

Thorney Technologies Ltd

ABN 66 096 782 188

ASX Announcement: 20 November 2019

ASX Code: TEK

THORNEY INVESTMENT FORUM – COMPANY PRESENTATIONS

Please find attached a company presentation from Terragen Holdings Limited being presented at today's Thorney Investment Forum in Melbourne.

Details:

Date: Wednesday 20 November 2019
Location: Ernst & Young
Address: Level 23, 8 Exhibition Street, Melbourne
Time: 9.30am for 9.45am, concluding by 1.00pm

A video recording of the presentations will also be uploaded to the respective websites a few days after the forum concludes.

Please direct enquiries to:

Craig Smith

Company Secretary

T: + 61 3 9921 7116

E: craig.smith@thorney.com.au

W: <http://www.thorneytechnologies.com.au/>

A close-up photograph of several small green seedlings with two leaves each, growing out of a dark brown, textured seedling tray. The background is dark and out of focus.

HARNESSING THE POWER OF SELECTED MICROBES TO SUPPORT SUSTAINABLE AGRICULTURE

Thorney Opportunities Ltd / Thorney Technologies Ltd Investment Forum

20 November 2019

DRIVING CHANGE IN AGRICULTURE

Industry Challenges And Changing Consumer Demands



Consumer demands



Regulatory tailwinds

The New York Times

Opinion

Polluting Farmers Should Pay

Fertilizer runoff is making us sick. States can step in to regulate farmers.

Forbes

Pollution And Climate Change Cause 'Dead Zones' In World's Oceans To Spread

big AZBIGMEDIA

Dangers of chemical fertilizers you may not know

WIRED

Big Ag Is Sabotaging Progress on Climate Change

Opinion: Grim as the UN's latest climate report is, it doesn't confront the dangerous, government-hijacking power of agribusiness.

A 'dead zone' the size of Massachusetts could hit the Gulf this summer

The Atlantic

Popular

Latest

Sections

Magazine

The Land Battle Behind the Fires in the Amazon

The Amazon fires could fuel the decades-long fight that indigenous people have waged for their land.

NEWS

Antibiotic-resistant superbugs on the rise and leaving patients with life-long illness

ars TECHNICA

BUILD TECH SCIENCE POLICY CARS GAMING & CULTURE STORY FORUMS

FARM-RELATED INFECTIONS

Deadly superbug outbreak in humans linked to antibiotic spike in cows

Use of certain antibiotics in cattle increased 41% just before the outbreak.

BETH MOULDER 8/24/2019, 7:15 AM

EXPRESS

'Antibiotic apocalypse' New diseases and antibiotic resistance major threat to humanity

RESTAURANT DIVE Deep Dive Opinion Library Events Jobs

McDonald's to phase out antibiotics in beef

THE TERRAGEN MICROBE SOLUTION



Today Applied Biotechnology Sustainability



Tgn_x



Tgn_y



Tgn_z



Tgn_7



Tgn_{11}



Tgn_{15}



Tgn_{18}



Tgn_{23}



Tgn_{42}



Tgn_{62}

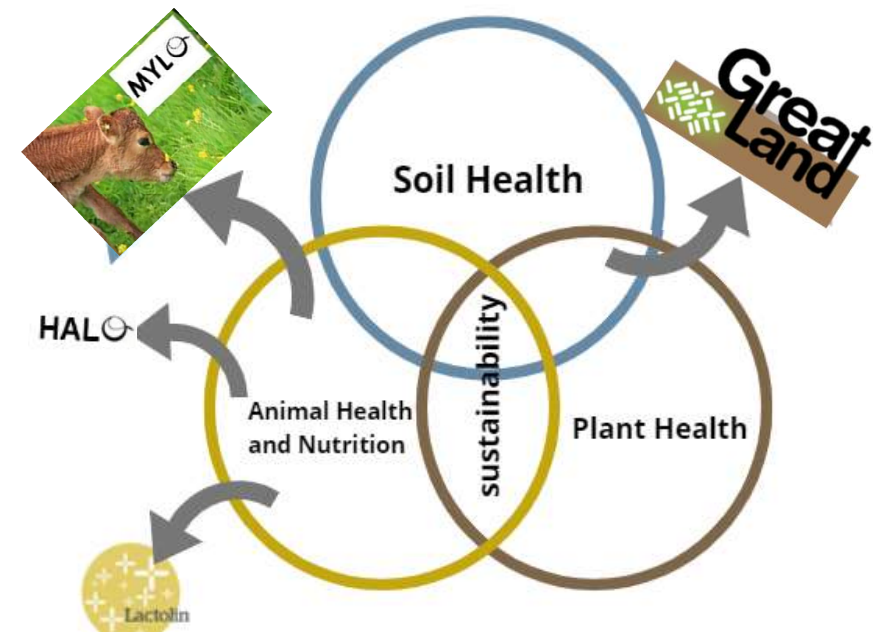


Tgn_{131}

TERRAGEN OVERVIEW:

Natural Microbial Products For Crop And Animal Health

- Suite of patented **natural microbial products** that **increase yield / growth** in broad range of applications
- Reduces the reliance on **chemical-based soil fertilisers** and **crop pesticides** and **antibiotics** for animals
- Initial **direct-to-farmer sales** (showcasing in-field capability)
- Now progressed to the current B2B focus – **commercial sales in ANZ**
- Ability to significantly **scale up production**
- **Cost competitive**
- **ASX IPO raised \$20m** with an expected market capitalisation of \$46m – shares to commence trading on 11 December



ONE PLATFORM: MANY APPLICATIONS

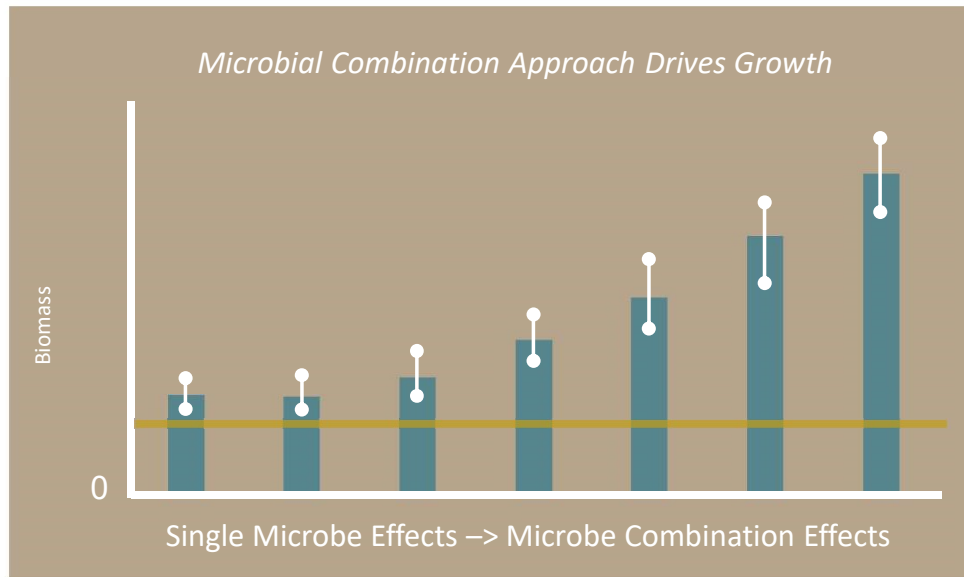


Use	Crop production	Udder health in dairy animals	Animal nutrition	Anti-inflammatory for livestock & companion animals
Validated Performance	Yield increase	Improvement in milk quality	Improved feed conversion	
Concentration	10 Litres per hectare	50 mL per milking	10 - 20 mL per day	Dependent on registration trials
Application	Conventional methods, no specialised equipment			

After starting to feed Mylo to cows, it seems the herd has improved their health, as shown by a significant reduction in Bulk Somatic Cell Count (BSCC) and increases in calving percentages.”

– Simon Park of Wonthaggi, VIC, dairy farmer

THE TERRAGEN MICROBE SOLUTION



Suite of Probiotic Microbes

Selected to Achieve Synergistic Effect

Benefits Soil Health and Plant Growth, as well as
Animal Nutrition and Animal Health



Tgn_x



Tgn_y



Tgn_z



Tgn₇



Tgn₁₁



Tgn₁₅



Tgn₁₈



Tgn₂₃



Tgn₄₂



Tgn₆₂



Tgn₁₃₁

GREAT LAND DEMONSTRATED BENEFITS:

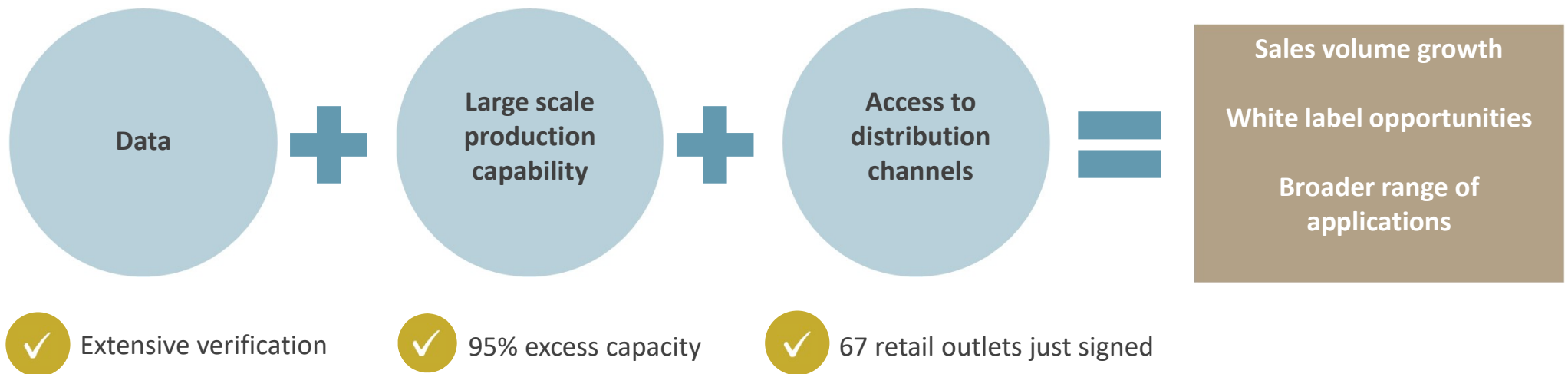
Accelerated root development example



BIOTECH

BUSINESS MODEL

Pathway To Scale



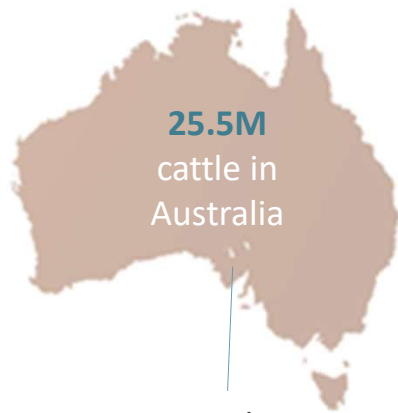
COMPETITIVE LANDSCAPE

Why Terragen Is Uniquely Positioned

Product(s)	Microbiome Rebalancing	Targeted Microbe Selection	Combination by Design	Independent Trial Data
Micro Plus / Microbalance Nutri-Life Micro /Revitalize/ Microsol	✗	✗	✗	✗
Soil & Seed VAM Grow Plus	✗	✗	✗	✓
Rhizo Vital 42 Serifel Biofungicide	✗	✓	✗	✗
Serenade (Bayer)	✗	✓	✗	✓
Actinobact / Loveland (Landmark) Bacstim100 / Bactivate	✗	✓	✓	✗
trifixN	✗	✓	✓	✓
Great Land	✓	✓	✓	✓

MARKET AREAS OF FOCUS

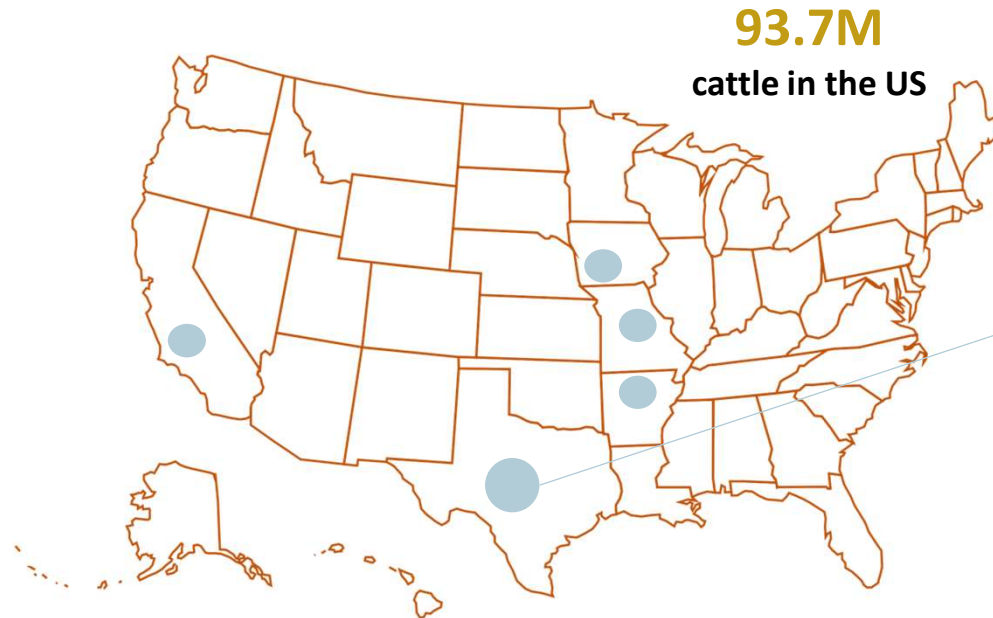
Example: US Cattle Market



25.5M

cattle in
Australia

VS



93.7M

cattle in the US

US Top 5 States

Texas	12m
Nebraska	6m
Kansas	6m
California	5m
Oklahoma	5m
	34 m

Primarily in
pasture
[much lower
feedlot numbers]

MARKET OPPORTUNITY AND GROWTH STRATEGY

Terragen's Growth Plans Include The Following Specific Efforts:

- Increase scale and distribution networks for Great Land and Mylo® in Australia and New Zealand;
- The roll out of Terragen Products, in particular Mylo® and Great Land, is to be focused on key dairy cattle markets across Australia, New Zealand and USA (California);
- Launch Mylo® and Lactolin in the United States through commercial development programs in the California dairy sector and US beef feedlot operations;
- Commence market assessments and development of Mylo® and Lactolin in the key dairy countries of the EU;
- Commencement of efficacy trials supporting the registration of Halo in companion animals; and
- Continuous improvement of production efficiency and formulations of the Terragen Products.

US\$270M

Expected size of US biostimulants market in 2025.

\$33Bn

Expected global sales of drugs and vaccines for livestock and pets by 2020.

**1.17Bn
Litres**

The US has the largest share of milk production as of 2017.

THE TERRAGEN BOARD



JUSTUS HOMBURG

MD & CEO

- 30 years' experience in the commercialisation of agricultural technologies
- CEO of companies such as Progen Pharmaceuticals, Nestle Health Science's Vital Foods and Chirogen Pharmaceutical Technologies. Previously worked at Monsanto



DR PAUL SCHOB

Proposed Chairman – on and from Listing

- 30 years' experience in the animal health industry
- Previous experience at Peptech Animal Health, Anatara Lifesciences and Apex Laboratories



MR SAM BROUGHAM

Non-Executive Director and current Chairman

- Over 30 years' experience in private and public investment
- Co-founded Ceres Capital and Structured Assets Management and is a director of Ceres and Ellerston Global Investments



DR GREG ROBINSON

Non-Executive Director

- Over 25 years' experience in financial services
- Previously MD and CEO of Asia Pacific for ITG and current Chairman and CEO of Exablaze



DR JOHN RYALS

Proposed Non-Executive Director – on and from Listing

- John was a board member for a biotech sold to Bayer for US\$400m, Athenix
- Co-founder of AgBiome which has investors such as the Gate Foundation and Monsanto



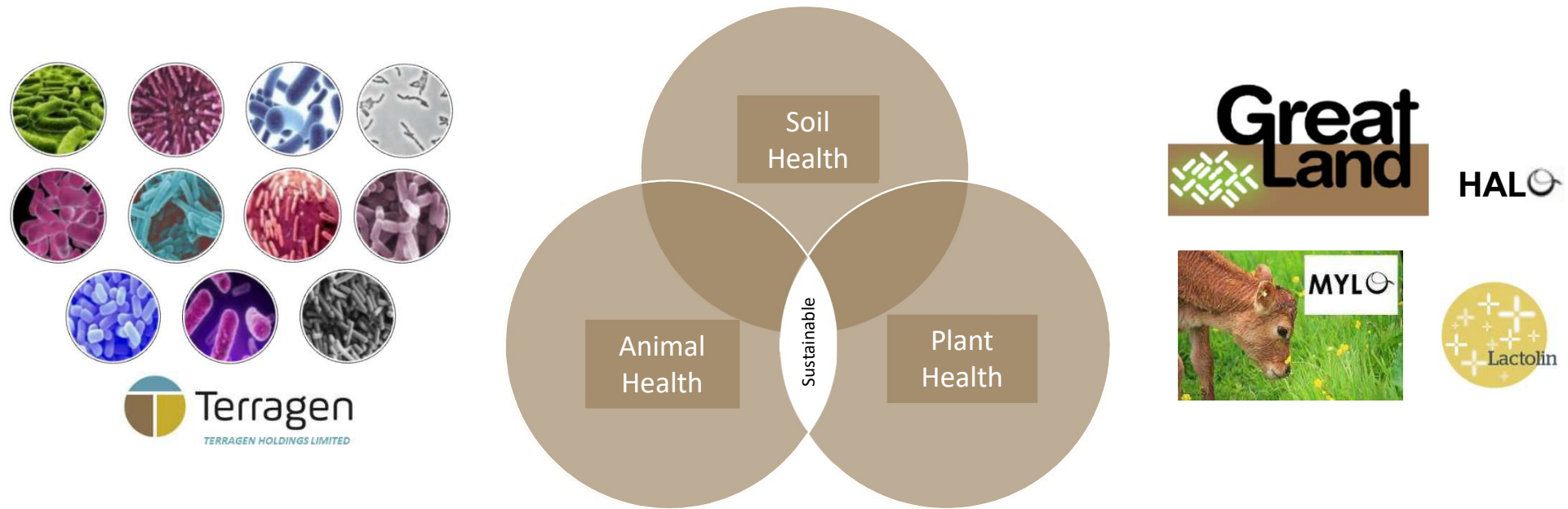
MS INGRID VAN DIJKEN

Proposed Non-Executive Director – on and from Listing

- More than 20 years experience in private banking and funds management in both Australian and Switzerland. Currently COO of a privately held funds management firm

TERRAGEN INVESTMENT PROPOSITION

Technology + Productivity + Sustainability = Opportunity



Well-placed to take advantage of growing market driven by consumer demand and regulation

- On-farm validated products
- Ability to produce at scale
- Competitive costs
- Strong team
- Only listed plant & animal health ag company
- Deliver On Global Scale