

BIO-GENE TECHNOLOGY LIMITED (ASX : BGT)

ENABLING THE NEXT GENERATION OF NOVEL INSECTICIDES

May 2022

CORPORATE PRESENTATION

PRESENTED BY

Richard Jagger

Chief Executive Officer &
Managing Director

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BIO-GENE
TECHNOLOGY
LTD



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ADDRESSING SIGNIFICANT GLOBAL CHALLENGES

The effectiveness of current insecticides is diminishing due to resistance & concerns relating to safety profiles



“Without Crop Protection, crop losses would double each year”

CropLife



“No new public health insecticides have been developed for mainstream vector control for 30 years”

CDC⁴

Food Security & Public Health

Growing Population

Current global population is 7.7 billion, growing at 70 million p.a. It is anticipated that global population will reach nearly 10 billion by 2050¹.

Challenges Of Climate Change

Climbing average temperatures and other weather events impact food production per hectare, increase the habitable environment for mosquitoes

Financial Impact

Production

Currently 20-40% of food produced globally is lost to pests, valued at around US\$2000 billion p.a.^{2,3}.

Cost/Benefit

Direct costs due to Malaria infections valued at US\$12 billion p.a., with economic impact many times that ⁴

Social Impact

Vector Borne Disease

More than half the world is at risk⁵; account for 25% of infectious diseases and exacerbate poverty & economic hardship. Potential to grow beyond 50% under climate change scenarios⁶

Less Arable Land

Increased population puts pressure on available land and resources to produce food for today and tomorrow

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1. United Nations, “World Population Prospects 2019”
 2. Oerke EC, Crop Losses to pest J. Agri Sci 144: 31-43 (2005)
 3. Pimentel D Pesticides and Pest controls. In: Peshin R, Dhawan AK. (eds). Integrated pest management: innovation-development process, 1:83-87. Springer Science (2009)
 4. CDC: Malaria's impact worldwide
 5. WHO report, 2015
 6. IPCC6th assessment report: Climate Change 2022: Impacts, Adaptation and Vulnerability, February 2022

OUR TECHNOLOGY PLATFORM

We are developing two products that allow entry into five key market segments



Qcide™

Natural Compound

An extract of a specific cultivar of eucalypt, the Gympie Messmate

Trees are farmed in concentration by sub-contractors in QLD

The leaves contain oil expressing high levels of Tasmanone, a natural compound that has shown evidence of insecticide efficacy



Flavocide™

Nature Identical Compound

BGT has developed a proprietary chemical process with CSIRO to deliver another Beta-Triketone; a nature identical compound that is able to be produced at commercial scale



Both of our products have potential application in all five of our target market segments

OUR PROPRIETARY CHEMISTRY REPRESENTS A STEP-CHANGE FOR RESISTANT PEST CONTROL



Naturally Derived Chemistry

Qcide is a natural compound and Flavocide is a 'nature identical mimic' of a natural compound that can be mass produced



Safe Chemistry

Excellent safety profile based on data generated to date. Low toxicity to bees & beneficial insects (5000 times less toxic to bees than neonicotinoids)



Efficacy

Testing to date confirms potential for controlling resistant pests across multiple markets



Multiple Global markets

Bio-Gene's insecticide platform has applications across large, global market segments valued at over US\$31.1 billion p.a.



Current & future partnerships

We currently have agreements with a number of large companies covering the testing our technology; collaborative development programs and options on future commercial rights

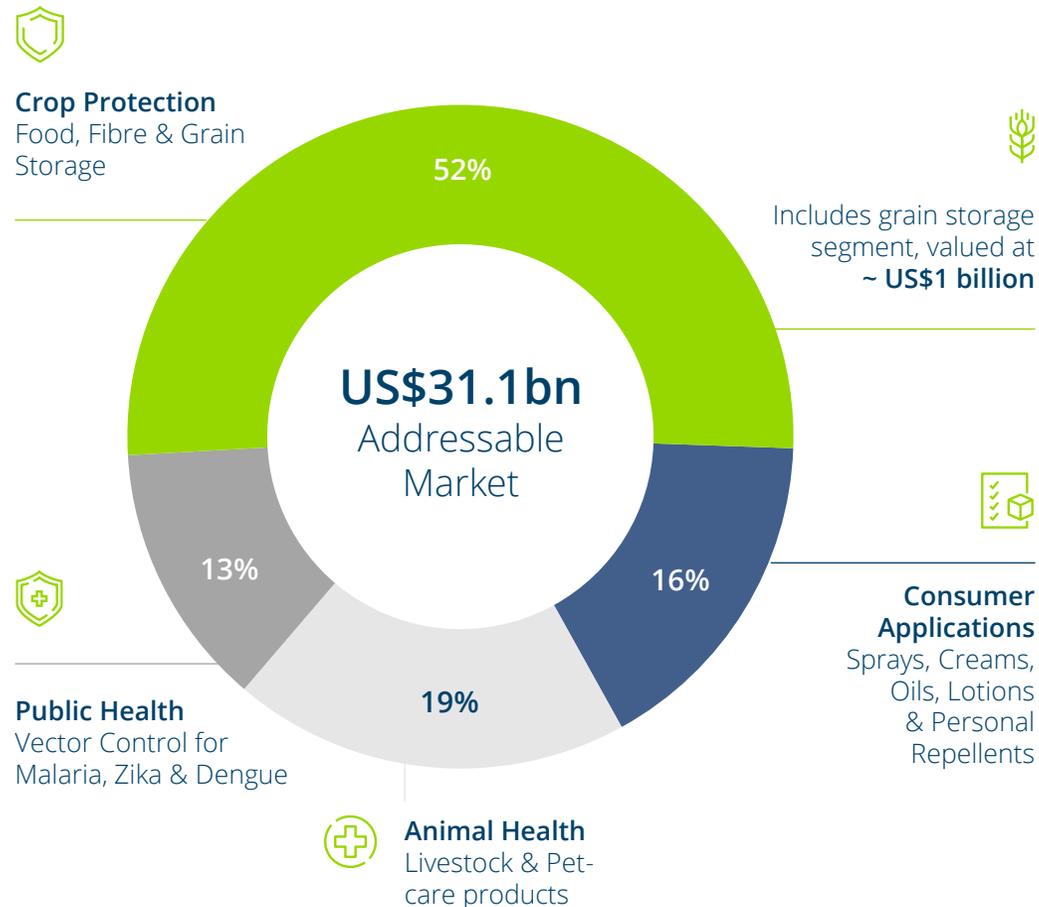


Novel Mode of Action

Operates via a novel Mode of Action, potentially addressing resistance to other classes of chemistry

Last new Mode of Action was 2008, now selling US\$2.3 b annually

OUR TECHNOLOGY ADDRESSES THESE CHALLENGES AND TARGETS GROWING GLOBAL MARKETS



Bio-Gene's insecticide platform has potential application in large, global market segments estimated to represent a total addressable market valued at over US\$31.1 billion



OUR STRATEGIC OBJECTIVE

Generate multiple revenue streams from technology licensing fees, milestone payments and royalties by



Securing & owning active ingredient product registrations



Working with strong commercial partners on product development; marketing and distribution



Developing proprietary manufacturing and production know-how



Potential partnership agreements across multiple geographies and different end-use markets, with collaboration programs now underway in two of our target segments

SIGNIFICANT POSITIVE PROGRESS ACROSS MULTIPLE FRONTS

BGT continues to execute on a strategy to secure commercial partnerships that help validate our technology and establish meaningful future value streams



Australian technology with the potential to make a global difference

New, natural and novel chemistry has the opportunity to address resistance issues impacting food security and public health

New agreements with commercial partners

Development agreements BGT has executed a commercial development agreements with Evergreen Garden Care and Clarke Mosquito Control

Additional MTAs BGT has entered into new Material Transfer Agreements (MTAs) with large international companies focused across the various market segments where our technology has potential application

Funding

Capital raise of \$3.2 million late 2021 & \$1.5 million strategic placement in March 2022. R&D tax incentive rebate of \$514,000 in March 2022

Building our efficacy data

Recent results Positive results from the Phase 2 studies undertaken with Clarke on mosquito control. Stored grain pest control via QDAF 9 month study results released

Regulatory support Completion of independent review by CRO to determine optimal pathway for US and European active ingredient registration. Appointment of Bio-Gene Head of Global Regulatory Affairs

Strengthening our IP

New patents US Patent Office grants patent relating to management of pesticide resistant insects using Bio-Gene molecules. Allowances in Australia, submissions in other geographies

Additional IP Programs underway to strengthen IP relating to manufacturing and extraction processes

CONSUMER PRODUCTS: EVERGREEN COMMERCIAL DEVELOPMENT AGREEMENT

Evergreen is a market leader in consumer products across Europe and in Australia/New Zealand

Initial Field of Use

Fly & mosquito electric evaporator
Ant bait gel and ant spray

ROFR to negotiate additional applications within consumer market

Initial Territory

E.U., U.K., A/NZ
ROFR to negotiate additional territories within consumer market

Revenue Model

Up-front licence fee
Milestone payments prior to registration
On-going royalties on end-use product sales
Development costs borne by Evergreen

Market Opportunity

Initial Field of Use: US\$600m¹

Total European consumer insecticide market: US\$2b¹



PUBLIC HEALTH: NEW COMMERCIAL AGREEMENT SIGNED ON CLARKE MOSQUITO PROJECT

Clarke is the largest vertically integrated company in public health mosquito control

Results of Phase 2 Testing

Very positive results indicate the suitability of Bio-Gene products as mosquito control technology

Target formulations identified for progression to Phase 3 field trials

Confidence for both companies has allowed for completion of commercial agreement

New Commercial Agreement Signed

Allows Clarke to begin Phase 3 field testing

Agreement is for the U.S. and Cayman Islands market

Cost of studies borne by Clarke, with shared report of results

Licence fee payments from Clarke to Bio-Gene over the next 3 years

On-going royalties on end-use-product sales by Clarke

Next Steps

Combined Clarke / Bio-Gene team to focus on registration process of Active Ingredient and development and registration of end use products

Field studies designed to confirm suitability of laboratory developed formulations for field use & EPA registration

Market Opportunity

Initial Field of Use: US\$100m¹

Global market \$650m¹



¹ Global Mosquito Control Market, Research Report 2020, Forecast to 2026

CROP PROTECTION: UPDATE ON STORED GRAIN PROJECT

Grains research and Development Corporation (GRDC)
Department of Agriculture and Fisheries - Queensland (DAF)

Results of Phase 3 testing

Data show the ability for Flavocide, when used in combination (at low rates) to control the full range of stored grain pests over 9 months for susceptible strains and 3-9 months for resistant strains (commercially acceptable time frame).

Further Discussions

Bio-Gene is discussion next steps with potential commercial partners to progress the commercial development of Flavocide as a stored grain protectant

Next we will discuss support from the GRDC



Field testing completed
Nov/Dec 2021

Final reporting on these
results reported in
March 2022

Positive outcome allows
us to move forward

**Market opportunity in
Australia is relatively
small, but there is
significant global
potential (A\$1b)¹**

IMPORTANT PROGRESS ACROSS OTHER KEY AREAS

I.P. Developments

- Additional research underway has the potential to identify new I.P. for the company
 - I.P. can be in the form of patents, technical knowhow, trade secrets
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Review Of Reg Requirements

- Completed a regulatory review analysis with global consultants to look at the specific data requirements for USA, European Union, Australia across our different market segments
- Clear understanding developed relating to read-across potential for different applications and regulatory jurisdictions.

Additional MTAs

- Bio-Gene has signed 4 new MTAs in the past year with international companies focused across all areas of insecticide use
 - Studies performed by these companies ultimately give Bio-Gene additional options for going to market
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Manufacturing

- Flavocide manufacturing validation – scale-up process has confirmed ability to produce larger quantities
- Qcide: Last harvest confirmed production improvements based on modified temperature and pressure

Efficacy testing

- Additional studies underway for specific company evaluation of technology
 - Animal Health
 - Consumer
 - Crop Protection
 - Public Health
 - Extension work to identify additional key targets and applications to support our commercial discussions and further develop our I.P. portfolio
-

Patent Allowances

- 2 granted in Australia
- 1 recently granted in United States
- Under review in other key markets

On-going research is focused on developing data to support key commercial discussions as well as enhancing our I.P. portfolio
Bio-Gene continues to expand its market network and identify new data that further differentiates our I.P. position

POSITIVE NEWS FLOW AS WE CONTINUE TO EXECUTE ON THE STRATEGY



Building value via

- Active Ingredient Registrations
- Strong Commercial partnerships
- Patents, manufacturing know-how and other IP
- Generating multiple revenue streams

2021& 2022 Announcements have included

Mode of Action

- ✓ Positive results to confirm novel Mode of Action

Efficacy

- ✓ Positive efficacy data in the 9 month stored grain pest control study

Intellectual Property

- ✓ Several new patent allowances and grants that strengthen our IP

Commercial

- ✓ Commercial agreement executed with Evergreen Garden Care
- ✓ Commercial agreement executed with Clarke Mosquito Control

Resourcing

- ✓ Appointment of Head of Global Regulatory affairs
- ✓ Cap raise of \$3.2 million & \$1.5 m strategic placement, and R&D tax incentive - \$514,000

Upcoming News Flow

Efficacy

- ❑ Results of ongoing research work at Purdue University and University of Florida

Commercial

- ❑ Next steps in collaboration with BASF on stored grain pest opportunity
- ❑ Updates on new MTA evaluations and next steps

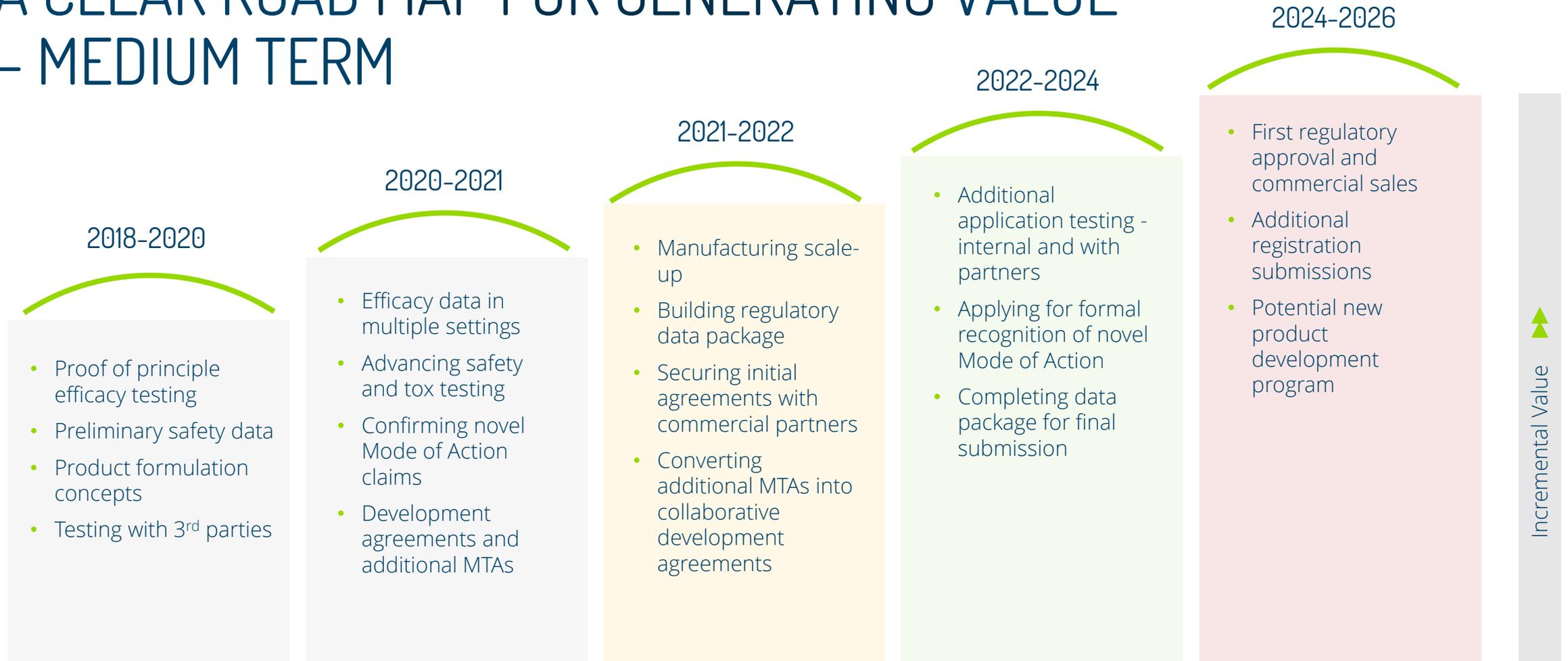
Intellectual Property

- ❑ Feedback on additional patent allowances in various world regions

Manufacturing

- ❑ Developments relating to manufacturing process improvements for Flavocide and Qcide

A CLEAR ROAD MAP FOR GENERATING VALUE – MEDIUM TERM



POTENTIAL UPFRONT AND MILESTONE PAYMENTS, LICENSING FEES



AND ROYALTIES

Incremental Value

FUNDING POSITION

Shares on issue

179,056,519

Market capitalisation

\$51 million¹

As at March 31, 2022,
Cash on hand

A\$7.2 million

Provides working capital
needs on budgeted
activities well beyond

12 months

1. @28.5 cents per share

Sources of future funding:



Development
and commercial
partnerships



Industry
organisations



Government
grants



Capital markets



Philanthropic
organisations
focused on public
health solutions

BOARD MEMBERS & MANAGEMENT



Robert Klupacs

Chairman

- 30+ years corporate experience in international tech development
- Previously MD & CEO of ASX-listed Circadian Technologies Ltd and MD & CEO of ES Cell International Pte Ltd
- Registered Australian patent attorney



Richard Jagger

CEO & Managing Director

- 25+ years working in agriculture globally
- Most recently employed as Managing Director of Sinochem Australia
- Previously spent 15+ years at Monsanto in various management roles
- Director, Agriculture Victoria Services



Peter Beetham

Non-Executive Director

- 30+ years experience in bio-agriculture community
- CEO of Cibus Global
- Previously Scientific Officer at Plant Research Institute, Victorian Dept Ag



Andrew Guthrie

Non-Executive Director

- 32 years experience in agriculture globally
- Management roles in multiple geographies
- Was part of Syngenta's leadership team responsible for business strategy that leveraged R&D capability to invent, gain regulatory approval and launch new products.



Peter May

Executive Director, R & D

- 20+ years experience in crop protection market with companies Orica & Crop Care Australasia (now Nufarm)
- Founded Xavca, consulted to companies such as Syngenta & Sorex (BASF)
- Former CEO & Chairman of BioProspect (now Medibio, ASX:MEB)



James Joughin

Non-Executive Director

- Highly experienced ASX listed and private company Director.
- Currently the Non-Exec Chair at Spirit Technology Solutions Ltd (ASX:ST1) and a NED at Mydeal.com.au Ltd (ASX:MYD)
- Former partner in Big 4 firm with expertise in capital markets etc.



Roger McPherson

CFO & Co. Sec.

- 15+ years experience as CFO & Company Secretary across both listed & unlisted companies
- Experience in the pharma manufacturing, biotech & biopharma industries
- Previously CFO & Co-Sec of TPI Enterprises (ASX:TPE)



James Wade

Program Manager

- PhD with 10+ years experience in research in a broad range of agricultural verticals
- Previously Science and Technology Program Manger for Avigen Ltd



Sarah Driessens

Head of Regulatory

- Master with 10+ years of Regulatory experience at Monsanto (and subsequently Bayer after the Monsanto acquisition)
- Company representative at different industry associations (Phytofar, Nefyto, European Crop protection association,..)

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