

its seamlessly into the daily routines

the best solution, for today and tomorrow

tomorrow

the best solution, for today and tomorrow

its seamlessly into the daily routines

of care takers and care givers

solution

the best solution, for today and tomorrow

# About us



Phill Moorcraft – responsible for the UK market

Mathijs de Bruin – MD and co-owner



## About CLB



Established in 1981, 35 years of experience

Dutch, privately owned

Healthcare (80%) and Security (20%)

In-house R&D and manufacturing

175+ employees in the CLB group

International presence

Group turnover 2015 €20 million

ISO 13485 QMS and MDD CE mark BSI

[www.clb.nl/uk](http://www.clb.nl/uk)



Ensure **sustainable growth** by providing **innovative solutions**

that result in complete **customer satisfaction**

for **healthcare** institutions, caregivers and all the people they serve.”

What should be the objective for good night care?

What can better night care do for the residents?

Which groups of residents can benefit most from better nightcare?

# The Care Management Dilemma

## Dynamic needs



Tailored to individual  
Adjusted to current need

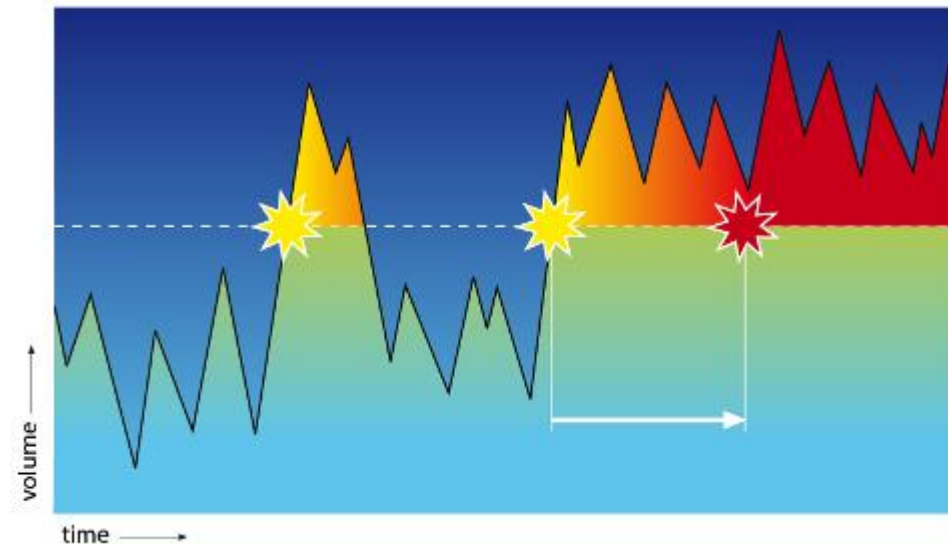


# Acoustic Monitoring = Intelligent Nurse Call



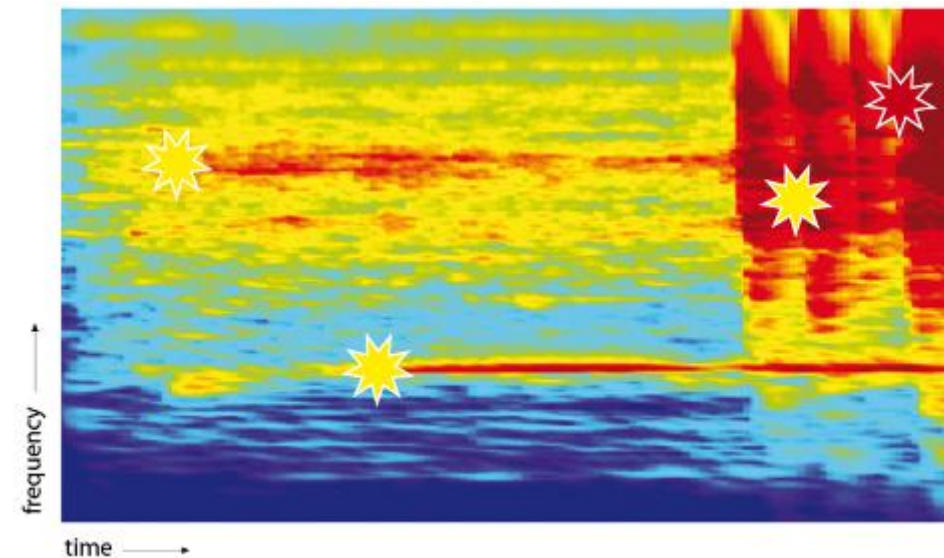
# Acoustic Monitoring – how do we do it?

- ❖ Alarms / notifications are generated based on voice or ambient sounds.
- ❖ Adjustable thresholds:
  - ❖ Volume level (dB)
  - ❖ Duration
- ❖ Permanent monitoring by system
  - ❖ Additional monitoring cycle – higher level of monitoring
- ❖ Proven Technology
  - ❖ 25 years+
  - ❖ technology has a 90% market penetration in NL
  - ❖ of which 80% is CLB systems currently on the market



# Acoustic monitoring: 3<sup>rd</sup> generation

- ❖ Advanced Audio Analytics
  - ❖ Using state-of-the-art algorithms for Analysis & recognition
  - ❖ Library of sounds - Specific and generic sounds
  - ❖ Proven technology for detection of aggression
- ❖ Additional benefits on top of AM2
  - ❖ More focus: Less false positives, less missed positives
  - ❖ Quieter environment, improved care quality
  - ❖ Useable night and day
- ❖ New and upgrade for existing systems



## A radically different approach is required

- ❖ Embrace technology as enabler
- ❖ Harness state of the art technology
  - ❖ IT network technology
  - ❖ Mobile communications
- ❖ Dynamic systems;
  - ❖ Mix and match sensors
  - ❖ Adjust sensitivity on the go.
- ❖ Facilitate mobility for care giver
- ❖ Software is the main driver (80/20)
  - ❖ Benefit from updates to stay ahead.



# Markets

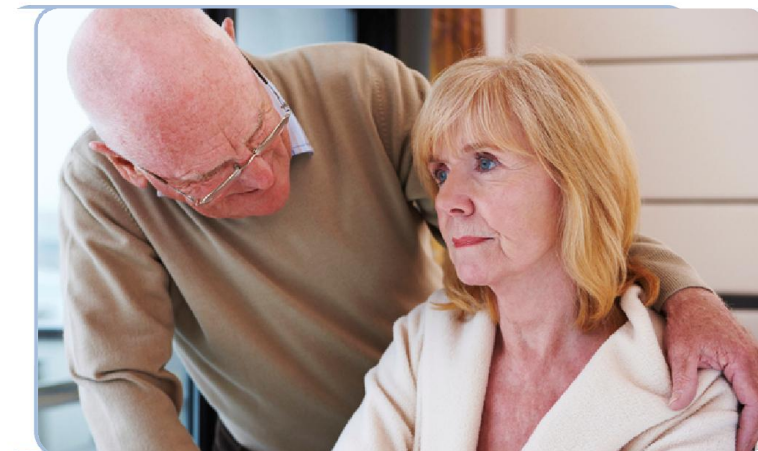
## ❖ Nursing, Residential & Care Homes

- ❖ Elderly
- ❖ Assisted Living
- ❖ Complex Needs
- ❖ Dementia
- ❖ Learning Disabilities
- ❖ Autism

❖ From small (7 beds) to very large multi-site installations (> 10,000 beds)

## ❖ Hospitals

- ❖ Secure Units/Mental Health
- ❖ Learning Disability Units



## Organisation

- ❖ Improved Quality of Care
  - ❖ Faster response times
  - ❖ Continuous monitoring of all residents
  - ❖ Better informed
- ❖ Business opportunity
  - ❖ Better customer proposition
  - ❖ Staff more efficient
  - ❖ Fast Payback (1 year); high ROI
- ❖ Prevention of abuse / risk mitigation

## Service Users

- ❖ Care when they need it
- ❖ Improved Privacy
- ❖ Better sleep patterns
  - ❖ Improved behaviour
- ❖ Better attention



# What our customers are saying

- ❖ 100% uptake
- ❖ Residents are happier
- ❖ Night care staff is happier
- ❖ Reduction in falls by more than 50%
- ❖ Reduction in medication
- ❖ Payback within 2 years
- ❖ Reduction in other assistive technology
- ❖ We know so much more about our residents now
- ❖ .....

Note that to change for the better,  
**Change management** is required



# CLB Acoustic Monitoring – Other functions/options



- ❖ From single small site (7 beds) to very large multi-site installations (> 10,000 beds)
- ❖ Two-way speech
- ❖ Alarm event recording
- ❖ Nurse Call
- ❖ Playlist
- ❖ IP camera integration
- ❖ Action Buttons
- ❖ Aggression detection
- ❖ Alarm forwarding
  - ❖ Smartphones
  - ❖ Paging Systems
  - ❖ Dect Phones





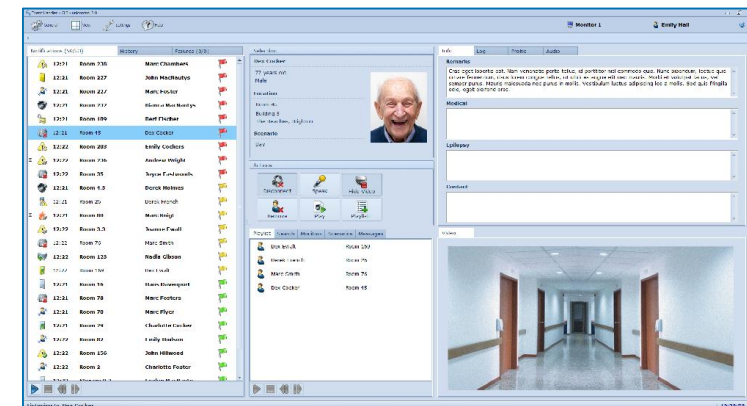
# The CLB system components



- ❖ Sensors
  - ❖ AM
  - ❖ NC
  - ❖ Wireless
  - ❖ Pheripherals



- ❖ Network Controller
- ❖ Monitoring Stations – Event Handler (software)
- ❖ Smartphone - Smart Messenger App



# C-Series: Next Generation Modules



**C1600**  
AM & NC Module



**C1600**  
NC & Home Aut. Module



**C2610**  
NC Module\*



**C1610**  
NC Module\*



**C1610**  
AM & NC Module\*

\* Expected 2017Q2



**"Pear Push"**

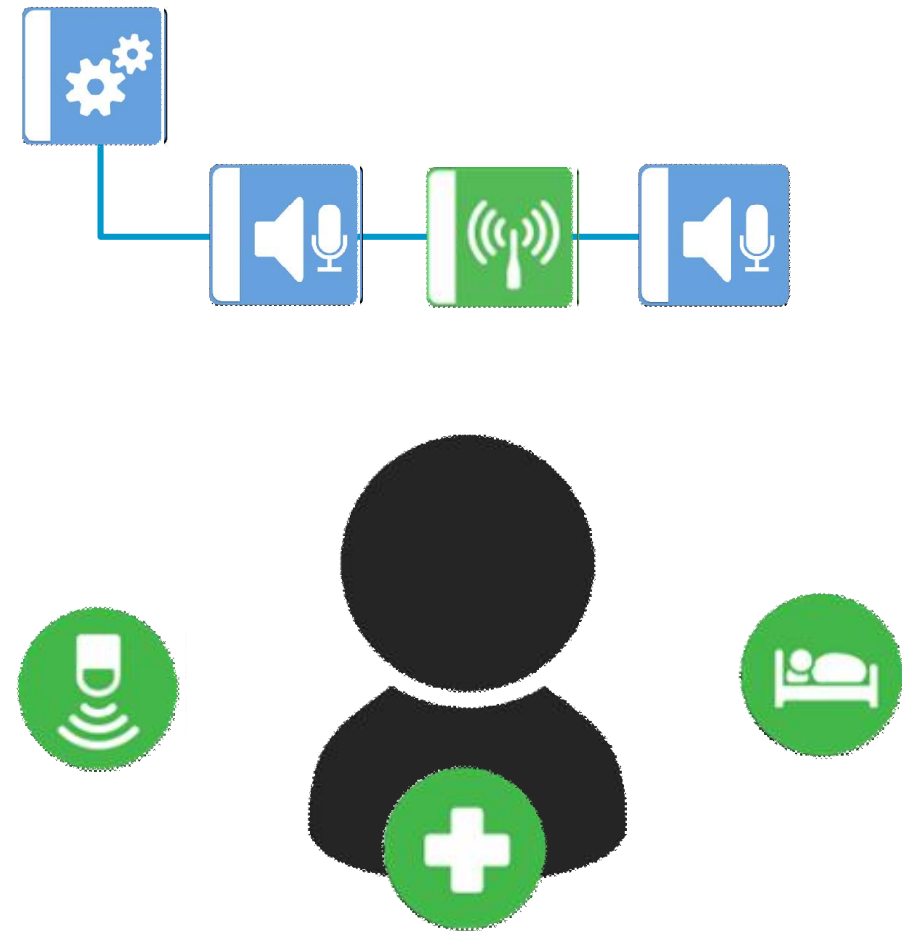
\*\* Expected 2016Q4

## C-Series: Next Generation Modules



# Wireless

- ❖ Module on C-Series CAN bus
- ❖ Receives signals from third party wireless devices
  - ❖ 868 MHz
- ❖ Dynamic use
- ❖ Examples:
  - ❖ Alarm pendants
  - ❖ Wireless bed mats
  - ❖ Wireless motion sensors
- ❖ Battery low warning
- ❖ Expected 2017 Q2

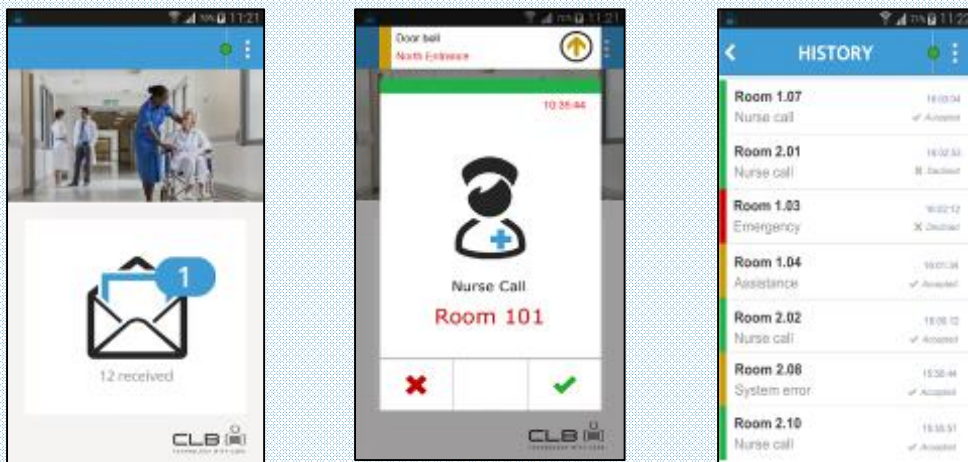


# Software – Event Handler

The screenshot shows the Event Handler software interface. On the left is a notification list with columns for time, room, and name. A magnifying glass is over the list. In the center is a selection panel for 'Dex Cocker' with a photo and a list of actions. On the right is a profile/info panel with tabs for Info, Log, Profile, and Audio. At the bottom right is a live CCTV video feed of a hallway. Numbered callouts are placed over various elements: 1 (notification list), 2 (user photo), 3 (action buttons), 4 (profile tabs), 5 (CCTV image), and 6 (playlist/monitors area).

- 1 Notification list sorted on priority and time
- 2 Service user info
- 3 Action panel / buttons
- 4 Information / profile / Audio settings
- 5 Live CCTV image
- 6 Playlist / Monitors Scenarios / Search Functions

## Medical Messenger



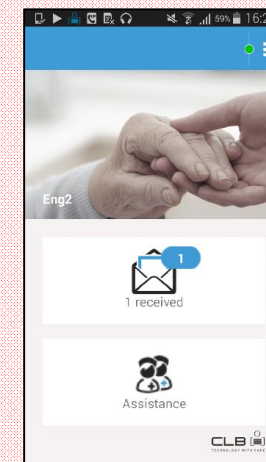
- Log in- / off
- Receive / accept / decline notifications
- Historic notification list
- Medical alarm distribution system (NEN 60601-1-8)
- App + S-Serie as a medical device class IIb

## Smart Messenger\*



- Audio connection
- Video images
- Control lights
- Open doors etc..



















## Emergency Messenger



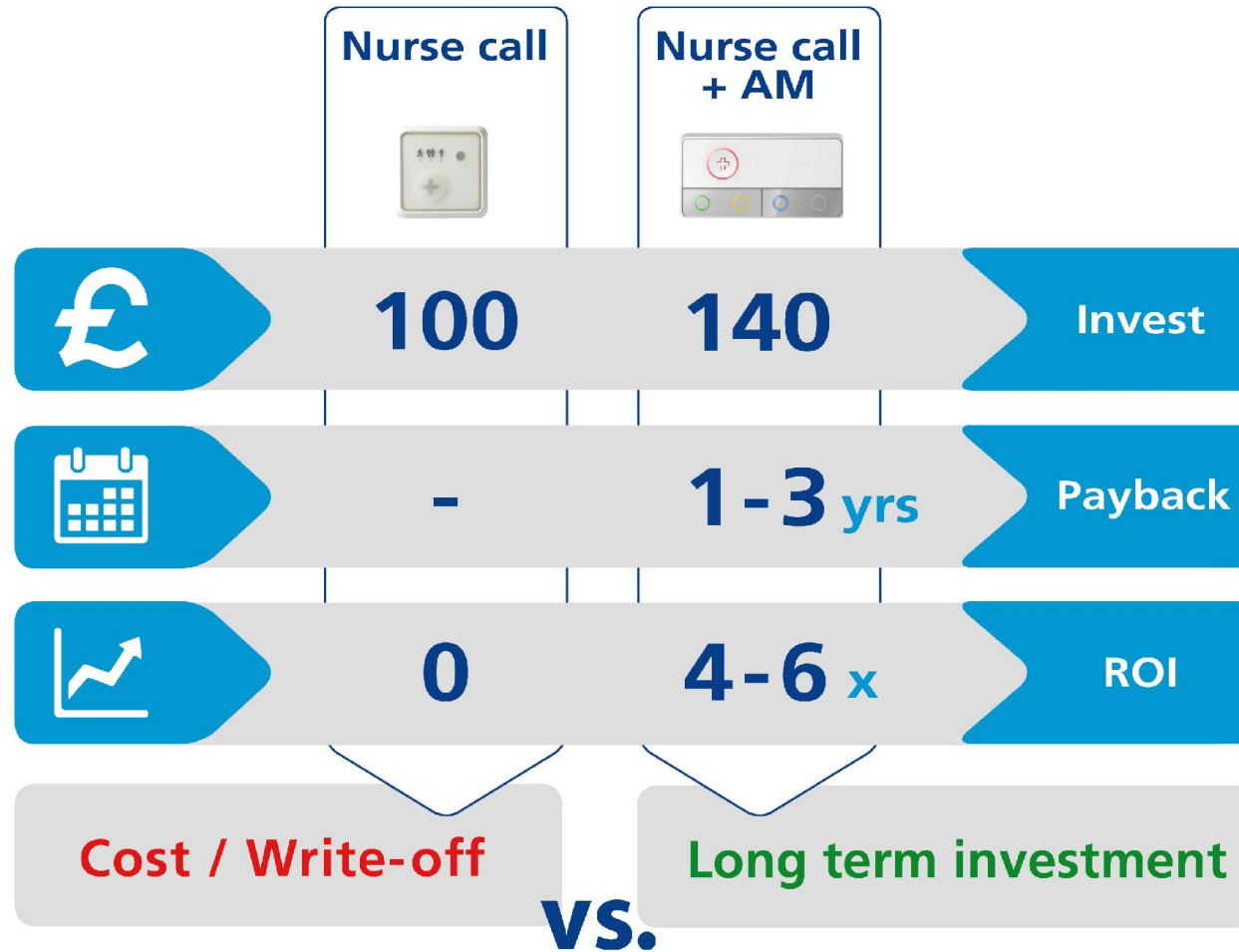
- Positioning
- Staff alarm
  - Pull cord / Hardware button / Software button

\* Roadmap

# Comparison

	 <b>Traditional Nurse Call</b>	 <b>Acoustic Monitoring</b>	 <b>Video Surveillance</b>
Ability to raise alarm			
Effect on resident's sleeping pattern			
Effect on resident's privacy			
Effect on operational costs			
Provide care when and where needed			

# Cost or Investment





## Spencer Court

*"We have a resident who hasn't been able to sleep in his bed for 40 years, he's only slept on the sofa. He now, for the first time, is sleeping in a bed and getting good night sleep because we can monitor him without intruding on his privacy, but also knowing he is safe and well."*

*"The new system really works. One of our service users who is at risk of falling was heard getting up on the system and we were able to get to her before she managed to get out of bed and potentially hurt herself."*

*"I feel that the monitoring system is very helpful. During our night shift we can monitor our residents without going into their room. It also helps us and residents as we go into rooms for checking which may disturb them."*

## Demelza

*"Being able to set the sound system to detect the slightest sound – i.e. the onset of a seizure activity has proved very effective."*

# CLB's Vision : "Improve care by innovation"



## Quality - we deliver

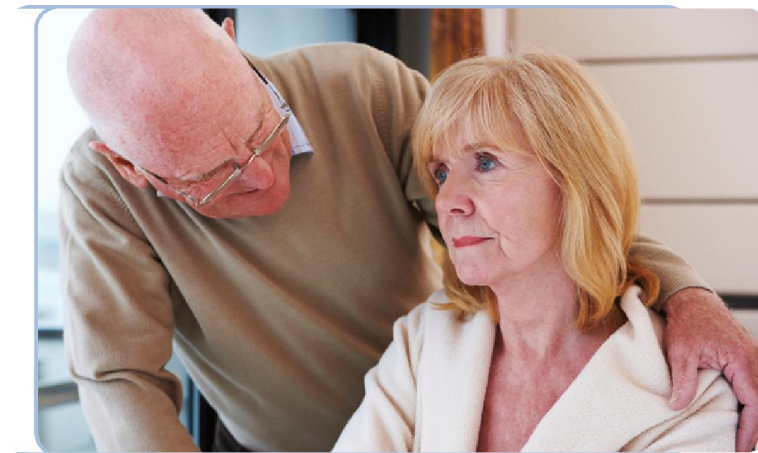
We love what we create and are dedicated to setting the standards.

## Responsibility - we care

We care about what we do and the people we do it for.

## Entrepreneurship - we act

All our employees are encouraged to proactively contribute to making our products and services the best they can be.



# CLB – Questions?

