Future Vision Of Virtual Care And Connected Smart Medical Devices
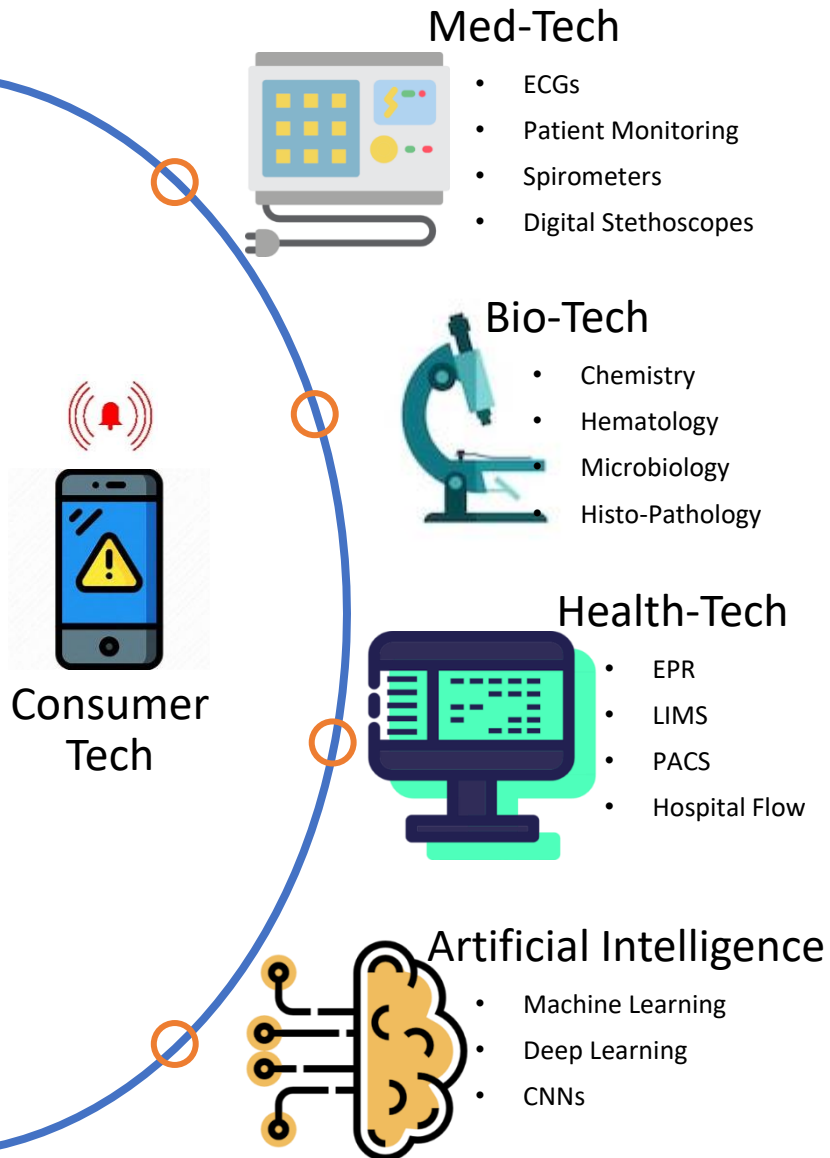
Timely and accurate diagnosis improves chances for successful treatment

Achieved By:

Combining Health-Tech, Med-Tech and Consumer-Tech with Artificial Intelligence to deliver real time life saving insights at the point of care.

Here and Now: But Scarce Adoption

Med-Tech
- ECGs
- Patient Monitoring
- Spirometers
- Digital Stethoscopes

Bio-Tech
- Chemistry
- Hematology
- Microbiology
- Histo-Pathology

Health-Tech
- EPR
- LIMS
- PACS
- Hospital Flow

Artificial Intelligence
- Machine Learning
- Deep Learning
- CNNs

Consumer Tech

Combining Med-Tech, Bio-Tech, Health-Tech, Artificial Intelligence

The Internet of Medical things will be boosted by artificial intelligence combining connected devices and the ability to measure and analyse patient data in real time.

Here and Now Examples:

Deteriorating Patients
- Connected Spot Monitors: NEWS2
- Lab Markers: Sepsis Detection
- Mobile Alerts & Escalation & Hospital Flow

Virtual Wards:
- Smart Wearables: Remote Observations

ECG AI Analysis
- Arrhythmia, ischemia, hypertrophy.

What's Next For Med-Tech

Respiratory
- Audio Ai
- CXR Ai
- CT Ai
- Histo Ai

rPPG
- Heart Rate
- Breathing Rate
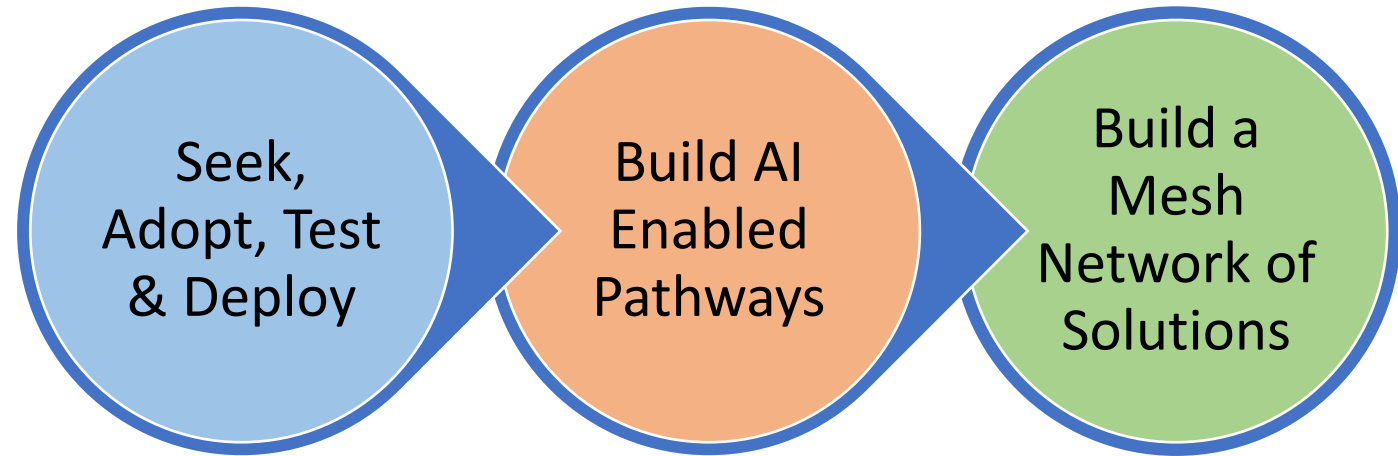- Oxygen Sats
- Temperature
- Blood Pressure
- Glucose

Stroke
- Mobile Alerts
- Communications
- Flow Orchestration

NextGen Technology Is Here and Now.

As Digital Health Leaders We Must:

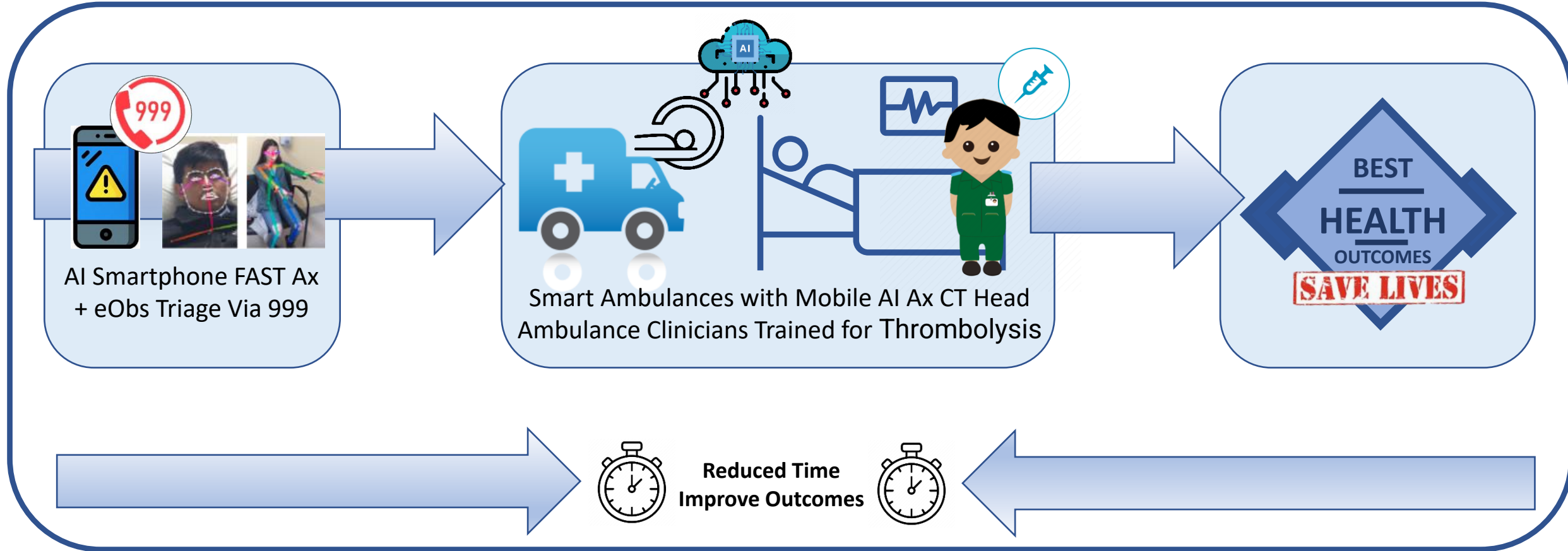Seek, Adopt, Test & Deploy → Build AI Enabled Pathways → Build a Mesh Network of Solutions

Collectively We Can Move Forward:

☑ Build Audio AI & rPPG into Outpatients & 111 Services

☑ Build Stroke AI into 111 / 999 and Smart Ambulance Services

☑ Build a Mesh of Smart Medical Devices & Care Orchestration

Vision For the Near Future

AI Enabled Out Of Hospital Stroke Pathway

AI Smartphone FAST Ax + eObs Triage Via 999

Smart Ambulances with Mobile AI Ax CT Head Ambulance Clinicians Trained for Thrombolysis

BEST HEALTH OUTCOMES SAVE LIVES

Reduced Time Improve Outcomes

4ᵗʰ Industrial Revolution

The
Fourth
Industrial
Revolution

Klaus
Schwab
Founder and Executive Chairman,
World Economic Forum

" Technological revolution... that is blurring the lines between the physical, digital, and biological spheres. "

Klaus Schwab. 2016
World Economic Forum