pharmaxis



Pharmaxis 2018 AGM

Agenda

- 1. Welcome and opening of meeting
- 2. Chairman's Address
- 3. Presentation by CEO and CFO
- 4. Shareholder questions
- 5. Formal business:
 - i. Financial Report, Directors' Report and the Auditor's Report
 - ii. Adoption of the Remuneration Report
 - iii. Re-election of Mr Malcolm McComas as a Non-Executive Director
 - iv. Grant of Performance Rights to Mr Gary Phillips
 - v. Renewal of Proportional Takeover Provision in the Constitution of the Company
- 6. Meeting close
- 7. Refreshments



Chairman's Address

Malcolm McComas



Presentation by Chief Executive Officer

Gary Phillips

Forward looking statement

This document contains forward-looking statements, including statements concerning Pharmaxis' future financial position, plans, and the potential of its products and product candidates, which are based on information and assumptions available to Pharmaxis as of the date of this document. Actual results, performance or achievements could be significantly different from those expressed in, or implied by, these forward-looking statements. All statements, other than statements of historical facts, are forward-looking statements. These forward-looking statements are not guarantees or predictions of future results, levels of performance, and involve known and unknown risks, uncertainties and other factors, many of which are beyond our control, and which may cause actual results to differ materially from those expressed in the statements contained in this document. For example, despite our efforts there is no certainty that we will be successful in partnering our LOXL2 program or any of the other products in our pipeline on commercially acceptable terms, in a timely fashion or at all. Except as required by law we undertake no obligation to update these forward-looking statements as a result of new information, future events or otherwise.

pharmaxis

Pharmaxis has a successful track record of research, development and commercialisation of human healthcare products for the treatment and management of fibrotic and inflammatory diseases



Clinical Trials Utilise global experience and extensive clinical networks to execute value adding Phase 1 and 2 clinical trials

Drug Discovery Engine

- •Leverage small molecule expertise and in house chemistry platform
- Efficiencies from global academic & CRO networks
- Target high value diseases with validated targets



- Extensive Big Pharma network
- Seek to partner after phase 1 or 2 to realise value and mitigate program and corporate risk



Senior management

Significant experience in drug development, commercialisation and partnering



Gary Phillips - CEO

- more than 30 years of operational management experience in the pharmaceutical and healthcare industry in Europe, Asia and Australia
- joined Pharmaxis in 2003 and was appointed Chief Executive Officer in March 2013 at which time he was Chief Operating Officer
- previously held country and regional management roles at Novartis – Hungary, Asia Pacific and Australia



Wolfgang Jarolimek – Drug Discovery

- more than 20 years' experience in pharmaceutical drug discovery and published more than 30 peer reviewed articles.
- previously Director of Assay Development and Compound Profiling at the GlaxoSmithKline Centre of Excellence in Drug Discovery in Verona, Italy
- spent 8 years as post-doc at the Max-Plank Institute in Munich, Germany; Baylor College of Medicine, Houston, Texas; Rammelkamp Centre, Cleveland Ohio; and University of Heidelberg, Germany



David McGarvey – CFO

- more than 30 years' experience building Australian based companies from inception to globally successful enterprises
- joined Pharmaxis as Chief Financial Officer and Company Secretary in December 2002
- previously Chief Financial Officer of the Filtration and Separations Division of US Filter (1998-2002), and Memtec Limited (1985-1998)
- commenced career at PriceWaterhouseCoopers



Brett Charlton - Medical

- more than 25 years experience in clinical trial design and management
- author of more than 80 scientific papers
- founding Medical Director of the National Health Sciences Centre
- previously held various positions with the Australian National University, Stanford University, the Baxter Centre for Medical Research, Royal Melbourne Hospital, and the Walter and Fliza Hall Institute



Kristen Morgan – Alliance Management

- responsibility for alliance management and medical and regulatory affairs
- more than 20 years' experience in the pharmaceutical industry having previously held a senior role in medical affairs at Sanofi-Aventis, and a commercial sales role at GlaxoSmithKline.

Non Executive Directors

- Malcolm McComas Chair
 - former investment banker at Grant Samuel
- Kathleen Metters
 - former head of worldwide basic research at Merck
 - former CEO of biopharmaceutical company Lycera Corp.

- Will Delaat
 - former CEO of Merck Australia
 - former chair of Medicines Australia
- Simon Buckingham
 - former President Global Corporate and Business Development at Actelion
- Edward Rayner
- over 20 years' experience in global capital markets

Pharmaxis portfolio

	Indication	Discovery	Lead Optimisation	Pre Clinical	Phase I	Phase II	Phase III	Marketed
<u>Commercial</u>			·				i	
Bronchitol® US	Cystic fibrosis		primary endpoint in 2017. Cl ner Chiesi will launch comm		ile with FDA Q4	2018. Subject t	o FDA	Chiesi People and ideas for innovation in healthcare
Bronchitol RoW	Cystic fibrosis		Bronchitol is currently sold in the UK, Germany and Italy by Chiesi; certain other European countries and Russia by specialist distributors and by PXS in Australia and smaller countries			Direct & Dist		
Aridol®	Asthma diagnosis	Aridol is approved and sold in Australia, South Korea and a number of European countries. Re-entering US market Q4 2018 with specialist distributor. Filed for Canadian approval - response expected mid 2019.			Direct & Dist			
In the clinic								
SSAO (PXS-4728A)	NASH		r Ingelheim in May 2015. Pha nents of A\$68m to date.	ase 2a trial comm	enced August 20	/ III \	Boehringe Ingelheim	r
SSAO (PXS-4728A)	Diabetic retinopathy	Boehringer comm to date.	enced dosing a Phase 2a tria	l in January 2018	. PXS received A	\$15m	Boehringe Ingelheim	r
LOXL-2	NASH, fibrosis - liver, lung, kidney, heart	Phase 1 trials in 2 commence Q4 20:	compounds complete. Comi 18.	mercial partnerin	g process			
<u>Preclinical</u>								
LOX-oral	Cancer	Anti-fibrotic. Phas	e 1 ready.			P	rogress in last 12	months
SSAO/MPO	Inflammation	Dual inhibitor anti- clinical tox Q4 201	-inflammatory. Commenced 7.	pre-		1		
LOX – topical	Scarring	Anti-fibrotic. Effect	tive in scarring models.					

Key catalysts targeted for 2018/2019

Pharmaxis value driving events

1. LOXL2 anti fibrotic program

- Phase 2 enabling toxicity studies: 2 completed, 2 to report Q4 2018
- Partnering process to commence Q4 2018.
- 2. Boehringer Ingelheim acquired SSAO inhibitor (BI 1467335) to report clinical proof of concept in two major diseases as Phase 2 trials report in H1 2019 and H1 2020

3. Two additional programs to enter the clinic

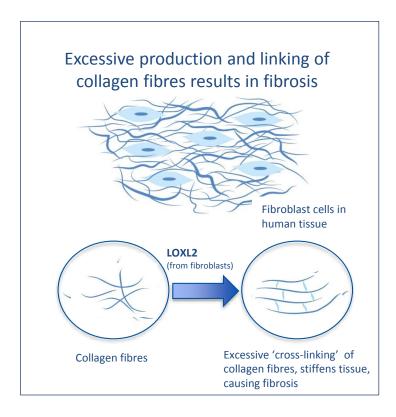
- LOX (oral) for pancreatic cancer and myelofibrosis to start clinical studies H1 2019
- SSAO/MPO combo scheduled to complete pre-clinical development in H1 2019

4. Others

- Bronchitol FDA re-submission by Chiesi in Q4 2018
- Other internal programs developing additional compounds to take into preclinical development
- Evaluating opportunities for in-license or acquisition of new programs in fibrosis and inflammation that leverage PXS research and commercialisation capabilities

LOXL2 inhibition program

for NASH, IPF & other high value fibrotic diseases



Potential indications / market size:

- NASH / Liver Fibrosis; \$35b1
- Pulmonary fibrosis (IPF); \$3.5b²
- Kidney fibrosis
- Cardiac fibrosis

Significant market opportunity

LOXL2 and fibrosis:

- LOX family of enzymes are the final step in the fibrotic disease process
- Clear association of increased levels of LOXL2 (and LOXL3) with disease progression in IPF, NASH and cardiac fibrosis

Competitive profile:

- Novel target and mechanism of action
- Once daily oral drug
- Best in class drug with high level inhibition of LOXL2 enzyme for 24 hours from one dose
- Only known drug in clinical development to inhibit LOXL3
- Place of LOXL2 at the end of the fibrotic cascade provides opportunity to use in combination with other Pharma pipeline drugs

^{1.} Deutsche Bank market forecast for 2025

LOXL2 inhibitor program

approaches "deal ready" status

Feature	What Pharma values	PXS program status
Disease target	Independent validation	Multiple peer reviewed publications
Pre clinical proof of concept	2 or more different supportive animal models	Multiple supportive models across 5 different diseases. Further studies in progress
Dosing regimen	Ease of use	Oral once a day tablet or capsule
Patent	Composition of matter As long as possible	Composition of matter 2016 filing date; 100% PXS owned
Cost of Goods	Low	Small molecule with easy synthesis
# Compounds	1 plus backups	2 compounds in clinical development plus back ups
Toxicity	Wide therapeutic window As long as possible	28 day tox studies complete 13 week studies (2 species): 2 successfully completed; 2 in progress – report Q4 '18
Clinical phase	Phase 1 with target engagement Phase 2 ready	Both compounds successfully completed Phase 1 clinical trials
Target engagement	Drug inhibits target	Very high levels of inhibition for 24 hours from a single daily dose over 14 days – achieved with both compounds

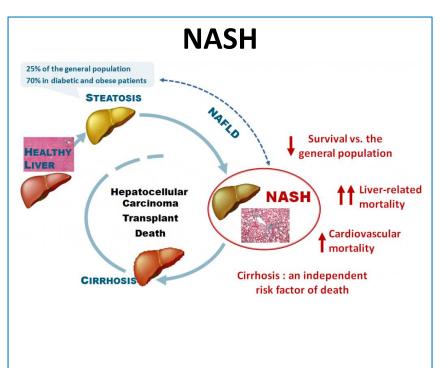
LOXL2 inhibitor program – partnering process

Positive engagement with pharma companies

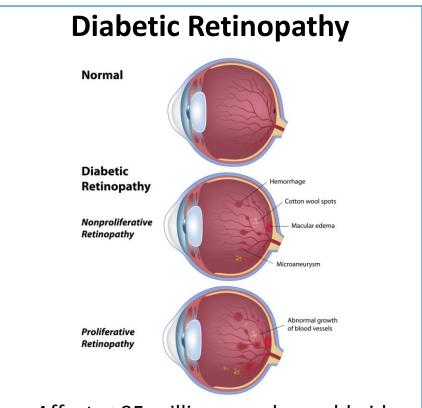
- Pharma company interest driven by search for:
 - Inhibitor to LOXL2 and LOXL3 enzymes,
 - Effective anti-fibrotic drug, and/or
 - Drugs to complement existing disease portfolio lung, liver, kidney, heart, etc.
- Pharmaxis engagement with multiple potential partners on planning and progress of the LOXL2 program for over 2 years
- Pharmaxis data packaging will complete in Q4, including:
 - Full analysis of second stage of phase 1 trials for both compounds
 - 13 week tox studies (2 species) for both compounds
 - Additional disease models
- Data room has been available (under CDA) since Q4 2017
- Commercial partnering discussions expected to commence Q4 2018

SSAO (Boehringer Ingelheim): Pharmaxis poised to be a major player in diseases caused by complications of diabetes

Two diseases with high unmet need and large patient populations in Phase 2 studies



- Expected to become leading cause of liver transplant by 2020
- No approved treatments



- Affects ~95 million people worldwide
- No approved treatments for early stage disease

SSAO: Phase 2 trials to show clinical proof of concept in H1 2019

Boehringer Ingelheim responsible for clinical development and commercialisation

NASH

- Phase 2a trial expected to report H1 2019 – proof of efficacy in patients with moderate – severe disease
- Deutsche Bank estimate market size of US\$35b by 2025
- First in class anti inflammatory SSAO inhibitor for NASH with peak sales potential of ~US\$2b [Analyst's estimate]

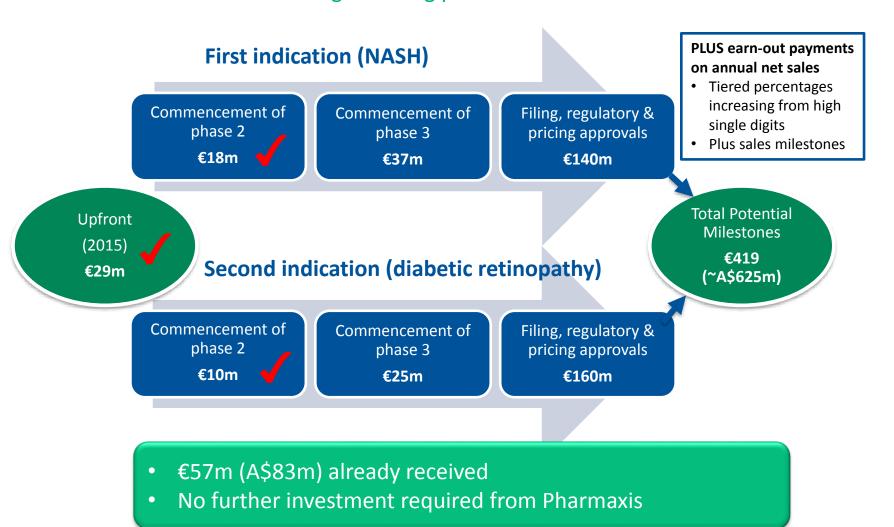
Diabetic Retinopathy

- Phase 2a SSAO diabetic retinopathy expected to report H1 2019 – proof of efficacy in patients with early stage disease
- Affects one third of diabetic patients world wide
- No approved treatments for early stage disease
- First in class anti inflammatory SSAO inhibitor for DR with peak sales potential of ~US\$800m [Analyst's estimate]

SSAO: Boehringer Ingelheim deal



Deal structure illustrates value generating potential of Pharmaxis business model



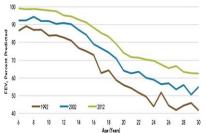
More programs approaching the clinic

Opportunities to fast track both programs into patient proof of clinical efficacy studies

Program	LOX (oral)	LOX (Topical)
Indication	Severe fibrotic indications: pancreatic cancermyelofibrosis	Scarring
Commercialisation	Partner after phase 2	Partner after phase 2
Status	 Phase 1 ready Effective in reducing fibrosis in animal models of pancreatic cancer and myelofibrosis Completed 28 day tox studies 	 Lead candidate selected Initial stability of topical formulation Ongoing evaluation in various disease models of scarring
Next steps 2018/2019	 Additional animal models of pancreatic cancer and myelofibrosis Conduct 3 month tox studies Commence phase 1a (H1 2019) Evaluate phase 1c/2 study design in pancreatic cancer patients 	Commence full preclinical development

Bronchitol for cystic fibrosis

Overview



Median FEV₁ % Predicted versus Age

Cystic fibrosis

Patients

- US: 30,000;

Europe: 37,000;

Russia: ~10,000¹

Australia: 3,500

Total world: ~100,000

- Disease characterised by poorly hydrated, tenacious, thick mucus
- Inexorable decline in lung function
- Frequent infections







Bronchitol

- Active ingredient mannitol delivered as an inhalable dry powder
- Restores airway surface liquid
- Mucus clearance enhanced
- Improves lung function
- Reduces incidence of lung infections

Business model - RoW

- Distributors responsible for promotion & support
 - Chiesi in UK,Germany, Italy &Ireland
 - Other distributors in Russia, Eastern Europe, Middle East
 - PXS revenue share ~50%
 - Russian reimbursement decision H2 2018
- PXS direct in Australia and smaller markets

Business model - US

- Phase 3 trial (CF303) reported June 2017
- Chiesi responsible for regulatory filing & commercialisation – preparing for launch
- File updated NDA Q4 2018
- ~A\$13m milestone payment on launch
- PXS supplies US market from Sydney factory
- PXS receives high mid teens % of in-market sales plus cost of goods

1. Estimates vary from 7,000 to 30,000

Summary

Pharmaxis is a global leader in drug development for fibrosis & inflammation

- Pharmaxis have built a successful platform of small molecule drugs targeting high value fibrotic and inflammatory indications
- Development pipeline across various stages one drug in two phase 2 trials, one drug program (two compounds) in phase 1 trials, two compounds in pre-clinical development approaching the clinic, additional drug candidates in discovery.
- Proven track record of early stage partnering and taking products through to commercialisation
- Potential to receive total up front and milestone payments of A\$625m plus further sales based payments from <u>first</u> deal (SSAO) – A\$83m already received
- Next drug completed phase 1 trials and long term toxicity studies: partnering negotiations planned Q4 2018
- Strong balance sheet \$47m cash balance (30 September 2018)
- Numerous catalysts over the next 18 months



Financial Overview

David McGarvey CFO

Financials – highlights

30 June 2018

A\$'000	2018	2017	2016	2015
Income Statements				
Sales revenue	6,094	4,823	6,135	5,999
Other revenue	44,739	13,178	12,885	53,248
Total revenue	50,833	18,001	19,020	59,247
Expenses	(44,413)	(36,437)	(35,476)	(40,739)
Net profit (loss) before tax	6,420	(18,436)	(16,456)	18,508
Net profit (loss) after tax	6,428	(18,346)	(16,463)	18,466
Segment results - adjusted EBITDA				
Bronchitol & Aridol	(3,786)	(7,100)	(8,228)	(10,045)
New drug development	28,771	(4,114)	(2,625)	35,068
Corporate	(13,466)	(4,017)	(3,988)	(3,532)
	(11,519)	(15,231)	(14,841)	21,491
Cash flow				
Operations	12,206	(15,262)	(11,989)	21,780
Investing activities	(884)	(723)	(1,381)	(264)
Financing activities	(1,753)	(1,721)	(1,714)	(1,791)
	9,569	(17,706)	(15,084)	19,725
Cash at bank	31,073	21,504	39,209	54,138

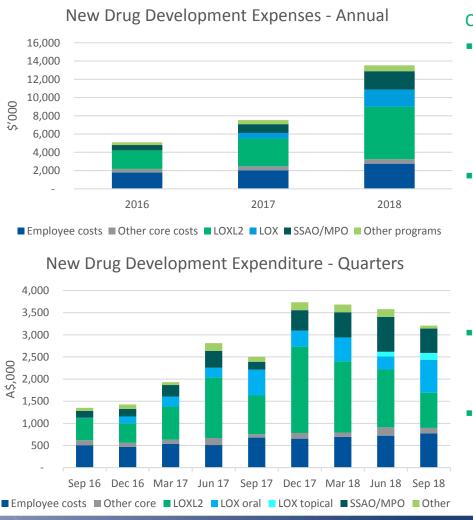
Refer to June and September 2018 Quarterly Shareholder Updates and 2018 Financial Statements for additional financial information

Highlights of 2018

- Increased product sales
- Two milestone payments from Boehringer Ingelheim totaling \$42m
- Profit of \$6.4m
- Bronchitol & Aridol loss continued to reduce
- Increased investment in new drug development
- Corporate investment to increase revenue share of LOXL2 partnering
- Cash flow investing activities focused on drug discovery capability and manufacturing upgrades
- Cash flow financing activities – predominantly finance lease over facility at Frenchs Forest
- Closing cash of \$31m increased by \$24m placement completed September 2018.

New Drug Development

Drug development and clinical trial expenditure by pipeline project

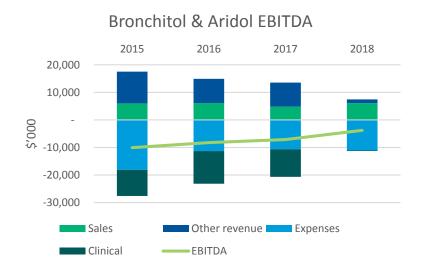


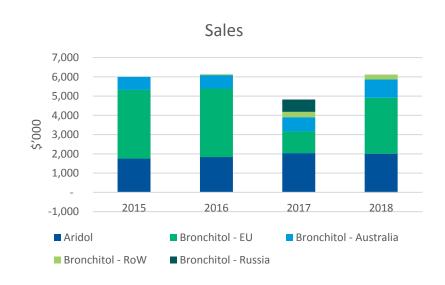
Current status/planned expenditure

- LOXL2:
 - 2 compounds in phase 1 completed Q4 2018
 - 13 week tox for both compounds to complete Q4 2018
 - Other preclinical studies to report Q4 2018
- LOX (oral) in preclinical
 - Disease models continue cancer
 - GLP tox 1 month (complete) & 3 month (2019)
 - GMP material for phase 1a/2a clinical trials
 - Plan to start phase 1 CY 2019
- LOX (topical)
 - Ongoing stability studies
 - Commence formal preclinical
- SSAO/MPO in preclinical
 - Ongoing disease models
 - Reviewing GLP tox (1 month)

Bronchitol & Aridol

Segment profitability





Path to profitability: increase revenue to leverage cost base

- Core cost base relatively fixed vs sales volume
- Reimbursement of Bronchitol in Russia key to rate of overall sales growth decision Q3 2018
- US approval Subject to FDA approval (~Q3 2019), launch Q4 2019 (US\$10m milestone)
- Aridol planned to re-launch in US Q4 2018 with specialist distributor. FDA inspection of factory Q3 2018
- Other Bronchitol sales growth opportunities
- Continued growth in major Bronchitol launched markets UK, Germany & Australia
- Growth in other Bronchitol markets: Italy, Spain, CZ, Ireland
- Aridol in Canada target launch Q3 2019

Revenue

- 2015: Direct to pharmacy until June 15 (ie all sales revenue to PXS)
- 2016: EU sales via distributors at lower margin (`50%) to PXS. Chiesi builds inventory levels
- 2017: First sale to Russia (\$640k)
- 2018: Growth in EU (Chiesi UK & Germany) & Australia (expanded PBS coverage)
- Other revenue in all years is predominantly reimbursement of clinical trial costs by US partner

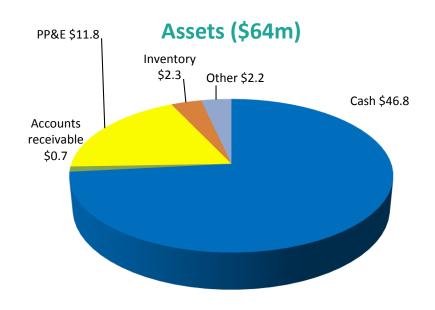
Corporate

30 June 2018

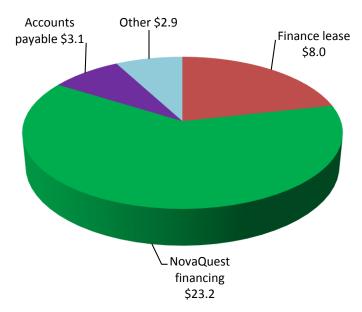


- Employee and other costs stable
- One-off expense in 2018 to change collaboration agreement with Synairgen

Balance sheet – 30 September 2018



Liabilities (\$37m)



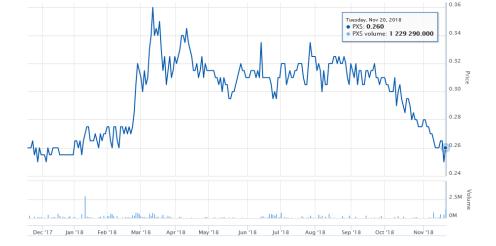
- Finance lease over 20 Rodborough Rd (to 2024)
- NovaQuest financing not repayable other than as % of Bronchitol revenue

Shareholders & trading



Financial Information	
ASX Code	PXS
Market Cap ¹	\$103m
Shares on Issue	394m
Employee Options ¹	16m
Liquidity (turnover last 12 months) ¹	47m shares
Share price ¹	\$0.26
Analyst valuation ²	\$0.52
Cash Balance (30 September 18)	A\$47m

Institutional Ownership	30 Sep 18
BVF Partners (US)	23%
Arix Bioscience (UK)	11%
Australian Ethical	7%
Allan Gray	5%
Montoya Investments (UK)	5%
Other Institutions	8%
Total Institutional Ownership	59%



^{1.} As at 20 November 2018

^{2.} Bell Potter Securities Research 30 April 2018



Shareholder Questions



Formal Business

Financial Report, Directors' Report and the Auditor's Report

No shareholder vote is required

Adoption of the Remuneration Report

Ordinary resolution:

"That the remuneration report of the Company for the year ended 30 June 2018 be adopted."

Adoption of the Remuneration Report

The Company has received:

- 204,074,080 proxy votes in favour of the resolution;
- 3,156,689 proxy votes against the resolution;
- 459,236 proxy votes abstaining from the resolution;
- 1,620,488 proxy votes excluded from voting;
- 569,791 proxies able to be voted by the chair/board which the chair/board intend to vote in favour of the resolution.

^{*} Voting exclusions apply

Re-election of Mr Malcolm McComas as a Non-Executive Director

Ordinary resolution:

"That Mr Malcolm McComas, who retires and offers himself for re-election as a director of the Company, be re-elected as a non executive director of the Company."

Re-election of Mr Malcolm McComas as a Non-Executive Director

The Company has received:

- 177,192,522 proxy votes in favour of the resolution;
- 32,153,080 proxy votes against the resolution;
- 327,707 proxy votes abstaining from the resolution;
- 606,975 proxies able to be voted by the chair/board which the chair/board intend to vote in favour of the resolution.

Grant of Performance Rights to Mr Gary Phillips

Ordinary resolution:

"That for the purposes of the ASX Listing Rules and for all other purposes, approval is given for the grant of 690,000 zero grant price and zero exercise price employee options (Performance Rights) to Mr Gary Phillips under the Company's performance rights plan, resolved to be granted by the Board in July 2018 and, upon exercise of those Performance Rights, the acquisition of 690,000 ordinary shares underlying those Performance Rights, in accordance with the terms of the performance rights plan and the explanatory statement accompanying the notice of meeting."

Grant of Performance Rights to Mr Gary Phillips

The Company has received:

- 197,323,111 proxy votes in favour of the resolution;
- 10,537,073 proxy votes against the resolution;
- 739,948 proxy votes abstaining from the resolution;
- 710,361 proxy votes excluded from voting;
- 569,791 proxies able to be voted by the chair/board which the chair/board intend to vote in favour of the resolution.

^{*} Voting exclusions apply

Renewal of Proportional Takeover Provision

Special resolution:

"That approval is given for the proportional takeover provision contained in article 45 of the current constitution of the Company to be renewed for a further three years from the date of the 2018 annual general meeting, as detailed in the explanatory statement accompanying the notice of meeting."

The Board has withdrawn Resolution 5



Thank you for your participation

2018 Annual General Meeting