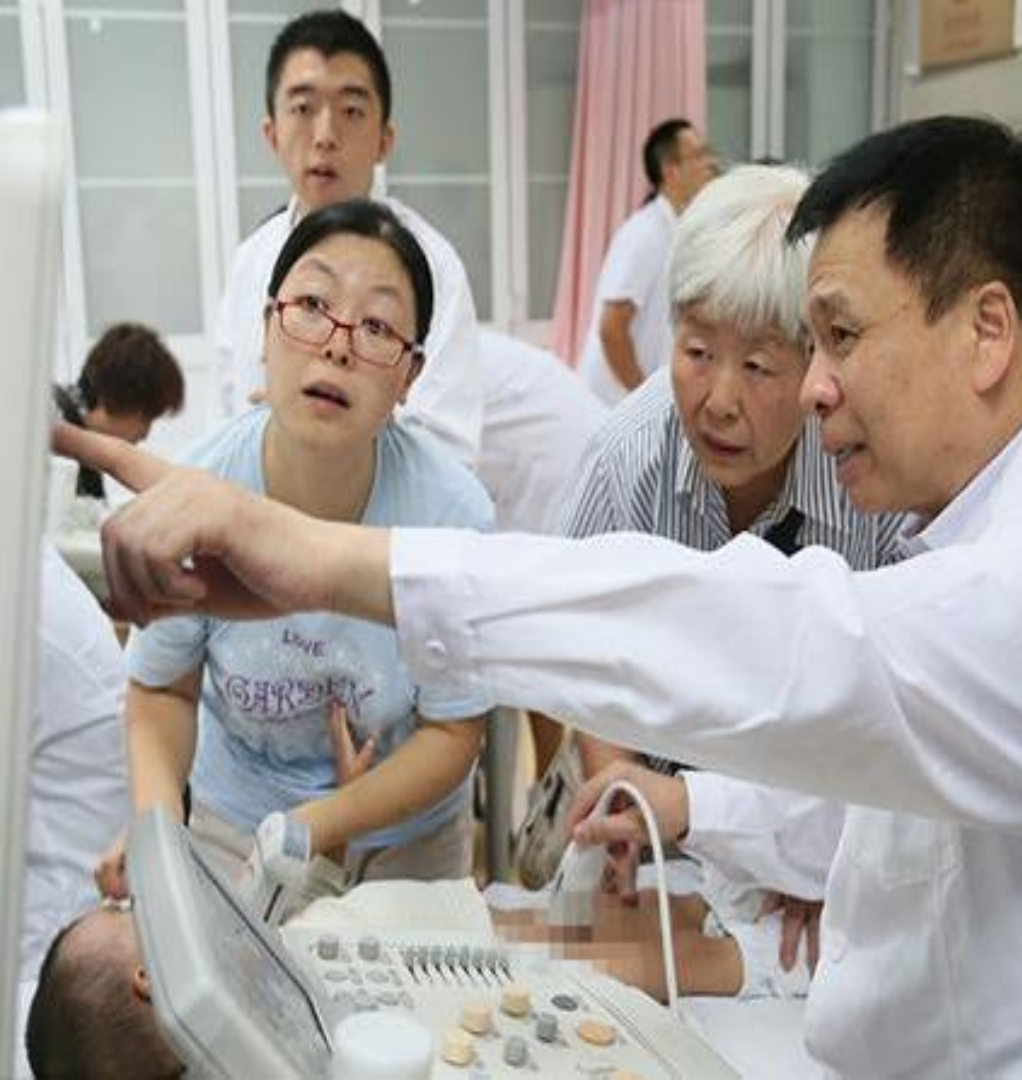unlocking the potential of ultrasound

50 million

medical professionals in the world*

*includes Doctors, GPs, midwives, nurses

MedaPhor®
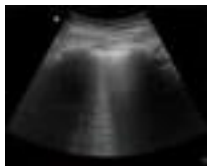Intelligent Ultrasound

but less than

2%

the skill to use

ultrasound

estimate

Ultrasound is a vital medical diagnostic tool

It's one of the **safest**, **fastest** and **cheapest** diagnostic tools in medicine and is reducing rapidly in both size and cost …

Used across the majority of medical specialities

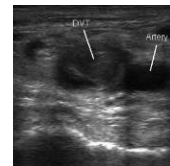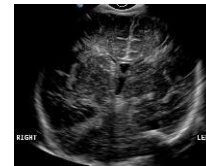MedaPhor®
Intelligent Ultrasound

Lung

Abdomen

MSK

Breast

DVT

Neonate
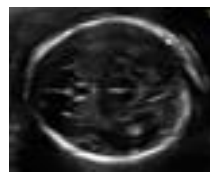

Vascular

Obstetrics

Heart

Zika virus

Small parts

Breast

Ultrasound remains difficult to learn

2D to 3D image awareness

1. Sliding
2. Rocking
3. Tilting
4. Rotation
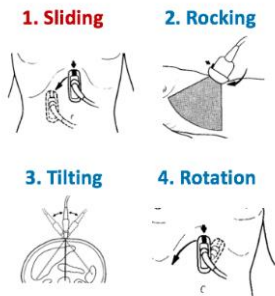
Hand to eye co-ordination

Anatomical knowledge

NORMAL UTERUS

Uterus
Endometrium

Longitudinal view of uterus during transvaginal ultrasound

Retroverted
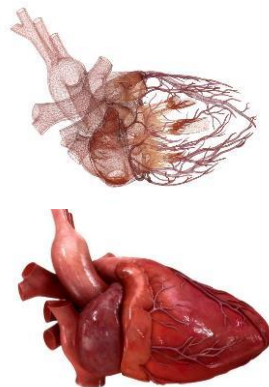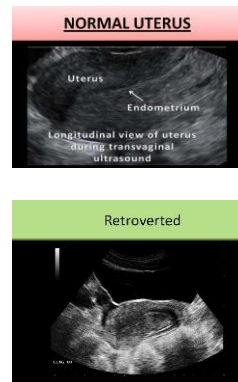
Pattern recognition of normal/abnormal

Understanding of scanning protocols

This is why ultrasound remains a specialist skill

Our range of products in development aims to unlock this

MedaPhor®
Intelligent Ultrasound

TRAINING
ULTRASOUND SPECIALISTS
with **hi-fidelity** haptic and manikin-based training **simulators**

SUPPORTING
ULTRASOUND SPECIALISTS
with **deep-learning image analysis** software and **augmented reality guidance** tools

ENABLING
ULTRASOUND SCANNING FOR ALL
with **artificial intelligence** based **automated scanning software** for key scanning protocols

Pre-clinical and Clinical Training and Assessment

Clinical

Future

Clinical training

Assessment and certification

First contact support and assessment

On-going quality guidance

100% performance audit

scanning by unskilled practitioners

SCANTRAINER®
HEARTWORKS®
BODYWORKS|Eve

Scan**NAV**

NEEDLEGUIDE

Scan**NAV**

ScanNav and NeedleGuide are pre-market products in development

Conceptualised image. Not actual product

SIMULATION

The gold standard in ultrasound training simulators:

SCANTRAINER®

HEARTWORKS®

BODYWORKS|Eve

Launching 2018

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

Echocardiography simulator range aimed at teaching cardiology and anaesthesiology schools

New hybrid version of ScanTrainer and HeartWorks aimed at the Emergency market

SUPPORT, GUIDANCE AND AUDIT WITH AI

deep learning based image analysis
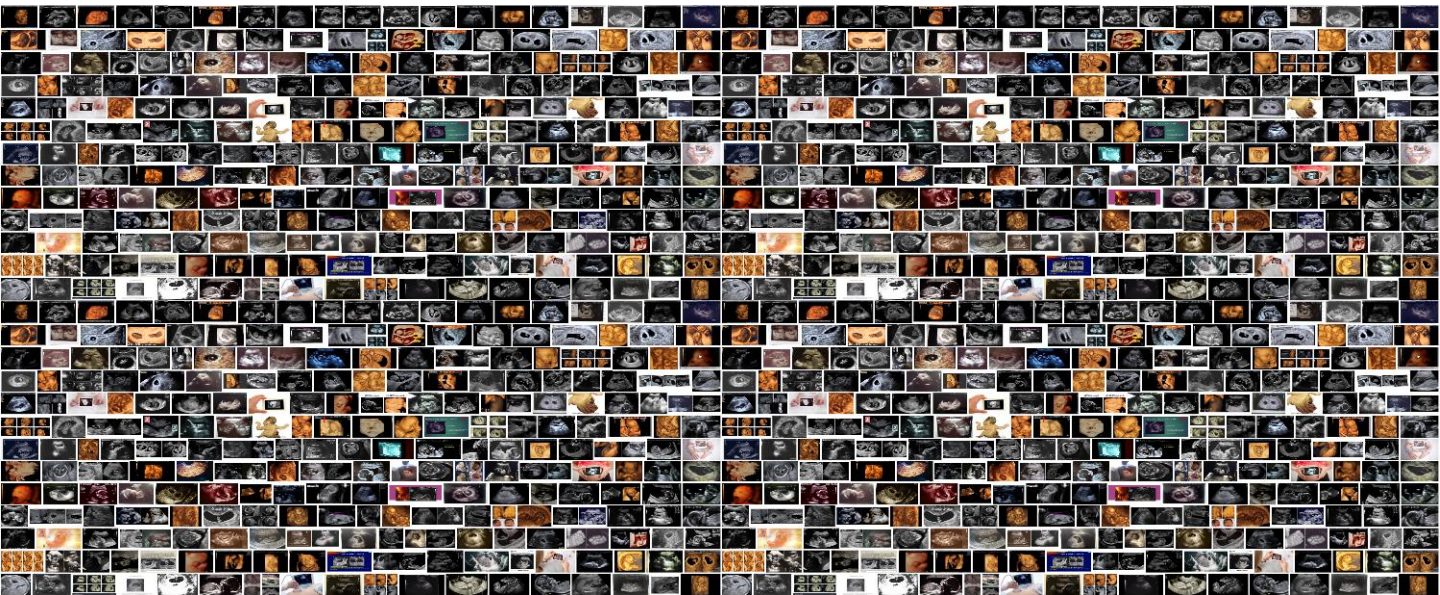
reviewed and graded 380,000 obstetric images

ScanNAV™

Automated image analysis – 20 week

SUPPORTING ULTRASOUND SPECIALISTS

HeadTV   HeadTC   Femur   Face   Spine (4 part)   Abdomen   Four Chamber

Note: ScanNav is a pre-market product in development

ScanNAV™

Potential product benefits
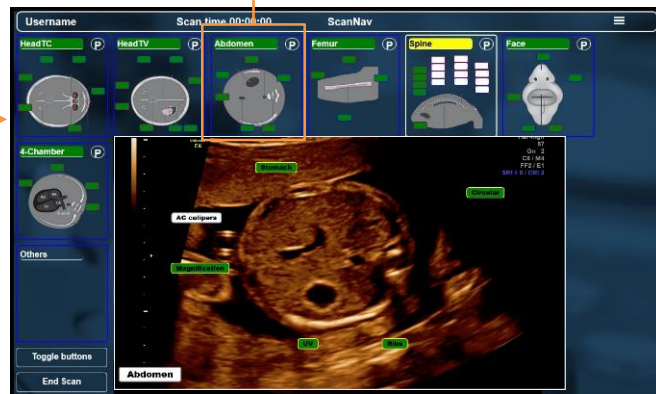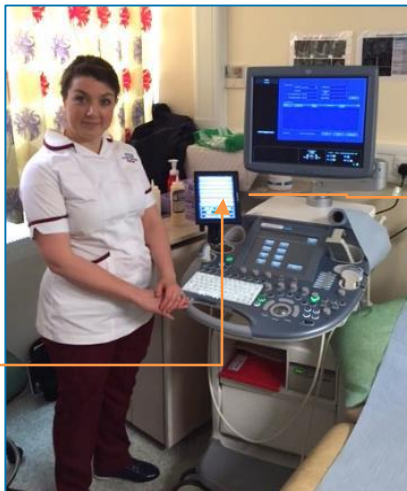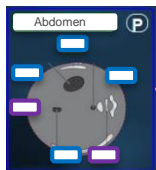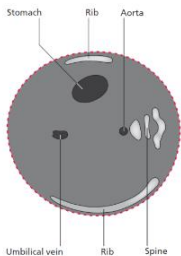
Safety

Guidance and safety net in early stages of scanning career

Effectiveness

Raises standards of individuals and departments

Efficiency

Faster acquisition of key protocol images, correct image every time

Cost saving

Identifies poor performers and increases chargeable scanning hours

Note: ScanNav is a pre-market product in development

Scan**NAV**™

Potential to deliver automated scanning for all medics

Note: ScanNav is a pre-market product in development

*Conceptualised images only. Not actual product

NEEDLE GUIDANCE WITH AUGMENTED REALITY

Augmented reality ultrasound needle guidance

NEEDLEGUIDE

Microsoft

- Augmented Reality based needling assistant
  - *Working POC device*
  - *Patent filed*
  - *C. £500k Innovate UK grant won*
- Expected benefits
  - *Reduces procedure time*
  - *Requires less operator training*
  - *Reduces failure rates*

Innovate UK

AUTOMATED PATHWAY GUIDANCE TO TARGET

AUTOMATED NEEDLE TIP TRACKING USING AI
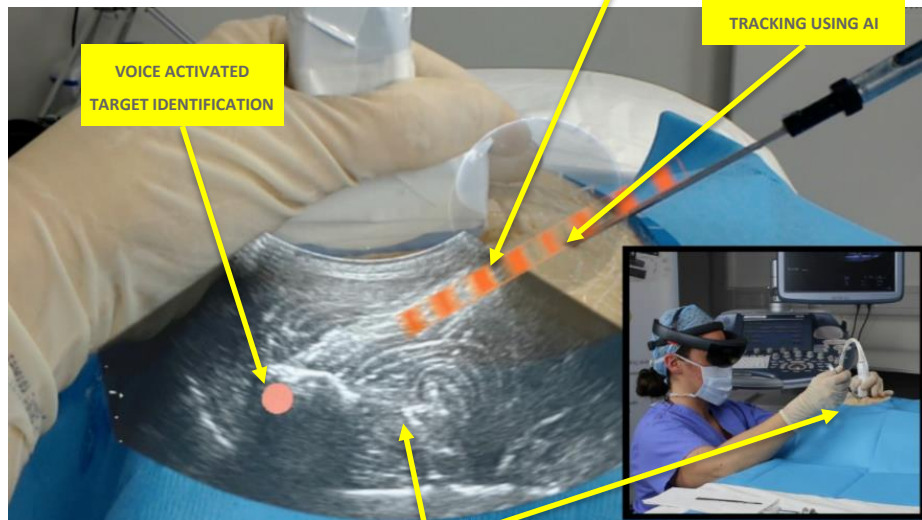
VOICE ACTIVATED TARGET IDENTIFICATION

EVERYTHING IN USERS LINE OF SIGHT

Note: NeedleGuide is a pre-market product in development

Our direct sales and reseller network

MedaPhor®
Intelligent Ultrasound

CARDIFF

MEDAPHOR GROUP HQ

SIMULATION AND TRAINING

STAFF: 24
OPERATIONS: R&D; MEDICAL; SALES; MARKETING, TECH SUPPORT, FINANCE, GEN ADMIN

OXFORD

INTELLIGENT ULTRASOUND SOFTWARE

STAFF: 9
OPERATIONS: R&D, PRODUCT MANAGEMENT, SUPPORT, ADMIN

ATLANTA

MEDAPHOR NORTH AMERICA INC

STAFF: 7
OPERATIONS: SALES; TECH SUPPORT, GEN ADMIN,

Revenue

£5,000,000
£4,000,000
£3,000,000
£2,000,000
£1,000,000
£0

2011 2012 2013 2014 2015 2016 2017

● Resellers (established and trained) x 30

● MedaPhor offices (direct sales teams)

MedaPhor development pathway

Intelligent Ultrasound Simulation and Training

Intelligent Ultrasound Clinical Support

Pre-clinical training

Clinical training

Assessment and certification

Performance Audit

Diagnostic imaging

Ultrasound guided intervention

Automated Scanning
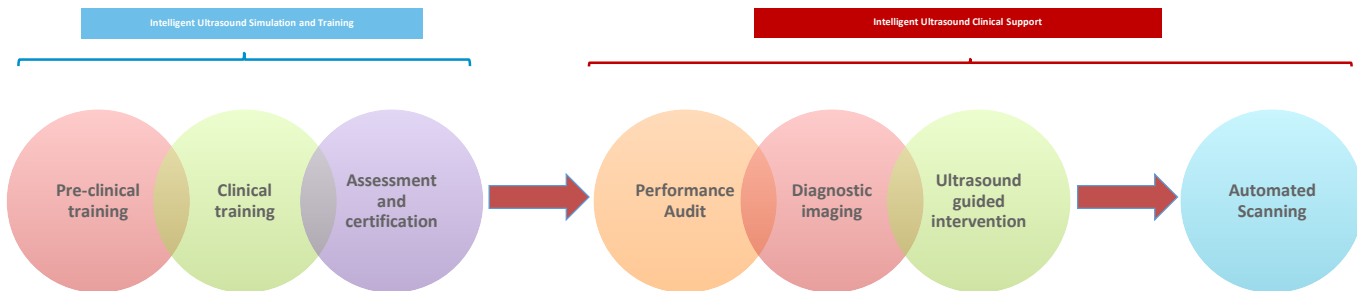
SIMULATION

DEEP LEARNING

AUGMENTED REALITY

ARTIFICIAL INTELLIGENCE

Real-time quality audit software

Automated image analysis and real-time quality guidance

Ultrasound needle guidance

Automated diagnostic triaging device *

SCANTRAINER®

HEARTWORKS®

BODYWORKS|Eve

ScanNAV™

NEEDLEGUIDE

ScanNav and NeedleGuide are pre-market products in development

*Conceptualised image only.
Not actual product*

MedaPhor®
INTELLIGENT ULTRASOUND

Our unique combination of

SIMULATION BASED
training

ARTIFICIAL INTELLIGENCE
image analysis

AUGMENTED REALITY
guidance

can unlock the potential of ultrasound
for all medical professionals

unlocking the potential of ultrasound