MedaPhor®
INTELLIGENT ULTRASOUND

AIM: MED

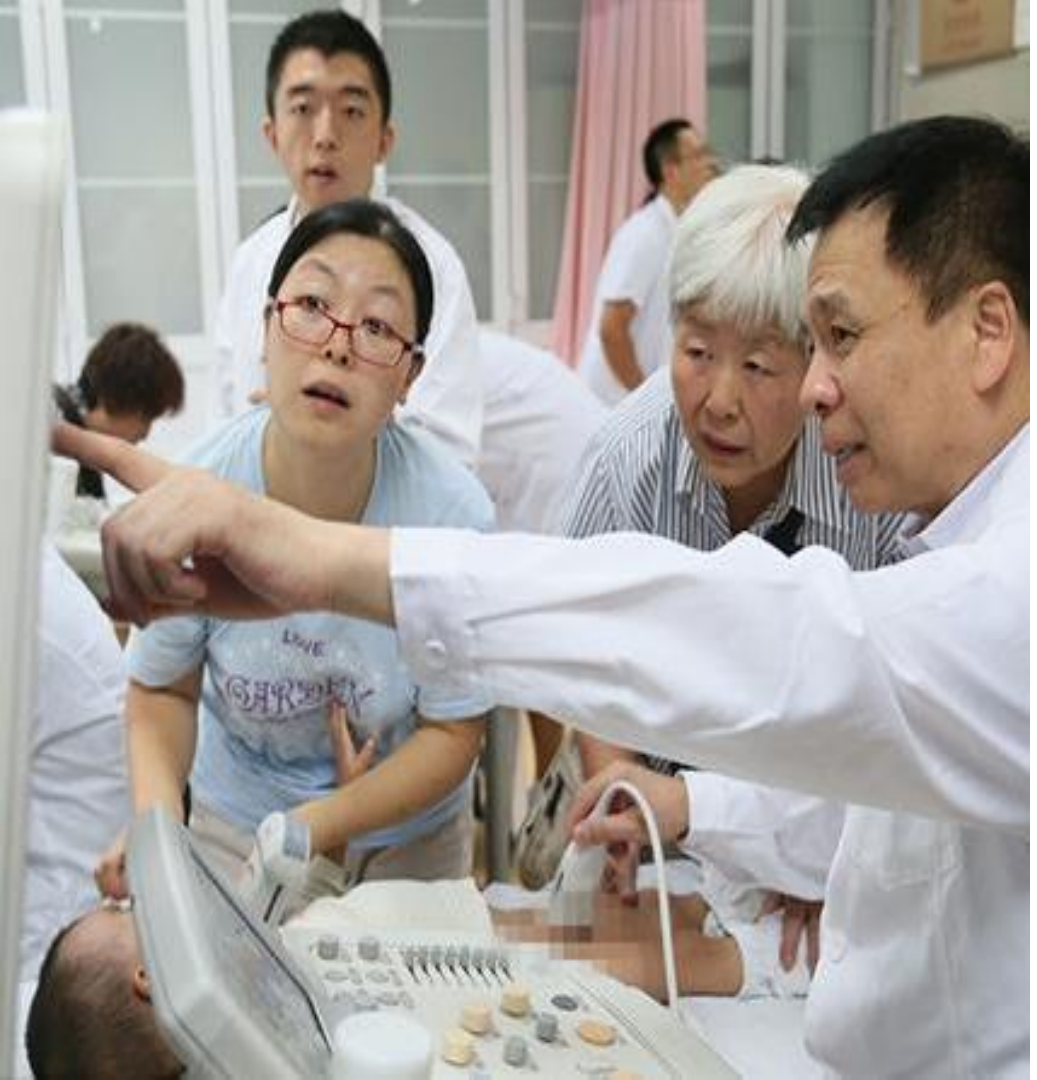
unlocking the potential of ultrasound

MedaPhor®
Intelligent 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*

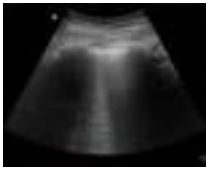
Ultrasound is a vital medical diagnostic tool

MedaPhor
Intelligent Ultrasound

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

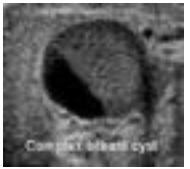
MedaPhor®
Intelligent Ultrasound



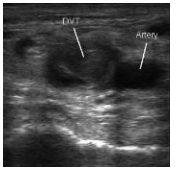
Lung

Abdomen

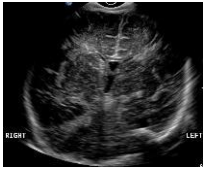
MSK



Breast



DVT

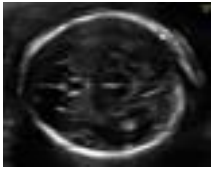


Neonate

Vascular

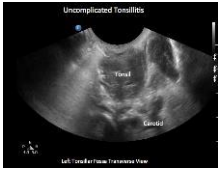
Obstetrics

Heart



Zika virus

Small parts

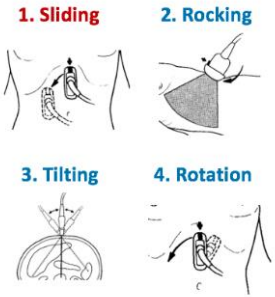


Breast

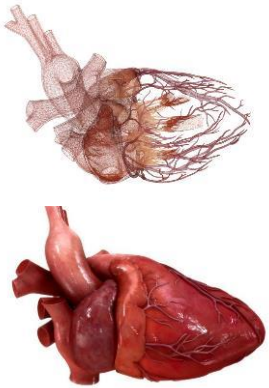
Ultrasound remains difficult to learn

MedaPhor
Intelligent Ultrasound

2D to 3D image awareness

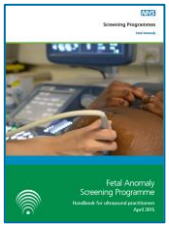


Hand to eye co-ordination



Anatomical knowledge

Pattern recognition of normal/abnormal



Understanding of scanning protocols

MedaPhor®
Intelligent Ultrasound

This is why ultrasound remains a specialist skill

Our range of products 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

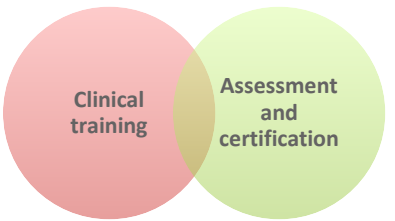
ENABLING
ULTRASOUND SCANNING FOR ALL

with **artificial intelligence** based **automated scanning software** for key scanning protocols

Pre-clinical and Clinical Training and Assessment

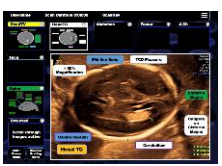
Clinical

Future



SCANTRAINER®
HEARTWORKS®
BODYWORKS|Eve

ScanNAV



NEEDLEGUIDE

ScanNAV

**Conceptualised image. Not actual product*

SIMULATION

The gold standard in ultrasound training simulators:

TRAINING
ULTRASOUND SPECIALISTS

SCANTRAINER®

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

HEARTWORKS®

Echocardiography simulator range aimed at teaching cardiology and anaesthesiology schools

BODYWORKS|Eve

Launching 2018

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

MedaPhor®
Intelligent Ultrasound

SUPPORT, GUIDANCE AND AUDIT WITH AI

UNIVERSITY OF OXFORD

deep learning based image analysis

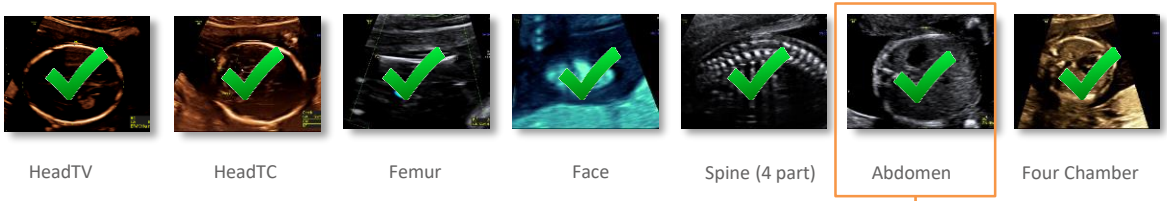
SUPPORTING ULTRASOUND SPECIALISTS

reviewed and graded 380,000 obstetric images

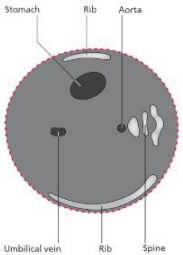
ScanNAV™

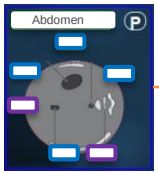
Automated image analysis – 20 week

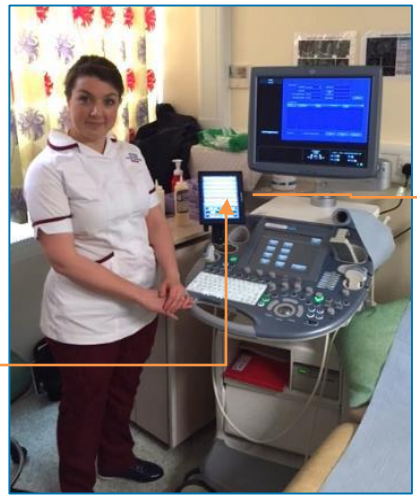
SUPPORTING ULTRASOUND SPECIALISTS

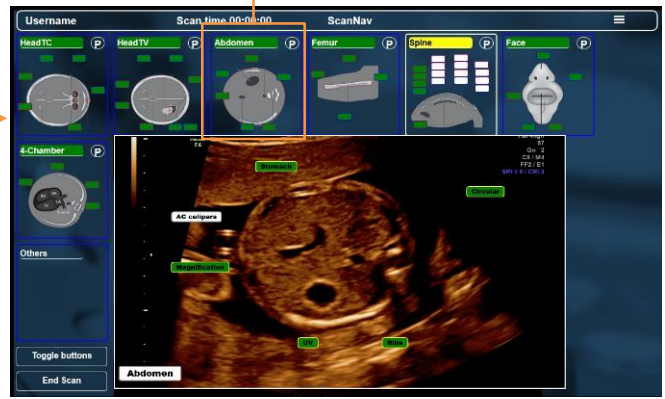


HeadTV | HeadTC | Femur | Face | Spine (4 part) | Abdomen | Four Chamber









ScanNAV™

Automated image analysis – 20 week

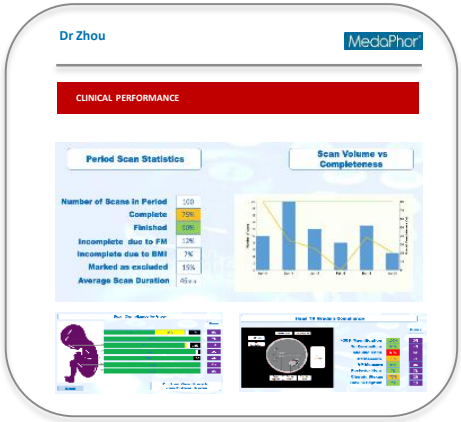
SUPPORTING ULTRASOUND SPECIALISTS

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

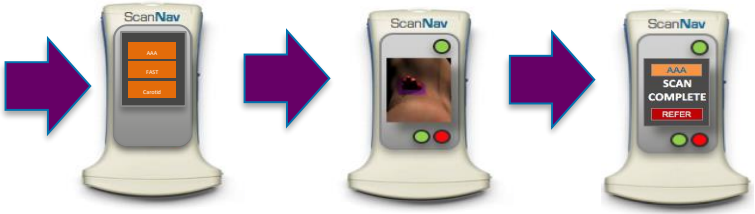
Cost saving

Identifies poor performers and increases chargeable scanning hours

EXTENDING
ULTRASOUND
TO THE MASS MARKET

ScanNAV™

Potential to deliver automated scanning for all medics



**Conceptualised images only. Not actual product*

MedaPhor®
Intelligent Ultrasound

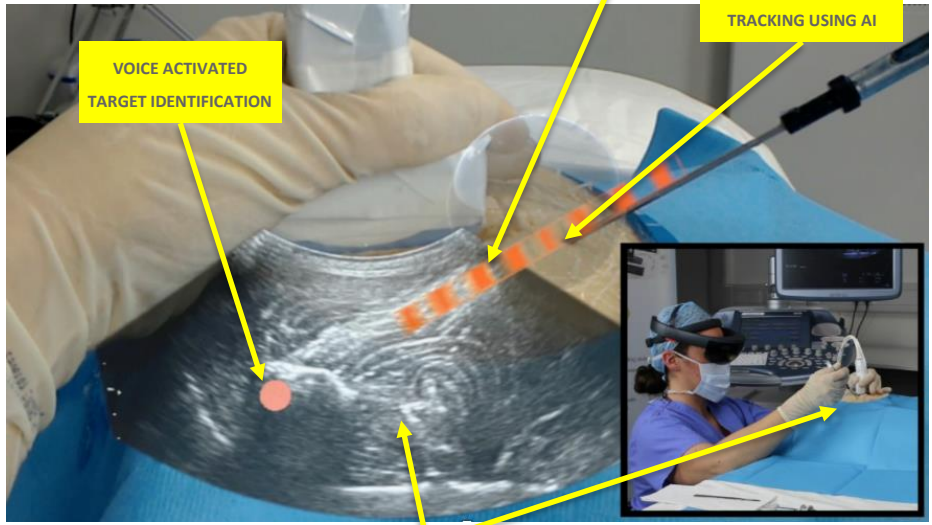
NEEDLE GUIDANCE WITH AUGMENTED REALITY

Augmented reality ultrasound needle guidance

SUPPORTING ULTRASOUND SPECIALISTS

NEEDLEGUIDE

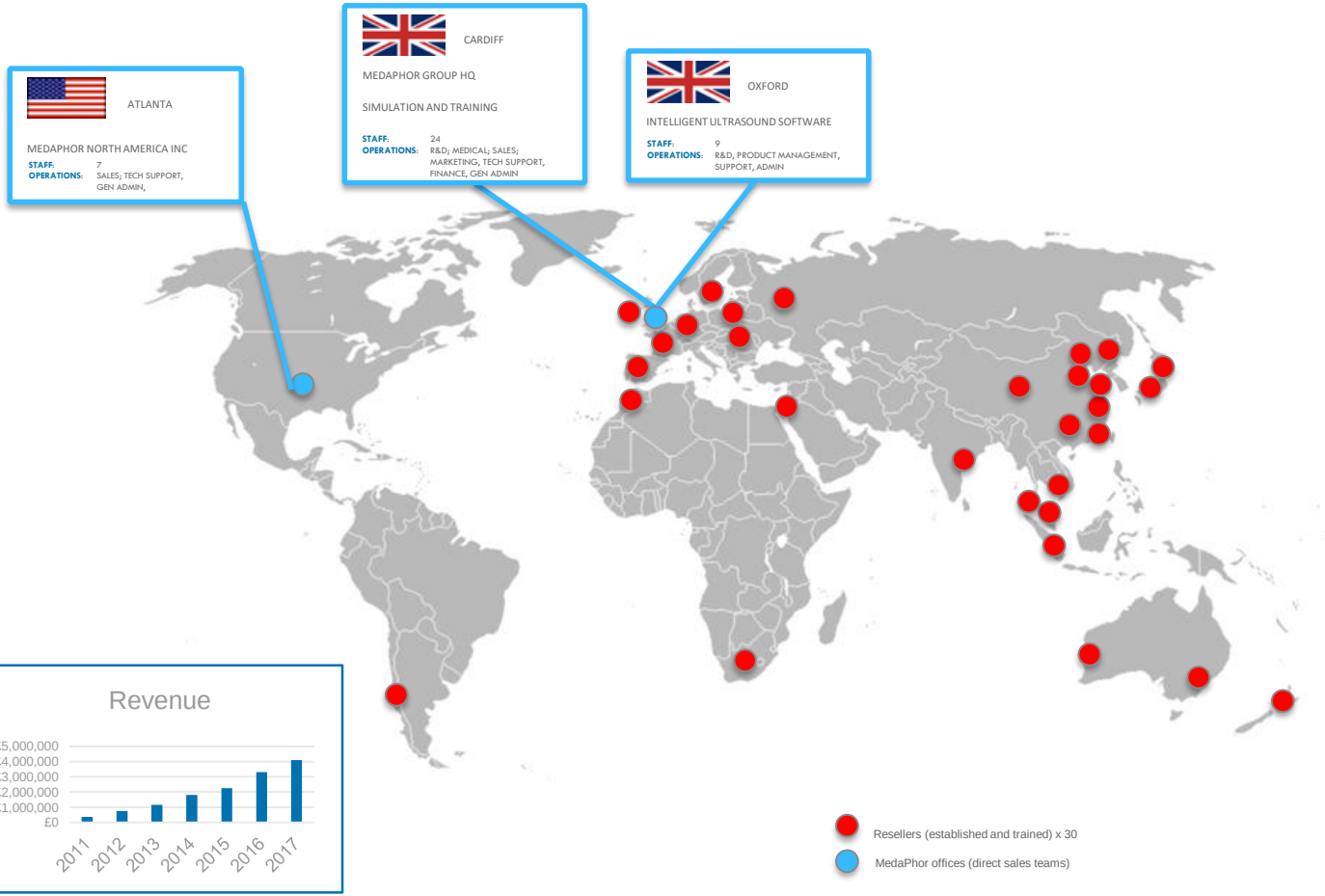
- Augmented Reality based needling assistant
  - *Working POC device*
  - *Patent filed*
  - *C. £500k Innovate UK grant won*
- Expected benefits
  - *Reduces procedure time*
  - *Requires less operator training*
  - *Reduces failure rates*



Innovate UK

Our direct sales and reseller network

MedaPhor®
Intelligent Ultrasound



MedaPhor development pathway

MedaPhor
Intelligent Ultrasound

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

SCANTRAINER®

HEARTWORKS®

BODYWORKS|Eve

DEEP LEARNING

Real-time quality audit software

Automated image analysis and real-time quality guidance

ScanNAV™

AUGMENTED REALITY

Ultrasound needle guidance

NEEDLEGUIDE

ARTIFICIAL INTELLIGENCE

Automated diagnostic triaging device

**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

MedaPhor®
INTELLIGENT ULTRASOUND

AIM: MED

unlocking the potential of ultrasound