

#### Webinar recording/presentation

**Perth, Australia & Malta** – 12 July 2018 – Neurotech International Limited (ASX:NTI) ("Neurotech" or the "Company"), developer of quality medical solutions improving the lives of children with autism, is pleased to provide shareholders and interested parties with a link to the US clinical trial/investor webinar held earlier today.

It is available at: https://attendee.gotowebinar.com/register/6810929568269084674

During the webinar US clinical trial Lead Investigator Professor Frederick Carrick provided detailed comment on the findings observed during the Mente Autism trial, before Neurotech CEO Wolfgang Storf outlined how this will help the continued commercialisation of Mente Autism including potential FDA clearance. Questions submitted by shareholders were also addressed to conclude the session.

The presentation slides that accompany the webinar are attached below.

-ends-

#### **About Neurotech**

Neurotech International Limited is a medical device and solutions company incorporated in Australia and operating through its wholly-owned, Malta-based subsidiary AAT Research Limited. Neurotech's primary mission is to improve the lives of people with neurological conditions, with a vision of becoming the global leader in home-use and clinical neurotechnology solutions that are both accessible and affordable. Through flagship device Mente Autism and its associated platform, Neurotech is focused on the development and commercialisation of technological solutions for the diagnosis and treatment of such conditions, starting with autism.

Mente Autism is a clinical-quality EEG device that uses neurofeedback technology to help children with autism spectrum disorder. Designed for home use, it helps relax the minds of children on the spectrum which in turn helps them to focus better and engage positively with their environment.

For more information about Neurotech and Mente Autism please visit:

http://www.neurotechinternational.com. http://www.mentetech.com.

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#### **Investor presentation**

Neurotech International Limited (ASX: NTI) | 12 July 2018

# Neurotech

### **Agenda**

- ✓ Introduction
- ✓ US Clinical Trial results discussion by Professor Frederick Carrick
- ✓ Neurotech update Wolfgang Storf
  - Certifications existing & FDA submission
  - Improved Mente Autism device set for release
  - Distribution network
  - Marketing activities
  - Achievements & milestones
- ✓ Q&A session



#### **US Clinical Trial results**

Professor Frederick Carrick – Senior Research Fellow BCMHR in association with University of Cambridge

The full results of a US clinical trial using Mente Autism has been published by medical journal Frontiers in Neurology. <a href="https://bit.ly/2KyZn0n">https://bit.ly/2KyZn0n</a>



### Cerebral Cortex: Its locations, functions & disorders

 Major cortical functions of the integrated sensory-motor system are spatial orientation & self motion perception



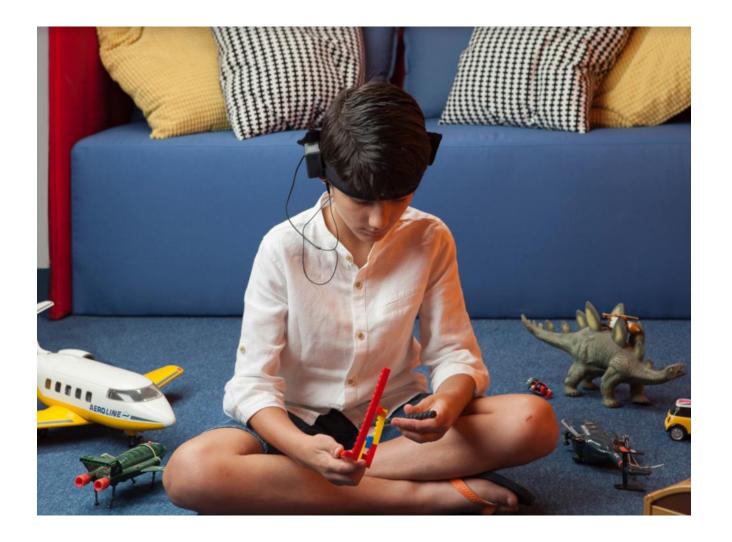
#### **Cortical functions**

- Depend on auditory, vestibular, visual & somatosensory input
- All four systems (auditory, vestibular, visual & somatosensory) provide us with redundant information about the position & motion of the body relative to the external space



### **Mente Autism Study**

- Randomised controlled, double blinded investigation
- 12 week treatment compared with active (Mente Autism) and control (sham) devices

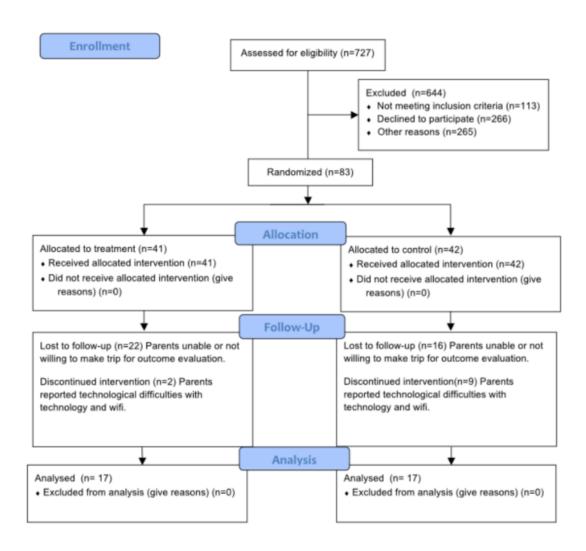




### Subjects

- 32 subjects required for the study
- Out of 84 subjects finally selected (to allow for drop-offs), a total of 34 subjects (17 Active, 17 Control) completed the sessions as well as pre and post evaluations
- Lack of monetary incentivisation to return for post treatment evaluations, across both groups, was a key reason for the large dropouts
- Such incentivisation was deliberately not provided to avoid bias
- No dropouts due to tolerance with Mente device or treatment

#### **CONSORT 2010 Flow Diagram**

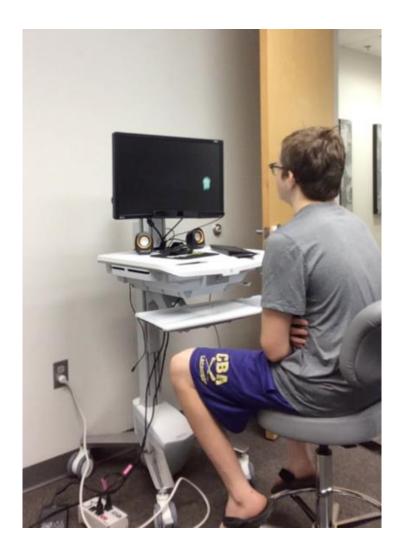


## Pre and post evaluation QEEG recordings



### Tracking eye movements during the study

 Children with autism tend to focus on different objects to children without autism





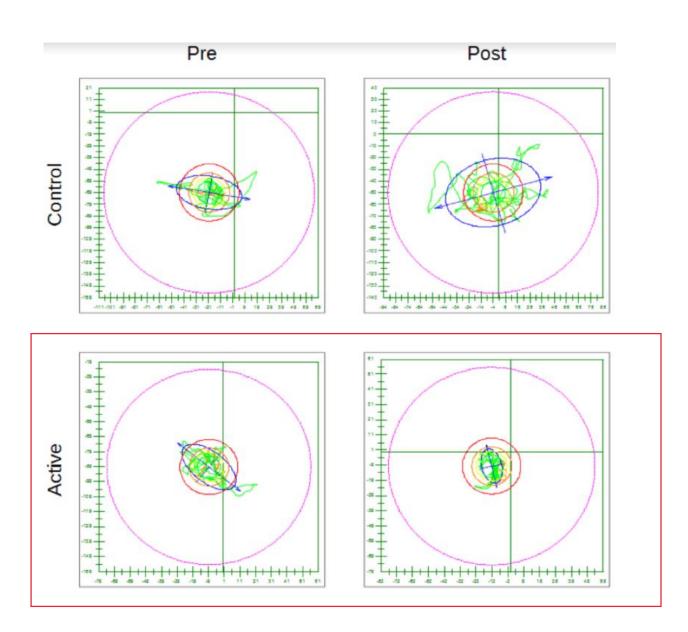
### Testing balance (1/2)

 Children with autism tend to have better balance with their eyes open rather than with their eyes closed

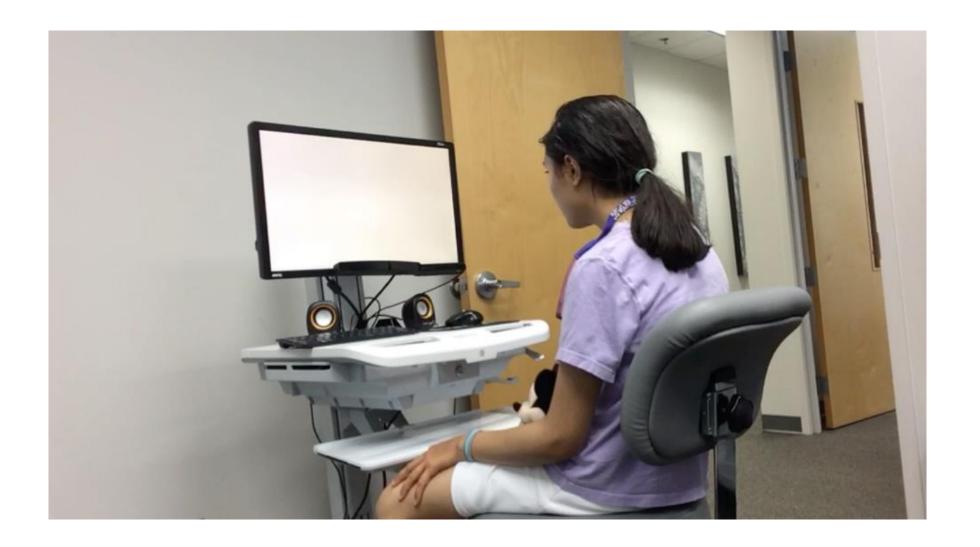


### Testing balance (2/2)

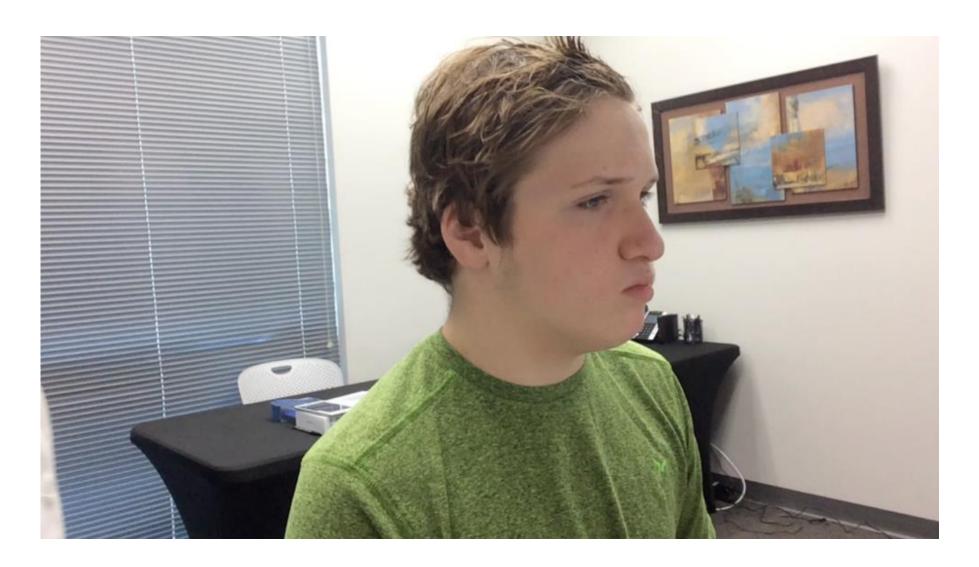
- Limits of stability presented by the outer circle
- In the active group, balance improved with eyes open rather than with their eyes closed was observed, i.e. a reversal
- But not in the control group



### Testing for other behaviours with engagement (1/2)

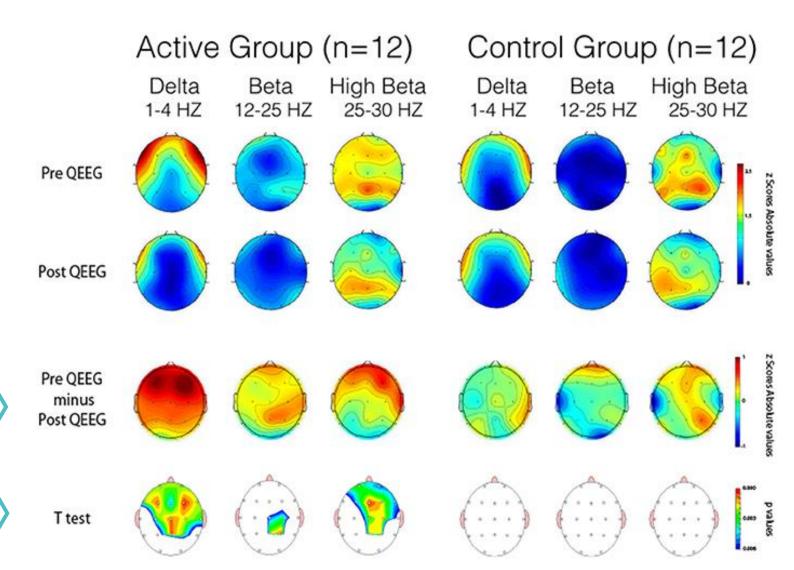


### Testing for other behaviours with engagement (2/2)



### QEEG scans – pre and post (1/3)

Significant reductions in delta, beta & high beta waves in the active group (abnormally high in autistic children)



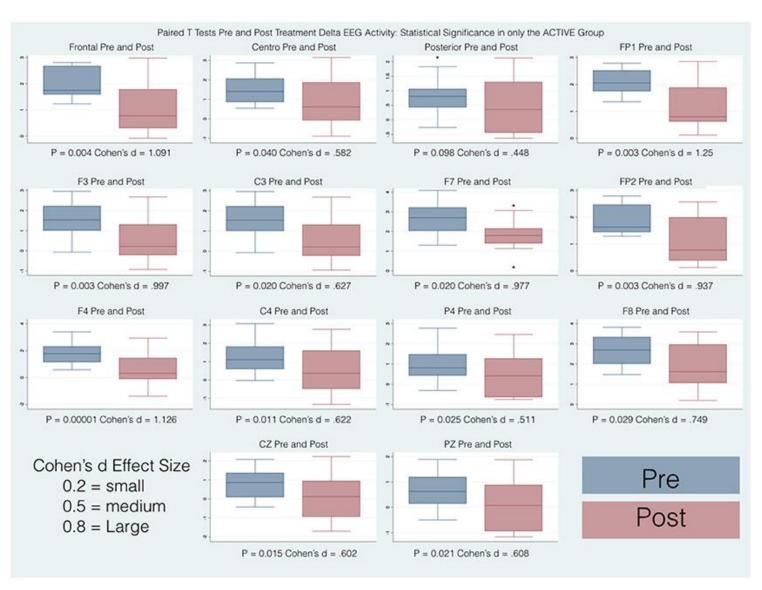
Red indicates higher absolute differences – blue indicates lower differences

A clear scan indicates no differences



## QEEG scans – pre and post (2/3)

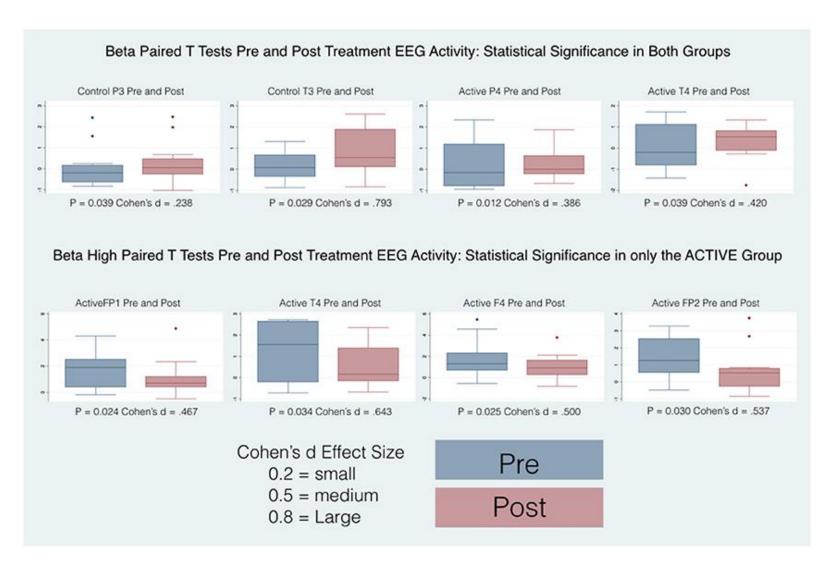
Statistically significant changes in delta waves, with associated large impact sizes





### QEEG scans – pre and post (3/3)

Statistically significant changes in beta & high beta waves, with associated large impact sizes



### **Overview on QEEG data**

Reductions in delta & beta band with active treatment compared to sham

- Significant statistical p values in active group qEEG only
- In the single case analysis it was shown that the pre & post of active subjects have resulted in normalised values
  - Substantively significant
  - High effect size
  - Not statistically significant controls
- Beta 2/High Beta showed a statistically significant improvement between the two groups (Active vs Control) in the direction of Beta 2 reduction
- This is very much in line with some autism reviews
  - U-shaped profile of abnormal power pattern in autism spectrum disorders

### **Overview on QEEG data**

Reductions in delta & beta band with active treatment compared to sham

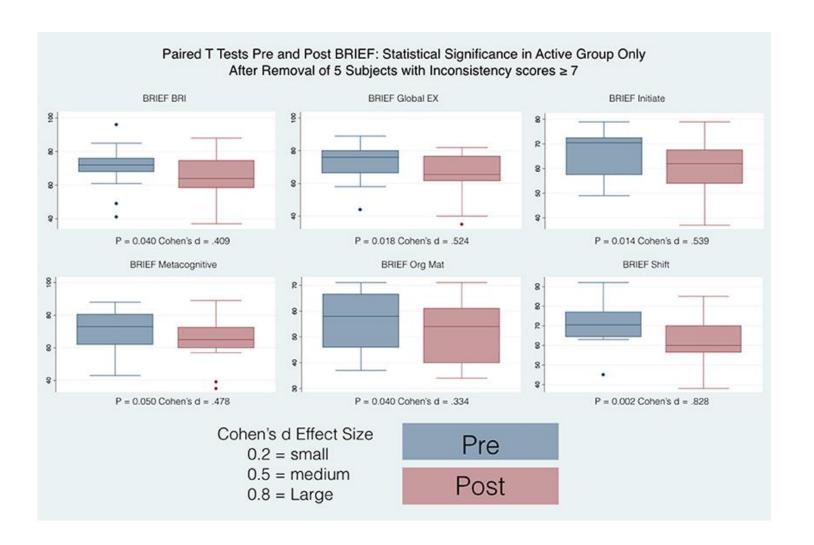
- Paired t-test were performed within the groups
- The paired t-test between the Active & Control showed clearly a significant improvement (towards normalisation) of central & temporal delta activity in the Active group (compared to the Control group, in which there was no significant improvement)
- In general, the delta activity changes were statistically significant in the Active group & not the Control group





### Behavioural testing – pre and post (1/2)

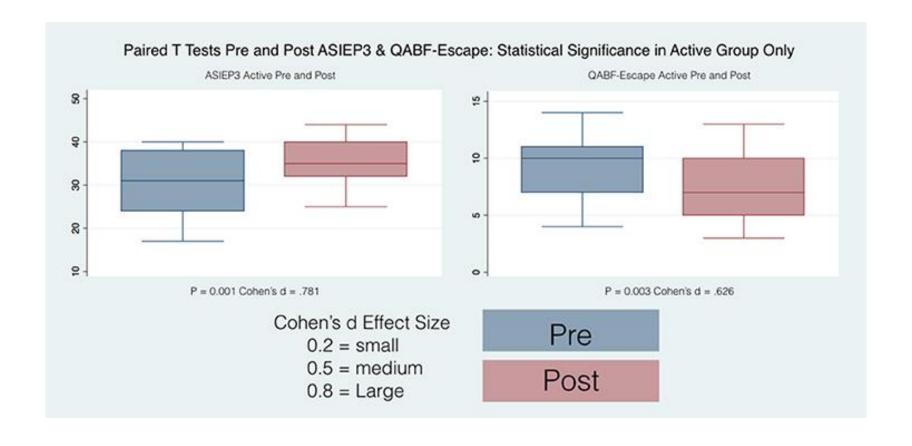
Statistically significant behavioural improvements in active group





### Behavioural testing – pre and post (2/2)

Statistically significant behavioural improvements in active group



### Detailed study outcomes – QEEG (1/3)

Variable				Frontal			Central		Posterior				
Group			Control	Active	p-value*	1.119 (0.412)	Active	p-value*	Control	0.420 (0.273)	p-value*		
Delta (1-4 Hz)	Pre	Mean (Std.Error)		1.977 (0.167)	0.126		1.511 (0.215)	0.408	0.474 (0.281)		0.273		
	Post	Mean (Std.Error)	1.301 (0.363)	1.089 (0.287)		1.061 (0.403)	0.892 (0.377)		0.855 (0.190)	0.480 (0.285)			
		e** Partial spower	0.947	0.003 0.555 0.920		0.863	0.040 0.329 0.563		0.825	0.098			
Beta (12-25 Hz)	Pre	Mean (Std.Error)	0.520 (0.328)	0.874 (0.304)	0.438	0.201 (0.264)	0.743 (0.311)	0.197	0.367 (0.302)	0.786 (0.319)	0.351		
	Post	Mean (Std.Error)	0.313 (0.214)	0.587 (0.308)		0.415 (0.185)	0.445 (0.251)		0.526 (0.237)	0.712 (0.265)			
	$\rho$ -value** Partial $\eta^2$ Obspower		0.575	0.199		0.318	0.031 0.358 0.617		0.344	0.651			
High Beta (25–30 Hz)	Pre	Mean (Std.Error)	1.369 (0.355)	1.656 (0.431)	0.613	1.115 (0.267)	1.485 (0.414)	0.461	1.499 (0.308)	1.485 (0.388)	0.979		
	Post	Mean (Std.Error)	1.088 (0.222)	1.107 (0.358)		1.352 (0.270)	1.159 (0.338)		1.348 (0.319)	1.549 (0.381)			
		e** Partial spower	0.431	0.024 0.382 0.662		0.342	0.146		0.621	0.810			

When the p-value was significant (p < 0.05), the partial  $\eta^2$  (an estimation of the effect size: 0.02~small; 0.13~medium; 0.26~large) and the observed power (the probability of correctly rejecting the null hypothesis) are also reported.

In bold the results that are statistically significant.

<sup>\*</sup>Assuming equal variances.

<sup>\*\*</sup>Paired differences.

## Detailed Study Outcomes – Posturography (2/3)

Variable			95% Conf ML sway [mm/m]			95% Conf AP sway [mm/m]			95% Conf max sway [mm/m]			Average sway Vel [mm/s/m]			95% Conf ellipse Area [mm <sup>^2</sup> /m <sup>^2</sup> ]			
Group			Control	Active	p-value	Control	Active	p-value	Control	Active	p-value	Control	Active	p-value	Control	Active	p-value	
mCTSIB	Pre	Mean (Std.Error)	60.6 (11.6)	71.4 (13.0)	0.541	63.7 (12.8)	74.2 (15.2)	0.604	74.2 (14.4)	89.6 (17.4)	0.500	76.6 (18.3)	65.4 (13.2)	0.624	5037.4 (1788.9)	7004.0 (2401.1)	0.516	
	Post	Mean (Std.Error)	53.9 (7.9)	48.7 (10.1)	0.686	51.4 (7.9)	47.4 (8.8)	0.733	64.1 (9.9)	57.9 (11.3)	0.680	53.0 (8.8)	46.3 (9.2)	0.605	3030.6 (920.8)	2804.6 (1000.1)	0.869	
		ue Partial η <sup>2</sup> -power	0.404	0.024 0.281 0.652		0.210	0.049 0.220 0.515		0.299	0.035 0.248 0.579		0.093	0.081		0.169	0.050 0.219 0.511		
Hard surface eyes open	Pre	Mean (Std.Error)	61.1 (17.1)	85.2 (22.0)	0.394	59.2 (13.7)	88.6 (25.1)	0.311	70.7 (17.6)	112.7 (28.6)	0.221	77.2 (19.4)	62.1 (18.2)	0.575	5450.3 (2383.4)	10.443.7 (4815.2)	0.360	
	Post	Mean (Std.Error)	59.5 (12.3)	42.4 (12.4)	0.324	56.6 (41.4)	41.4 (10.4)	0.330	72.3 (13.7)	51.8 (14.6)	0.313	52.9 (11.0)	34.5 (8.6)	0.196	3782.0 (1272.2)	2218.2 (911.6)	0.325	
	$\rho$ -value Partial $\eta^2$ Obspower		0.919	0.013 0.330 0.750		0.851	0.043 0.232 0.542		0.906	0.015 0.316 0.724		0.135	0.039 0.239 0.559		0.471	0.077		
Hard surface eyes close	Pre	Mean (Std.Error)	54.6 (13.5)	54.5 (14.5)	0.995	68.3 (19.1)	61.9 (14.5)	0.791	73.0 (19.2)	71.4 (16.2)	0.951	70.5 (25.1)	50.7 (13.5)	0.492	5725.9 (2526.4)	4680.2 (2437.0)	0.768	
	Post	Mean (Std.Error)	51.4 (11.8)	44.3 (12.1)	0.676	46.5 (10.2)	47.0 (11.6)	0.977	59.0 (12.9)	57.2 (14.0)	0.925	51.4 (14.5)	48.6 (14.1)	0.891	3025.7 (1149.6)	2917.8 (1213.2)	0.949	
	p-value Partial $\eta^2$ Obspower		0.780	0.534		0.240	0.346		0.326	0.425		0.345	0.901		0.247	0.507		
Compliant surface eyes open	Pre	Mean (Std.Error)	53.7 (10.0)	66.7 (14.9)	0.474	59.0 (13.4)	60.0 (11.8)	0.953	69.7 (14.0)	75.8 (16.1)	0.778	75.0 (20.1)	60.5 (11.5)	0.535	3722.2 (1467.0)	4804.0 (1854.9)	0.650	
	Post	Mean (Std.Error)	56.6 (8.7)	45.5 (7.9)	0.351	51.3 (13.3)	43.0 (7.0)	0.582	67.9 (13.9)	51.4 (8.3)	0.316	55.6 (11.4)	41.7 (7.2)	0.311	3070.7 (1384.5)	2071.7 (550.8)	0.507	
	p-value Partial $\eta^2$ Obspower		0.762	0.107		0.416	0.046 0.227 0.530		0.863	0.070		0.193	0.088		0.499	0.103		
Compliant surface eyes closed	Pre	Mean (Std.Error)	72.9 (12.7)	79.1 (13.6)	0.742	68.4 (11.2)	86.1 (22.3)	0.483	83.4 (12.9)	98.4 (23.4)	0.577	83.7 (16.2)	88.4 (18.3)	0.849	5251.0 (1794.5)	8088.2 (3845.1)	0.509	
	Post	Mean (Std.Error)	47.8 (6.2)	62.5 (12.2)	0.291	51.3 (6.2)	58.1 (9.4)	0.545	57.3 (6.9)	71.2 (12.4)	0.336	52.1 (7.1)	60.5 (14.0)	0.596	2243.9 (656.0)	4010.8 (1880.7)	0.382	
	p-value Partial η <sup>2</sup> Obspower		0.026 0.273 0.634	0.113		0.096	0.213		0.033 0.253 0.589	0.220		0.036 0.247 0.575	0.111		0.072	0.290		

95% Conf MLSway = 95% confidence mediolateral sway, 95% Conf AP Sway = 95% confidence antero-posterior sway, 95% Conf Max Sway = the 95% confidence maximum sway (the largest sway in any direction), Average Sway Vel = average sway velocity (calculated as the sway path length (how much the CoP moved during the test) divided by the duration of the test), 95% Conf Ellipse Area = area of the 95% confidence ellipse. In bold the results that are statistically significant, their partial \(\eta^2\) and observed power in underlined italic the results that are statistically significant. In underlined italic the results that are worse POST vs. PRE mOTSIB.

## Detailed Study Outcomes – Behavioural (3/3)

Questi	onnaire										RS-2								
Variabl	е	Social	awarenes	s	Social cognition				ocial unication		Social	motivatio	n		RRB		SCI		
Group		Control	Active	p*	Control	Active	p*	Control	Active	р*	Control	Active	p*	Control	Active	<b>p*</b>	Control	Active	F
Pre	Mean (Std.Err)	75.59 (2.585)	76.12 (2.588)	0.034	74.53 (1.851	72.18 (2.530)	0.223	76.94 (2.200)	76.41 (2.971)	0.507	73.18 (2.686)	70.41 (2.244)	0.251	81.88 (2.488)	79.29 (2.533)	0.782	78.18 (1.879)	76.82 (2.149)	0.1
Post	Mean (Std.Err)	76.18	72.47		71.24	70.53		73.71	70.41		70.76	68.18		77.47	75.29		75.35	73.82	
	p-value Partial η <sup>2</sup> Obs.P	(1.399) 0.846	(2.017) 0.206		(1.917) 0.144	(2.330) 0.525		(2.774) 0.072	(2.244) 0.161		(2.258) 0.182	(2.403) 0.352		(3.131) 0.079	(2.533) 0.174		(1.788) 0.106	(2.459) 0.166	
Questi	onnaire		ABC								A.	TEC							
Variable		Total raw score				ch / Langu nmunicati		Sociability			Sensory / Cognitive awareness			Health / Physical behavior			Total		
Group		Control	Active	p*	Control	Active	p*	Control	Active	p*	Control	Active	p*	Control	Active	p*	Control	Active	
Pre	Mean (Std.Err)	85.76 (350)	89.41 (3.239)	0.462	17.00 (1.683)	18.59 (1.787)	0.014	12.29 (1.686)	14.59 (1.665)	0.639	21.29 (1.233)	20.12 (1.981)	0.122	23.65 (3.280)	23.24 (2.289)	0.276	74.24 (4.96)	76.53 (3.68)	
Post	Mean (Std.Err)	85.12	80.59		18.35	19.65		11.00	10.59		22.88	22.53		19.76	19.88		72.00	72.65	
		(2.484)	(2.773)		(1.372)	(1.855)		(1.663)	(1.412)		(1.450)	(2.220)		(3.095)	(2.009)		(4.10)	(3.37)	
	p-value Partial η <sup>2</sup> Obs.P	0.816	0.002 0.460 0.933		0.057	0.006 0.381 0.838		0.217	0.022 0.288 0.665		0.244	0.050 0.219 0.513		0.004 0.411 0.880	0.071		0.233	0.164	
Questi	onnaire									QAFE	3								
Variable		Social attention				Escape		Tangible reinforcement			Physical siscomfort			Nonsocial rehinforcement			Total		
Group		Control	Active	<b>p</b> *	Control	Active	p*	Control	Active	p*	Control	Active	p*	Control	Active	p*	Control	Active	
Pre	Mean (Std.Err)	5.00 (0.804)	2.82 (0.671)	0.720	7.82 (1.075)	9.24 (0.730)	0.094	8.29 1.067)	9.24 (0.881)	0.128	5.94 (0.976)	6.65 (1.000)	0.309	8.47 (0.963)	9.94 (0.929)	0.245	35.53 (3.96)	40.88 (2.44)	
Post	Mean (Std.Err)	4.65	5.47		7.88	7.35		7.88	8.00		4.84	5.41		9.06	8.24		34.41	34.47	
		(0.747)	(0.697)		(0.652)	(0.727)		(0.861)	(1.085)		(0.656)	(0.936)		(0.972)	(0.851)		(2.59)	(2.98)	
	p-value Partial η <sup>2</sup> Obs.P	0.455	0.543		0.946	0.003 0.424 0.896		0.563	0.106		0.329	0.268		0.507	0.035 0.249 0.580		0.708	0.043 0.232 0.542	
Questic	onnaire									ВР	RIEF**								
Variable			Inhibit			Shift		Emotional control		ol	Behavioral regulation index		Initiate			Working memory			
Group		Control	Active	p*	Control	Active	p*	Control	Active	p*	Control	Active	p*	Control	Active	p*	Control	Active	p'
Pre	Mean (Std.Err)	64.54	68.88	0.969	66.38	71.94	0.394	60.46	64.25	0.056	65.54	70.75	0.234	64.08	66.56	0.326	68.62	72.50	0.95
Post	Mean (Std.Err)	(3.155)	(3.551)		(3.666)	(2.823) 62.38		(3.854)	(3.406)		(3.762)	(3.241)		(2.971) 63.23	(2.420)		(2.571) 66.31	(2.941) 66.69	
FOST	Wearr (Std.Err)	(3.155)	(3.740)		(3.917)	(2.947)		(3.561)	(3.275)		(2.863)	(3.483)		(2.585)	(3.049)		(2.929)	(3.127)	
	p-value Partial	1.000	0.521		0.185	0.002		0.164	0.080		0.391	0.040		0.546	0.014		0.278	0.059	
	η <sup>2</sup> Obs.P					0.490 0.943						0.252 0.557			0.341 0.741				
Variable		Pla	ın/Organi:	ze	Organiza	ntion of m	aterials	Monitor			Metagognition index		Global executive composite						
Group		Control	Active	p*	Control	Active	p*	Control	Active	<b>p</b> *	Control	Active	p*	Control		<b>p</b> *			
Pre	Mean (Std.Err)	66.46 (2.382)	70.88 (3.877)	0.207	53.85 (3.322)	56.00 (2.805)	0.009	65.46 (2.688)	71.31 (2.755)	0.101	66.08 (2.302)	70.75 (3.041)	0.572	67.31 (2.863)	72.19 (2.830)	0.735			
Post	Mean (Std.Err)	61.85	65.94		52.62	52.13		65.15	64.81		63.77	64.56		64.92	65.75				
	e velus Destini	(3.048)	(3.416)		(3.079)	(3.000)		(3.658)	(3.639)		(2.920)	(3.417) 0.050		(3.294)	(3.290)				
	p-value Partial η <sup>2</sup> Obs.P	0.164	0.158		0.473	0.040 0.253 0.559		0.937	0.056		0.245	0.050 0.232 0.513		0.217	0.018 0.322 0.704				



### Neurotech update

Wolfgang Storf – CEO, Neurotech International

#### **Certifications**

The Mente Autism device already has European CE Marking & TGA Registration, thus enabling sales in Europe, Middle East & Australia. The Company will seek to also obtain US FDA clearance for the device.

#### **Current Certifications & Registrations**

CE 0426 CE Marking

- Mente Autism & Mente Autism predecessor (Mente 2) both classified as a Class IIa medical device
- Regulated under the European Union Council Medical Device Directive 93/42/EEC



ISO 13485 Certified

- AAT Medical is ISO 13485 certified
- Meets specific requirements & guidelines for a quality management system, to develop & provide products & services, that consistently meet both customer & regulatory requirements
- Updated certification expected Q3 CY2018



TGA Registration  Mente Autism is included on the Australian Register of Therapeutic Goods as a biofeedback system in the Medical Device Class IIa category

# FDA Submission Process via De-Novo application

- ✓ Pre-submission package filed: Mar 2017
- Pre-submission meeting: Jun 2017
- ☐ Final submission targeted: Q3 2018
- ☐ FDA clearance targeted: during 2019

### Improved Mente Autism device set for release

#### **Complete Mente Autism Kit**



#### What's new in the improved Mente?

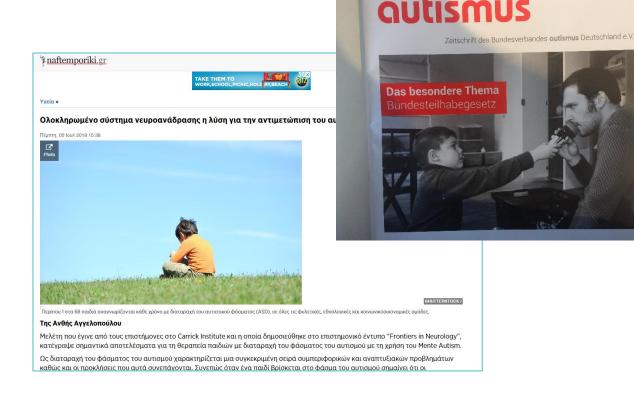
Improvements to:

- ✓ wi-fi connectivity
- ✓ synchronisation
- ✓ usability
- ✓ firmware
- ✓ application

Comprising headband, power supply, earphones, sensors, Quickguide, cloud system & ongoing updates. Sensors, earphones & power supply are available for purchase separately.

### Distribution network & marketing activities

- ✓ Direct mailing to contacts
- ✓ Outreach to media & press contacts
- ✓ Social media activity to target potential customers
- ✓ Autism group events
- ✓ Dedicated Mente pages on distributor websites













Marketing & distribution partner in Greece & Cyprus partner in Germany & Switzerland



 Marketing & distribution partner in Austria





 Marketing & distribution partner in Turkey







#### **Spreading awareness of Mente Autism**





# 19TH WORLD CONGRESS OF PSYCHOPHYSIOLOGY

Lucca | Italy September 4 - 8 | 2018





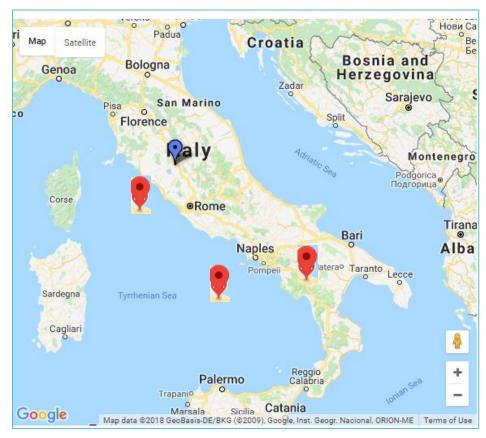




### Update: Italian neurofeedback centres

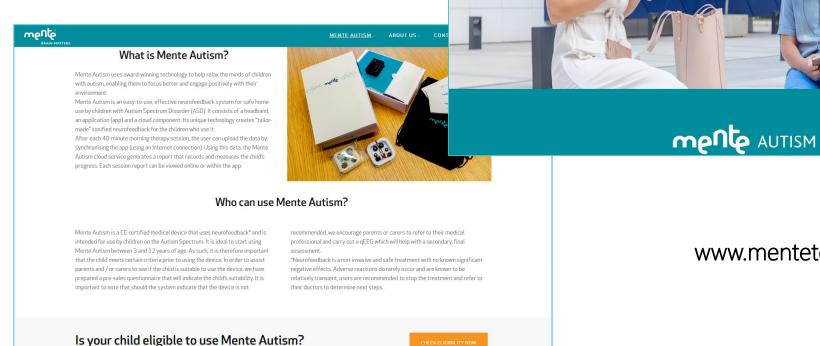
- Series of commercial & marketing activities organised over in Italy (Orvieto, Umbria & Corato, Bari) led by distribution partner Promosalute
- Promosalute have engaged a leading marketing company with the aim of creating a highly targeted online marketing exercise
- Opening of first neurofeedback centres in Italy Orvieto, Canosa di Puglia & Caserta
- 3 endorsement videos by medical professional, available on the Mente website
- Increasing number of testimonials





### **Updated Mente Autism website**

- ✓ Fresher look with new imagery
- ✓ Direct 'calls to action'
- ✓ Pre-sales assessment to gauge eligibility to use Mente Autism
- ✓ Usability improvements



www.mentetech.com

Relaxing the minds of children

with Autism

### **Key Achievements & Next Milestones**

#### **Achievements**

Substantial achievements in the last 18 months:

- ✓ Mar-Sep 2017: Secured new Austrian, Greece, German & Swiss, Saudi & Australian distributors, renewed Turkey distributorship
- ✓ Jun 2017: Australian TGA registration received
- ✓ Sep 2017: Outstanding preliminary outcomes received from independent US clinical trial
- ✓ Dec 2017: Completion of US clinical trial
- ✓ July 2018: Publication of US trial results in peerreviewed Frontiers of Neurology

#### **Looking Forward...**

Neurotech is focussed on continuing to let science do the talking, and bringing Mente Autism to the parents & children who need it

- ☐ July 2018: Start production of improved Mente Autism
- ☐ August 2018: First shipments of Mente Autism
- September 2018: Commence Multi-Center studies in Europe to promote awareness and acceptance
- Q3 2018: US FDA submission, 2019: US FDA clearance
- Ongoing:

Europe country expansion e.g. UK, Spain, France, Initiate reimbursement application in Germany & Australia, preparing for US market entry

### **Q&A** session

www.neurotechinternational.com www.mentetech.com