

# Modernising Home Care Operating Models

How AI and Assistive Technology Are Driving Efficiency, Financial Sustainability, and Inclusive Care

12 March 2025



Australian Multicultural  
Community Services

Johan Locke

[Johannes.Locke@amcservices.org.au](mailto:Johannes.Locke@amcservices.org.au)

<https://www.linkedin.com/in/johanlocke/>

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we support,  
we empower**

# AMCS – Australian Multicultural Community Services

Australian Multicultural Community Services (AMCS) is a not-for-profit organisation in Melbourne, Australia, dedicated to supporting seniors from diverse cultural backgrounds.

With over 40 years of experience, AMCS offers services such as Home Care Packages (HCP) and the Commonwealth Home Support Programme (CHSP) to help older individuals live independently and safely at home.

Our multicultural workforce speaks more than 40 languages, ensuring culturally sensitive care.

AMCS operates primarily in Victoria, serving regions including Melbourne's western, northern, and eastern suburbs.

**CALD**

NFP

**40 Years**



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## **Home Care Packages (HCP)**

CHSP

**Community Projects**

**Melbourne, Victoria**



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# New Aged Care Act

## Purpose of the Act

- Places **older Australians at the centre of the care system**, reinforcing their rights and dignity
- Simplifies a complex regulatory framework by **consolidating programs and standards**
- Reflects Royal Commission recommendations to **drive quality, transparency, and person-centred care**

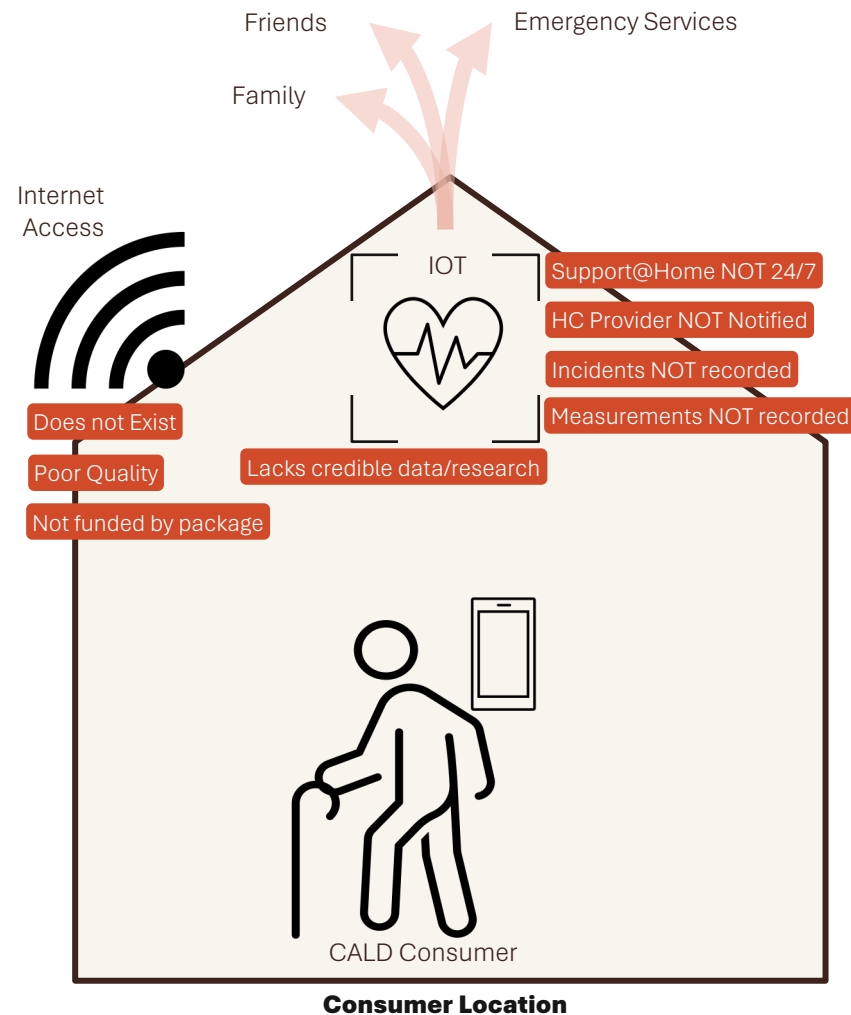
## Impact on Home Care Providers

- Requires **stricter compliance and accountability** through enhanced reporting
- Emphasises “**ageing in place**,” increasing demand for at-home services
- Encourages **higher service quality**, stronger workforce practices, and **more robust financial oversight**

## Opportunities and Promise

- **Flexible funding models** open up new avenues for innovative service delivery
- Growing **consumer preference** for at-home care presents a larger potential client base
- **Adoption of digital tools** (e.g. remote monitoring, care management systems) can improve efficiency, reduce costs, and enhance personalisation

# Challenges – The Home Environment



## The Home Environment

- **Lack of Reliable Internet Access:** Home Care Packages (HCP) do not cover internet costs. [health.gov.au](http://health.gov.au)
- **Limited Service Availability:** Home care is scheduled and not available 24/7, delaying emergency response. [health.gov.au](http://health.gov.au)
- **Limited Standardisation in Assistive Technology integration:** IoT devices lack uniform data collection and integration. [WHO](http://who.int)
- **Delayed Incident Reporting:** Integration gaps mean adverse events may not be reported promptly. [WHO](http://who.int)
- **Unverified Assistive Technologies:** Few undergo independent testing, raising reliability concerns. [WHO](http://who.int)

# Challenges – The CALD Support Worker

Case notes recorded manually



Support Worker @ Home

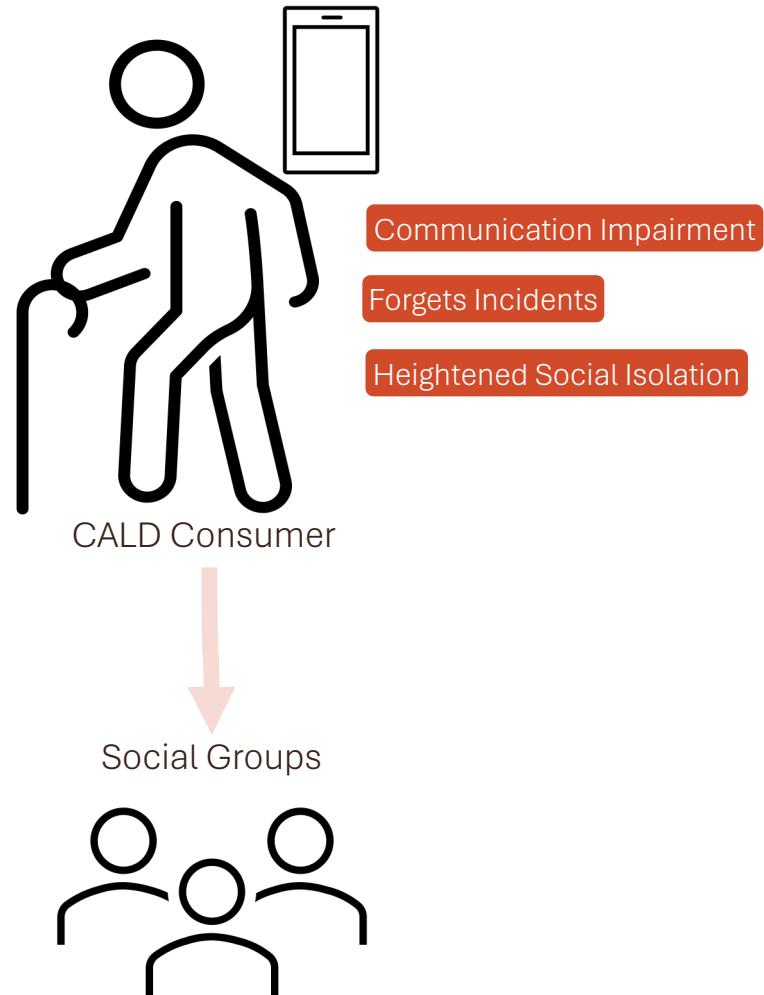
CALD Barriers

## Support Worker:

- **Cultural barriers** stemming from insufficient cultural competency training, leading to misunderstandings and reduced quality of care. [ELDAC](#)
- **Language difficulties** due to different dialects or accents, complicating communication with clients. [BMC Public Health](#)
- Challenges in **documenting sensitive incidents** like incontinence, especially when clients are reluctant to report such events.
- Increased administrative workload from the **necessity to maintain detailed case notes** and clarifications after each client visit.



# Challenge – The CALD Consumer



## CALD Consumer

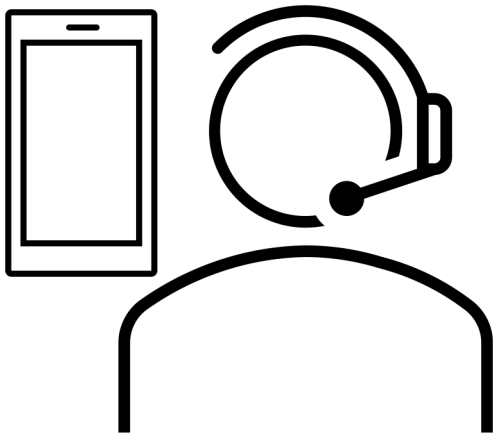
- Communication impairments due to **language barriers** and limited English proficiency, hindering effective interaction with healthcare providers. [AIHW](#)
- **Memory-related issues**, such as forgetting incidents like falls or incontinence, leading to underreporting of health concerns.
- **Heightened social isolation** resulting from cultural differences, shyness, or unfamiliarity with available social support services. [ELDAC](#)
- **Low health literacy**, causing misunderstandings about healthcare services and eligibility criteria. [AIHW](#)

# Challenge – The CALD Care Advisor

Care Plan Review limitations

Not all incidents known

Time recording admin burden



Care Advisor, Nurse

## Back-Office Staff

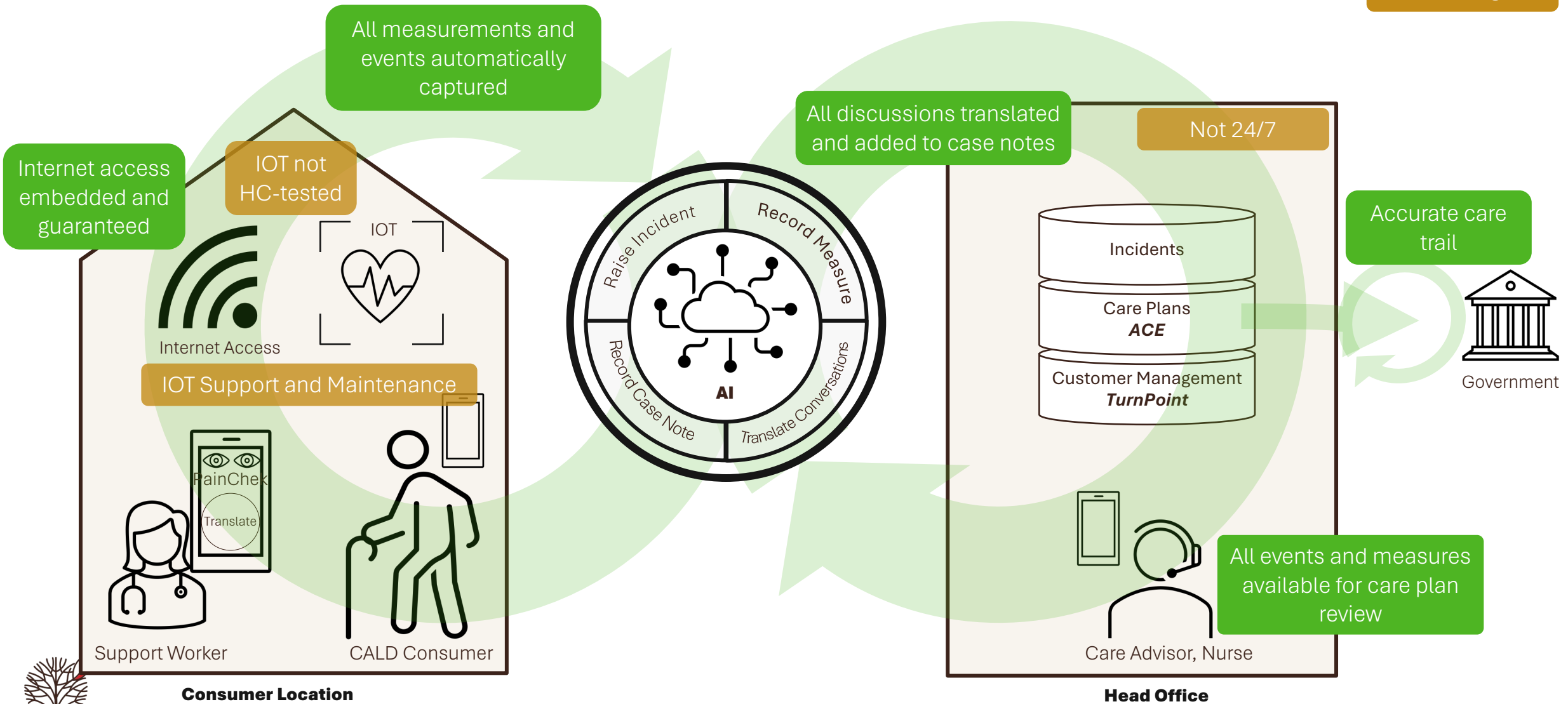
### (Care Advisor, Care Coordinator, Case Manager):

- **Limitations in care plan reviews** due to unreported or forgotten incidents by clients, leading to incomplete or inaccurate care assessments.
- Administrative burden from extensive paperwork and the need to **reconcile services delivered with those recorded**, impacting efficiency.
- Data accuracy issues arising from incomplete records or errors in time-tracking, **potentially leading to inaccurate billing to government funding sources**.
- Limited access to interpreters and cultural advisors, hindering the **development of culturally appropriate care plans**. [ELDAC](#)

# What is the target state?

Benefit

Challenge



# Where do you start?



# Challenges → Capabilities → Initiatives

## Capabilities Needed

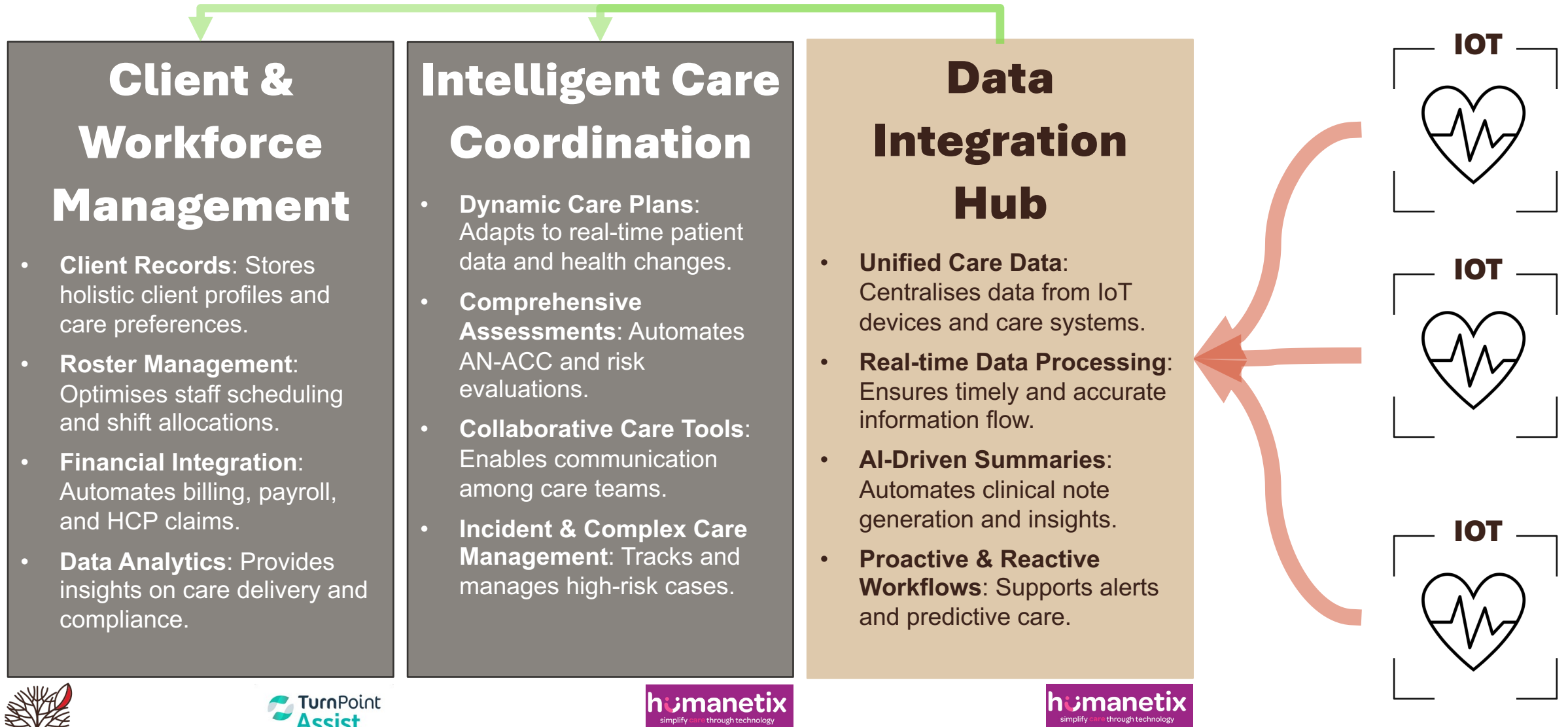
- 1. Integration Processor:** Build a data integration layer to connect IoT devices with AMCS systems (scheduling, rostering, care planning).
- 2. IoT Vetting:** Partner with an accredited academic partner to evaluate and test IoT devices through standard environments, volunteer trials, and consumer pilots.
- 3. IoT Integration:** Ensure IoT providers integrate with *the integration processor*, validate performance, adjust operations, and publish results.
- 4. Language Support:** Use AI in-call or on-the-spot translation for client communication.
- 5. Video Communication:** Enable video calls with translation for client-family-provider interaction, recording calls involving AMCS.
- 6. Data-Driven Actions:** Link IoT alerts to care responses, initiating calls and automating funding claims.

## Initiative

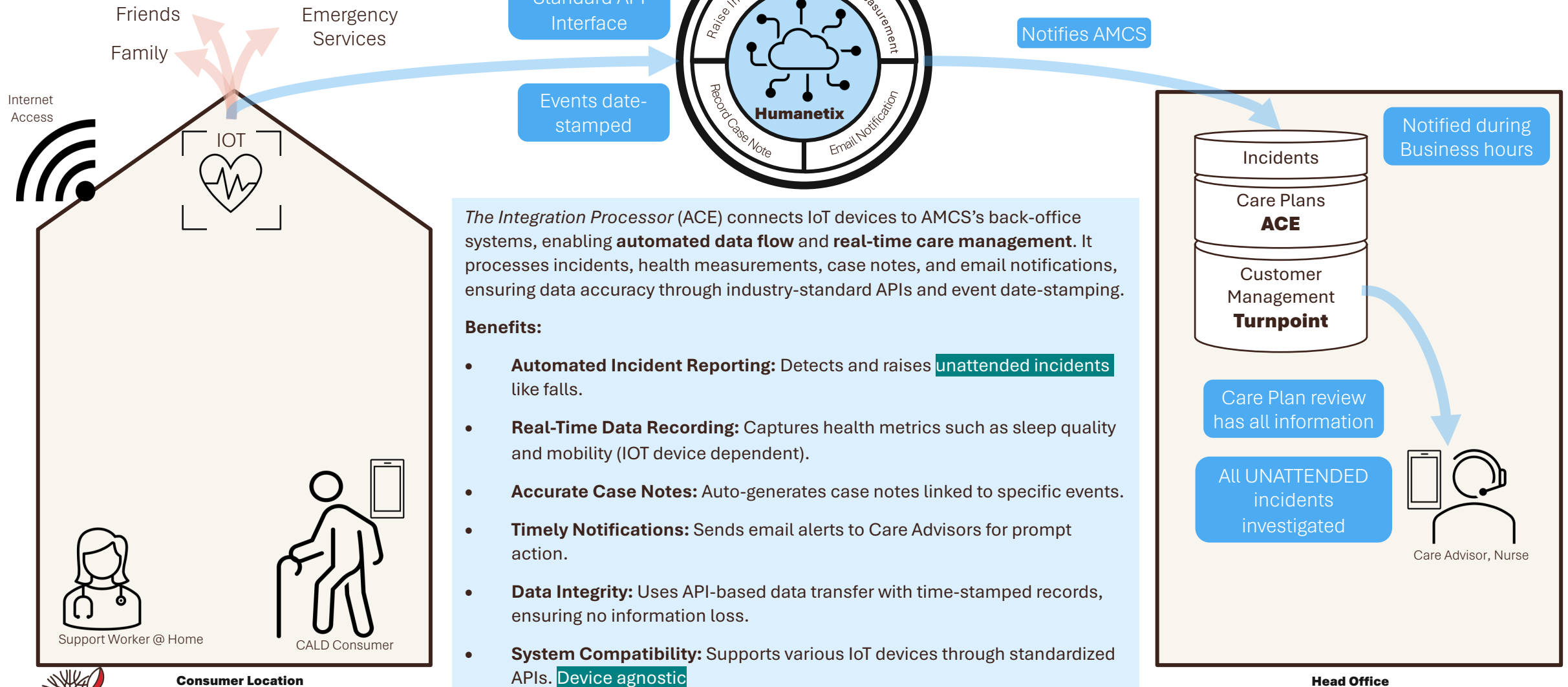
- 1. Evidence-based research framework**
- 2. Establish a sterile testing environment**
- 3. Fall monitor trials**
4. Personal safety alarms
5. Robotic companion trials
6. Pain management (PainChek) trials
- 7. Translation and video call**
8. Operating model modernisation



# AMCS Core Architecture



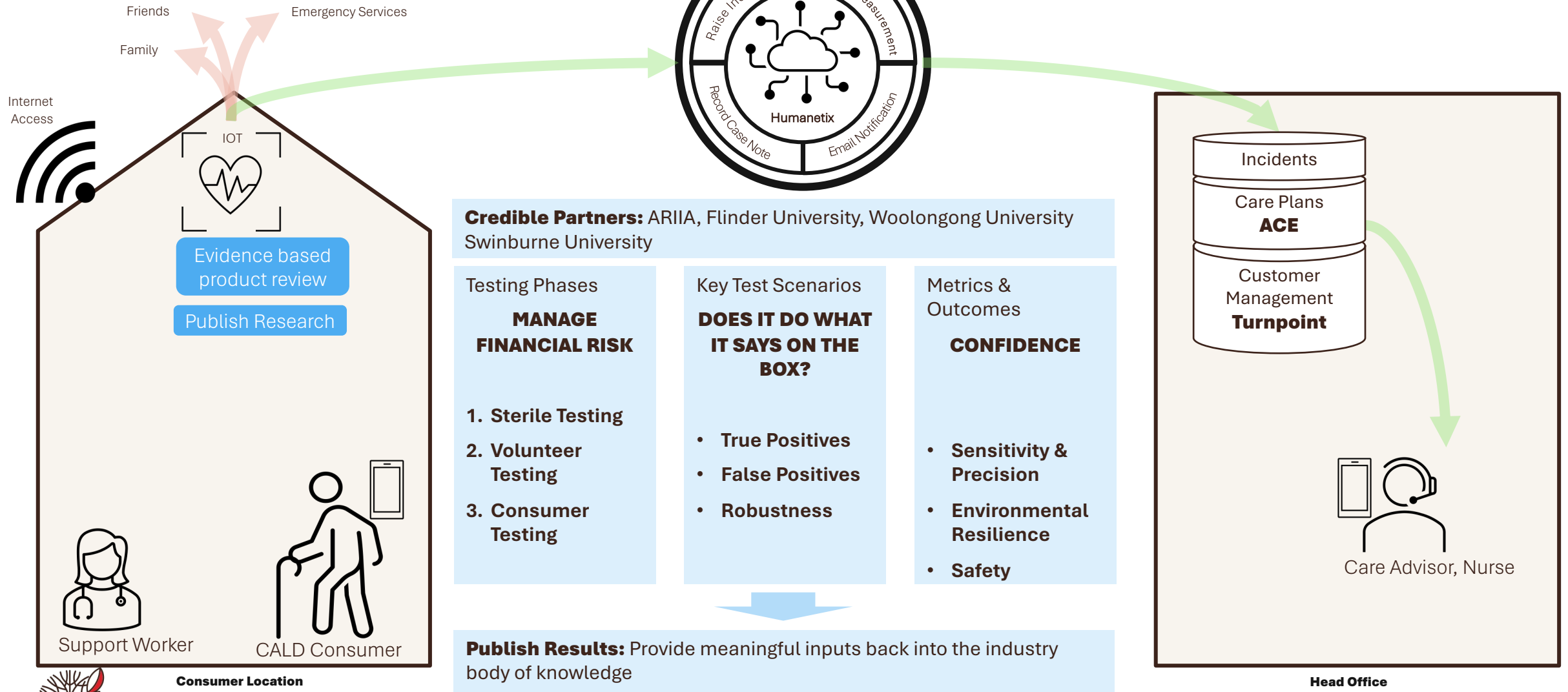
# Capability 1- Integration Processor



# Capability 2 & 3 IoT Vetting & Publish Results

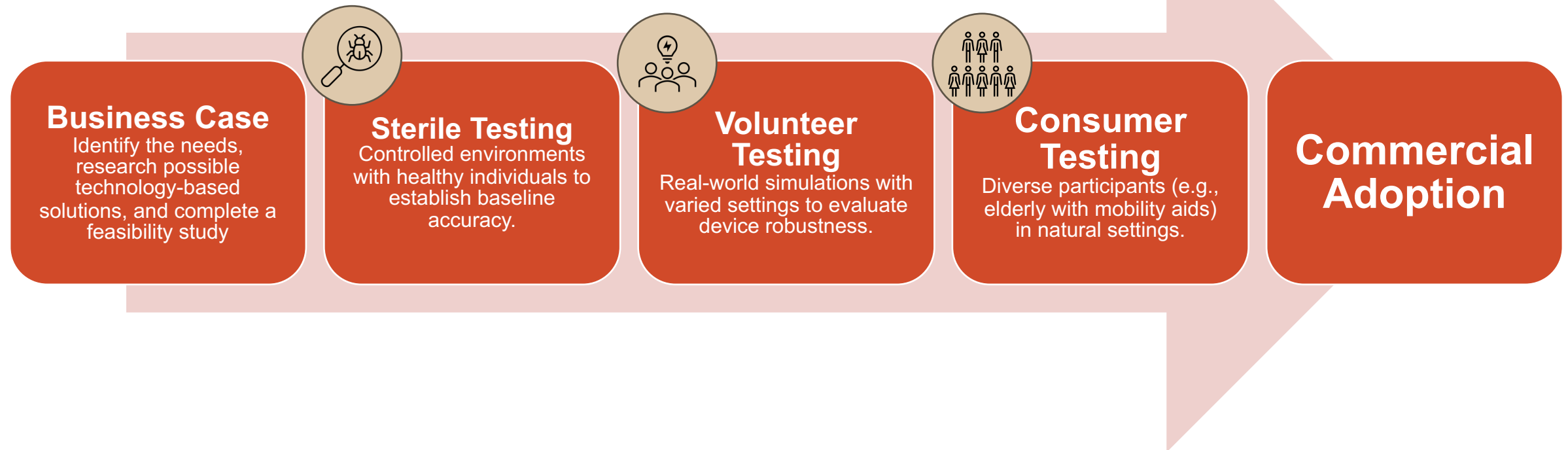
Solution

Solved



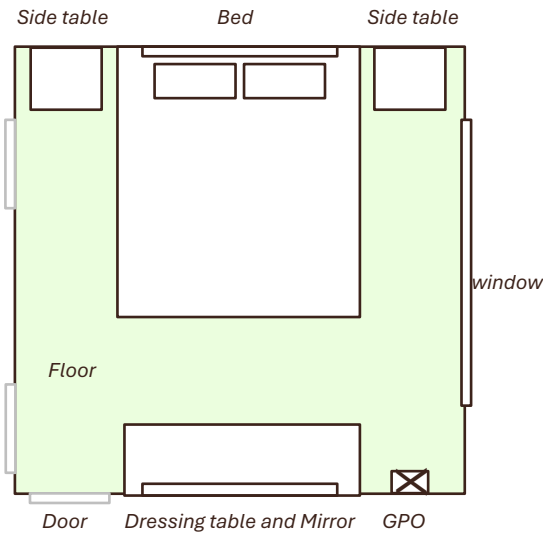
# Initiative 1 – Develop a Research Framework Based on Evidence

- Very few assistive technology devices have independently verified results.
- Consumers have limited budgets.
- We need to ensure that the IOT both improves care outcomes and increases automation.



Together with ARIIA and Flinders University, we have developed a research methodology that can be consistently applied, even before commercial adoption takes place.

# Initiative 2 – Establish a Sterile Testing Environment



We have established a permanent Sterile Testing Environment at one of the properties where we hold a long-term lease.

It holds the following benefits:

- Minimises external interference, ensuring **consistent conditions** for reliable, data-driven results and measurable impact.
- **Mirrors typical home settings**, capturing daily tasks, user behaviours, and living patterns.
- **Simplifies cross-comparison**, enabling identification of each Assistive Technology's (IOT) strengths, weaknesses, and improvement areas.
- **Enhances validity** by removing confounding variables, ensuring long-term data and preserving research integrity.
- **Speeds up refinements**, as performance changes stand out clearly in a controlled environment.
- **Boosts confidence in trial outcomes**, validating device efficacy and promoting acceptance among stakeholders.

# Initiative 3 – (Passive) Fall Monitor Trials – CASE STUDY



## Business Case

**97%** of falls occur when we are not with our consumers.

Passive fall monitors **identify falls without user intervention.**

Falls can lead to serious injuries, hospitalisations, and decreased quality of life.

Reliable performance in real-world scenarios is essential to provide timely assistance and prevent complications associated with undetected falls.



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## Sterile Testing

### Homeguardian.AI



#### Findings

**Performed effectively** in optimal and in slightly obstructed situations.

Movements of furniture do not prompt a re-configuration.

#### Recommendation:

**MOVE forward** with volunteer trials.

### Alternative Product



#### Findings

**Faced significant challenges** in scenarios with slight or partial **obstructions.**

#### Recommendation:

**DO NOT** move forward with volunteer trials.



## Volunteer Testing

5 (five) healthy volunteers

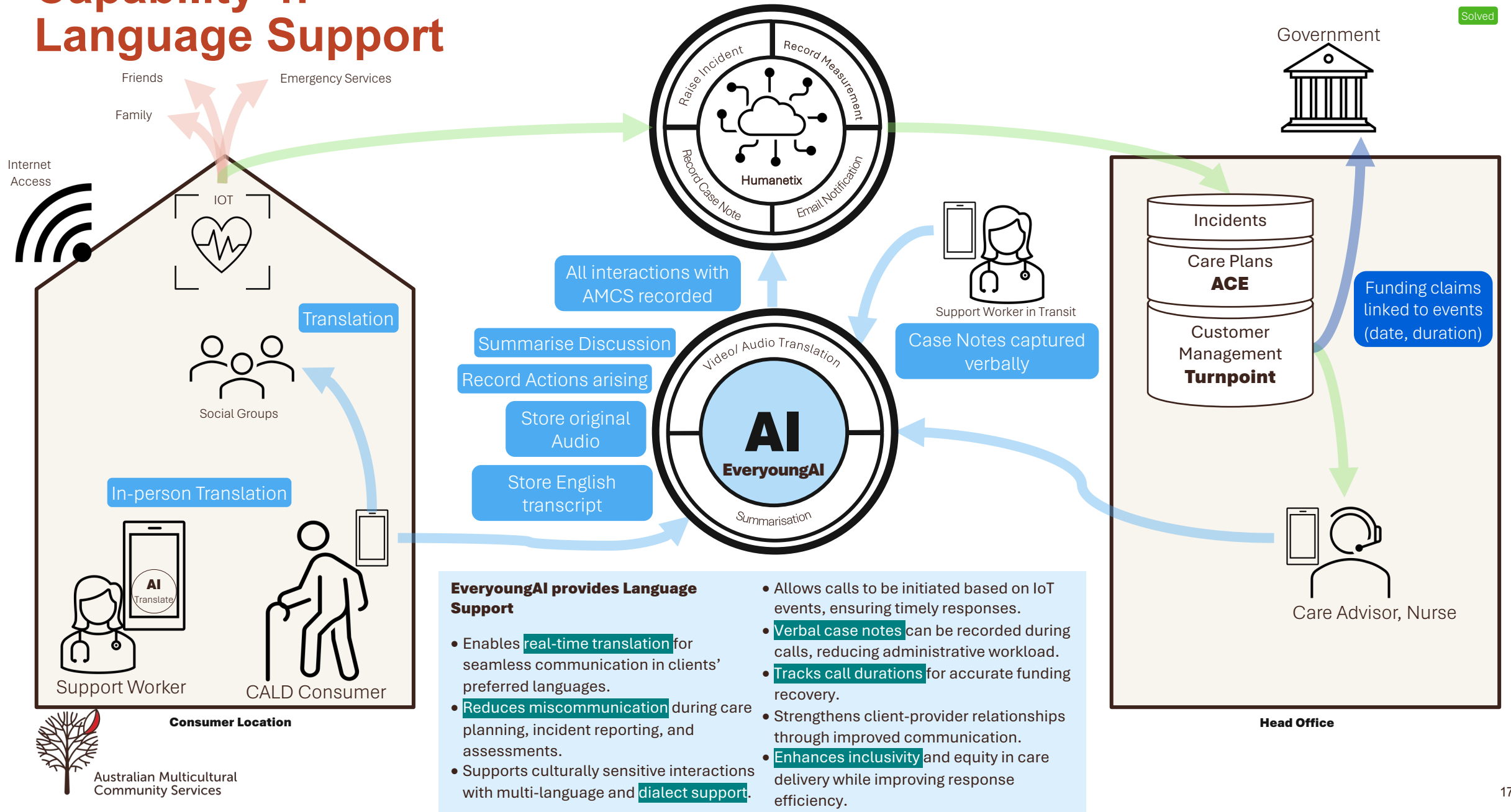
Key Test Scenarios:

- **True Positives:** Simulated falls (e.g., forward, lateral, collapse).
- **False Positives:** Activities like sitting, lying down, or object dropping.
- **Robustness:** Conditions such as low light, multiple people, or pets.

# Capability 4: Language Support

Solution

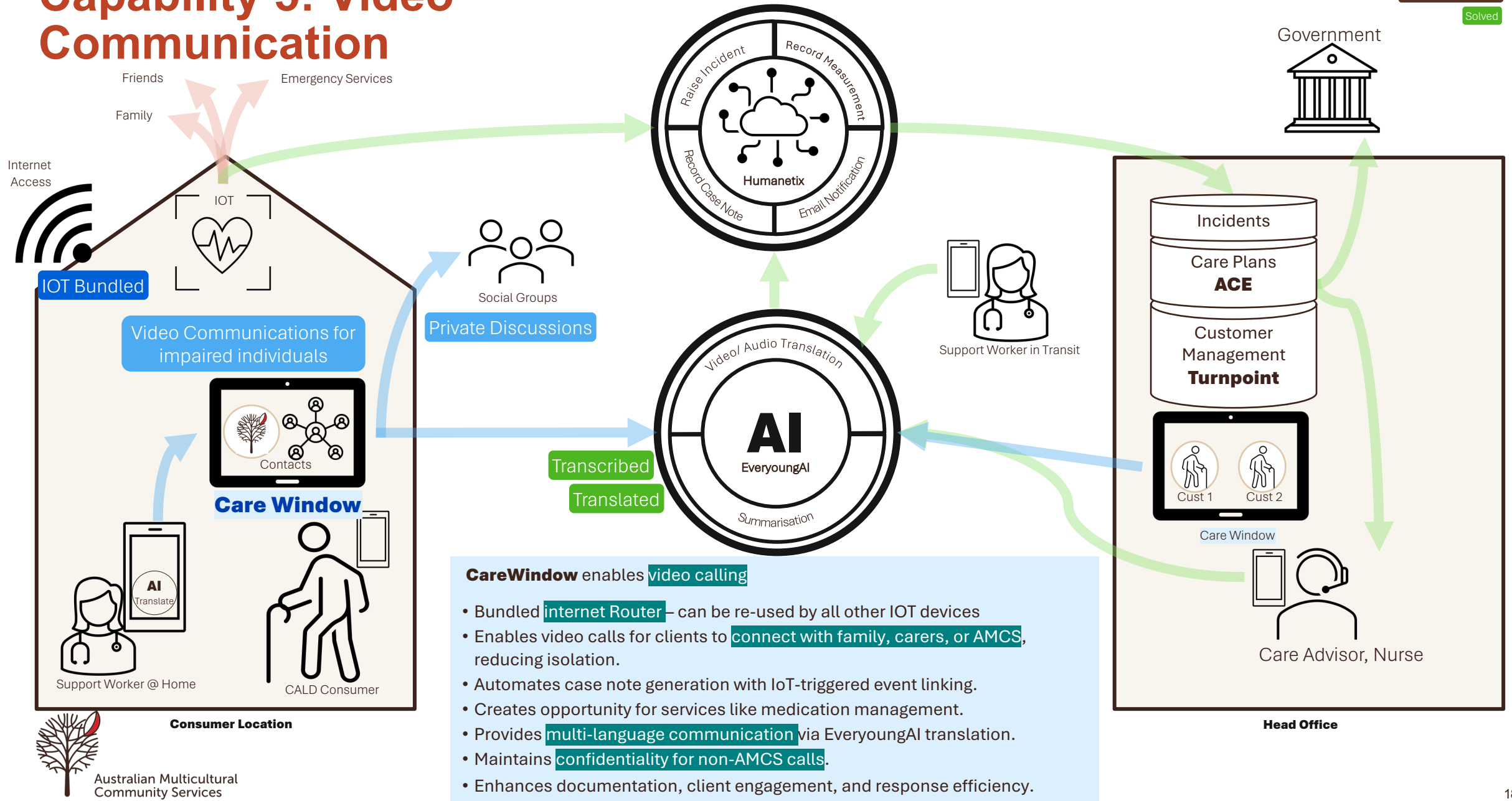
Solved



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# Capability 5: Video Communication

Challenge Solution  
Challenge Removed  
Solved



# Collaborative Innovation

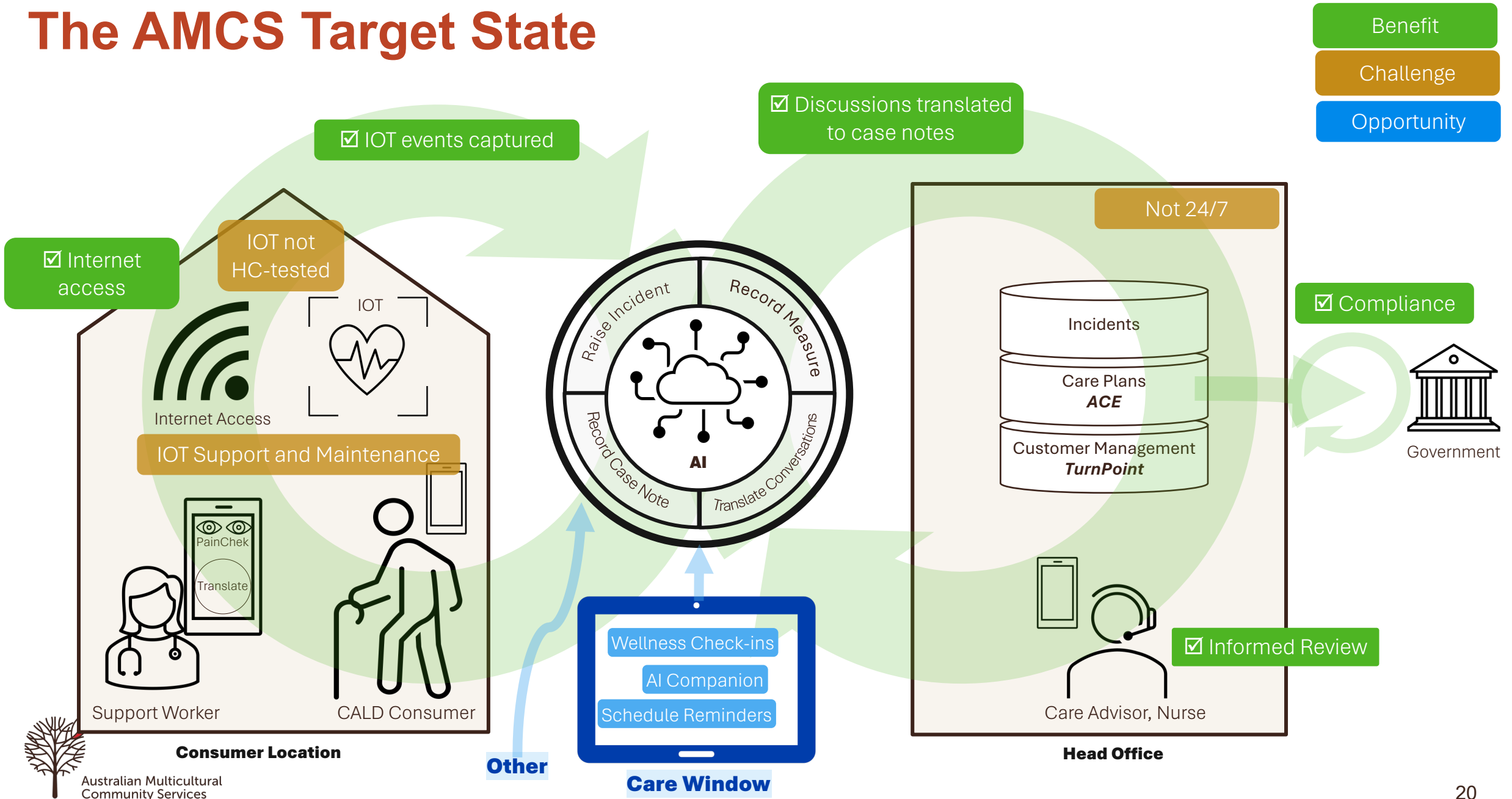
## AMCS x CareWindow x EverYoung Partnership



- **EverYoung AI on CareWindow:** Combines EverYoung AI's full suite of tools with CareWindow's built-in videophone.
- **HCP Subsidised:** Fully covered under the Home Care Package (HCP).
- **Accessible Design:** Larger, user-friendly screen for elderly users and those with cognitive or dexterity challenges.
- **Enhanced Daily Living:** Supports communication, social interaction, and everyday tasks with ease.



# The AMCS Target State



# Assistive Technology in Home Care – Lessons Learnt

## Operations

- False-positives kill the business case
- Data feeds are a minimum requirement
- Real-time dashboards are NOT a selling point
- No maintenance and support team is guaranteed to be within reach of the consumer
- Support/Care workers do not come to the office frequently (SSO, Remote Configuration)

## Finance

- Services are scheduled and rostered - Cost must follow the Revenue
- Effort optimization does not automatically translate into a cost reduction

# Appendix



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# Our AI and Assistive Technology Partners

Partner	Role	Website
Turnpoint	Client Management, Rostering, Financial Integration	<a href="https://turnpointcare.com.au">turnpointcare.com.au</a>
Humanetix	Care Planning & Management	<a href="https://humanetix.com.au">humanetix.com.au</a>
HomeGuardian	Passive Fall Monitor	<a href="https://homeguardian.ai">homeguardian.ai</a>
EveryoungAI	In-call Audio and Video Translation, Transcription	<a href="https://everyoungai.com">everyoungai.com</a>
CareWindow	Video calling, In-home Service delivery	<a href="https://carewindow.com.au">carewindow.com.au</a>
ARIIA	Innovation Training Program, Research Advisory	<a href="https://ariia.org.au">ariia.org.au</a>



# TurnPoint Assist

Client Management | Rostering | Invoicing

## Rostering

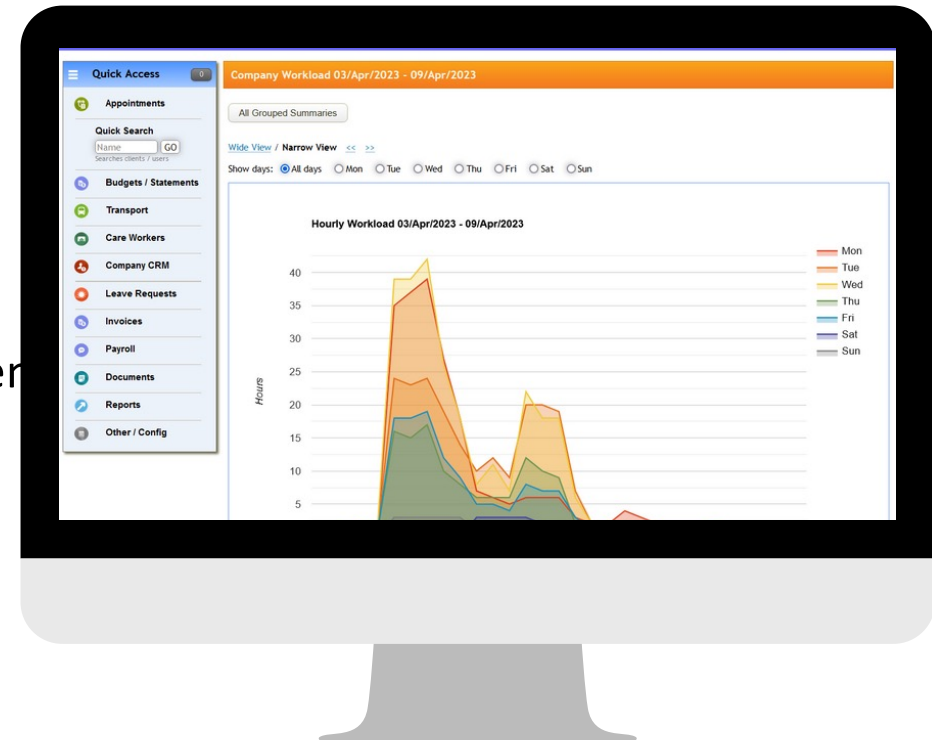
- Easy and Accessible roosting tool
- Give instant access to workers with all required information
- Find the best worker for vacant shifts with ease

## Financial Integration

- Claiming, invoicing and payroll as never been easier
- Best in class HCP claiming modules

## Client Management

- Single Holistic view of clients
- Store all details, documents, reports
- Client preferences for ease of roosting



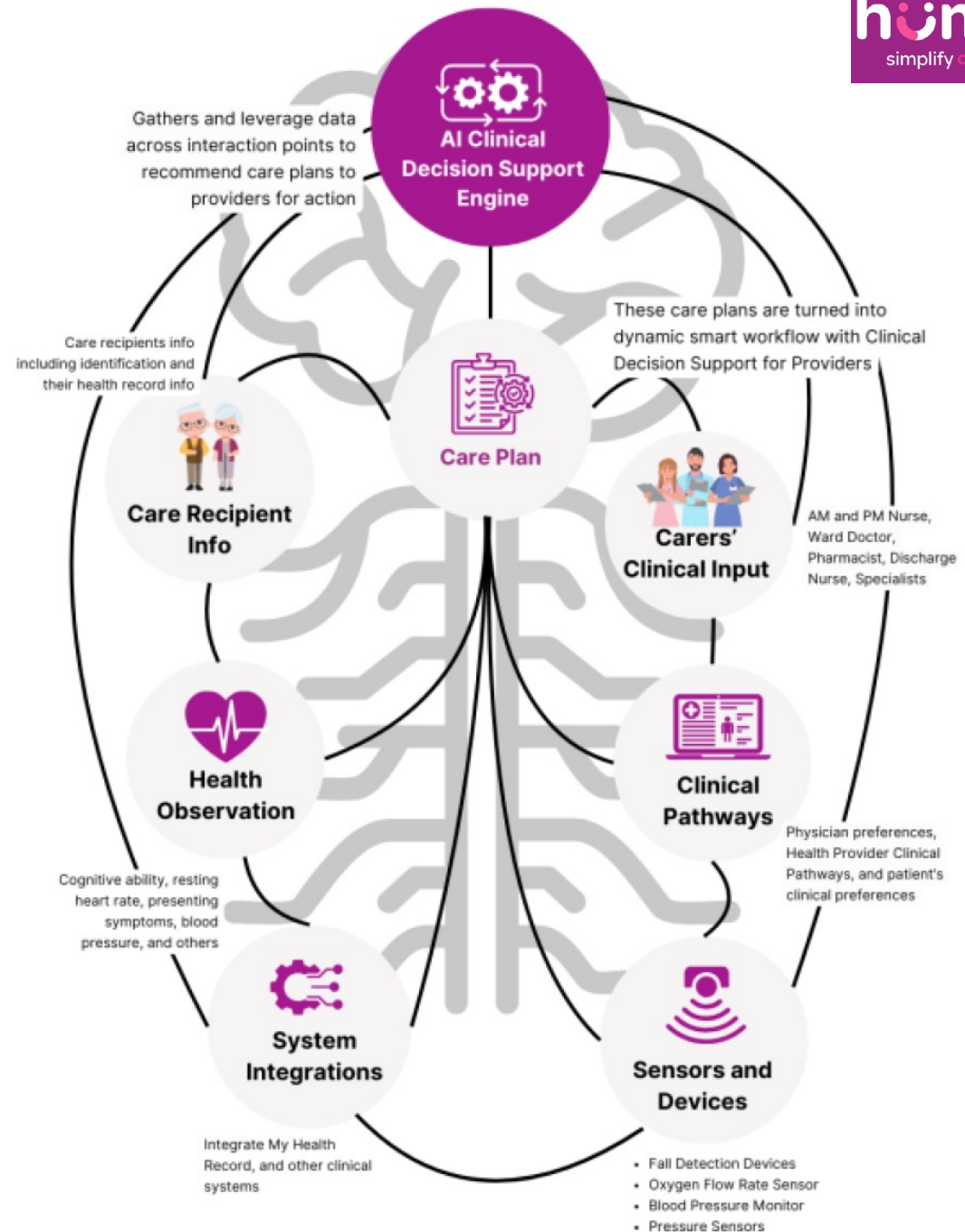
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# The Digital Nervous System

Just as the nervous system processes information and coordinates actions in the body, the ACE platform enables healthcare providers to efficiently gather data, analyse it, and make decisions.

Humanetix's ACE platform facilitates the seamless exchange of information across different departments, systems, and stakeholders, allowing for efficient operations, rapid response to changes, and improved overall performance.

In today's healthcare setting, Humanetix's Advanced Care Ecosystem (ACE) functions as a Digital Nervous System, uniquely positioned to support this transformative strategy. The ACE platform connects data, actions, and interactions across providers and clients by seamlessly integrating decision-making tools and intelligent workflows.



# We will end loneliness in elders.

If you can't use a TV remote,  
You can still use *CareWindow*.



*CareWindow* units enable elders to keep in touch.

- Connects family, friends, and other support network members to people living in care or at home. Works for people with dementia, low dexterity, or limited eyesight.

## Features

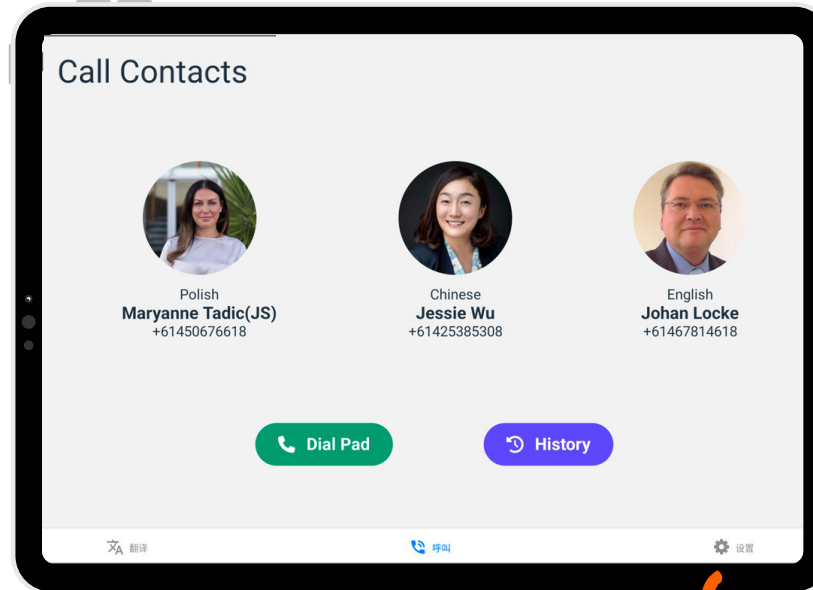
- Automatic answering: **zero-touch operation**.
- Simple privacy: **do-not-disturb mode, camera swivel**.
- Stays connected via 4G: **no WiFi setup hassles**.
- Security as a #1: **data will not be sold to advertisers**.
- Co-designed with providers: **includes clear signage**.
- Doubles as **a dementia clock and photo frame**.
- Build for everyday use. **Splash, knock, and drop resistant**.





# EverYoung AI-Powered Real-Time Translation and Interpretation Services

Bridging the Gap for CALD Individuals and Their Communities



Contact your loved ones and care network with a single touch of a button!

AI seamlessly translates your conversation across 99 languages and 500 dialects

