



European
Network of
Living Labs



Enhancing Longer Living in Smarter Places



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Netwell - CASALA

The Netwell & CASALA centres collaborate with governmental and non-governmental agencies, industry and academic institutes to:

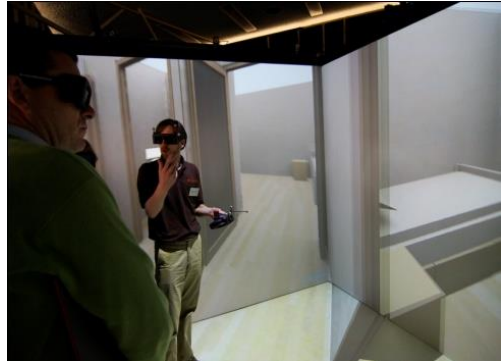
Develop new ideas that enhance the quality of life and well-being of older people and those who care for them, through more integrated community-oriented services, more sustainable home and neighbourhood design, and more affective and age-friendly technologies.



Stimulate Innovation & Competitiveness - a Multi-tier Living Lab



↑
Psycho-social analysis
Person centred design
↓



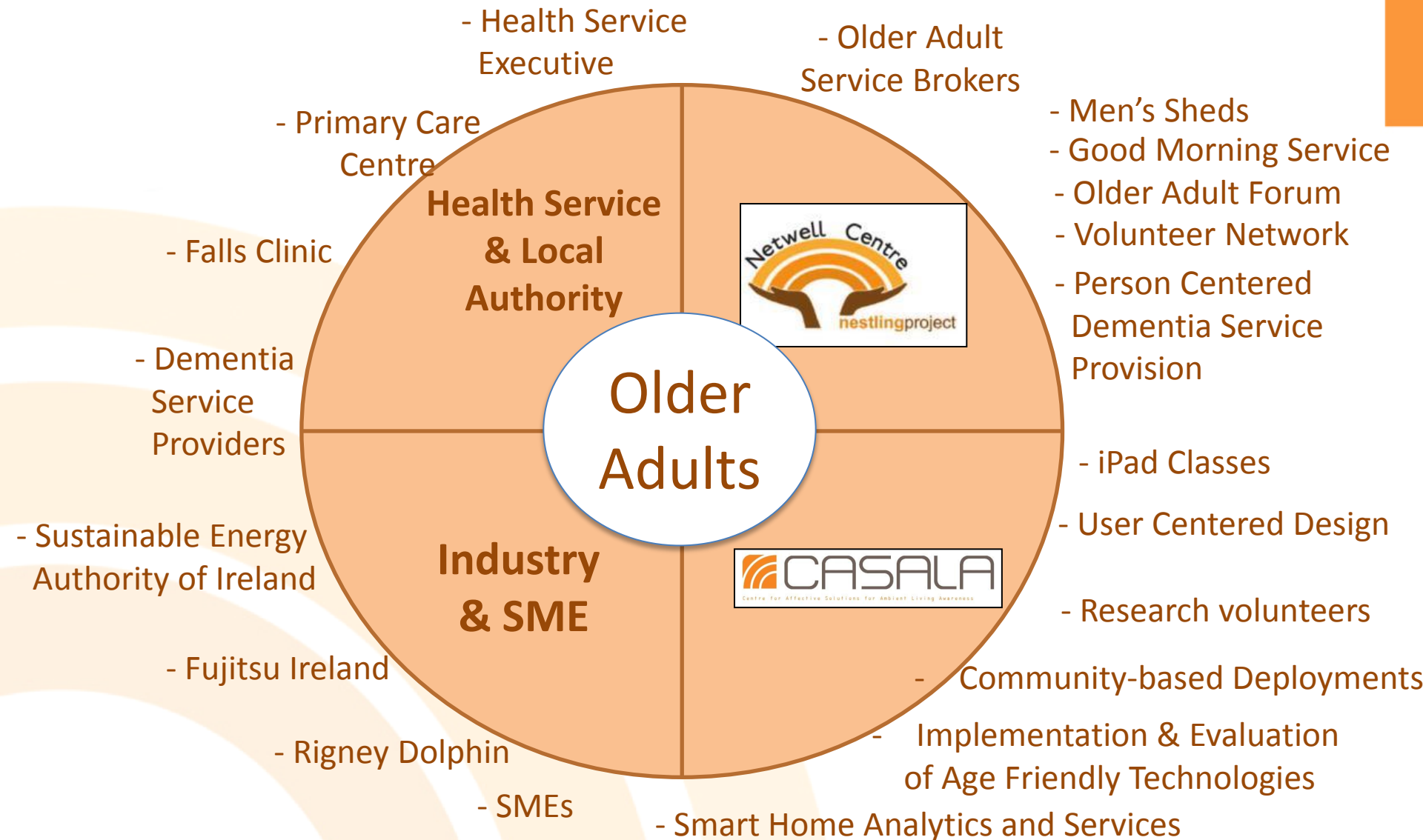
CAVE Simulator and technical workshop / laboratory

Great Northern Haven – 16 ‘Smart Aware homes’

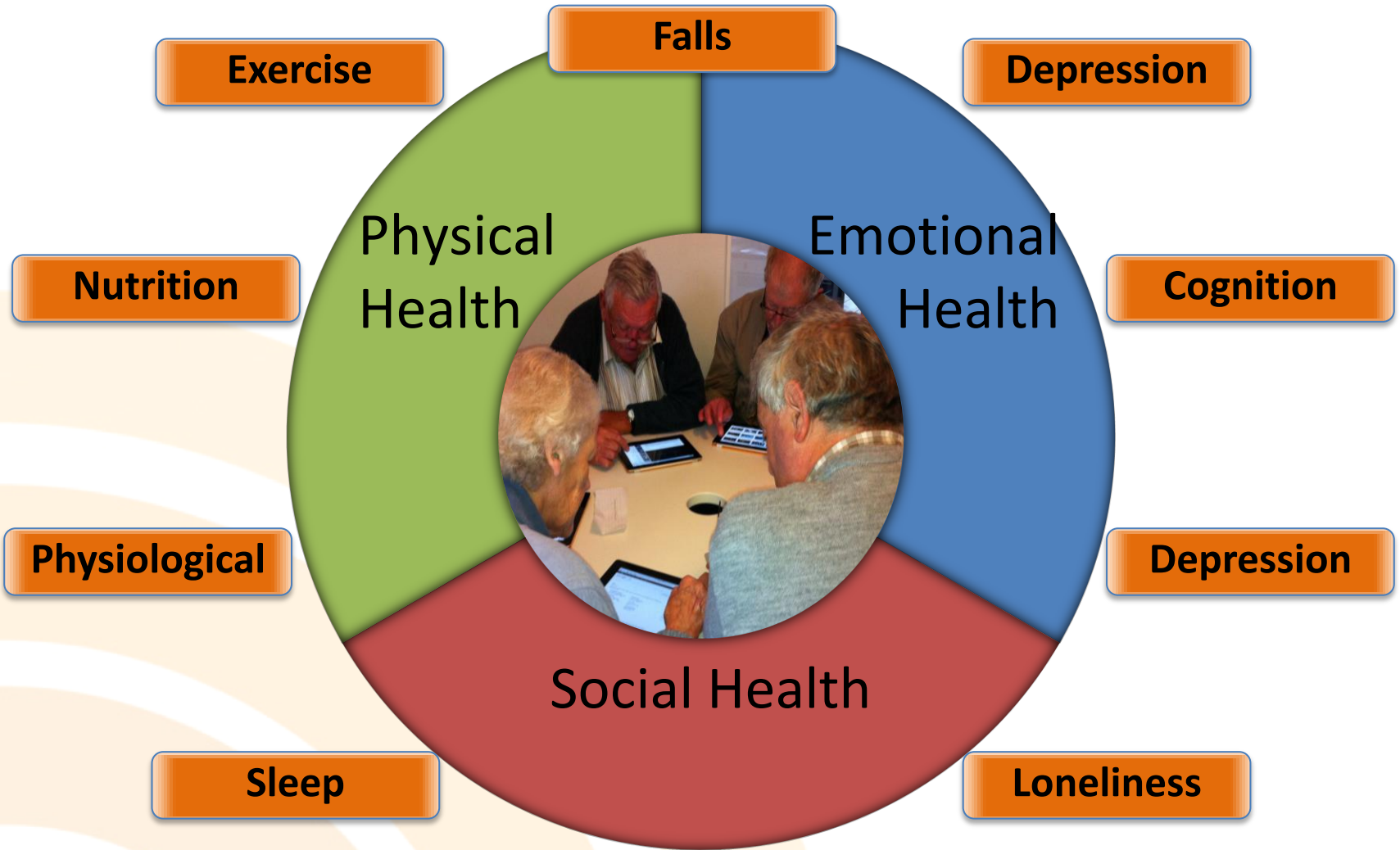
LAFC – County-wide innovation infrastructure with over 1,200 pre-surveyed older adults



CASALA Living Lab Partners

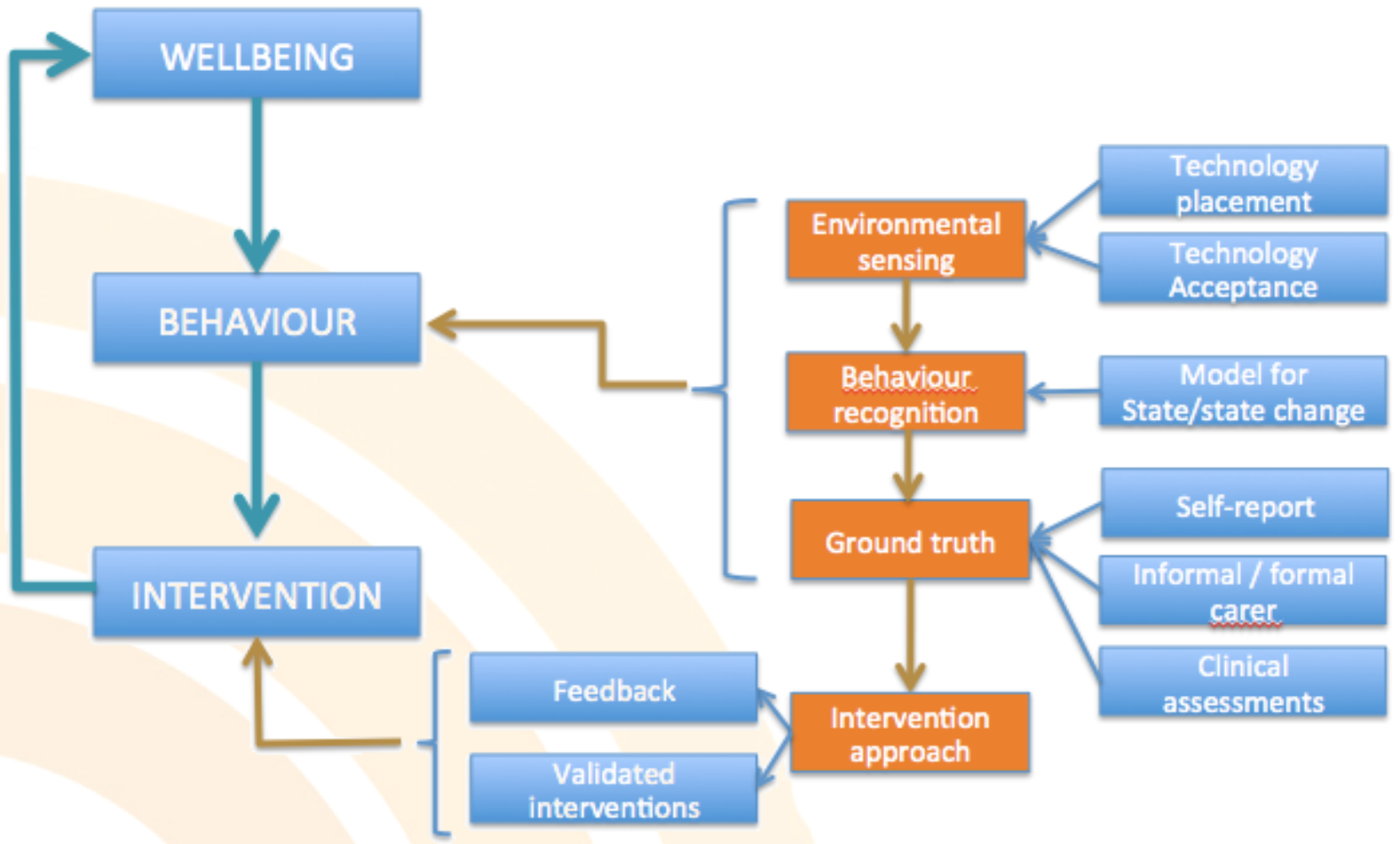


Research areas

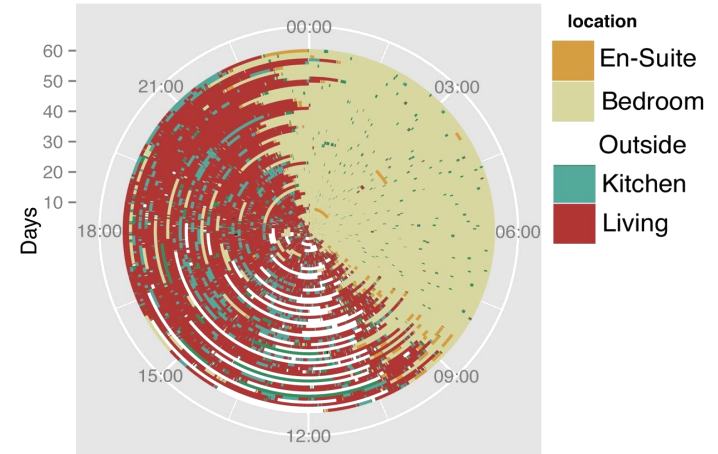
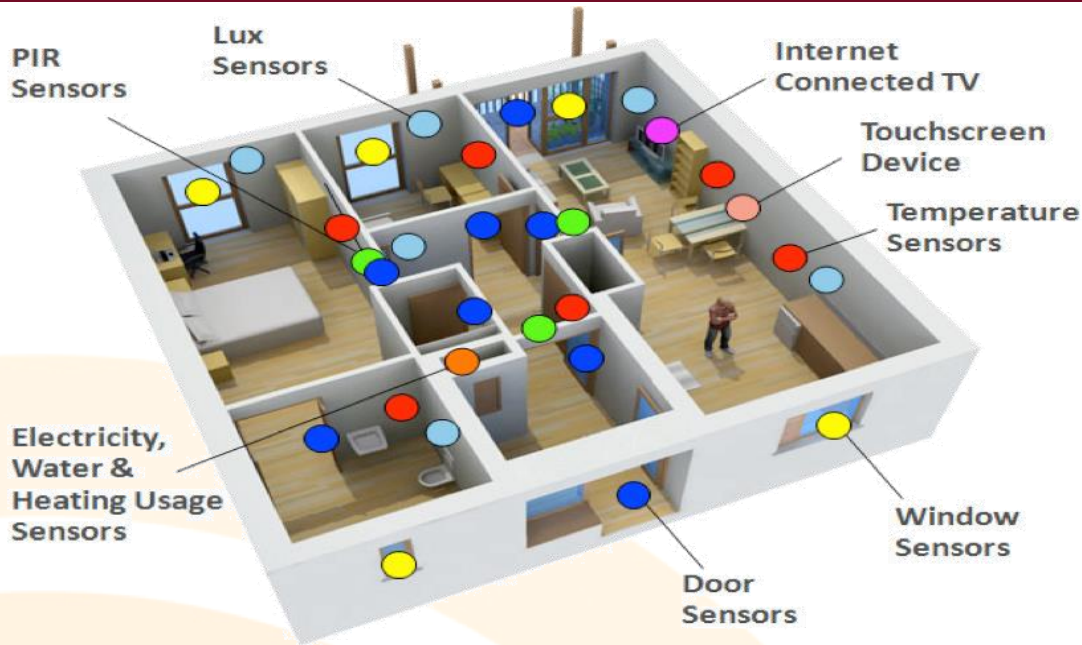


But who is this data being collected for?

Monitoring and Feedback – Closing the Loop



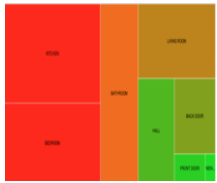
GNH - A Highly Sensed Environment & Home



- 2,300 sensors and actuators in GNH
- Completed in June 2010
- Over 8 million data records per month
- Engaged residents inform design, development and evaluation of solutions and services
- Partners include local authority, health service, local service providers, SMEs and industry



CASALA Living Lab – Wider Community Deployments



CABIE

Context Aware Brokering and Inferencing Engine: A cloud-based sensor agnostic platform translating raw data to health information (300+ users)



Home Sweet Home

2 Year RCT telehealth tech for frail community dwelling older adults (60 users)



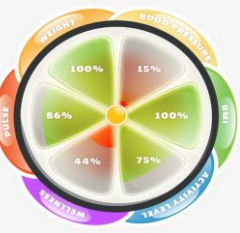
CaraWellness

Care platform for older adults combining various health technologies and providing feedback and alerts to the person, carers and clinicians (65 users)



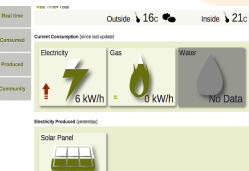
Technology Enhanced Falls Risk Assessment

Investigating the role of technology to support clinic-based falls risk assessment and the development of a community based platform (18 users)



YourWellness

Health and wellness self-management iPad application (15 users)



Community Energy Monitoring System

Monitoring real-time energy usage, using a cloud-based service, and processing the data for feedback to service users and community planners (50+ users)

Health Metrics – Extracting Higher Level Information

Deriving higher level information from raw sensor data

- Sleep disturbances, bed exits, activity levels, time spent outside the home, room transitions

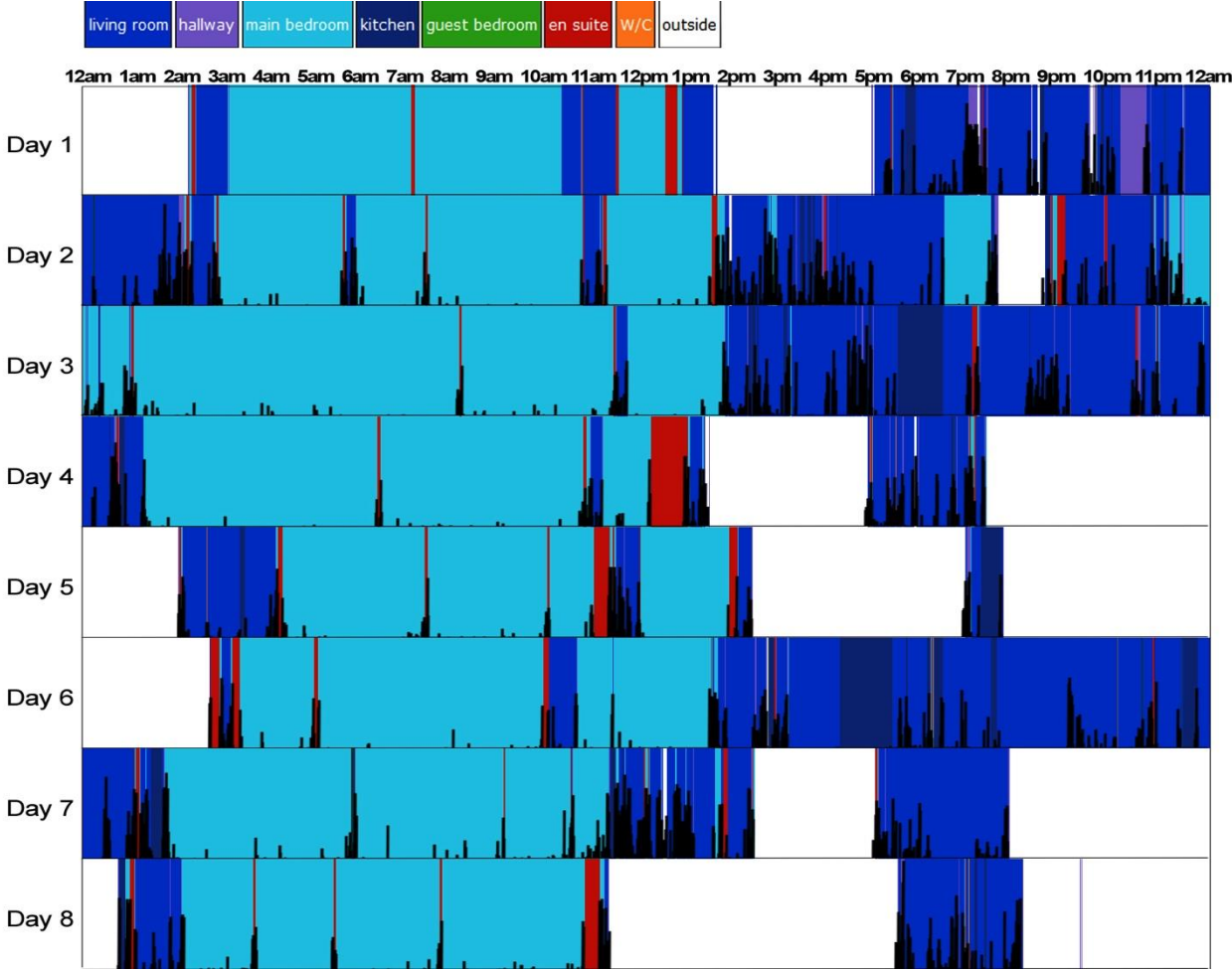
Investigating methods of highlighting abnormal daily patterns

- Altered sleep/wake and activity patterns

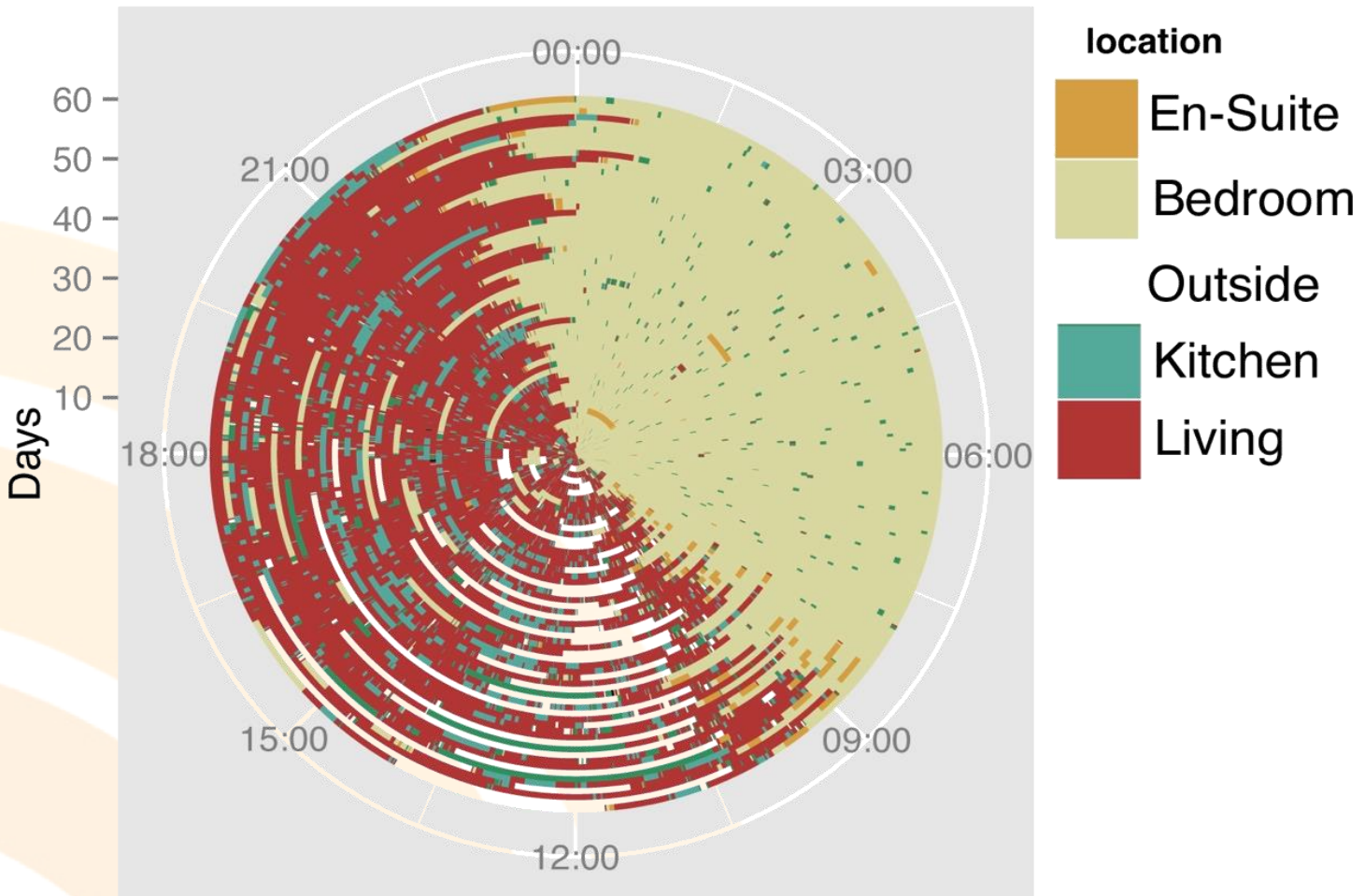
Inferring self-report health status from ambient sensors

- Anxiety, cognition, depression, loneliness, sleep quality

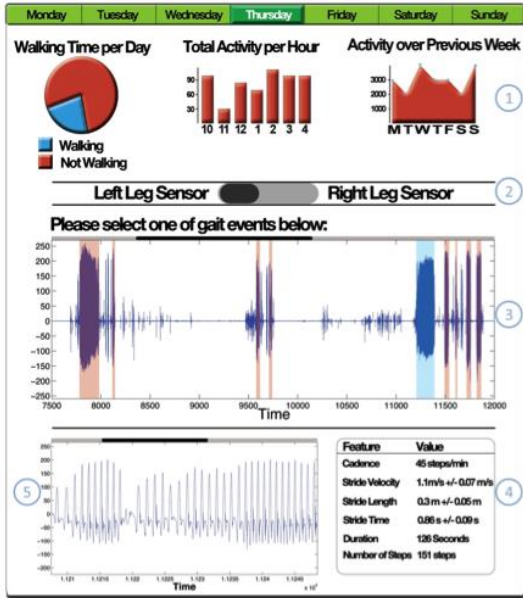
Data Visualisations – Extracting Daily Routines



Data Visualisations – Variations in Daily Routines



Feedback Applications



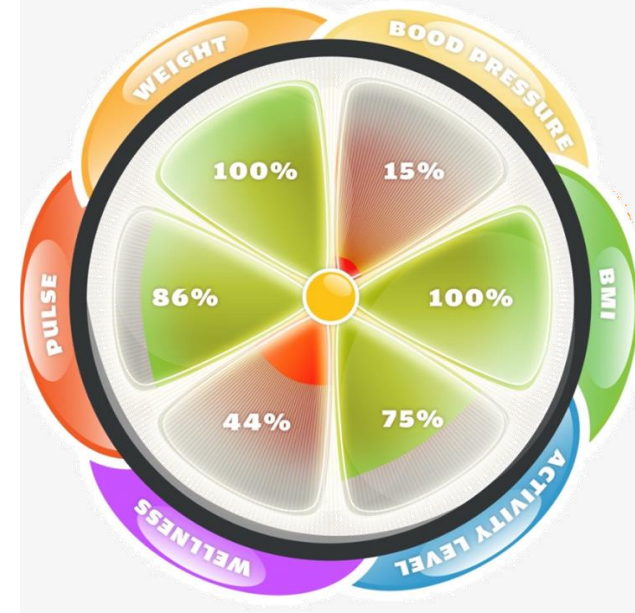
Messages Videos Images Personal

ARCHIVES

Sleep Mood Social

15/07/13
 Sleep Improvement: Exercise early. Exercise can help you fall asleep faster and sleep more soundly—as long as it's done at the right time. Try to finish...

06/07/13
 Sleep Improvement: Establish a Soothing Pre-Sleep Routine. Ease the transition from wake time to sleep time with a period of relaxing activities an...



Real time Consumed Produced Community

Real time • Total

Outside 16c Inside 21c

Current Consumption (since last update)

Electricity 6 kW/h	Gas 0 kW/h	Water No Data
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Electricity Produced (yesterday)

Solar Panel

17°

netwellCentre

Methodologies



Challenges

- Convincing industry partners that design should be user-centred, not company-centred
- Managing cohorts
- Scaling up deployments
- Evaluating success
- Continuation past research trial / pilot
 - Particularly on collaborative projects. Managing IP can be difficult

Successes

- End-user involvement – real people, real-world data, longitudinal
- Not just monitoring – provide feedback to end users of AAL technologies, empowerment
- Not just technology! AAL needs to be integrated with service provision
 - E.g. CASALA advocating for advanced nurse practitioner who is aware of available technology
- Develop, drive and educate the market

Progress since last year

- New spin-out company – CarezApp
 - Selling to home-care companies
- Social Enterprise recently set up
 - Louth Age Friendly Company
- Sustainability of groups
 - Small subscription charges
- New 3-year project with large multinational company

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 CASALA

Thank
You!!!

