



# Uscom

## 2017 Q3 Update; Continued Growth

**Rob Phillips**

**Uscom Executive Chairman/CEO**

PhD(med), MPhil(med), FASE, DMU(cardiol)

Associate Professor, Critical Care Research Group, School of Medicine, The University of Queensland

APRIL 2017

# Uscom Mission

*"Uscom is a leading innovator in cardiovascular and pulmonary medical devices, developing new non-invasive technologies to address the challenges of global disease and health care.*

*Uscom is driven by a commercial ambition to become a leading global health technology business."*

# Technology

*“Digital medical device innovations to improve the physician experience and patient outcomes.”*



Digital Doppler Ultrasound



Suprasystolic Oscillometry



Digital Transit time Ultrasound

New generation digital cardiovascular pulmonary devices.



# Invested in the Future



Acquired 2013



Acquired 2015

## Incremental shareholder value – acquisition

Two companies

Pulsecor – 2013

Thor – 2015

IP and product reservoir

Two product suites

BP+

SpiroSonic

Two global revenue streams starting 2017

- ✓ World leading technologies
- ✓ Stand alone companies
- ✓ Growth strategy
- ✓ Efficiencies of scale
- ✓ Investment
- ✓ Operational integration
- ✓ Product development
- ✓ Regulatory
- ✓ Revenue - 2017

# Applications

Sector leading technologies

## Fluid, Sepsis & Heart Failure

- US \$1.3bn market \*
- CAGR of 7.6% \*
- CE, FDA, TGA, CFDA

### USCOM 1A

Cardiac Output Monitoring



## Hypertension & Vascular Health

- US \$1.7bn market \*
- CAGR of 11.5% \*
- CE, FDA, TGA

### BP+

Blood Pressure Monitoring



## COPD & Asthma

- US \$400m market \*
- CAGR of 6.5% \*
- CE, TGA, FDA

### SpiroSonic

Pulmonary Monitors



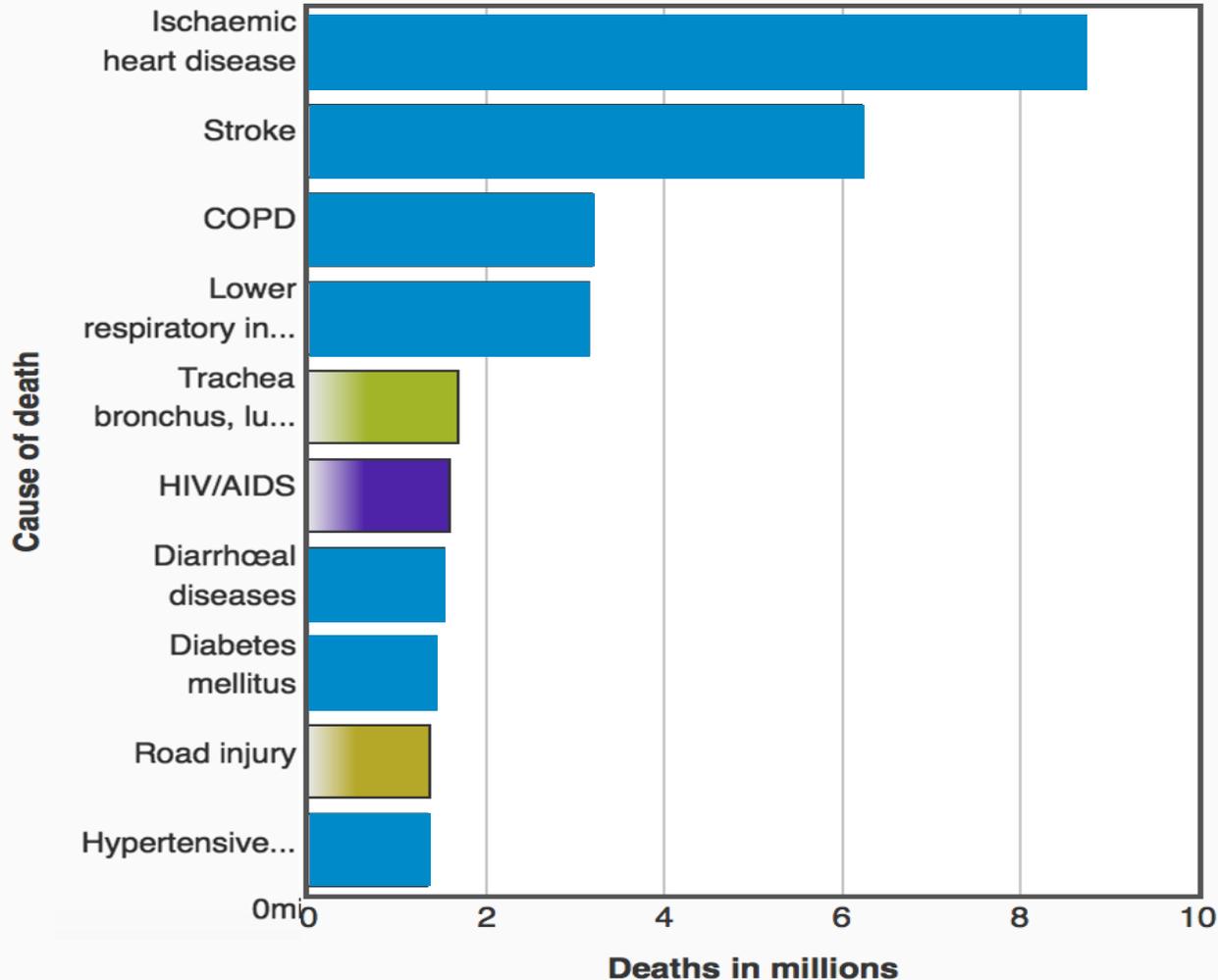
\* Source: MedTech Insight; Transparency Market Research

Uscom – devices the experts use



# Meeting Clinical needs

Top 10 causes of death globally 2015



*Uscom devices address conditions responsible for **80%** of all deaths worldwide (WHO criteria).*

*Heart failure, sepsis, hypertension, asthma, COPD.*

# Uscom Products

## USCOM 1A

- The transthoracic Doppler hemodynamic monitor
- Non-invasive advanced hemodynamics, replacement for cardiac catheter
- Sepsis, fluid, heart failure, hypertension



## Uscom BP+ (release 2017)

- The suprasystolic oscillometric central BP monitor
- Revolutionising blood pressure monitoring and replacing catheters
- Hypertension, stroke, vascular health



## Uscom SpiroSonic (release 2017)

- High fidelity digital multi-path ultrasonic spirometers
- Taking research quality pulmonary care into the clinic and home
- Asthma, COPD and Occupational Lung Disease



# Great Brands

Unrecognized value



# USCOM 1A

- Advanced Doppler hemodynamics
- Noninvasive beat to beat SV
- SV sensitivity  $\pm 5\%$
- 5 minute boot to measure
- 0.12L/min to 18.7L/min validated
- Physiologically rational
- Intuitive touch screen operation
- Robust and battery operated for frontline use
- Can be clinician, nurse or technician operated
- Not BP monitor!



# USCOM 1A Applications

## THE FUTURE OF HEMODYNAMICS

- Hypotension and Fluid Management
- Sepsis and Shock
- Hypertension and Pre eclampsia
- Cardiac Failure



# Revolutionising hypertension

Hypertension, heart failure and vascular disease  
Central Blood Pressure and Pulse Wave Analysis

## Uscom BP+

- FDA, CE Mark, TGA approvals
- Supra-systolic Oscillometry
- Reliable and accurate
- Central and Brachial BP
- Replaces sub-systolic methods (cuff)



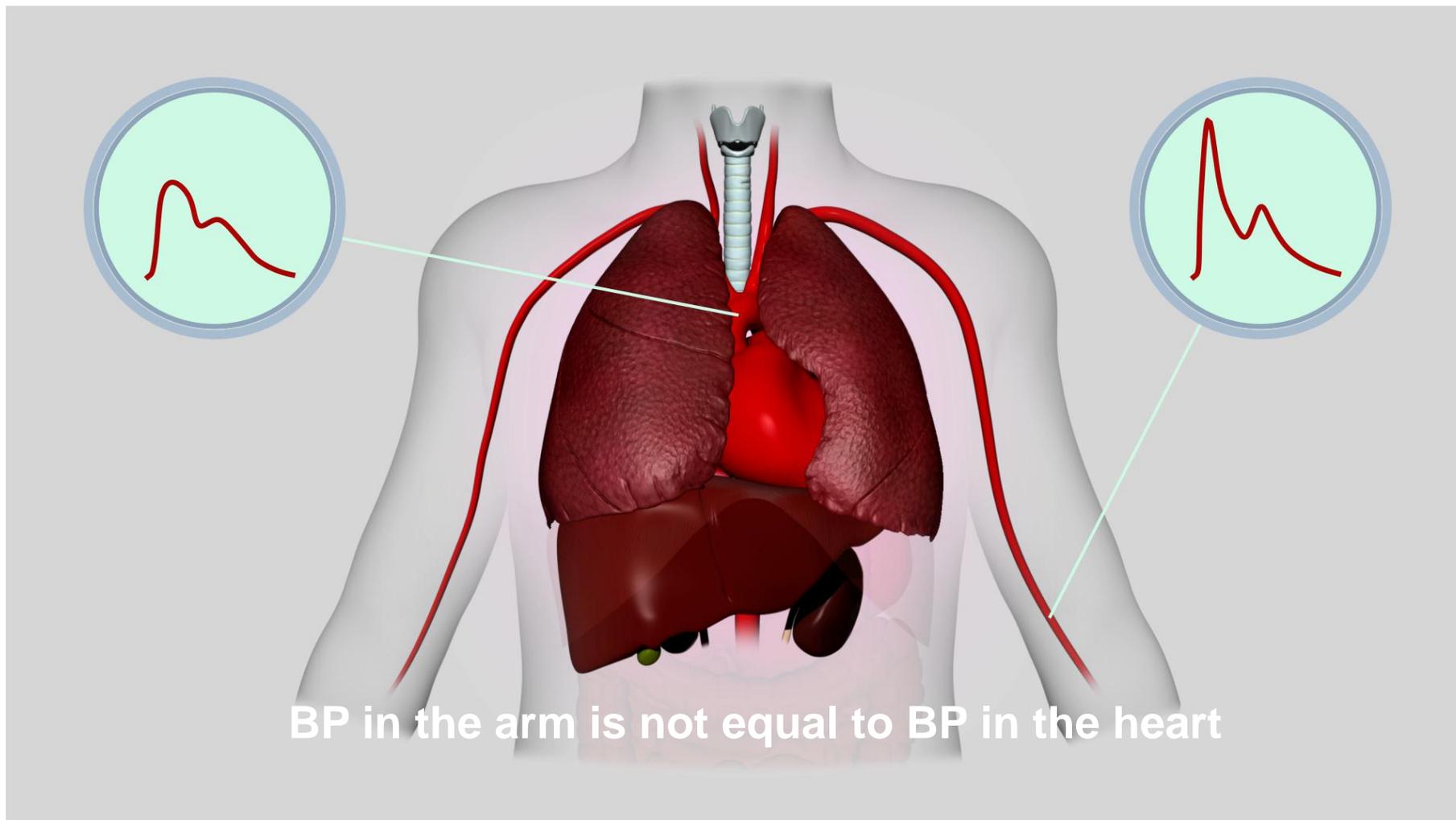
- Home or clinic
- PPW Analysis
- Results in 30 seconds
- No training required
- Platform technology with multiple uses

Stand alone, non invasive, accurate, compact system with BP+ Reporter

For launch FY 2017

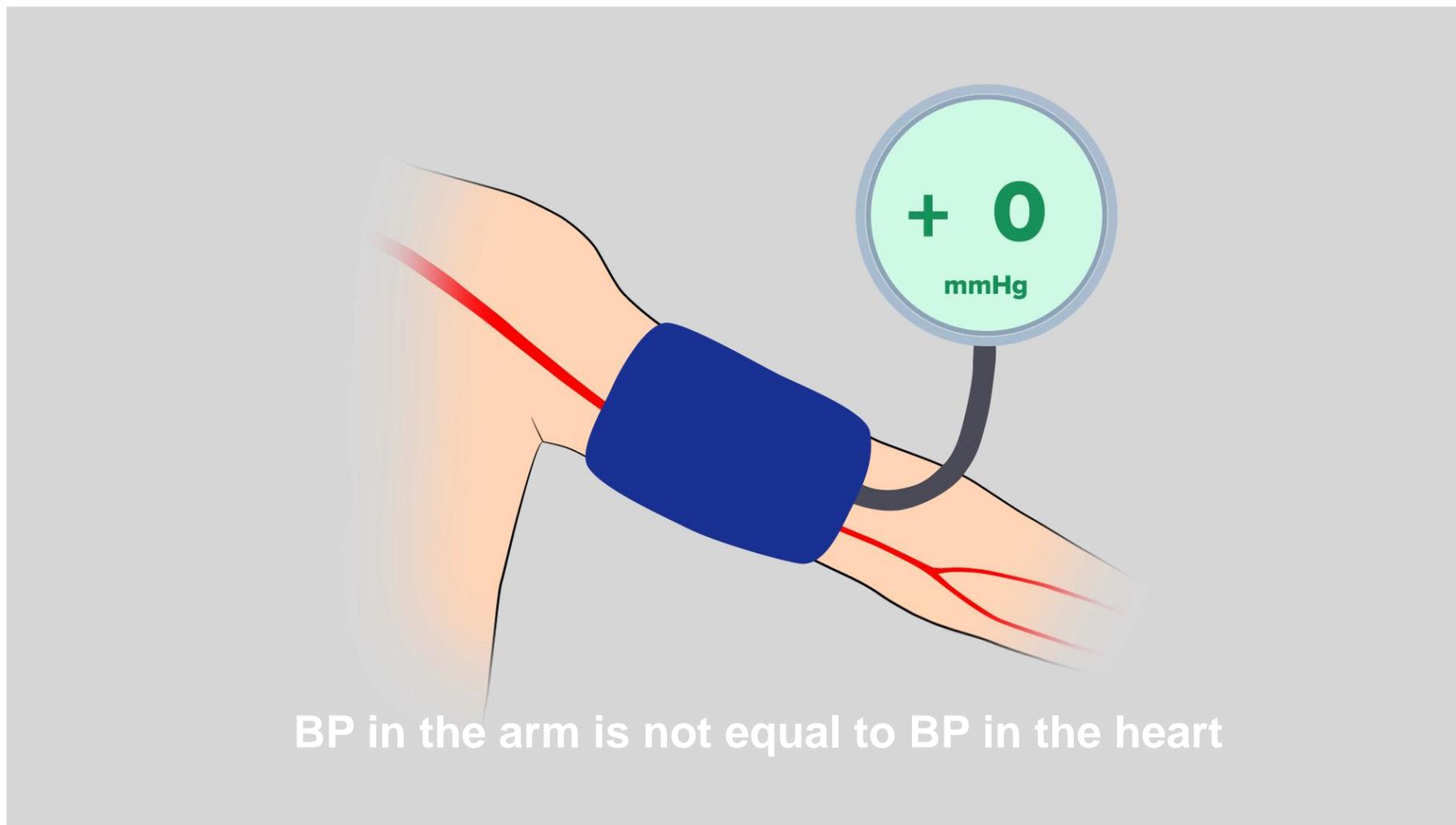
# BP in the Arm or the Heart?

The non-invasive art line

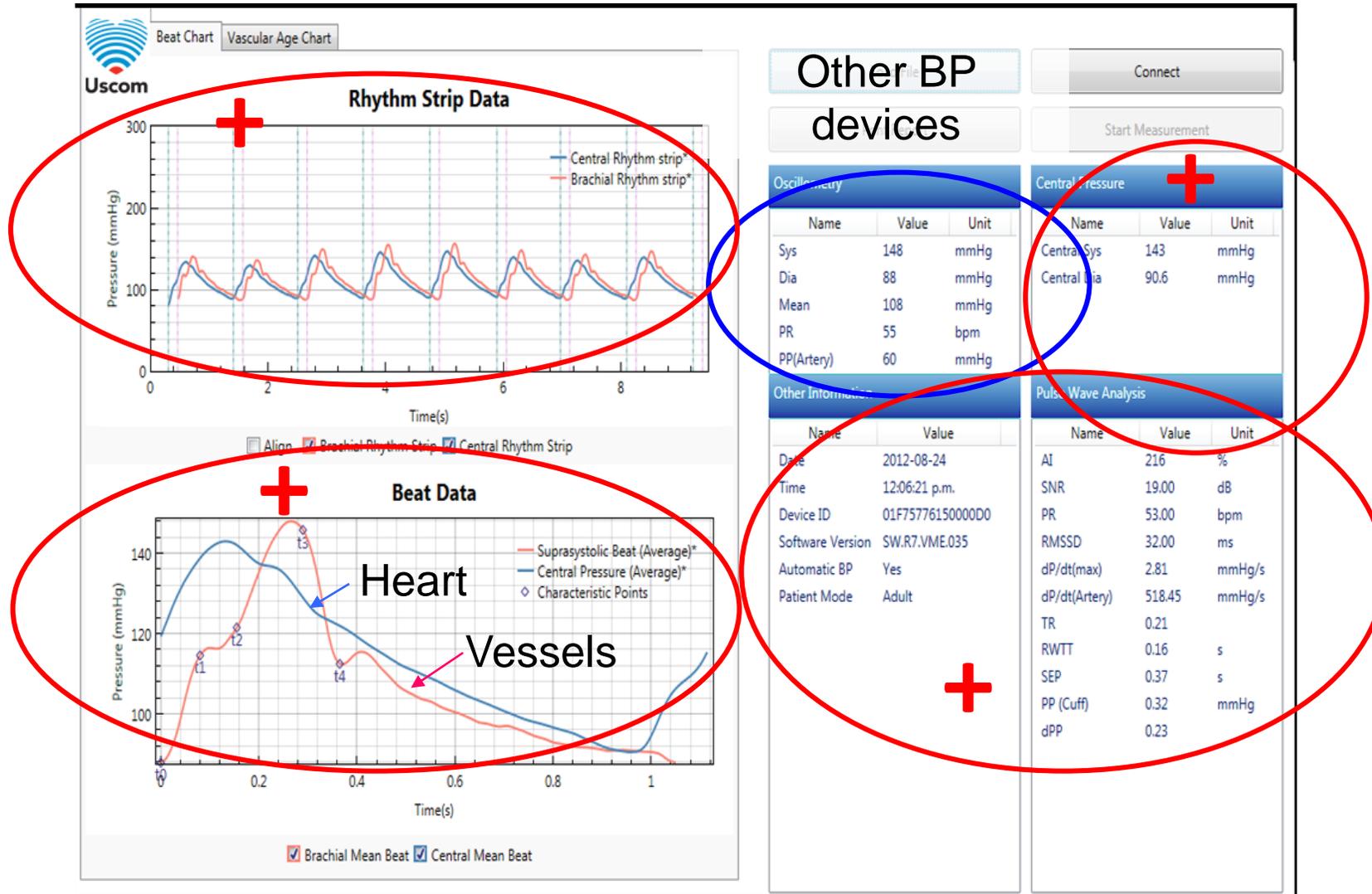


# BP in the Arm or the Heart?

The non-invasive art line



# Why BP+



Uscom BP+... demonstrates what others cant!

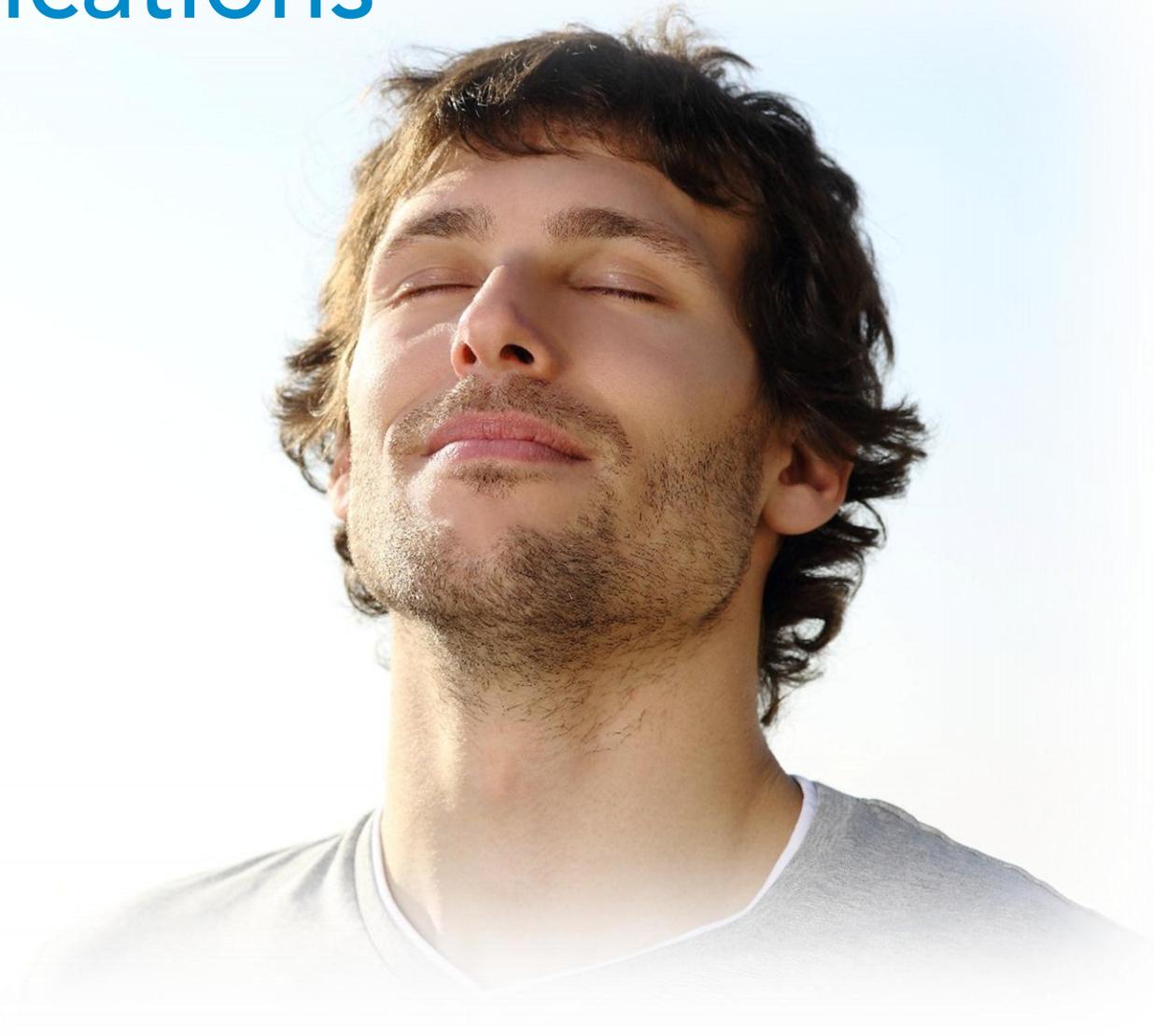


# Uscom SpiroSonic Suite



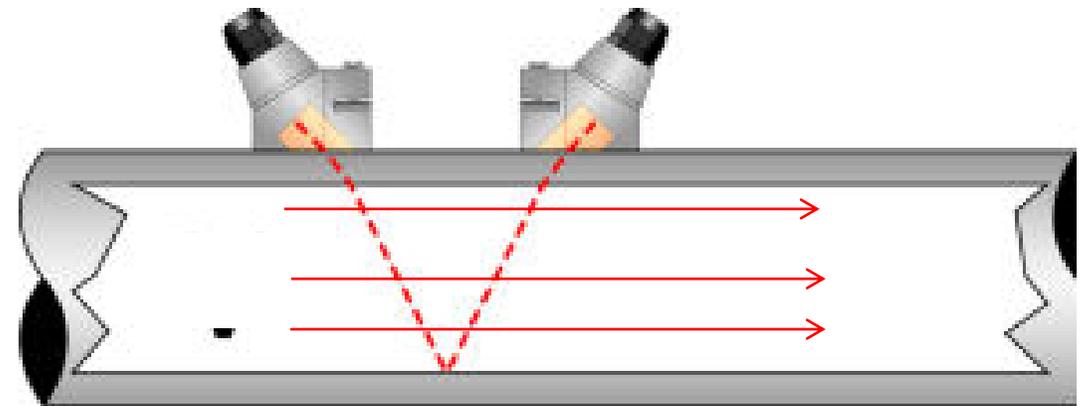
# Spirometry Applications

- Identify disease (Asthma and COPD)
- Investigate SOB (short of breath)
- Monitor disease and therapy
- Industrial disease detection
- Pre-op assessment
- Lung function recovery (smoking)



# Technology

- Multi Path Ultrasonic Sensor technology
- No moving parts
- No mesh or turbines
- Auto-calibration
- Automated interpretation
- Easy to use



FreeFlo tube - low resistance to flow

# SpiroReporter

## Telemonitoring asthma and COPD

### Stand alone digital archiving and reporting system for SpiroSonic devices

- Proprietary digital archiving and reporting platform
- Digital ultrasonic spirometers
- Wireless connectivity - phone, pad, computer or cloud
- Patient archive
- Image and quantitation storage
- Spiro curve analysis
- Trend analysis for disease and therapy monitoring
- Digital report generation and printing
- EMR connectivity



Tablet, Phone, Computer or Cloud connectivity

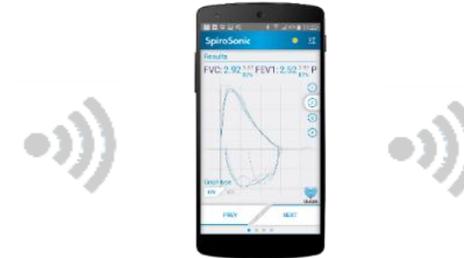
# New Products - tSpiro

Bringing patients and clinicians together – The digital eHealth future

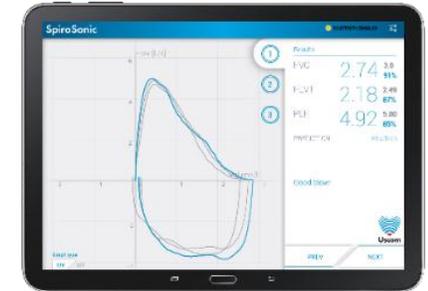
- Digital ultrasonic spirometers
- Wireless connectivity
- Proprietary apps and software
- Diagnostic and therapeutic monitoring
- Leading pulmonary monitors in eHealth
- 450 sold into the US (2016)
- Growing global market



Uscom digital spirometers



Smartphone App



Tablet App



SpiroReporter software

# Big Data and eHealth

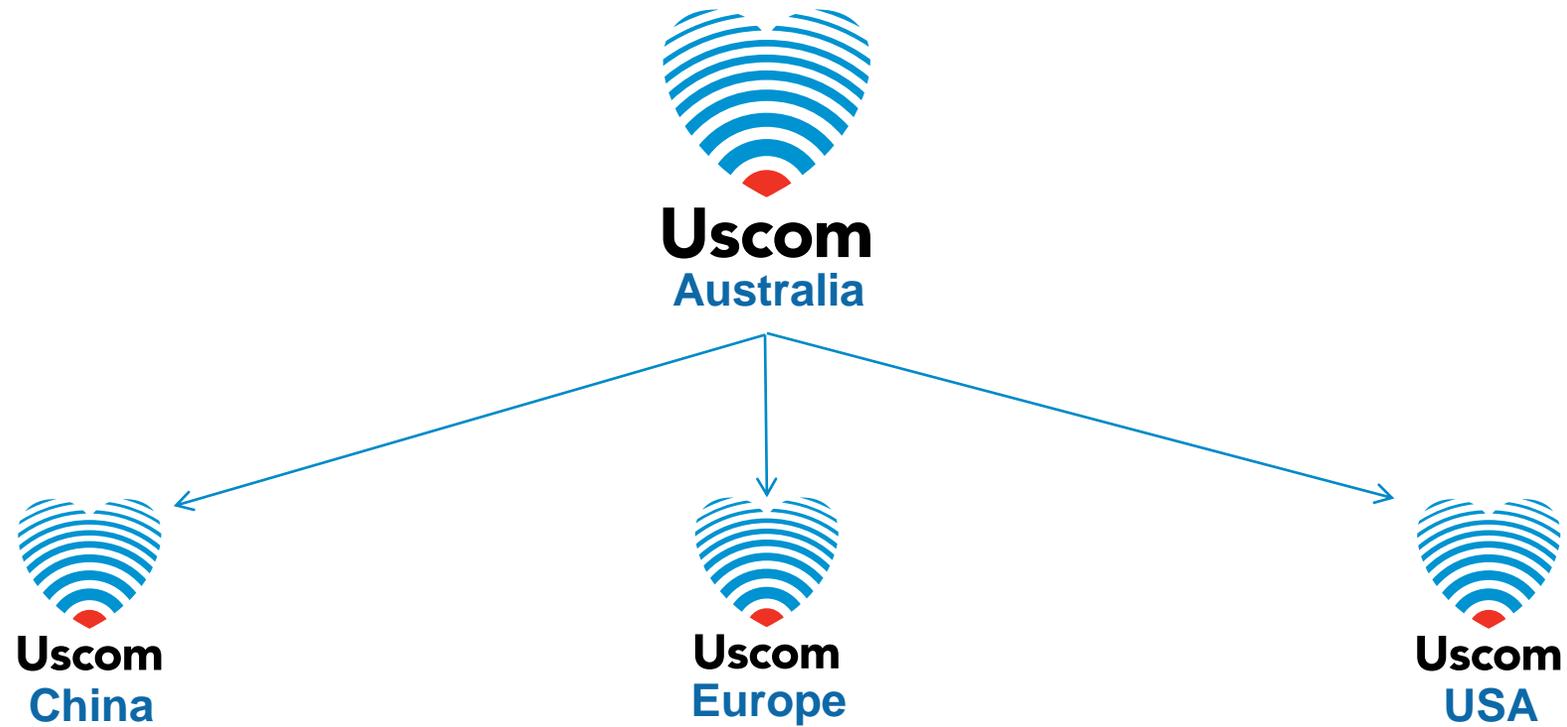
## Big data needs high quality sensors

Uscom specialises in high quality non-invasive sensors of core physiology

- Software analytics
- Telemetric signals
- Cloud based processing/diagnosis
- Personalised clinical advice
- Medication and dosage
- Serial monitoring
- Multiple measures
- Home care market
- Subscription service model
- Global partner opportunities – China, US, Euro
- Multiple software providers – few hardware providers



# Global Structure



Maintaining oversight and efficiency – communication, responsibility, reporting

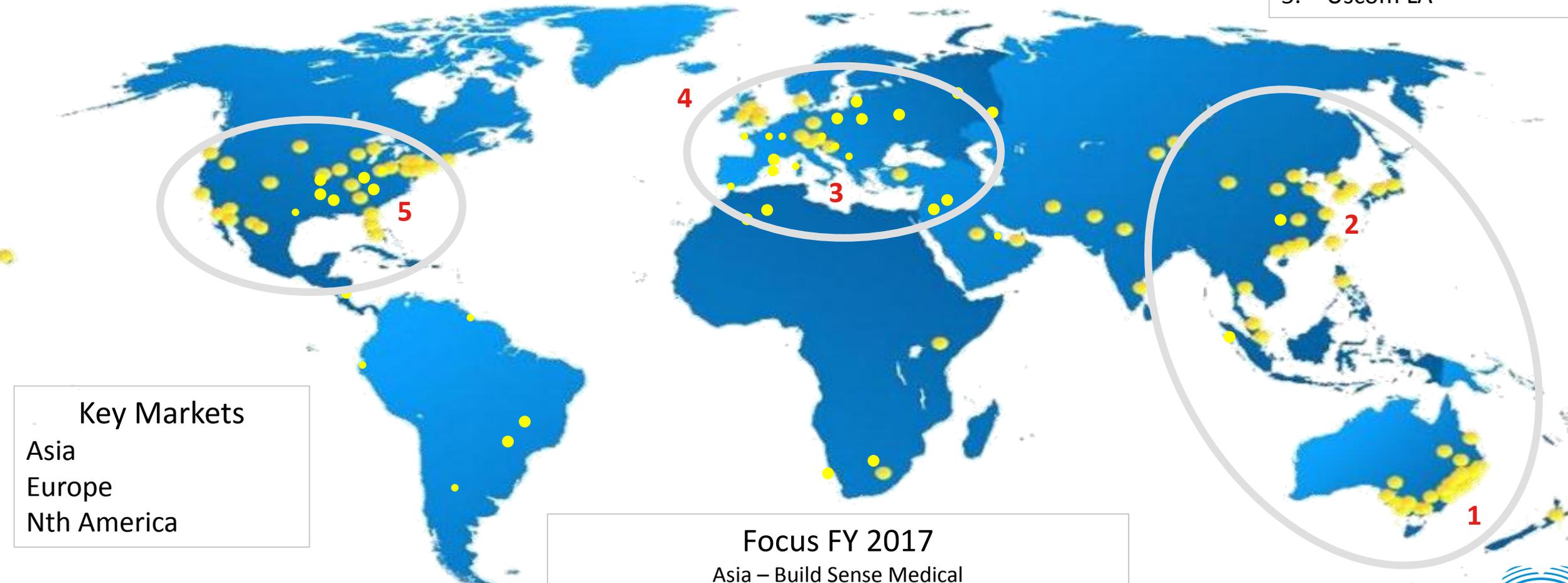
*Uscom – devices the experts use*



# Global Distribution

Delivering multiple products into multiple jurisdictions

- 1. Uscom Sydney
- 2. Uscom Shanghai
- 3. Uscom Budapest
- 4. Uscom London
- 5. Uscom LA



Key Markets  
Asia  
Europe  
Nth America

Focus FY 2017  
Asia – Build Sense Medical  
China/Euro/US – BP+ and SpiroSonic release  
Global tSpiro partnerships



# China is Important

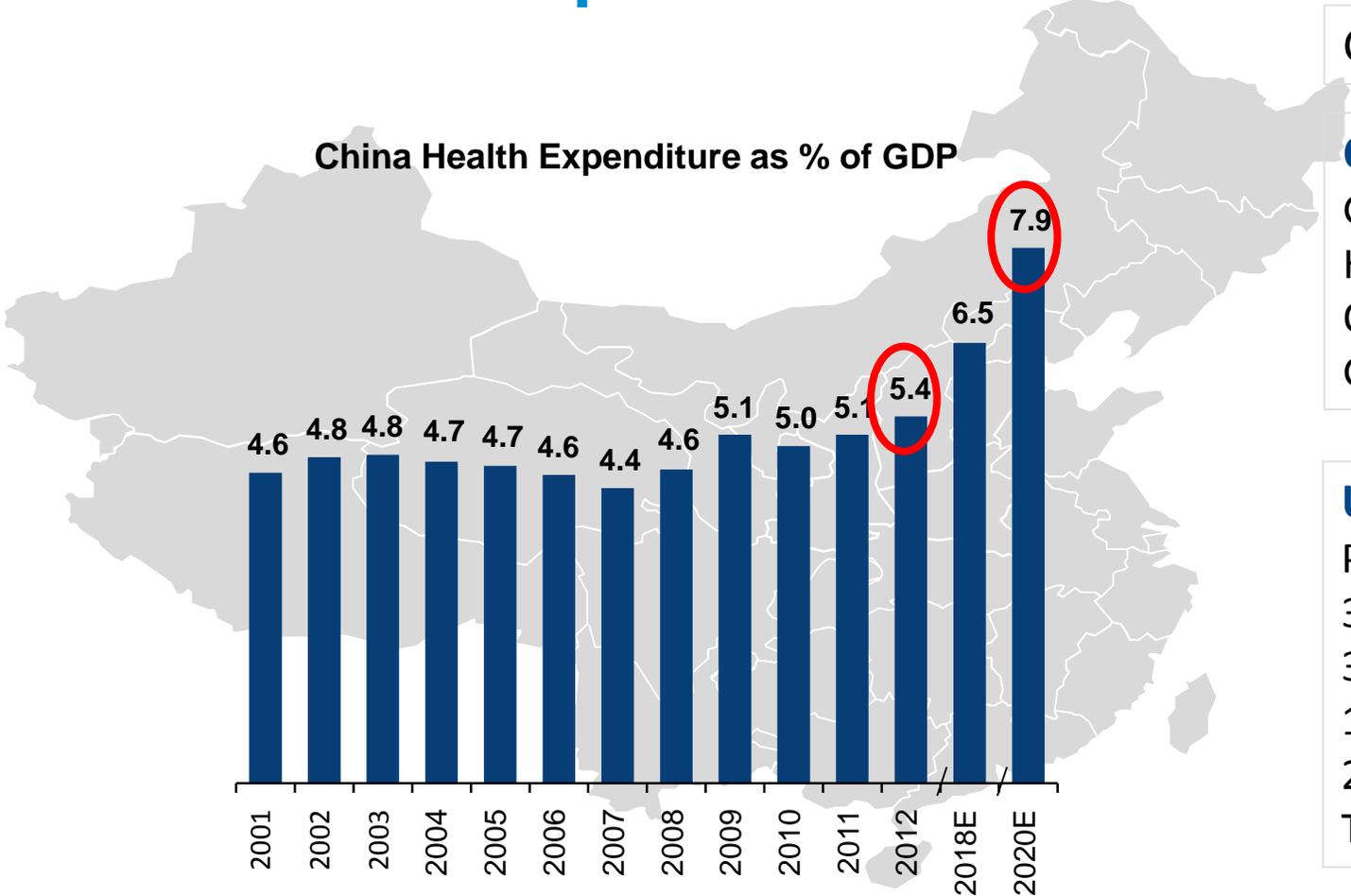
CIIC/Sense Medical - Partners

### China Health Spend (USD)

GDP=12,000,000,000,000  
 Health=5.4%=648,000,000,000  
 Objective=12%=1,400,000,000,000  
 Growth(+6.6%)=\$792,000,000,000

### Uscom China Targets (USD)

Population = 1.35b  
 3 provinces < 10% pop = \$10m  
 31 Provinces = 100%  
 10 x current UCM revenue = \$10m  
 2 new products = \$20m  
 Total revenue China = \$30m USD



Uscom positioning to grow with China - \$30m pa revenue target



# Global Manufacturing

Uscom owns approved manufacturing facilities in Sydney and Hungary

## Currently

- USCOM 1A and BP+ in Sydney
- SpiroSonic in Hungary

## Future

- SpiroSonic and BP+ in Hungary



# Regulatory Status

| Products |                   | 2017 |    |     |
|----------|-------------------|------|----|-----|
|          |                   | CFDA | CE | FDA |
| 1        | USCOM 1A          | ✓    | ✓  | ✓   |
| 2        | Uscom BP+         | ★    | ★  | ★   |
| 3        | Uscom BP+Reporter | ★    | ★  | ★   |
| 4        | SpiroSonic Flo    | ★    | ✓  | ★   |
| 5        | Smart             | ★    | ✓  | ★   |
| 6        | Mobile            | ★    | ✓  | ★   |
| 7        | Pro               | ★    | ✓  | ★   |
| 8        | SpiroReporter     | ★    | ✓  | ★   |
| 9        | tSpiro            | ★    | ✓  | ★   |
| 10       | SpiroApp          | ★    | ✓  | ★   |

New Products

- ★ Preparation/submitted
- ★ Expected
- ✓ Approved

*Regulatory timelines are estimates only and may vary across jurisdictions, products and examiners*



# Three Global Brands



**Uscom**



**Three revenue streams**

# New Patents

Two new US BP+ patents – protecting value



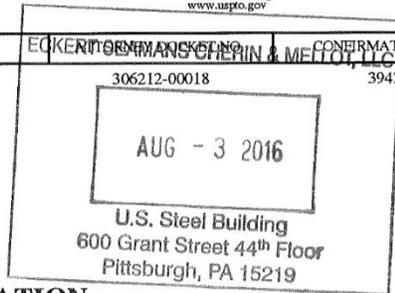
UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | ISSUE DATE | PATENT NO. | ECKERT SEAMANS CHERIN & MELLOTT, LLC | CONFIRMATION NO. |
|-----------------|------------|------------|--------------------------------------|------------------|
| 12/454,123      | 08/16/2016 | 9414755    | 306212-00018                         | 3942             |

KFM

10037 7590 07/27/2016  
ECKERT SEAMANS CHERIN & MELLOTT, LLC  
U.S. STEEL TOWER  
600 GRANT STREET  
PITTSBURGH, PA 15219-2788



ISSUE NOTIFICATION



## 1. Central algorithms BP+ (Jan 1, 2017)

Notice of Allowance from the United States Patent and Trademarks Office for the patent covering the central algorithms in the Uscom BP+ suprasystolic oscillometric central blood pressure monitor. The Patent has a priority date of 13<sup>th</sup> May 2009.

## 2. Method and apparatus BP+ (Mar 6, 2017)

Notice of Allowance from the United States Patent and Trademarks Office for a patent covering the method and apparatus for producing central pressure waveforms in an oscillometric blood pressure system. The patent has a priority date of 12<sup>th</sup> July 2009.

IP – Protecting our commercial future



# New European Research Grants

World leading science and new IP

1. ***“To develop a simple breath test device for early diagnosis of lung cancer and a wide range of viral, microbial, neoplastic (cancer) and genetic diseases.”***  
***\$427k over 3 years***

The Hungarian National Research, Development and Innovation Office as part of the European Research Organisation. Hungarian Academy of Science team, while the clinical testing of the device and methods will be overseen by the team from Semmelweis

2. ***“Incentive based smart spacer to promote pulmonary recovery training & drug uptake”***  
***\$492k over 2 years***

The Hungarian National Research, Development and Innovation Office as part of the European Research Organisation, Stichting Gelre Ziekenhuizen and SilverFit B.V. (The Dutch Foundation for the Elderly)

*IP – Protecting our commercial future*

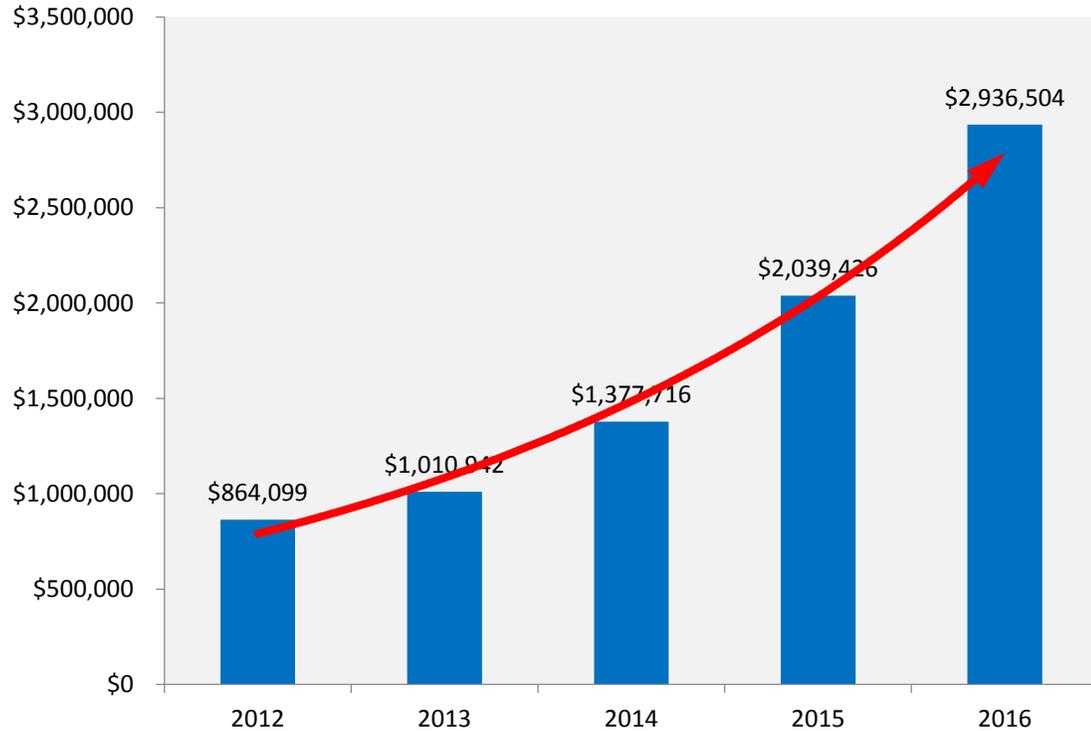


# 2016

*“Uscom has a business culture based on sound fundamentals, and our continued growth captures that”*

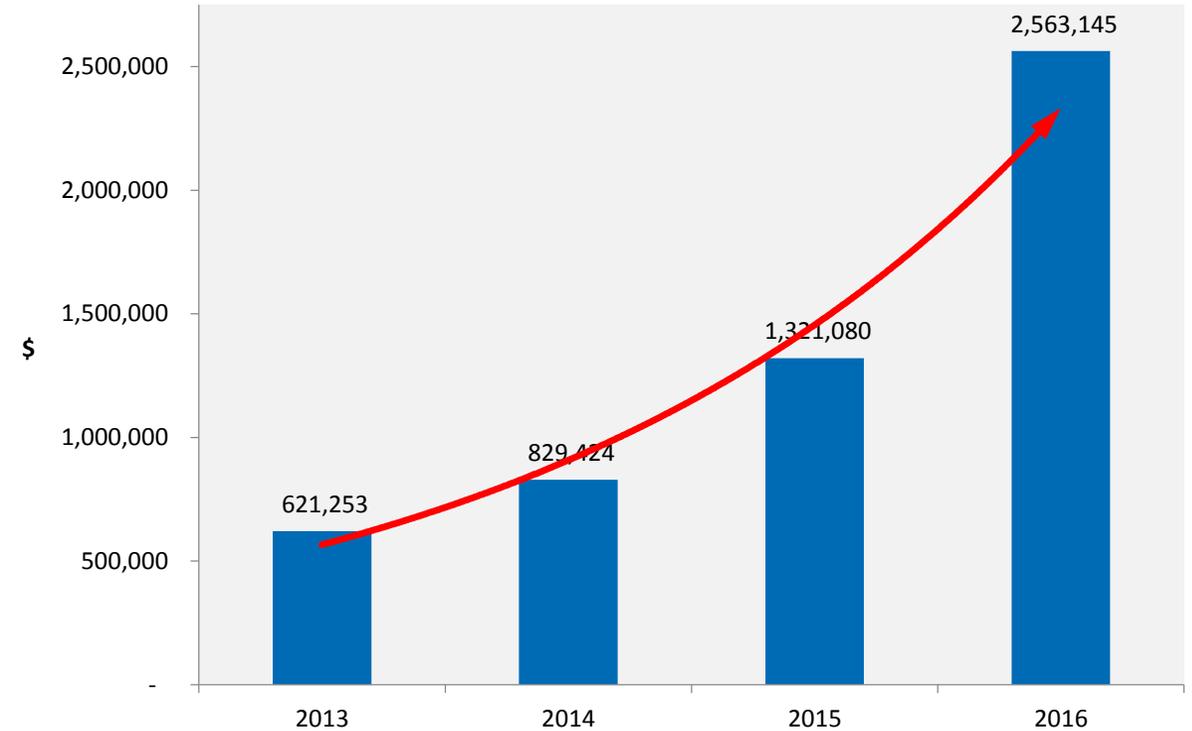
# 2016 Results

## Total Revenue



Total revenue 4 year CAGR = **+44%** to \$2.94m

## Receipts from Customers



Receipts from Customers 3 year CAGR = **+94%** to \$2.56m

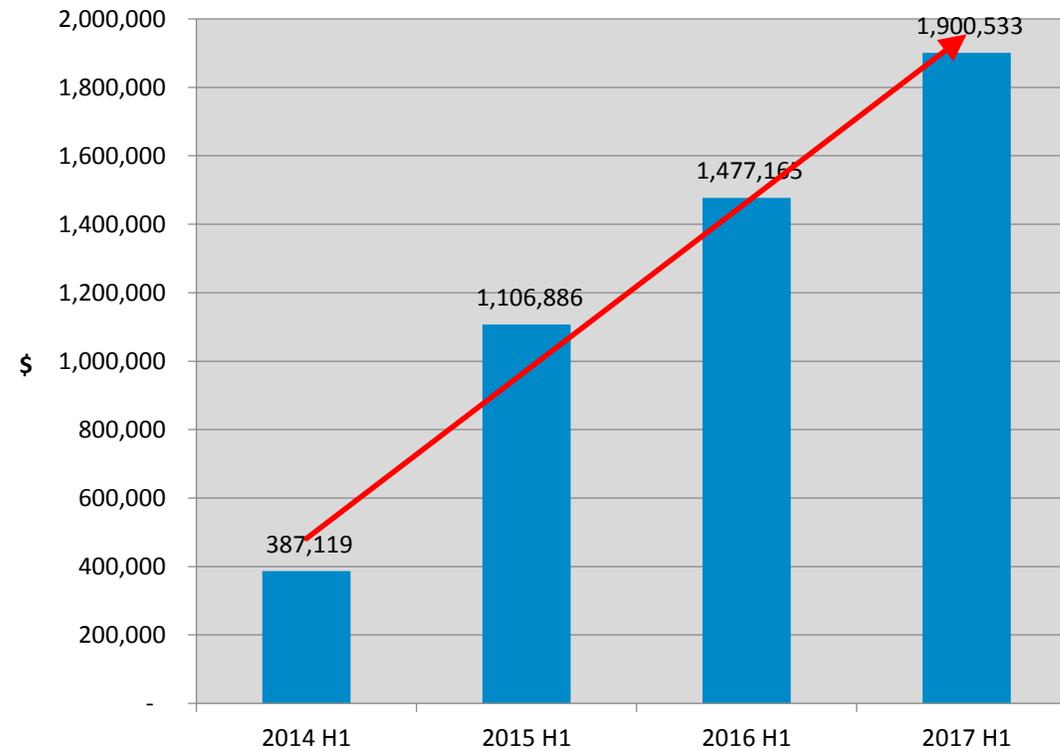
2017

*“Growing as planned!”*

# FY17 H1 Results

- RECORD H1 REVENUE UP 29%
- 70% H1 CAGR OVER THREE YEARS
- RECORD USCOM 1A SALES
- TWO NEW GLOBAL REVENUE STREAMS FOR MARKET IN 2017

Uscom H1 Revenue



*Continued growth and investment*

# Milestones

## 2016

### February

- Uscom Customer Receipts Up 72% In First Half

### March

- Uscom BP+ Contracted Into UK NHS Supply Chain
- Former J&J Asia Executive Appointed to Uscom Board
- Paediatric sepsis mortality reduced 46% with USCOM use - Thai critical care study

### May

- Uscom may improve outcomes and reduce cost in surgery
- Uscom appoints new Company Secretary

### June

- Uscom Oversubscribed PP for Strategic Investment
- New Uscom BP+ Distributor in Vietnam
- Uscom agreement with CIIC Shanghai

*Uscom has a history of meeting our milestones*

# Milestones

## 2016

July

- New US Uscom BP+ Patent
- Additional Uscom BP+ US Patent

October

- Uscom Budapest Revenue up 48% pa
- Paediatric Sepsis Outcomes Improved With USCOM
- CE Mark for New Uscom Asthma and COPD Devices

November

- Uscom CEO Appointed to Govt China Initiative
- Uscom Awarded Euro Grant for Lung Cancer Diagnostic

December

- Uscom ends 2016 with record manufacturing

*Uscom has a history of meeting our milestones*



# 2017 Milestones

## 2017 with growth

- Mission**
  - Capitalise on investments, grow cash
- Products**
  - Global launch BP+ (+2)
  - Global launch SpiroSonic products (+7)
- Revenue**
  - Continue USCOM sales growth
  - Global pricing
  - More and better distribution
  - Cross distribute USCOM/BP+/SpiroSonic
  - Reimbursement drive
- Operations**
  - Sales appointment
  - Grow US, UK and European operations
  - Grow China
- Market value**
  - Grow company fundamentals and shareholder value
- Next step**
  - **4C cash report (late April)**

*Uscom has a history of meeting our milestones*

2017

*“Continuing to grow as planned”*

# Summary

## Continuing to grow

- Record H1 revenue (\$1.9M) with 70% CAGR over last 3 years
- Record revenue Q2 - >\$1.3M
- Record cash receipts for Q2 >\$0.7M up 29% on prior
- Debt free and meeting costs with \$1.9M cash
- BP+ and SpiroSonic suites being prepared for market/revenue during 2017
- Q3 4C for release 20<sup>th</sup> April
- Invested in future products and revenue growth

# 2017

*"Uscom has acquired global assets to ensure reliable revenue growth and long term profitability.*

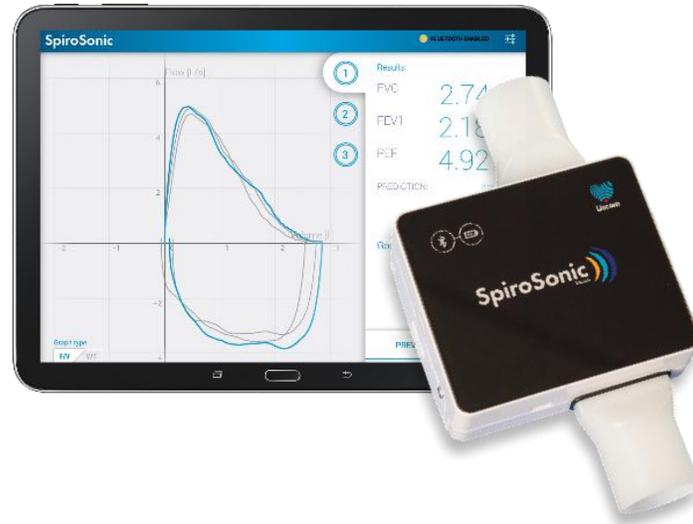
*Our strategy is to efficiently deliver the devices we have developed into global markets.*

*Establish a culture of profitable performance and future shareholder dividends."*

# Great Products



*Digital Doppler Ultrasound  
Advanced hemodynamics*



*Dual Path Digital Ultrasonic  
Spirometry*



*Suprasystolic Oscillometry  
Central BP and PWA*



# Uscom

## Thank you

### 2017 Q3 Update; Continued Growth

**Rob Phillips**

**Uscom Executive Chairman/CEO**

PhD(med), MPhil(med), FASE, DMU(cardiol)

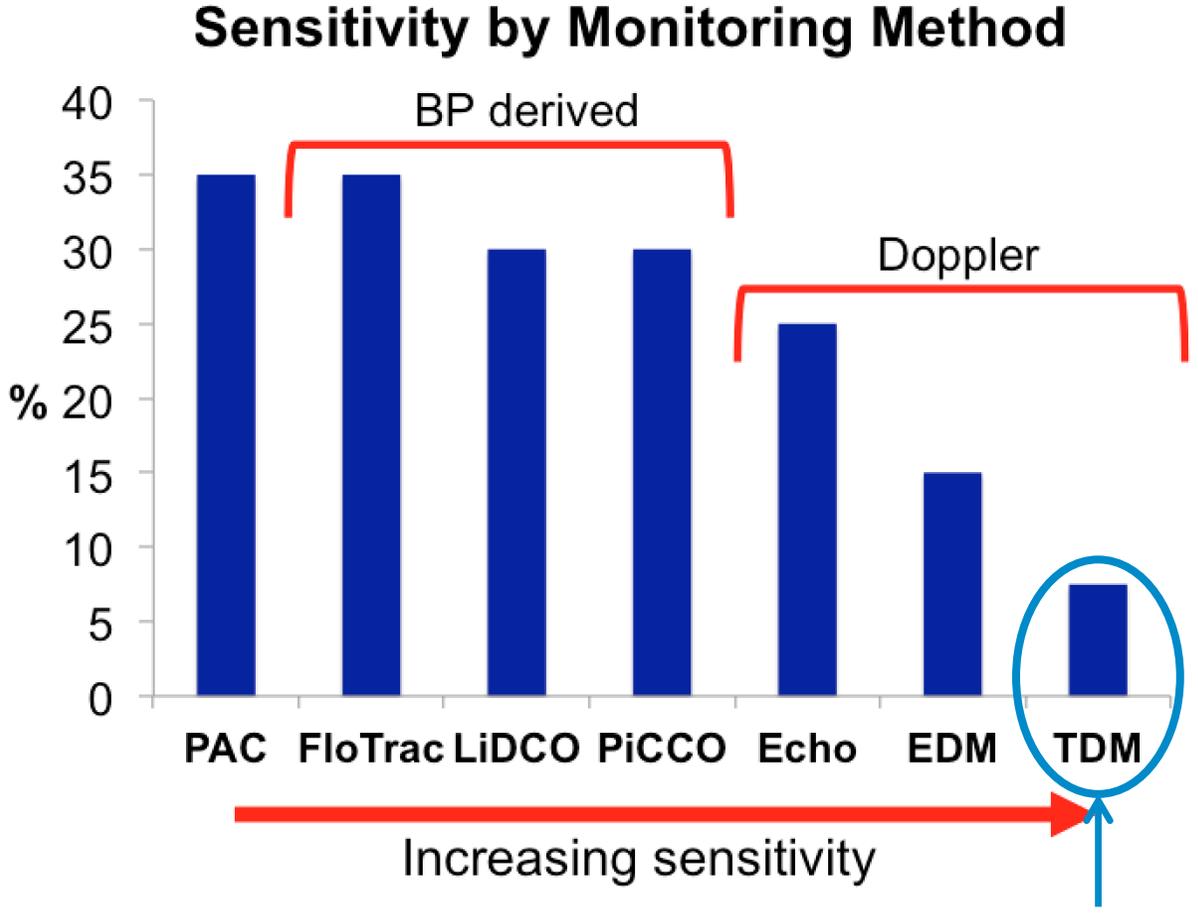
Associate Professor, Critical Care Research Group, School of Medicine, The University of Queensland

APRIL 2017

# USCOM 1A Competitive Advantage

## THE FUTURE OF HEMODYNAMICS

- Better sensitivity to  $\Delta SV$  than thermodilution, bioimpedance or BP monitors



Rob Philips

USCOM 1A



# USCOM 1A Competitive Advantage

| System              | Manufacturer | Technology           | Rel+Rep | Non-invasive | Simple | Cost | Portable | SV beat to beat | Training |
|---------------------|--------------|----------------------|---------|--------------|--------|------|----------|-----------------|----------|
| <b>USCOM 1A</b>     | <b>Uscom</b> | <b>Doppler</b>       | ✓       | ✓            | ✓      | ✓    | ✓        | ✓               | ✓        |
| CardioQ             | Deltex       | Doppler              | ✓       | ✗            | ✓      | ✗    | ✓        | ✗               | ✗        |
| Echo                | Many         | Ultrasound           | ✓       | ✓            | ✗ ✗    | ✗ ✗  | ✓        | ✗               | ✗ ✗      |
| ICON / Aesculon     | Osypka       | Bio Impedance        | ✗       | ✓            | ✓      | ✗    | ✓        | ✗               | ✓        |
| NiCOM               | Cheetah      | Bio Reactance        | ✗       | ✓            | ✓      | ✗    | ✓        | ✗               | ✓        |
| Clearsight (Nexfin) | Edwards      | PPW / BP / Plethysmo | ✗       | ✓            | ✓      | ✓    | ✓        | ✗               | ✓        |
| LiDCO               | LiDCO        | LiCl dilution + PPW  | ✓       | ✗            | ✗      | ✗    | ✗        | ✗               | ✗        |
| LiDCOrapid          | LiDCO        | PPW / BP             | ✗       | ✗            | ✓      | ✗    | ✗        | ✗               | ✗        |
| PiCCO               | Pulsion      | PPW / BP Modified Tx | ✓       | ✗            | ✗      | ✗    | ✗        | ✗               | ✗        |
| FloTrac             | Edwards      | PPW                  | ✗       | ✗            | ✗      | ✗    | ✗        | ✗               | ✗        |
| PAC                 | Many         | Thermodilution       | ✗       | ✗            | ✗      | ✗    | ✗        | ✗               | ✗        |

Uscom – devices the experts use



# USCOM 1A Competitive Advantage

| System              | Manufacturer | Technology              | Strengths                                       | Weaknesses  |
|---------------------|--------------|-------------------------|---|---|
| <b>USCOM 1A</b>     | <b>Uscom</b> | <b>Doppler</b>          | <b>Noninvasive, Rapid, Accurate, True SV/CO</b> | <b>No morphology, discontinuous</b>                     |
| CardioQ             | Deltex       | Doppler                 | Minimally invasive, Simple                      | Discontinuous, DTA flow                                 |
| Echo                | Many         | Ultrasound              | Noninvasive                                     | 3yrs training, 45min exam time, discontinuous           |
| ICON / Aesculon     | Osypka       | Bio Impedance           | Noninvasive, Simple                             | Limited sensitivity                                     |
| NiCOM               | Cheetah      | Bio Reactance           | Noninvasive, Simple                             | Limited sensitivity                                     |
| Clearsight (Nexfin) | Edwards      | PPW / BP / Plethysmo    | Noninvasive, Simple                             | Inaccurate, unreliable                                  |
| LiDCO               | LiDCO        | LiCl dilution +PPW / BP | Noninvasive, Simple                             | Invasive catheters, complex, toxic LiCl, PPW/BP monitor |
| LiDCOrapid          | LiDCO        | PPW / BP                | Single art line                                 | Invasive catheter, PPW/BP monitor                       |
| PiCCO               | Pulsion      | PPW / BP + Modified Tx  | Accurate  | Invasive catheters, Complex, PPW/BP monitor             |
| FloTrac             | Edwards      | PPW / BP                | Single art line                                 | Invasive catheter, PPW/BP monitor                       |
| PAC                 | Many         | Thermodilution          | Established                                     | Invasive catheter, inaccurate, ICU                      |

*Uscom – devices the experts use*



# BP+ Competition



| Uscom BP+                           | TensioMed              | BPLab               | IEM                 | Alam Medical     | SunTech                     | AtCor             | WelchAllyn                   |
|-------------------------------------|------------------------|---------------------|---------------------|------------------|-----------------------------|-------------------|------------------------------|
| Australia                           | Hungary                | Russia              | Germany             | France           | USA                         | Australia         | USA                          |
| USD 2,950                           | USD 6,000              | USD 7,000           | USD 7,000           |                  | USD 3,200                   | USD 14,000        | USD 3,200                    |
| 45 seconds                          | 2 min                  | 2 min               | 2 min               | A few sec + prep |                             | 1 min             |                              |
| Stand-alone ± optional BP+ Reporter | Needs computer         | ABP, needs computer | ABP, needs computer | Needs computer   | ABP, needs computer for cBP | Needs computer    | ABP, needs computer for cBP  |
| CE, FDA, TGA                        | CE                     | CE                  | CE, FDA             | CE               | CE, FDA                     | CE, FDA, TGA      | CE, cBP not available in USA |
| Aortic waveform                     | Central systolic BP    | Rough waveform      | Rough waveform      |                  | Rough waveform              | Rough waveform    |                              |
| Physical model                      | Statistical regression | Transfer function   | Transfer function   |                  | Transfer function           | Transfer function |                              |



# SpiroSonic Competitive Advantage



| Uscom SpiroSonic  | Welch Allyn         | Schiller            | Sibelmed            | Vitalograph         | MIR   | Carefusion          | NDD                            |
|---|---------------------|---------------------|---------------------|---------------------|---|---------------------|--------------------------------|
| Australia   | USA                 | Switzerland         | Spain               | USA                 | Italy   | USA                 | Switzerland                    |
| SpiroSonic  | SpiroPerfect        | Spirovit SP-1       | Dataspir Touch      | Pneumotrac          | Spirodoc                                      | Microloop           | EasyOne PLus                   |
| USD 1,890   | USD 2,100           | USD 1,850           | USD 2,300           | USD 2,030           | USD 1,580                                     | USD 2,180           | USD 1,990                      |
| Dual Path<br>Ultrasound   | Diff Pressure       | Diff Pressure       | Turbine             | Diff Pressure       | Turbine                                       | Turbine             | Single Path<br>Ultrasound      |
| Accurate<br>Auto calibration<br>SpiroReporter<br>Fully digital<br>FreeFlo sensor<br>Hygeinic<br>SpO2<br>Bluetooth<br>Rechargeable | Multiple iterations | Multiple iterations | Multiple iterations | Multiple iterations | Multiple iterations<br>Consumable<br>turbines | Multiple iterations | Accurate<br>Consumable<br>tube |

# Testimonials

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

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

*“USCOM has changed the way I look at the cardiovascular status of my patients.*

*It’s part of the initial shock evaluation and monitored regularly thereafter... USCOM has now been established as the **standard of care.**”*

*Dr Akash Deep, Director of Paediatric ICU, King's College Hospital, London*

*“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 sepsis, heart failure and hypertension.”*

*Professor Malcolm West, Cardiologist, Mayne Professor of Medicine at The University of Queensland School of Medicine, Brisbane, Australia and Uscom Medical Advisory Board Member.*

*“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.*

*“The USCOM device is really good; I use it in all my anaesthetics. I think **there should be one on every ICU bed and on every anaesthetic patient.**”*

*Dr Steve Woodford, Consultant Anaesthetist, circulatory researcher at Australian School of Advanced Medicine, and Uscom Investor,*

*“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*