



**PMD**  
SOLUTIONS

**Presented By:** Myles Murray, Managing Director & CEO

MAKING  
EVERY  
BREATH  
COUNT



## Our Vision

To improve patient outcomes  
by making every breath count  
and to become the industry  
leader by 2020



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innovation programme under grant agreement No 711269

## PMD Solutions

### **Novel Technology at the core**

A brand new approach to Respiratory Effort Monitoring - a significant engineering challenge

### **Measuring the most sensitive indicator to well-being**

Breathing: Respiratory Effort is a total system indicator of wellness offering up to 48 hours early indication of sickness

### **Ongoing research & development into preventative monitoring & diagnostic technologies**

Making every breath count by developing real time breath by breath monitoring - a true industry leader in this field



Ongoing excellence in clinical and applied research

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Constant clinical investigation to prove the effectiveness of our technology

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Global focus with an international presence

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Genuine concern over patient's outcome in acute care together with international partners

## Impact to European Society

- People are living longer
- COPD (respiratory diseases) 3<sup>rd</sup> biggest killer by 2030
- Emergency and Urgent Care under severe pressure
- Disease states such as sleep disorders going undiagnosed for up to 2 years post symptoms being recognised

## Preventative monitoring is key, early detection is vital

- Healthier living: More years and Better Life
- Better acute care management (Lower Event Rate)
- Reducing preventable comorbidities thus improve healthcare economics + Quality of Life

## Changing the Status Quo

**Establish recognition  
as industry leaders**



**Grow the market**



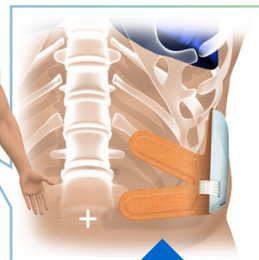
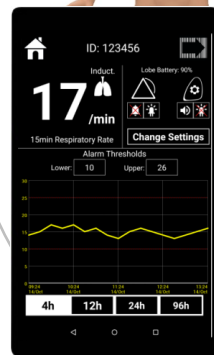
**Scale**

## Platform - 2 applications: 1 product

Presently both clinical applications use the same device

### ▶ **Respirasense** In-patient RR monitor

- OTS tablet device
- Android
- Disposable single use sensor
- Respiratory rate trend monitoring
- Continuous monitoring  
4 days battery



All comm's are BT

### ▶ **RS Sleep Screener** Home Sleep Test

- OTS mobile phone
- Android
- Zero patient engagement needed
- Cloud processing + report generation

## RespiraSense



# Why is RR important?

Continuous rate  
Monitoring allows;



The first sign  
of abnormal  
breathing



To trigger the  
earliest  
intervention

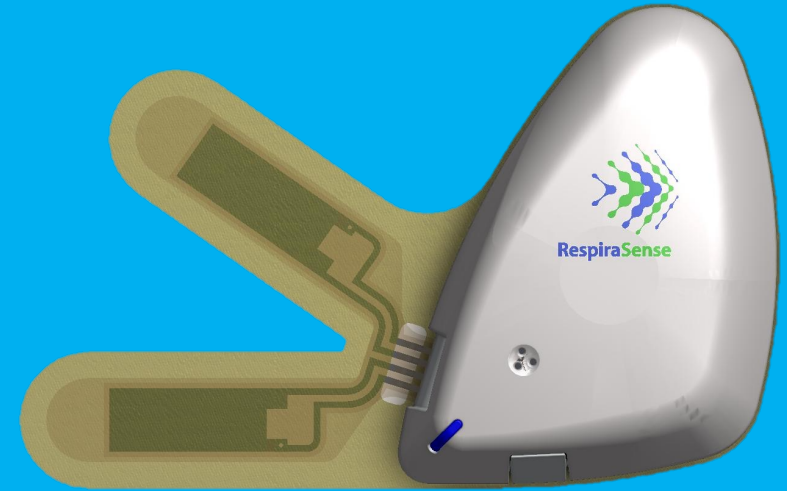


Leading to  
better patient  
outcomes



And improved  
healthcare  
economics

## RespiraSense



Incidence of  
Respiratory Compromise to  
Increase by 31% by 2020



7% General  
Ward & 11%  
Post-op



Costing  
€18,000 per  
event



Up to 7  
additional bed  
days



RespiraSense can give  
>80% ROI by  
impacting 1 in 20  
patients



Goldhill and colleagues reported that **21% of ward patients** with a respiratory rate of **25-29 breaths/minute** assessed by a critical care outreach service **died in hospital**

These patients could have been identified as high risk up to 24 hours before the event with a specificity of over 95%

Recent evidence suggests that an adult with a respiratory rate of **over 20 breaths/minute is probably unwell**, and an adult with a respiratory rate of over **24 breaths/minute** is likely to be **critically ill**

In another study, just over **half of all patients** suffering a **serious adverse event** on the general wards (such as a cardiac arrest or ICU admission) had a respiratory rate **greater than 24 breaths/minute**

In 1993, Fieselmann and colleagues reported that a respiratory rate higher than **27 breaths/minute** was the **most important** predictor of **cardiac arrest** in hospital wards

Subbe and colleagues found that, in unstable patients, relative **changes in respiratory rate** were much **greater than changes in heart rate or systolic blood pressure**, and thus that the respiratory rate was likely to be a better means of discriminating between stable patients and patients at risk

# Why Screen?

A simple and accurate event screener;

Can enable sleep service providers



To increase their patient coverage

With minimum increases in resources

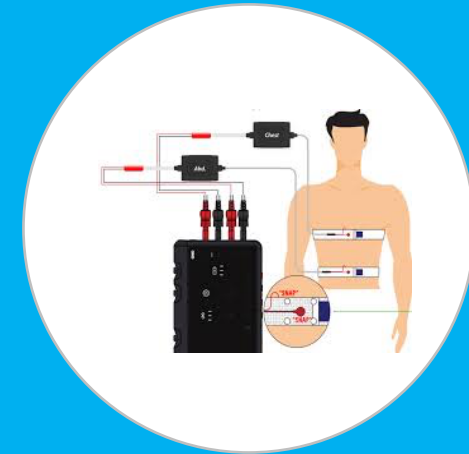


To identify and serve more apnoea sufferers

Consumer application potential for home screening

## Status Quo

Bands slip, leading to re-tests  
Bands are uncomfortable



## PMD is changing the Status Quo

- Bands replaced with simple adhesive RS sensor
- Chest & gut measurements + Position + Activity



## Clinical Evidence

**Today, a validated  
technology**

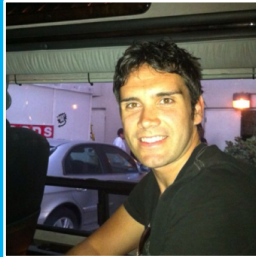


**2016 Efficacy with  
all products**



**2017 Evaluation of  
Economic Impact to  
Healthcare**

## Market Presence



### **International Team - Objectives**

- a.) Establish Commercial Pathway
- b.) Increase User Base
- c.) Retain Existing User Base
- d.) Network the Global User Base

## H2020 – Only Opportunity for SME Funding

**1 Year**

**3 Attempts**

**1<sup>st</sup> in Europe**

**Application 1** - build proposition: Investment Business Plan, If we got it what would we actually want to do

**Application 2** – refine Excellence and Impact with latest company updates

**Application 3** – Refine and refine implementation including partners for skill gaps, the right budget, the right Ambition

**Be mindful, projects are reviewed by people**

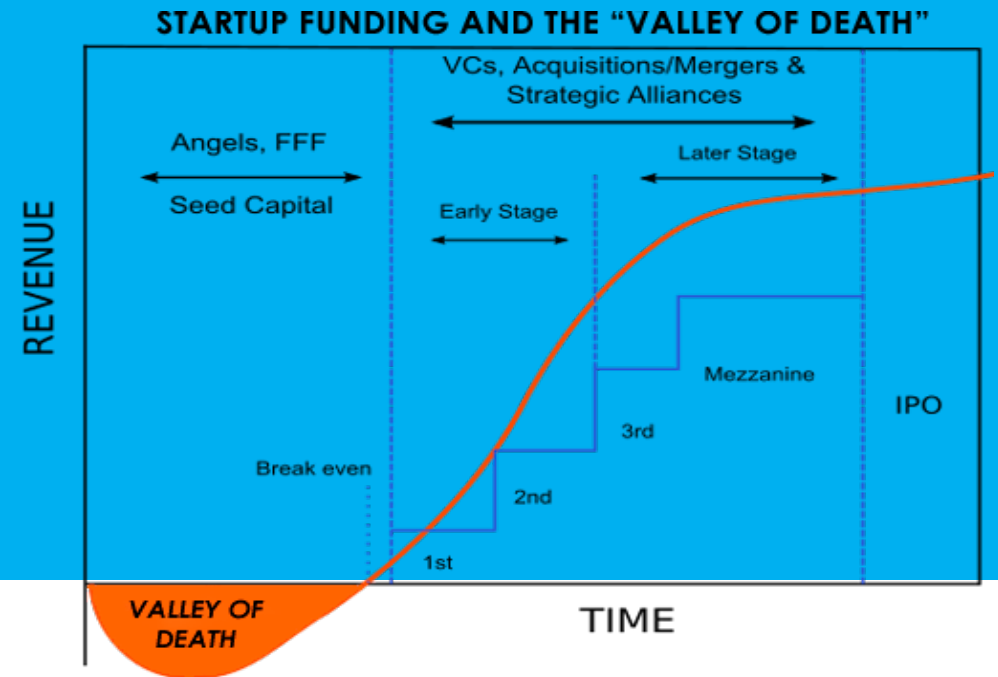
Speak the language

Tell the story

Excite them

Prove it

## H2020 – An Element of Funding Strategy



PMD funded by Angels & H2020

➤ The right validated proposition

➤ Big ambition & clear plan to execute

➤ H2020, one option of many

➤ Leverage to raise Growth Capital from VC funds



Thank you for the opportunity to present our offering

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