance Director



Emergency Room



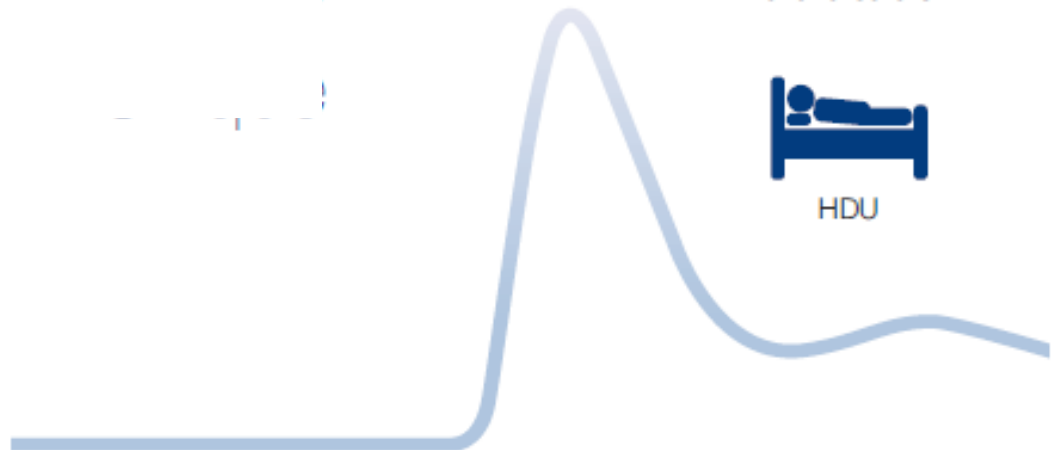
Operating Room



Intensive Care Unit



HDU



Overview



- AIM quoted medical devices company
- 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
- LiDCO's brand known globally with extensive clinical data
- 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

- Matt Sassone appointed CEO 14 August 2015

LiDCO's Product Offering



LiDCO rapid

- ✓ Arterial line input
- ✓ Plug and play from existing vital signs monitor
- ✓ Validated PulseCO™ algorithm
- ✓ Beat-to-beat analysis and display of hemodynamic parameters



LiDCO+plus

- ✓ Continuous real-time measurement with high precision
- ✓ Calibrate using LiDCO Lithium technology



LiDCO non-invasive

- ✓ Quick and easy to set-up
- ✓ Real-time continuous non-invasive blood pressure (CNATM) and hemodynamic parameters
- ✓ Dual finger cuff with automatic finger switching for safer non-invasive use



Disposables

Critical Care disposables
Lithium calibration kits



Surgery disposables
SmartCard



Why customers choose LiDCO?



Hemodynamic Monitoring for the whole patient pathway

Emergency Department



Operating Room



Intensive Care Unit



Other Patient Settings



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^{1,2,3}

Proven

- ✓ Only arterial waveform analysis algorithm unchanged in 15 years
- ✓ Over 200 clinical studies⁴
- ✓ Improved patient outcomes^{5,6,7,8}

Flexible

- ✓ Switch from non-invasive to minimally invasive to calibrated with the same disposable
- ✓ LiDCOunity can be calibrated with any valid cardiac output measurement
- ✓ Hemodynamic management across the whole clinical pathway⁶

Unique

- ✓ Single disposable for both invasive and dual cuff non-invasive monitoring
- ✓ Non-invasive CNAP calibrated to brachial arm cuff
- ✓ BIS™ Depth of anaesthesia monitoring⁹
- ✓ 96 hours of monitoring with single disposable

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): 328- E1-8. Doi: 10.1016/j.jcc.2010.08.015

² Mora B, Iloe J, Blikenberg B, Shritatz A K, Parrikia E, Ankermit H, J Dvorschak, M (2011) Validation of cardiac output measurement with the LiDCO™ pulse contour system in patients with impaired left ventricular function after cardiac surgery⁷. *Anaesthesia* 66(8):675-81

³ Dyer R, Flacey 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*. 100 (1):77 – 81

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

⁵ Pearse R, Dawson D, Fawcett J, Rhodes A, Grounds RM, Bennett ED (2005) Early goal-directed therapy after major surgery reduces complication rates 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. Quinby (2014) Use of a Care Bundle to Reduce Mortality after Emergency Laparotomy. *British Journal of Surgery* 2014; 10: 1002/bj.s.9958

⁷ Thomeon R, Morari H, Valencia O, Al-Subale 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, Bayman 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, Glass P, Windsor A, Payne F, Rawso C, Sebel P, Manberg R. Bispectral index monitoring allows faster emergence and improved recovery from propofol, alfentanil, and

nitrous oxide anesthesia. BIS™ Utility Study Group. (1997) *Anesthesiology*. 87(4):808-815

Financial highlights

- Revenue of £7.59m (2014/15: £8.27m) down 8% largely due to slippage of monitor sales
- Gross margins (excluding third party products) of 81% (2014/15: 82%)
- Surgical disposables revenue down 5% to £3.21m (2014/15: £3.39m)
- ICU disposables revenue up 2% to £1.61m (2014/15: £1.58m)
- Loss before tax* £0.34m (2014/15: profit £0.33m)
- Debt free with cash at year end of £1.59m (2014/15: £1.51m)
 - * before exceptional item and share-based payments

Operational highlights

- Year of transition with Matt Sassone appointed CEO in August 2015
- Awarded a five year purchasing agreement by MedAssets, working on behalf of a large 38 hospital US healthcare group
- Master Distribution Companies appointed for S.E. Asia, Australasia, Canada, and Sub-Sahara Africa
- Awarded a NHS Supply Chain Framework Agreement
- Renewed five year commercial agreement with Argon Medical to distribute their pressure monitoring products in UK & Ireland.
- Launch of new LiDCO*unity* hemodynamic monitor

Income Statement Summary



- Total revenue down by 8% largely due to slippage of monitor sales
- Margin 81% (2014/15: 82%)
 - ICU disposables 85%
 - Surgery disposables 96%
- Overheads (before exceptional cost) up by £66,000
- Exceptional cost relates to recruitment of new CEO
- Profitable H2

	Year to Jan 2016 £'000	Year to Jan 2015 £'000
Revenue	7,593	8,267
Cost of sales	(2,455)	(2,535)
Gross profit	5,138	5,732
Administrative expenses	(5,718)	(5,489)
Adjusted operating (loss)/profit	(345)	331
Exceptional cost	(163)	-
Share based payment charge	(72)	(88)
Operating profit	(580)	243
Finance income/(expense)	2	(5)
(Loss)/profit before tax	(578)	238
Income tax	105	105
(Loss)/profit after tax	(473)	343

Revenues by Region



	Year to January 2016				Year to January 2015			
	Monitors	Disposables	Other	Total	Monitors	Disposables	Other	Total
	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000
LiDCO products								
UK - Total	279	2,983	322	3,584	610	3,045	297	3,952
US - direct	86	976	9	1,071	161	929	14	1,104
Japan	9	26	-	35	3	-	-	3
Europe	145	572	15	732	290	591	18	899
Rest of World	265	264	7	536	259	406	3	668
	784	4,821	353	5,958	1,323	4,971	332	6,626
3rd party sales								
UK	-	1,635	-	1,635	-	1,641	-	1,641
Total revenue	784	6,456	353	7,593	1,323	6,612	332	8,267

- **UK:** Delayed capital purchases as customers' budgets were restricted
- **US:** Recovered from weak H1, which was affected by the major hospital group evaluation.
- **Japan:** Recommenced sales after two years without monitors or disposables orders
- **EU:** Transitioning to repeatable sustainable business transactions
- **ROW:** Underlying sales excluding China up 16%

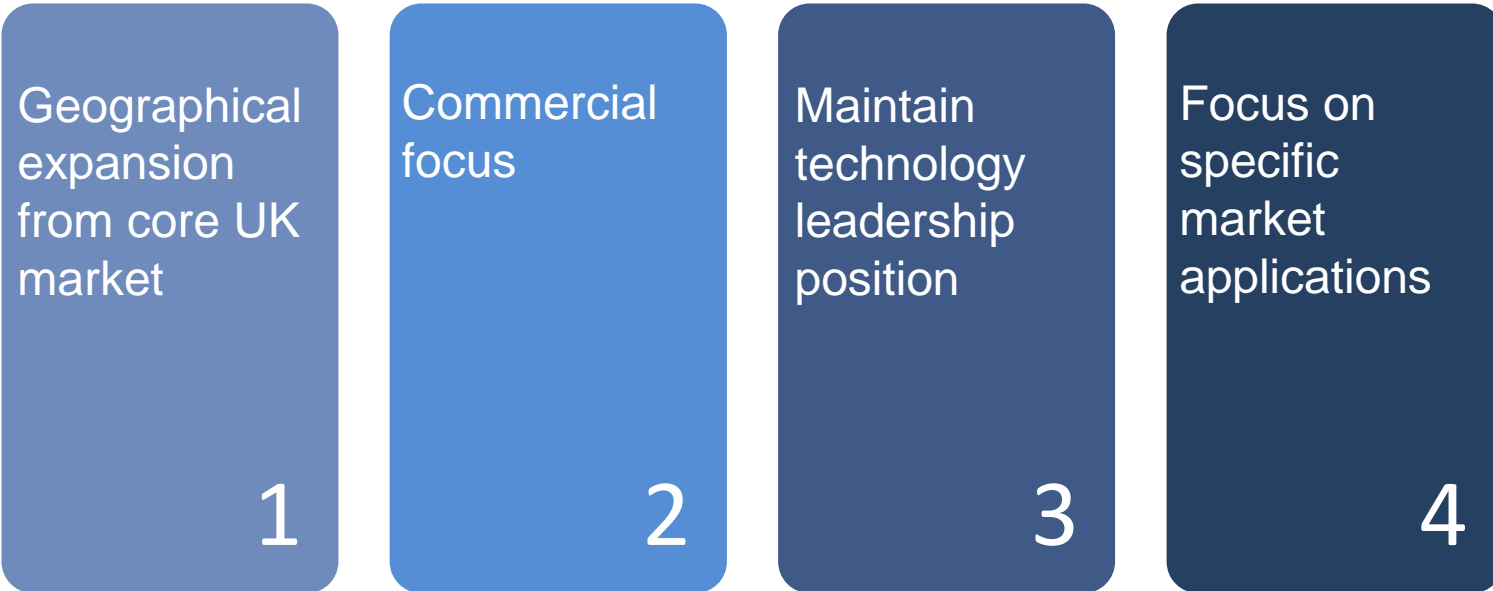
Cash Flow and Working Capital



- Inventory down £180k and further reduction expected in 2016/17
- Product development cost of £419k down from £540k in prior year
- Closing cash £1.59m
- Well funded and no borrowings

	Jan 2016 £'000	Jan 2015 £'000
(Loss)/profit before tax	(578)	238
Cash flow from operating activities	728	274
Cash used in investing activities	(649)	(991)
Cash flow before financing	79	(717)
Cash flow - financing activities	(1)	(147)
Net change in cash	78	(864)
Opening cash	1,509	2,373
Closing cash	1,587	1,509

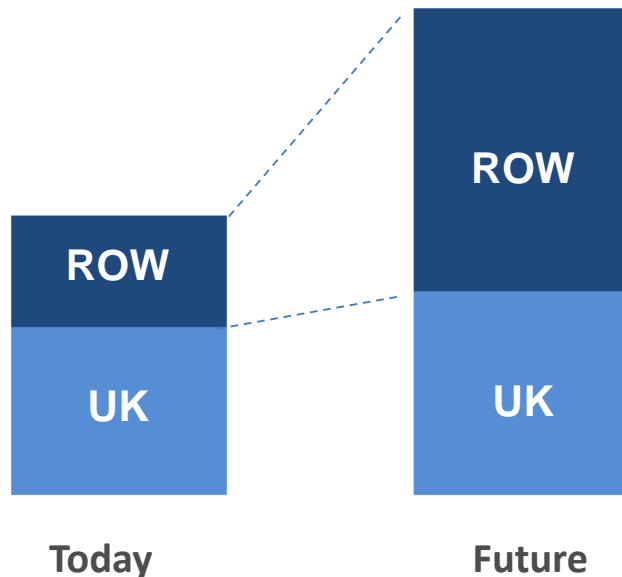
Building blocks for future success



Foundation of strong technology and growing global market

Geographical expansion

Proportion of revenue



LiDCO product revenues

Focus countries

- **US:** Largest & fastest growing market
Adopting ERAS & PSH protocols
- **EU:** High clinical awareness markets and reimbursed markets e.g. Scandinavia, Poland
- **Middle East:** Rapidly adopting protocols
- **India:** Strong economy & large opportunity
- **China:** No established dominant player
- **Japan:** Second largest hemodynamic market globally

ERAS – Enhanced Recovery After Surgery
PSH – Perioperative Surgical home

Geographical expansion

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

LOK Master Distributor

- Agreements signed for Canada, Sub-Saharan Africa
- Exploring Russia & former Soviet States

Direct Markets

- UK
- USA

Fieldman Master Distributor

- Agreements signed for South East Asia & Australasia
- Number of new distributor markets being opened

Japan

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

China

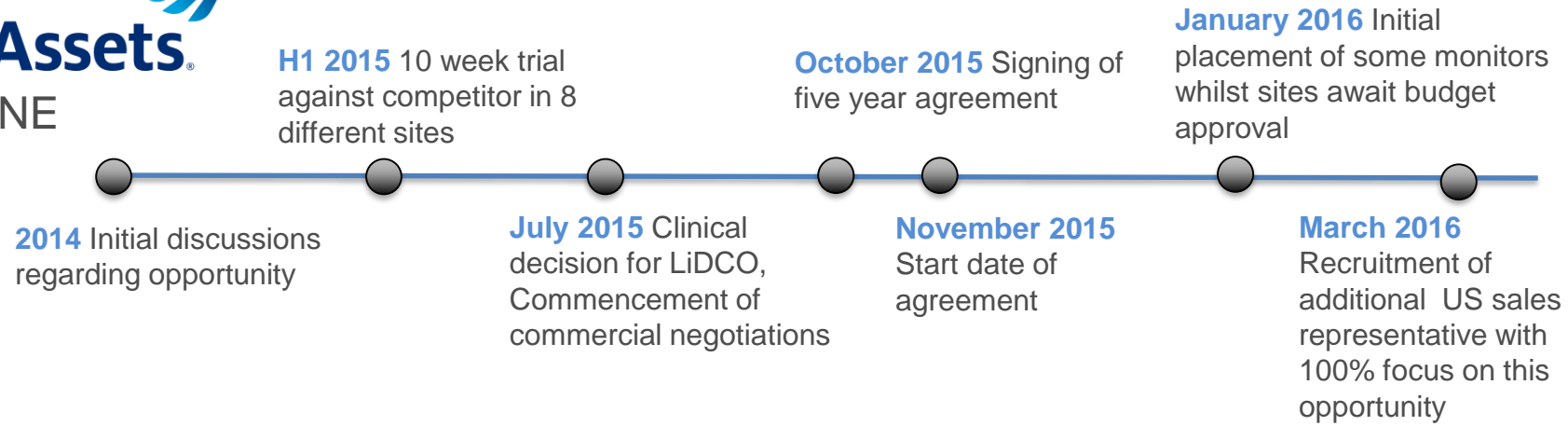
- Registration for LiDCOrapid received March 16
- Represents 5% of global medical device market

India

- New distribution partner signed

GDT – Goal Directed Therapy
KOL – Key Opinion Leader

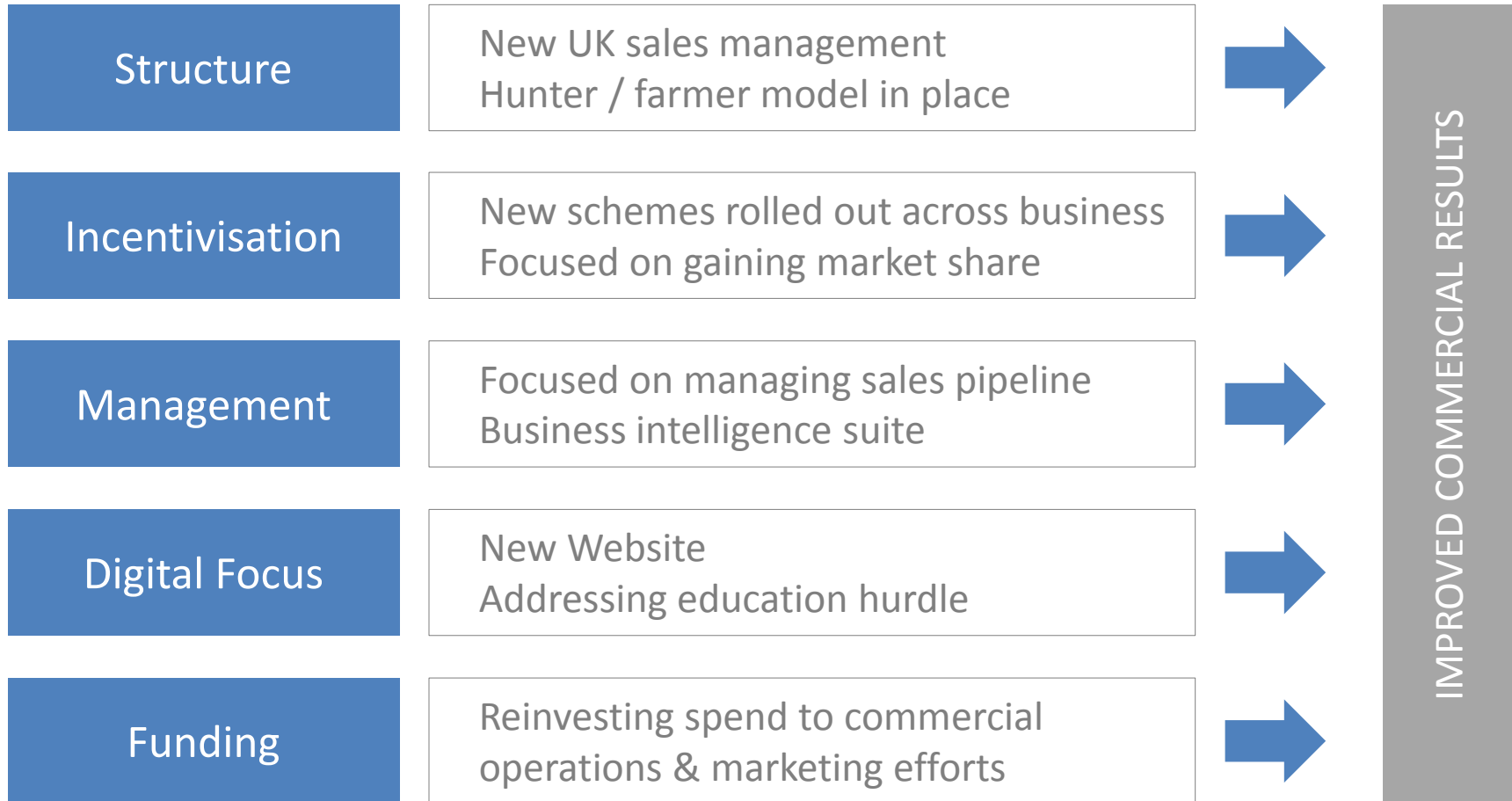
USA Market



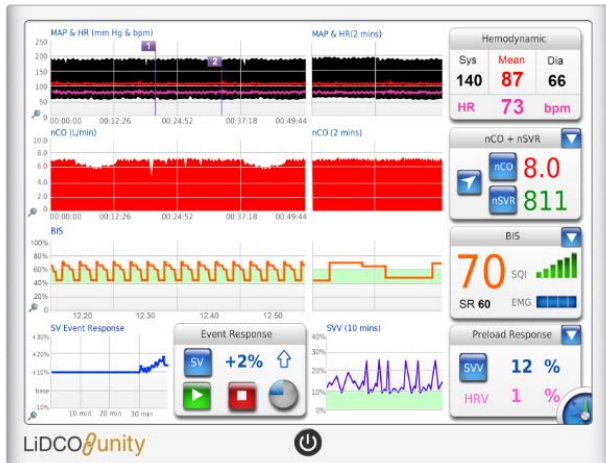
Expansion Plans

- Will progressively build team in line with growing business
- Focus on large healthcare networks, as demonstrated by our MedAssets agreement, rather than only focus on an individual account approach which is very resource intensive
- Additional headcount already added to realise MedAssets opportunity
- Identified 3rd party training partner
- Faster market access plans developed

Commercial Focus



LiDCO@unity



A new 3 in 1 multi parameter hemodynamic platform

- Combines established brands: LiDCO*plus* and LiDCO*rapid* with screens designed for either Critical Care or Operating Room focus
- Offers customers the ability to have non-invasive, minimally invasive and calibrated hemodynamic monitoring all in one platform
- Works across the Patient Pathway – A&E→OR→ITU
- Data is maintained from prior monitoring to provide complete history
- Compact screen size for easy integration around the bedside
- HL7 compatible for communication with HIS/EMR

NEW MONITOR LAUNCHED MARCH 2016 – CE Marked & FDA approved

HIS – Hospital Information Systems
EMR – Electronic Medical records

Technology Leadership



Reflected in our Corporate Partnerships



Royalty license arrangement : Licensee awaiting approval from FDA for their new monitor



Incorporated BIS™ Technology: Use recommended by NICE in UK



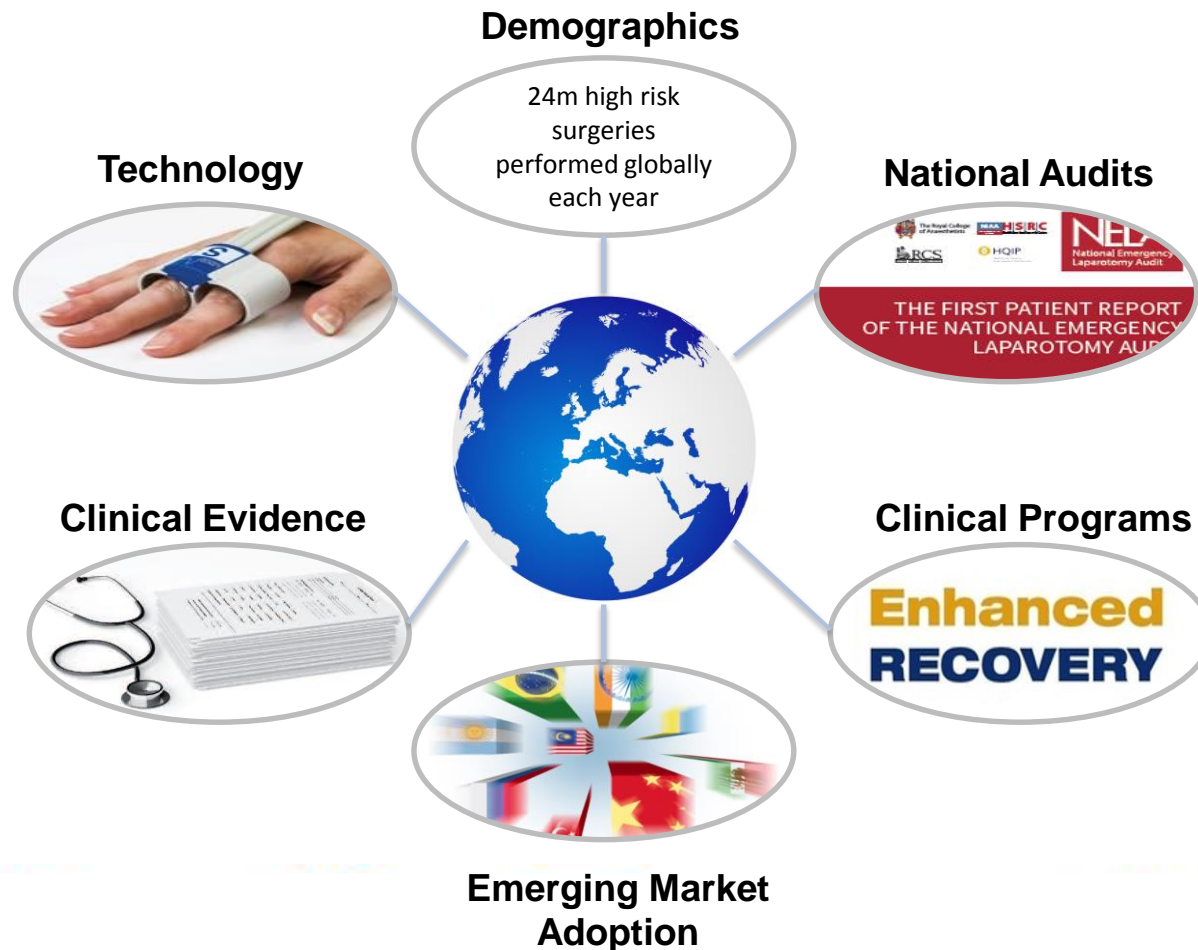
Incorporated CNAP™ Technology: Non-Invasive technology adoption - fastest growing sector



Distribution arrangement: New 5 year distribution agreement signed, securing important revenue

Focus on specific market applications

Drivers of underlying market growth



Focus on specific market applications

UK Example

High risk elective Surgery	Over 50,000 patients per annum (Colorectal 20,000; Vascular 20,000)
Emergency laparotomy Surgery	Over 30,000 patients per annum
Cardiac Surgery	Over 30,000 patients per annum
Emergency Orthopaedic Surgery	Over 70,000 patients per annum
Sepsis	Over 100,000 patients per annum

Source: NHS data

- Approximately **30,000** emergency laparotomies 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)



Emergency Laparotomy? ELPQuIC

All patients presenting with emergency abdominal conditions that REQUIRING EMERGENCY LAPAROTOMY are to be started on the Emergency Laparotomy ELP Pathway and comply to the care bundle goals below:

- 1 Early Assessment and Resuscitation**
 - MFW within 30mins of arrival in theatre
 - Outranch review if MFW > 3
 - MRS & surgical review within 30 minutes of referral
 - Measure lactate levels
 - Prompt fluid resuscitation
- 2 Early Antibiotics**
 - Within 1 hour if there is evidence of SIRS/sepsis
 - Within 5 hours if there is suspicion of anaerobic infection
- 3 Prompt diagnosis and Early surgery**
 - CT scan - Code Emergency Laparotomy - prompt
 - "Next Day" prioritisation: scan within 2 hours of booking unless report within 1 hour of scan
 - "Next Day" prioritisation on Emergency Theatre List
 - Make decision within 6 hours of decision to operate
 - Consultant surgeon and anaesthetist present in theatre
- 4 Goal Directed Fluid Therapy**
 - Goal Directed Fluid Therapy using cardiac output monitoring intra-operatively and for 8 hours post-operatively
- 5 Post-operative Intensive Care for all**
 - All patients to be cared for in intensive care
 - If no intensive care bed is available - intermediate level 2 care (e.g. Post Anaesthetic Care Unit)
 - Goal Directed Fluid Therapy for 8 hours post-operatively

Pre-operative goals

- 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

Focus on specific market applications



New clinical evidence

Announced	The Study	The Benefits
March-2015	Evaluation of the utility of the Vigileo FloTrac™, LiDCO™, USCOM and CardioQ™ to detect blood loss	LiDCO monitors have been shown to be the quickest at detecting blood loss (five times faster than our major competitors). This performance gives our customers the best chance of avoiding excessive blood loss and guiding fluid replacement
August-2015	A meta-analysis analysing the effect of GDHT (Goal Directed Hemodynamic Therapy) in adult non-cardiac surgery patients	The authors analysed the results of 10 randomised controlled trials involving 1,527 patients undergoing surgery. The authors concluded (with high statistical significance $p < 0.001$) that the use of GDHT decreases post-operative complications and that “potential cost savings resulting from GDHT were substantial.”
October-2015	A randomised study investigating the effective of goal-directed fluid therapy (GDFT) on mothers and their babies who have been selected for caesarean section.	The study concluded that LiDCO <i>rapid</i> -guided GDFT can reduce the incidence of maternal hypotension and vasopressor requirement during operation, with a subsequent decrease in the incidence of neonatal adverse events
December-2015	Using data from the trial, a cost effectiveness analysis was undertaken of the OPTIMISE study - a multi-centre trial in the UK aimed at improving surgical outcomes by GDFT	The research showed that using a conservative estimates, the size of the savings that could be achieved by the NHS over a five-year period were £65 million
January-2016	An editorial published in the World Journal of Surgery examined what can be learned from enhanced recovery after surgery programmes	Highlighted recent multi-centre study in UK that concluded the implementation of a care bundle including GDFT for patients undergoing emergency laparotomy was associated with a significant reduction in patient mortality

Further details can be found in results announcement

Summary

Delivering on Strategic Priorities

- Investing in USA to exploit opportunities
- Renewing key commercial relationships
- Implementing new distributor business model
- Launching new *LiDCOunity* product
- Focused on sales & marketing

Group remains debt free and well-funded with high margin products in a large growing market

We foresee 2016/17 as being a year of sales growth and cash generation. Whilst we expect to be profitable, we will continue to invest in the business to achieve the substantial growth opportunities that we believe are available

Appendices

Unit Sales/Installations by Region



	Year to January 2016		Year to January 2015	
LiDCO products (incl placed monitors)	Monitors Units	Disposables Units/Use	Monitors Units	Disposables Units/Use
Surgery products				
UK	48	22,965	73	24,410
US	31	6,885	37	7,065
Japan	-	500	-	-
Europe	29	6,895	37	7,210
Rest of World	29	2,730	63	6,073
Surgery total	137	39,975	210	44,758
ICU products				
All territories	23	16,777	57	15,903
Total	160	56,752	267	60,661

Arterial and Non-Invasive Disposables Market

Addressed by LiDCO products

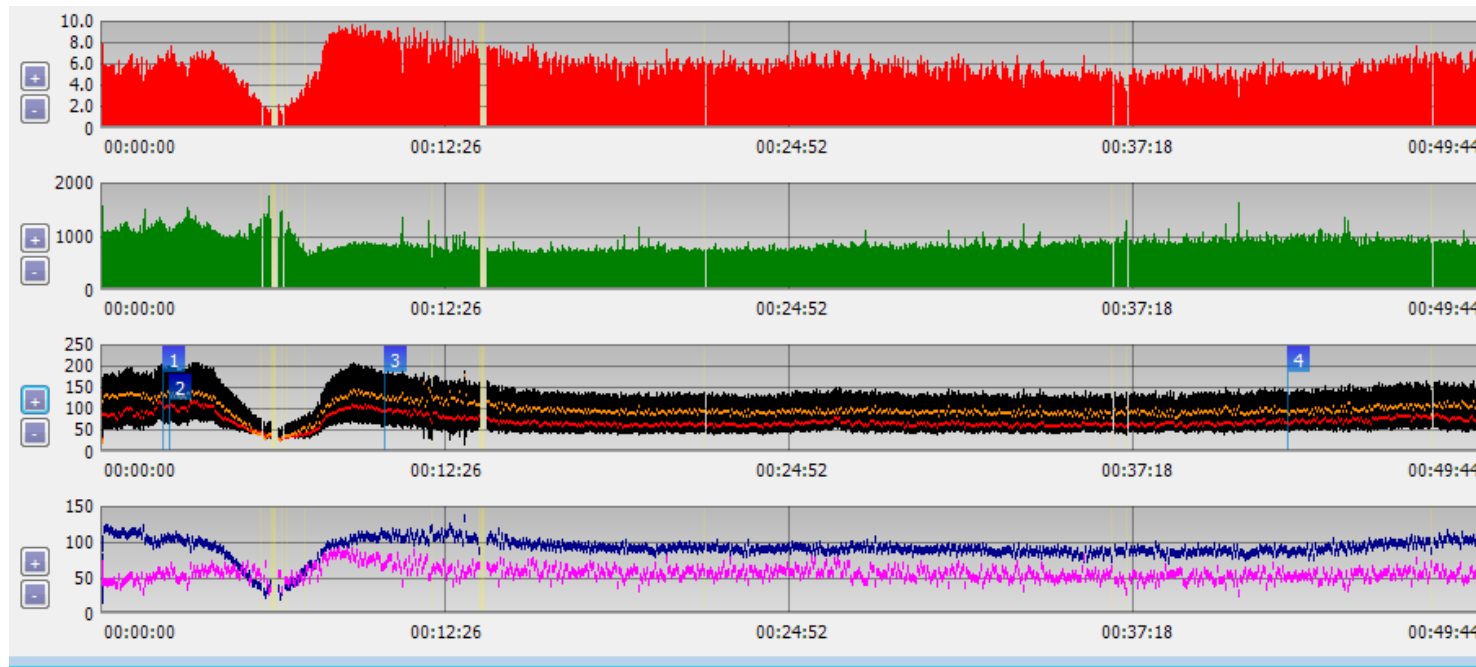


Peri-operative Surgical Fluid & Hemodynamic Monitoring Market				
Territory	UK	US	JAPAN	EU
Arterial line pts.	340,000	1,700,000	680,000	2,560,000
Non arterial line pts	340,000	1,700,000	680,000	2,560,000
Total pts. / annum	680,000	3,400,000	1,360,000	5,120,000
Average price Disposable (\$)	\$102	\$195	\$420	\$150
Disposable market value / annum	\$70m	\$660m	\$570m	\$770m

Total market for disposables addressed by LiDCO \$2 billion

Source: Management estimates from published data

Blood flow fall across induction and its correction using LiDCOrapid



Cardiac Output

Systemic Vascular Resistance

Blood Pressure

**Stroke Volume
Heart Rate**



Balance Sheet



	31 Jan 2016	31 Jan 2015
	£'000	£'000
Non-current assets	2,800	2,868
Current assets		
Inventory	1,939	2,119
Trade & other receivables	2,648	2,941
Cash	1,587	1,509
Total current assets	6,174	6,569
Current liabilities		
Trade & other payables	(1,482)	(1,596)
Deferred income	(116)	(121)
Borrowings	-	-
Total current liabilities	(1,598)	(1,717)
Net current assets	4,576	4,852
Net assets	7,376	7,720

Summary Cash Flow



	Year ended 31 January 2016 £'000	Year ended 31 January 2015 £'000
(Loss)/profit before tax	(578)	238
Net cash inflow from operating activities	728	274
Cash flows from investing activities		
Purchase of plant, property & equipment	(163)	(363)
Purchase of intangible assets	(489)	(635)
Finance income	3	7
Net cash used in investing activities	(649)	(991)
Net cash inflow/(outflow) before financing	79	(717)
Cash flows from financing activities		
Finance expense	(1)	(12)
Repayment of finance lease	-	(175)
Issue of ordinary share capital	-	40
Net cash outflow from financing activities	(1)	(147)
Net increase/(decrease) in cash and cash equivalents	78	(864)
Opening cash and cash equivalents	1,509	2,373
Closing cash and cash equivalents	1,587	1,509