

## TALi DIGITAL (ASX: TD1) Investor Presentation

December 2020

Happier kids start here.

talidigital.com

Digital Therapeutics for Cognitive Function.



#### The world's first personalised digital test and treatment platform for early childhood attention



#### Novel technology platform

Game-based digital programs supported by proprietary algorithms, designed to assess and strengthen attention in early childhood. Patents granted in the US and in Japan.



#### Clinically validated

Supported by 25+ years of research in developmental psychology, with clinical trials informing the evolution of the technology. TALi TRAIN is classified as a medical device (ARTG Class 1, FDA Class 2 and CE Mark).



#### Partnerships secured

Partner status secured with Google Education.
Partnership with Duke University to drive
research and commercial pathways in the
USA. Registered NDIS provider.
Global distribution via iOS and Android.



#### Trialed in the Australian market

Early release program to schools, healthcare professionals and parents shows commercial viability in market.



#### Revenue ready

Revenue generating in Australia via B2C and B2B, international expansion to occur via partnerships and licensing.



#### Strategic partners

Up to US\$7m investment from Times Group of India to fund commercial roll out in the Indian market.

#### I Patented global medical device.







Registered in Australia (TGA)



Registered in the EU (CE)







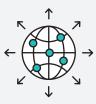


Patents in the US and in Japan with applications pending review in other jurisdictions. TALi's trademarks are registered in the US, Canada, EU, and China.

The market opportunity Global problem, global market. TALi DIGITAL (ASX: TD1) Investor Presentation | December 2020 | 5

#### Cognitive impairments are a key global health issue

136 million children



\$20 billion in costs per year



32% growth rate



#### A global issue<sup>1</sup>

Globally, 136 million children are identified as having severe attention difficulties.

#### The cost of inattention<sup>2</sup>

Attention-related disorders (including ADHD) cost Australians AUD\$20 billion per year.

#### Growth in the market<sup>3</sup>

Cognitive assessment and training market is projected to grow from USD1.98 billion in 2016 to USD8.06 billion by 2021 (CAGR of 32.3%).

<sup>1.</sup> Sources: Chadd.org and https://www.who.int/

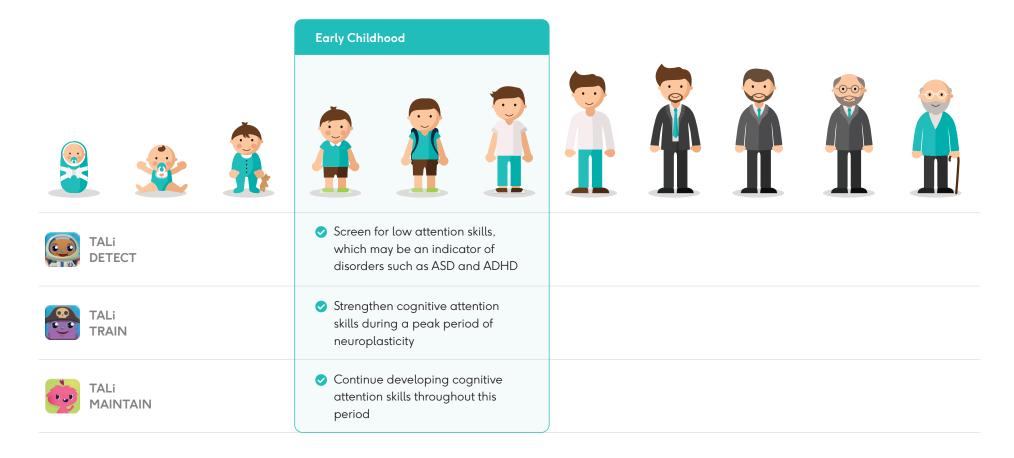
 $<sup>2. \,</sup> Source: https://www2. deloitte.com/content/dam/Deloitte/au/Documents/Economics/deloitte-au-economics-social-costs-adhd-australia-270819. pdf$ 

<sup>3.</sup> Source: Cognitive Assessment and Training Market by Assessment Type (Pen- and Paper-Based, Hosted, Biometrics), Component, Application (Clinical Trial, Screening & Diagnostics, Brain Training, Academic Research), Vertical, and Region - Global Forecast to 2021 - MarketandMarkets.com

#### Our roadmap | In-market

#### Early childhood:

The best time to target cognitive skills of attention.



#### Our roadmap | Expansion

Areas of opportunity:
Leveraging the core patented technology for use in novel populations.

	Teenage Years and Adulthood	Elderly Years
Assessment	<ul> <li>Screen for indicators of attention- related disorders such as ASD, ADHD, anxiety and Schizophrenia</li> </ul>	<ul> <li>Screen for indicators of conditions such as Dementia</li> </ul>
Training	<ul> <li>Digital therapeutic intervention designed to target neural systems involved with attention</li> </ul>	<ul> <li>Digital therapeutics for neurodegenerative conditions</li> </ul>
Maintenance	<ul> <li>Ongoing platform designed to target neural systems involved with attention</li> </ul>	<ul><li>Ongoing digital treatment</li></ul>

#### TALi's vision is to improve the detection & support for cognitive function



#### Targeted treatment strategies

Enable targeted treatment strategies and precision medicine practices.



#### Remote monitoring

Support remote monitoring of digital biomarkers of cognitive function for specific pathological indications.



#### Clinically validated

Improve patient safety and drug management.



#### **Decreasing costs**

Decrease costs while improving patient care outcomes.



#### Better long-term management

Facilitate better long-term management.



#### Improve quality of life for TALi users

Early intervention for cognitive impairments, maintenance of cognitive function and preventative measure of cognitive decline.



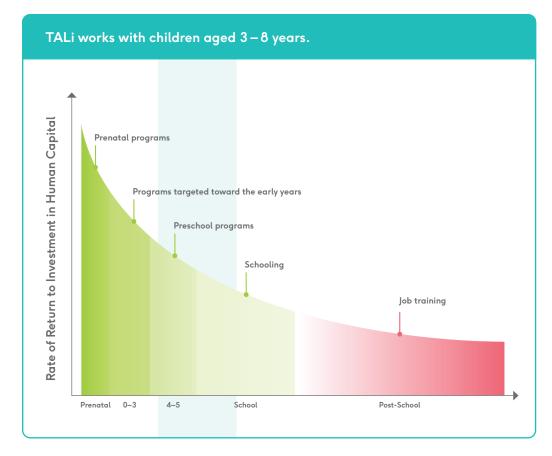
# TALi has developed an evidence based digital health platform that makes a real difference in the lives of children with attention and learning difficulties.

The technology combines 25+ years of research in developmental psychology and cognitive neuroscience to deliver easy-to-use, game-based digital programs to assess and strengthen attention early in life.

TALi has leveraged research from one of Australia's leading neuroscience institutes with its software development and game design team combining to deliver world-leading digital health programs.

# The earlier the investment, the greater the return.

Early childhood development is a noble and sensible investment. There is a deep incentive to 'pay now' to detect and treat the issue of inattention in childhood, or 'pay more later' for specialist treatment services.



Source: James Heckman, Nobel Laurete in Economics

#### TALi — delivered via smartphone or tablet devices.



#### TALi DETECT

Access via initial assessment through one-off payment.



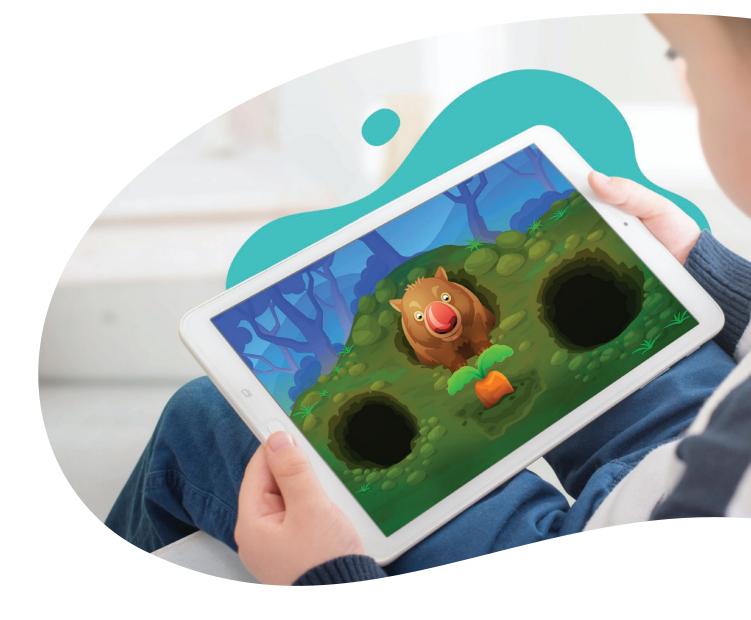
#### **TALi TRAIN**

Access via 25 x 20min sessions through one-off payment or volume price point for B2B customers.



#### **TALI MAINTAIN**

Planned access via twelve month "booster" program, available post TALi TRAIN.



#### Attention profile and real-time status reports

#### **TALi Reports**

Evidence-based algorithms produce a detailed summary of attention-based and activities-based performance across three different domains of cognitive attention.

The results are benchmarked against a standard deviation curve to flag the need for further intervention — and positive progress too.



Dashboard to manage assessment and training data

#### **TALi Portal**

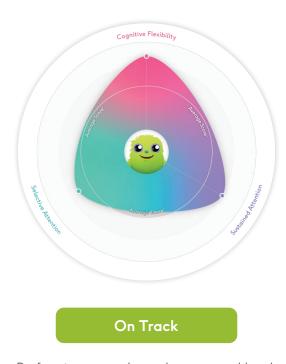
Assessment, compliance and progression data sets are accessible via the TALi Portal by administrators of the program.

Accessibility and administration capabilities customisable for large institutions and networks.

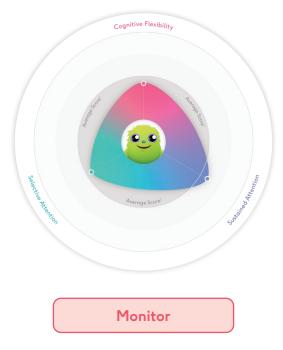


#### **TALI DETECT**

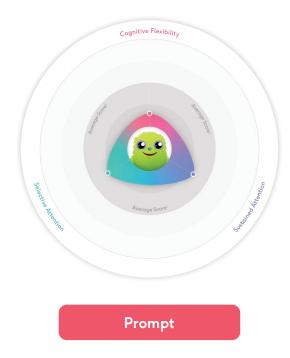
# TALi DETECT reports have been designed to provide a data driven, baseline assessment of a child's core cognitive skills — and it only takes 20 minutes.



Performing at or above the expected level.



Slightly lower attention skills than average.



Lower attention skills than average.

#### **TALI DETECT**

#### I Evidence shows TALi DETECT can be the new clinical standard.

TALI DETECT

Initial results highlight program works in a real-life setting

TALi Health Pty Ltd

#### **Validity**

Using Structural equation modelling (SEM), it was confirmed that DETECT subtests can measure three major domains of attention and there is sufficient differentiation between them.

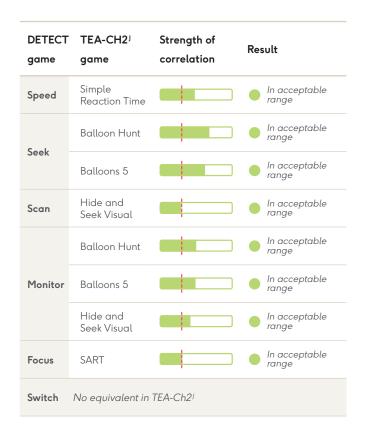
#### **Key Finding**

TALi DETECT features a comprehensive battery of diverse cognitive assessment tasks delivered in a gamified and engaging format which facilitate estimation of a child's strengths and weaknesses in major domains of attention. It can measure a child's Selective and Sustained Attention with high reliability, and its reliability to estimate a child's Executive Attention skills will be investigated further in future studies.

#### Significance

The results of this study provide foundational evidence for DETECT as an objective measure of attentional skills in early childhood. The study results position DETECT as a leading tool to facilitate an objective baseline measurement of attention skills in early childhood. DETECT complements existing observation-based assessments of attention and will provide an essential check point.

Early detection of attention issues provides opportunity for earlier intervention. This is not only critical to the immediate and long-term wellbeing of a child but also has significant economic benefits to the community.



<sup>\*</sup> The TEA-Ch2<sup>1</sup> is an individually administered assessment that measures separable aspects of attention for children ages 5–7.

 $<sup>1.</sup> TALi \ Health \ Pty \ Ltd. \ https://talihealth.com.au/wp-content/uploads/2020/08/TALi-Research-Compendium-Jul 20.pdf: 5-7.$ 

<sup>2.</sup> Manly, Anderson, Crawford, George, Robertson., 2017. Test of Everyday Attention for Children, https://www.pearsonclinical.com.au/products/view/593

### **TALI TRAIN**

#### **Exercising core attention skills**

TALi TRAIN consists of 25 x 20-minute sessions, conducted over a five-week period. The four exercises per session target skills observed to be impaired in neurodiverse children. As the child progresses, the difficulty and experience changes through adaptive gameplay. Real-time data is recorded with progress reports available on TALi Portal.



**Selection**Selective Attention



**Control**Executive Attention



**Focus**Sustained Attention



**Inhibition**Executive Attention

#### Clinical evidence shows TALi TRAIN creates sustained benefits.

**TALI TRAIN** 

Computerised attention training for children with intellectual and developmental disabilities:

#### A randomised controlled trial

Kirk, H., Gray, K., Ellis, K., Taffe, J., & Cornish, K. (2016), Journal of Child Psychology and Psychiatry

#### **Rationale**

This study aimed to assess the immediate and long-term efficacy of a computerised attention training program (TALi TRAIN) on attentional difficulties in children with developmental disorders including Down Syndrome (DS), Autism Spectrum Disorder (ASD), and Non-Specific Intellectual Disability (NSID).

#### Methods

#### Participants:

75 children with developmental disorders (ASD, DS, NSID), 4–11 years of age

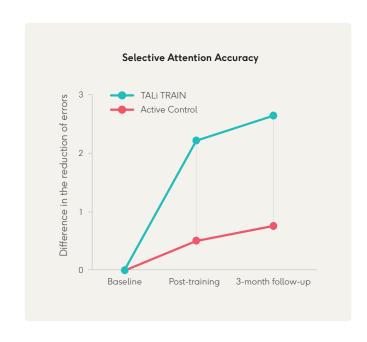
#### Randomised into:

- 1. TALi TRAIN (n=38)
- Control program (n=37): used to control for time spent using a touchscreen program, increased parent involvement and adhering to scheduled training.

Location: home-based
Training duration: 5 weeks
Follow-up: 3 months

#### **Key Finding**

Children in the TALi TRAIN group showed a significantly greater reduction in the number of errors made on the selective attention task from baseline to post-training and baseline to 3-month follow-up than children in the control condition.



#### Significance

The current findings provide evidence that training can positively influence aspects of attention (selective attention) in children with developmental disorders. These findings are important as they highlight that impairments of attention are not necessarily permanent in children with developmental disorders and, by using intensive computerised attention training, they can be improved.

#### Clinical evidence shows TALi TRAIN creates sustained benefits.

**TALI TRAIN** 

Impact of attention training on academic achievement, executive functioning, and behaviour: A randomised controlled trial

Kirk, H., Gray, K., Ellis, K., Taffe, J., & Cornish, K. (2017), American Journal on Intellectual and Developmental Disabilities

#### **Rationale**

The aim of this study was to investigate the efficacy of computerised attention training (TALi TRAIN) on untrained outcomes such as executive functions, literacy and numeracy skills, and behavioural/emotional problems in children with developmental disorders.

#### Methods

#### Participants:

75 children with developmental disorders (Down Syndrome (DS), Autism Spectrum Disorder (ASD), and Non-Specific Intellectual Disability (NSID)) from 4–11 years of age.

#### Randomised into:

1. TALi TRAIN (n=38)

2. Control program (n=37)

ALI IRAIN (n=30)

Location: home-based

Training duration: 5 weeks

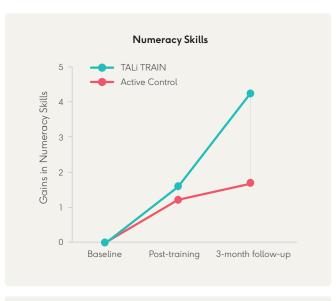
Follow-up: 3 months

#### **Key Finding**

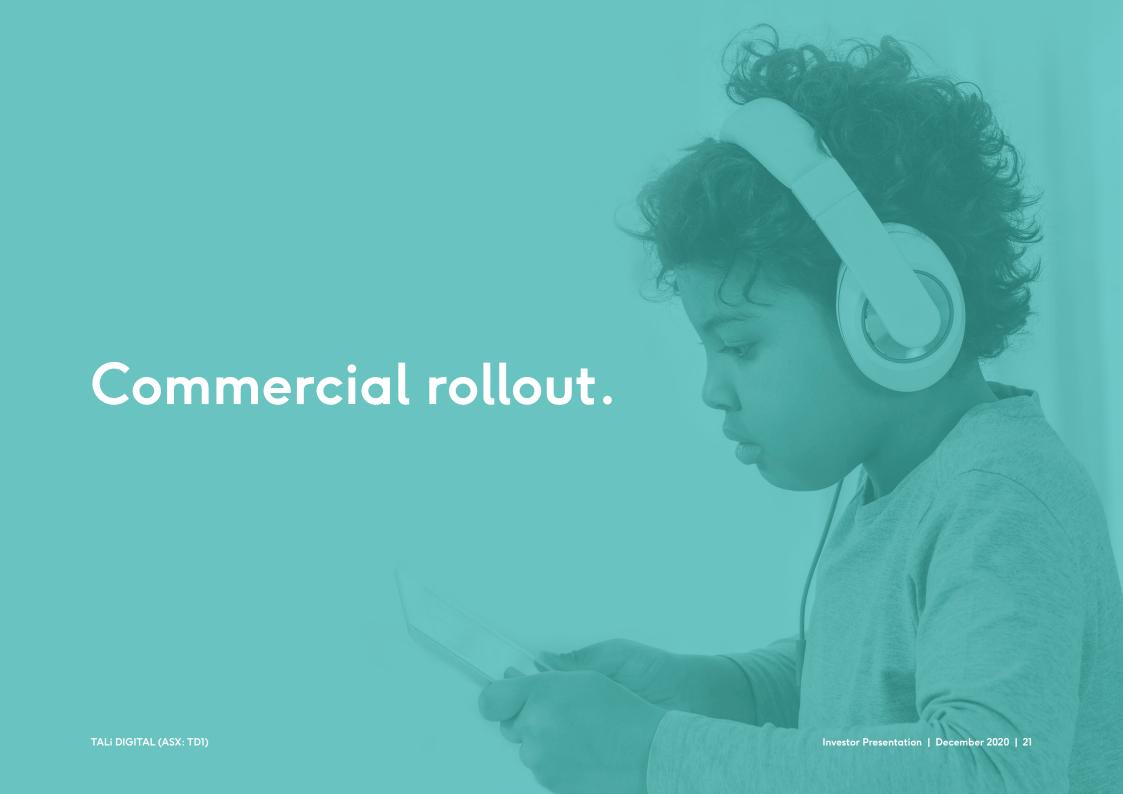
Children in the training group showed significantly greater improvements in numeracy skills at the 3-month follow-up, compared with children in the control program.

#### **Significance**

Improvements in untrained skills are very rare. These findings provide evidence that certain untrained skills in children with developmental disorders, such as numeracy, can be modestly improved, using intensive computerised attention training. TALi TRAIN is one of the very few programs to show an untrained improvement in learning. This is important as attention training may have the potential to overcome some of the academic difficulties faced by individuals with developmental disorders and support children's educational development.

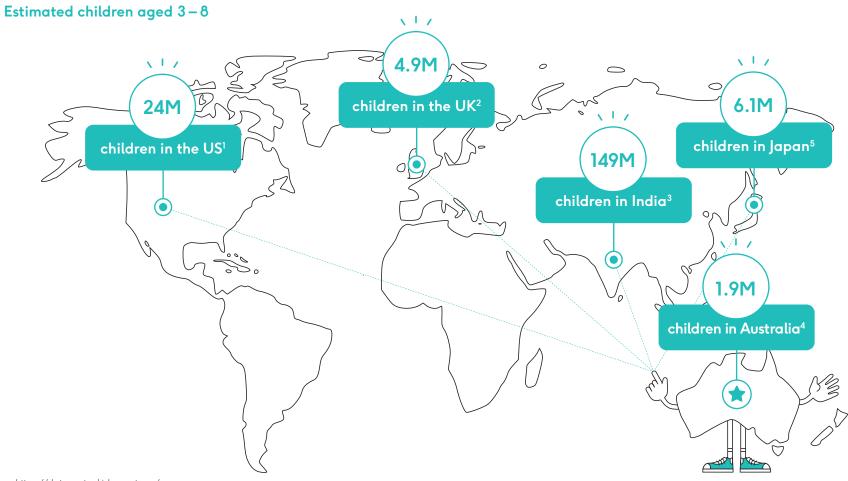






#### Commercial rollout

#### Start local. Go global.



- 1. Source: https://datacenter.kidscount.org/
- 2. Source: https://www.statista.com/statistics/478558/children-population-percentage-of-total-united-kingdom-uk/
- 3. Source: https://www.humanium.org/en/india/
- 4. Source: https://www.aihw.gov.au/reports/children-youth/australias-children/contents/background/australian-children-and-their-families
- 5. Source: https://www.stat.go.jp/english/data/handbook/c0117.html

#### Commercial rollout | Australia

#### ■ B2B & B2C in Australia.



#### **Parents**

Parents can positively impact their child's future development if signs of attention difficulties are spotted and diagnosis and/or treatment is sought.



#### Healthcare providers

It is clinically proven and well-known amongst the clinical community that early intervention provides the best outcomes for patients with attention difficulties. However, many clinicians are searching for non-drug based therapies to use in the early stages that provide long-term results.

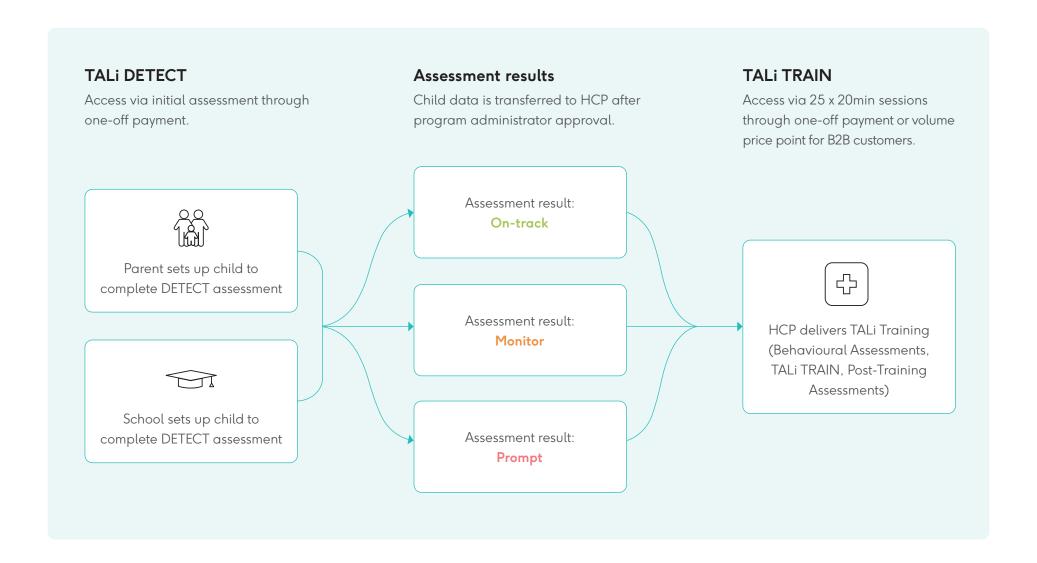


#### **Schools**

Early intervention will present improvements in learning for children with attention difficulties in the initial stages of their education, reducing pressure on the schooling system to offer extensive special needs assistance.

Reimbursement available in Australia via NDIS.

#### Commercial rollout | Customer journey



#### Partners and providers

TALi is working with a range of partners and providers to distribute assessment and training programs to children around the country.

#### THRIVE BY FIVE

Minderoo Foundation is Andrew Forrest's private foundation. It is one of Asia's largest philanthropies, with AUD \$2 billion committed to a range of global initiatives. One initiative is Thrive by Five, campaigning to make our early learning childcare system high quality and universally accessible.

TALi Health is a key contributor to all levels of the Thrive by Five campaign. As part of the campaign, TALi will run and support Thrive by Five events throughout 2021 to raise awareness about the impacts and importance of evidence-based strategies to ensure Australian children have the best start to life.



Sonic Learning is a national provider of online training programs. Delivered by an experienced team of speech pathologists, occupational therapists, audiologists and educators, they focus on building the underlying processes that support learning, including memory, auditory processing skills, attention, sequencing, and the foundations for reading.

Sonic Learning is a registered NDIS provider and provides TALi DETECT and TRAIN to their applicable clients.

#### Commercial rollout | India

#### Commercial rollout in India

Investment agreement and an advertising agreement with Brand Capital Worldwide Inc. (BCI), the investment company for The Times Group (a Bennett Coleman Company Limited), India's largest media conglomerate:

- ① Up to US\$7m investment by BBCL into TALi Digital Limited via two investment tranches.
- Initial investment of US\$2m will see BCI receive 81.8m shares in TALi Digital (representing 9.8% of the Company) at an issue price of A\$0.033 per share, representing the 3-month volume weighted average price (VWAP) of TALi shares.
- The second tranche of US\$5m will be at the mutual agreement of both parties 12 months post the execution of the agreement with pricing set at the 3-month VWAP pre the execution of the second tranche.
- India is an attractive market for TALi as almost one in eight children aged between 2-9 years of age are estimated to have at least one neurodevelopmental disorder.
- Partnership validates global opportunity for TALi IP and Product Platform and highlights the go-to-market and B2C opportunities that TALi can pursue in large global.

#### India's largest media conglomerate



108+ Print editions

12 TV Channels

**73** Radio stations

**50+** Websites and Apps

**5000+** OOH Sites

#### Strategic investment division of The Times Group



15 Years

900+ Companies

**\$4Bn+** AUM

#### Commercial rollout | Deal structure



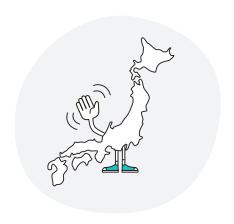
#### I International partnership & licensing model.



#### **United States**

Seeking partners to roll out TALi under licensing and re-seller model through USA healthcare network.

- Partnership with Duke University will provide TALi with clinical study protocol, faculty thought leadership and access to DCRI payer network.
- Reimbursement via relevant CPT Codes.



#### Japan

Seeking partners to roll out TALi under licensing and channel model through Japanese healthcare and education networks.

- Partnership to optimise products for Japanese customers and access existing customer networks for sales.
- Regulatory partner to navigate medical device status and reimbursement pathway.



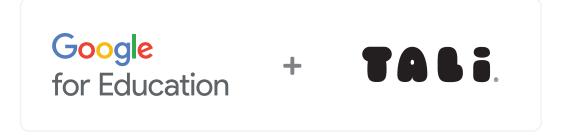
#### UK

Identifying early adopters and KOL's with a clinical emphasis & continuing discussions with potential licensees and technology development partners.

Initiate NHS strategy with an aim to have TALi TRAIN & DETECT registered on NHS App Library and other NHS linked market places.

#### International partnership model

## Google Education Partner Status is a significant opportunity for TALi.



#### Access TALi via Google products

Allows TALi to be accessed via Google products including G Suite for Education and Google Chromebooks.

#### Streamlined with US ed. system

Google dominate US ed. system with +55% of all US school children using a Google product every day to facilitate their learning experience.

#### Backbone for revenue growth

This partnership is anticipated to be the backbone of revenue growth and profitability for TALi over the longer term, post-COVID-19.

#### Revenue model



Outlook

# Delivering TALi to a million children in three years.

#### Outlook



#### **TALi in 2023**

TALi will be used by over one million children around the world by the end of 2023.

This represents less than 1% of the total global market.



#### International distribution

Rapid expansion of TALi's global footprint will be secured via international partnerships in different jurisdictions.



#### Government contracts

Long-term sustainability and guaranteed repeat usage in Australia will be secured via government contracts.



#### **Product evolution**

TALi's product evolution will increase the customer engagement timeframe from 5 weeks to 12+ months and service multiple sectors.



#### Revenue growth

Increasing customer lifetime value and expanding product portfolio will result in rapid revenue and growth nationally and internationally.



#### Build the team

Bringing more experts in house will enhance the overall TALi offering, increase the future product pipeline and add revenue streams.

## Appendix.

#### Practical evidence based improvements

4087
DETECT assessments completed.

1562
TRAIN programs

commenced or completed.



81%

of children showing inattention improvements.



75%

of children showing hyperactivity improvements.

#### TALi | Board and management



Sue MacLeman
Non-Executive Chair
Sue has more than 30 years'
experience as a pharmaceutical,
biotechnology and medical
technology executive with senior
roles in corporate, medical,
commercial and business
development. Sue has served
as CEO and Board member of
several ASX and NASDAQ listed
companies in the sector.



**Jefferson Harcourt** 

Non-Executive Director

Mr Harcourt has over 15 years of experience as a company director and founder of Grey Innovation, a cutting edge engineering and technology commercialisation company based in Melbourne, Australia. Mr Harcourt has brought over one hundred products to market in the past fifteen years, and these devices are sold under leading brand names around the world.



Dr David Brookes

Non-Executive Director

Dr. Brookes has extensive experience in the health and biotechnology industries, first becoming involved in the biotechnology sector in the late 1990's as a consultant.

He has since held Board positions in numerous ASX listed biotechnology companies.



Glenn Smith

Managing Director
Glenn Smith is an experienced
CEO, investor and director.
His success to date has been
built around being involved in
and/or growing customer-centric
businesses at all stages of the
growth cycle (listed and private)
from start-ups to mature global
enterprises. Glenn leads a team
of neuroscientists, software
engineers, game developers and
commercial experts with the goal
to deliver on the TALi Digital vision.

#### TALi | Advisory Board



#### **Dr Scott Kollins**

Dr Scott Kollins from the Duke University School of Medicine based in the U.S. lends his expertise and thought leadership to support TALi's evidence generation strategy. Dr Kollins is a Professor in the Department of Psychiatry and Behavioral Sciences at the Duke University School of Medicine, based in Durham, North Carolina. Dr Kollins also serves as the Global Lead for ADHD and Substance Use Disorders at the Duke Clinical Research Institute and the Director of the Duke ADHD Program.

Dr Kollins received his undergraduate degree in psychology from Duke University, and his graduate degree in Clinical Psychology from Auburn University. Dr Kollins has published more than 150 scientific papers and his research has been supported by seven different U.S. federal agencies, including NICHD, NIDA, NIMH, NIEHS, NINDS, FDA, and EPA.



#### **Professor Con Stough**

Con Stough is a Professor of Cognitive Neuroscience and Psychology at Swinburne University of Technology. He has had numerous research leadership roles at Swinburne including the Director of the Brain Sciences Institute (BSI). He is an expert in cognition and human intelligence across the lifespan receiving more than 50 Government and industry grants.

Professor Stough uses his knowledge of human cognition to conduct randomised clinical trials to examine ways to improve cognition, intelligence and well-being. These interventions include cognitive, pharmacological and psychological interventions and have involved measures of attention across all ages from children to the elderly and in several patient groups. He has also conducted trials in the area of attentional difficulties in children and adolescents and is currently leading a consortium of schools measuring and developing emotional intelligence in Australia and New Zealand.

#### TALi | Advisory Board



#### Sarah Michel

Sarah Michel, MPH, PMP brings her global experience in the commercialisation of evidence-based health innovations to the Advisory Board.

Based in Texas in the United States of America (USA), Sarah will act on behalf of TALi to increase its footprint in both advisory and business development capacities in the USA. She is an experienced life sciences manager and entrepreneur with a demonstrated history of working in the higher education industry. Sarah's experience has included strategically planning and managing global health technology projects, as well as budgets within diverse grant portfolios with multiple non-governmental organisations (NGOs). Ms Michel is currently engaged at Rice University in the Department of Medical Innovation to lead global collaborations with government and industry.



#### **Dr Phil Lambert**

Dr Phil Lambert has extensive experience in education as a teacher, school principal, inspector, Executive Director, Assistant Director-General, Regional Director (Schools), Sydney and General Manager. He also has specialist experience in curriculum development and led the development of Australia's first national curriculum. Dr Lambert is currently supporting curriculum reform efforts in Japan, as an expert advisor and researcher for its Innovative Schools Network (ISN) initiative and member of the ISN Advisory Board.

Dr Lambert is also Curriculum Expert to the OECD Education 2030 Learning Framework project and was recently engaged by the Education Ministries of The Netherlands, Qatar, Kazakhstan and Lithuania to train senior curriculum, assessment and supervisory policy officers to support the implementation of their respective national curriculum reforms.

#### TALi | Key personnel



**Pete Saunders**Chief Operations Officer

Pete Saunders works at the intersection of experience, data and communications in health innovation and commercialization. His background covers digital product and service strategy, brand, marketing and design strategy.

He has developed product, engagement and commercialization strategies for state and federal governments, start ups and multinationals in the health and education sectors.

Pete previously sat on the Global Governance and Accountability Council of the World Economic Forum's Global Shapers, is an Associate Fellow of the Royal Commonwealth Society, Victorian Entrepreneur of the Year nominee and Australian of the Year Nominee.



**Azadeh Feizpour**Chief Scientific Officer

Dr Azadeh Feizpour is a neuroscientist with a special interest in children's mental health issues and early intervention techniques.

Dr Feizpour completed her PhD in neuroscience at Monash University and is currently leading the TALi Health research team to develop, expand and validate the therapeutic application of their core technology.

She is passionate about promoting and utilising digital technology to deliver research-driven innovations that offer effective, targeted and safe treatments to children with mental health issues.



Simone Gindidis
Clinical Lead

Dr Gindidis is a psychologist and former computer technician passionate about integrating technology with psychological assessments and therapy across the lifespan.

Her PhD research evaluated the clinical use of apps in adolescent therapy from the perspectives of clinicians and clients.

A sessional lecturer in ethics, she sits on The Educational and Developmental Psychologist Editorial Board and is an appointed member on the APS College of Educational and Developmental Psychologists National Committee.

#### TALi | Key personnel



Matt Rose
Chief Technology Officer

Matt Rose is an experienced CTO and innovator having founded, co-founded platforms and led large teams in digital agency environments. He has been building and delivering digital products and platforms for over 10 years in the areas of advertising and marketing, health, sport, food and wine.

He holds a Masters in Communication (Advertising) and a Bachelor of Design (Multimedia Systems) from RMIT University.



**Lee Simpson** *Marketing Manager* 

Lee is a creative and strategic digital marketer, with extensive experience in developing data driven multichannel campaigns and strategies in both B2B and B2C markets.

With a background in design and web development, he has a keen eye for online user experience and digital product development.

Throughout his career, Lee has led marketing, brand strategy and campaigns for companies ranging from global workflow software companies to a major Australian brick-and-mortar retailer.



Alex Barty

TD1 Business Development Director

Alex is a graduate of the University of Western Australia and the Western Australian Institute of Medical Research holding Bachelor degrees in Arts (German/Political Science) and Science (Pharmacology/Biochemistry) with Honours. He completed a Masters of Wine Technology and Viticulture at the University of Melbourne and has co-founded two innovative and sustainable wine businesses.

Alex's career has shown an ability to combine skills in project management, research, analysis and communication with creative and innovative thinking.

#### TALi | Financial performance

Capital structure	
ASX code	TD1
Share price (as at 8 December 2020)	\$0.054 per share
Number of Shares on issue	749.3
Market capitalisation (as at 8 December 2020)	\$40.46m
Options and warrants on issue	-
Cash balance (as at 30 September 2020)	\$2.5m

#### Major shareholders\*

- 1 GREY INNOVATION HOLDINGS PTY LTD
- 2 MONDO ELECTRONICS PTY LTD (MONDO ELECTRONICS S/F A/C)
- 3 SAILORS OF SAMUI PTY LTD
- 4 MOONAH CAPITAL PTY LTD
- 5 MR DONAL FRANCIS O'SULLIVAN
- 6 PUNTERO PTY LTD
- 6 CS THIRD NOMINEES PTY LIMITED (HSBC CUST NOM AU LTD 13 A/C)
- TEN GOALS PTY LTD (HAMISH MCLACHLAN FAMILY A/C)
- 7 MRS SHWETA PRIYADARSHINI
- 8 MR CARMELO CANNAVO
- 9 TEEFISH SUPER PTY LTD (TEEFISH SUPER FUND A/C)
- 10 CITOS SUPER PTY LTD <CITOS PTY LTD SF A/C>



<sup>\*</sup> Excludes Key Management Personnel



### Happier kids start here.

For further information please contact the TALi Digital team:

e. info@talihealth.com | p. 1300 082 013 | w. talidigital.com