



# GLOBAL IOT SOLUTION PROVIDER

Sensera designs and manufactures hardware and software across the vertical technology spectrum from unique structures as MicroElectroMechanical Systems (MEMS) and sensors, to wireless networked systems and software, that when combined drive an entire IOT platform solution.



# HIGHLIGHTS

## REVENUE GROWTH TO ACCELERATE

- FY18 Revenues of US\$6.25M - \$7.25M; FY19 ++60%
  - Significant contracts in place driving FY19 and FY20 growth
  - High quality channel partners in animal health and mining
- Runrate operational breakeven by end of FY19

## MULTIBILLION DOLLAR UNDERPENETRATED MARKETS

- Demonstrated commercial adoption and now focused on growth
- Near Term Focus on Medtech, Animal Health and Mining
- Technology leadership, defensible footholds in large complex markets

## UNIQUE TECHNOLOGY CAPABILITY

- Positioned across the entire hardware value chain; Sensor structures (MEMS) to Systems
- Indigenous expansion by adding sensors and software to existing location awareness platform

## LONGER TERM OPPORTUNITY

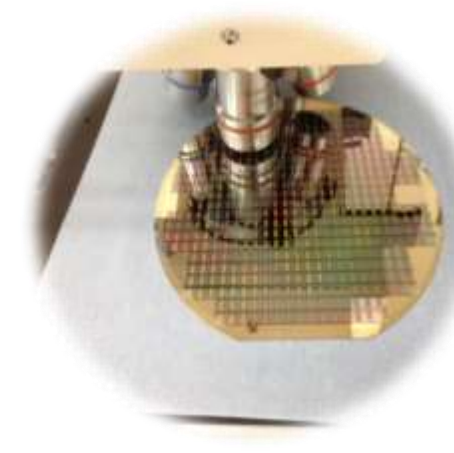
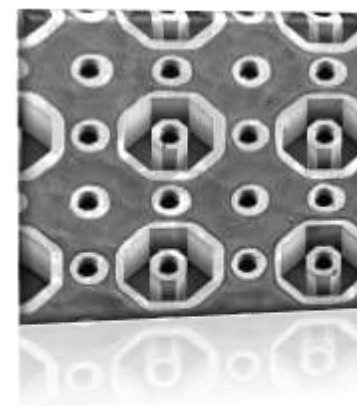
- Provide complete solutions via a service model, not just capital expense
- IOT Platform for consolidation of analytic sensor solution based assets

\*FY - 1 Jul to 30 Jun

What our Customers  
See Outside



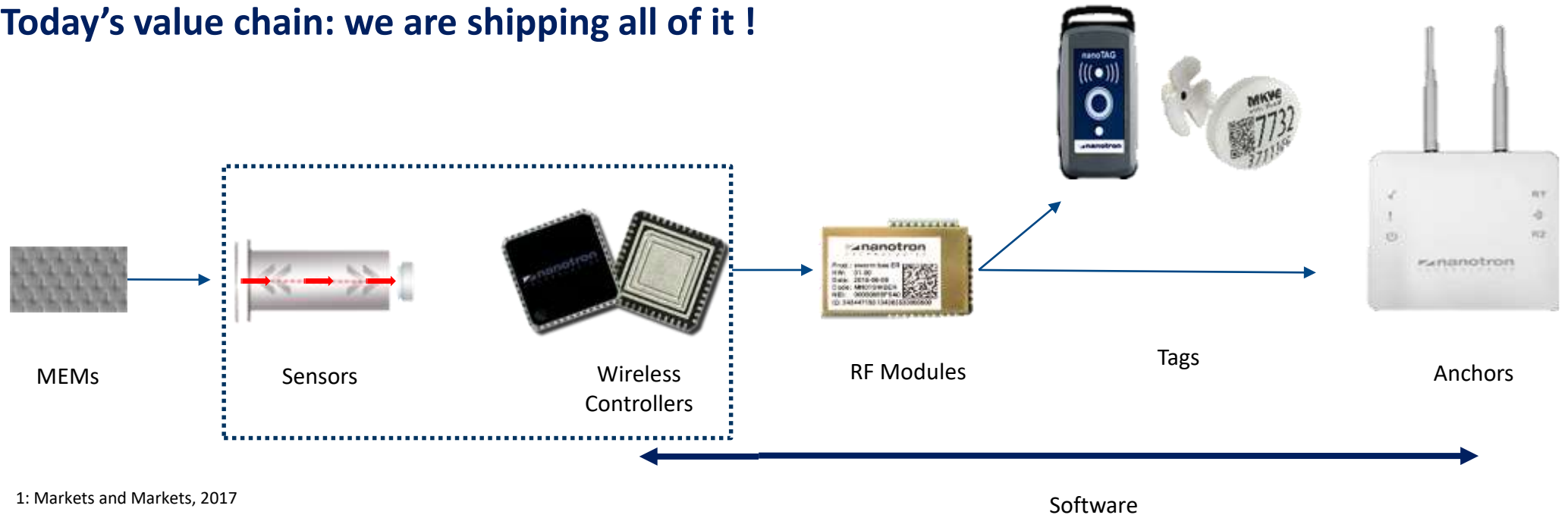
Our Technology  
Inside



# IOT VALUE CREATION

- The market for wireless sensor networks for the IoT is substantial and fast growing;
  - US\$30bn in 2016 and is forecast to grow to US\$93bn by 2021<sup>1</sup>.
- IOT Value Creation Starts with knowing What, Where and When : Can only be done with wireless sensors
- Delivers MEMS, Sensors, Wireless Location Awareness and Analytical Software that captures “What, Where and When”

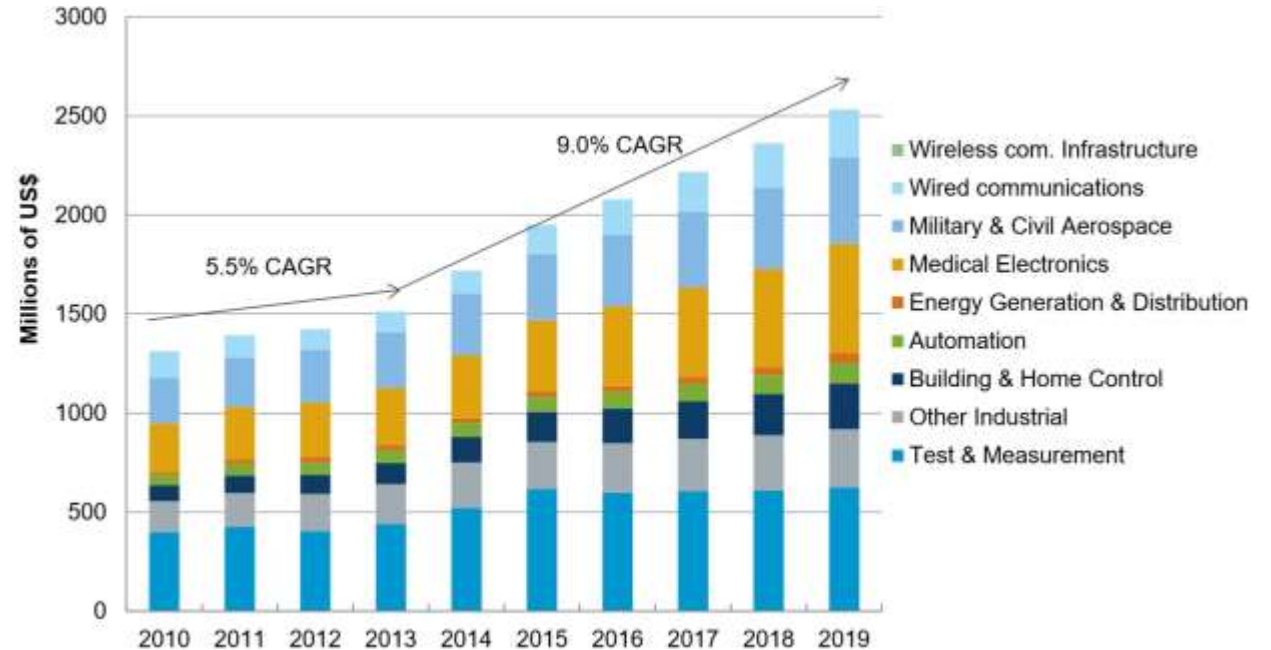
**Today's value chain: we are shipping all of it !**



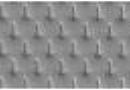
# LEAD MARKET: MEDTECH

- Sensera's provides complex R&D and bespoke manufacturing services for companies developing sophisticated microdevices and for internal R&D projects (sensor + location)
- The Company is particularly focussed on the **Medtech** sector and possesses internal expertise in Microfluidics where **Medtech** is the largest market
- Microfluidics: "Microstructures that capture fluids and analyze liquids"
- Microfluidics based designs also the key component for "organs-on-a-chip" development

## MEMS TAM: US\$1B IN MEDTECH AND MILITARY



- 9/10 clients in Medtech
- 4/10 in production phase
- 6/10 in R&D phase
- 3 year multimillion \$ supply agreement (see appendix)



# LEAD MARKET: ANIMAL HEALTH



- Partnered with SMARTBOW GmbH a leading animal software company and we provide core technology to their Eartag LIFE product
- SMARTBOW partnered with the largest Animal Pharma firm (Zoetis) in 2017
- Benefits of Eartag LIFE exist across the full spectrum of livestock operations:
  - Correlating animal movement to health status
  - Detecting heat, rumination, lameness and infections
  - Both dairy and beef farms
  - Future: Pigs
- Saves time in terms of behaviour monitoring, animal husbandry tasks and quality and improved herd yield
- Two year exclusive supply agreement; MOQ's and next gen dev plan in place
  - FY19 and FY20 targeting several thousands of farm deployments at average of US\$2,500 per farm to SE1
  - Technology currently operating successfully in hundreds of farms



## Current TAM

- US\$7B
- 250M dairy cows
- 1Bn cattle

## Current SAM (dairy cows)

- US\$3.8B
- US\$0.8B in tags
- US\$3B in location awareness anchors and software

### *Note:*

- TAM (Total addressable market)
- SAM (Serviceable addressable market)



# LEAD MARKET: MINE SAFETY AND PRODUCTIVITY



- Sensera's location awareness solutions for **collision avoidance (CAS)** and **tracking** of people and assets is live in > 50 mines
- Benefits of solution:
  - CAS decreases fatalities and reduces the negative economic effects of accidents
  - Tracking provides process visibility, improves equipment efficiency and evacuation performance
  - Future: open cut mines and rail safety
- Market leading solution
  - Very high positioning accuracy
  - Works in challenging locations (e.g. underground)
- Current av. sale of US\$75,000 (predominantly hardware and embedded software)
- Recurring revenue through mine expansion and replacing hardware.

## MINING: CURRENT PENETRATION



### Current TAM

- US\$3Bn
- 62K sites
- 10M miners

### Current SAM

- US\$0.5Bn
- Underground coal and hard rock

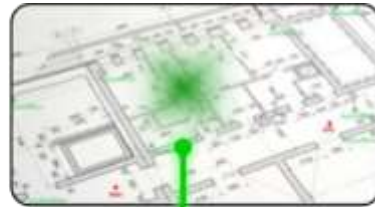


# WHAT'S NEXT: MOVING UP THE VALUE CHAIN

## 1. SELL DATA AND SOLUTIONS IN ADDITION TO HARDWARE

### Location Analytics being driven with IOT software platform

- ClearBlade partnership announced April 2018
- First implementation is currently being deployed in Healthcare a US\$500M indoor positioning market



### Location as a Service (LAAS)

- Location Analytics is the first step towards fully functional solutions to have “Location as a Service”
- Customers can choose Opex vs. Capex spend
- Plug and play solution gives faster time to revenue

## 2. SENSOR INTEGRATION + LOCATION + CONTEXT

- Input more context information
- e.g. Gas sensors for both mining and animal health integrated with location awareness technology
- Size so small that it can be integrated in the Tags (enabled by MEMs)
- Not randomly placed...Now mobile and on the “High Value” assets (i.e People)
- Lower cost than today’s fixed sensors or other methods





# REVENUE MODEL

CURRENT

GM: >50%

FUTURE

GM: >60%

LOCATION AWARENESS



MICRODEVICES



# REVENUE MODEL

## CURRENT

GM: >50%

LOCATION AWARENESS

- RF Modules / Anchors / Software
- Predominantly capital expenditure
- Sold in conjunction with systems integrators



## FUTURE

GM: >60%

- Business intelligence solutions
- Data analytics
- Add sensors (gas, temperature etc) and increase context
- Op ex vs cap ex (hosted solution option)

MICRODEVICES

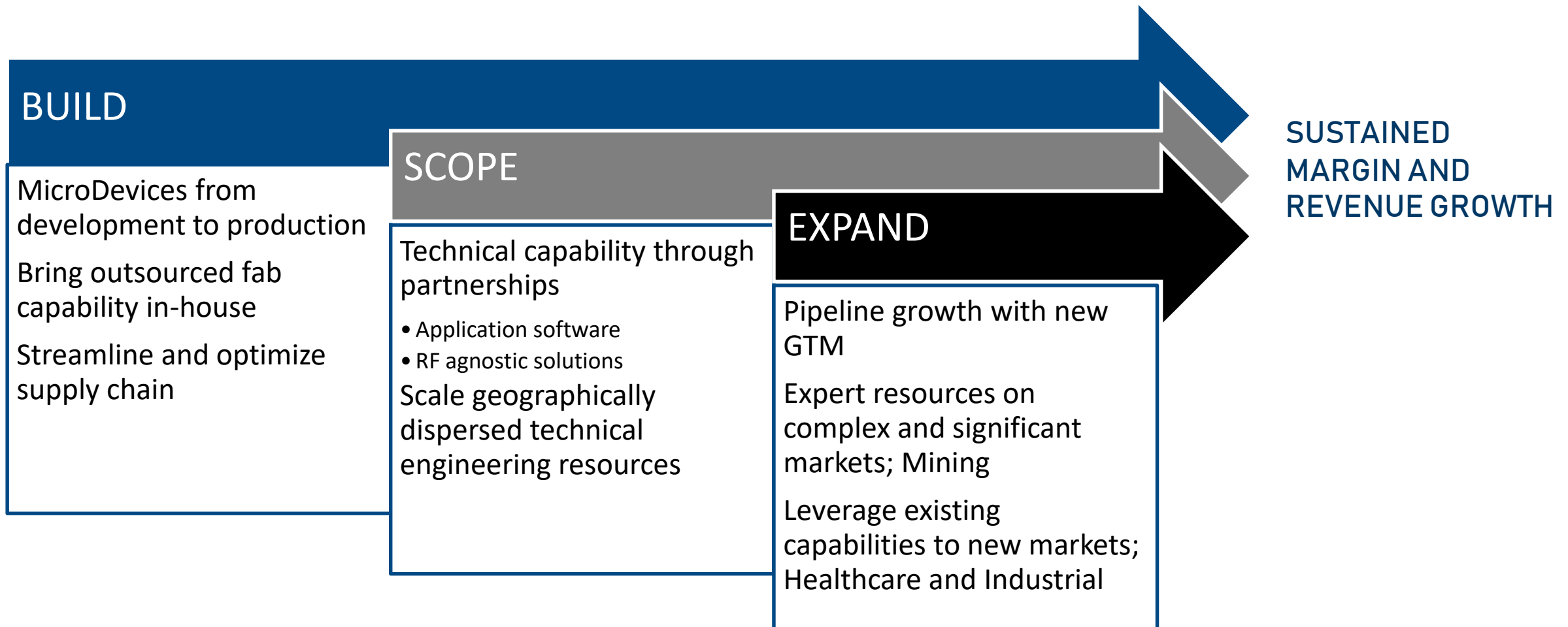
- R&D / pilot scale manufacturing / commercial manufacturing
- High percentage of NRE at cost plus
- Client base transitioning to commercial manufacturing



- Increase in commercial scale manufacturing
- Lower percentage of custom R&D / pilot scale manufacturing
- Internal sensor design and manufacture



# BUILDING MOMENTUM



BASE BUSINESS GIVES MOMENTUM FOR ENHANCEMENTS TO SENSERA



# FY19 OUTLOOK

- **RAMP FY19 REVENUES SIGNIFICANTLY**

- Meet contractual demand for existing animal health, mining and Medtech customers
- Ensure robust and cost effective supply chain

- **OPERATING CASH FLOW POSITIVE BY THE END OF FY19**

- Revenue and profit growth ahead of opex
- Prudent spending whilst meeting existing demand and filling pipeline

- **CLOSE ON PARTNERSHIPS FOR KEY CAPABILITIES**

- Software infrastructure and applications
- Extend RF capabilities to address existing infrastructure
- Moves us towards being a total solutions provider

US\$	Expected FY18	FY19 vs. FY18	Comments
Revenue	\$6.25M - \$7.25M	++60%	<ul style="list-style-type: none"> <li>▪ Location - SmartBow contract and mining growth</li> <li>▪ Microdevices - Abiomed contract and multiple customer ramps</li> </ul>
Op Ex	\$10.5M - \$11.5M	+10%	<ul style="list-style-type: none"> <li>▪ R&amp;D: Further chip and software dev.</li> <li>▪ GTM* staff increases</li> </ul>
Loss	\$7.2M - \$8.2M	-50%	<ul style="list-style-type: none"> <li>▪ End of FY19 expect to be operating at cash flow positive</li> </ul>

\*Go to market



# SENSERA CORPORATE INFORMATION

## CAPITAL STRUCTURE AND VALUATION

Ordinary shares on issue	m	163.8
Share price (6 Apr 18)	A\$/share	0.23
<b>Market capitalisation</b>	<b>A\$m</b>	<b>\$37.6m</b>
Debt (as at 31 Dec 17)	A\$m	-
Cash <sup>1</sup> (as at 31 Dec 17)	A\$m	\$5.8m
<b>Enterprise Value</b>	<b>A\$m</b>	<b>\$37.6m</b>

## TOP SHAREHOLDERS (18 APR 18)

Name	Shares Held (m)	% of Shares on Issue
JP Morgan Nominees	14.2	8.6%
Triton Systems, Inc	11.8	7.2%
Newburyport Capital	10.0	6.1%
Maple Management	9.7	5.9%
<b>Top 20 Shareholders</b>	<b>65.7</b>	<b>48.2%</b>

### Notes:

1. At exchange rate of AUD/USD 0.77

## SHARE PRICE / VOLUME HISTORY (A\$; MILLIONS)



## BOARD OF DIRECTORS AND KEY EXECUTIVES

Name	Position
Ralph Schmitt	CEO and Managing Director
Matthew Morgan	Non-Executive Chairman
George Lauro	Non-Executive Director
Jonathan Tooth	Non-Executive Director
David Garrison	Chief Financial Officer
Jens Albers	CEO, nanotron



# SUMMARY

- **ATTRACTIVE FY19 AND FY20 GROWTH TRAJECTORY**
  - Existing book of business; plus recently established contracts (SMARTBOW and Abiomed)
  - Sales FY19 vs FY18 ++60%
  - Cash flow positive late FY19
- **DIFFERENTIATED AND DEFENSIBLE TECHNOLOGY**
  - Develop hardware further with new sensor IP
  - Add software to offer complete data analytics
  - Emerge with higher recurring revenue from a hosted solution
- **INVESTMENT IN GO-TO-MARKET (GTM)**
  - Proven Products = Lower technology risk
  - Team built to leverage technology adoption through investment in Go to Market
- **COMPELLING STOCK VALUATION**
  - < 3x FY19 revenue





(ASX: SE1)



An Internet of Things (IoT) solution provider that delivers Sensor based products transforming real-time data into meaningful information, action and value



# CONTACTS

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# APPENDICES

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1. Mining - Collision avoidance systems
2. Mining - Asset tracking
3. Microdevices - Medical device



# PARK THERMIC MINE COMPLEX IN TURKEY

This implementation is one of the most advanced systems of its type anywhere in the world



“Mechanized mining has been the driving force for cost savings through automation and process optimization as well as fulfilling the most critical moral responsibility we have of proving better protection and safety for the mine workers in their daily working environment,”

**Michal Szebista**, Project Lead at the Park Thermic Coal Mine and Member of the Board of ATUT.

Mining Company: Ciner Group  
System Integrator: Atut



Following a major disaster in 2014 the Turkish government mandated human tracking at coal mines.

Benefits of the Park Thermic Real-time tracking:

- Tracking 2,360 miners
- Scalability: Tens of km of tunnels and four excavation blocks
- 24/7 operation, no interruption



# GROUP PENOLES' TIZAPA SILVER MINE IN MEXICO

Automatically monitor vacating the drilling area in preparing to blast

Benefits of the “Key-Out” Solution at Minera Tizapa:

- 24/7 safety for 650 miners
- Increased safety compliance with NOM-023-STPS-2012
- Reduced response time to accidents and/or safety incident
- Significantly increased haulage efficiency due to visibility at the individual truck-level

Mining Company: Group Peñoles  
System Integrator: Becker Lasec



Tags Provided upon entering the Mine



Readers connected through mine network to central control room



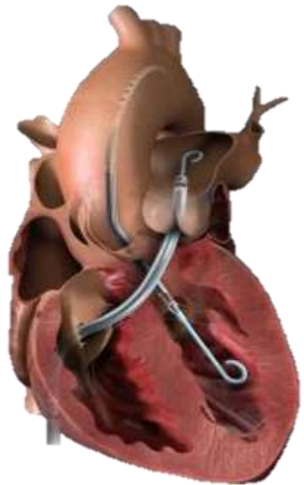
Automatic monitoring of safety incidents



# ABIOMED ENGAGEMENT

Percutaneous heart pump technologies

Pump



Impella CP®

The Impella® heart pump pulls blood from the left ventricle through an inlet area near the tip and expels blood from the catheter into the ascending aorta offering hemodynamic support to the heart and organs including the brain and kidneys.

Impella Console  
Automated Controller



“Abiomed Receives FDA Approval for Impella CP® with SmartAssist™ and Optical Sensor”  
April 2, 2018

Sensera Products Sold



1. Optical Bench converts optical sensor read out to electronic pressure value

2. Optical sensor/fiber attach



Inserts into catheter

Optical Sensor allows placement w/o imaging for faster set up and more accurate positioning simplifying patient management for physicians, cath lab staff and ICU staff.

# ABIOMED MARKET OPPORTUNITY

- **ABIOMED FOCUSED ON MARKET EXPANSION**

- **\$5B TAM which is only 9% penetrated**
- **Targeting 3 primary markets**
  - US potential 231K patients annually
  - Japan 50K and Germany 25K annually
- **ROW Expansion**
  - Impella now approved in China, Canada, UK, Spain, Italy and France



## SENSERA's ABIOMED OPPORTUNITY

- **DEPLOYED ACROSS ALL IMPELLA'S**
  - Starts with CP
  - Implemented across all over time
- **RETROFIT EXISTING CONSOLES**
  - 4000 over the first 18 Mo
  - All new sales enabled with new bench

