DATA INNOVATION IN HEALTHCARE

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AGENDA

1. About Us
2. Mainstream IoT Device Usage
3. The Eye Is A Window Into Heart Disease
4. Aged Care - Talius
5. Aged Care – Sleep Sense
6. IoT – Alzheimer's Outcomes
7. Summary

Bupa Asia Pacific (APAC) services
6.7m customers across three countries and five Business Units, comprising >570 sites, powered by 22k people

Businesses	Health Insurance (HI)	Bupa Dental	Bupa Optical & Hearing (BOH)	Bupa Medical Visa Services (BMVS)	Australian Defence Force (ADF)	Bupa Villages and Care Australia (BVAC AU)		Bupa Villages and Aged Care NZ (BVAC NZ)		Bupa Health Insurance HK (HKI)	HK Health Services (HKHS)
Customers QRF1	2m Members / 4m Lives	572k[1] Customers	234k Customers	340k Assessments	215k Offsite appointments	5,303 Occupied beds, closing	82 Occupied village units, closing	3,309 Mature occupied beds, avg.	2,014 Occupied village units, at Dec	490k Customers	914k Customers
Sites At 31 Dec 2021	65 Retail stores	221 Sites	47 Sites	6 Sites	0 Sites	59 Care homes	1 Retirement village	49 Care homes	37 Retirement villages	0 Centres	89 Centres

1. Bupa dental customers includes NZ dental practice customers in 2022, prior to divestment

HK Health Services include: Western Medicine, Diagnostic & Imagining, Physio, Traditional Chinese Medicine, Dental, Medical Aesthetics & Other (e.g. Nursing, Mental Health)

MAINSTREAM IOT DEVICE USAGE

Sleep Pattern

Calorie Intake

Step Count

Heart Rate

THE EYE IS A WINDOW INTO HEART DISEASE

[Eye Exam Could Predict Heart Attack Risk, Says Study | World Economic Forum (weforum.org)](...)

Improve clinical and operational outcomes

EyeInspect is retinal screening that uses Artificial Intelligence to identify underlying eye and health problems. Early detection of problems, and intervention can make a huge difference.)
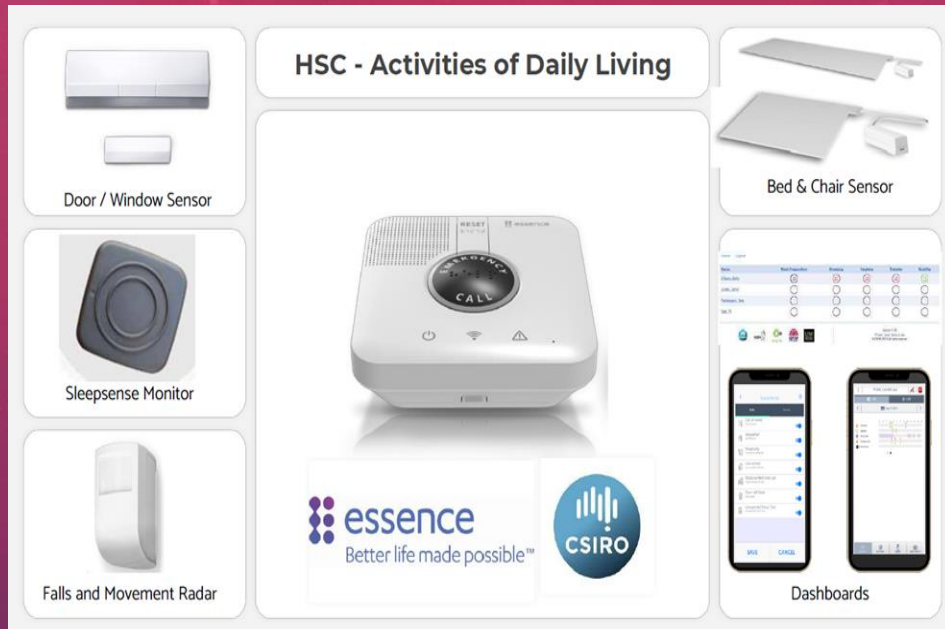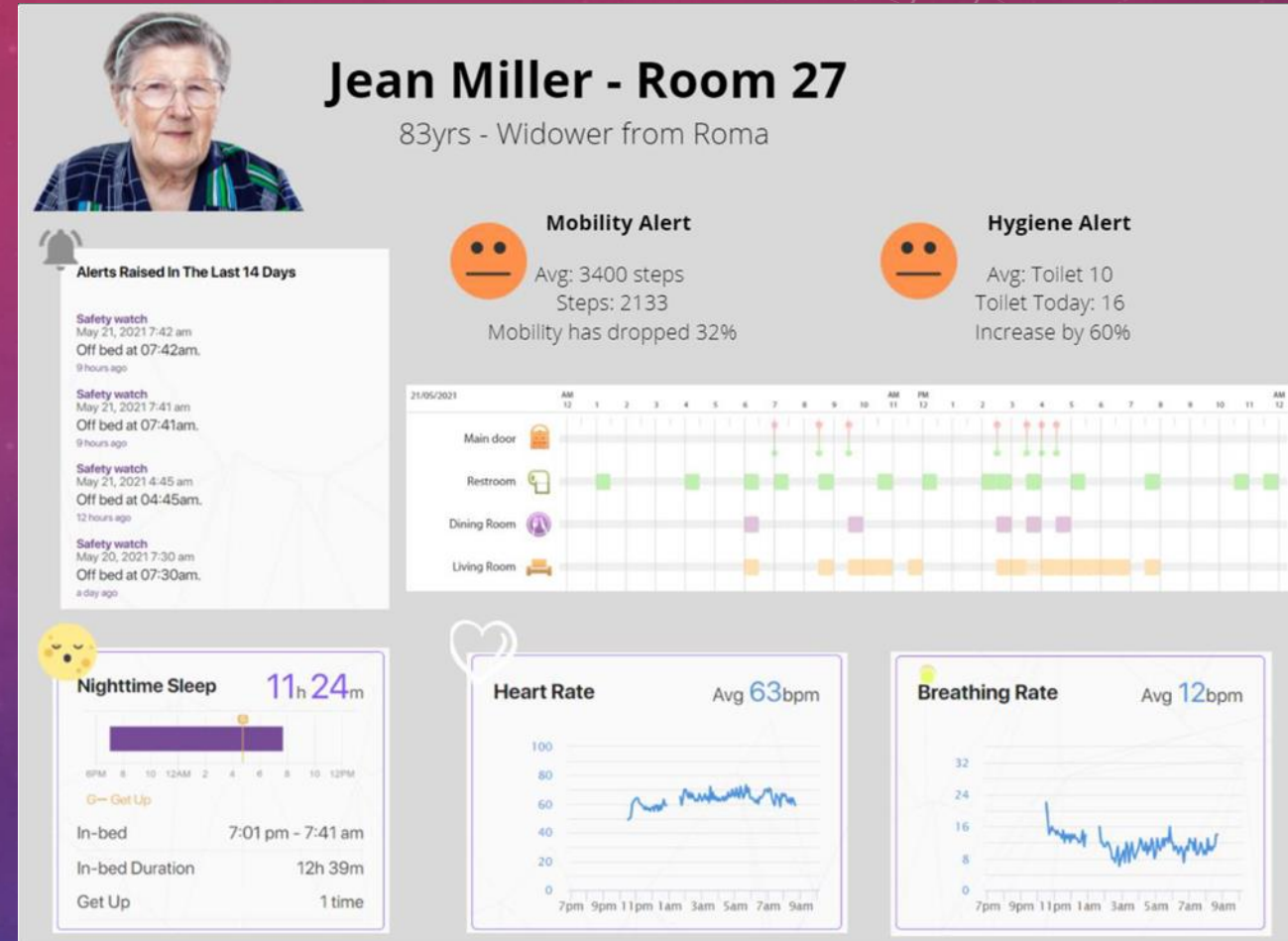
AGED CARE - TALIUS

AGED CARE - TALIUS

- Collection of sensors (typically wireless) in the IoT category

- Compatible devices can be added or upgraded as required

- One base station per room and then multiple devices connect to that

- Already in use in care home and independent living settings in Australia
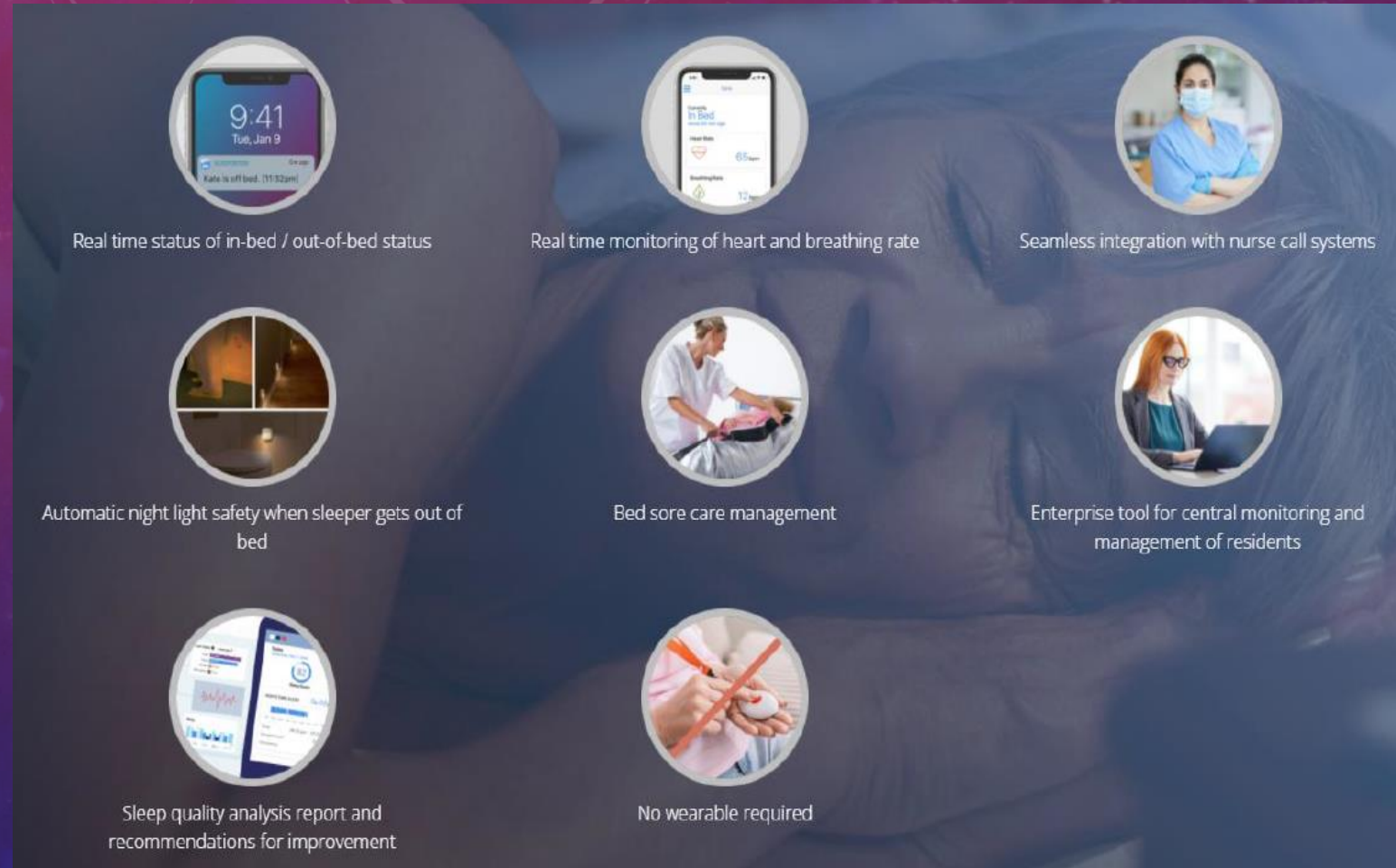

- Alerts / Sleep / Activities / Mobility / HR & Respiration

NB. This is an example only, from a larger implementation (i.e.. with more devices). Our pilot will not have all of this information as we are testing only the one sensor/device.

AGED CARE – SLEEP SENSE

- **Real time status of in/out of bed**

- **Real time monitoring of heart rate and respiration rate**

- **Integration with nurse call system can provide immediate alerts (e.g. falls risk or unexplained absence risk)**

- **Bed sore care management**

- **Centralise view of a community, a care home or the entire portfolio**

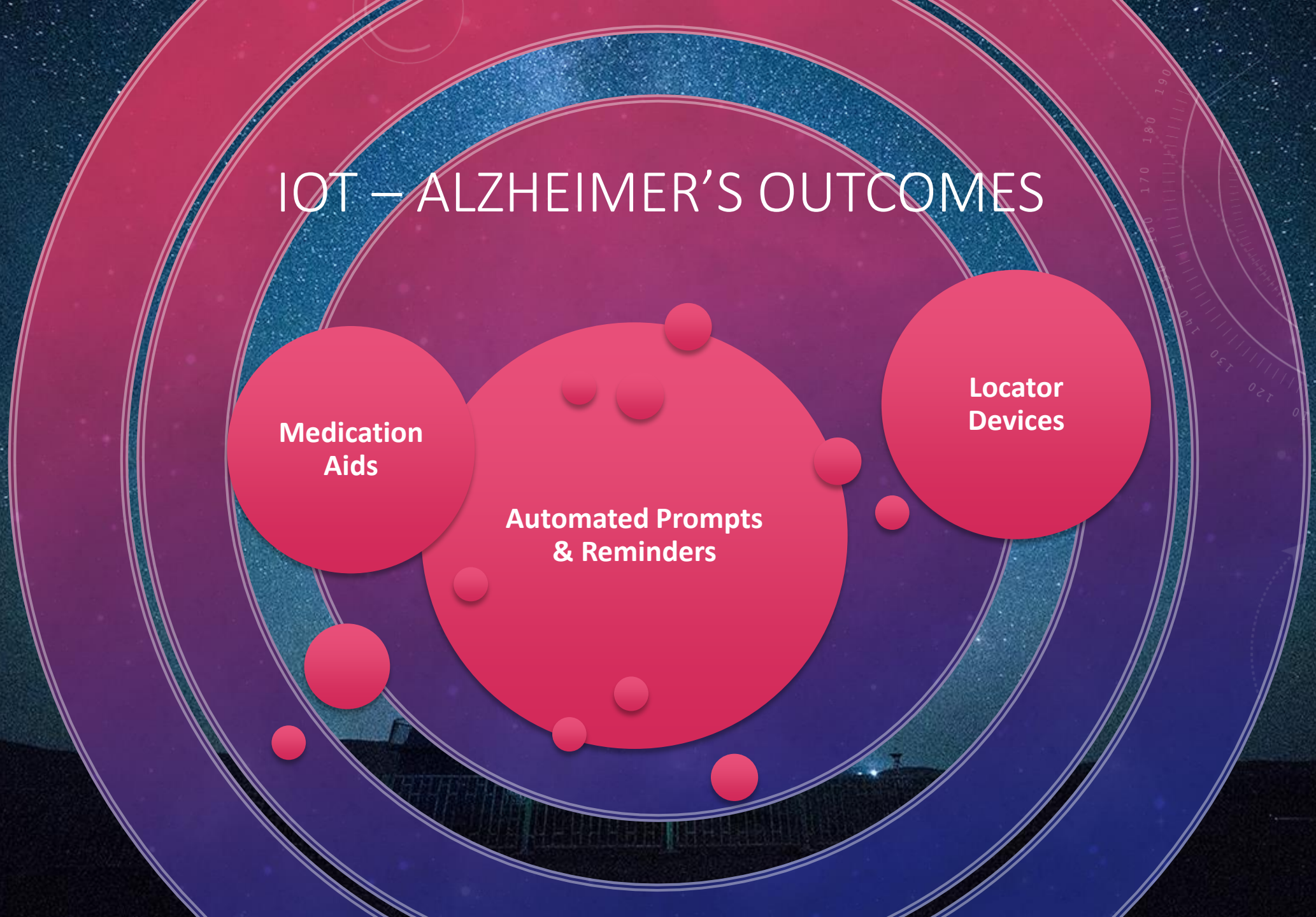- **Can provide an auditable log of events that capture activities of daily living**

Real time status of in-bed / out-of-bed status

Real time monitoring of heart and breathing rate

Seamless integration with nurse call systems

Automatic night light safety when sleeper gets out of bed

Bed sore care management

Enterprise tool for central monitoring and management of residents

Sleep quality analysis report and recommendations for improvement

No wearable required

IOT – ALZHEIMER'S OUTCOMES

Medication Aids

Automated Prompts & Reminders

Locator Devices

SUMMARY

- **Artificial Intelligence (AI) should augment Human Intelligence, Not replace it**

- **Internet of Things (IoT) devices will become increasingly prevalent in healthcare**

- **Quantum computing will be the next step change, based on the exponential improvements in accurately processing substantial data volumes at speeds previously unheard of.**

THANK YOU!

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