

Technology Directory Roadmap with 3 Levels of Digital Development

(information correct as at 13 June 2022)

FRONT OF HOUSE – DIRECT CARE

● Assistive Tech ● Digital Tech

Categories	Application to Care Setting			Level 1	Level 2	Level 3
	CB	HC	R			
Care Engagement		✓	✓	<ul style="list-style-type: none"> • Tele-Care/Rehab App • Tele-Presence App • Tele-Engagement App 	<ul style="list-style-type: none"> • Home Care or Tele-Presence Robots / Humanoid Robot • Wearables / RFID • Mobile Alert Platform 	<ul style="list-style-type: none"> • Optical AI Monitor • Thermal AI Monitor • Radar AI Monitor • Companion Robot
Ambulatory & Mobility – Transfer Aids			✓	<ul style="list-style-type: none"> • Motorised Raising Aid • Transfer Bed • Ceiling Hoist • Patient/Toilet Lifter 	<ul style="list-style-type: none"> • Semi-auto Transfer Aid • Home Care Robot 	<ul style="list-style-type: none"> • Exoskeleton • Robotic Bed • Transfer Robot
Ambulatory & Mobility – Mobility Aids			✓	<ul style="list-style-type: none"> • Electric Wheelchair 	<ul style="list-style-type: none"> • Exoskeleton 	<ul style="list-style-type: none"> • Autonomous /Robotic Exoskeleton • Autonomous Wheelchair
Falls Prevention		✓	✓		<ul style="list-style-type: none"> • Sensor Cushion • Sensor Mattress 	
Falls Detection & Prediction		✓	✓		<ul style="list-style-type: none"> • Motion Sensor • Wearables & Accelerometers 	<ul style="list-style-type: none"> • Fall Sensors Hub
Mobility Monitoring & Assistance			✓	<ul style="list-style-type: none"> • Tracking Devices • 2-way Communication – dongle/location tracking 	<ul style="list-style-type: none"> • Wearables/RFID • Infrared Camera • Radar Sensor 	<ul style="list-style-type: none"> • Optical AI Monitor • Thermal AI Monitor • Radar AI Monitor

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Physiotherapy & Pain Management			✓	<ul style="list-style-type: none"> • Ceiling Hoist • Rehab Equipment • Moto Tile 	<ul style="list-style-type: none"> • Physiotherapy Monitor 	<ul style="list-style-type: none"> • Gaming Rehab • AR/VR Rehab • Exoskeleton
Emotional Well-being			✓	<ul style="list-style-type: none"> • Mood App • Meditation App • Emotions Tracker • Portable interactive app/device 	<ul style="list-style-type: none"> • Therapy Robot • Therapy Chatbot 	<ul style="list-style-type: none"> • VR • Companion Robot
Mental Well-being			✓	<ul style="list-style-type: none"> • Stove Alert Monitor • Dementia App 	<ul style="list-style-type: none"> • Voice Assistance Platform 	<ul style="list-style-type: none"> • Home Care Robot
Continence Management			✓	<ul style="list-style-type: none"> • Anal Irrigation System 	<ul style="list-style-type: none"> • Wearables • Smart Diaper 	<ul style="list-style-type: none"> • Bladder Scanner • Remote Bladder Monitoring Device • Digital Incontinence Aid
Daily Vitals Monitoring			✓	<ul style="list-style-type: none"> • Manual Spot Monitoring 	<ul style="list-style-type: none"> • Wearables – Continuous Monitoring • Digital Spot Recording 	<ul style="list-style-type: none"> • Contactless Continuous Monitoring • Facial Recognition • Digital Continuous Recording
Medication: Documentation & Information			✓	<ul style="list-style-type: none"> • Medical Translation Services • Medical Dictation App 	<ul style="list-style-type: none"> • Electronic Medical Record (EMR) • Electronic Medication Management (EMM) 	<ul style="list-style-type: none"> • Integrated Medication System (includes EMR, EMM)

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FRONT OF HOUSE – CARE SUPPORT

● Assistive Tech ● Digital Tech

Categories	Application to Care Setting			Level 1	Level 2	Level 3
	CB	HC	R			
Client Relationship Management	✓	✓	✓	<ul style="list-style-type: none"> • Client Mgmt System • Visitor Mgmt • Digital Attendance 	<ul style="list-style-type: none"> • Integrated Case Mgmt System (with integration with other related solutions) 	
Admission & Discharge	✓	✓	✓	<ul style="list-style-type: none"> • Digital Check-in • Self Check-in App • Mobile Check-in 	<ul style="list-style-type: none"> • RFID Wristband • Check-in Kiosk 	<ul style="list-style-type: none"> • Integrated Check-in with Case Management System
Shower & Bath			✓	<ul style="list-style-type: none"> • Automated Shower Chair • Shower Trolley • Portable Shower in Bed System 	<ul style="list-style-type: none"> • Medical Bathtub • Automated Bathing System • Automated Shower Stall 	<ul style="list-style-type: none"> • Shower Machine
Skin Care & Pressure Ulcers			✓	<ul style="list-style-type: none"> • Pressure Sensors/Smart Mattress • Smart Compression 	<ul style="list-style-type: none"> • Pressure Ulcer/Sore Scanner 	<ul style="list-style-type: none"> • Wearables Sensor to improve compliance • Optical Monitoring AI for prolongers position/pressure
Food Services: Distribution & Serving			✓	<ul style="list-style-type: none"> • Omelet Counter • Sushi Belt 	<ul style="list-style-type: none"> • Waiter Robot • Waiter Drone • Smoothie Bot 	<ul style="list-style-type: none"> • Automated Serving Restaurant • Automated Restaurant • Automated Guided Vehicle
Food Services: Feeding			✓	<ul style="list-style-type: none"> • Self-feeding Support 	<ul style="list-style-type: none"> • Anti-tremor Spoon 	<ul style="list-style-type: none"> • Robotic Feeding Device

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Medication: Distribution & Administration			✓	<ul style="list-style-type: none"> • Pill Dispenser • Medication Reminder App 	<ul style="list-style-type: none"> • Automatic/Digital Pill Dispenser • Smart Pill Dispenser • Remote Audiovisual Pill Dispenser • Tele-pharmacy 	<ul style="list-style-type: none"> • Delivery Robot • Automated Guided Vehicle
Communications: Clients to Staff	✓		✓	<ul style="list-style-type: none"> • Pull Cord System 	<ul style="list-style-type: none"> • Wireless Corridor Light Alert • Central Nurse Call Receiver • Wearable Call Button • Wearable Alert Received 	<ul style="list-style-type: none"> • Mobile Alert Platform • Conversation Monitoring Pin
Infection Control: Prevention			✓	<ul style="list-style-type: none"> • Manual Contact Tracing Log 	<ul style="list-style-type: none"> • Mobile App Contact Tracing • Thermal Camera 	<ul style="list-style-type: none"> • Infection Prevention Surveillance Platform

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FRONT OF HOUSE – BACKEND SUPPORT

● Assistive Tech ● Digital Tech

Categories	Application to Care Setting			Level 1	Level 2	Level 3
	CB	HC	R			
Food Services: Preparation & Cooking			✓	<ul style="list-style-type: none"> Airfryer Multi-purpose Food Appliance Combi Oven 	<ul style="list-style-type: none"> 3D Printed Food 	<ul style="list-style-type: none"> Customisable Meals Robot
Food Services: Clearing & Cleaning			✓	<ul style="list-style-type: none"> Food Scrap Shredder 	<ul style="list-style-type: none"> Data Driven Food Waste Prevention Industrial Dishwasher Tray Collection Robots 	<ul style="list-style-type: none"> Full Service Dishware Delivery
Housekeeping & Cleaning	✓		✓	<ul style="list-style-type: none"> Handheld Scrubbers Ride-on Scrubbers / Sweepers 	<ul style="list-style-type: none"> Cleaning Robots 	
Laundry: Collection & Distribution			✓	<ul style="list-style-type: none"> Laundry Trolley 		<ul style="list-style-type: none"> Delivery and Collection Robots Automated Guided Vehicle
Medication: Prescription & Preparation			✓	<ul style="list-style-type: none"> Labelling System Centralised Medication Packing System 	<ul style="list-style-type: none"> Tele-pharmacy [D] 	<ul style="list-style-type: none"> Robotic System Artificial Intelligence
Medication: Storage & Disposal			✓	<ul style="list-style-type: none"> Medication Storage 	<ul style="list-style-type: none"> Automated Medication Storage 	
Transport Management	✓		✓	<ul style="list-style-type: none"> Basic Mapping 	<ul style="list-style-type: none"> Mapping tied to client database per centre 	<ul style="list-style-type: none"> Mapping tied to client database across centres

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BACK OF HOUSE – CORPORATE FUNCTIONS

 Assistive Tech  Digital Tech

Categories	Application to Care Setting			Level 1	Level 2	Level 3
	CB	HC	R			
Office Productivity Systems	✓	✓	✓	<ul style="list-style-type: none"> Microsoft Office (incl e-signature) Document/Knowledge Management Video Conferencing Collaboration Tools 		
Stakeholder Engagement Systems	✓	✓	✓	<ul style="list-style-type: none"> Donor Management Volunteer Management Website 	<ul style="list-style-type: none"> Integrated Donor-Volunteer Management 	
Corporate Systems	✓	✓	✓	<ul style="list-style-type: none"> Finance, e-Billing, Digital (Cashless) Payment Procurement Inventory HR (incl leave) Payroll Claims Staff Attendance Rostering/Scheduling Training/Learning Management 	<ul style="list-style-type: none"> Integrated Finance System (Finance, e-Billing, Digital (Cashless) Payment, Procurement, Inventory) Integrated Human Resource Management (HR, Leave, Payroll, Claims, Staff Attendance, Rostering, Training/Learning) 	
Data and Reporting	✓	✓	✓	<ul style="list-style-type: none"> Data Analytics 		

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CYBERSECURITY

Categories	Application to Care Setting			Level 1	Level 2	Level 3
	CB	HC	R			
Cybersecurity Protection	✓	✓	✓	<ul style="list-style-type: none">• Identity and Access Management• Firewalls• Antivirus Solutions• Encryption Tools• Virtual Private Networks (VPN)		

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NETWORK INFRASTRUCTURE

NETWORK INFRASTRUCTURE						
Categories	Application to Care Setting			Level 1	Level 2	Level 3
	CB	HC	R			
WIFI Connectivity	✓	✓	✓	• 4G	• 5G	• 5G

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NATIONAL SYSTEMS

E.g.
National Job-Sharing Platform
National Volunteer Management System
National Case Management System
Other national systems planned over next 5 years – include Inter-rai, IRMS2.0, ILTC Portal refresh

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