



# Commercialising non-invasive cardiac monitoring technology

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# Who we are and what we do...

- Publicly listed bioscience company with world leading cardiovascular monitoring technology
- Focused on commercialising non-invasive USCOM 1A
- 10 years + \$18 million proving accuracy, safety and efficacy
- Cleared by US Food & Drug Administration (FDA), CE Mark in Europe and Australian Therapeutic Goods Administration (TGA)
- Large and rapidly growing independent peer-reviewed data demonstrates USCOM1A is superior to existing methods
- Growing brand recognition and commercial strength
- Clinical outcomes data now being used to grow sales and secure strategic commercial licensing deals and partnerships

# USCOM1A cardiac monitor

**Non invasive, accurate, compact platform technology**

Cardiac output

Stroke volume

Heart rate

Systemic  
vascular  
resistance

Left and right heart  
measurement



Works with all other  
hospital equipment

Intuitive touch screen

Real time data

**Non invasive, real time, beat-to-beat haemodynamics**

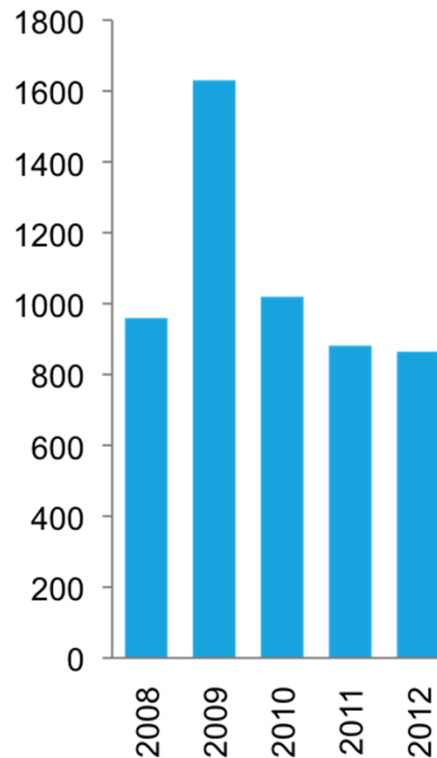
# Selected financial snapshot FY2012

ASX: UCM  
 Market cap: \$11 million  
 Shares on issue: 63 million  
 FY2012 product sales: \$0.8 million  
 Cash @ 30 Sept '12: \$1.16 million  
 Top 20 holders: 80%

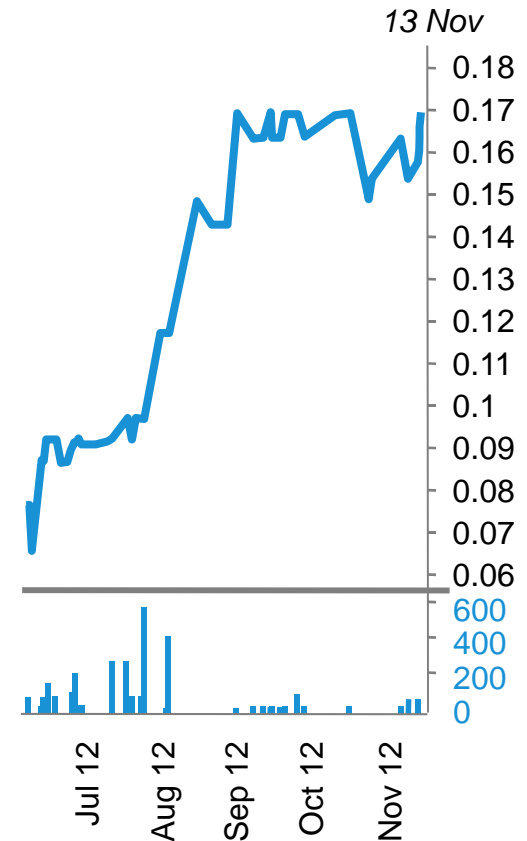
## Major holders

Rob Phillips 32.6%  
 Dr Steven Woodford 15.5%  
 Gary Davey 9.5%  
 Stream Group 4.6%  
 Bell Potter Nominees 3.3%  
 Invia Custodians 3.3%

**5-year revenues**  
 \$ thousands



**6-month share price**



## Where we are today

- Successful capital raising in September 2012 (\$1.2 million @ 12 cents)
- Sales of \$800,000 in FY2012 with quarterly cash burn of \$300,000
- Current customers - hospital paediatric, neonatal and adult intensive care units, emergency departments and anaesthesia monitoring
- 500 units currently in use worldwide
- Focused on developing additional resources and support in 2013
- Seeking growth from increased sales, new markets, licensing and strategic commercial partnerships to expand applications and use

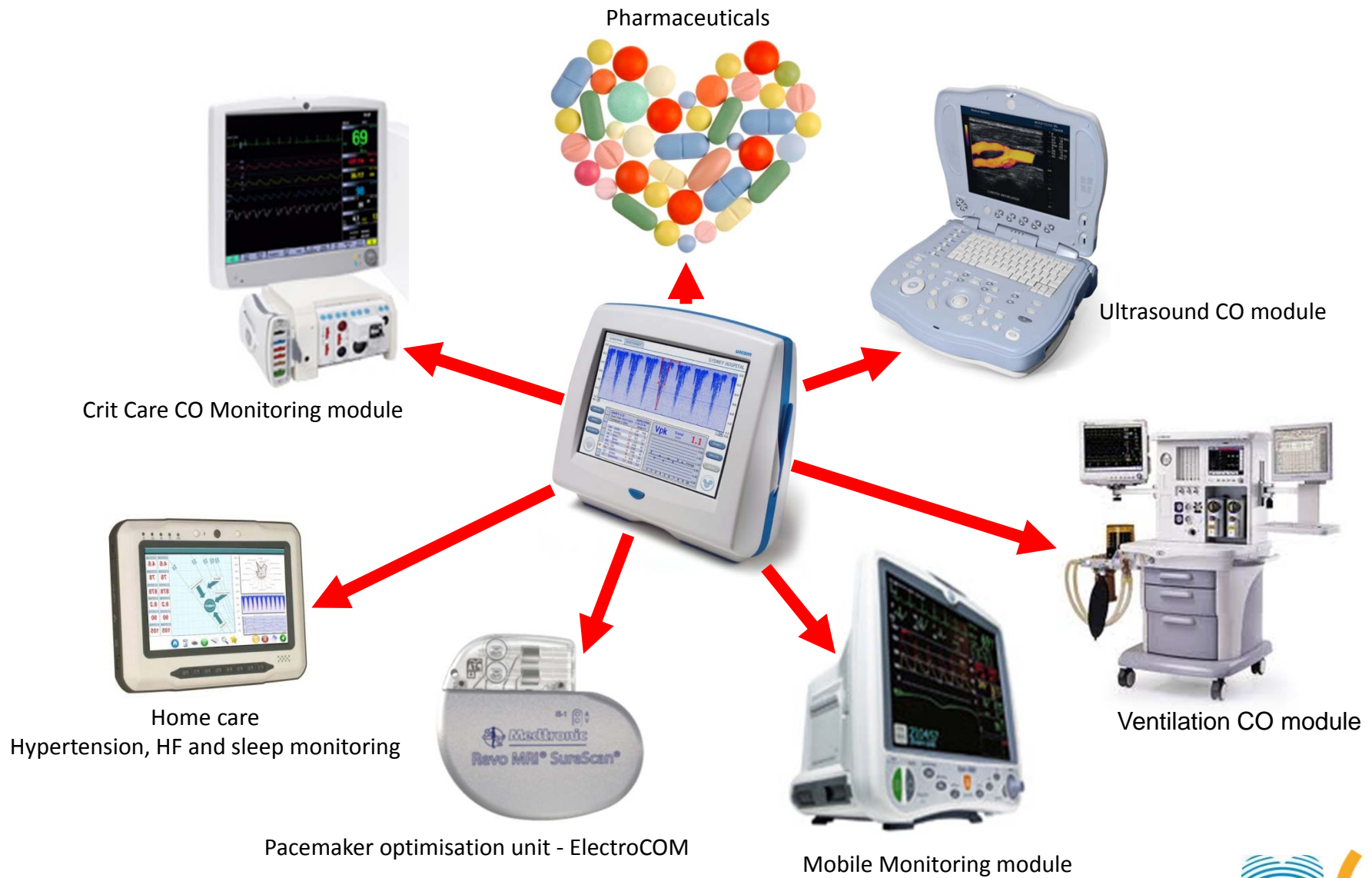
# Foundations for growth: clinical data

- Uscom has invested in building a large body of clinical evidence used to support global marketing and sales
- 250 peer reviewed publications to date – with more coming!
- Multi-application platform technology
- New data expands product application beyond current applications - i.e., *can be done by GP instead of under anaesthetic at a hospital.*

**Medical benefits:** non-invasive, safe and accurate, improved levels of critical care

**Economic benefits:** meets user and payer needs for improved care and reduced costs, expandable platform with multiple applications

# Platform technology - Strategic partnerships



# Foundations for growth: market opportunities

- Investment in clinical data is designed to support expanded use for a range of major medical needs worldwide
- **New markets** (currently un-partnered)
  - Hypertension
  - Congestive Heart failure
  - Sepsis
  - Pregnancy hypertension
  - Electrophysiology (pacemaker optimisation)
  - Home care monitoring
- **Technology/manufacturing licensing opportunities**
  - Ultrasound
  - Monitoring (fixed and mobile)
  - Ventilation
  - Supervised home care

# Foundations for growth: commercial partners

- Wide reaching patents across many applications
- Potential to add value to established technologies in major markets
- Active discussions with a number of potential strategic partners globally

Market	UCM product	Potential commercial or licensing partners
Ultrasound	HaemoCOM	GE, Philips, Sonosite, Medison, Hitachi, Toshiba, Takeda
Monitors	CardioCOM	GE, Philips, Spacelabs, Mindray, Edan, Welch Allyn, Covidian
Ventilators	PulmoCOM	GE, Philips, Siemens, Viasys, Draeger, Resmed,
Pacemakers	ElectroCOM	Medtronic, St Jude, Guidant, Micromedical
HomeCare	PulseCOM	GE, Philips, J&J, Welch Allyn, Omron
Sepsis	CV-COM	GE, Philips, J&J, St Jude, Medtronic, Guidant, Omron
Hypert/HF	PressureCOM	Servier, Abbott, Novartis, MSD, Daiichi Sankyo, Boehringer
Global	CardioCARE	Public and private hospital boards/Governments

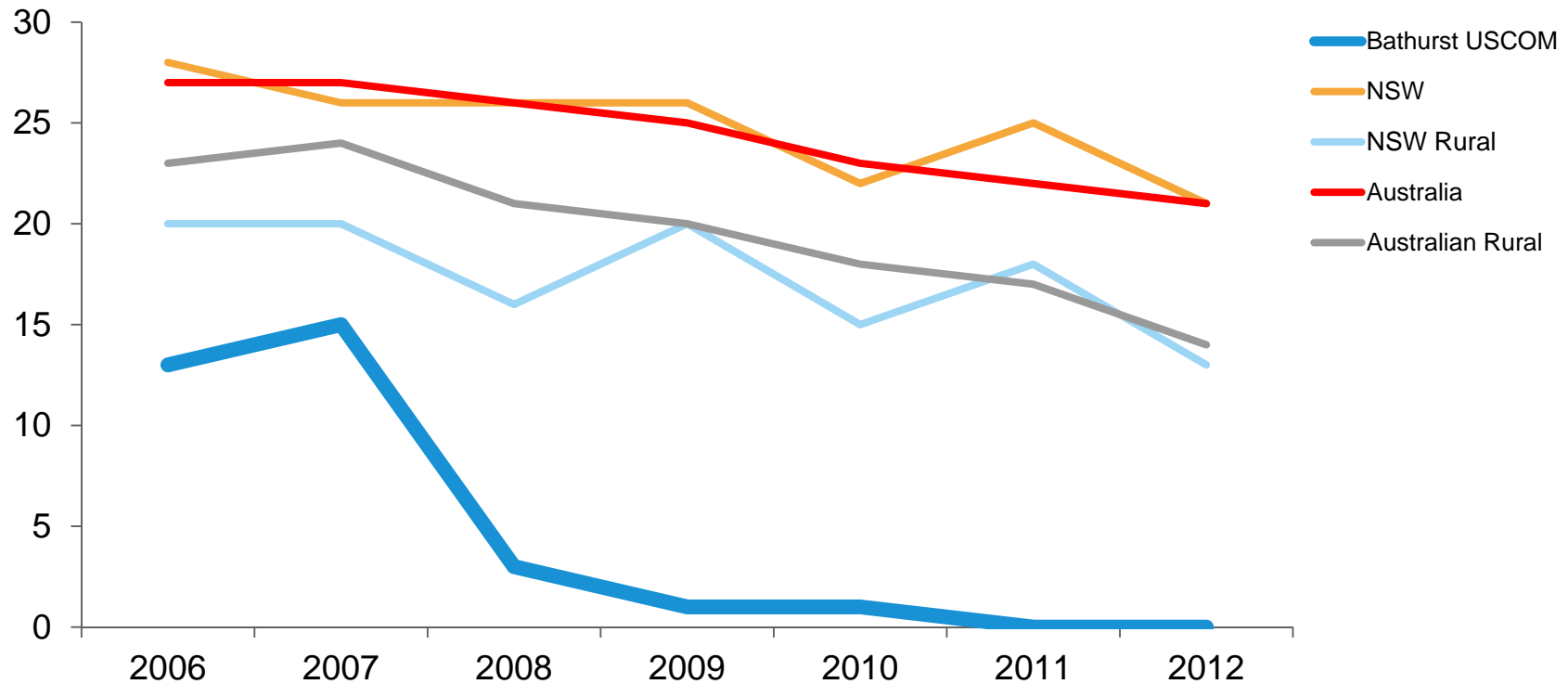
# Case study; How clinical data drives sales...

- 6 year study at Bathurst Hospital demonstrating reduction in sepsis mortality and and hospital costs using USCOM1A
- Mortality reduced 93% (from 60.7% to 4.4%)
- Renal failure reduced 95% (52.7% to 2.6%)
- Emergency transports reduced 87% (24.6 to 3.2%)
- In hospital stay reduced 52% (from 25.2 to 12.2 days)
- Opportunity to work with Govt to develop adoption of USCOM practice and methods for all hospitals

# Case study; How clinical data drives sales...

## 2006-2012 practice changing Sepsis result

Hospital sepsis mortality – down 95%



**ANZICS CORE practice audit data**

# Foundations for growth: R&D pipeline

## A platform technology with multiple applications

### Current products

- USCOM 1A – Advanced haemodynamics
- OXYCOM – Real time Oxygen Delivery (DO<sub>2</sub>)
- USCOMt – Haemodynamics transducer
- CareCOM – Physiology mapping and treatment guide
- EduCOM – Online education package

### New products in development

- USCOM 2 – small general haemodynamics
- PULSECOM – USCOM continuous CV monitor
- USCOMmod v1 and v2 – modular USCOM for licensing
- USCOMhaemo v1 and v2 – USCOM software for licensing

# Foundations for growth: Patented R&D pipeline

Small, Telemetric, Continuous, Portable, USCOM App

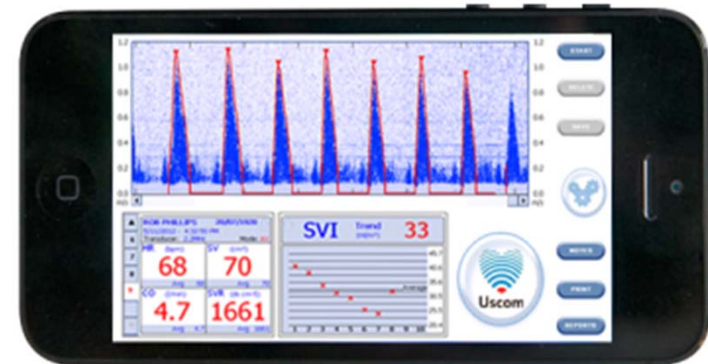


# Foundations for growth: efficient operations

- USCOM1A product currently sells for \$30,000 per unit
- All manufacturing and development in Sydney
- Production team able to produce 80 units per month
- Currently establishing new additional skills and capabilities to expand the Sydney team and output

# What's next in 2013?

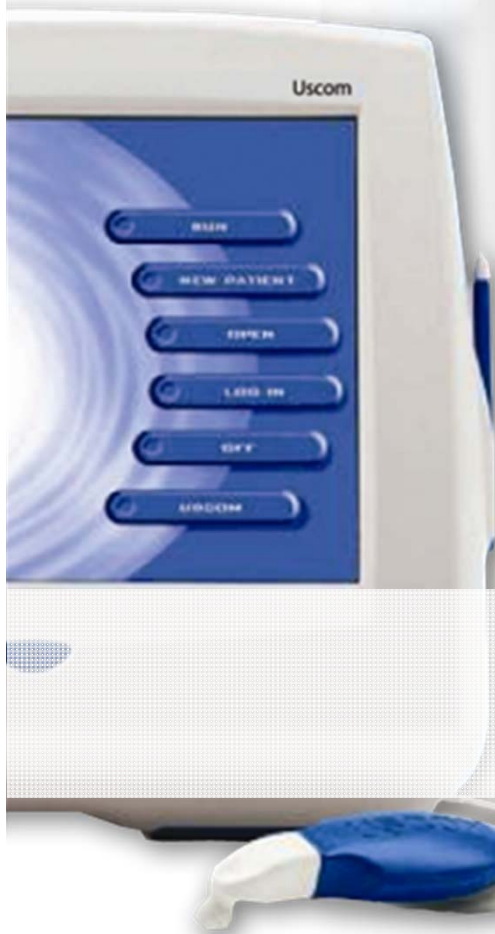
- Grow global revenues from direct sales
- Advance current strategic and commercial partnership discussions with focus on licensing and revenues
- Continue to build clinical and economic evidence around treatment of major medical conditions
- R&D focus to evolve technology and expand applications



# Summary

- Commercially focused, revenue generating medical device company
- World-leading technology transforming inefficient medical practice
- Aim to create another world-class Australian medical device business
- Strong competitive position
- Leveraging outstanding science into clinical practice and profitable business
- Foundations for significant long term growth are all in place

# USCOM



Thank you

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# Appendicies

# USCOM1A has competitive advantages

Method	Manufacturer	Technology	Rel+Rep	Non-invasive	Simple	Cost	Portable	SV beat to beat
<b>USCOM 1A</b>	<b>Uscom</b>	<b>Doppler</b>	✓	✓	✓	✓	✓	✓
BioZ	Sonosite	BioImpedance	X	✓	✓	X	✓	X
NiCOM	Cheetah	BioReactance	X	✓	✓	X	✓	X
Nexfin	Bmeye	APP	X	✓	✓	✓	✓	X
CardioQ	Deltex	Doppler	✓	X	X	X	✓	X
LiDCO	LiDCO	LiCl dilutio +APP	✓	X	X	X	X	X
LiDCOrapid	LiDCO	APP	X	X	✓	X	X	X
PiCCO (mod Tx + PP)	Pulsion	APP	✓	X	X	X	X	X
FloTrac	Edwards	APP	X	X	✓	X	X	X
PAC (Tx)	Many	Thermodilution	X	X	X	X	X	X

# ICU cardiac monitoring market

Department	Total beds* (US)	Worldwide market estimate (\$30k-1/10beds)	Cap value at 25% penetration, 50% profit and x20PE
Neonatal ICU	17,000	\$51m	\$128m
Paediatric ICU	4,000	\$12m	\$30m
Cardiac Surgery	10,000	\$30m	\$75m
Adult ICU	50,000	\$150m	\$375m
<b>Total</b>	<b>80,000</b>	<b>\$243m</b>	<b>\$607m</b>

## Assumptions

- Global market = US market x 2
- \$30,000, 1/10 beds sale, 25% market, 50% profit, 20P:E
- ICU markets only, not ED, Anaesth, Hypertension, HF, EP etc not considered
- Hypothetical estimation not a projection

# Cardiac monitoring landscape

## Clinical assessment

- BP, HR, colour, reperfusion time etc. *Inaccurate*

## Non-invasive

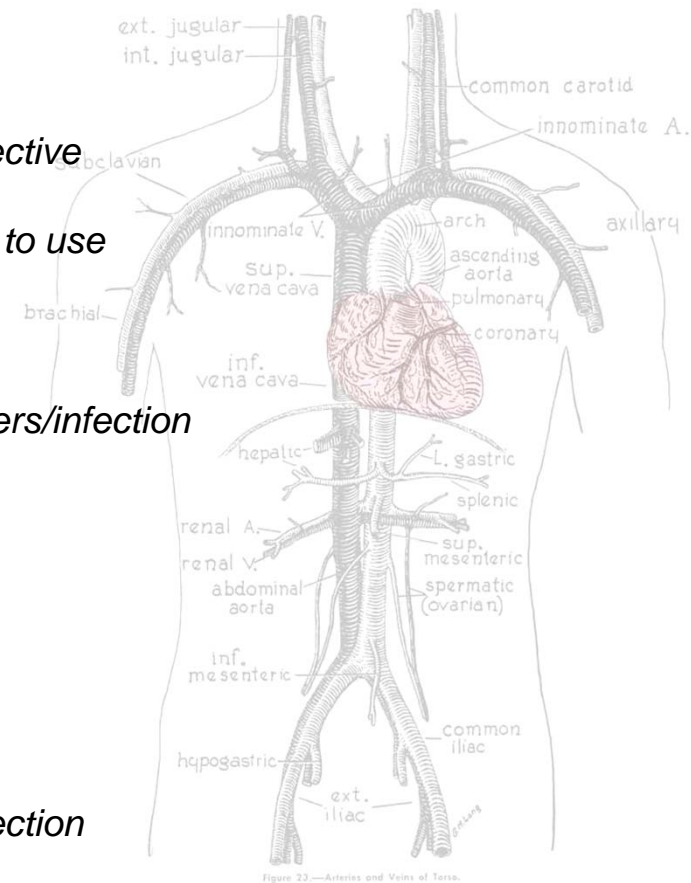
- USCOM – Transcutaneous CW Doppler *safe, accurate, effective*
- ICG – Bio-impedance *inaccurate and unproven*
- Tonometry – Transcutaneous APP *BP measure and difficult to use*

## Less invasive

- Calibrated APP
  - PiCCO – transpulmonary thermodilution *invasive catheters/infection*
  - LiDCO – LiCl dilution *invasive catheters/infection*
- Uncalibrated APP
  - LiDCO *invasive catheters/infection*
  - FloTrac *Invasive catheters/infection*
- NiCCO – Expired CO<sub>2</sub> exchange *requires intubation*
- TODoppler – DTA flow *requires sedation*

## Invasive

- Swan – Thermodilution (bolus, CCO) *invasive catheters/infection*
- Fick – Oxygen concentration *invasive catheters/infection*
- Art or central line – Arterial or venous pressures *invasive catheters*



# What the experts say...

*“This machine is saving lives, there are no two ways about it”*

Professor Brendan Smith, Anesthetist, Intensivist and Emergency Physician, Bathurst Base Hospital, N.S.W. Dept of Health, Australia

*“The USCOM device is a simple method of accurately and noninvasively measuring central circulation, a goal of cardiology for many years... the device has the potential to change the way we approach management of many cardiovascular diseases including sepsis, heart failure and hypertension”*

Professor Malcolm West, Cardiologist, Mayne Professor of Medicine at The University of Queensland School of Medicine, Brisbane, Australia.

*“I have used USCOM for over 5 years now on our very sick children, and use it to guide management. We are now beginning multi-centre, global research which will define the way USCOM is used in Paediatric Departments across the world”*

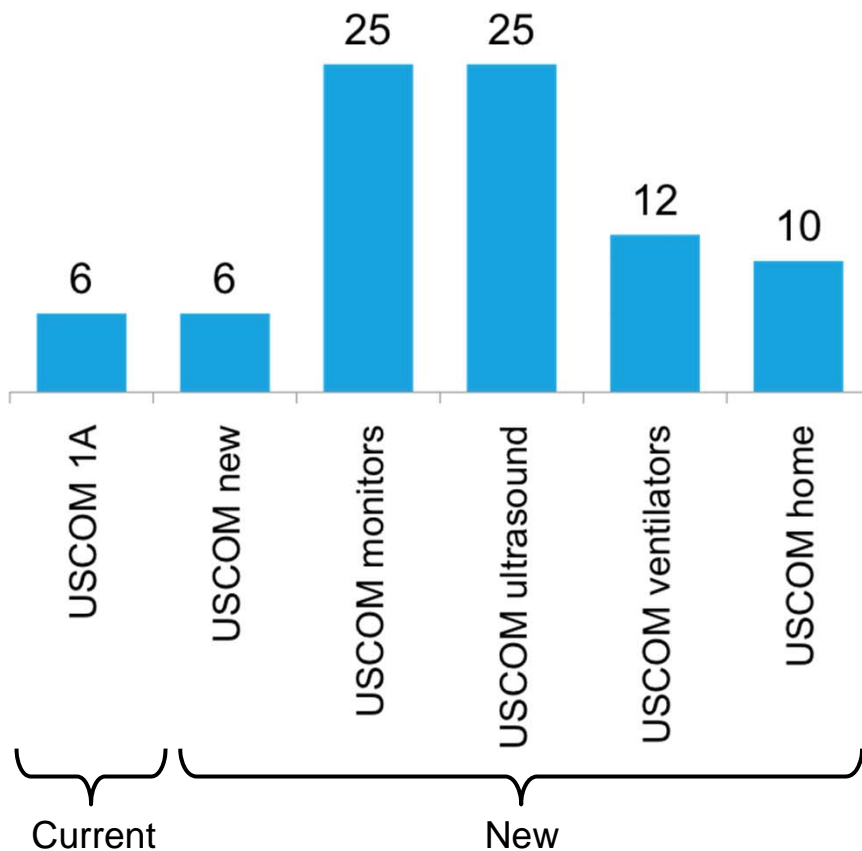
Dr Joe Brierley, Consultant Intensivist, Great Ormond Street Hospital for Sick Children, London, UK

*“To parents and doctors this machine, USCOM, is priceless. This machine is thought to have saved baby Abbie’s life”*

BBC Documentary “New machine helps save babies life”, 2010, Nottingham Children’s Hospital

# Potential value of product partnerships

## Potential annual market \$ millions



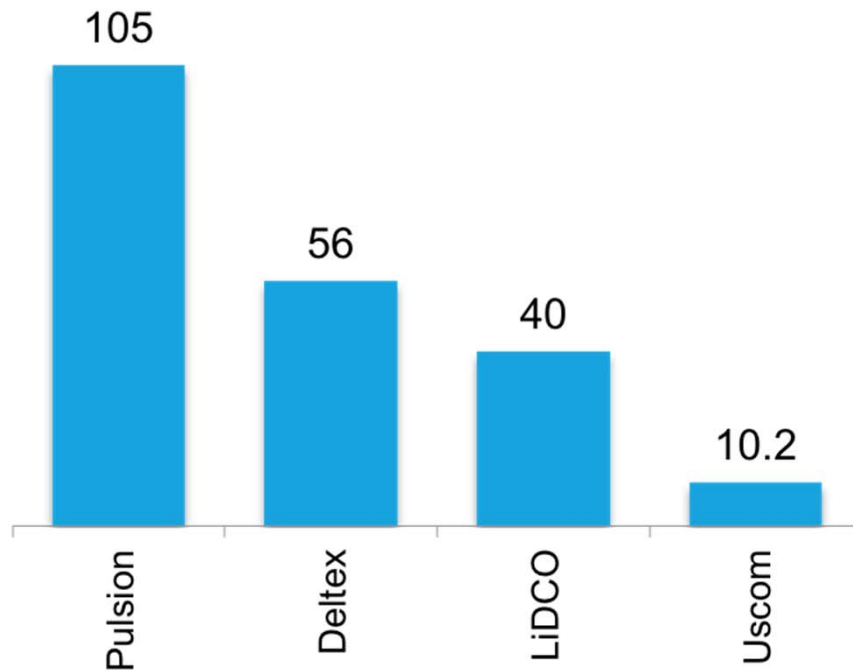
- Partnership with instant take up of technology
- Four new markets
- 50% profit share
- 20% penetration
- No upgrades
- USCOM gross \$84million p.a.
- Cap value = 15xPE (84) = \$1260 million
- 60 million shares @ \$21

**Total =  
\$84 million pa**

# Cardiac monitoring investment landscape

## Investment opportunity

Capitalised value of USCOM and current competitors, \$ millions



- Last capital raising \$0.12
- Current price \$0.17
- Equivalent price to mean competitors (\$65m) with 60m shares on issue \$1.05