

## **2022 AGM Presentation**

Bluechiip Limited (**Bluechiip** or the **Company**) (**ASX: BCT**), a leader in the development of advanced sample management solutions for harsh environments, provides the 2022 Annual General Meeting presentation.

**END.**

**Authorized for release by the Bluechiip Limited Board**

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**About Bluechiip Limited**

Bluechiip understands that every biological sample – stem cells, blood, eggs, sperm and other biospecimens – is critical, so our objective is to manage each one with optimal quality in the most efficient way. Bluechiip's Advanced Sample Management Solution is the only one that provides sample temperature with ID in cryogenic environments, driving productivity and improving quality. Bluechiip's solution delivers confidence in every sample.

Bluechiip's unique patented technology is a MEMS-based wireless tracking solution that contains no electronics. It represents a generational change from current tracking methods such as labels (hand-written and pre-printed), barcodes (linear and 2D), and Radio Frequency Identification. Bluechiip tags are either embedded or manufactured into storage products such as vials or bags. Each product is easily identified and critical information, such as sample temperature, detected by readers and stored in the Bluechiip software. In addition to functioning in extreme temperatures, the Bluechiip® Advanced Sample management solution can survive autoclaving, gamma irradiation sterilization, humidification, centrifuging, cryogenic storage and frosting.

Bluechiip listed on the ASX in June 2011. Since then, it has significantly developed its technology. Today Bluechiip's Technology has applications in healthcare, including in cryogenic storage facilities (biobanks and biorepositories), pathology, clinical trials and forensics. Other key markets include cold-chain logistics/supply chain, security/defence, industrial/manufacturing and aerospace/aviation.

**Bluechiip: Delivering confidence in every sample.**

Further information is available at [www.bluechiip.com](http://www.bluechiip.com)



# Annual General Meeting November 2022

REDEFINE QUALITY • DRIVE PRODUCTIVITY

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CONFIDENCE IN EVERY SAMPLE

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# Disclaimer

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**Drives  
productivity**



**Redefines  
Quality**



**Confidence in  
every sample**

- World first, highly differentiated technology: 33 granted patents
- >>\$1B growing target markets: IVF, clinical trials, cell therapies, biobanking and vaccines requiring Ultra Low temperature ID and temperature traceability
- Well over 300M/yr high value bio-samples handled at -80°C & -196°C
- Current ID methods are suboptimal both in productivity and quality
- Complete CE & FDA Registered Bluechiip Enabled Solution Launched Dec '21
- Growing direct customer base globally including ARMI, OrganaBio, Crux Biolabs, large pharma and Labcon customer since launch
- Major partnership: FujiFilm Industries Irvine Scientific for IVF market
- Cash in bank, \$1.6m (Sep), \$1.1m receivables, >\$3m inventory, zero debt & scaled production capacity of over 5m chips per annum

# Key Achievements – FY'22

- **Bluechiip Enabled solutions launched**

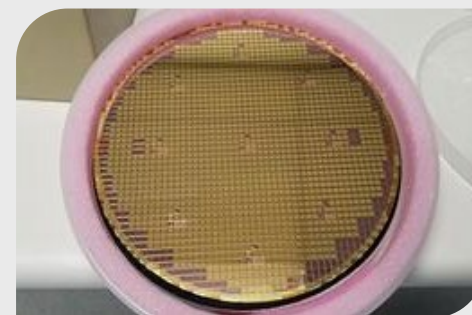
- ISO9001, CFR21-11 software, CE IVD & FDA registration
- Scaled chip supply chain (3m+)
- International ISBER award: Bluechiip Cryobox Tracker

- **Accelerating Customer Adoption & Pipeline Building**

- Expanded US sales & Marketing Team
- Customer adoption in EU, US & APAC with repeat orders

- **FujiFilm Industries Irvine Scientific**

- Licence and development agreement for ART/IVF market



REDEFINE QUALITY • DRIVE PRODUCTIVITY

**CONFIDENCE IN EVERY SAMPLE**



Sample Storage



Readers



Software

## Certifications

- ✓ Certified ISO9001 Quality Management System
- ✓ CE Marked Readers and CE-IVD Marked Consumables
- ✓ FDA Registered Products
- ✓ Bluechiip is a registered Australian Trusted Trader





# Bluechiip Enabled Laboratories



What end-users are saying about Bluechiip



"The Bluechiip System allows me to have a significant amount of oversight throughout our banking process"  
- Dr Akhil Chawla MD, Clinical Assistant Professor of Surgery



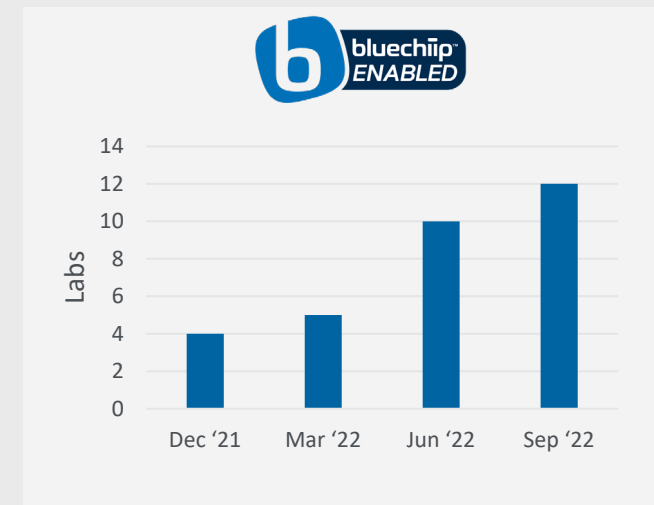
"Bluechiip helps us work more efficiently with confidence in sample integrity and identity"  
- Dr Mary Clare McCorry, Director of Technology and Process Development



"The Bluechiip system provides a full audit trail to help us adhere to Good Manufacturing Practice"  
- Dominika Lykova, Cell Therapy Specialist



Palacký University  
Olomouc



Growing install base with multiple sites onboarded including a large EU Pharma company

# Bluechiip Overview



[Link to corporate video](https://www.bluechiip.com/investor/company-overview/)

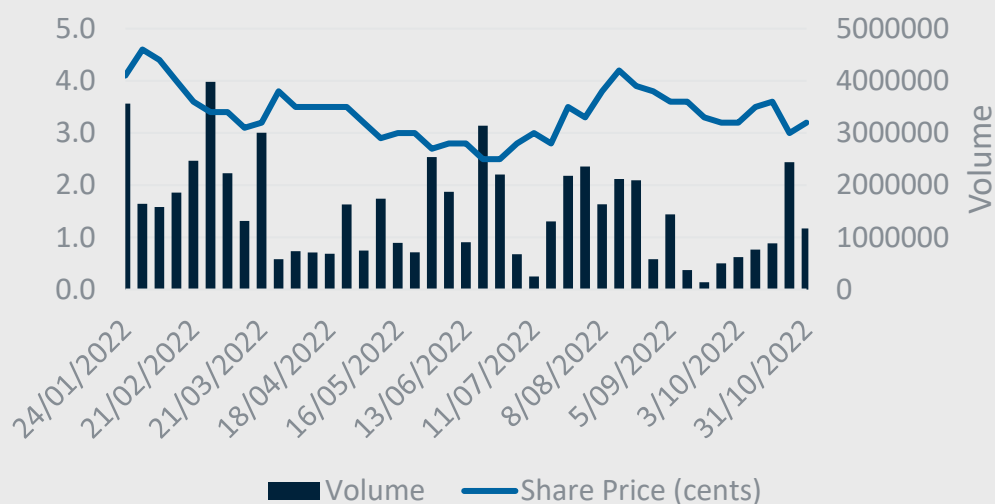
<https://www.bluechiip.com/investor/company-overview/>



# Corporate Overview

Founded in 2003 | Listed on Australian Securities Exchange (ASX) 2011 | IP portfolio: 32 granted patents  
Head office in Melbourne, Australia | Direct Sales in North America and Aus/NZ | Global Distribution Partners

Weekly BCT Share Price (cents)



## Top Shareholders (as at 27 July 2022)

HSBC Custody Nominees (Australia) Limited	12.75%
JP Morgan Nominees Australia Pty Limited	5.23%
Chairman & Entities	4.65%
Top 20 Shareholders	47.38%

## Summary

Number of Shareholders	1,602 (31.10.2022)	Market Cap.	AUD19.154m (31.10.2022)
Share Price	3.2c (31.10.2022)	Cash	AUD1.56m (30.09.2022)
Shares on Issue	598,563,796 (31.10.2022)		

## Board

Iain Kirkwood Chairman (Nov '07)	Andrew McLellan Managing Director (Jan '15)	Michael Ohanessian Non Exec Dir (Dec '14)	Andrew Cox Non Exec Dir (July '17)
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## Vision

To be the global leader in ID and sensing technology  
for extreme environments

## Mission

To advance research and medicine by providing  
**confidence in every sample**

# Major ID and Sensing Technology Sectors

## Primary Focus



### Lifesciences Cold Chain incl Logistics, Storage and Monitoring

Item level **ID and temperature tracking** of containers holding high value samples through-out the **cryogenic** cold chain cycle. Including Banking, Transport and Monitoring where **frost** is usually present, and **ID errors have high risk and impact**



### Cold Chain Logistics Food

Item level **tracking** of **frozen**, and **temperature sensitive** food products through-out the cold chain cycle.



### Industrial and Manufacturing

Item level ID and **high/low temperature tracking** tools and parts, structural health monitoring, items exposed to **ionizing radiation** such as nuclear products, sterilised medical devices, disposables and some food products.



### Security and Defence

**Anti counterfeiting** fashion, art, and high value commercial items. Cloning a bluechiip tag is extremely difficult. tracking of tools and parts that are exposed to **ionizing radiation**, security and defence.

Bluechiip is highly differentiated in Lifescience Cold Chain with core technology benefits and large market opportunity

# Life-science Cold Chain Market Trends



**Increasing sample numbers and retrieval rates**

## PRODUCTIVITY

Minimise total cost of sample ownership and ROI



**Increased demand for advanced therapies and sensitive samples**

## SAMPLE VALUE

ID tech needs to keep up with higher value samples



**Criticality of sample history maps and reports**

## SAMPLE QUALITY

Maximise specimen integrity via adequate cold chain handling and reporting



**Increasing demand for cryo (-196°C and -80°C) storage**

## CRYO TECH

Utilisation of cryo-safe technology and processes

# Biosample Management Technology is Not Keeping up With the Increasing Value of Biosamples

Tissue

Blood

IVF Sperm/Eggs

Vaccines

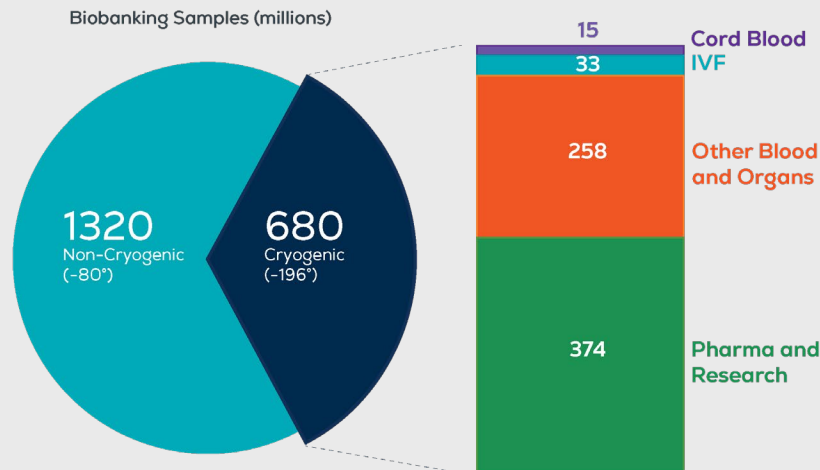
Stem Cell



# Primary Market Opportunity

Global Bio-Preservation Market \$3.1B in 2020  
– Projected \$4.9B in 2025 (CAGR 9.2%)^

## Samples in Storage\*



Sources: ^Markets and Markets 2020 \*Visual Fuse and MarketsandMarkets 2014

## Primary Bluechiip Applications

### Life Science Market Opportunities

Target Market	Market Size by Samples	Bluechiip Addressable Market
Bio-preservation	300m+ samples/year >2B in storage	US\$600m+
Assisted Reproductive Technology (IVF)	2.5m IVF Cycles/year 5-8 consumables per cycle >33m samples in storage	US\$50m+
Clinical trials and research	>35m samples/year	US\$70m+
Cell therapies, Pharmaceuticals	3m samples/year 15m+ in storage	US\$30-50m+









**Total Bio-Preservation: 2B Samples in Storage**  
300M new samples per year

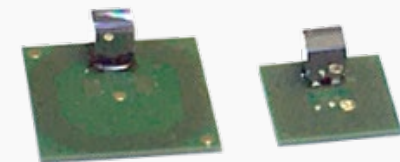
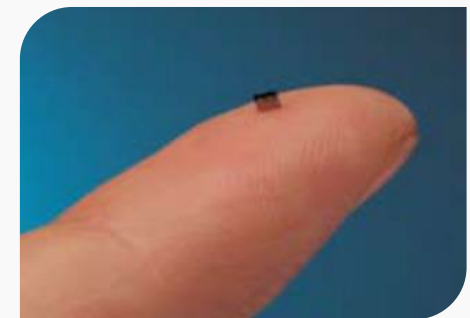
Sources: Visual Fuse and Markets and Markets 2014



# Bluechiip MEMS Core Technology Advantages

Bluechiip's sensor tag consists of a silicon chip (1mm<sup>2</sup>) with 52 mechanical beams that provide a unique ID when read. The chip is connected to an antenna available in multiple form factors, providing communication of both ID and temperature to a centralized database. Bluechiip's Tag provides key advantages over other forms of ID in cryogenic conditions.

	 RFID	 Barcodes	 Bluechiip
 <b>Non-visual ID</b> Reads through frost	~*	✗	✓
 <b>Cryosafe</b> Operates down to -196C	✗	✗	✓
 <b>Guaranteed unique ID</b> ID cannot be overwritten or duplicated	✗	✗	✓
 <b>On-board sensor</b> Senses temperature on each scan	✗	✗	✓
 <b>Sterilization proof</b> Gamma, E-beam, Autoclave	✗ <sup>^</sup>	✓	✓

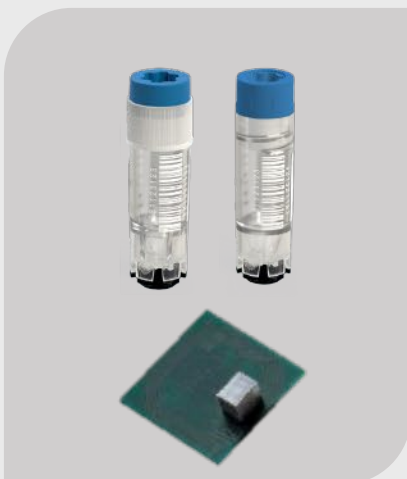


\*Majority of RFID unreliable below -40C.    ^Some newer RFID's have resistance

Bluechiip offers the only Advanced Sample Management solution that provides **sample temperature with ID** in cryogenic environments

We understand that every sample is critical and managing each one with optimal quality, in the most efficient way is the objective

### Bluechiip Enabled Storage



### Bluechiip Readers



### Bluechiip Stream Software



Bluechiip's goal is to deliver confidence in every sample



# Confidence in Every Sample

Bluechiip's unique and patented technology is designed to operate across a wide temperature range from -196°C to over +100°C, creating the perfect system for managing sensitive samples. Bluechiip Enabled Sample Storage, Readers and Software combine to provide an unparalleled ability to track and store sample level data, including temperature across the cold chain process.

## Redefining Quality

- ✓ Capturing ID and temperature at the sample level for cold chain integrity
- ✓ Reducing the risk of temperature excursions in cryogenic conditions
- ✓ Providing key workflow insights to drive continuous improvement
- ✓ Eliminating errors through optimized inventory management
- ✓ Enabling compliance to industry standards and internal procedures



## Driving Productivity

- ✓ Reducing manual processes and eliminating double witnessing
- ✓ Identifying multiple samples instantly through frost
- ✓ Simplifying inventory handling for faster processing
- ✓ Driving efficiency at every step of the workflow



# Bluechiip - Path to Market

## Bluechiip Direct Solutions

- Direct to market: North America, ANZ and global distribution network
- Consumables, Readers, Software Sales model

## Primary Target Markets

- Bio-preservation
- Clinical trials and research
- Cell therapies & Pharmaceuticals



## Partnerships: Bluechiip Enabled Solutions

- Developer kits sold to global corporations for due diligence
- Conversion to licence agreements and Bluechiip Enabled solutions
- Ongoing licence fees
- Development and service revenues
- Sale of Bluechiip Enabled Consumables, readers & software

## Major Licence agreements

- FujiFilm Industries Irvine Scientific
  - Licence and Development agreement
  - 18-24 month development project
- Labcon distribution agreement



# Growth Initiatives For A Bluechiip Future



- Sales & marketing team expansion in North America in 2023
- Expanding distribution networks in Europe & Asia in 2023
- Growing our direct customer base globally across the >>\$1B, Ultra Low temperature clinical trials, cell therapies, pharmaceuticals and biobanking markets
- Execution and conversion of our Major partnerships: FujiFilm Industries Irvine Scientific for IVF market
- Expansion of platform offerings based on customer feedback providing productivity and quality across the Cold Chain
- Continued expansion and protection of our world first, highly differentiated technology: >33 granted patents
- Building operational & manufacturing capabilities to meet demand



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