

unlocking the potential of ultrasound



Our aim is to not only

**help**

medical professionals

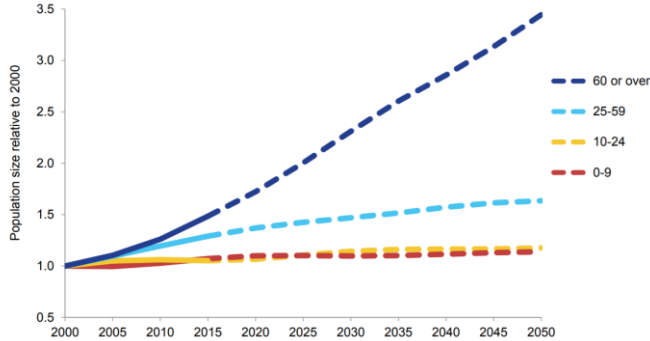
but to use **AI** to unlock

ultrasound for

**everyone**

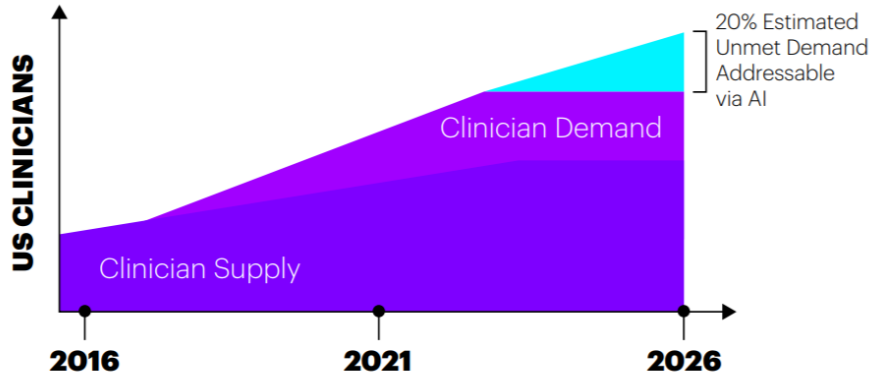


# Healthcare trends



[http://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2015\\_Report.pdf](http://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2015_Report.pdf)

- An aging population will cause clinician demand to outstrip supply
- AI can help meet this need
- AI market in automated diagnosis is valued at \$3B



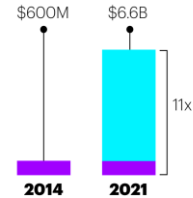
Source: Accenture analysis. Graph is not to scale and is illustrative.

## Accenture

The AI health market is seeing explosive growth

### HEALTH AI MARKET SIZE 2014-2021

Acquisitions of AI startups are rapidly increasing while the health AI market is set to register an explosive CAGR of 40% through 2021



Source: Accenture analysis

<https://www.accenture.com/us-en/insight-artificial-intelligence-healthcare>

## Top 10 AI Applications

APPLICATION	VALUE*
Robot-Assisted Surgery™	\$40B
Virtual Nursing Assistants	\$20B
Administrative Workflow Assistance	\$18B
Fraud Detection	\$17B
Dosage Error Reduction	\$16B
Connected Machines	\$14B
Clinical Trial Participant Identifier	\$13B
Preliminary Diagnosis	\$5B
Automated Image Diagnosis	\$3B
Cybersecurity	\$2B

TOTAL = ~\$150B

**SIMULATION DIVISION**

◀ MedaPhor is split into two divisions ▶

**CLINICAL DIVISION**

**TRAINING**

**TESTING**

**SIMULATION**

Supporting and enabling  
scanning with  
deep-learning based  
**ARTIFICIAL  
INTELLIGENCE**

**GUIDING**

**SUPPORTING**

**ENABLING**

## SIMULATION DIVISION



General Medical and OBGYN simulator aimed at medical schools and hospitals globally



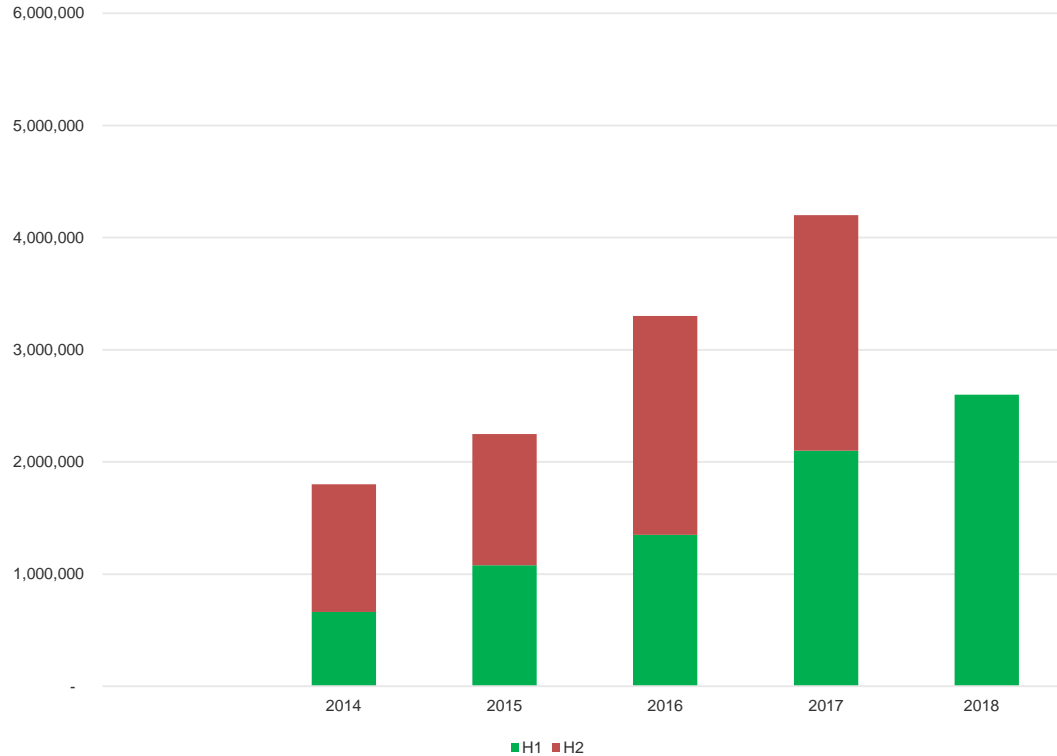
Echocardiography simulator range aimed at teaching cardiology and anaesthesiology schools



New ultra-realistic simulator aimed at the Emergency, Intensive Care and Critical Care PoCUS market



## SIMULATION DIVISION – revenue performance



### H1 2018 GLOBAL REVENUE UP 23% to £2.5m

- UK sales up 66% to £0.5m (2017: £0.3m)
- US sales comparable in the period at £0.7m (2017: £0.7m)
  - Strong H2 expected
- ROW sales up 22% at £1.3m (2017:1.1m)

**CLINICAL DIVISION**



## IMAGE AQUISION

- *Find anatomical structure*
- *Acquire an image good enough to diagnose from*
- *Freeze image*
- *Label image and save*
- *Apply measurements*

Freeze image



Review image



Apply metrics



Save image



 SCANNAV™ | Auto Capture

PHASE ONE

## Benefits of AI in scanning



In a live scan, the clinician wants to concentrate on:

- *Scanning the patient*
- *Identifying anomalies*
- *Diagnosing the patients condition*

In protocol based scanning, they also need to:

- *record an image of every key structure*

## IMAGE DIAGNOSIS

- *Confirm structure has been fully scanned*
- *Identify abnormal structures*

Review anatomy



Identify abnormal



 SCANNAV™ | Assist

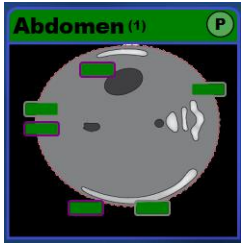
PHASE TWO



ON PILOT IN TWO UK HOSPITALS

Legend for image status:

- No image taken (Grey box)
- Image saved but invalid (Blue box)
- View partially complete (Yellow box)
- View complete (Green box)

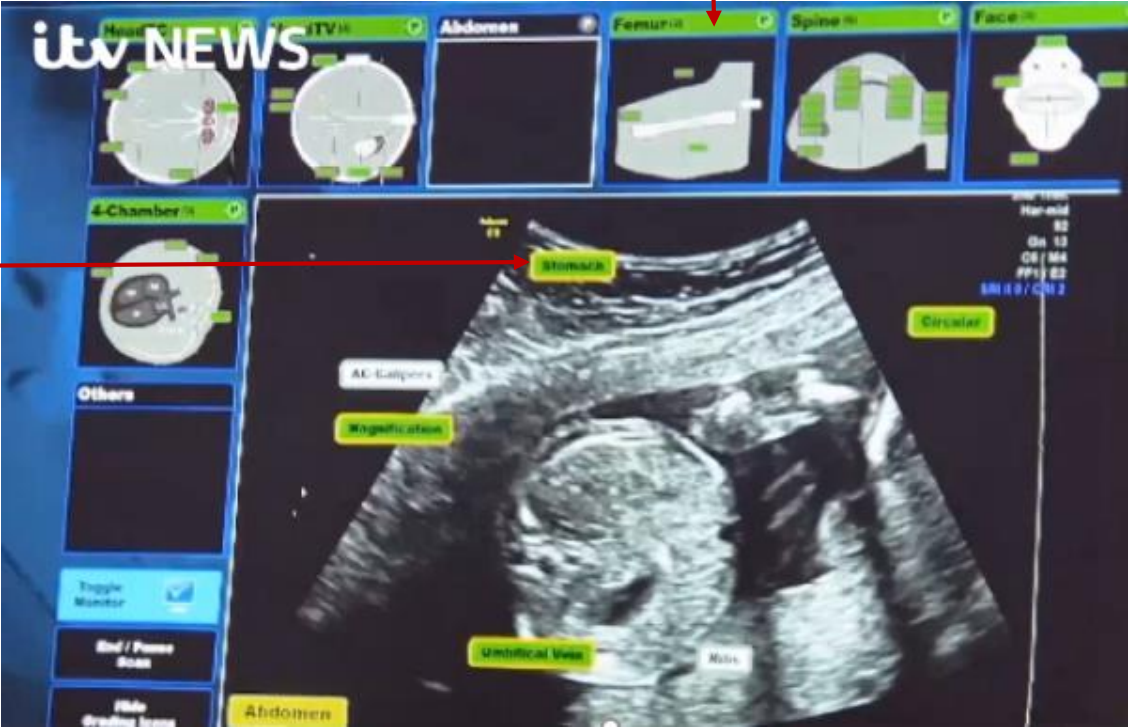


Criteria required in this image

Criteria can be completed in this or another image

SAVE IMAGE on machine

- Taught on >350,000 graded obstetric images
- Guides and supports sonographer in a live 20 week scan
- Reduces scanning time and standardises image acquisition
- 100% audit trail
- In period we have:
  - Launched a CE marked pilot system into 2 UK hospitals



## SCANNAV™ | Auto Capture

- Automatically selects key images during scan
- Significantly reduces scanning time
- Standardises image acquisition
- Enables sonographer to focus on diagnosis
- In period we have:
  - *Produced working system on FASP protocol*
  - *As seen on ITV*
  - *Focussed on identifying OEM partners*





- *Retro-fit software aimed at non-protocol driven scanning*
  - *Kidney*
  - *Liver*
  - *Pancreas etc*
- *Software automatically detects:*
  - *Potentially abnormal areas of anatomy*
  - *If the area has not been completely scanned*
- *Lowers risk of sonographer missing abnormalities*
- *In period we have:*
  - *Worked on regulatory pathways*
  - *Developed working proof of concept device*
  - *Developed AI models for first key anatomical structure*

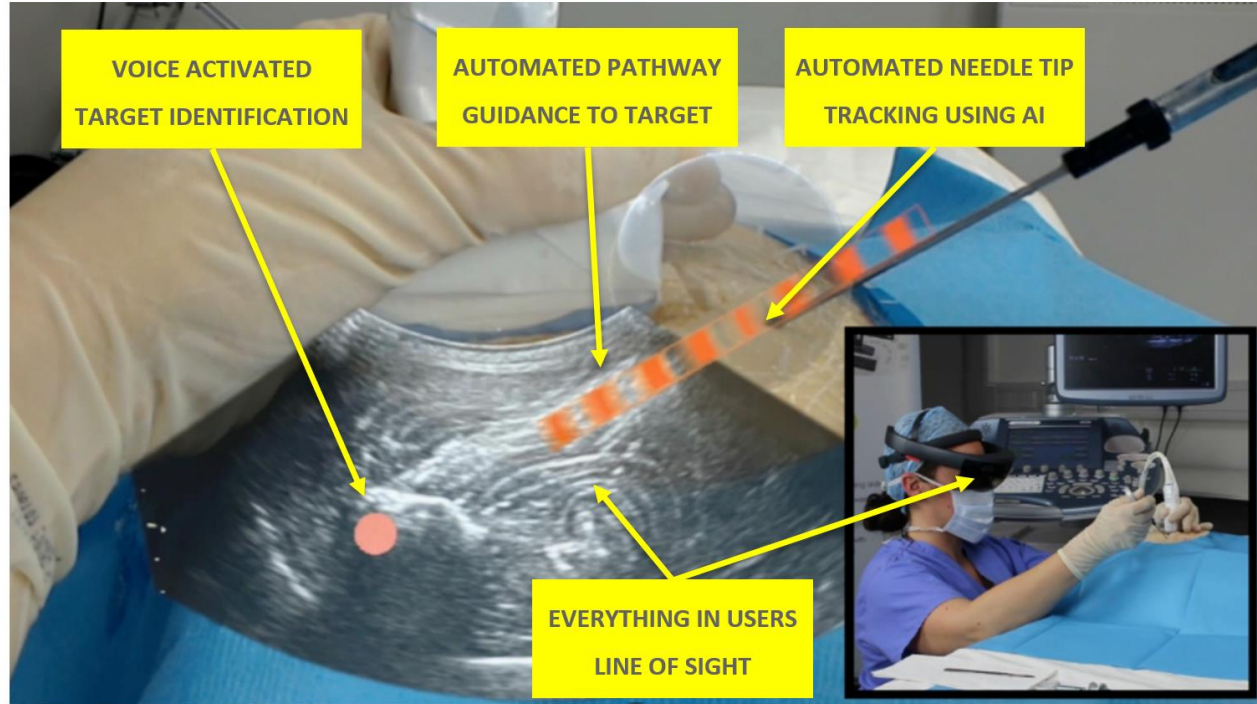




- AR and AI based needling assistant
  - *Guides operator to reduce error*
  - *De-skills procedure to increase use*
- Working POC and patent filed
- In period have worked on:
  - *Confirmed Innovate UK grant*
  - *Reviewed regulatory and quality standard pathways*
  - *Commenced AI models for anatomical structures*



Innovate UK





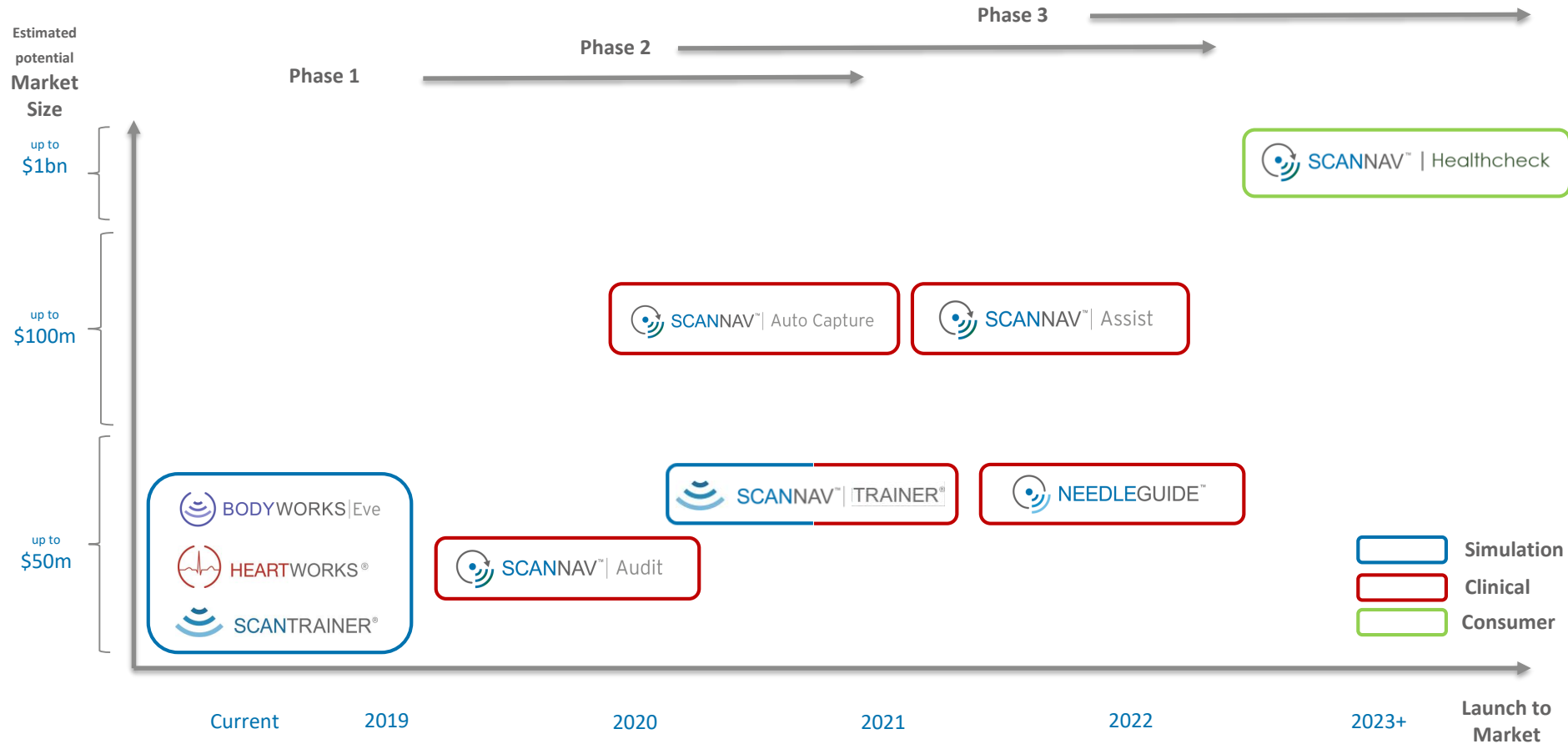
# SCANNAV™ | Healthcheck

## Automated home scanning – the future?

- Aim to utilise low cost consumer scanning devices that plug into phones
- Linking into medical database in the cloud to provide automated scanning at home
- In period we have:
  - Focussed on identifying potential product functionality
  - Initial scoping



# Product summary



# FINANCIALS

## UNAUDITED 2018 HALF YEAR RESULTS



# UNAUDITED 2018 HALF YEAR RESULTS

## Summary

- Simulation division sales increased 23% on the comparative period to £2.5m (H1 2017: £2.1m)
- Strong Revenue contribution from the newly launched BodyWorks Eve driven by high uptake from our reseller network.
- Intelligent Ultrasound successfully integrated and new Clinical software division created
- ScanNav artificial intelligence (AI) ultrasound peer review pilot commenced in first UK hospitals
- NeedleGuide AI software development commenced
- Cash balance at 30 June 2018 of £2.5m (31 December 2017: £4.3m)

# CONSOLIDATED INCOME STATEMENT

		Unaudited 6 months ended Notes 30 June 2018	Unaudited 6 months ended 30 June 2017	Audited year ended 31 December 2017
		£	£	£
REVENUE	5	2,521,934	2,055,490	4,180,630
Cost of sales		(1,191,414)	(768,332)	(1,657,765)
Gross profit		1,330,520	1,287,158	2,522,865
Other income		78,116	-	28,225
Administrative expenses		(3,445,988)	(2,598,910)	(5,228,211)
Exceptional administrative income/(costs)	6	149,044	-	(2,860,774)
Total administrative costs		(3,218,828)	(2,598,910)	(8,060,760)
OPERATING LOSS		(1,888,308)	(1,311,752)	(5,537,895)
Interest income/(Finance costs)		-	-	(7,833)
LOSS BEFORE INCOME TAX		(1,888,308)	(1,311,752)	(5,545,728)
Income tax credit	7	45,000	88,510	127,609
LOSS ATTRIBUTABLE TO THE EQUITY SHAREHOLDERS OF THE PARENT		(1,843,308)	(1,223,242)	(5,418,119)
OTHER COMPREHENSIVE INCOME				
Items that will or may be reclassified to profit or loss:				
Exchange gain/(loss) arising on translation of foreign operations		(1,906)	(8,373)	31,171
OTHER COMPREHENSIVE INCOME FOR THE PERIOD		(1,906)	(8,373)	31,171
TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO THE EQUITY SHAREHOLDERS OF THE PARENT		(1,845,214)	(1,231,615)	(5,386,948)

# REVENUE ANALYSIS

Unaudited 6 months ended 30 June 2018	Simulation Division		Clinical Division	Total
	Distribution	Direct Sales		
	£	£		
United Kingdom	-	548,319	-	548,319
North America	-	656,036	-	656,036
Rest of World	1,317,579	-	-	1,317,579
	<u>1,317,579</u>	<u>1,204,355</u>	<u>-</u>	<u>2,521,934</u>

Unaudited 6 months ended 30 June 2017	Simulation Division		Clinical Division	Total
	Distribution	Direct Sales		
	£	£		
United Kingdom	-	331,363	-	331,363
North America	-	646,715	-	646,715
Rest of World	1,077,412	-	-	1,077,412
	<u>1,077,412</u>	<u>978,078</u>	<u>-</u>	<u>2,055,490</u>

# CONSOLIDATED BALANCE SHEET

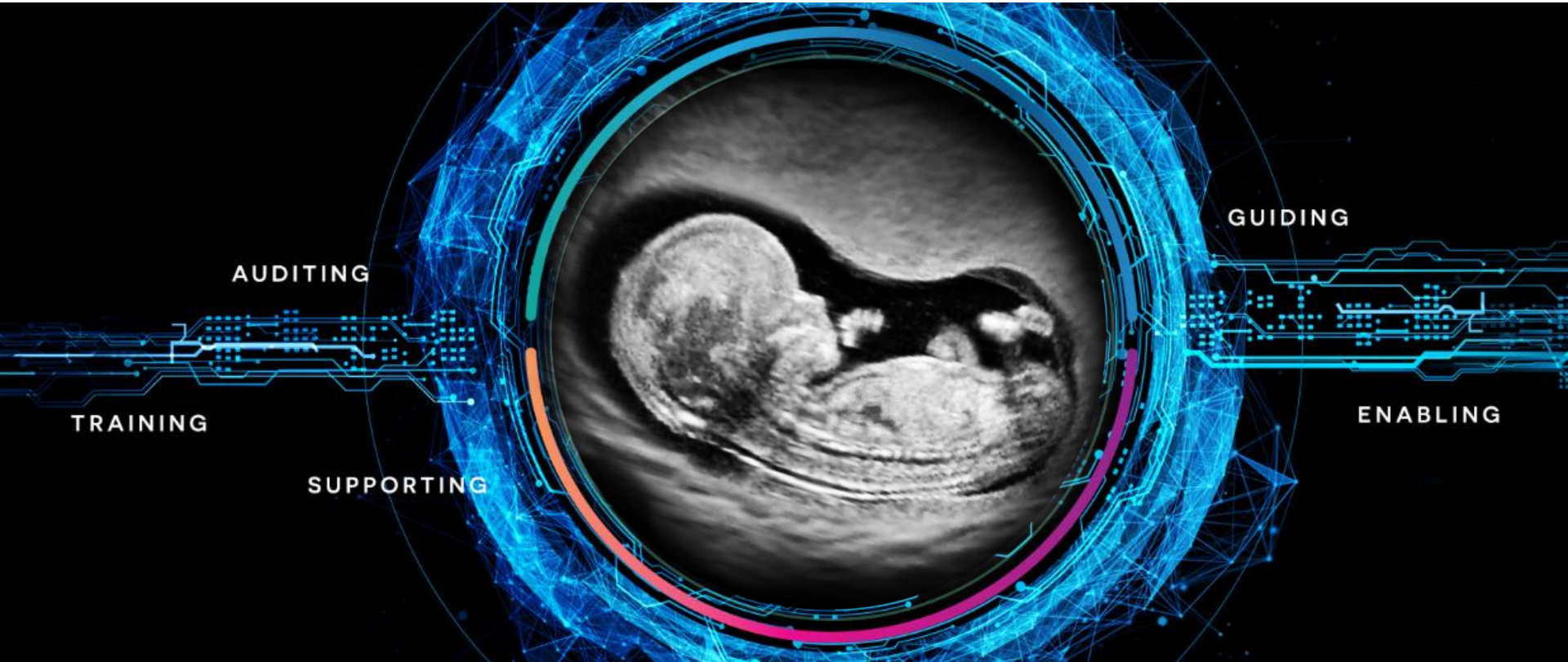
	Note	Unaudited 30 June 2018	Unaudited 30 June 2017	Audited 31 December 2017
		£	£	£
<b>NON-CURRENT ASSETS</b>				
Intangible assets	9	3,175,456	3,466,340	3,366,477
Property, plant and equipment		417,502	330,843	312,506
		<u>3,592,958</u>	<u>3,797,183</u>	<u>3,678,983</u>
<b>CURRENT ASSETS</b>				
Inventories		468,031	438,206	413,244
Trade and other receivables		1,666,136	1,327,058	1,709,436
Current tax asset		-	55,310	-
Cash and cash equivalents		2,498,984	581,855	4,250,198
		<u>4,633,151</u>	<u>2,402,429</u>	<u>6,372,878</u>
<b>TOTAL ASSETS</b>		<b>8,226,109</b>	<b>6,199,612</b>	<b>10,051,861</b>
<b>CURRENT LIABILITIES</b>				
Trade and other payables	10	(2,372,631)	(2,203,659)	(2,356,702)
Provisions		(79,088)	(86,827)	(80,555)
		<u>(2,451,719)</u>	<u>(2,290,486)</u>	<u>(2,437,257)</u>
<b>NON-CURRENT LIABILITIES</b>				
Deferred taxation		(422,994)	(271,133)	(467,994)
		<u>(422,994)</u>	<u>(271,133)</u>	<u>(467,994)</u>
<b>TOTAL LIABILITIES</b>		<b>(2,874,713)</b>	<b>(2,561,619)</b>	<b>(2,905,251)</b>
<b>NET ASSETS</b>		<b>5,351,396</b>	<b>3,637,993</b>	<b>7,146,610</b>
<b>EQUITY</b>				
Ordinary share capital	11	907,015	318,986	907,015
Share premium		12,216,670	7,267,139	12,216,670
Accumulated losses		(14,267,239)	(8,229,054)	(12,423,931)
Share-based payment reserve		463,600	356,600	413,600
Merger reserve		6,013,065	3,943,675	6,013,065
Foreign exchange reserve		18,285	(19,353)	20,191
<b>TOTAL EQUITY</b>		<b>5,351,396</b>	<b>3,637,993</b>	<b>7,146,610</b>

# CURRENT LIABILITIES – TRADE AND OTHER PAYABLES

	Unaudited 30 June 2018 £	Unaudited 30 June 2017 £	Audited 31 December 2017 £
Trade payables	477,904	575,680	389,911
Taxation and social security	94,042	68,160	80,319
Accruals	449,386	371,821	454,490
Deferred income	362,433	187,998	298,065
Warrants	125,669	-	125,669
Retention consideration shares	786,819	1,000,000	926,396
Retention consideration warrants	53,368	-	62,835
Other	23,010	-	19,017
	<u>2,372,631</u>	<u>2,203,659</u>	<u>2,356,702</u>

# CONSOLIDATED CASH FLOW

	Unaudited 6 months ended 30 June 2018 £	Unaudited 6 months ended 30 June 2017 £	Audited year ended 31 December 2017 £
<b>CASH FLOW FROM CONTINUING OPERATING ACTIVITIES</b>			
Loss before tax	(1,888,308)	(1,311,752)	(5,545,728)
Depreciation	107,309	101,344	232,369
Amortisation of intangible assets	497,687	350,596	793,543
Impairment of goodwill	-	-	3,328,166
Fair value adjustment on contingent consideration	(149,044)	-	(636,628)
Finance costs	-	-	7,833
Share-based payments expense	50,000	35,000	92,000
Operating cash flows before movement in working capital	(1,382,356)	(824,812)	(1,728,445)
Movement in inventories	(54,787)	44,132	69,094
Movement in trade and other receivables	43,300	287,480	(61,351)
Movement in trade and other payables	163,506	(417,671)	(575,798)
Cash used in operations	(1,230,337)	(910,871)	(2,296,500)
Income taxes received	-	45,534	100,844
<b>NET CASH USED IN OPERATING ACTIVITIES</b>	<b>(1,230,337)</b>	<b>(865,337)</b>	<b>(2,195,656)</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>			
Purchase of property, plant and equipment	(212,305)	(65,646)	(183,012)
Disposal of property, plant and equipment	-	-	11,440
Internally generated and purchase of intangible assets	(306,666)	(244,652)	(492,118)
Cash used in acquisition of subsidiaries	-	-	(72,000)
Cash acquired on acquisition of subsidiaries	-	-	1,559
<b>NET CASH USED IN INVESTING ACTIVITIES</b>	<b>(518,971)</b>	<b>(310,298)</b>	<b>(734,131)</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>			
Issue of new shares	-	-	5,515,665
Share issue costs	-	-	(124,881)
Finance costs paid	-	-	(7,833)
<b>NET CASH GENERATED FROM FINANCING ACTIVITIES</b>	<b>-</b>	<b>-</b>	<b>5,382,951</b>
Exchange (losses)/gains on cash and cash equivalents	(1,906)	(8,373)	31,171
<b>NET (DECREASE)/INCREASE IN CASH AND CASH EQUIVALENTS</b>	<b>(1,751,214)</b>	<b>(1,184,008)</b>	<b>2,484,335</b>
CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD	4,250,198	1,765,863	1,765,863
CASH AND CASH EQUIVALENTS AT END OF PERIOD	2,498,984	581,855	4,250,198



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