

ePAT Technologies Ltd

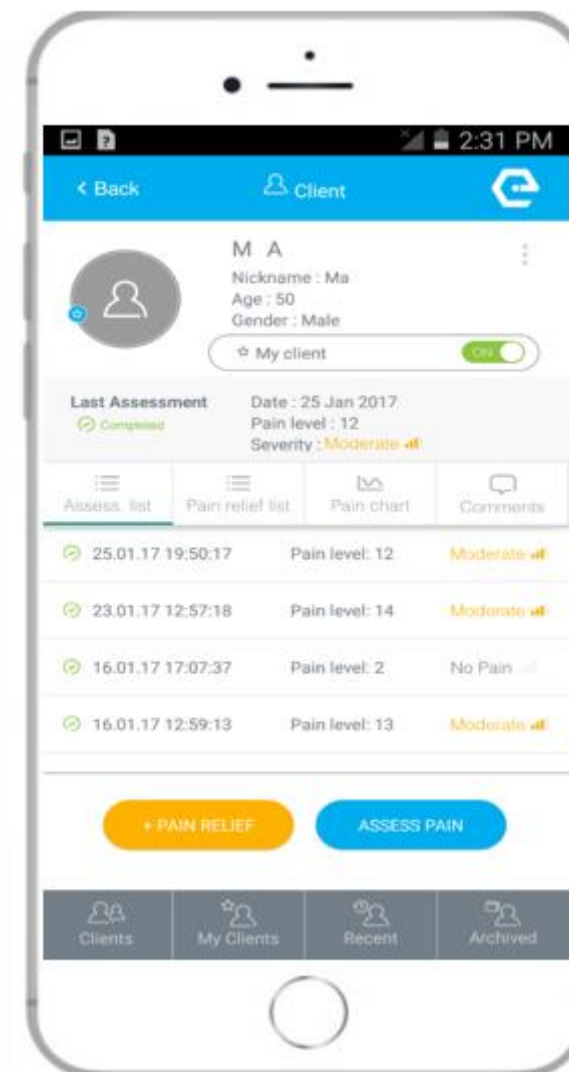
Investor Presentation

June 2017

Investment Highlights



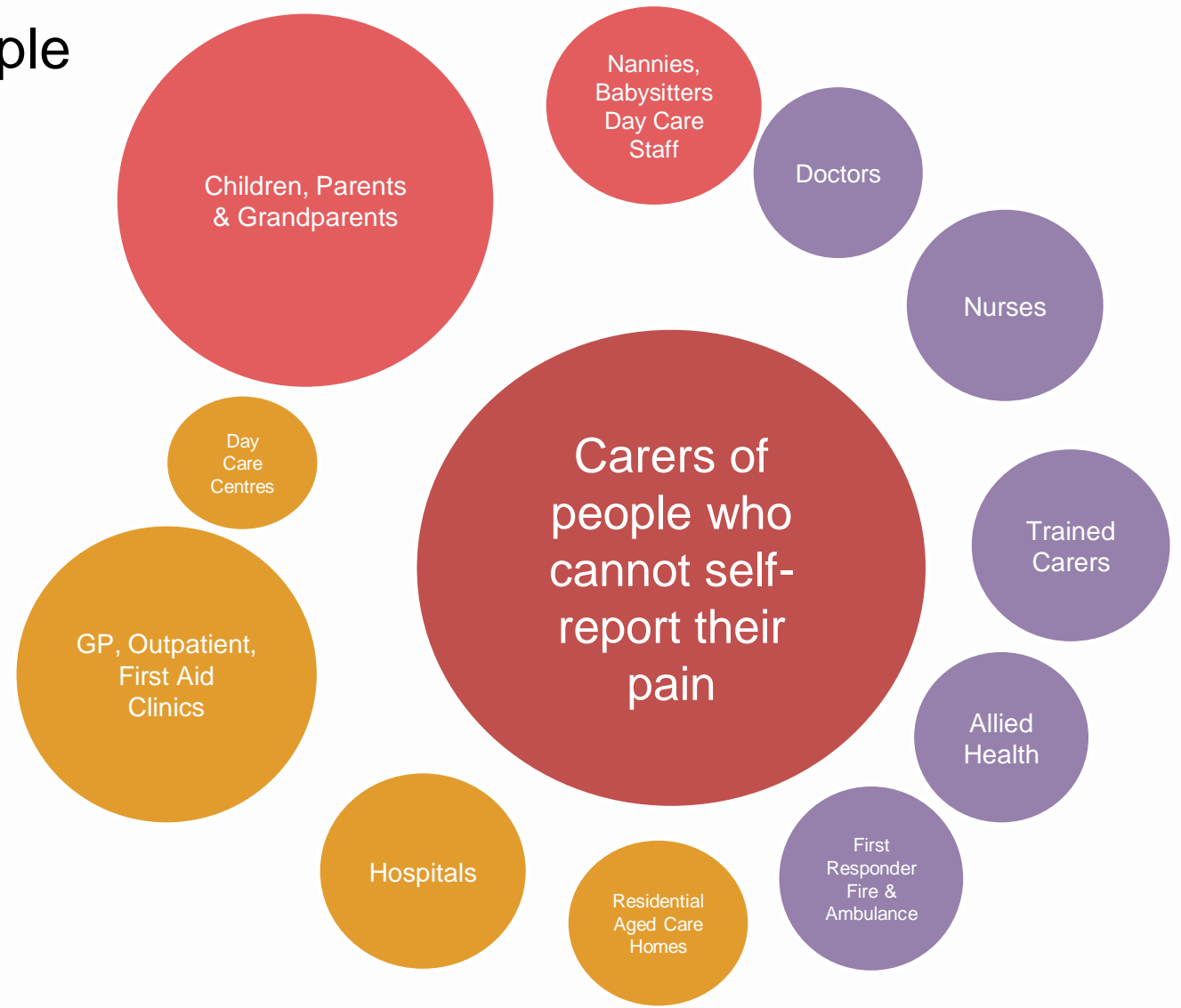
- A digital healthcare company
- Mobile apps to assess and monitor pain
 - pain the most common reason to see a doctor
 - accurate pain assessment is a big problem
- Very large global market opportunities
- Multiple products and revenue channels
- Innovative technology with patent protection
- Commercialisation in Q4 2017
- Experienced board and management



Our Target Markets

Carers of non-communicative people with pain:

- Dementia sufferers
- Pre-verbal children



Large initial market in dementia care



- Advanced dementia associated with inability to communicate pain
- Dementia care in residential aged care and home care

Carers of people
with dementia

Healthcare Professionals
Trained Carers
Allied Health
Family Members

47 Million with Dementia¹

- growing at 3% p.a.

400,000+ people in Australia²



¹ World Alzheimer Report 2016

² Alzheimer's Australia Key Facts and Statistics 2017

Blue sky market is pre-verbal children

- Neonates (0-1 month), infants and toddlers (1 month – 3 years)
- Sources of pain include: rashes, teething, middle ear infections, headaches, gastro-intestinal.
- Current pain assessments are often subjective and based on intuitions, assumptions and personal beliefs

Carers of pre-verbal children

Mums & Dads
Grandparents
Health care professionals
Nannies
Babysitters
Day care workers

~ 130 million¹
Births per year in world

~ 1.25 million²
0-3 year olds in Australia

¹ <http://www.ecology.com/birth-death-rates>

² ABS 2016



The pain problem in dementia care

- Up to 85% of people in aged care suffer pain regularly¹
- More than 50% of people in Australian aged care have dementia²
- Pain is often poorly assessed, documented, monitored and managed
- Tools are subjective and manually based
- Adverse impact on quality of care, operational efficiency and compliance



¹ Aged Care Awareness

² Australian Govt. Dept. of Health data at 30 June 2015

Current pain assessment tools lack objectivity and require specialist skills

Abbey Pain Scale - For measurement of pain in patients who cannot verbalise

Addressograph

Name and designation of person completing the scale:

Date: Time:

Q1. Vocalisation

eg. Whimpering, groaning, crying

Absent 0 Mild 1 Moderate 2 Severe 3

Q1

☐

Q2. Facial Expression

eg. Looking tense, frowning, grimacing, looking frightened

Absent 0 Mild 1 Moderate 2 Severe 3

Q2

☐

Q3. Change in body language

eg. Fidgeting, rocking, guarding part of body, withdrawn

Absent 0 Mild 1 Moderate 2 Severe 3

Q3

☐

Q4. Behavioural Change

eg. Increased confusion, refusing to eat, alteration in usual patterns

Absent 0 Mild 1 Moderate 2 Severe 3

Q4

☐

Q5. Physiological change

eg. Temperature, pulse or blood pressure outside normal limits, perspiring, flushing or pallor

Absent 0 Mild 1 Moderate 2 Severe 3

Q5

☐

Q6. Physical changes

eg. Skin tears, pressure areas, arthritis, contractures, previous injuries

Absent 0 Mild 1 Moderate 2 Severe 3

Q6

☐

Add scores for 1-6 and record here

Total Pain Score

Now tick the box that matches the

Total Pain Score

0-2

No Pain

3-7

Mild

8-13

Moderate

14+

Severe

Finally, tick the box which matches the type of pain

Chronic

Acute

Acute on Chronic

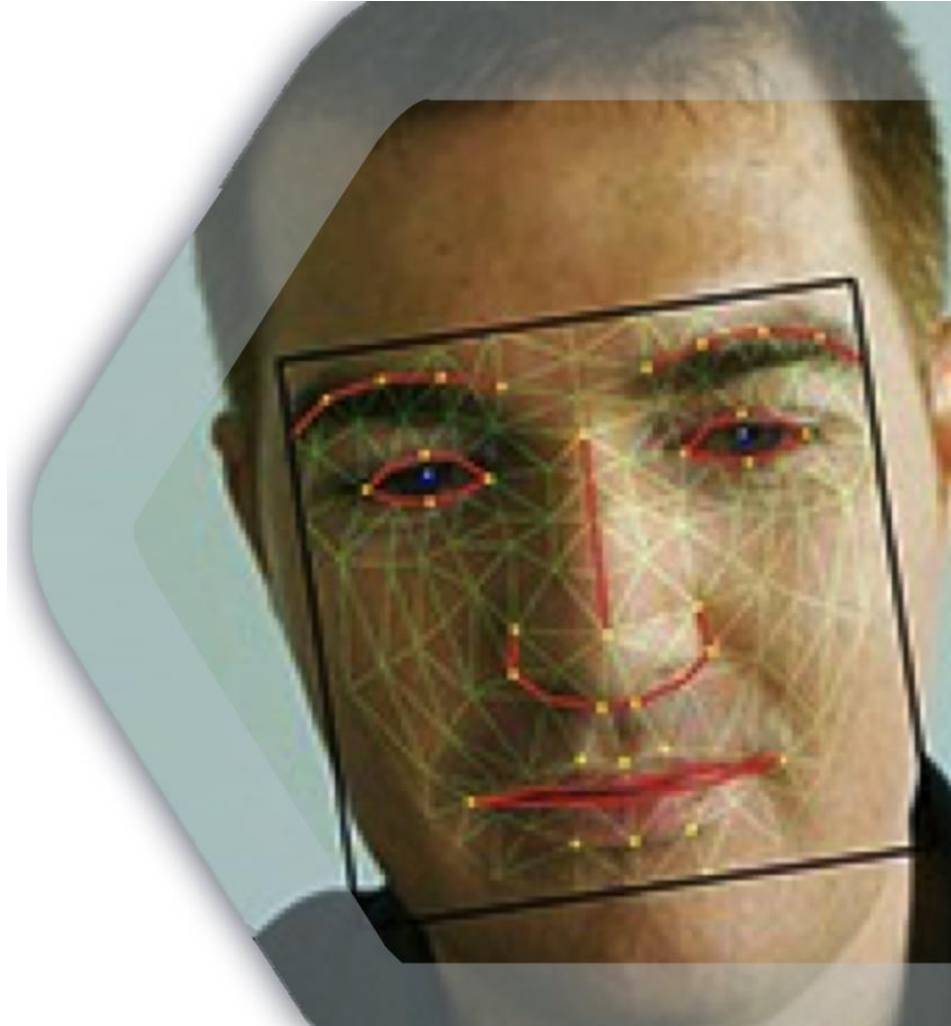
Facial expression analysis on the Abby Pain Scale requires the user to both detect and quantify facial expression indicative of pain: this is subjective and vulnerable to user bias.



The ePAT solution



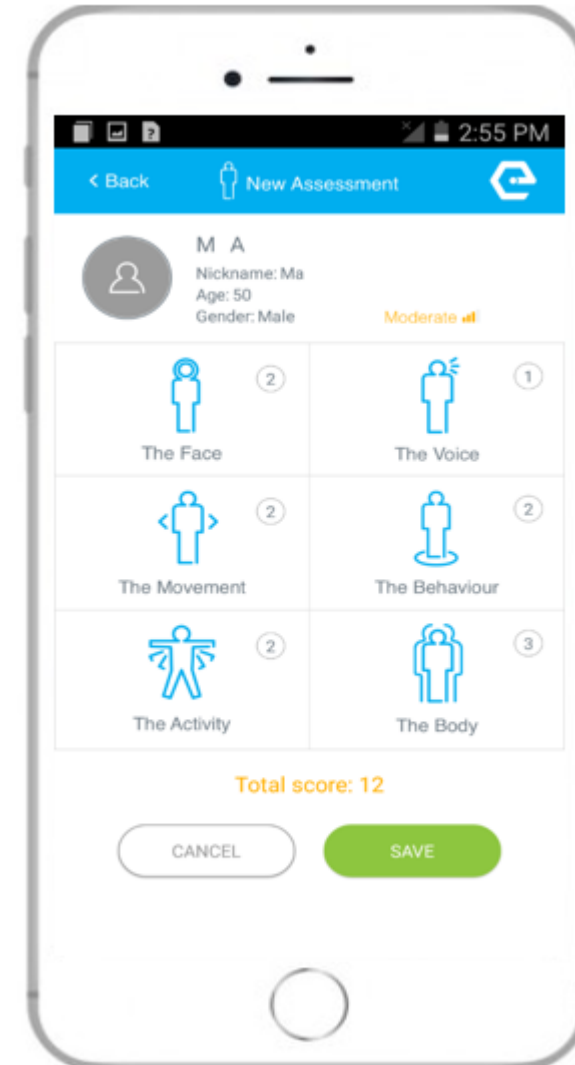
- A secure, validated, medical device in the form of a mobile app
- Uses existing smartphone and tablet hardware
- Innovative technology to analyze facial expressions indicative of pain in real time



The ePAT Dementia App



- **Automated facial pain analysis:**
 - 3 second video of patient face
 - recognises 9 micro-facial expressions that indicate pain
- **Digital questionnaire checklist:**
 - guide the carer in other pain assessment factors e.g. movement, vocalization
 - leading questions with Yes/No decisions
- **Automated pain assessment score:**
 - based on 42 test points
- **Documented electronically via cloud backend:**
 - pain trend line and monitoring of treatment
 - integrated into patient medical records
- **iOS beta App currently being tested**



Dementia App key benefits



- ✓ **Automate** key assessment processes, saving time and reducing the risk of error
- ✓ **Empower** caregivers to monitor and manage pain accurately without expert support
- ✓ **Reduce** patients' need to seek medical advice for pain, enabling better in-home care
- ✓ **Improve** health outcomes for people in pain and reduce operational cost for healthcare providers
- ✓ **Document** assessment for compliance and monitoring effectiveness of treatment



Our technology development partners



nViso

- Licenses AI enabled facial recognition technology

Darwin Digital

- Designs and develops the Dementia App and backend system

Curtin University

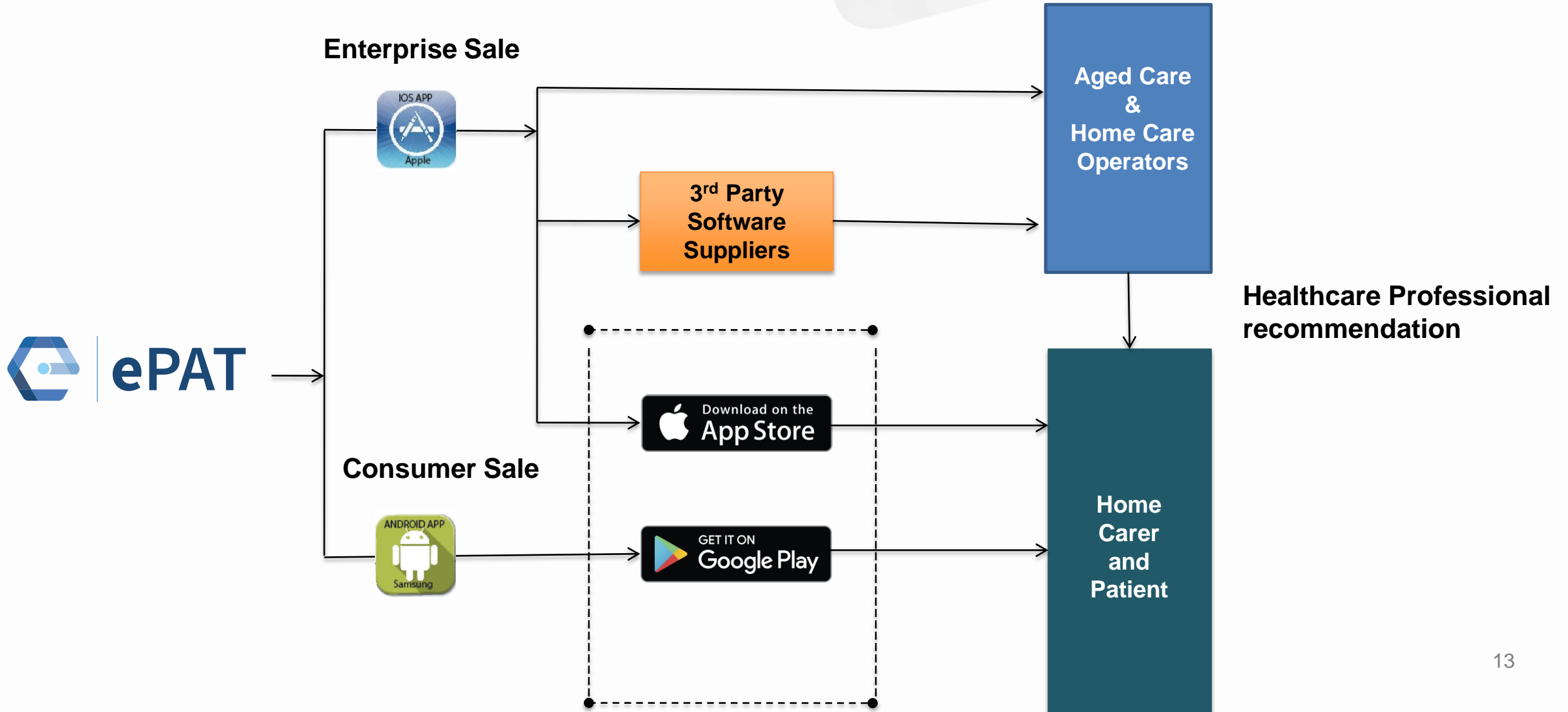
- Contracts services of ePAT founders:
 - Professor Jeff Hughes, Chief Scientific Officer, pharmacist
 - Mustafa Atee, Senior Clinical Research Scientist, pharmacist



Business Model

- Recurring revenues
- Software sold as a service
 - via software enterprise partners and direct to business
 - direct to consumers via App Store and Google Play
- Pricing not yet released

ePAT market entry strategy for dementia care



Timeline to Commercialisation and Revenue



Dementia App

- Q4 2016**
Validation studies completed
- Q3 2017**
Implementation studies completed
- Q3 2017**
Target for regulatory approval in Australia and EU
- Q4 2017**
Target for commercialisation in Australia
- Q1 2018**
Target for FDA approval in the USA
- Q2 2018**
Target for commercialisation in Europe and USA

Pre-Verbal Children Apps

- Q4 2017**
Completion of children video library, data model and algorithm
- Q1 2018**
Development of App
- Q2 2018**
Clinical studies and validation
- Q2 2018**
Finalise App and build regulatory file for approvals
- Q3 2018**
Target for regulatory approval in Australia and EU
- Q4 2018**
Target for commercialisation in Australia and Europe

Corporate and Financial Position



- Pre revenue
- Cash at 31 May 2017: A\$2.9m
- Cash burn currently averaging ~A\$200k per month
- RTO listing in October 2016 at A\$0.02 (\$4.7m raised)
- Current share price A\$0.025 (+25%)
- Issued market cap A\$16.9m (\$22.8m fully diluted)

Experienced Board



- John Murray, Chair
 - 25 years in tech VC, multiple board roles including aged care
- Philip Daffas, MD
 - Senior global healthcare exec: Roche, Cochlear
- Ross Harricks, NED
 - Senior global medical device exec with Nucleus and healthcare NED
- Adam Davey, NED
 - Corporate finance exec and director Patersons Securities



Update on Key Milestones

Dementia App: Validation Study

Location

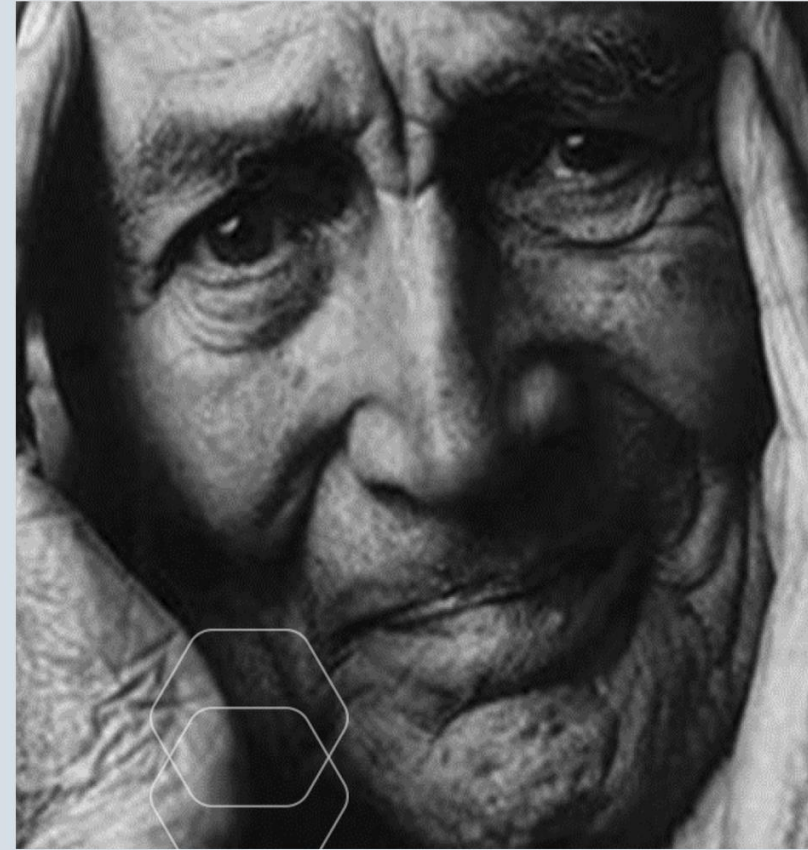
- Bethanie, Brightwater and Juniper Aged Care Groups, WA

Timelines

- Commencement Mar 15
- Completion May 16

Findings

- 40 residents, 353 paired assessments
- Excellent performance
 - > 88% accuracy for detection of pain
- Excellent validity results



Dementia App: Validation Study Results

Activity	Correlation Coefficient (95% Confidence Intervals)
Overall (ePAT Score vs. Abbey Score)	0.88 (0.86 - 0.90)
Rest	0.88 (0.84 – 0.91)
Movement	0.89 (0.86 – 0.92)

Guide to Correlation Coefficient: $\pm 0.70 - 1.00$ **Strong** ; $\pm 0.30 - 0.69$ **Moderate**; $\pm 0 - 0.29$ **None** (0) to **weak**

Dementia App: Pilot Implementation Study



Location

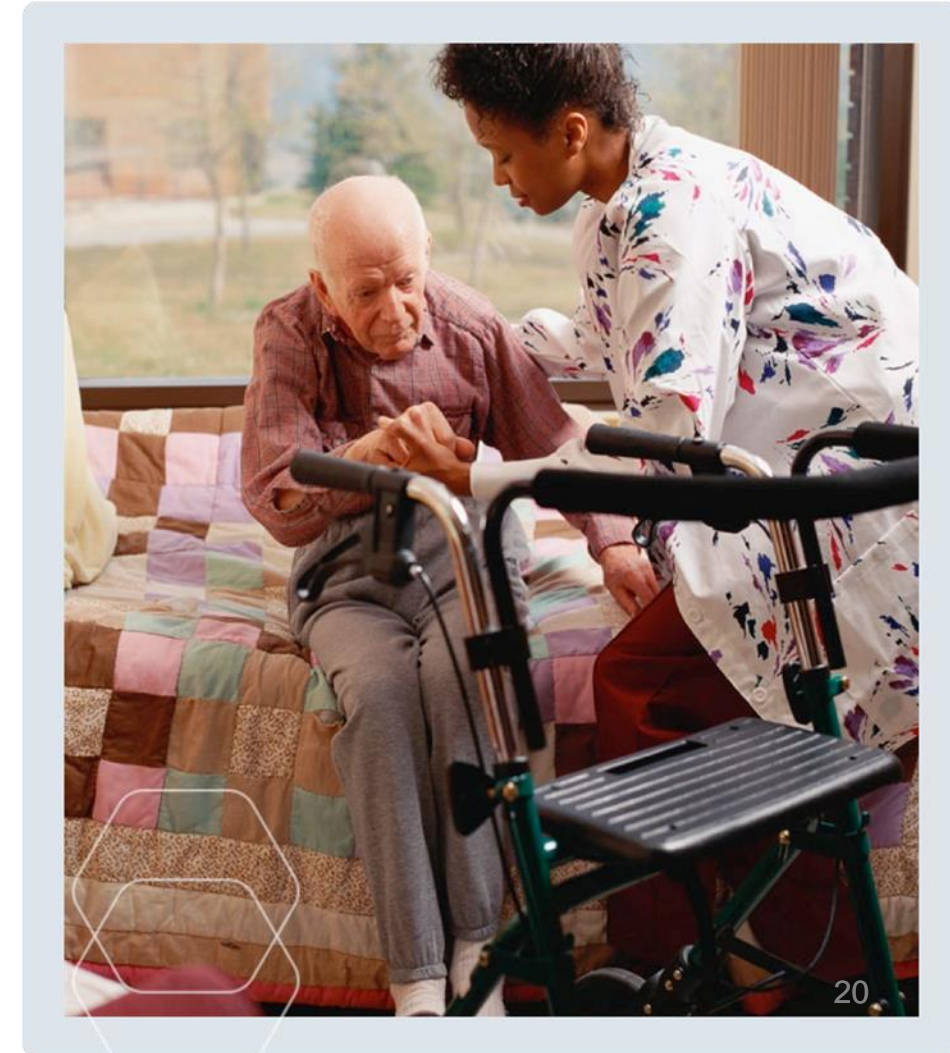
Brightwater W.A.

Timelines

- Commencement: Oct 16
- Completion: Dec 16

Findings

- 10 residents, 11 raters, 76 paired assessments
- Good inter-rater reliability data – indicating ePAT can be used by different people with different skill sets and will achieve same results.



Dementia App: Pilot Implementation Study Results

Activity	Weighted Kappa (κ)	95% CI
Rest n=38	0.72	0.58-0.86
Movement n= 38	0.66	0.48-0.84

Guide to Kappa statistics: **0.60 - 0.79 Good**; 0.40 - 0.59 **Moderate**; 0.20 - 0.39 **Fair**; 0.00-0.19 **None to Poor**

Dementia App: TGA and CE Mark submissions



- ePAT is a Class 1 medical device
- Completed validation & implementation studies provide the core data set for regulatory submission
- Kea Dent & Associates appointed to complete Technical File
- ePAT on target for CE Mark and TGA approvals before end Q3 17

“As ePAT is considered a Class 1 medical device, on meeting the Essential Requirements, we will then provide a written self-declaration statement of compliance with the regulatory requirements to obtain the CE Mark and TGA approvals”

ePAT Patent Status



- Patent clearance for PCT filing received in August 2016
- National filings commenced Feb 2017 in all key global markets;
 - Europe
 - US
 - Australia
 - China
 - Japan

PATENT COOPERATION TREATY		
From the: INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY		
To: Dr Andreas Hartmann GRIFFITH HACK Level 19, 109 St Georges Terrace Perth, Western Australia 6000 Australia		PCT NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty) (PCT Rule 71.1)
Applicant's or agent's file reference P96779.PCT		Date of mailing (day/month/year) 08 August 2016
IMPORTANT NOTIFICATION		
International application No. PCT/AU2015/000501	International filing date (day/month/year) 18 August 2015	Priority date (day/month/year) 18 August 2014
Applicant ELECTRONIC PAIN ASSESSMENT TECHNOLOGIES (EPAT) PTY LTD		
<ol style="list-style-type: none">1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary report on patentability and its annexes, if any, established on the international application.2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translations to those Offices.		

Dementia App – Progress Summary

On schedule for commercial launch Q4 2017

- Beta version App now being tested
- TGA and CE regulatory approvals on schedule for Q3 2017
- “ePAT in Practise” trial to commence with a leading Australian aged care operator specialising in dementia in Q3 2017
- Initial relationships established with two aged care software providers
- Business model in development



Why invest in ePAT?



- Addresses a critical medical problem
- Large global market opportunities
- Innovative technology solution
- International patent protection in process
- Market launch in Q4 2017
- Multiple products and revenue channels
- Experienced board and management team

