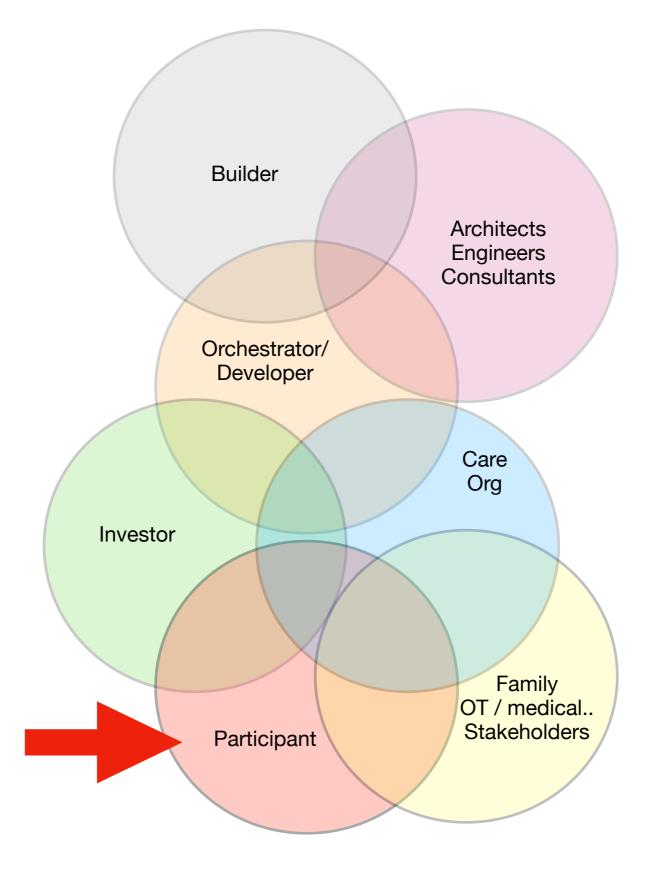
Special Disability Accommodation SDA



Beyond Automation and User Experience Improving care and outcomes with Assistive Technology for SDA & SIL

Participant Choice & Control



Choice, Control & UX Valuable Useful Transponder Control Accessible Usable User frogKey Transponder for operating the frogblue system (49 x 38 x 10 mm) Experience Desirable Findable a C Credible **Voice Control** all 🕆 💻 9:27 Edit + Suggestions New Scene Done Bedroom 1 Waking Up 🚖 Leave Home Accessories Press and hold to adjust accessories for your "Waking Up" scene. * 滐 BEDROOM (iii) . HVAC Bedroom Bedroom Bedroom Lighting Blinds & Security Energy Ceiling Lig... Nightstand Switch Light Systems Shutters Systems Management Turn Off Turn Off Turn Off Ceiling Lights Switch Light AC Off ē ⊲ đ A/V 12000 A Test This Scene 0---0 5 0 App 0 Add Accessories Philips Hue Hub Hue dimmer Nightstand switch 1 Control Include in Favorites ő Speaker ŧ

Participant control fully customisable

Beyond scheduling and automation....

- Control and status for switches, dimmers, shutters and own area (and common area if permitted)
- App available for Apple Watch
- Support for Siri Shortcuts
- Multiple tablets, smart phones and computers
- Free visualisation based on floor plan or photo of the interior
- Display of values like temperature, humidity, etc
- Extensive thermostat control options
- Intercom control (if permitted)
- Audio/video integration; Complete Sonos integration
- RGB and RGBW support (for DMX led or Philips Hue, e.g.)
- Security : Access restriction with PIN code, TouchID or FaceID
- Privacy : Participants can have different internet restrictions.



World's most advanced voice control



Switch Light

Turn Off

Done

9:27

1

Up" scene.

Turn Off

Test This Scene Add Accessories

Include in Favorites

Accessories

Suggestions New Scene

Waking Up

Press and hold to adjust accessories for your "Waking

5

Turn Off

Bedroom Bedroom Ceiling Lig... Nightstand

		APPLE HOMEKIT	AMAZON ALEXA	GOOGLE HOME
	Dimming actuator	4	4	4
LAN C C NITHONK C C C KNX + +	Switch / switch actuator	4	4	4
	Thermostat	4	d and a second se	4
	Push button / switch	4	4	4
	Scene button	4	J*	√*
	Blinds actuator	4	1°	1ª -
	Temperature sensor	4	4	
	Fan (beta)	4	d and a second se	4
	Valve	4	-	
9:25 Edit + Bedroom Keenes Leave Home	Humidity	4	-	
	Contact sensor	4	-	$\sqrt{2}$
	Smoke sensor	4	-	₹*
	Leak sensor	4	-	
ccessories	CO sensor	4	-	1ª
Ceiling Lights Switch Light AC Off Off	Light intensity	4	_	_
Hue dimmer switch 1	Occupancy sensor	4	-	-
8 Speaker	Motion sensor	4	-	-
	CO2 sensor	4	_	-
Home Rooms Automation	Stateless button	$d = -\frac{1}{2}$	-	_

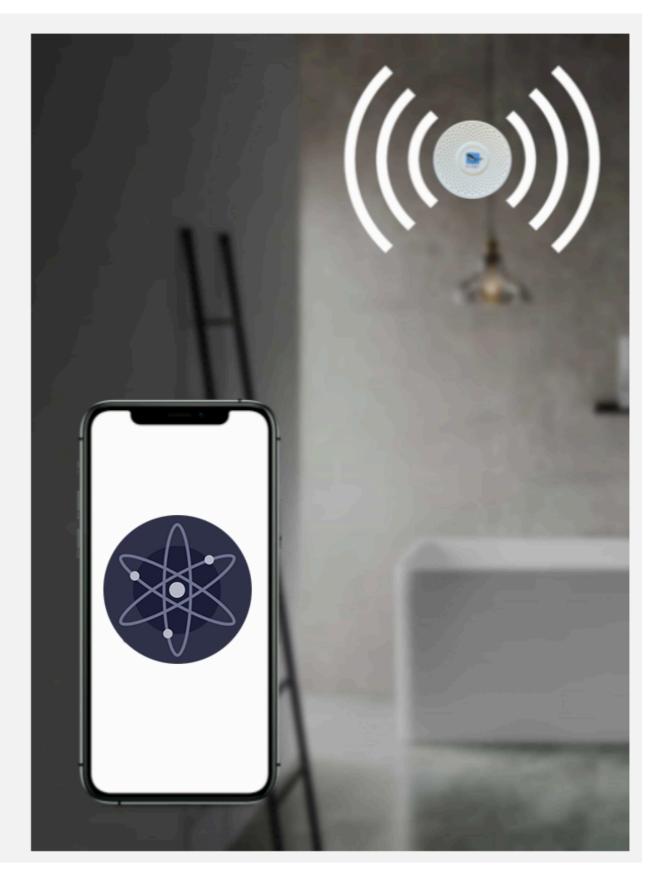
iBeacon location detection: contextual control

Location detection

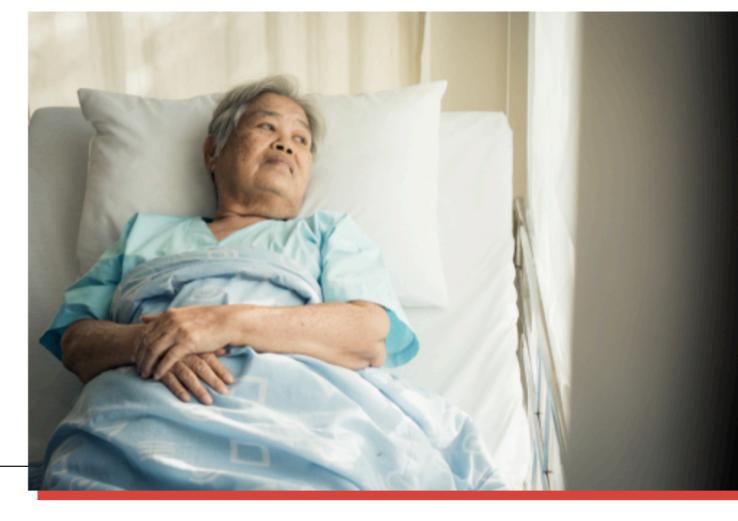
With the xxter iBeacons and NFC tags, it is possible to add location based intelligence to the automated home or building. Because the xxter app on your device can detect exactly where you are, it is possible to start an automation depending on your location in the building and always show you the most relevant part of the visualization in the app. It is also possible to gain access to restricted parts of the automation by scanning an NFCtag from an authorized device.

Start the right scenario when someone enters a room, open the gate when an authorized person arrives or unblock certain controls by reading an NFC tag.

The iBeacons and NFC tags are separately available. Ask your installation professional for the possibilities. For the iBeacons and NFC a separate manual is available.



Circadian Rhythm Lighting



The experiment, at a 99-bed nursing home in Sacramento, California, showed that, on average, residents experienced 3.6 nighttime sleep disturbances with static lighting compared to 1.8 with tuned lighting. *Credit: Shutterstock*

It's well known that nursing home residents tend to fall asleep at all hours of the day, and during the night, and that their sleep may be interrupted by periods of wakefulness.

It represents a vicious cycle of fragmented sleep that can place residents at risk for poor health outcomes, including depression and increased frailty, said Rosa Baier, an associate professor at the Brown University.

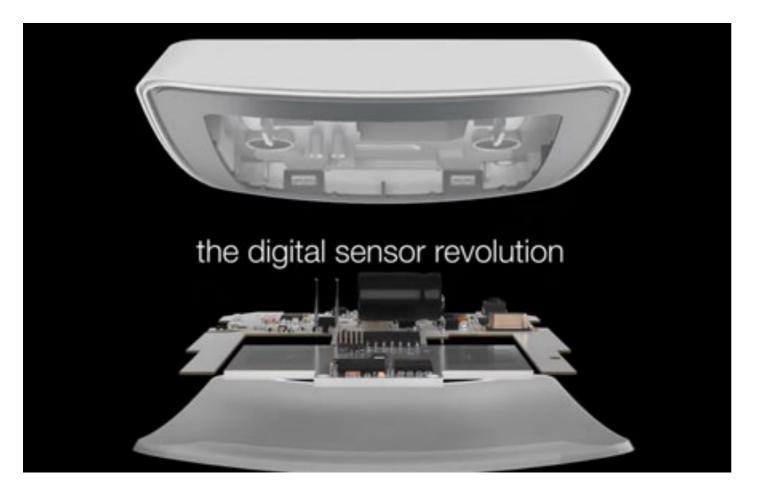
Healthcare

Tuned LEDs 'gives care home residents better sleep'

8 October 2020

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TruePresence ®



MITSUBISH

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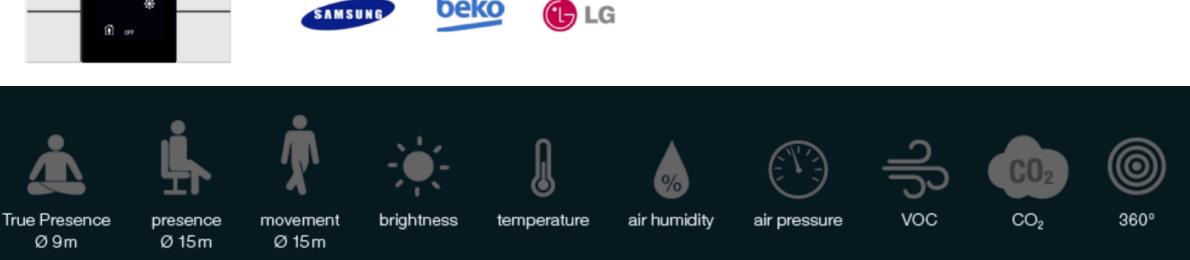
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<u>28</u>5

True Presence® detects micro movements : breathing while asleep.

Single sensor to integrate air quality temperature, humidity, electrical, security, emergency response and care provision.

With *certainty* on presence and absence.



MITSUBISH

manufacturer's warranty

The elephant in the energy efficiency room



Sensors only turning lights off is so 1990's

1 degree = 6% HVAC energy savings

Certainty on presence and absence enables dynamic adjustment optimising efficiency without compromising user comfort



Importance of Integrated Control







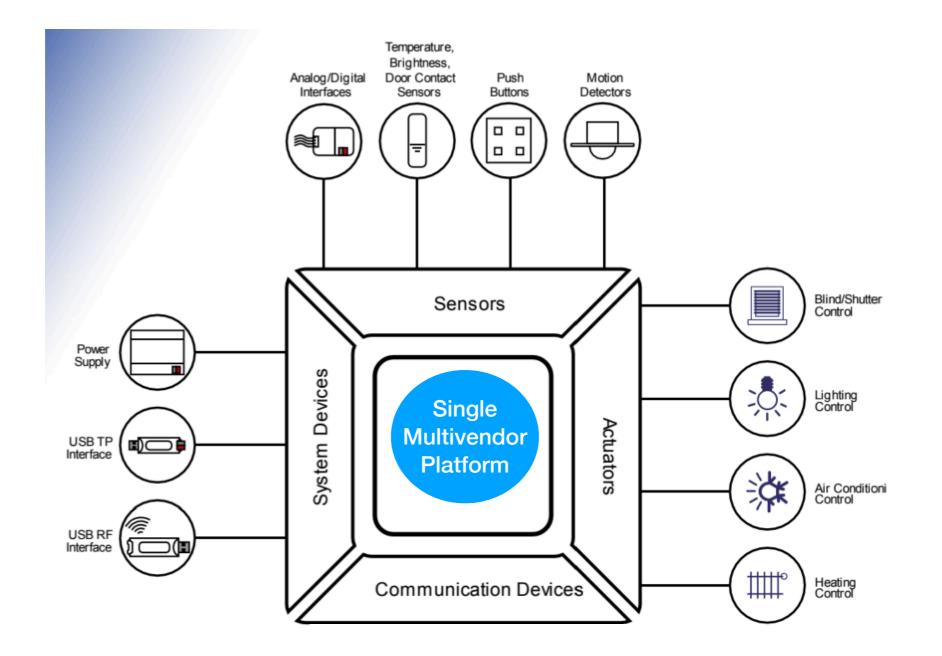
Scene setting is MORE than just changing colour on your Hue lamps !!

"Set Cooking Scene" might include:

- Adjust lighting in kitchen
- Play favourite cooking music playlist
- Adjust height of countertops
- Lift/lower/access packed cookware
- Cool temp in kitchen
- Increase ventilation in kitchen
- Open bin cupboard

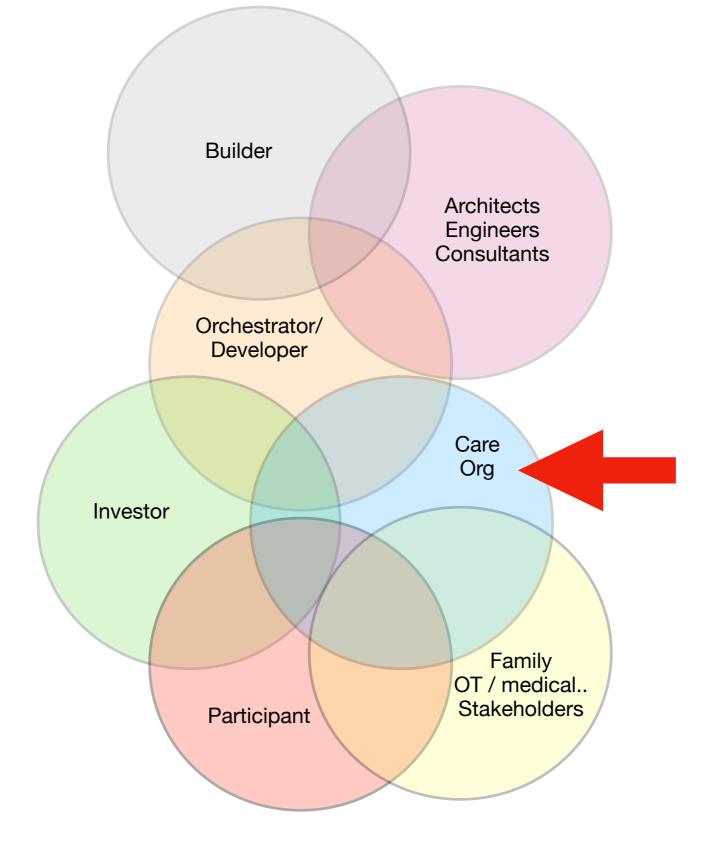


Historic building service silos won't work



Multivendor = Future-proof

Empowered, Scalable, Distributed Management



Technology assisting carers & their organisations

- Mobile "Onboarding checklist" to customise facility for incoming participant
- Ability to enforce IT policy of carers remotely (walled off from participants
- Ability to manage digital keys for carers and service providers for access control
- Ability to log and audit arrival & departure of carers and service providers for compliance and billing
- Outsourcing of monitoring and remote testing of emergency lights, lighting, fire alarms, internet connections, and individual control of participant IT policy.
- Flexibility to cater for almost all desired alerts and scenarios regardless of needs of participant
- Branded user interface of carer control



	2:32 🖪 👬 🖬 🕅	̂ ♥⊿ 🕯 75%
nts)	Voice Control Preference	
S	None required	
-	Homekit	
	Google	
ers	Alexa	
	Door Lock?	
of		
01	Kitchen sharps lock?	
	stovetop lock?	
	F 2	
	Emergency lockdown?	
	CarerAlert on:	
	open own door	
	open front door	
	cooktop on	
	noise above 80 decibels	

Control & awareness for optimal care



Quick QR code scan set up for new/ substitute carers

- Add snapshot to push message (eg maintenance or emergency shutdown) from the app
- Visualisation and control of the whole building
- Security camera view and control
- (Video) intercom control
- Charts and statistics
- Alert service for receiving messages sms/email
- Access to the alert service log with snapshot viewer
- Ability to change schedules and alert rules
- Presence simulation control



Custom alerts to improve care



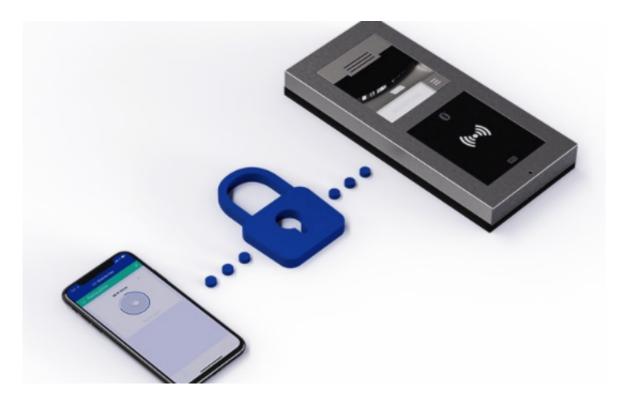
If participant is in the bathroom for longer than 30 minutes, trigger a carer alert.

If participant is not out of bed by 10am, trigger a carer alert.

This is deduced by movement type

If VOC or CO2 levels go above given threshold, open/close windows or increase HVAC ventilation.

Digital Keys and Access Control



Integrates with Intercom Bank level security

Multiple operating options:

- Press button while phone in pocket
- Tap a button in the app (contactless)
- Move towards door
- Card wave (like store payments)

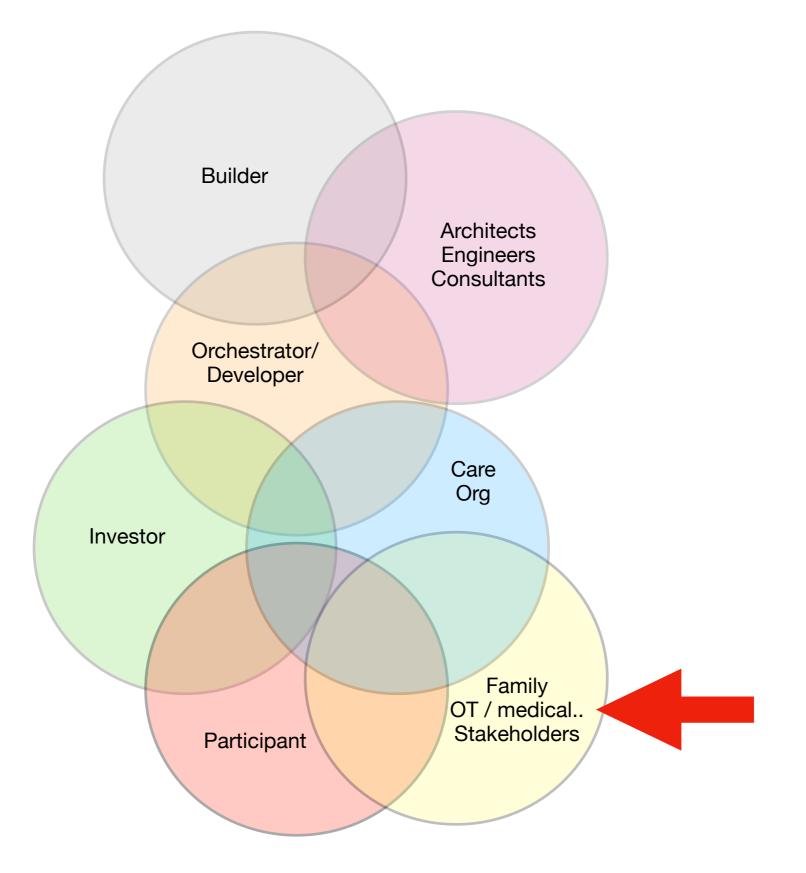


Easy digital key distribution from central hub

Free digital keys !



Extended Stakeholders



Innovation & R&D



Share selected variables with family, medical staff and other authorised stakeholders. Securely. Non-intrusively.

Service providers (digital key logs)

Monthly reports on energy use (meters extra)

Weekly alerts for carer to snapshot "Fridge contents" message

Pressure sensors measuring sleep times

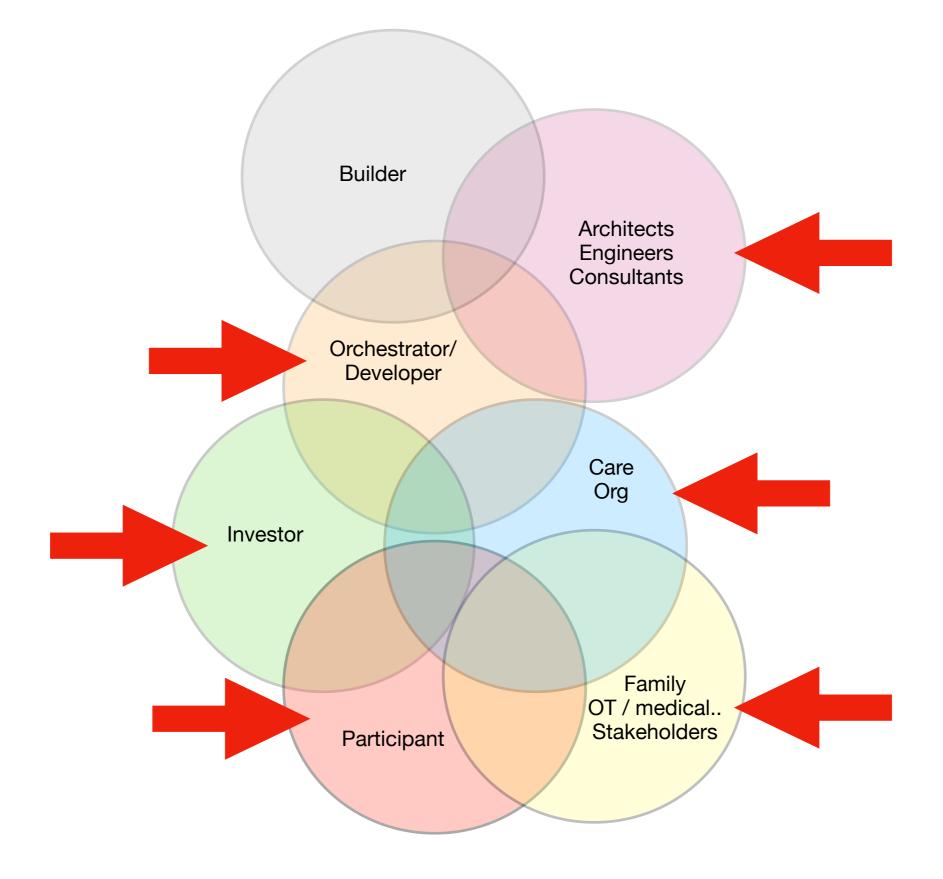
Logging of medication or time critical services



Currently in R&D medication compliance



Technology platform can align stakeholders



Tech Platform is a STRATEGIC decision

Elements of ideal technology

Cost Effective Base Build

Zero additional foundation cost Linear costs - pay as you extend Options to suit budget constraints No vendor lock-in & rent seeking

Modular & Modifiable

World's largest range +8000 devices Easily & quick tailoring : participant changes Modular - Remove & redeploy components All components integrate and interoperate



Cater for ANY participant need

Flexible - tailor for any requirementMenu option - integration into platformVoice, AV, app/tablet auto-logicAnalytics & improved care outcomes

Future-Proof

Global "battle-tested" platform Multi-vendor (no single vendor risk) Open / competitive ecosystem Catering for future innovation