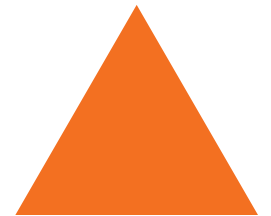

powerHouse

Powerhouse Ventures Limited (ASX code:PVL)

Portfolio Showcase Briefings

www.powerhouse-ventures.co.nz



Australia

Sydney

Monday 15 May 2017
Commence at 4.30pm
The Press Room
The Radisson Blu Plaza Sydney
27 O'Connell Street
Sydney, NSW 2000

Melbourne

Tuesday 16 May 2017
Commence at 4.30pm
The Wine Room
The Westin Melbourne
205 Collins Street
Melbourne, VIC 3000

New Zealand

Queenstown

Monday 22 May 2017
Commence at 7.30am
Rydges Lakeland Resort Queenstown
38/54 Lake Esplanade
Queenstown 9300

Tauranga

Wednesday 24 May 2017
Commence at 7.30am
Trinity Wharf Tauranga
50 Dive Crescent
Tauranga 3110

Christchurch

Monday 22 May 2017
Commence at 4.30pm
Rydges Latimer Christchurch
30 Latimer Square
Christchurch Central

Wellington

Wednesday 24 May 2017
Commence at 5.00pm
Rydges Wellington
75 Featherston Street
Wellington 6011

Auckland

Tuesday 23 May 2017
Commence at 12.30pm
Stamford Plaza Auckland
22–26 Albert Street
Auckland 1010

Disclaimer

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Actual outcomes may vary materially from any forecasts, projections or implied forecasts. A number of important factors and risks may cause actual performance to differ materially.

The information in this presentation is current at the date of this presentation and is based on publicly available information, internally developed data and other sources.

The information was prepared with all due care and diligence however no warranties or representations are made to the accuracy, reliability or completeness of the information.

Opening remarks – Dr Stephen Hampson

AGENDA

Registration

Powerhouse overview

Healthcare

Avalia Immunotherapies

Upstream Medical Technologies

Agritech

CropLogic

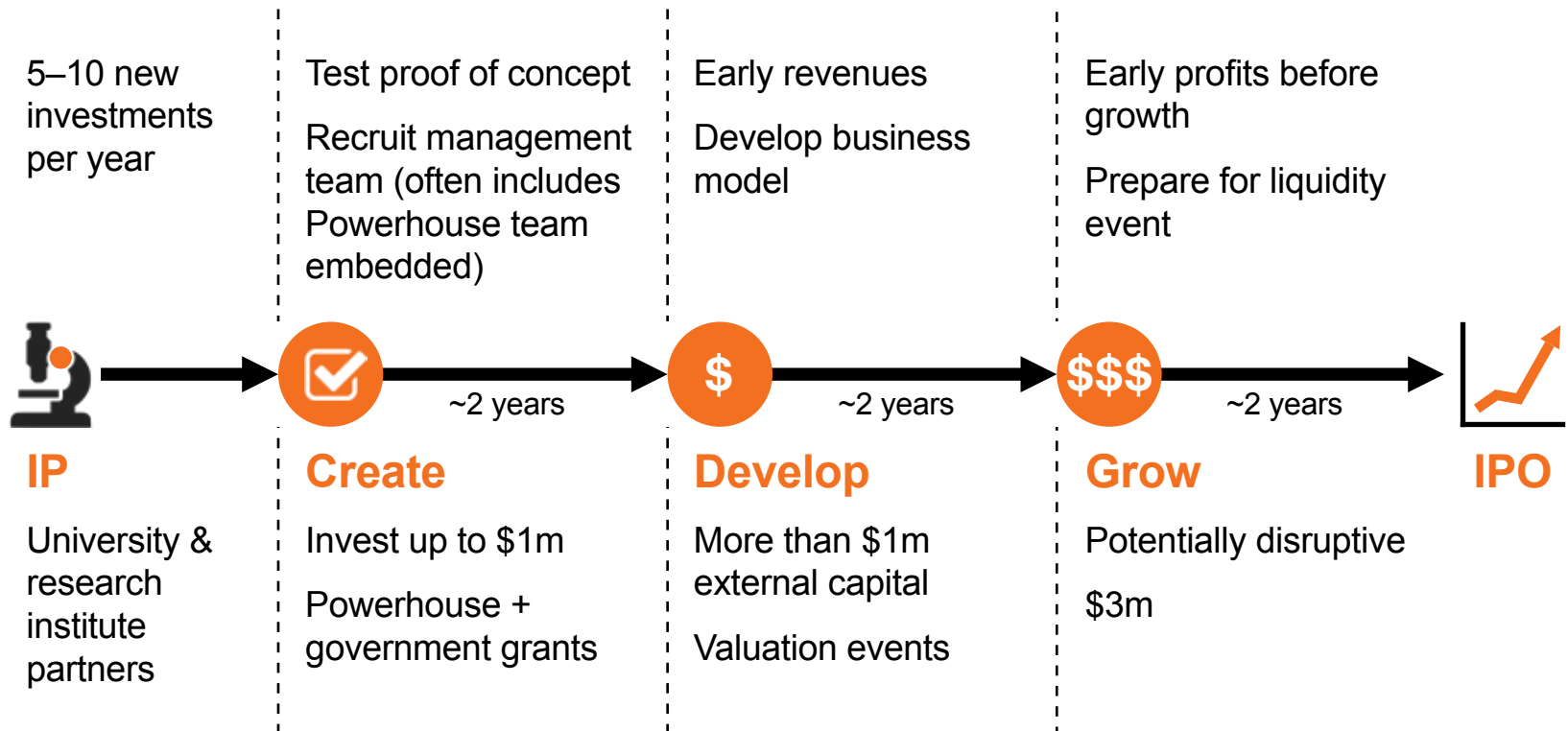
Veritide

Invert Robotics

Closing remarks

**Transforming intellectual
property into world-
changing businesses
by following a proven
investment pathway**

A patient capital investment model



**Powerhouse creates
companies that solve
important global problems**

Healthcare Sector

More than **50%** of the world population lives with chronic disease

Cancer is one of the world's biggest killers, with ~14m new cases per year



– ground-breaking new therapeutic cancer vaccine

Cardiovascular diseases account for 31% of all deaths worldwide



– early, high-reliability screening test for unstable angina

Avalia Immunotherapies

Melissa Yiannoutsos, Executive Director

MAY 2017

AVALIA IMMUNOTHERAPIES LIMITED

HARNESSING THE POWER OF YOUR IMMUNE SYSTEM
TO CURE CANCER AND PREVENT DISEASE



Avalia will become a leading supplier of vaccines that stimulate important immune cell populations to cure cancers and prevent infectious disease



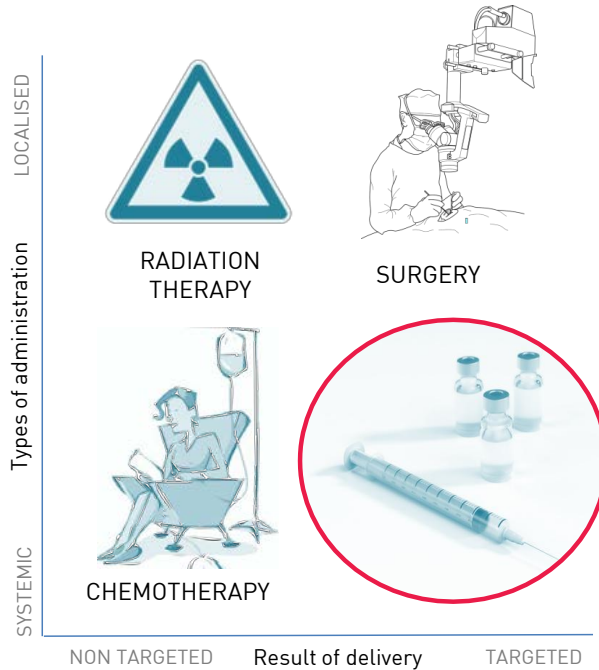
1. Preclinical stage immuno-oncology company
2. Founded on decades of research in the field of natural killer T cells
3. Proprietary vaccine technology platform protected by four patent families
4. First patient study targeted for 2018
5. First vaccine targets treatment of cancers associated with human papillomavirus (HPV)
6. Springboard into personalised vaccines and infectious disease



Avalia Immunotherapies operates in the most promising area of oncology treatment

TREATING CANCER WITH IMMUNOTHERAPY

3



In 2016, the cancer immunotherapies market reached \$73 billion and is forecast to grow by 5.7% CAGR to reach \$96.5 billion in 2021.

IMMUNOTHERAPY

- Immune checkpoint modulation
- Non-specific therapies
- Monoclonal antibodies
- Therapeutic cancer vaccines

Avalia's immediate focused is the development of therapeutic cancer vaccines.

Sources:

Nature America, Rekindling cancer Vaccines, October 2016
Frost & Sullivan, Transforming Cancer Treatment with Immunotherapy, September 2015.
Research and Markets, Global & USA Cancer Immunotherapy Market Analysis to 2020.



RESURGENCE OF THERAPEUTIC CANCER VACCINES

- Tumour or whole cell vaccines
- Vector based vaccines
- Nucleotide based vaccines
- **Protein or peptide vaccines**

Avalia's focus on peptide vaccines is driven by its demonstrated ability to activate key immune cells that drive robust, long-lasting responses



Avalia's first product is showing promise in the treatment of cancers for the many patients infected with the human papillomavirus (HPV).

HPV is a common sexually transmitted virus that can trigger the onset of many incurable cancers including cervical and head & neck.



HPV INFECTION AND CANCER RATES ARE HIGH

PREVENTATIVE VACCINES



THERAPEUTIC VACCINES IN DEVELOPMENT

Three key players in Phase I-II

EVERY DAY IN THE USA:

12,000

15-24 year olds are infected with HPV

2,600

of those are infected with HPV16, which is responsible for 5% of all cancers

HPV16 IS RESPONSIBLE FOR:

85% of HPV-positive head & neck cancers

50% of cervical cancers

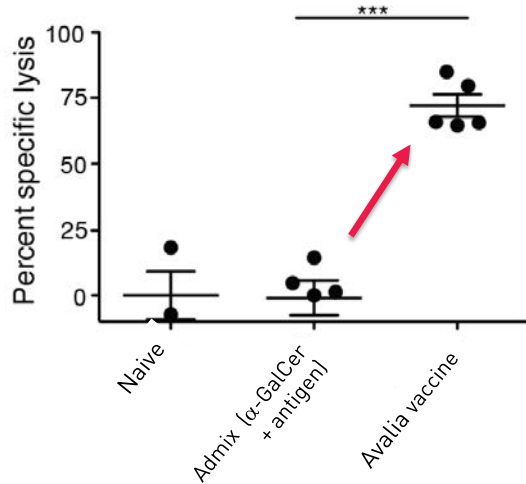
CERVICAL INTRAEPITHELIAL NEOPLASIA (CIN)

Global incidence > 500,000

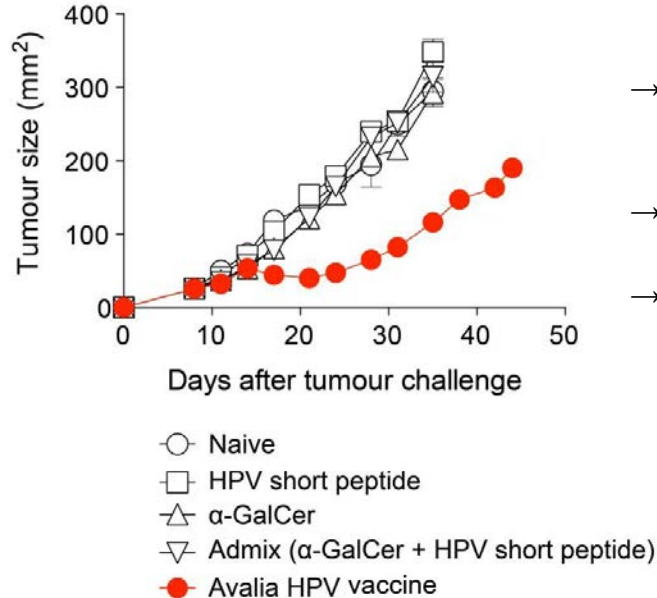
Standard of care inadequate



Avalia vaccines enhance antigen specific cell killing



In industry standard TC-1 model Avalia vaccines reduce tumour growth



- Ability to activate important immune cells to achieve a lasting anti-tumour response
- Decades of research in the field of natural killer T cell activation results in patentable IP.
- Clinical partnership options to accelerate path to the clinic
- Key opinion leader, championing Avalia's first product and the importance of NKT cell activation in the cancer setting



Avalia Immunotherapies' investment highlights

PROGRESSION TOWARDS THE CLINIC FOR FIRST PRODUCT

8

2015

1

INVESTMENT

Investment from Powerhouse, NZ Government Callaghan Innovation and the New Zealand Venture Investment Fund, alongside founding institutes sets foundation for lead vaccine development.

2

PRECLINICAL EFFICACY

Preclinical results define Avalia's first product targeting premalignant HPV-associated cancers, paves the way for first clinical partnership option.

3

GOOD SAFETY

Preliminary safety studies confirm favourable safety profile using multiple routes of administration.

4

PHASE I STUDY DESIGN

Focus on patients with premalignant forms of HPV-associated cancers. Primary study end points safety and tolerability

5

GRANTED PATENTS

First of Avalia's patent applications granted in the US.

2017

8

INVESTMENT

Oversubscribed seed round attracts high net worth individuals.

7

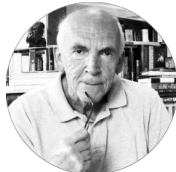
RESEARCH DEPTH

Founding scientist, Gavin Painter attracts major grant from NZ Government to continue research in the field of self-adjuncting vaccines.

6

PIPELINE GROWTH

Australian research collaborations validate new functionality for use in the prevention of infectious disease.



A Dunn
Ind. Chair



S Gulab
CEO



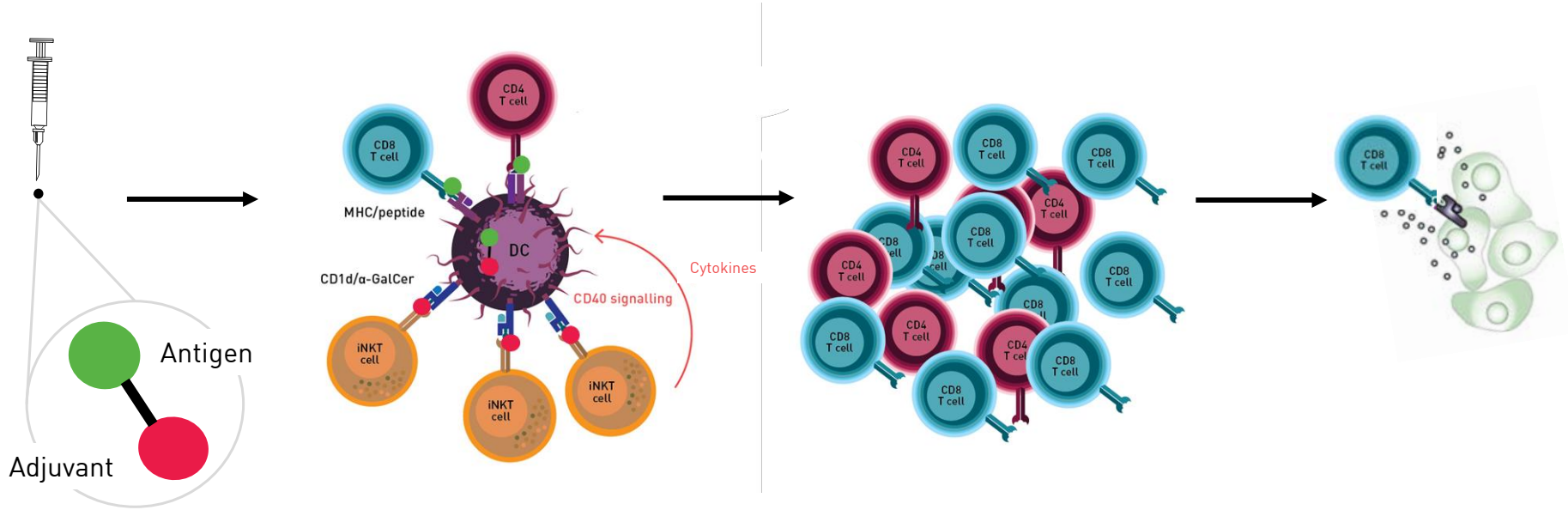
R Peach
Ind. Director



Activating the immune system

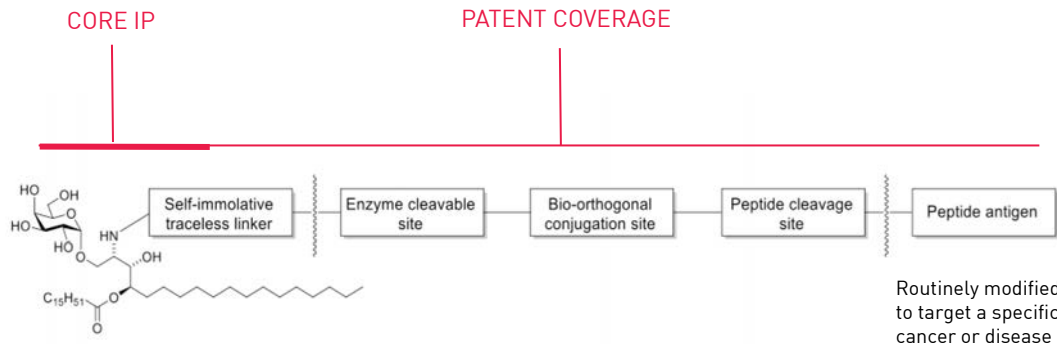
HOW AVALIA'S IMMUNOTHERAPY WORKS?

9



Natural killer T (NKT) cells are a special immune cell that help drive a powerful tumour-fighting response that is complementary and in some settings superior to other treatment approaches.





PATENTS

Sphingoglycolipid compounds and uses / Organic compounds

PRIORITY DATE: 2012 Granted in NZ, US, pending in Canada, Europe, Japan, Australia, China Korea, India

Conjugate compounds

PRIORITY DATE: 2012 Pending in NZ, US, Canada, EU, Japan, Australia, China, Korea

Sphingoglycolipid analogues

PRIORITY DATE: 2013 Granted in NZ, pending in US

Amino sphingoglycolipid analogues

PRIORITY DATE: 2014 Pending US

KEY PUBLICATIONS

A self-adjuvanting vaccine induces cytotoxic T lymphocytes that suppress allergy

Anderson, Tang et al. Nature Chemical Biology 2014, 10, 943-949.

NKT cell-dependent glycolipid-peptide vaccines with potent anti-tumour activity

Anderson, Compton et al. Chemical Science 2015, 6, 5120-2127.



I Hermans
CSO



G Painter
CTO



AVALIA HAS
RESEARCH
PARTNERSHIPS IN
PLACE WITH
INTERNATIONALLY
RECOGNISED
INSTITUTES



Ferrier Research Institute
Te Kāuru

The Ferrier Research Institute was recently awarded a major Government research contract for 5 years. The targeted research programme focuses on the manufacture of self-adjuvanting peptide vaccines for cancer and infectious disease. This programme strategically aligns with Avalia's pipeline development.



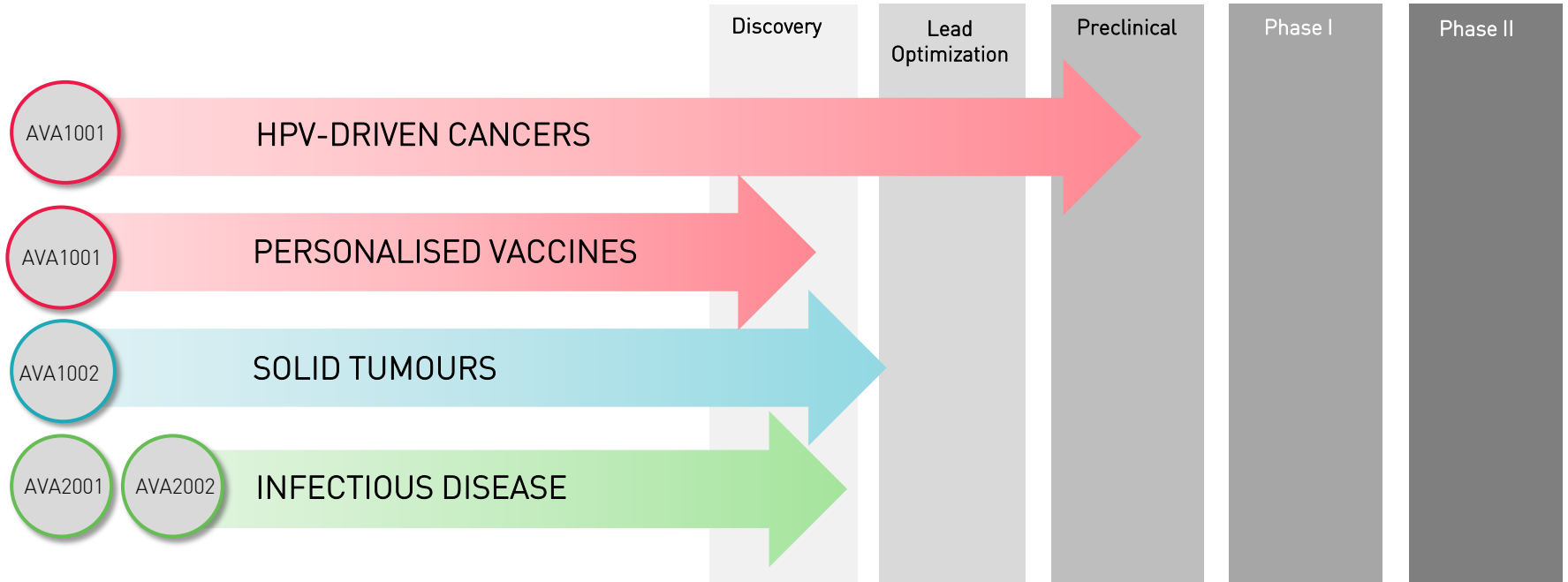
The Malaghan Institute of Medical Research is the recipient of long term New Zealand Health Research Council funding to validate preclinical assets for clinical cancer settings. This provides Avalia early insight into the profile of vaccine candidates.



Discovery projects established with the University of Melbourne to validate efficacy in a range of infectious disease challenge preclinical models.
Scientific Advisor: Professor Dale Godfrey



VACCINE DISCOVERY AND DEVELOPMENT



FUNDING TO DATE

Pre-seed investment

Founding institutes
Powerhouse
New Zealand Venture Investment Fund

Seed investment

Existing shareholders
High net worth individuals

FUTURE CAPITAL

ROUND	CAPITAL	USE OF FUNDS
Series A PHASE I	> \$5 million	<ul style="list-style-type: none">○ Regulatory safety studies○ Vaccine manufacture for Phase I study○ Regulatory filing to test in patients○ Complete Phase I clinical study
Series B PHASE II	> \$10 million	<ul style="list-style-type: none">○ Complete Phase I/II clinical study○ Regulatory filing for second vaccine product



Avalia's vaccines engage key components of our immune systems to generate potent, robust, targeted and durable T cell responses, which have the potential to translate to superior responses in the treatment of cancer and prevention of disease.



ADAPTABLE

EASE OF MANUFACTURE

PATENT PORTFOLIO

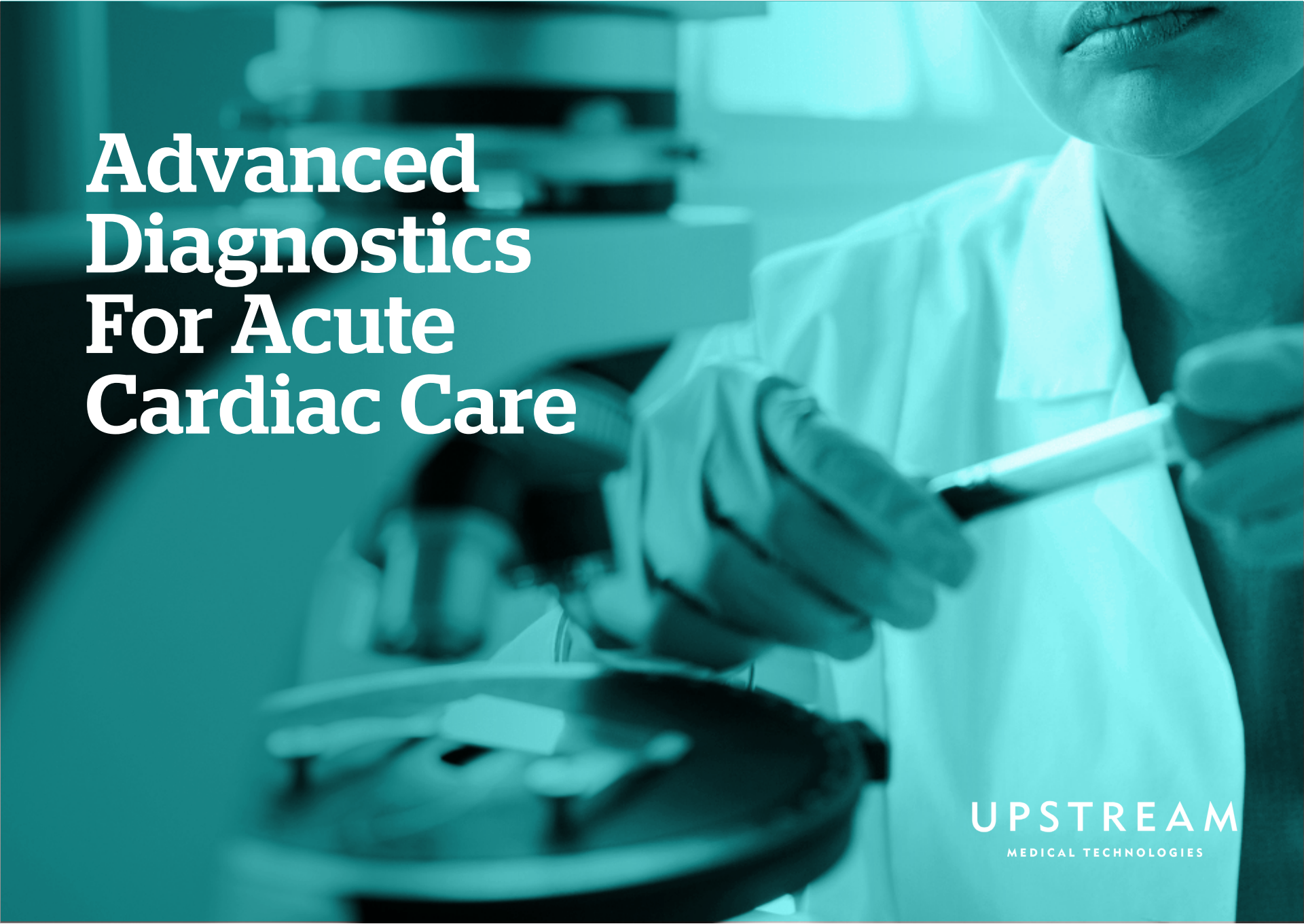
BEST-IN-CLASS

TREATMENTS



Upstream Medical Technologies

Ruth Appleby, Chief Executive Officer



Advanced Diagnostics For Acute Cardiac Care

UPSTREAM
MEDICAL TECHNOLOGIES

The Vision:

Upstream Medical Technologies will become a global leader in the development and commercialisation of next generation biomarkers; delivering sustainable and substantial benefits to patient outcomes, healthcare delivery and shareholders.

Upstream Medical Technologies –At A Glance

UPSTREAM
MEDICAL TECHNOLOGIES

Upstream has developed a world-leading cardiovascular diagnostic.

The company's Unstable Angina blood test, UARatio, will allow emergency department physicians to rapidly diagnose heart attack risk in chest pain patients.

The addressable market for Unstable Angina is significant.

~8 million cases of chest pain patients present at Emergency Departments in US hospitals every year.

Upstream is planning for registration of its Unstable Angina test, UARatio, by late 2018.

1000 patient multi-centre trial to be completed in 2018 with regulatory filings expected shortly thereafter

Upstream's current funding round will provide a reasonable runway to the next value inflexion point.

This funding round provides a pathway towards a potentially substantial Series B or IPO uplift within 18-24 months

Upstream Medical Technologies –At A Glance

UPSTREAM
MEDICAL TECHNOLOGIES

Upstream's
founders
have scientific
credibility.

The Upstream research team and scientific advisory board are internationally recognised and globally connected

Upstream's
Signal Peptide
technology can
be considered as
a new platform
for medical
diagnostics.

The strong patent pipeline in behind the primary, lead product is both substantial and valuable

Upstream
acquires
complementary
diagnostics where
there is close
alignment.

Where the opportunity arises, Upstream is prepared to make value accretive strategic acquisitions

Upstream's
prospects for
licensing its
technology
are strong.

The company's global networks into the scientific, regulatory and commercial sectors will assist in leveraging the technology more rapidly

The Primary Problem:

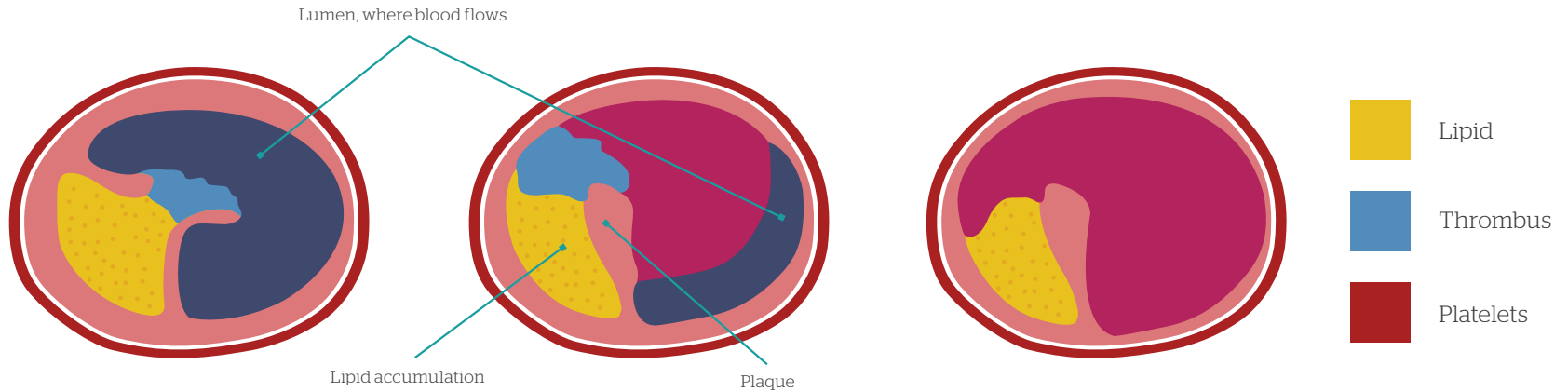
Emergency Department (ED)

Physicians require rapid and accurate methods to determine which patients require immediate life saving medical treatment when they present with chest pain.

The challenge is to determine who is really at risk of a heart attack?

Diagnosis of Heart Attack Risk

Acute coronary syndrome (ACS) is a continuum of artery blockage resulting in ischemia, lack of blood supply.



Unstable Angina

ECG may be normal

Blood test with Troponin normal

Heart Attack

ECG may be normal

Blood test with Troponin
indicates heart attack

Heart Attack

ECG abnormal

Blood test with Troponin
indicates heart attack

How Big Is This Problem?

8 million
patients in the USA present in
ED with chest pain each year.

Only one in eight of these chest pain patients will be experiencing a life threatening event such as an actual or imminent heart attack.

Numbers are growing because
populations are aging and there is
a growing public awareness of early
intervention due to heart attack.

1 in 25

is at risk of heart attack but
are not able to be quickly and
easily diagnosed.

Current screening requires a 'watch
and wait' approach consuming time
and resources within ED.

A missed diagnosis results in less effective treatment and may result in readmission within 30 days as the condition of patient deteriorates.

UARatio – A New Way To Manage Heart Attack Risk

The Problem—Using Traditional Testing Methods “Watch and Wait”

12%

admitted with possible risk of heart attack

8%

heart attack diagnosed

80%

non-acute

20% Admitted

3 days at US\$5,220

Typical diagnosis times of up to 3 days, at a cost of US\$5,220 per day.

chest pain patients

40% reduction in admissions

Conservatively, for every 100 chest pain patients in the ED there are 8 less admitted.

The Solution—Using UARatio Development by Upstream

4%

risk of heart attack diagnosed

8%

heart attack diagnosed

88%

non-acute

12% Admitted

Results in 1 hour

Diagnosis with blood sample result within 1 hour. 1/3 less patients admitted.

The Scale Of The Solution

~8 million patients
per annum in the USA

UARatio could conservatively
**save ~8 unnecessary hospital
admissions per 100 patients**
x2 days at ~US\$5220/day

UARatio would cost
~US\$400 million to
deploy across ~8 million
patients at US\$50/test

UARatio could **save over**
~\$6.0 billion in costs to the
US health system alone
per annum

Upstream Medical Technologies – Built On Strong Foundations

UPSTREAM
MEDICAL TECHNOLOGIES

A decade of excellence from within the Christchurch Heart Institute

2006

2016

A wealth of international expertise and scientific credibility to draw upon: Pemberton, Than, Richards, Januzzi

Clinical trials conducted with Roche, Abbott, Thermofisher/BRAHMS and Critical Diagnostics

Over 125 peer-reviewed publications over the last decade from within the Christchurch Heart Institute

\$3m of grant funding and in-kind support has supported the development of a solid asset base

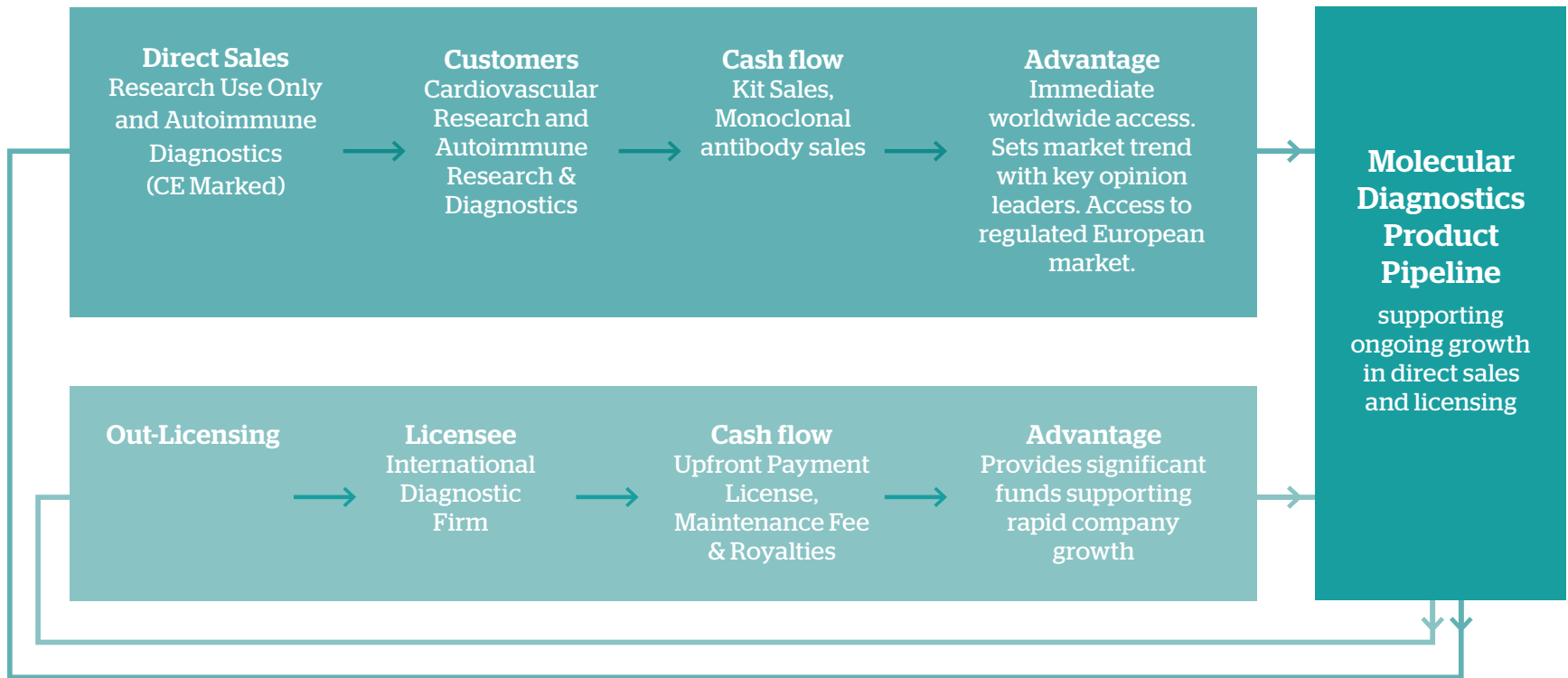
Deep patent portfolio established with **eight patent families**

Upstream Medical Technologies spun-out of Christchurch Heart Institute 2015

A Clearly Defined Pathway Forward



Strategic Business Model – Delivering Early Revenue Streams



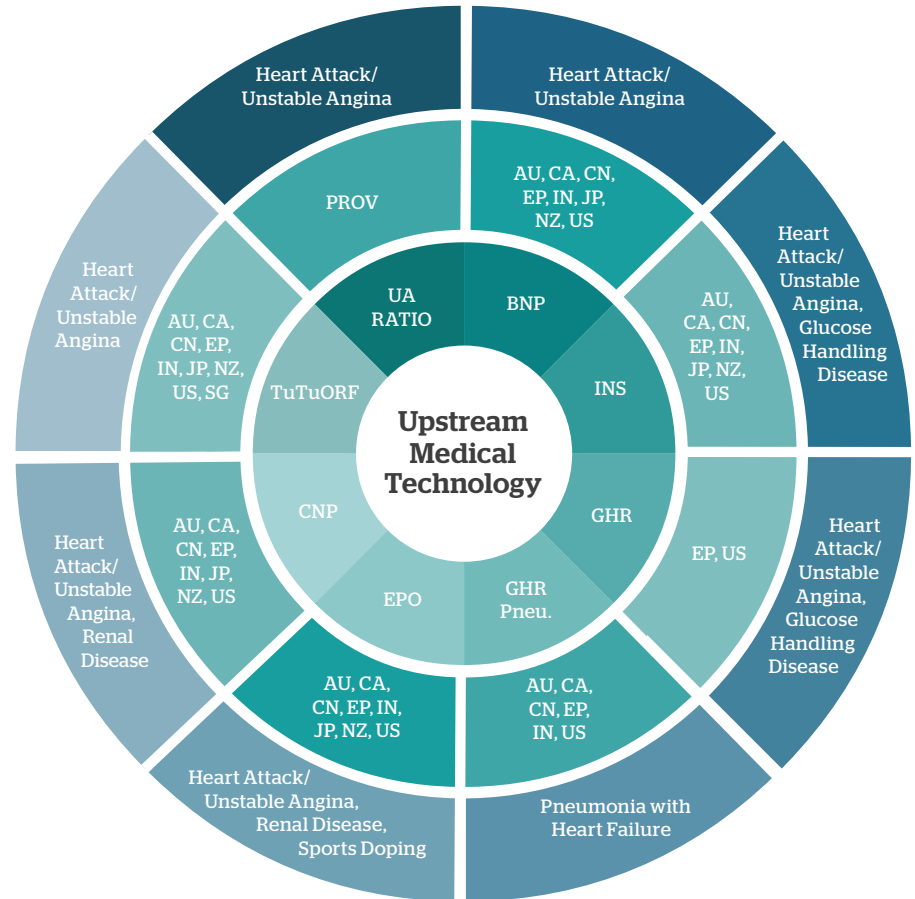
Deep Intellectual Property Platform

Background

8 patent families directed to human focused peptide-based diagnostic technologies.

Clinical indications include acute coronary syndromes (ACS) e.g. myocardial infarction, unstable angina, renal disease, glucose handling disorders (e.g. diabetes), pneumonia with the complication of heart failure and sports doping.

Extensive territorial patent coverage in key markets including Australia (AU), Canada (CA), China (CN), Europe (EP), India (IN), Japan (JP), New Zealand (NZ), Singapore (SG) and United States (US).



Agritech Sector

World food production must **double** by 2050

Increasing crop productivity to meet global needs for food



– transformational technology for agronomists and growers

47% of **food recall** is due to microbiological contamination



– microbial contamination detection



– industrial inspection for mission-critical assets

CropLogic

Jamie Cairns, Chief Executive Officer



Optimising Crop Yields with Remote Monitoring and Big Data Analytics

Transformational Technology for
Agronomists and Growers



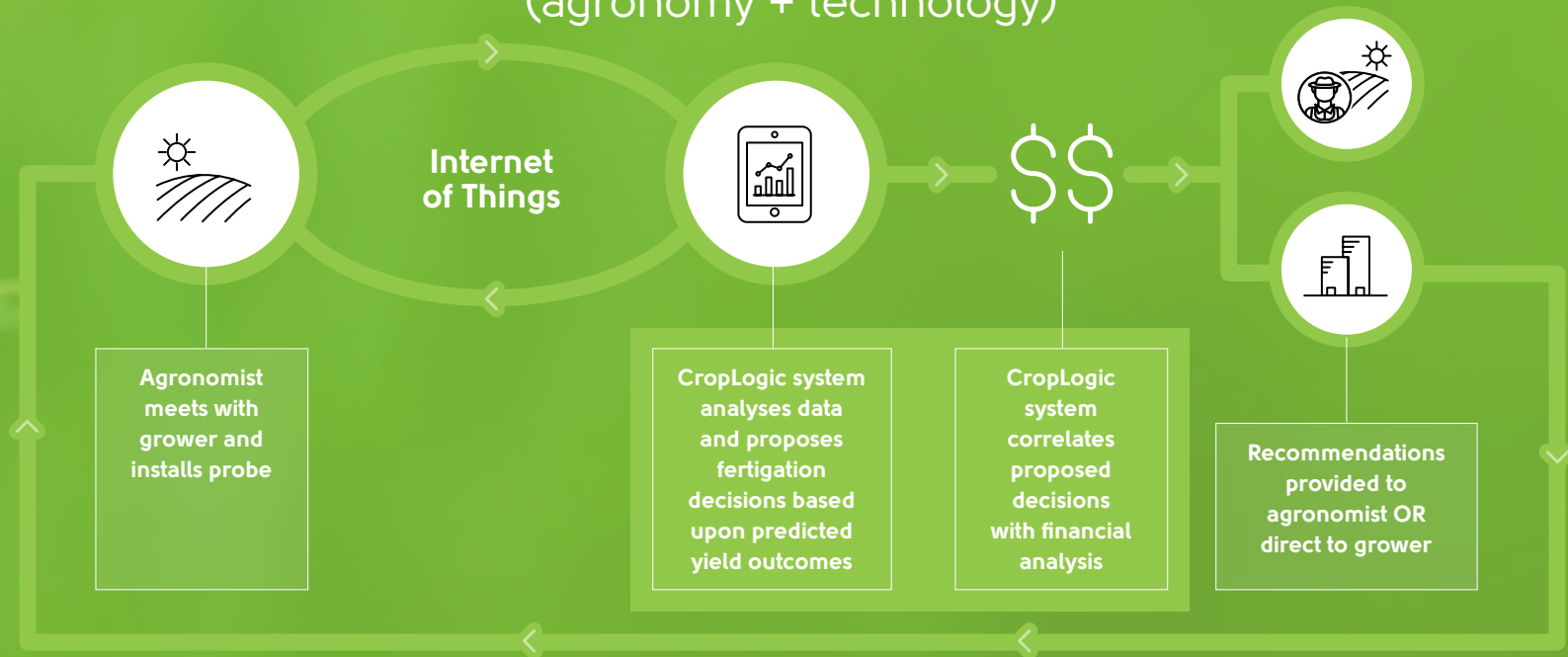
Investment highlights

- 01 CropLogic uses complex modelling and Internet of Things technologies to predict crop yield outcomes and support agronomic decision making
- 02 Blue chip customers (e.g. McCain – worlds largest supplier of french fries)
- 03 Established presence in US
 - Three years of trials
 - Acquisition target secured
- 04 Initial target is the high-value potato crop. Corn, Cotton, Soybean, and Wheat to follow.
- 05 90% profit increase for potato growers achievable from 6.25% overall yield increase
- 06 Technology validated through field trials in the US, China, Australia and New Zealand with global food brands such as PepsiCo (largest producers of potato chips in the world), Simplot, ConAgra, and McCain Foods.
- 07 Intellectual Property position secured through exclusive license of PCT Patent and through trade secrets gained through 3 decades of research



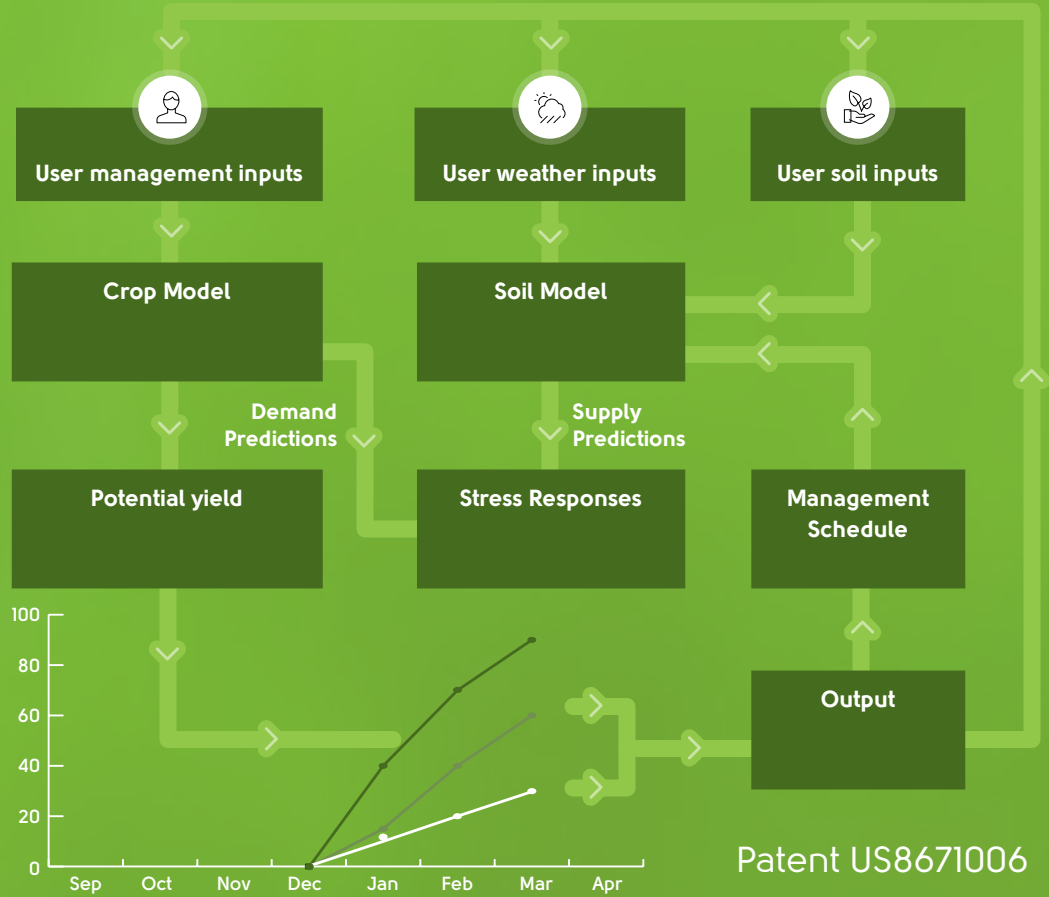
What is the CropLogic System and how does it differ from current practices?

(agronomy + technology)



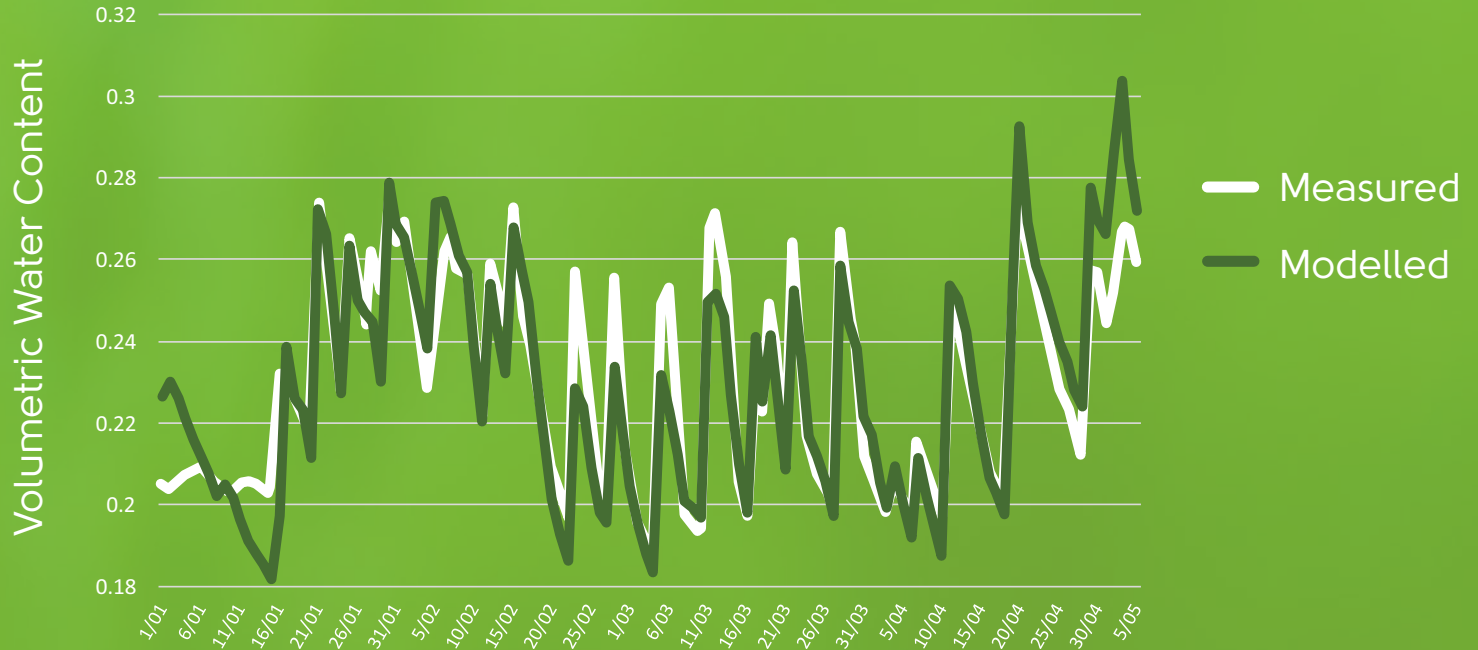
The technology

Not just a system of probes



Data validation

Modelled outputs validate inputs



Validation increases data accuracy and greatly improves exception management

30 years of research and 5 years of trials

Over 65,000 acres of trials from 2011 with key food processing companies.



United States
504 field trials,
Lamb Weston
29 field trials,
Frito-Lay



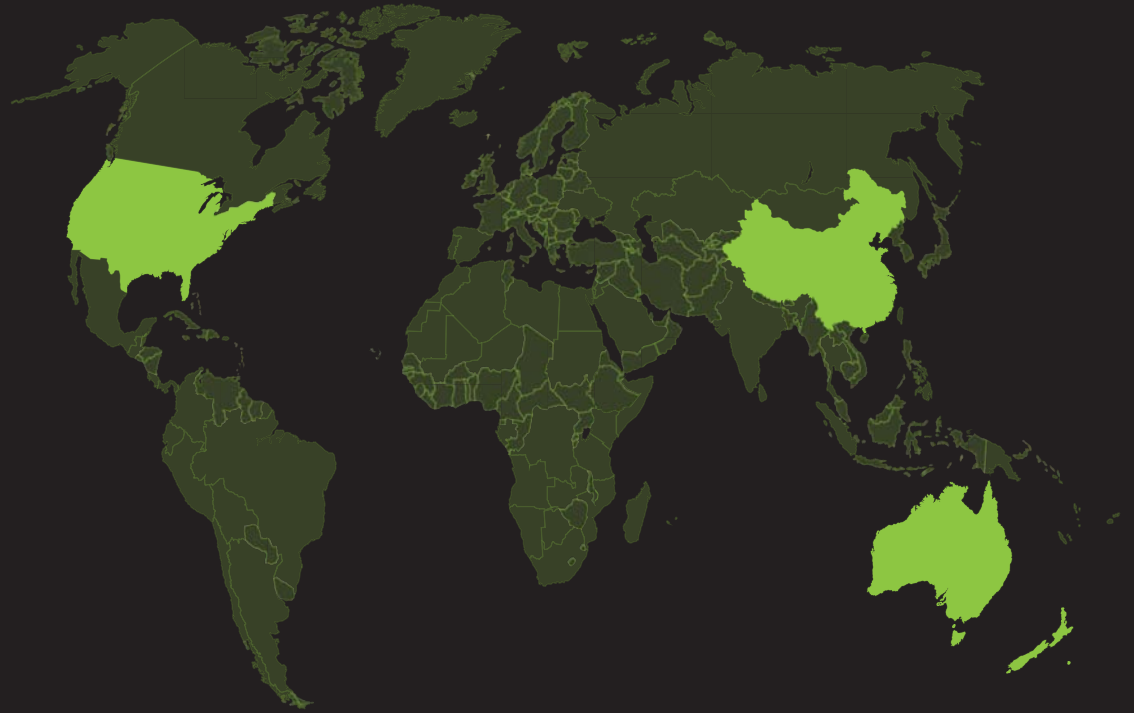
China
18 field trials,
PepsiCo



New Zealand
124 field trials,
McCain Foods



Australia
2 field trials,
Simplot



Size of target market



At US\$35 per acre this is a potential revenue of **USD\$1 billion per annum.**

Why USA first?

- This is due to relationships and brand recognition from previous trials
- Relationships and brand recognition that has been developed through successful trials
- The marketability of uptake of the CropLogic system in this region to other regions.



1000 acres
or more

Target Farms
Irrigated cropping farms of 1,000 acres or more



60 million acres
USD \$2 Billion Annually

Outside the U.S.
Approximately 60 million acres meet CropLogic's Target Farm criteria.

At US\$35 per acre this is a potential revenue of **UD\$2 billion per annum.**



Size of addressable market likely to grow

With the cost efficiency and increased capability of the CropLogic system this market is likely to grow.

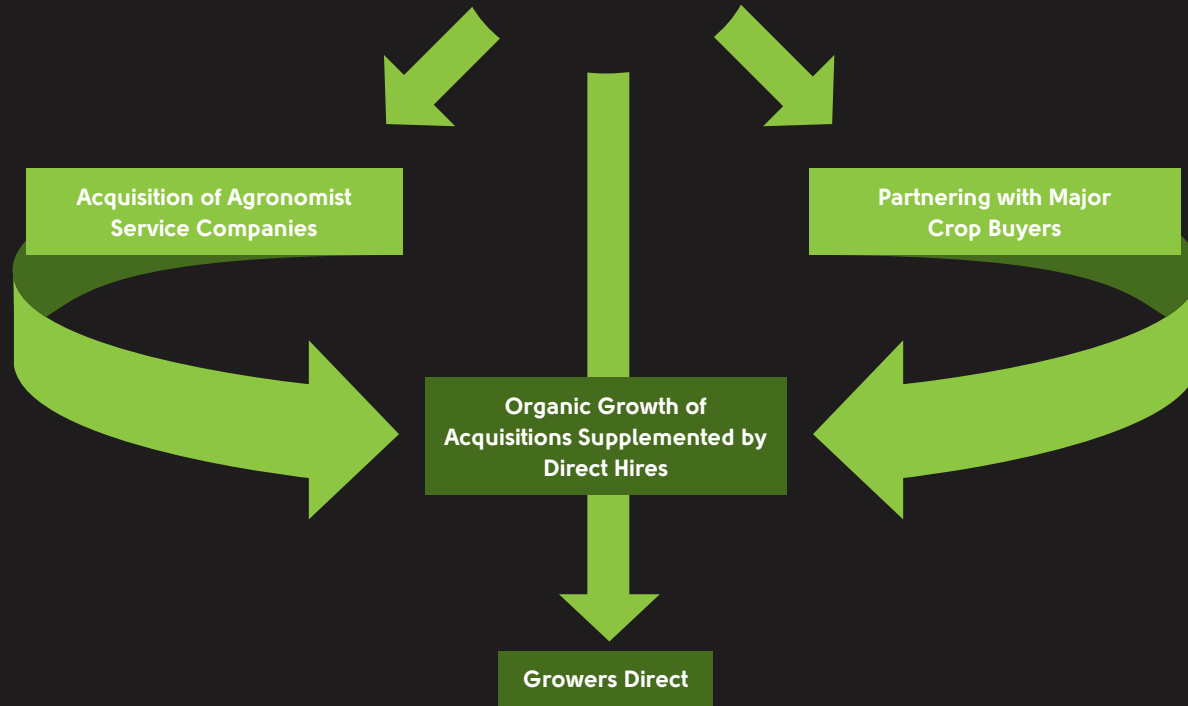
Chinese Market

China has more acres under irrigation than any other country;

CropLogic plans to target the Chinese market building on relationships developed from successful trials with PepsiCo in this country



Route to Market



Top down approach – influencers



CropLogic has good relationships with many of the major potato processors globally. These buyers like the CropLogic model for three reasons:



Reducing costs

increasing globalisation of the food industry has put downward pressure upon food prices



Supply-chain management

global population growth and diet changes have increased demand for food



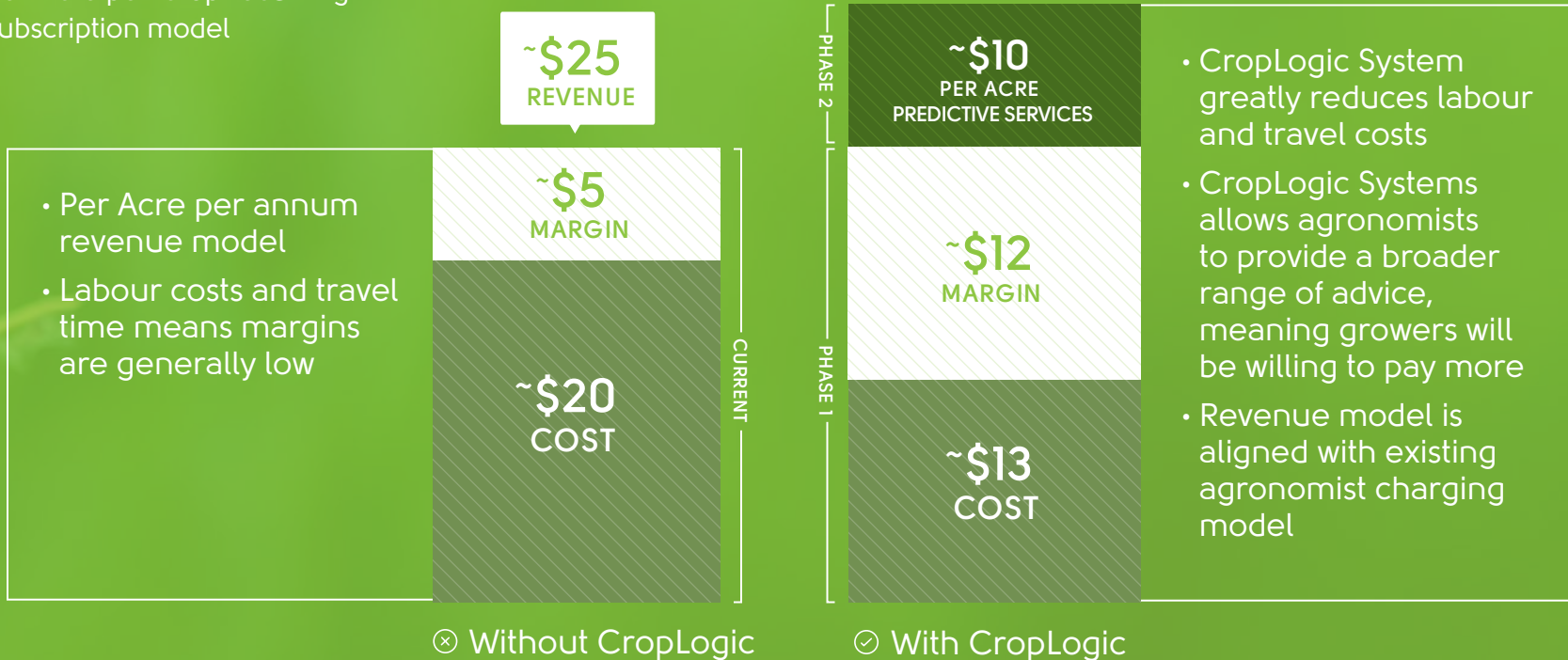
Environmental pressures

increasing awareness of the environmental impact of cropping and an increased consumer demand for processors to demonstrate sustainability in commodity inputs

CropLogic will continue to build upon these existing relationships to build processor promotion and advocacy

CropLogic Revenue

A Business to Business
per-acre per-crop recurring
subscription model



Value for growers

Up to **90%** increase in bottom line



Target subscription fees of \$25 - \$35 per acre per crop



Increased yields



Increased Profits

All figures in \$USD	END VALUE TO GROWER	
	Currently	With CropLogic
Revenue	\$3,045	\$3,235 (+6.25%)
Operating Costs		
Seed	\$331	\$331
Fertilizer and chemicals	\$702	\$690
Water	\$109	\$109
Custom Services	\$94	\$72
CropLogic Services	-	\$35
Labor and other	\$582	\$582
Ownership costs	\$1,030	\$1,030
Total	\$2,848	\$2,849
Profit per acre	\$197	\$386
BOTTOM LINE (for 1000 acres)	\$197,000	\$386,000 (+>90%)

USA Strategic Acquisition

Provides immediate:



Footprint in the largest USA potato-producing region



Acres under management – currently approx. 100,000



Growth opportunities



Three-year payout period



Wider access to the lucrative North American agricultural industry



50 years industry experience in the principals (remaining with the company)



- Binding Term Sheet signed November 2016
- Settlement May 2017
- Settlement fee on signing S&P
- And then pay-out over a three year period
- Non-Compete (restraint of trade) for 5 years.

Milestones for the next 12 months

01

Appoint broker:
Done, Hunter Capital
appointed April 2017

02

\$2M pre-IPO raise:
Done, April 2017

03

USA Acquisition:
Done

04

IPO – planned listing
Q3 2017

05

Australian/USA
agronomy firm
acquisition



For more information contact:



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+64 21 645 445



James Cooper-Jones

james.cooper-jones@croplogic.com

+61 419 978 062

Veritide

Ian Hunter, Chief Executive Officer

Shedding New Light on Food Safety

VERITIDE



The Vision:

Veritide's contamination detection technology and services will become the global, benchmark food safety standard for the meat and poultry processing and distribution industries.



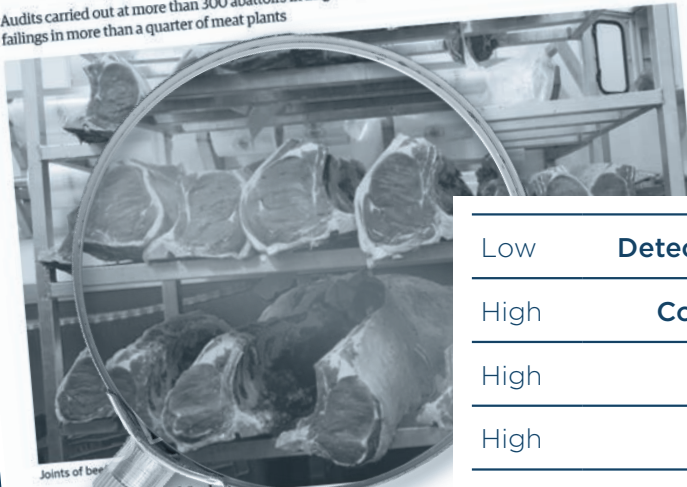
The Problem

The Veritide Solution

theguardian

Fears of 'dirty meat' entering food chain after 25% of abattoirs fail tests

Audits carried out at more than 300 abattoirs in England, Wales and Northern Ireland find major hygiene failings in more than a quarter of meat plants



Joins of beef
and Josh R
s
May 2017 20:30 GMT
at slaughterhouses are failing to take basic hygiene
reaching high street butchers and supermarkets.
analysis of government audits carried out at more than

Low	Detection Accuracy/Reliability/Speed	High
High	Consumer Health & Safety Risks	Low
High	Product Recalls	Low
High	Wastage/Product Losses	Low
Lower	Stakeholder Returns	Higher
High	Reputational Risk/Brand Damage	Low



Veritide

— At A Glance



Setting a new benchmark in microbial contamination detection for the global meat and poultry processing and distribution industries.

A large global market with powerful legislative, customer and consumer drivers.

A proprietary screening technology platform that represents a quantum leap in performance versus current industry practices.

High barriers to entry for future competitors.

Veritide

— At A Glance



Value-added services in development to deliver loyal clients and recurring revenue streams.

A simple, globally scalable operating model that cascades value through to all stakeholders.

**An engaged
blue-chip
client base in
target markets.**

Investment Synopsis

— A Compelling Growth Story



Investment for Growth

- Substantial sales opportunities targeted across large meat and poultry supply chains.
- Significant Australasian, European and North American distribution channels to penetrate over the next three years.
- Company is positioned for a substantial share of a multi-billion dollar global market.

Attractive Revenue and Profit Projections

- Potential revenues of NZ\$30 million by 2021 in target markets.
- EBITDA projection >40% by 2021.

\$30m

2021

A Growing Global Market



‘The global food safety testing market is expected to **grow to US\$15 billion p.a. by 2019.**’

The current solutions for faecal detection in the meat and poultry processing sectors are substandard.

The Problem

— Food-borne Pathogens



48m Americans fall ill annually.

**Total costs:
US\$55b p.a.**

- **48 million Americans fall ill every year** as a result of food-borne pathogens.
- **US\$55 billion:** The total annual cost of medical treatment, lost productivity and illness-related mortality due to food-borne pathogens.
- **US\$10-30 million: The typical cost of a food recall** in the USA (excluding the reputational/brand damage).

The Problem

— Microbial Contamination of Meat



**47% of recalls:
microbial
contamination.**

**96% rise in
recalls.**

- Faecal matter in meat is home to a variety of dangerous bacteria
 - key among them, E.Coli.
- In the USA alone, meat and poultry account for **85 recalls per annum.**
- **47% of recalls are due to microbial contamination.**
- **96% rise** in Meat and Poultry recalls between 2004-2014.

Current Solution

— Failing All Stakeholders



Laboratory Methods

E.g. Swabbing meat samples and testing for the presence of bacteria

- X Expensive**
- X Time consuming**
- X Contaminated product shipped**



Visual Inspections

E.g. Dedicated personal visually inspecting in the meat processing facility

- X Prone to human error**
- X Misses micro-contamination**
- X Contaminated product shipped**



Intervention Methods

E.g. Acid washes, water washes, steam treatments

- X Expensive**
- X Energy intensive**
- X Negative environmental impact**



Veritide Solution

— A Quantum Leap in Contamination Detection



Shedding a new light on food safety

Veritide combines:

**Patented, bacterial
spore detection
technology**



**World-class expertise
and know-how in
precision optics,
imaging and processing
techniques**



Veritide's patented technology is able to **detect both visible and invisible faecal contamination** throughout the meat and poultry supply chain.



Veritide

– Cascading Value to the Whole Supply Chain



**Meat Processors/
Manufacturer**



Meat Inspection Services

Quality assurance and
services, regulatory agencies,
customs authorities



Distribution Partners

Supermarkets/butcheries/
fast food chains



Consumers

- ✓ Automated screening at line processing speeds
- ✓ Real-time results
- ✓ Reliable and accurate
- ✓ Environmentally superior
- ✓ Fewer recalls
- ✓ Increased shelf-life
- ✓ Higher stakeholder returns
- ✓ Lower reputational risk and/or brand damage
- ✓ Lower consumer health and safety risks

Market Validated Technology



Veritide has secured broad industry/stakeholder engagement.

ANZCO (NZ meat processor) have **leased a Conveyor Hot Spot Scanner for 2 years.**

Meat and Livestock Australia have sponsored a study using 3 Hand-held Scanners to **analyse over 20,000 carcasses at one site** over the next three months.

AsureQuality (NZ meat inspection company) is creating a **Customer Audit and Advisory business based around Veritide technology** following on from recent purchases.



Recurring Revenues Driven Off A Solid Product Platform



Product Platform

Primary Developments

- Hand-held scanners
- Hot-spot scanners
- Carcass scanners

Secondary Developments

- Robotic contamination identification
- Robotic contamination removal

Revenue Opportunities

- Off-the-shelf unit sales or lease options
- Monthly pay-per-use fees (e.g. NZ\$1.00/beef carcass or NZ\$0.01/chicken)
- Annual license fees for proprietary software analytics

A Strong Intellectual Property Position



Veritide are experts in optical techniques for rapidly finding food contamination.

Since Veritide's inception, protection of our intellectual property with patents has been recognised as extremely important. We have developed a strong patent portfolio in the areas of bacterial spore detection, bacteria detection and faeces detection. All our patents protect technology for rapid detection and we have more patentable material in our pipeline.

Technology	Patent	Status
Bacterial Spore Detection	NZ542230	Granted
	US7622723	Granted
	AU2006288014	Granted
	GB2445488	Granted
	US8711354	Granted
	EP2263072	Pending
Real-time Optical Detection of Bacteria	NZ611285	Granted
	AU201368102	Granted
	CN2013800408620	Pending
	GB1422129.5	Pending
	US14/404788	Pending
Substance or Contamination of Detection	WO 2015137828 A1	PCT Filing
Glycated Protein Detection (Diabetes)	US13/407842	Granted

Invert Robotics

Neil Fletcher, Managing Director



INVERT ROBOTICS
MAY 2017

The Vision:
**Invert Robotics will
become a leading
global provider of
industrial inspection
services for mission
critical assets.**

INVERT ROBOTICS — AT A GLANCE



21st Century
industrial
inspections
services

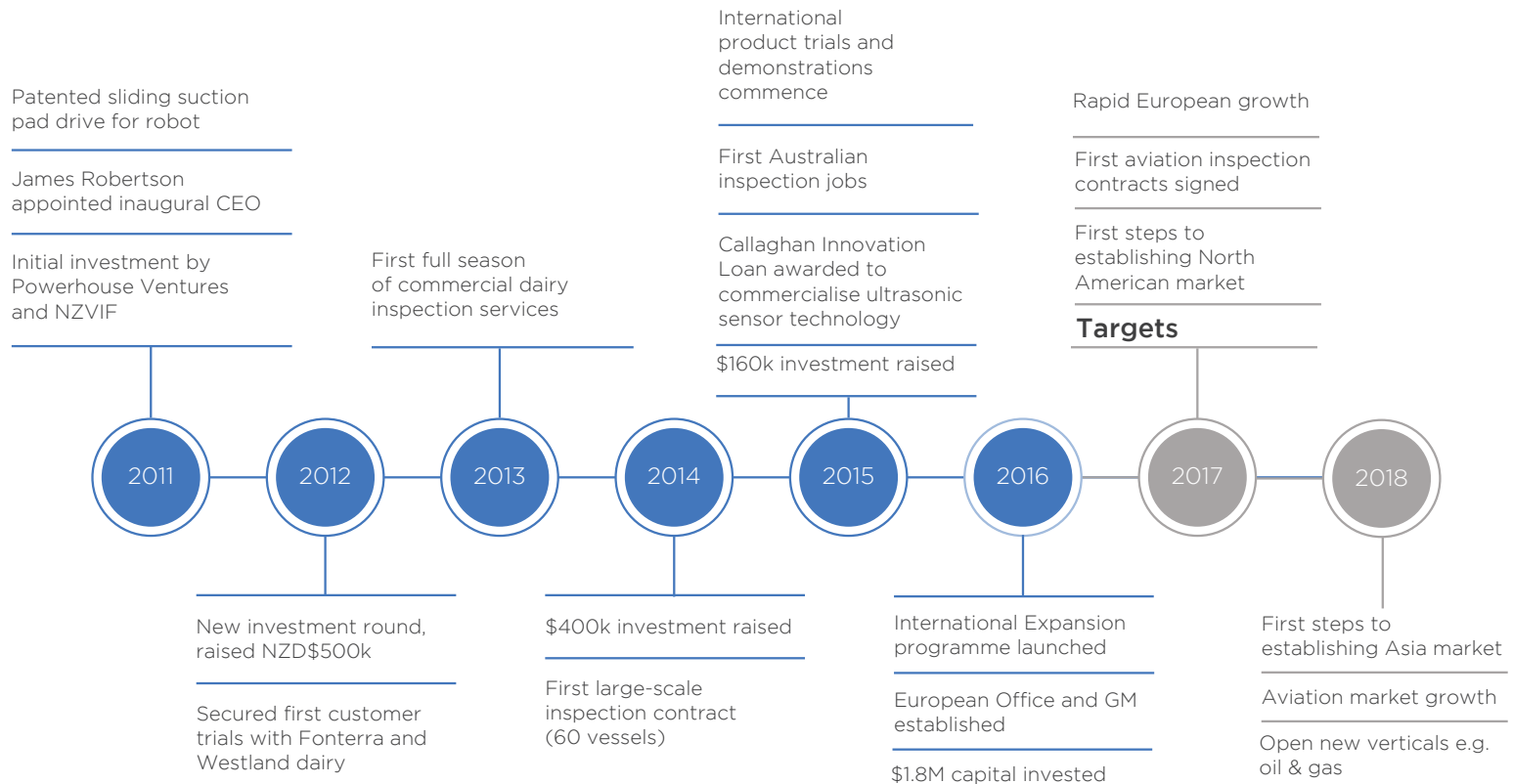
Proprietary
robotic
technology
platform

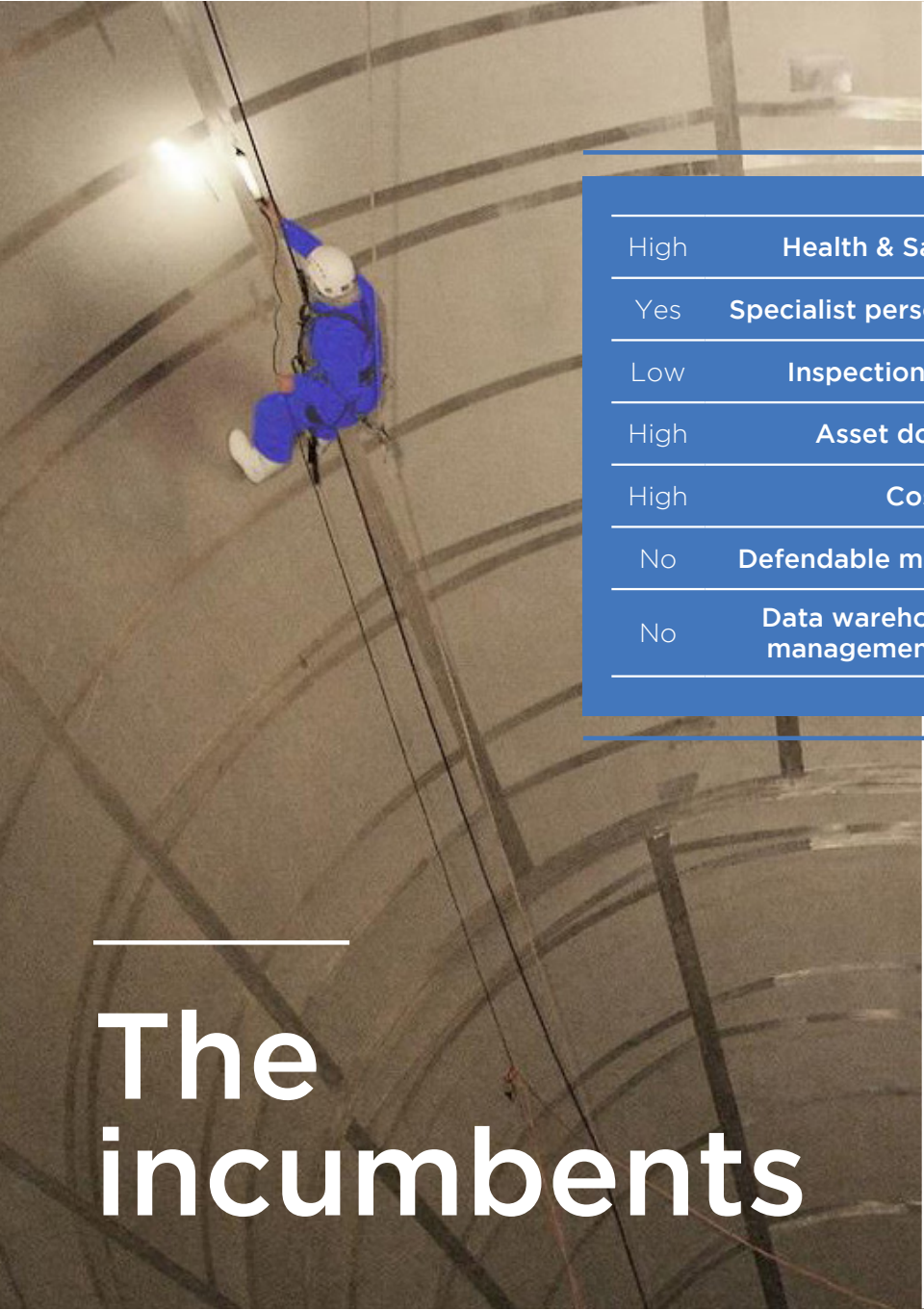
Value add
services
and recurring
revenue
streams

Blue chip
client base

Strong European
growth and
international
expansion plans

BUILDING SOLID FOUNDATIONS FOR GROWTH





High	Health & Safety Risks	Low
Yes	Specialist personnel required	No
Low	Inspection Accuracy	High
High	Asset downtime	Low
High	Costs	Low
No	Defendable market position	Yes
No	Data warehousing/asset management capability	Yes

The
incumbents

The
innovators

DISTILLING DOWN THE SCALE



The Global Testing, Inspection and Certification Industry

NZD\$300 billion
annually

The Global Dairy and Food Processing Inspections Market

NZD\$250 million
annually
150,000 tanks
and dryers

Global Inspection Market by Region

Europe - \$82M
Asia - \$72M
Africa - \$70M
Oceania - \$12.5 M

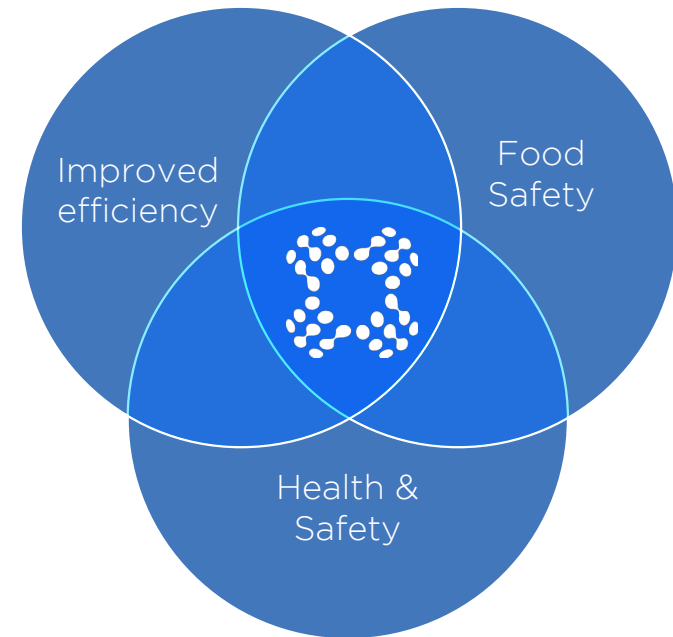
2020 Revenue Target

NZD\$16,000,000

CLEARLY DEFINED MARKET DRIVERS PROVIDE CONFIDENCE

Current inspection methods fail to deliver on current market drivers

- Health and Safety is at the top of corporate agendas in boardrooms globally. Reducing risk to human life is a key driver for all primary industries.
- Converging with this is the commercial need to efficiently and cost effectively maintain mission critical capital assets. Reduced asset downtime and lifecycle management are imperative.
- Increasing food safety regulations place growing demand on accurate inspection services.



THE COMPETITIVE LANDSCAPE

Current inspection methods place people, products, brands and companies at risk.

- Competing techniques are dependent on people entering the tanks, often working from ropes or scaffolds who have to search on average for 5km to find a single crack.
- Often times the inspection equipment used causes additional damage to the asset and takes a long time to setup and tear down.
- Repairs are of poor quality, frequently failing within 12 months, or worse, potentially unnecessary, thereby reducing asset lifetime.



GLOBAL CLIENT BASE



Delivering
services to 5
of the top 6
global milk
processors

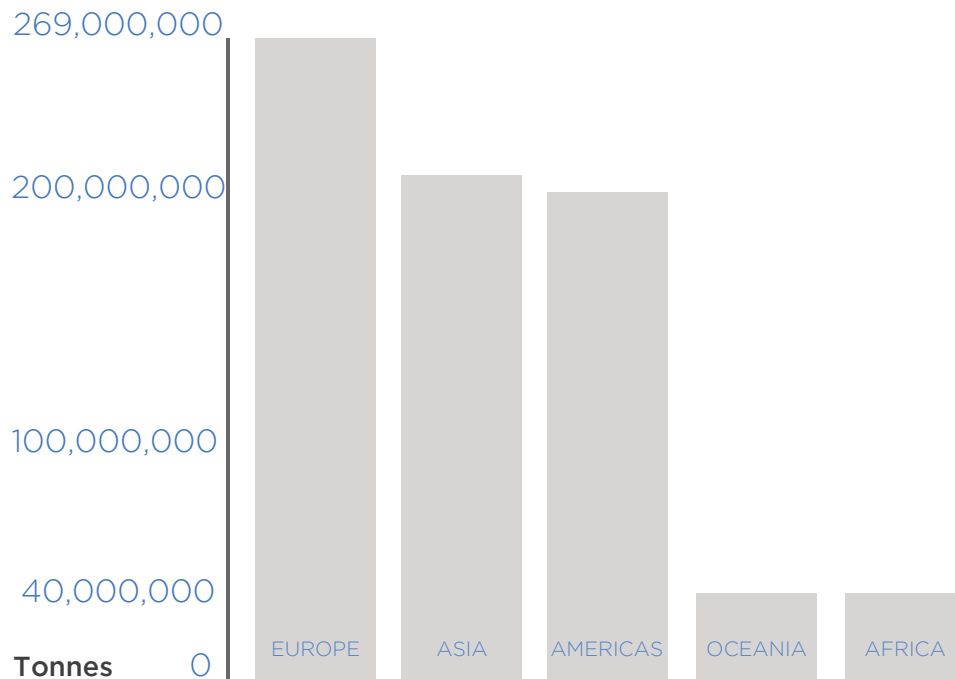


The European region collectively represents the largest cow's milk output in the world. Following closely behind this is the American and Asian markets.

A FOCUSED GEOGRAPHICAL AND SECTOR SPECIFIC GROWTH PLAN

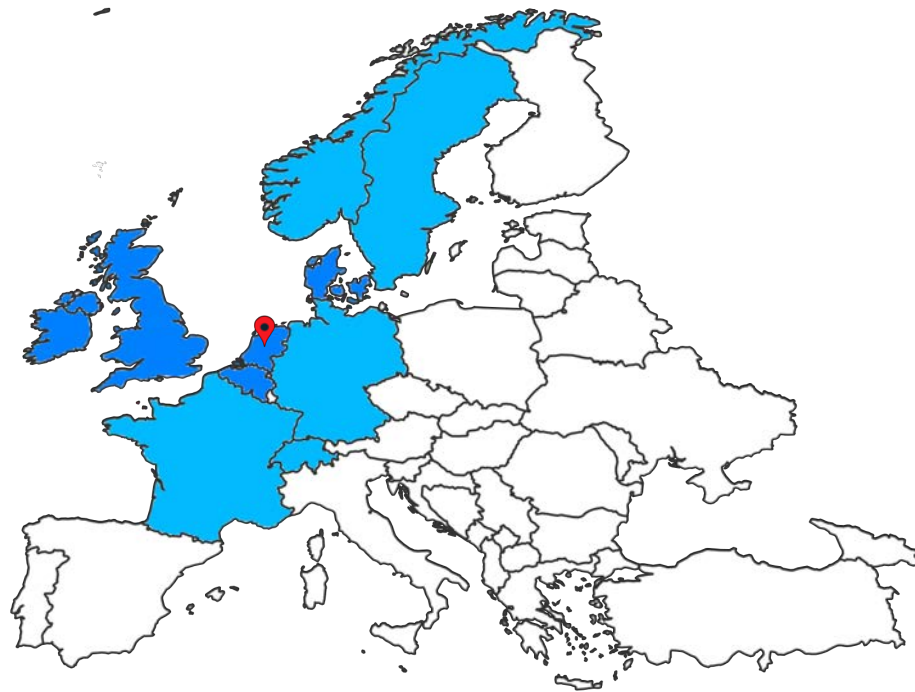


The scale of the dairy and food processing sector alone is sufficiently large enough to drive substantial revenue and profit streams with modest market penetration objectives.

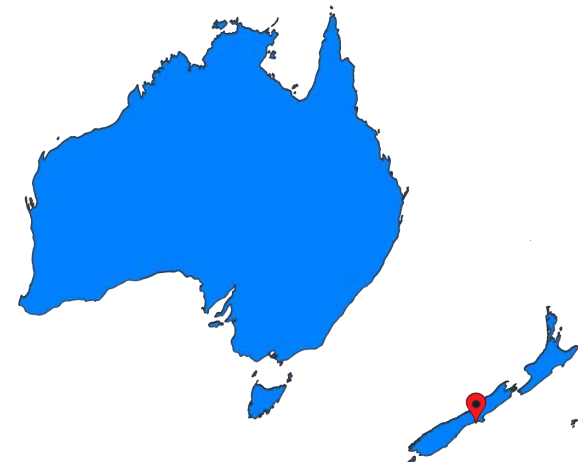


Oceania produces only 5% of the 816M tonnes of milk produced annually

AN EXPANDING GLOBAL FOOTPRINT



-  OFFICES
-  OPERATING COUNTRIES
-  PURCHASE ORDERS



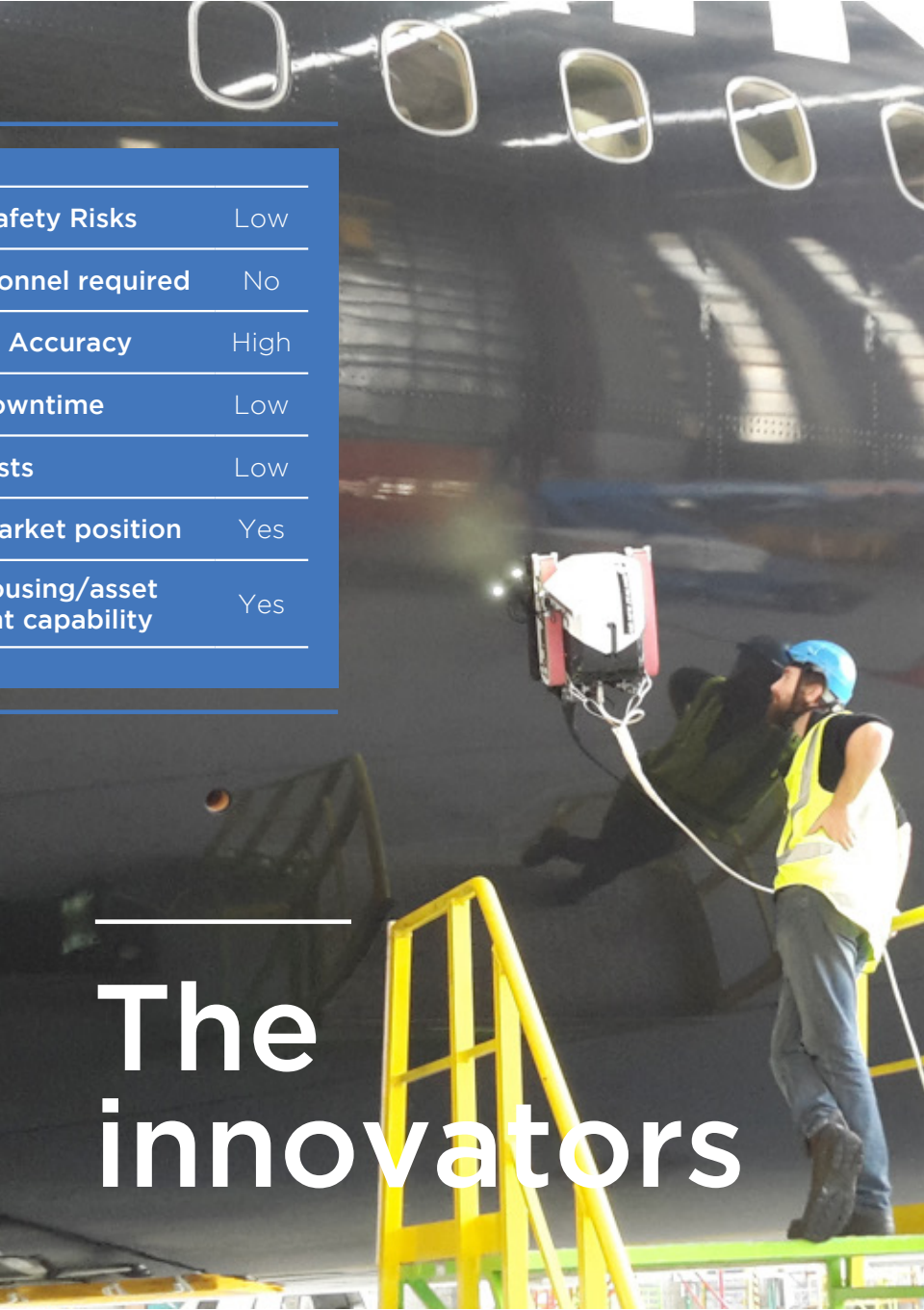
FUTURE OPPORTUNITIES



With further development of platforms and payloads Invert Robotics will unlock both new verticals and new applications within existing verticals

Development	Leads to...	Application	Current Status
Ultrasonic and Eddy Current Crack Detection	Improved + automated crack testing of any tank	Applicable to all market segments	Ultrasonic development project in conjunction with Callaghan Innovation in progress
Fault Data Analysis	Predictive modelling	Predictive maintenance and capital expenditure decision support	Future development
Carbon Steel Climbing Platform	Inspections of carbon steel tanks	Applicable in over 90% of industrial tanks worldwide	Initial lab-level proof of concept drive platform built
Convex Surface Capability	Inspection of exterior convex surfaces	Aeronautical	Initial demonstrations
Biofilm Detection System	Hygiene inspections	Applicable globally within food industries	Future development

**With a powerful platform,
Invert Robotics is
positioned to rapidly
adapt the core technology
to new inspection markets.**



High	Health & Safety Risks	Low
Yes	Specialist personnel required	No
Low	Inspection Accuracy	High
High	Asset downtime	Low
High	Costs	Low
No	Defendable market position	Yes
No	Data warehousing/asset management capability	Yes

The incumbents

The innovators

DISTILLING DOWN THE SCALE



The Global Airline Maintenance Market

24,597 planes in
the world
NZD\$90 billion
annually

The Global Scheduled Maintenance Market

NZD\$15 billion
on scheduled
maintenance annually

Beachhead Market

C Check rudder
inspections
NZD\$245M per
annum

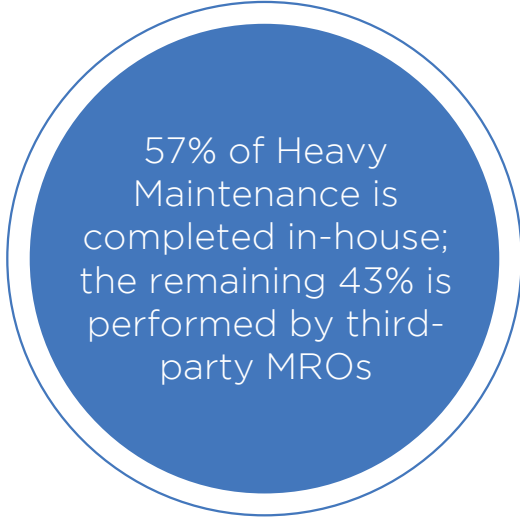
2020 Revenue Target

2 major
customers
NZD\$3,000,000

SECURING KEY CLIENTS

In 2017 Invert Robotics launched an Aviation Development Programme

- Seeking 5 major MROs or airlines to participate in programme designed to quantify material and financial benefits of robotic inspection.
- Invert Robotics is concluding negotiations with the first two clients;
 - a top 5 global MRO
 - a large global airline
- These two clients C-check rudder inspections represent c. NZD\$4 Million annual revenue.

A circular graphic with a blue center and a white border, containing text about heavy maintenance completion rates.

57% of Heavy Maintenance is completed in-house; the remaining 43% is performed by third-party MROs

A STRENGTHENING INTELLECTUAL PROPERTY POSITION



A patented sliding suction system is at the heart of our world-leading inspection technology

Ongoing development of new applications and new payloads strengthen this core intellectual property position.

Technology	Country	Appln No.	Grant No.	Status
Sliding suction cups and their application in climbing robots	New Zealand	595509	595509	Granted. Next renewal due 01/10/2016
Sliding suction cups and their application in climbing robots	Australia	2012316878		Awaiting examination. Next renewal due 1/10/2016
Sliding suction cups and their application in climbing robots	Europe	12836922.0		Search report and patentability opinion issued – response approved and submitted.
Sliding suction cups and their application in climbing robots	USA	14/348529		Under examination – response to examiner filed and awaiting further action from examiner
Ultrasonic crack testing of stainless steel and other materials	Global	PCT/ IB2017/051587		PCT application filed, next step is individual country filing in January 2019
Use of lightweight climbing robots to perform NDT tasks on aircraft		Provisional Patent Application		Provisional to be filed by 25/5/2017

Closing remarks

A new asset class with an attractive risk/return profile

- 1 Strong links with university partners for high-quality deal flow**
- 2 Proprietary approach to screening and shaping innovation for predictable success**
- 3 A new model for investing, based on the largely untapped value of university IP**
- 4 Successful and repeatable performance through a prescribed business growth methodology**
- 5 An experienced team of innovation professionals**
- 6 Opportunities for co-investment**

The portfolio

Medical & Healthcare



Agritech & Environmental



Digital & ICT



Cleantech & Engineering



Thank you

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