SeizSafe



www.encore-lab.com







ENCORE LAB

- Tech-based SME founded in 2011.
- Developing of innovative solutions in different areas by
 - Building electronic devices based on open hardware
 - Developing advanced software for data gathering and processing
 - Analyzing data with data-mining techniques
 - Presenting present the results to the user in an intuitive way
- Participation in R&D projects with different partners





León Arnedo & Sonia Belmonte Electronic Engineers & CEOs



Víctor Najarro Hardware developer





Sara Madariaga PhD. Project Manager



EPILEPSY & SOME FIGURES

- Seizures = generalized convulsions
 - Risk of injure, cardiac arrest
 - Irreversible brain damage
 - Sudden death
- Accurate treatment hard to find

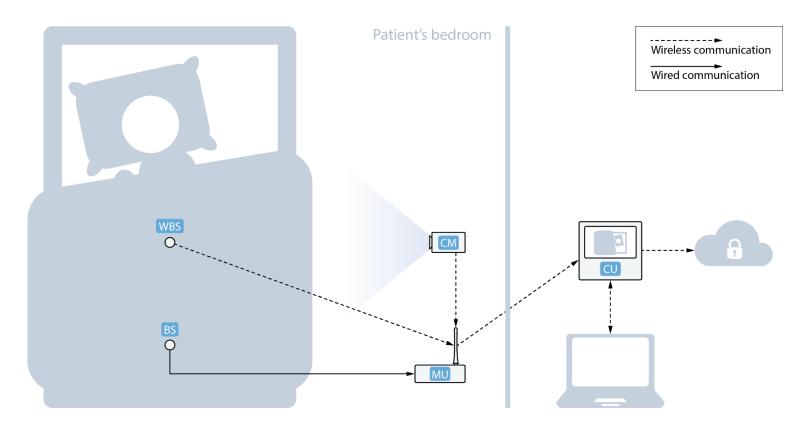
- 1% of the overall population (WHO)
 - > 50M people in the world
 - > 6M people in Europe
 - > 400k people in Spain

- Highest incidence in children, adolescents and elders
- Each patient is different
- Lack of data for research
- Up to 1,12% of the public health budget

- 20% suffers night-time seizures
 - > 10M people in the world
 - > 1.2M people in Europe
 - > 80k people in Spain



SEIZSAFE



Main features:

- Monitoring system
- Remote alert system
- Self-adaptive algorithm
- Data for research
- Low cost
- Medically validated

SeizSafe is a system to monitor patients during nighttime and alert their caregivers when seizures occur

- Patients are assisted on time, minimizing seizures' consequences
- Caregivers rest because they will be woken up when a seizure starts



SEIZSAFE - watch it at h6JLh449Kc

- **Device**. Collects data from the sensors, processes them and generates different alerts. It can connect to an external router to share seizure data with doctors through *SeizSafe*'s cloud. It includes:
 - Bed sensors: placed on the patient's bed and/or covers; there are two types:
 - Wired: accelerometers, they provide motion data in real-time to be processed
 - Wireless: run the detection algorithm internally, sending only system status (normal, pre-alert, alert)
 - Camera: it streams video in real time to caregivers' devices and records the detected events.
- Interface for users. For system configuration and to allow caregivers to connect to the device and receive seizure alerts. It is available in web and mobile versions.
 - Mobile: when receiving an alert, the app generates a loud warning and provides real time video streaming
 - Web: accessing historical data, configuration and sharing with doctors (only available locally)
- Interface for doctors. It allows doctors to access shared data, statistics and videos from patients, providing them with a powerful tool for better monitoring and diagnosis



MARKET NICHES

Electronic device

TARGET CUSTOMER

People affected by epilepsy Caregivers

BENEFITS

Improve quality of life of epilepsy patients & families

MARKET INTRODUCTION

Involvement of associations

Cloud platform to share information with doctors

TARGET CUSTOMER

Public and private health services

BENEFITS

Better understanding of seizures without hospitalization

Better diagnosis & drug prescription

MARKET INTRODUCTION

Involvement of hospitals

Anonymous data of epilepsy

TARGET CUSTOMER

Large phamaceutical companies

BENEFITS

Improve epilepsy research

MARKET INTRODUCTION

Involvement of associations and hospitals



STEPS ALREADY TAKEN

- Meeting with BioCruces and epilepsy associations
 - Bilbao, Jan 19 → Present SeizSafe's progress, gather feedback
- International Epilepsy Day Workshop
 - Bilbao, Feb 8 → Present SeizSafe to the general public
- Agreements for tests with users in real conditions
 - Gorabide (residence), volunteers from associations
- Further contacts for validation in hospitals
 - IDIPHIM (FI-C3), Vall d'Hebron, La Fe



BUSINESS MODEL CANVAS

Key Partners

- Epilepsy associations (evangelists, contacts)
- BIOCRUCES (research, clinical trials)
- Manufacturer
- Distributors / sellers
- PHILIPS Health
- FI-C3 community

Key Activities

- Improve algorithm
- Clinical trials
- Tests in real world conditions
- CE mark
- Marketing
- Build community of users
- Data collection, protection and maintenance

Key Resources

- Detection algorithm
- Electronic components
- Cloud server
- Website
- Manufacturer
- Distribution network
- Brand

Value Proposition

- Detect seizures at nighttime (comfort, security, minimize damages)
- Alert caregivers in real time (peace of mind, normal sleep)
- Monitor and track patients (improve diagnosis and prescription)
- [Epilepsy dataset (faster drug tests)]

Customer Relationships

- Associations
- Technical support / Postsale services
- Visits and meetings
- Workshops / Tradeshows

Customer Segments

- Epilepsy patients and caregivers
- Doctors
- Hospitals, clinics
- [Pharma]

Channels

- Website
- Social networks
- Associations
- Workshops / Tradeshows
- Direct mail

Cost Structure

- · Personnel (research and development)
- General / Administrative
- External manufacturing
- Logistics
- CE mark
- Marketing

Revenue Streams

- Device, different packs
- Cloud services (subscription)
- [Data mining]



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