



# GLUCOWEAR<sup>®</sup>

THE FUTURE OF BLOOD GLUCOSE MONITORING  
.....  
TRULY NON-INVASIVE AND REAL TIME

PRE-SERIES A PITCH DECK: SEPTEMBER 2022

# GLUCOWEAR® - REVOLUTIONISING BLOOD GLUCOSE MONITORING

- Glucowear is a non-invasive, wearable glucose monitoring device
- Current clinical trials show ground breaking results with an accuracy matching commercially invasive products
- Glucowear is pain free. There are no needles involved
- Our device provides real time monitoring without delay
- It is low cost, easy to set up and highly scalable
- Glucowear can stand alone or be connected to a smartwatch with Bluetooth connectivity to iOS and android devices
- Aimed at the multi-billion dollar diabetic and wellness markets



# BLOOD GLUCOSE MONITORING

537  
MILLION

**DIABETICS WORLDWIDE.<sup>1</sup>**  
EXPECTED TO  
GROW TO 784 MILLION  
BY 2045

\$15  
BILLION

**BLOOD GLUCOSE  
MONITORING  
DEVICES MARKET**  
& GROWING.<sup>2</sup>

10%

OF  
**THE NHS BUDGET**  
IS SPENT  
ON DIABETES.<sup>3</sup>

25%

OF  
**US HEALTHCARE**  
SPEND IS ON  
DIABETES CARE.<sup>4</sup>

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**Beyond diabetics, GLUCOWEAR will appeal to  
hundreds of millions of users in the wellness market**

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# GLUCOWEAR WILL REVOLUTIONISE THE DIABETIC AND WELLNESS MARKETS

## MEDICAL

For diabetics Glucowear provides continual glucose monitoring (CGM) and alert monitoring

**\$15bn market size in 2021**

**Expected to grow to \$31bn by 2029**

## WELLNESS

For pre-diabetics and people interested in monitoring their health Glucowear provides metabolic wellness monitoring

**\$116bn market size<sup>5</sup> in 2021**

**Expected to grow to \$380bn by 2028**

- > Release 1 will be aimed at this market providing an indicator device with hypo and hyperglycaemic alerts
- > Available over the counter without prescription
- > Better self management leading to improved quality of life

- > Established market with recognised brands



- > Glucowear offers a medical grade device easy to integrate or partner with existing products
- > AI/machine learning technology capable of identifying pre-diabetics

# BLOOD GLUCOSE MONITORING

- Insulin-dependent type 1 diabetics and some type 2 diabetics must monitor glucose levels, sometimes up to 12 times a day
- Approximately 3000 – 4,200 finger pricks annually
- Running costs: £112 a month, or £1,349 a year (plus cost of disposing of medical waste and sharps)







## SECOND GENERATION CGMS INSERT NEEDLES INTO THE SKIN

- Minimally-invasive continuous glucose monitors (CGMs)
- Improved clinical management by providing continuous data
- **But** second generation CGMs still have needles penetrating the skin causing irritation and skin complaints
- **And** up to 15 min delay – not real-time results which is especially critical for insulin-dependant users
- Running costs: c. £50 every 14 days - £100/month or £1,200 pa

# GLUCOWEAR – THIRD GENERATION TECHNOLOGY

- ✓ Totally non-invasive and pain-free
  - ✓ Real-time results (no lag)
  - ✓ Continuous detection
  - ✓ Will be de-facto standard of CGM offering
- 
- ✓ Alarm alerts, trend profiles and time-in-range profile
  - ✓ Integrated motion detection and environmental sensors
  - ✓ Bluetooth connectivity to smart device
  - ✓ iOS and android compatible stand-alone sensor
  - ✓ User interface via app on smart device
  - ✓ No additional running costs
  - ✓ Extensible to new metabolic measurements



# TECHNOLOGY EVOLUTION

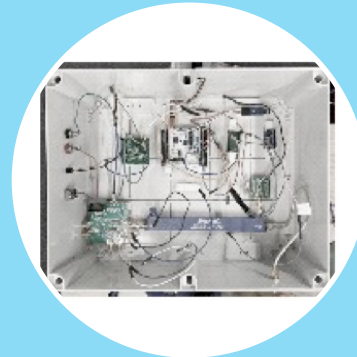
2018/19



## VERSION 0

Proof-of-concept  
Rack mounted  
test equipment

2020 (Q1)



## VERSION 1

Bench top set-up  
reduced to  
shoe-box  
sized unit.

2020/21



## VERSION 2

Components integrated  
into "first-pass" of  
wearable device.  
  
Inhouse developmental  
testing conducted.  
  
Intentionally large in  
order to facilitate in trial  
modifications

2022/23



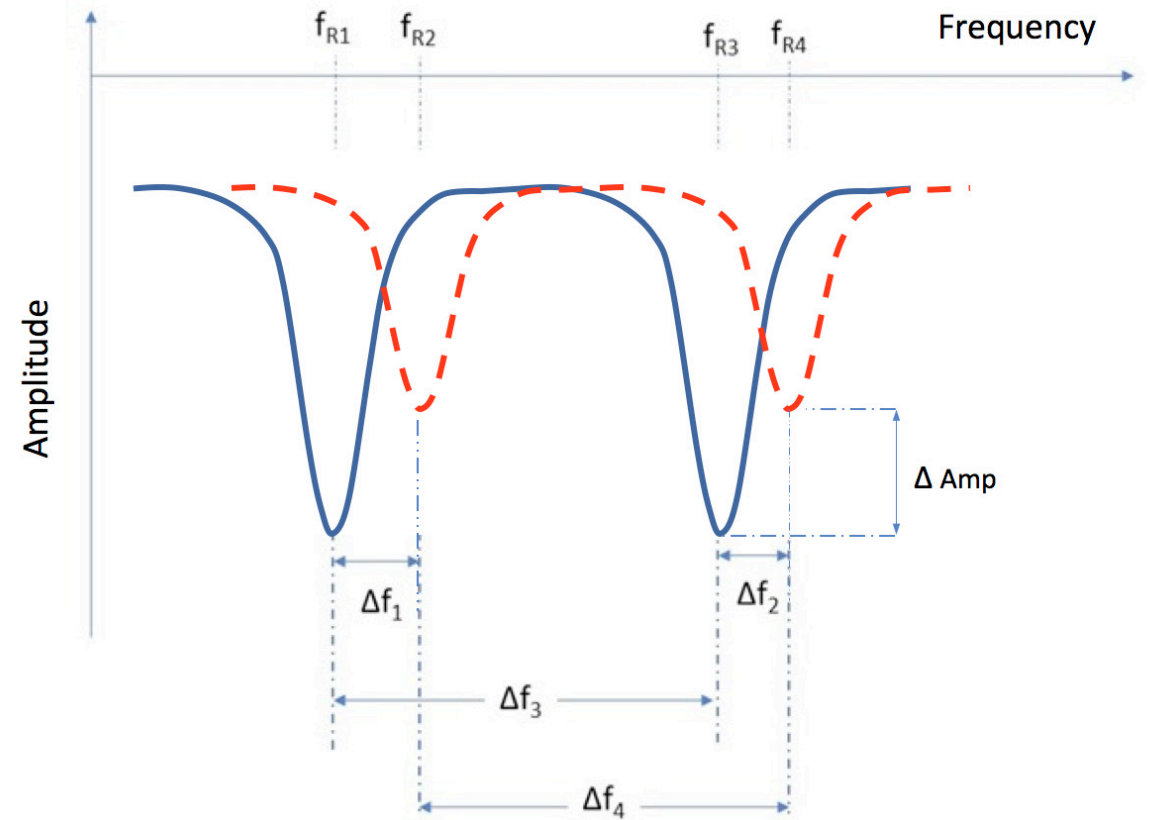
## VERSION 3

Commercial CE marked  
wearable device with smart  
device and cloud based app.  
  
Miniaturised and  
ergonomically optimised  
device.  
  
Final development time  
6 months.



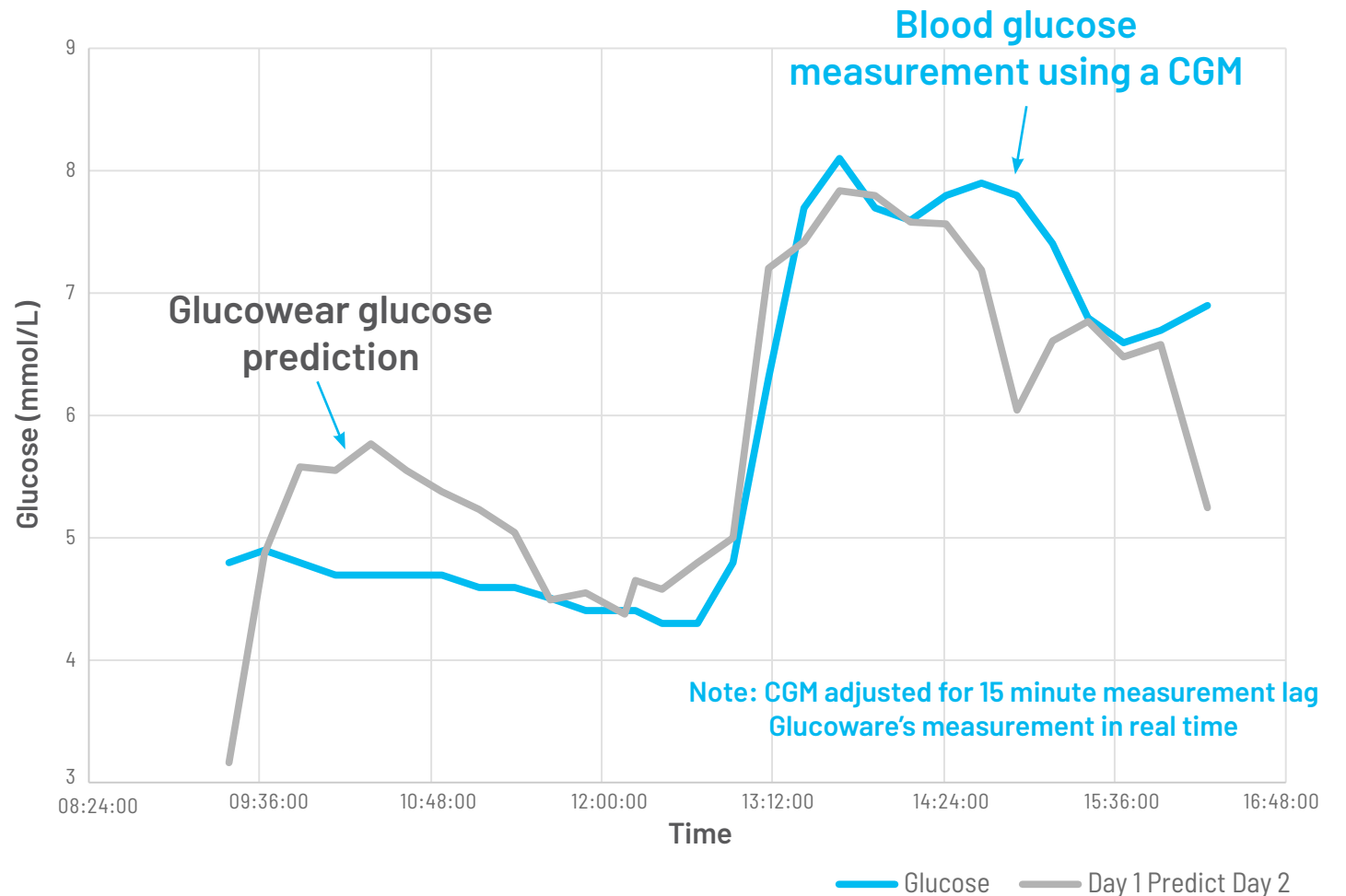
## HOW DOES OUR TECHNOLOGY WORK?

- Ultra low power microwave signals transmitted into the blood
- Blood glucose variations detected from return signal frequency and amplitude changes
- Change in frequency means change in blood glucose
- Other critical parameters also measured on the sensor
- Algorithm trained using key parameters from inbuilt sensors to improve the accuracy of the device



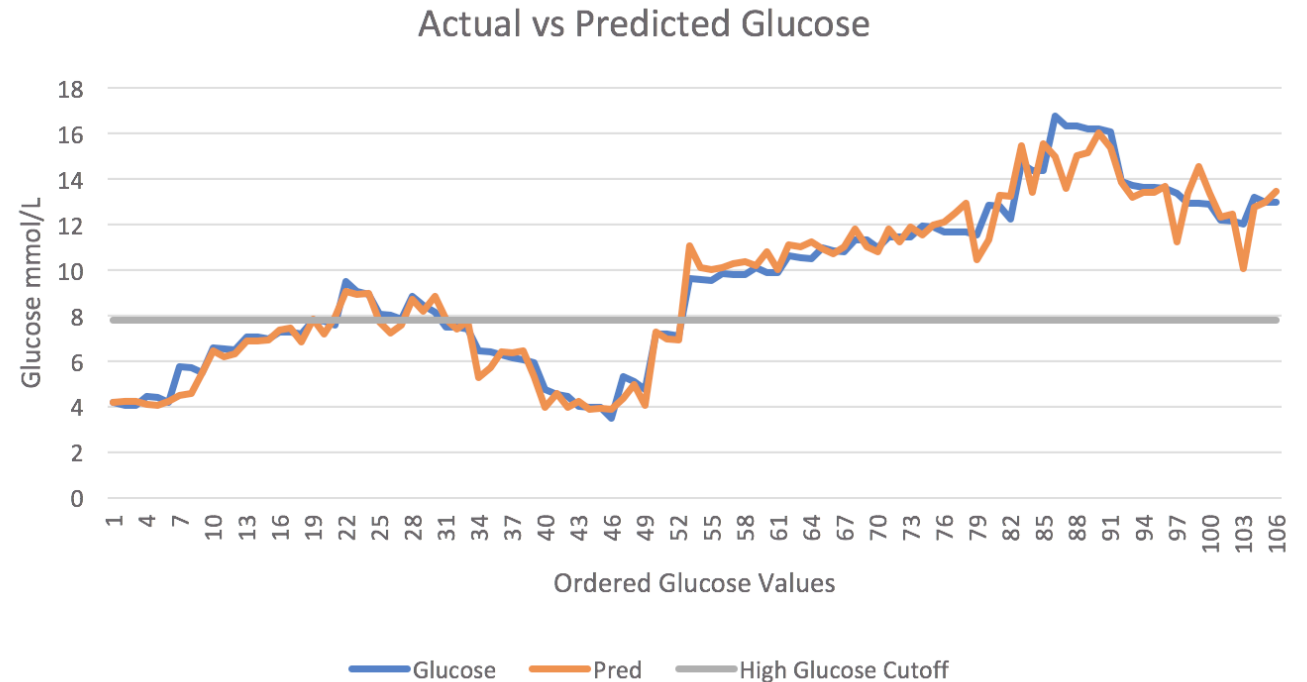
# WHAT'S SO EXCITING ABOUT OUR TECHNOLOGY?

- Glucowear tracks blood glucose changes directly in the blood, non-invasively and as they occur
- Current commercial CGMs measure impact on interstitial fluid and therefore have up to a 15 minute delay
- Glucowear has no delay, no needles and no discomfort



# GLUCOWEAR'S INITIAL NHS CLINICAL TRIAL ANALYSIS

- Data from NHS clinical trial, July 2022
- AI model built on first clinical trial cohort data
- 95% accuracy in predicting high and not high glucose. Prediction accuracy expected to improve further as model trained with additional data
- Improvements in prediction algorithm being evaluated with neural networks - artificial intelligence
- Initial training of neural network model yields MARD\* of 5.3%



\* MARD is the standard measure of the accuracy of CGMs used by regulators. Lower values are better.

# GLUCOWEAR ACCURACY ALREADY MATCHING CURRENT CGMS

|                            | MARD* (Mean of Absolute Relative Difference)                         |
|----------------------------|--|
| Abbott Freestyle Libre     | 9.2%   |
| Medtronic MiniMed Enlite   | 8.7%   |
| Dexcom                     | 8.2%   |
| <b>Glucowear</b>           | <b>c.8-12%</b>   |
| Non-invasive and real time | Current in-house trial samples using only linear models (i.e. No AI) |

\* MARD is the standard measure of the accuracy of CGMs used by regulators. Lower values are better.


**Current in-house trial samples using only linear models (i.e. no AI)**  
**AI using big data sets will improve predictive accuracy**

# AFON TAKE GREAT CARE IN PROTECTING ITS IP AND TRADEMARKS

## EXISTING PATENTS

| PATENT NUMBER                              | PATENT TITLE   | PATENT FAMILY  |
|--|--|--|
| WO2007003955A1<br>GB 2006002514 W 20060706 | Apparatus and method for measuring constituent concentrations within a biological tissue structure | DK1949084T3 EP1949084A1 EP1949084B1 ES2525582T3<br>GB2428299A US2008319285A1 US8882670B2   |
| WO2017141024A2<br>PCT/GB2017/050389        | A method and apparatus for measuring the concentration of target substances in blood               | AU2017219994A1 BR112018016832A2 CA3014716A1<br>CL2018002308A1 CN108882849A EP3416540A2 JP2019511267A<br>MX2018009787A RU2018132793A RU2018132793A3<br>US2019053741A1 WO2017141024A3 ZA201806045B |

## NEW PATENT APPLICATIONS

| APPLICATION NUMBER | PATENT TITLE                               | GRANTED TRADEMARKS  |
|--------------------|--|---|
| GB1806350.3        | Summing detector                           | <br>"Glucowear" |
| GB2007127.0        | RF Shielding for skin contact antennas     |   |
| GB2007125.4        | Functional watch bands                     |   |
| GB 2010670.4       | Blood glucose monitoring (Mood monitoring) |   |

The company has developed considerable IP in analysis of microwave spectra to extract the relevant blood glucose signal from background noise. These approaches are being retained as trade secret at present but may be the subject of future patent applications.

**Robust and well protected IP portfolio**



# OUR KEY COMPETITORS


## IN THE MINIMALLY INVASIVE & NON-INVASIVE LANDSCAPE

| MINIMALLY INVASIVE | PRODUCT                  | TECHNOLOGY                     | STAGE          | MARKET SHARE                             | DRAWBACKS                  |
|--------------------|--------------------------|--------------------------------|----------------|--|----------------------------|
|                    | Abbott (Freestyle Libre) | Interstitial fluid measurement | Commercialised | 2Q21 43% growth £686m sales and 3m users | Invasive and 15 minute lag |
|                    | Dexcom (G6)              | Interstitial fluid measurement | Commercialised | 4Q21 sales £530m 1.2m users              | Invasive and 15 minute lag |
|                    | Medtronic (Guardian)     | Interstitial fluid measurement | Commercialised | £472m (diabetes sector)                  | Invasive and 15 minute lag |

| NON -INVASIVE | PRODUCT                   | TECHNOLOGY            | STAGE          | MARKET SHARE                         | DRAWBACKS   |
|---------------|---------------------------|-----------------------|----------------|--------------------------------------|---|
|               | Nemauro sugarBEAT         | Electrophoresis       | Commercialised | C £600k UK sales (DB Ethitronix Ltd) | <ul style="list-style-type: none"> <li>• 15 minute lag</li> <li>• Changed daily</li> <li>• Only works for 14 hrs</li> <li>• Needs daily calibration</li> </ul>  |
|               | Hagar (G-Wave)            | Electro Magnetic / RF | Development    | Raised \$11m investment              | <ul style="list-style-type: none"> <li>• No MARD values reported</li> <li>• Built in watch so not usable with existing smartwatches</li> <li>• No demonstration of impact from real life environmental effects</li> </ul> |
|               | Afon Technology Glucowear | Electro Magnetic / RF | Development    | -                                    | None  |

**“We have scoured the landscape and your technology is best in class”... global tech giant**

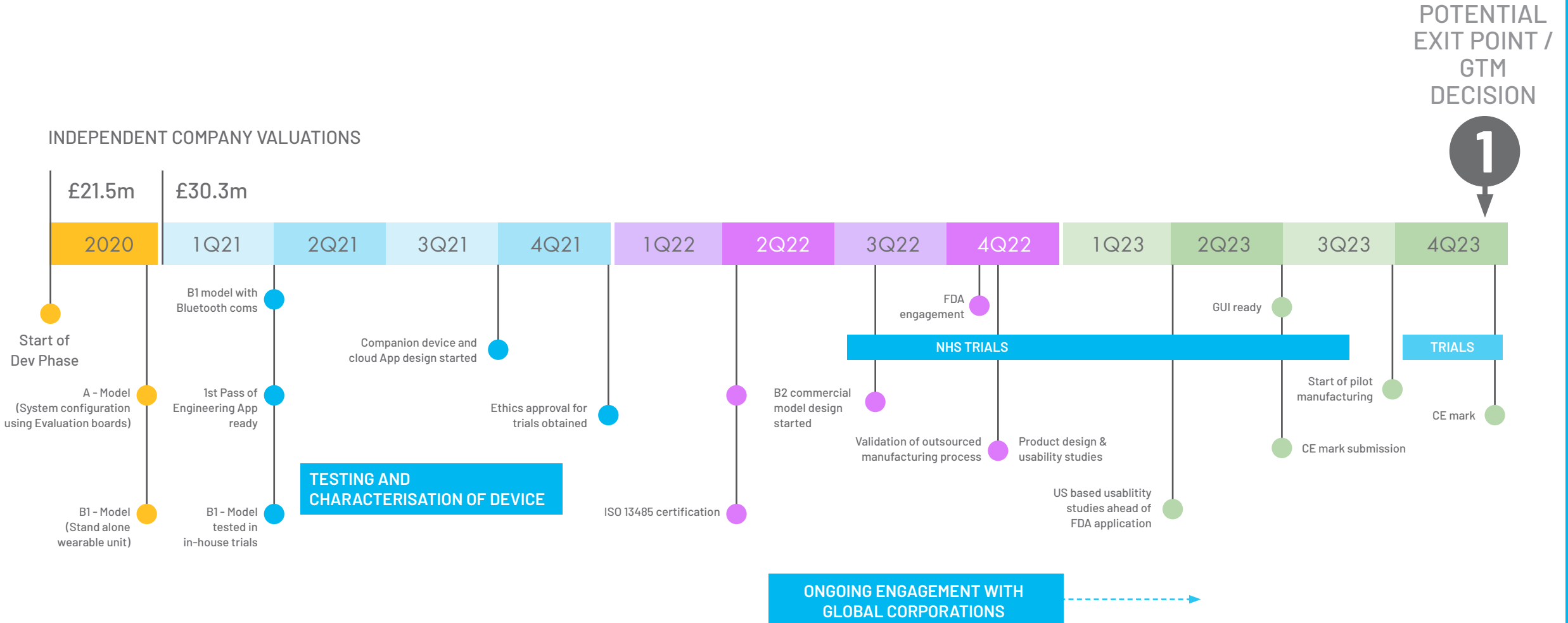
## CURRENT STATUS

- UK NHS clinical trials started July 2022
- Trademarks – Glucowear, Afon (word mark) and 
- A robust patent portfolio
- Regulatory European CE marking anticipated 2023
- FDA breakthrough device designation application in preparation
- Preparations for manufacturing underway with identification of top tier contract manufacturers
- In discussions with global MedTech companies



# PROJECT TIMELINE & VALUATIONS

## INDEPENDENT COMPANY VALUATIONS



## COMPANY VALUATION

- Independent valuation with conservative assumptions conducted by DSW Bridge Houghton Forensic in Jan 2021 – valued at **£30m with Glucowear version 1**
- **Company now at Glucowear version 2** – substantially de-risked technology
- Final commercial device in advanced design with target completion date of 6 months
- Raising £4m to take Glucowear to CE mark

# INDUSTRY COMPARATORS ACHIEVE HIGH VALUATIONS

## COMPARATOR MEDICAL DEVICE COMPANIES

- **Current Health** - wearable vital sign monitor sold to Best Buy in late 2021 for \$400M
- **Osler Diagnostics** - spin-out from Oxford University, no recorded sales but reported to have raised £30M valuing the company at £70M
- **Bardy Diagnostics** - to be acquired by Hillrom for \$367M
- **Preventice Solutions** - acquired by Boston Scientific for \$925M plus \$300 upon milestone payments

## GLUCOSE MONITORING COMPANIES

- **Rockley Photonics** - recently announced a \$1.2 billion listing on the NYSE. Is developing advanced health monitoring features for smartwatches including for Apple
- **Nemauro Medical** - Raised \$5m non-convertible loan from Chicago Venture Partners. Current market cap \$92.55m

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**We expect this sector to remain robust**

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## USE OF FUNDS

The £4.8m raised to date has developed Glucowear from proof-of-concept to the first wearable device

### CURRENT FUNDRAISE OF £4 MILLION – USE OF FUNDS

- Fast track product development
- Strengthen management, engineering and AI/machine team
- Appoint top tier App developers to develop the smart device and cloud App
- Complete manufacturing and commercial launch plan
- Set up clinical strategy board with global Key Opinion Leaders
- Enhance market awareness of Glucowear
- Strengthen patent position
- Complete CE & CA marks and progress FDA approval

## POTENTIAL INVESTMENT ROI

FUNDRAISE TARGET

**£4 million**

EQUITY OFFERED

**11.66%**

| EXIT SALE PROCEEDS        | £100,000,000 | £150,000,000 | £200,000,000 |
|---------------------------|--------------|--------------|--------------|
| Total E investment        | £4,000,000   | £4,000,000   | £4,000,000   |
| E Investor returns        | £11,655,000  | £17,482,500  | £23,310,000  |
| Gross ROI*                | 2.91         | 4.37         | 5.83         |
| Net ROI of 30% Income Tax | 4.16         | 6.24         | 8.33         |

## INVESTMENT SUMMARY

- **£4m** to take product development through to CE & CA mark submission 4Q23
- Planning significant Series A fundraise in 2023, to take product into manufacture and commercialisation in 2024
- Pre Series A acquisition is a significant possibility
- Full data room available

# DISCLAIMER

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## REFERENCES

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# THANK YOU

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