AI-Enabled Platforms for Protection against Advanced Threats

ASX:DRO
May 2022
Investment Highlights

World leading proprietary AI platform for protection against drones

Leverage to the global defence and security technology sector. $10bn counterdrone addressable market, in addition to electronic warfare and tracking systems markets

Sales pipeline of $155m for 2022 and $170m for 2023

Best in class customer base including Department of Defence, US Air Force, US State Department

FY21 revenue more than doubling to $10.5m, cash receipts almost tripling to $14.8m

Approaching an inflection point with receipts from existing customers rising from $2.2m in 2020 to $9.9m in 2021
## Executive Summary

**DroneShield Overview**
- Founded in 2014 and listed on the ASX in June 2016, DroneShield (ASX:DRO) provides **Artificial Intelligence based platforms** for **protection against advanced threats such as drones and autonomous systems**
- Offers **hardware and software solutions** that detect and safely neutralise small drones (unmanned aerial vehicles or “UAS”) used for nefarious purposes, such as high-tech warfare, terrorism, contraband delivery, and airport disruptions
- **Key customers** include military, intelligence community, Homeland Security, law enforcement, critical infrastructure, and airports globally

**Financial Highlights**
- FY21 (Dec YE) Revenue up 94% to $10.5m
- Cash Receipts up 174% to $14.8m
- $325m+ near term project **pipeline** ($155m for 2022 projects)
- $8m cash in bank (as at 31 Mar 2021)

**Business Model**
- **Two streams of revenue**: hardware (drone detection and defeat devices) and SaaS (device software updates)
- Sales through an **experienced in-house veteran salesforce with distribution partners across over 100 countries**
- Regular software updates for hardware products and the upcoming launch of DroneSentry-C2™ (Command-and-Control software) expected in Q2 2022 as a standalone subscription product will lead to a **significant proportion of SaaS revenue** over the next 5 years
- **R&D contracts are expected to rapidly increase**, representing an exciting opportunity to develop very advanced capability in-house, and in the process, attracting and upskilling very talented engineers

**Proprietary AI Technology**
- Underpinning all hardware products are the Company’s **proprietary AI-enabled threat awareness software engines RFA™ and DroneOptID™**
- RFA™ and DroneOptID™ are machine learning and AI based detection and classification software, utilising proprietary techniques to undertake **real-time detection and identification of unmanned robotic systems** and, more broadly, other potential threats in the ISR and Electronic Warfare fields
- The result is a dramatic **increase in detection responsiveness, lower false positives** and a **significant increase in the speed** at which new threats are detected, classified and tracked by DRO systems.
- Customers receive **regular software updates** via enrolling in a SaaS model at the time of purchase of their systems. Software updates build on the system architecture and increase performance and the number of detectable threats
- Recently won a **A$3.8m contract to provide Electronic Warfare (“EW”)** capabilities to detect “never seen before threats” to the **Australian DoD**

**Addressable Market**
- **Large international addressable markets** in counterdrone and related EW and tracking systems estimated at approximately **US$10 billion** worldwide
- Rapidly improving and easily available drone technology is **driving demand for counterdrone solutions**
- **Current geopolitical conflicts** make **extensive use of drones by all sides**

**Growth Strategy**
- Today, over **75% of revenues is derived from defence**, and approximately **15% of revenue** comes from the **intelligence community**
- Defence, the intelligence community and border security will continue to be the key focus for DRO, however there is a **major opportunity for continued expansion** into other markets including civilian airports, prisons, stadiums and corporates

**Key execution priorities in 2022**
- **US sales**: converting trial and integration successes into large multi-million-dollar contracts
- **Australia sales**: expanding on the initial A$3.8m Electronic Warfare contract into the next, and larger, contract
- **Technology**: rapidly scaling the AI engine software for SaaS deployments, and release of DroneSentry-C2™
- **M&A**: continue to review and successfully implement appealing acquisition options
Continued Rapid Growth (A$ m, Dec YE)

Rapidly improving financials, as the business stands at an inflection point into 2022

**Strong Revenue Growth**

<table>
<thead>
<tr>
<th>FY</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
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<tbody>
<tr>
<td>Total</td>
<td>1.2</td>
<td>3.6</td>
<td>5.6</td>
<td>10.6</td>
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</table>

89% growth

**Rapid Cash Receipt Growth**

<table>
<thead>
<tr>
<th>FY</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>Q1 2022</th>
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<tbody>
<tr>
<td>Total</td>
<td>1.8</td>
<td>3.7</td>
<td>5.4</td>
<td>14.8</td>
<td>2.5</td>
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<tr>
<td>Q1</td>
<td>-</td>
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<td>-</td>
<td>1.9</td>
<td>2.5</td>
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<tr>
<td>FY</td>
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<td>-</td>
<td>1.0</td>
<td>2.5</td>
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32% growth vs Q1 2021

**Improving EBITDA**

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<tr>
<th>FY</th>
<th>2018</th>
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<tr>
<td>Total EBITDA</td>
<td>-6.3</td>
<td>-7.5</td>
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<tr>
<td>Standstill EBITDA</td>
<td>-3.4</td>
<td>-3.4</td>
<td>-2.1</td>
<td>-5.9</td>
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Standstill EBITDA turning positive

**Customer “Stickiness” – Repeat vs First Time Cash Receipts**

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<thead>
<tr>
<th>Q1 2022</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
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<tr>
<td>Total</td>
<td>0.2</td>
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<td>3.1</td>
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<td>1.2</td>
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Note: $14.8m cash receipts in 2021 includes grant of US$99,600 from the US Government, under the Paycheck Protection Program
2021 Key Achievements

2021 has been a major step forward for DroneShield, despite the COVID pandemic challenges

- Another all-time record year for revenues and cash receipts
- Expanded past counterdrone into two AI-powered adjacent areas of Electronic Warfare and Computer vision, with Australian DoD contracts for each
- Multi-million dollar project: $3.8m 2 year contract with Australian DoD
- Ramped up a second outsourced manufacturing facility in preparation for larger orders (no cost to DRO – payment per unit made)
- Scaled the high-calibre team from 30 to 60 across Australia, US and UK
Diversified and Mature 2022 Pipeline

Multiple projects at each development stage improve predictability of cashflows

6-18 months from lead to sale, but can be much shorter for repeat orders

Notes:
Cash Receipts to Dec 2022 only, for purposes of this slide
The pipeline is cumulative – eg, the 50+ projects at Confirmed Scope stage are included as part of the 70+ projects at the Credible Lead stage
* Order Book = current Purchase Orders (POs), less amount already paid to DRO (eg deposit) under those POs
Business Overview
Why is the Malicious Use of Drones a Threat?

The widespread adoption of drone technology has increased the risk and prevalence of disruptive use

**Payload delivery**
- **Attacks:** Dropping harmful / explosive payloads (including chemical or biological substances) or creating damage via collision
- **Smuggling:** Moving contraband into sensitive zones such as prisons

**Intelligence gathering**
- **Directing attack:** Reporting enemy target location on the battlefield to direct forces
- **Spying and tracking:** Obtaining video, images and track movements of personnel
- **Surveillance:** Using drone images and other payload data to enable reconnaissance

**Nuisance activity**
- **Infrastructure disruption:** Using drones to jeopardise the safe operation of major facilities such as airports

**Cyber and Ransom attacks**
- **Corporates, Ships, Facilities:** Hack into control networks via proximity intrusion with a drone, and demand ransom or cause terrorist attack
AI-Enabled Platforms for Protection against Advanced Threats

Multiple platforms in adjacent technologies and customers with a common theme of AI-based threat protection

**Counterdrone**
- Global leader with multiple differentiators in a rapidly growing counterdrone market
- Hardware sales with SaaS
- Tier 1 customers across military, intelligence community, Government and critical infrastructure
- $200m+ pipeline

**Artificial Intelligence in Electronic Warfare**
- Executing on a 2 year $3.8m contract with Australian DoD, following on the initial $600k contract in 2020
- Expecting significant follow up work with the DoD
- Potential to take the work to the US DoD

**Artificial Intelligence in computer vision and sensor fusion**
- Executing on a 1-year initial $800k contract with Australian DoD
- Expecting follow up work, potentially within the timeframe of the current contract

**Command-and-Control (C2) Systems / Tracking Systems**
- In tenders with multi-million-dollar total opportunities, including for Tracking Systems

Synergies between counterdrone and non-drone applications
How does a counterdrone system work?

**Step 1: Detect**
- State of the art, multi-sensor drone detection products provide optimal detection and identification of drones and other UAS threats.

**Step 2: Assess**
- Machine learning and AI based detection and classification software is used to undertake near-real time tracking and assessment of drones and UAS threats.

**Step 3: Respond**
- Respond / defeat technologies offer intelligent, responsive, non-kinetic jamming for the controlled management of threats.
Counterdrone: Multi-Billion Dollar Market by 2024

Rapidly improving and easily available drone technology is driving demand for counterdrone solutions

Sources:
US$10bn Total Addressable Market

- Military Vehicles - Mounted: $25k - $200k each ($2.3bn)
- Airports - Fixed Sites: $125k - $2m each ($1.1bn)
- Military - Portables: $20k - $55k each ($1.1bn)
- Government Facilities - Fixed Sites: $63k - $500k each ($1.5bn)
- Energy Production & Critical Infrastructure - Fixed Sites: $125k - $2m each ($625mil)
- Law Enforcement - Portables: $63k - $500k each ($550mil)
- Military - Fixed Sites: $125k - $860k each ($500mil)
- Civil Helicopters - Fixed Sites: $30k each ($500mil)
- Civil Helicopters - Vehicle mounted: $25k - $125k each ($390mil)
- Correctional Facilities - Fixed Sites: $63k - $500k each ($500mil)
- Stadiums & Events: Fixed Sites or Portable: $25k - $125k each
- Oil Refineries - Fixed Sites: $25k - $500k each
- Shipping & Ports - Fixed Sites: $25k - $125k each

Sources: https://www.droneshield.com/counterdrone-market
AI Generally: US$58bn in 2021, US$310bn in 2026

2021 has seen a major step forward for DroneShield, despite the COVID pandemic challenges

- A new high-tech area, substantially open to disruption by smaller companies like DroneShield
- Sovereign capability aligned – DroneShield well positioned with existing multiple AI contracts with Australian DoD
- Competitive differentiation via team skillset, trusted supplier relationship with security clearances, and accumulation of large datasets
- Substantially software based, multi-year contracts – reduces lumpiness in earnings, enables high margins
- Adjacencies to core DroneShield business of counterdrone

Market size references:
DroneShield Capability Overview

Rapidly evolving capabilities in response to customer requirements

<table>
<thead>
<tr>
<th>Hardware with Embedded Software and Associated Services</th>
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<tbody>
<tr>
<td>Dismounted &amp; Body-Worn Counterdrone Solutions</td>
</tr>
<tr>
<td>DroneGun</td>
</tr>
<tr>
<td>DroneGun Tactical</td>
</tr>
<tr>
<td>RfPatrol</td>
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<tr>
<td>DroneNode</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vehicle / Ship / Fixed Site Counterdrone Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>DroneSentry-X</td>
</tr>
<tr>
<td>DroneSentry</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Subscription and R&amp;D Based Software</th>
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</thead>
<tbody>
<tr>
<td>Electronic Warfare and Signals Intelligence</td>
</tr>
<tr>
<td>R&amp;D Contracts</td>
</tr>
<tr>
<td>C2 and Universal Tracking Platforms (UTPs)</td>
</tr>
<tr>
<td>DroneSentry-C2</td>
</tr>
<tr>
<td>Optical Detection and Tracking AI</td>
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<tr>
<td>DroneOptID</td>
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</tbody>
</table>
### Counterdrone detection solutions

DroneShield uses multi-sensor drone detection for optimal results

<table>
<thead>
<tr>
<th>Imagery</th>
<th>Radio frequency</th>
<th>Radar*</th>
<th>Cameras*</th>
<th>Acoustic*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview</td>
<td>• Foundational layer</td>
<td>• Motion tracker - emits signals which are then reflected back to the radar by targets</td>
<td>• Electro-Optical (EO), Infrared (IR) and Thermal</td>
<td>• Compares noise of drone blades or motor to a database of acoustic signatures</td>
</tr>
</tbody>
</table>

#### Advantages

- ✓ No interference with other sensors
- ✓ Tracks multiple targets
- ✓ Passive – cannot be “seen”
- ✓ Low false alarm rate
- ✓ Direction-finding capability
- ✓ Long ranges
- ✓ Cost effective
- ✓ Picks up drones without RF emissions
- ✓ Tracks multiple targets
- ✓ Best used for verification, classification and tracking of a target detected by other sensors
- ✓ Potential identification of payloads
- ✓ Provides “eye on target”
- ✓ Passive, cost effective
- ✓ Supporting sensor, filling gaps from other sensors

#### Disadvantages

- ✗ Doesn't pick up RF-silent drones
- ✗ Requires firmware updates
- ✗ False alarms (birds etc)
- ✗ Is “seen” as emits energy
- ✗ Longer range detection is expensive
- ✗ Struggles with hovering drones
- ✗ Not well suited for detection on its own due to field-of-view vs distance trade-off
- ✗ Short ranges
- ✗ Short range
- ✗ False alarms
- ✗ Cannot locate or track
- ✗ Requires signature database updates

* Third party hardware, integrated into DroneShield combined multi-sensor solution, with differentiated offering via AI-powered software layers
DroneShield uses smart jamming which has advantages over other technologies, particularly, in its use across civil and military applications, and does not compete against large Defence Primes.

### Counterdrone defeat solutions

<table>
<thead>
<tr>
<th>Impact</th>
<th>Safe - “soft kill”</th>
<th>Kinetic - “hard kill”</th>
</tr>
</thead>
<tbody>
<tr>
<td>No intentional damage to the drone</td>
<td>Physical force used with potential for destructive damage</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Imagery</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="radio_waves.png" alt="Radio waves" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overview</th>
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</thead>
<tbody>
<tr>
<td>Radio waves force a drone to fly back, hover, or land</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Advantages</th>
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</thead>
<tbody>
<tr>
<td>Universal effectiveness</td>
</tr>
<tr>
<td>360-degree defeat coverage</td>
</tr>
<tr>
<td>Effective against swarms</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential for collateral interference (for a “dirty” jammer)</td>
</tr>
<tr>
<td>Higher chance of collateral damage</td>
</tr>
</tbody>
</table>
DroneShield AI Software Sees Through Noise – Radiofrequency Spectrum

World leading proprietary RF AI platform for protection against advanced threats, such as drones

- Drones operate in arguably the densest parts of the Radio Frequency (“RF”) Spectrum with “noise” coming from all kinds of other emitters including Wi-Fi, Bluetooth, cell towers and antennas
  - Consequently, counter-drone detection technology needs to be able to pull a signal out of all the other “noise”, while still maintaining a low false alarm rate
  - Achieving this using traditional techniques, especially in a very cluttered environment, is very difficult – if not impossible

- Consequently, DroneShield has developed a cutting-edge spectrum awareness capability using proprietary Artificial Intelligence techniques through its RFAI™ engine

- The RFAI™ engine receives quarterly updates (intra-quarter updates also available) which get pushed to the devices deployed across the globe in a variety of ways suitable for the security of the end user
Drones are small, fast-moving objects, hard to detect with naked eye more than 50m away, against complex background.

Cameras on their own cannot detect and track drones at any meaningful distance, due to:
- the trade-off between the camera Field-of-View (FoV) and Depth. A wide FoV would only see drone at a close distance. A narrow FoV means only looking at a tiny part of the area.
- Even once an object is detected, separating drones from birds is difficult, especially for fixed wing drones.

To enable cameras to accurately detect and track drones and other objects, DroneShield has developed a proprietary AI engine DroneOptID™, in conjunction with University of Technology Sydney, with DroneShield retaining the IP.
- DroneOptID™ uses the latest in Computer Vision technology to detect, identify and track drones in real time, cutting through all the other "noise".
- The software takes geographical and environmental data from other sensors in order to slew and validate a drone threat. Once the drone is in the field of view of the camera, using proprietary DroneShield algorithms, the DroneOptID™ software uses motion tracking and machine learning techniques to identify and track the target.

Further development is currently under way, funded by the Australian Department of Defence.
Expanding on the current work with Australian DoD, DroneShield’s offering will increasingly become hardware-agnostic hardware for detecting, identifying and tracking threats through noise.

- Ability to deploy on vast amounts of customer hardware platforms
- Growing number of deployed devices feeding DroneShield datasets
Artificial Intelligence in Electronic Warfare

DroneShield is favourably exposed to the fast-growing Electronic Warfare business segment

• **Electronic warfare (EW)** is any action involving the use of the electromagnetic spectrum (EM spectrum) or directed energy to control the spectrum, attack an enemy, or impede enemy assaults. The purpose of electronic warfare is to deny the opponent the advantage of—and ensure friendly unimpeded access to—the EM spectrum.

• Demand for smart EW technologies to jam, degrade, disrupt or neutralise an adversary capability are rapidly growing and are an essential part of modern warfare.

• Given the overlap with DroneShield’s counter-drone AI technology and the minimal Australian based competition in EW technology, DroneShield is in the box seat to exert dominance in this rapidly growing area.

• In 2021, DroneShield received a A$3.8 million, 2-year R&D contract with the Australian Department of Defence:
  - Contract was awarded on a sole source basis. Importantly, the contract was not in counter-drone, but EW and Signals Intelligence, an adjacent area utilising an existing DroneShield skillset, but with much wider applications.

• Additional, and larger, contracts are expected with the Australian Department of Defence, as DroneShield builds up its AI capabilities in the EW and Signals Intelligence arena.
DroneShield’s competitive counterdrone advantage?

C-UAS market pioneer, with a culture of systematic innovation and understanding of channels to market

**Market leading, differentiated technology...**
- Multi-sensor detection, ID and tracking
- Best-in-breed detection range
- Best-in-breed defeat range

**...across multiple platforms...**
- Body-worn
- Vehicle/Ship mounted
- Fixed site

**...underpinned by AI-powered SaaS...**
- Proprietary software integrated across product suite
- Difficult to replicate
- Experienced development team for quarterly software updates

**... and backed by high barriers to entry**
- Experienced in-house veteran sales team
- Established relationships with global defence partners and clients
- Deep in-house world-leading technology talent
# Counter-UAS competitor analysis

DroneShield is the only provider of a full range of counter-UAS solutions that are designed, developed and enabled with in-house technology and R&D capabilities.

<table>
<thead>
<tr>
<th>Country of origin</th>
<th>Ownership</th>
<th>Detection</th>
<th>Dismounted</th>
<th>Vehicle Mounted</th>
<th>Fixed Site</th>
<th>Defeat</th>
<th>Dismounted</th>
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<td></td>
<td>NYSE: CACI</td>
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## Platform information

- Most extensive product range in the market
- Large in-house technology / IP portfolio
- Market leading performance
- Substantially an integrator of 3rd party technologies
- Reseller and integrator of 3rd party products
- Lower-performance technology
- Focussed on prison and law enforcement
- Handheld gun style system
- Lack a full product suite
- Handheld gun style system
- Lack a full product suite
- Offer a large but man portable solution which is a halfway between an on-the-man and vehicle focused product
- Offer an expensive, competing product to DroneSentry
- Lack a full product suite

## Detection

- RF, EO / IR, Radar
- RF, EO / IR, Radar
- RF, EO / IR, Radar
- -
- -
- RF
- EO / IR, Radar

## Defeat

- RF smart jamming
- Catching net, RF jamming
- RF jamming
- RF jamming
- RF jamming
- RF jamming, Laser
- RF jamming

## Geography focus

- Global
- United States
- Global
- United States
- Global
- United States
- United States

## In-house technology portfolio

- RF, EW, waveforms, AI, sensorfusion, computervision
- EO / IR sensors, gimbals, RF
- Integration
- RF
- Waveforms
- RF
- RF, Laser
- RF, EW, radar

Note: Competitor analysis based on publicly available information
2022 Key Priorities

- Multiple large ($5m+) contracts across multiple countries and customers
- Another order of magnitude year of increase in customer cash receipts
- Winning contracts adjacent to current core capability, within Artificial Intelligence domains - such as Command-and-Control and Tracking Systems
- High-profile contract wins in a teaming consortiums with Defence Primes
- Turning cashflow-positive across the business (requires approx. $25m of customer cash receipts and grants)
2022 Pipeline of $155m, with a further $170m of projects tracked for 2023+

A significant and geographically diversified pipeline, approx. 80 projects at different maturity stages to Dec 2022

- Middle East
  - 2022 Pipeline: $60m / 6 projects
    - Awarded preferred bidder status for two major Government orders
    - KSA and UAE are the main opportunities

- USA
  - 2022 Pipeline: $40m / 36 projects
    - Multiple military/Govt agency order discussions
    - Initial purchases across wide range of Govt agencies and successful trials completed

- United Kingdom
  - 2022 Pipeline: $15m / 4 projects
    - Sales associated with BT partnership
    - Primarily Ministry of Defence focused

- Europe
  - 2022 Pipeline: $23m / 7 projects
    - Ukraine-related projects are a significant potential driver with multiple acquisition scenarios
    - Initial Ukraine sale completed, very favourable in-field feedback

- Australia
  - 2022 Pipeline: $6m / 14 projects
    - Orders and R&D contracts with Department of Defence and intelligence agencies

- Other
  - 2022 Pipeline: $12m / 10 projects
    - Diverse range of geographic and product opportunities

- KSA and UAE are the main opportunities

Notes: Quoted in Australian dollars. AUD.USD FX rate at 0.72, AUD.EUR FX rate at 0.63, AUD.GBP FX rate at 0.53. Necessarily, not all, and there can be no assurance that any, of the Company's sales opportunities will result in sales.
Three-part Strategy

**Continue Leadership in the Counterdrone/Unmanned Threat Sector**
- The counterdrone market is growing rapidly, especially in the US
- DroneShield is well positioned as the industry pioneer, with on-the-ground US team, and Australia being part of the Five Eye intelligence alliance (US, UK, Australia, NZ and Canada)

**Grow Adjacent Capabilities**
- **Electronic Warfare (EW):** currently delivering on the second, $3.8m contract with the Australian Defence Force
  - EW includes obtaining intelligence of the radiofrequency signals on the battlefield and applying directed energy to jam, degrade, disrupt or neutralise an adversary capability
- **Command-and-Control and Tracking Systems:** providing a central display/control for numerous assets deployed in the field by military, law enforcement and Government agencies
- **Optical Detection and Tracking:** using proprietary AI algorithms to enhance optical/thermal camera capabilities to detect, identify and track objects for military, law enforcement, Government, airport and prisons

**Grow SaaS (Software as a Service) element**
- Existing counterdrone detection products include a meaningful ongoing subscription, which will continue to grow with the number of deployed devices in the field – DroneShield provides quarterly software updates
- Adjacent capabilities are purely or mostly software based, either with subscription or longer term R&D cashflows (including counterdrone training and simulation market)
Contact details

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Drones - A Critical and Growing Threat Vector

Helicopter pilot horrified at close drone encounter

Drone striking World Trade Center is a wake-up call

Army opens fire on two drones found hovering over Ratnuchak-Kaluchak military areas in Jammu

Fire extinguished on oil tanker off Syria after suspected drone attack

IDF shoots down Hamas drone that crossed into Israeli territory

Police hunt drone pilots in unprecedented Gatwick Airport disruption

Drone attack damages Hangar at US-Coalition Air Base in Iraq

Multiple drones hit northeast of Erbil, no casualties: sources

Drugs and weapons were given to the windows of the Donacoma prison

Drone activity at Augusta Correctional Center in Craigsville causes lockdowns
Proven Progression and Pathway to North Star

Cutting edge proprietary products, powered by AI engine and carrying SaaS pricing, in a rapidly growing market, via multiple proven go-to-market strategies, substantial existing deal pipeline and a world class team

“North Star” 5-Year Goals
✓ $100-300m annual revenue with continued focus on growth
✓ Substantially via recurring SaaS basis (software on DroneShield hardware devices and C2), Electronic Warfare contracts, and hardware sales
✓ Ongoing review of (and transacting on) high-tech, scalable acquisition opportunities in Australia and the US, in adjacent areas

World Class Team of 60 staff (and growing) on 3 continents (Australia, US and UK)

Successful R&D, prototype and production at scale
✓ Feb 14: acoustic sensors
✓ June 16: DroneGun MKI
✓ July 17: DroneSentry
✓ Sep 17: DroneGun MKII
✓ Feb 18: DroneGun Tactical
✓ Apr 19: RfPatrol MKI
✓ Jul 19: DroneGun MKIII
✓ Aug 19: RfZero
✓ Nov 19: DroneSentry-X
✓ Apr 20: RfPatrol MKII
✓ Feb 21: RFAI Artificial Intelligence Engine
✓ Aug 21: DroneSim and CompassOne
✓ Sep 21: SonarOne

Track record of delivering increasing sales
✓ 2014: first sales
✓ 2017: $500k cash receipts
✓ 2018: first multi-million dollar sale ($3.8m)
✓ 2019: $3.7m cash receipts
✓ 2020: $5.4m cash receipts
✓ 2021: multiple $1m+ repeat customers orders, incl $3.8m Aus DoD, $12.2m cash receipts for 9 months Sep 21 to date

Ongoing move to AI and subscription pricing
✓ Artificial Intelligence engines across multiple solutions (RF spectrum, computer-vision, sensor-fusion, command-and-control)
✓ SaaS model overlayed on proprietary hardware
✓ Pure software C2 product (subscription based) due for release in early 2022

Proven go-to-market strategies in a growing sector
✓ High caliber and growing on-the-ground sales teams in the US, Australia and UK
✓ Seasoned in-country partners in 120 countries globally
✓ Rapidly growing counterdrone and Electronic Warfare market
✓ $200m+ deal pipeline
Australian Government is committed to building home-grown defence sector

The Australian Government’s defence spending commitment presents a large opportunity for the sector

**Overview**

- Australia has 12th largest defence budget spend globally, which is very substantial for its 25m population.
- $270bn of funding allocated towards “capability investment” over the next 10 years, covering a broad suite of military domains across both acquisitions ($220bn) and future sustainment ($50bn).
- Electronic Warfare, Signals Intelligence and AI (key areas for DroneShield, utilised on their own and inside counterdrone technologies) are explicitly declared as priority areas for homegrown defence sector by the Australian Government.

**Capability investment funding profile (A$bn)**

- CAGR: 8.3%
- $270bn in total dedicated to capability investment

DroneShield CEO Oleg Vornik with the Australian Minister for Defence Industry, Hon Melissa Price.
Overview

- Global military spending in 2019 represented 2.2% of GDP
- Total military spend is primarily attributed to the United States, which grew by 5.3% to total of US$732bn in 2019
- The global increase in spending is predominately attributed to increased tensions and risk of conflict between nation states
- In 2019 China and India were, respectively, the second and third-largest military spenders in the world

Global defence spend (US$bn)\(^1\)

<table>
<thead>
<tr>
<th>Year</th>
<th>Global defence spend</th>
<th>US % of global spend</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>1,443</td>
<td>42%</td>
</tr>
<tr>
<td>2006</td>
<td>1,486</td>
<td>42%</td>
</tr>
<tr>
<td>2007</td>
<td>1,548</td>
<td>41%</td>
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<tr>
<td>2008</td>
<td>1,637</td>
<td>43%</td>
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<tr>
<td>2009</td>
<td>1,753</td>
<td>46%</td>
</tr>
<tr>
<td>2010</td>
<td>1,789</td>
<td>47%</td>
</tr>
<tr>
<td>2011</td>
<td>1,794</td>
<td>48%</td>
</tr>
<tr>
<td>2012</td>
<td>1,778</td>
<td>47%</td>
</tr>
<tr>
<td>2013</td>
<td>1,748</td>
<td>46%</td>
</tr>
<tr>
<td>2014</td>
<td>1,743</td>
<td>47%</td>
</tr>
<tr>
<td>2015</td>
<td>1,766</td>
<td>47%</td>
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<tr>
<td>2016</td>
<td>1,779</td>
<td>48%</td>
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<tr>
<td>2017</td>
<td>1,800</td>
<td>47%</td>
</tr>
<tr>
<td>2018</td>
<td>1,849</td>
<td>45%</td>
</tr>
<tr>
<td>2019</td>
<td>1,914</td>
<td>42%</td>
</tr>
</tbody>
</table>

Dip attributable to end of large scale combat operations in Afghanistan

Hybrid warfare is shaping modern conflict and DroneShield is positioning to be a leader in this space

High intensity conflict
- Strike weapons with enhanced lethality are a core focus of future military doctrine
- Increased defence budgets are being utilised to develop and procure these systems
- Relevant counter-measures are also a core focus

“Grey zone” activities
- The lines of conflict are being blurred with military action undertaken in a covert nature
- Facilitated by technological advancements
- Infrastructure and services are significant strategic targets

Artificial intelligence
- Processing large amounts of data quickly and accurately to support military decision making represents a key technological focus for nations
- Artificial intelligence systems will provide decision overmatch capacity in conflict scenarios

- Counter-measures for pervasive drone technology with applications across multiple mission profiles
- Safe nature makes products highly suitable for “grey zone” activities

Benefits and applications of safe, layered, counterdrone systems over kinetic systems

Safe counterdrone systems have many advantages over kinetic counter-drone systems, which are only practical for deployment in war-like scenarios.

**Avoidance of collateral damage**
- DroneShield safe defeat solutions force drones to pre-set emergency protocols causing the drone to fly back to its starting point, hover, or land, allowing for the safe defeat of drones.
- Alternatively, kinetic solutions could see a destroyed drone fall on crowds of people or inflict “friendly fire” from fired ammunition.

**Evidence for legal prosecution**
- A drone which has been forced to land can be collected by local law enforcement to track the whereabouts of its controller.
- As drones are usually accompanied by an image recording device, this can be used as legal evidence to prosecute offenders.

**Intelligence gathering**
- Drones can often carry sensitive instruments or technology.
- When forced to land, this technology can be exploited by military personnel to aid in intelligence gathering operations.

**Multi-platform with scale benefits**
- Safe solutions can be carried on-the-man, mounted on light skinned vehicles and provide continuous passive protection unconstrained by ammunition stores.
- Kinetic counter-drone solutions are often mounted on heavy, remote weapon stations and constrained by magazine depth.

Avoidance of collateral damage • Evidence for legal prosecution • Intelligence gathering • Multi-platform with scale benefits
Increasing focus towards the more business-transparent Australian and the US customer base, with deep track record of successfully conducting business (and being paid) in the Middle East.

Increasing Predictability of Cash Receipts via Balancing Geographies

Cash Receipts in 2017

Cash Receipts in 2018

Cash Receipts in 2019

Cash Receipts in 2020

Cash Receipts by Regions in 2021
Seasoned senior sales and engineering teams

DroneShield’s experienced team carries a solid track record of delivering growth

**Peter James**
Independent Non-Executive Chairman
- Peter joined DroneShield’s Board of Directors in April 2016
- Over 30 years of experience in the Technology, Telecommunications and Media Industries
- Chairman of ASX-listed companies including Macquarie Telecom and Nearmap

**Oleg Vornik**
CEO and Managing Director
- Oleg joined DroneShield in 2015, and the Board of Directors in January 2017
- Responsible for overseeing DroneShield’s market strategy
- Senior executive experience includes Royal Bank of Canada, Brookfield, Deutsche Bank and ABN AMRO

**Jethro Marks**
Independent Non-Executive Director
- Jethro joined DroneShield’s Board of Directors in January 2020
- CEO and co-founder of the Mercury Retail Group
- Extensive commercial experience in successfully scaling a multinational business

**Carla Balanco**
CFO and Company Secretary
- Carla joined DroneShield in mid-2018
- Instrumental in scaling the company’s financial management systems
- Experience working in Chartered, Commercial and Business Development roles

**Red McClintock**
Sales Director
- Red served 23 years as an officer in the Royal Australian Navy
- Prior to joining DroneShield, Red worked for five years with BAE Systems as a Business Development and Account Manager

**Katherine Staples**
General Counsel
- Kat started her legal career in litigation and moved to an in-house role in 2018
- Kat’s previous in-house experience includes manufacture and supply of complex Australian defence technologies
- Registered practitioner of the High Court of Australia

**Angus Bean**
Chief Technology Officer
- Angus joined DroneShield in early 2016
- Merges the fields of mechanical hardware, electronics, software, digital interface and technology
- Experience as the development lead for Australia’s largest industrial design and engineering consultancy

**Lawrence Marychurch**
Vice President, Design
- Lawrence joined DroneShield in 2018 and has a background in Industrial Design
- Manages a team of industrial designers and mechanical engineers as well as DroneShield’s in-house production team
- Responsible for DroneShield’s wide base of Australian and international component suppliers

**Hedley Boyd-Moss**
Vice President, Engineering
- 30 years of global RF and Electronic engineering
- Working knowledge of regulatory compliance standards
- Specialist knowledge in areas such as antenna manufacturing and RF communication modulation techniques

**Matt McCrann**
U.S. CEO
- Experienced business development executive
- Over 15 years of experience in the Defense and National Security sector
- Served in the US Navy as an Intelligence Analyst and a member of NSA/CSS’s Cryptologic Direct Support Element

**Lyle Halliday**
Chief Operating Officer
- Lyle is an experienced Systems Engineer with a background in medical device product development
- Responsible for implementation of processes to ensure customer expectations
- Engineering experience spans electrical, mechanical, manufacturing and software

**Carl Norman**
Embedded Product Engineer
- Carl is an experienced embedded product engineer who joined DroneShield early in 2019
- Over 25 years of experience in electronic product design, manufacturing and project management
- Background in RF products, analogue, embedded and high speed digital systems
Industry Recognition

DroneShield is well regarded across defence industry, winning multiple awards and media focus in 2021.

59th Australian Export & Investment Awards

DroneShield

Winner 2021
ADVANCED TECHNOLOGIES

Recognised for excellence in sustaining our business in a year of unprecedented challenges due to the COVID-19 global pandemic.
## Enterprise Value (A$)

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRO Shares</td>
<td>25c / share&lt;sup&gt;1&lt;/sup&gt;</td>
<td>$108.1m&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>Cash</td>
<td>As at 31 March 2022</td>
<td>$8.0m</td>
</tr>
<tr>
<td>Debt</td>
<td>As at 31 March 2022</td>
<td>nil</td>
</tr>
<tr>
<td><strong>Enterprise Value</strong></td>
<td>As at 31 March 2022</td>
<td><strong>$100.1m</strong></td>
</tr>
</tbody>
</table>

<sup>1</sup> Shareprice as at 2 May 2022. 432,541,985 ordinary shares outstanding at the date

<sup>2</sup> Excluding unlisted options. 25,400,001 unlisted options outstanding

## Director and Employee Shareholdings

<table>
<thead>
<tr>
<th>Name</th>
<th>Shares Held</th>
<th>Options</th>
<th>Percentage&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oleg Vornik, CEO and Managing Director</td>
<td>17,077,022</td>
<td>11,000,000 options&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3.95%</td>
</tr>
<tr>
<td>Peter James, Independent Non-Executive Chairman</td>
<td>10,185,022</td>
<td>5,530,000 options&lt;sup&gt;2&lt;/sup&gt;</td>
<td>2.35%</td>
</tr>
<tr>
<td>Jethro Marks, Non-Executive Director</td>
<td>666,666</td>
<td>1,083,334 options&lt;sup&gt;2&lt;/sup&gt;</td>
<td>0.15%</td>
</tr>
<tr>
<td>Other Employees</td>
<td>22,938,954</td>
<td>7,266,667 options&lt;sup&gt;2&lt;/sup&gt;</td>
<td>5.30%</td>
</tr>
</tbody>
</table>

<sup>1</sup> Based on the shares held and excluding options

<sup>2</sup> Options issued at various strike price and maturities. For full information please refer to ASX releases.
Growing and Cohesive Team with Deep Capability

Continued growth of the global team since inception in 2015, across sales, engineering and support roles

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Headcount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>5</td>
</tr>
<tr>
<td>2016</td>
<td>11</td>
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<tr>
<td>2017</td>
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<td>2018</td>
<td>14</td>
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<td>2019</td>
<td>33</td>
</tr>
<tr>
<td>2020</td>
<td>36</td>
</tr>
<tr>
<td>2021</td>
<td>63</td>
</tr>
</tbody>
</table>
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