

CHERRP® IS A NOVEL AND
SUSTAINABLE WILDLIFE
MANAGEMENT SOLUTION

DESIGNED TO REDUCE
CROP LOSS AND INCREASE
YIELD, CONTRIBUTING
POSITIVELY TO GLOBAL
FOOD SECURITY.

Cherrp®



THE BIRD PROBLEM

Like insects and rodents, birds can have a significant impact on agriculture yield

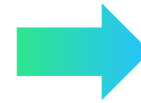
Current bird deterrent systems are ineffective, costly, unsustainable and unethical.

Average agriculture crop and aquaculture loss to birds is 30% to 40%.

The bird deterrent market in Australia alone is worth in excess of \$1 billion



4.1% Yield



>96% Yield

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THE PROBLEM

AGRICULTURE & AQUACULTURE

Current solutions to bird management are ineffective, unethical, costly, and unsustainable.



On average, across all productive horticulture, birds cause between 30% to 40% crop loss*.



Birds consume both produce and feed, resulting in between 33% to 95% yield loss.

RESIDENTIAL

Damage is caused by birds in residential horticulture environments.

COMMERCIAL

Birds damage public and private infrastructure, including:



MARINAS/PORTS,
STADIUMS & AIRPORTS



CONSTRUCTION,
MINING, OIL AND GAS



REGIONAL COUNCILS,
PUBLIC INFRASTRUCTURE



ELECTRICAL INSTALLATIONS
- MILITARY BASES



PARKS & RECREATION,
GOLF COURSES

THE CORE PROBLEM



Due to the large concentrations of available food in a confined area, Open Bunker Grain Storage Sites act as Corella magnets, attracting unnatural populations of Corellas, and changing wildlife behaviour. In nature, such amounts of food, would be spread over hundreds of thousands of HAs.



2

Recent investigations by Cherrp Scientists, across multiple Open Bunker Grain Storage Sites Australia-wide; *Established Corella populations ranging from 30,000 to 100,000 per site.*

3

The extraordinary Corella populations spill over and/or are actively pushed off site into local communities causing damage to public and private infrastructure and negatively impacting ratepayer mental health



THE PROBLEM – GRAIN STORAGE SITES

GrainCorp site at Tocumwal has a significant and substantial Corella problem – 60,000 to 80,000 Corellas impacting the grain storage facility

The estimated grain loss associated with 80,000 Corellas could be up to at least 8,000Kg per day (total storage of 200,000tonnes)

BirdSol is in advanced discussions with GrainCorp to resolve their Corella problem by deterring and relocating the birds to an alternative feeding and roosting location

Resolving the GrainCorp Corella issue (estimated at 10% loss of grain) through the Cherrp technology could provide an upside for the grain industry in the millions of dollars per year

Birds and Bats Pose Significant Risks to Public Health

Wild birds and bats pose public health concerns as they act as reservoirs for many infectious zoonotic viral, bacterial, parasitic, and fungal diseases that cross the species barrier infecting domestic birds, mammals, and humans.

Industry Sector	Total Size of the market per annum (\$)	Cost Impact due to birds (\$)
Productive Horticulture	\$2.4 billion (crops susceptible to bird damage from a total of \$15.9 billion in horticulture output)	\$346 million (Based on 7-22% (avg 14.5%) crop loss)
Grain Storage	\$6 billion (grain susceptible to bird damage from a total of \$40 billion in grain output)	\$300 million (Based on 5% grain loss)
Rice Industry	\$800 million	\$112 million (Based on 14% yield loss)
Aquaculture	\$3.63 billion	\$472 million (Based on 13% produce loss)
Transmission of Human Disease (Public Health Impact)	N/A	\$190 million (Based on cost to public health system in SA)
Transmission of Avian Influenza to Poultry Industry	\$4.5 billion (Chicken meat + Eggs)	\$900 million (Based on 20% poultry death due to avian influenza)

WHO IS CHERRP® ?

Cherrp® is an AI-powered, bird management solution, which recognizes birds by species, communicates to them in their own languages, moving them away from protected locations to alternate feeding roosting, and recreation sites.

It is a sophisticated solution to a complex problem involving a very intelligent species and is purpose specific customized on each occasion according to each and every application.

It is not a one-size-fits-all.

It comes with an 80% Minimum Performance Guarantee.



Government of South Australia
Primary Industries and Regions SA



THE UNIVERSITY
of ADELAIDE

SARDI



SOUTH AUSTRALIAN
RESEARCH AND
DEVELOPMENT
INSTITUTE



University of
South Australia



GreenAtlas



CHARLES
DARWIN
UNIVERSITY



THE UNIVERSITY OF
SYDNEY



THINGLAB

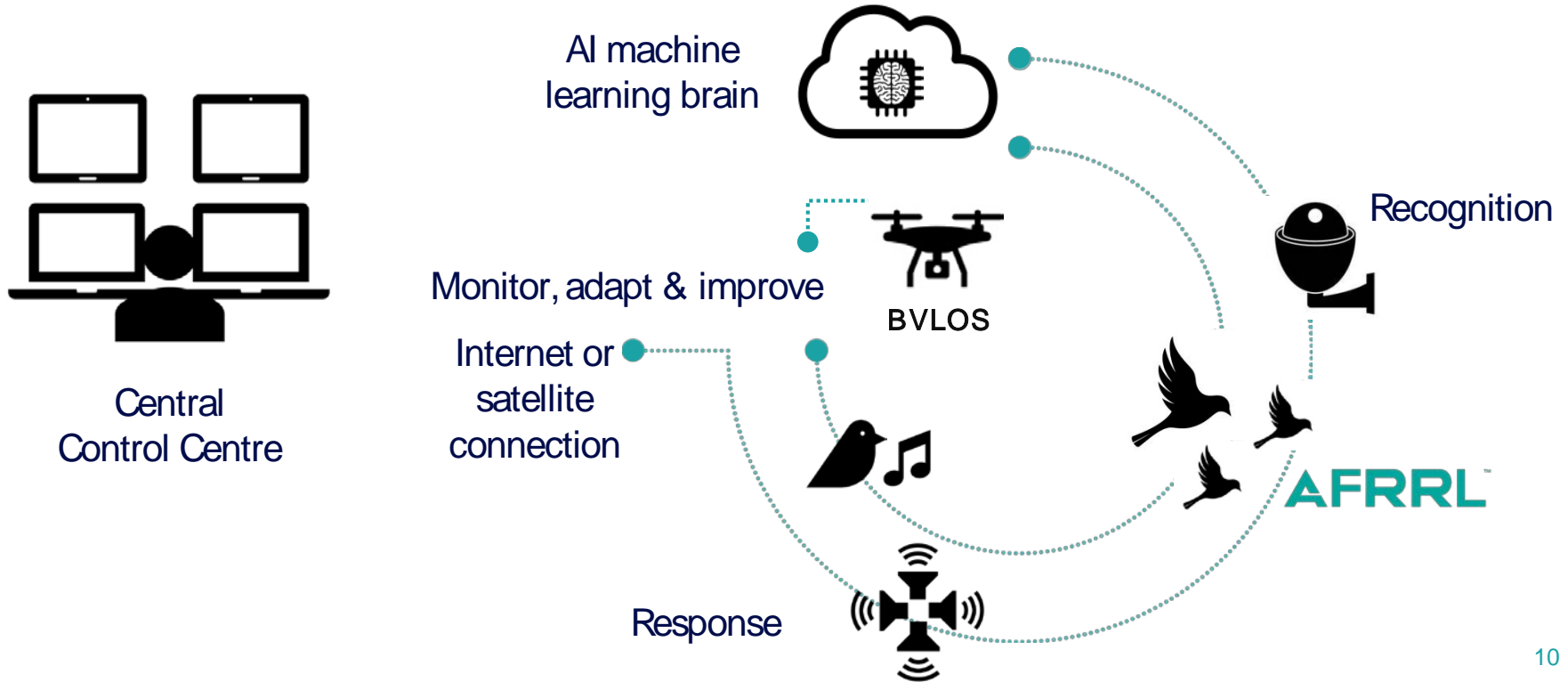
ORNITHOLOGY & WILDLIFE LAB

A world-class facility
that plays a pivotal role



- 1 Provides on-going support for deployed intelligent devices
- 2 Essential to understand & stay ahead of bird & wildlife behavior
- 3 Design and on-going monitoring & oversight of arsenal tools
- 4 Solving the bird problem starts here
- 5 Ethics Approved
- 6 HQ at Waite Campus, Adelaide, SA & also regional facility

PATENTED AI TECHNOLOGY



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CHERRP® IN THE FIELD – Bird Organic Communicators (BOCs)

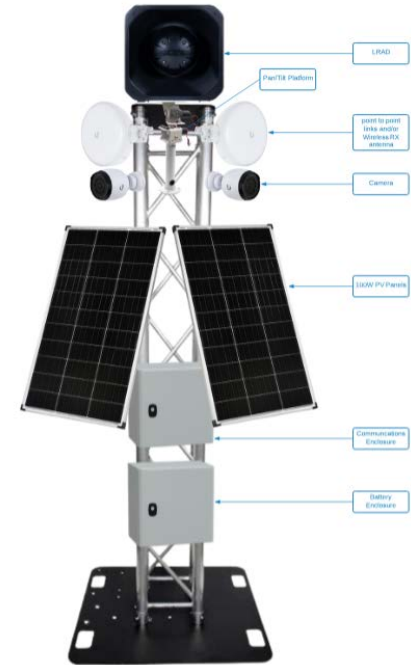


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TRANSITIONING TO NEW DESIGN BOCs



Generation 3 BOC



Generation 4 BOC



COMPETITOR ANALYSIS

Solution	Netting	Bird Hawk	Bird-X-Peller	Bird Control Group	Detect	Cherrp®
Operating model	Customer Owned & Maintained	Customer Owned & Maintained	Customer Owned & Maintained	Customer Owned & Maintained	Customer Owned & Maintained	Cherrp® Owned & Maintained
Core Technology	Obstruction	Laser	Audio	Laser	Radar + Audio	Integrated AI Technology
Species specific intelligence	✗	✗	✗	✗	✗	✓
Scare Birds	✗	✓	✓	✓	✓	✓
Attract Birds	✗	✗	✗	✗	✗	✓
Overcome Habituation	✗	✗	✗	✗	✗	✓
Alternate Food Source	✗	✗	✗	✗	✗	✓
Purchase or subscription	P	P	P	P	P	S

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BUSINESS MODEL



SALES PIPELINE



Cherrp

KEY PEOPLE



KIM GILIAM
DIRECTOR

Commercialisation Specialist & Member of Commercialisation Oversight Committee. Head of Regional Council Consortiums.



DR JOHN KAPELERIS
CEO

Over 25 years' leadership and business growth experience. Successful IPO of \$94million market capitalisation and numerous capital raises.



MICHELE COOPER
GENERAL MANAGER
COMMERCIALISATION

Global technology commercialisation. International partnerships and collaboration. Governance and sustainability.



PROFESSOR GISELA KAPLAN
O&WL LAB ARCHITECT AND MENTOR

Professor Kaplan has conducted ground-breaking research into vocal learning, communication and cognition of birds as her core focus.



MARK JURISEVIC
BIRD BEHAVIOURAL SCIENTIST

PhD, Ornithology & Wildlife Lab GM, Honours and Doctorate in Animal Biology, Bird Vocalisation expert



CURTIS MITCHELL
CHIEF INFORMATION TECHNOLOGY OFFICER

PhD, Technology & Engineering Lab Architect and Mentor



DION MAHER
CHIEF TECHNOLOGY OFFICER

Technology & Engineering GM Lead, Dion has been involved in all aspects of Business Development and Engineering



TOTAL FACTOR PRODUCTIVITY

IMAGINE THE IMPACT OF
REVERSING JUST 10% (OF THE 30-
40%) CROP LOSS, WILL HAVE ON
GLOBAL FOOD SECURITY:

WE COULD FEED AN ADDITIONAL
2.3 BILLION PEOPLE PER YEAR

ACHIEVING UN SDG 2 – ZERO HUNGER

Source:

<https://www.fao.org/3/cc3751en/cc3751en.pdf>

<https://goodseedventures.com/worldwide-food-consumption-per-capita-2>

CASE STUDY



01

CLIENT:

Rural City of Murray Bridge Cherrp®
Corella Management Solution

02

OBJECTIVE:

To displace 14,785 Corella Populations from 2 Protected Sites and relocate them to the AFRRL created in the Swanport Wetlands (with a >80% minimum performance guarantee).

Outcome:

After the installation and commissioning of the Cherrp® Corella Management Solution

Number of Corellas <u>before</u> the Cherrp® Solution was installed	Number of Corellas <u>after</u> the Cherrp® Solution was installed and commissioned
Sturt Reserve: 10,182	Sturt Reserve: 0
Swanport Reserve: 2,403	Swanport Reserve: 0
Swanport Wetlands: AFRRL: 0	Swanport Wetlands: AFRRL: 10,000
Default AFRRLs: 2,200	Default AFRRLs: 4,785

Achieved a successful outcome with 98% performance effectiveness

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CHERRP® IMPACT VALUE BENEFITS

- Helps farmers increase crop yield by solving their bird problem (over 96% yield up from an average of 47%)
- Targets specific pest birds, not affecting beneficial birds
- Displaces birds, but also relocates them through attraction sounds
- Dynamic AI automated system that learns and adapts to changes in bird behaviour and circumvents bird habituation
- Environmentally friendly, ethical and sustainable solution
- Contributes to global food security

CHERP® SOLUTION PROCESS

1

Scientist & Technical Team, Undertake an Environment Research Investigation & Physical Site Audit to find answers to key questions.

2

To prepare and provide a Detailed Customised Implementation Plan

3

Works Services Agreement is prepared and signed

4

Resources and materials are allocated to the project

5

Installation of the Cherrp bird deterrent solution is undertaken

6

Cherrp bird deterrent solution is commissioned and tested

CUSTOMISED AUTOMATED TECHNICAL SOLUTION ELEMENTS



- 1 Fixed Detection Network
- 2 Fixed Devices Communication Network
- 3 Mobile & BVLOS Airborne Device(s)
- 4 Brain Libraries & Portal
- 5 Command & Control Centre
- 6 O&WL Lab Remote Monitoring & Management
- 7 Help Desk
- 8 Personnel Training & Integration

WHAT DOES IT COST?

Cherrp is not a one-size-fits-all.

Cherrp is purpose specific customized on each occasion according to each and every application.

Cost depends on the farm size, topography, type of crop, nature of bird problem etc

- 1 To undertake a Physical Site Audit and to prepare the detailed Customized Implementation Plan: (\$75k Deposit)
- 2 The Adoption Cost is offered as a Monthly Finance Fee. It will be impacted by the nature and extent of the area to be protected.
- 3 Importantly.
 - It comes with an 80% Minimum Performance Guarantee.
 - Unheard of in the Industry.
 - We put our money where our mouth is.

NUT INDUSTRY PARTNERSHIP PROPOSAL

- A Physical Site Audit and Customized Implementation Plan for each Participating Member.
- Participating Members will be entitled to Concessional Cherrp Adoption.
- As a Bonus, Participating Members will be offered Proportionate Equity in the Cherrp Business.*
- Proportionate Ownership will entitle Participating Members Proportionate Dividends on-going.
- If and when the Cherrp Business is sold, Participating Members will be entitled to Proportionate Capital Gain.

* Industry Managed Partnership Entity.



Cherrp.

NUT INDUSTRY PARTNERSHIP PROPOSAL NEXT STEPS

- Happy to receive Expressions of Interest
- Come talk with me: Dr John Kapeleris Cherrp CEO.
- My contact details are on the Cherrp Flyer.
- I'm happy to answer any questions.
- The Nut Industry Partnership Opportunity is only available for a Limited Time



The logo features the word "Cherrp" in a white, italicized sans-serif font, centered within a dark blue circle. This circle is surrounded by a thick, light blue ring. The entire graphic is set against a dark blue background with horizontal bands of lighter blue and teal. The word "Cherrp" is followed by a registered trademark symbol (®).

Cherrp®