



# High Energy Laser Weapon

**Investor Update Webinar – 7 August 2025**

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Approved for release by the Board of Directors

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# Executive Summary

EOS continues to commercialise IP with this A\$125m contract. Laser weapon technology is a significant growth opportunity for EOS

## Drone warfare is driving an urgent market need

- Recent conflicts have proven **small, inexpensive drones** as a formidable **asymmetric weapon**
- Drones can inflict significant damage on much larger and more expensive weapons and assets
- Ukraine's recent Operation Spiderweb saw inexpensive drones causing airbase damage estimated at >\$7bn
- Widening use – as well as Europe / Middle East – drones are now being used in conflicts in SE Asia, North Africa and South America
- **Drone swarms** are becoming larger, more sophisticated and autonomous



## Directed energy weapons are a critical defence layer

- Militaries and law enforcement agencies are **scrambling to deploy effective counter-measures**
- Currently, drones (offence) are winning over the counter-measures (defence)
- Kinetic solutions, such as EOS' Slinger Remote Weapon Systems are attractive to military buyers
- It is widely agreed that **layered solutions** - containing multiple types of weapon – **are essential**
- In this context, directed energy weapons, (e.g. **EOS' High Energy Laser Weapon**) are seen as critical
- High Energy Laser Weapons have **very high accuracy** and **low cost-per-shot**



## EOS' world-first export contract is a significant milestone

- EOS has signed a **€71.4m (~A\$125m) contract** with a **European customer**
- We believe this is a **world-first export** order for a 100-kW for a high power / high energy laser system
- The contract is unconditional and has customary cancellation and termination clauses
- The system will be **delivered over three years**, from EOS' facilities in Singapore
- EOS will manufacture the system and provide extensive testing, training and other services
- Laser weapon technology represents a **significant growth opportunity**



# Agenda

What is driving the market need for high energy laser weapons?

What are the market dynamics for high energy laser weapons?

What is EOS' High Energy Laser Weapon?

EOS Business Growth Plans





**Drones**      **Missiles**



# Drones Continue to Evolve and Attack a Range of Targets

The trends are expected to continue – smaller; cheaper; more sophisticated/autonomous; greater numbers

## THREATS

GROUP I/II/III DRONES



GROUP IV DRONES



MISSILES



HYPERSONICS



## TARGETS

MILITARY



CIVILIAN



# The Challenge of Defending Against Drones

The rapid rise of drones has changed the battlefield. Defending against drones is challenging. Offence is currently in the ascendant

## OFFENCE: the challenge of drones

### Low Cost

- **Low-cost drones** provide both state and non-state actors the opportunity to disrupt traditionally more powerful opponents
- Drones are an **asymmetric weapon - low cost / high impact**
- **High-value targets** such as military bases and critical infrastructure were historically only at risk from missiles and could be defended by air defence – these are now at risk from drones (e.g. Ukrainian attacks on Russian airbases)
- **Lower value targets** are now also easy targets for drones

### Agile

- Drones move at increasingly **high speeds** and with **erratic** flight paths, complicating defence

### Swarms

- With low-costs, drone '**swarms**' are increasingly prevalent
- This allows attackers to over-saturate and **overwhelm defences**

### Autonomy

- Drones have previously required centralised, human control
- Being used in increasingly **autonomous / sophisticated** ways

### Hardening

- Drones being "**hardened**" to protect against jamming / spoofing
- Emergence of **fibre-optic** cable connected and inertial navigated drones – harder to detect and defeat

## DEFENCE: requirements for effective drone defence

### Accurate

- Due to speed and agility, drone attacks require timely action i.e. defeat the drone quickly or be defeated
- **Accuracy** is critical
- **EOS has proven ability** to develop highly accurate systems, evidenced by its market-leading Slinger RWS

### Economical

- **Missiles can cost millions** of dollars each and defenders can quickly run out of funds against low-cost drones
- Economic realities mean counter-measures need to be economical

### Layered

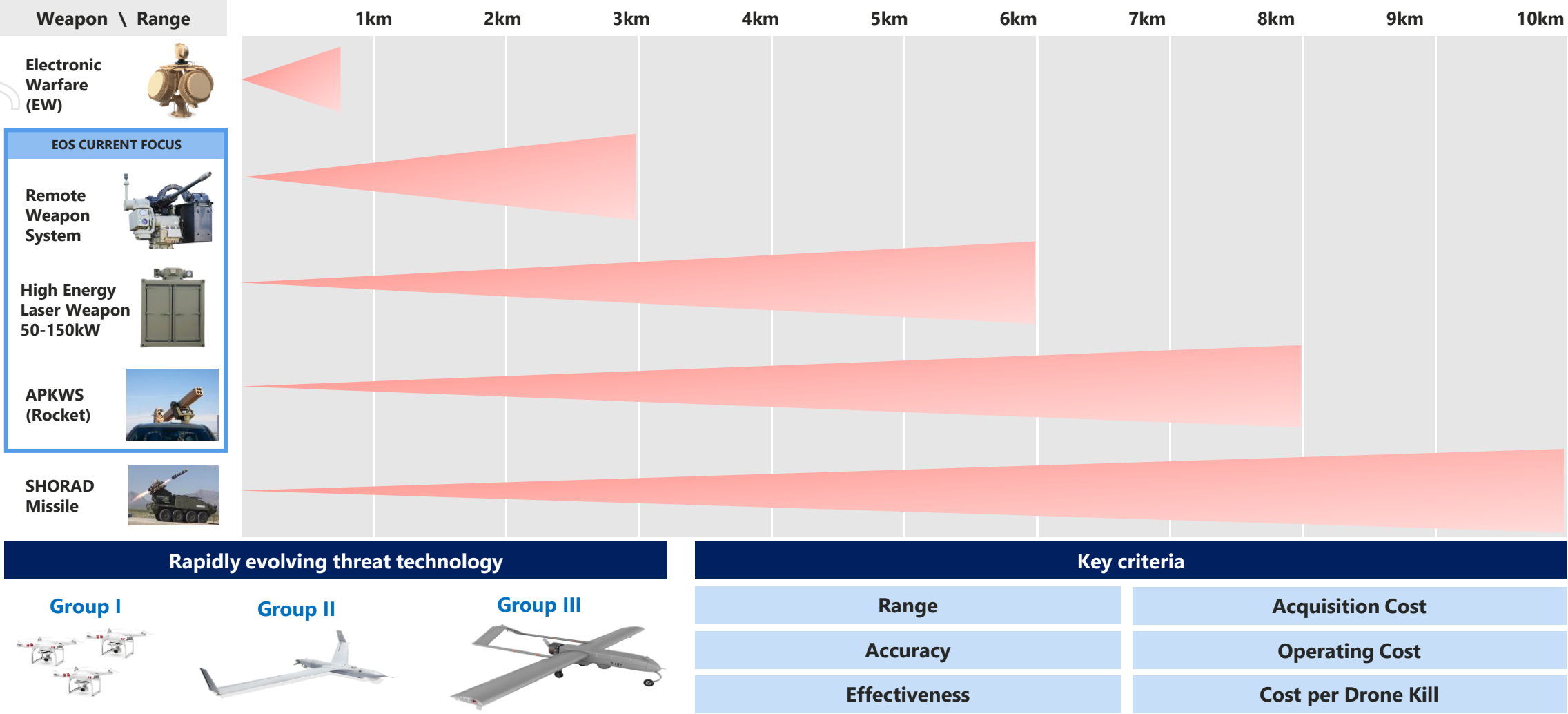
- "Layering" of **different, complimentary** and **overlapping** weapons is required – this is widely agreed
- This allows defenders to address the risk from a distance

### Coordinated

- Defending against fast & erratic swarms **requires too much cognitive load**
- Weapon effectors need **coordinated control**
- Drone **defence will become increasingly autonomous** to respond to threats

# Effective Counter-Drone Strategies Require a Layered Response

The key EOS products are complementary within a comprehensive and layered counter-drone defence system



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# High Energy Laser Weapons Product Drivers

EOS is advancing technology in multiple power classes. EOS aims to lead the market for counter-drone laser weapons

## Key Benefits of High Energy Laser Weapons

HELW meet many requirements for drone swarm defence:

### Accuracy

- No impact of gravity or wind

### Speed

- Impact at speed of light, designed for up to >20 kills per minute

### Magazine

- Unlimited ammunition magazine

### Coverage

- Ability to shoot vertically

### Economy

- Very low cost per shot

## Product Classes

- EOS' main commercial focus is presently the 30-150kW power class
- These systems have unique capabilities and competition is modest
- We are developing technologies in other power classes

| Laser Power | Use Case                                                                                                                        | Current Commercial Focus |
|-------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| <30kW       | <ul style="list-style-type: none"><li>• Counter-IED</li><li>• Drone dazzling</li><li>• ISR sensor denial</li></ul>              |                          |
| 30-150kW    | <ul style="list-style-type: none"><li>• CUAS / Drone swarm kill</li><li>• ISR denial</li><li>• CRAM</li><li>• VSHORAD</li></ul> |                          |
| 150kW+      | <ul style="list-style-type: none"><li>• Air and missile defence</li><li>• CRAM</li><li>• CUAS</li></ul>                         |                          |

# High Energy Laser Weapons Market Drivers

The HELW market is characterised by urgent customer needs and limited competition

## Customer Needs

- **Drone defence** –for high-value asset protection
- **Supply security** – ITAR-free (no US content)
- **Localisation** – ability to localise IP and manufacturing

## Market Demand

- EOS sees well-funded and **growing customer interest**
- **US Market dominated by large local primes** (>US\$1bn spend pa)
- European, Middle East & APAC market **interest in non-ITAR/non-US product**

## Competitive Moat

- EOS believes it has significant competitive advantages in laser weapons
- Successful laser weapons system required several technically complex subsystems, including optronics, targeting systems, fire control, software design, gimbal design, manufacturing etc.
- Very few companies worldwide have proven expertise across these domains



# Competitive Landscape

Global competition is limited by significant barriers. EOS owns key technologies, a key advantage vs competing teams

|                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                | Competitive Threat |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|    | <b>United States</b> <ul style="list-style-type: none"> <li>Invest &gt;\$1bn per annum in laser weapons, including prototypes for Army, Navy &amp; Air Force</li> <li>Strict restrictions prohibit exports</li> </ul>                                                                                                                                                                                          | Low                |
|    | <b>Israel</b> <ul style="list-style-type: none"> <li>Rafael / Elbit collaborated in the development of 50-100kW class for CUAS/CRAM applications</li> <li>Supported by culture of Israeli technological innovation &amp; success, but limited access to some markets</li> </ul>                                                                                                                                | Medium             |
|    | <b>France</b> <ul style="list-style-type: none"> <li>Desires to be leader laser technology in Europe</li> <li>Effort is distributed amongst companies such as CILAS (controlled by Safran / MBDA)</li> </ul>                                                                                                                                                                                                   | Low                |
|    | <b>Germany</b> <ul style="list-style-type: none"> <li>Long standing efforts by Rheinmetall and MBDA</li> <li>Commercial product not yet available</li> </ul>                                                                                                                                                                                                                                                   | Low                |
|    | <b>United Kingdom</b> <ul style="list-style-type: none"> <li>UK focus on naval platforms</li> <li>QinetiQ working on capability over recent years for UK and Australia</li> <li>Recent UK 'Dragonfire' tests with consortium (MBDA, Leonardo and QinetiQ)</li> </ul>                                                                                                                                           | Medium             |
|   | <b>China</b> <ul style="list-style-type: none"> <li>Major Chinese companies offer a 50kW+ system - focused on cost competitive product</li> <li>Unlikely to grow in Western allied/NATO nations</li> </ul>                                                                                                                                                                                                     | Low                |
|  | <ul style="list-style-type: none"> <li><b>Key technologies are wholly owned by EOS – not shared with partners</b></li> <li>EOS can manufacture independently, without partner reliance, and more easily localise as appropriate</li> <li>EOS is a system integrator with deep technical expertise in key technologies</li> <li>Strategy includes direct sales &amp; partnering with local champions</li> </ul> |                    |

Source: Competitor websites and announcements

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# EOS High Energy Laser Weapon System

EOS aims to lead the global market for counter-drone high energy laser weapons

## Unique EOS Differentiators

- **Scalable** 30-150kW technology, based on Spectral Beam Combining (SBC)
- **Modular and Fixed / Mobile**
- **Localisation** – EOS High Energy Laser Weapon can provide 100% transfer of technology - full localisation if required / appropriate
- **IP rights**
  - Key technology wholly owned by EOS, ITAR-free (no US content)
  - Key technologies in Singapore and Australia for different laser systems
  - Careful management of IP territory – market / opportunity specific
- **Demonstrations**
  - Performance previously demonstrated at live-firings (36kW)
  - Upcoming live-firing exercises:
    - Australia : Q4 2025
    - Middle East : Q2 2026

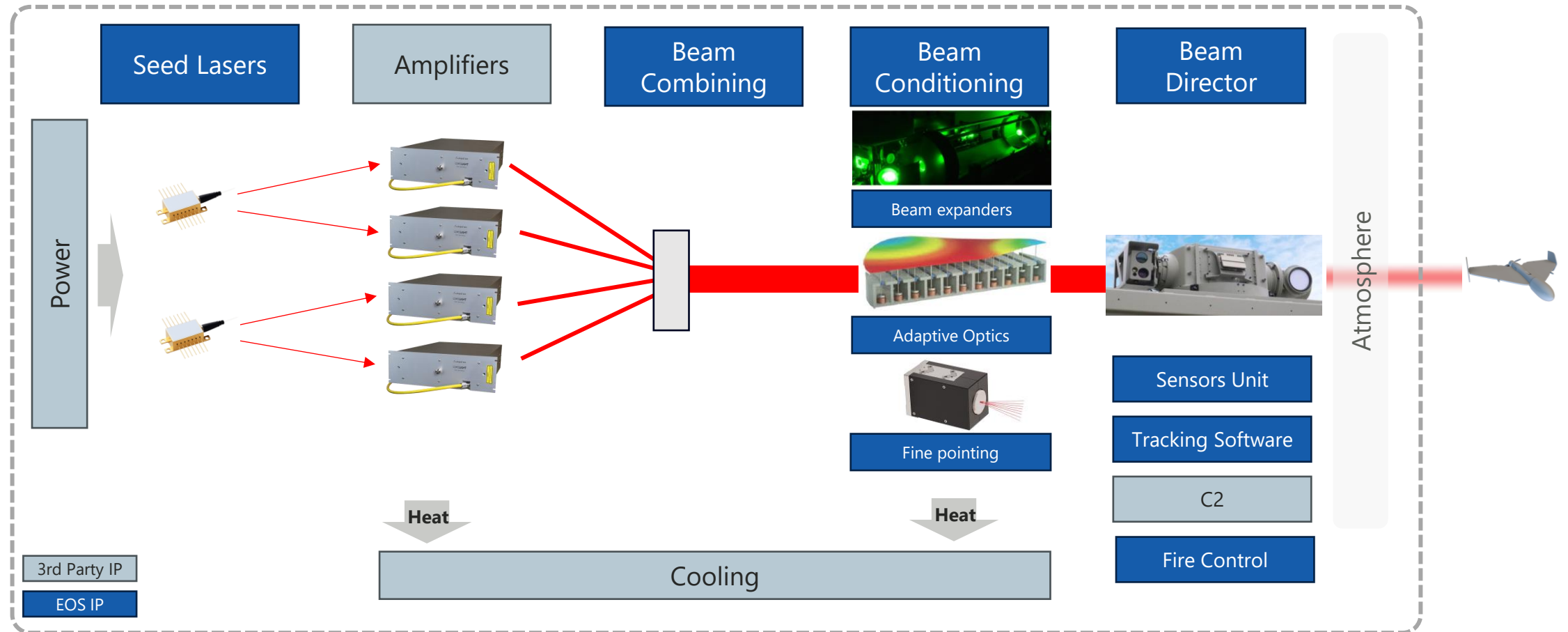
## Product Specifications (100kW)



- 100kW high power laser effector
- Detects all types of drones including fixed wing and quadcopters up to 600 kg (Group 3)
- Battle-proven software
- Common configuration with fielded kinetic kill systems
- Maximum number of stored kills unlimited
- Active optics for atmospheric corrections
- Swarm defeat capable with high rates of target engagement from maximum range
- Minimal collateral damage
- Robust, marinized, qualified
- Deploys rapidly in standard containers
- Elevation/depression +90°/-10°
- Range 2000-6000 m

# Technology Overview

EOS has deep expertise in several complex core technologies and is a laser weapon system integrator



**EOS believes that in-house technical expertise can create a significant source of competitive advantage**

# EOS World-First Export Contract

EOS has signed a €71.4m, (approx. A\$125m) contract with a European NATO member

## Deliverable - 100kW System, including:

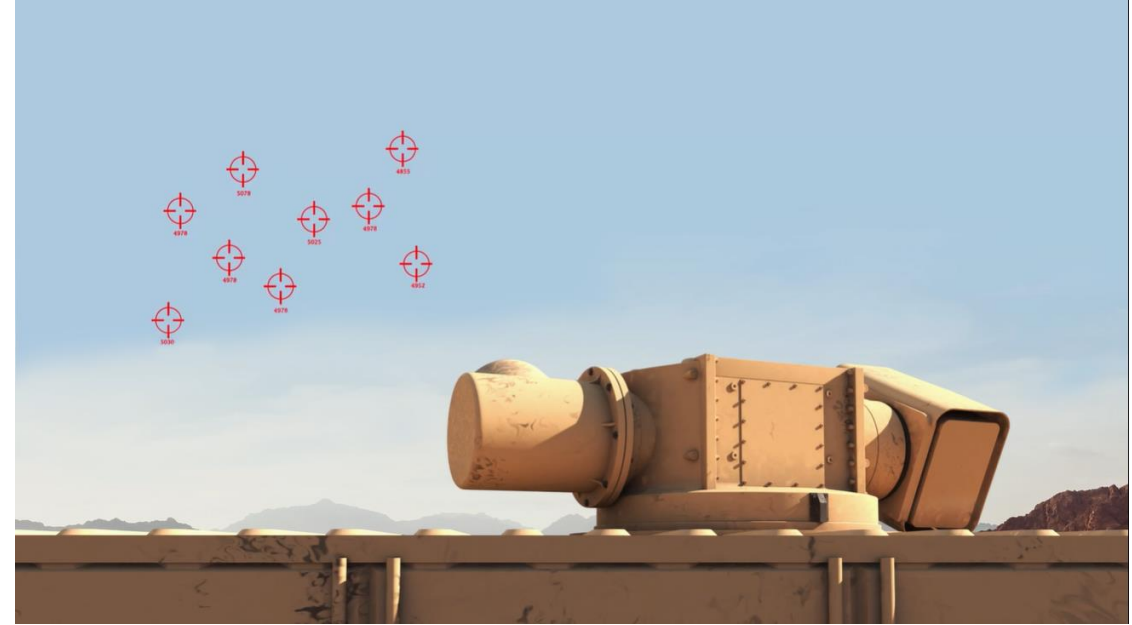
- Container module for truck
- Laser modules incl. seed oscillators
- Beam Director and Management System
- System integration into multi-layered air defence system, including testing
- Documentation and Support
- Power and Cooling – local European supply

## Contract

- Price: €71.4m; Duration: 3 years
- Unconditional, with customary termination & cancellation
- Export licence required from Singapore
- Project expected to be profitable and cashflow positive



# EOS Business Growth Plans



# EOS Business Growth Plans

EOS is focused on the next stage of business growth – market interest is strong

## Target Markets

- Non-ITAR (non-US) markets
- Europe, Middle East, Asia and Australia

## Market Growth

- Market interest from several countries
- Next demonstrations in Q4 2025 and Q2 2026
- Advanced negotiations with another client
- Ongoing discussions with potential customers

## Facilities

- System to be manufactured at Singapore Laser Innovation Centre
- Canberra Laser Test Facility



**Innovative weapon sales typically have a long lead time – this is a significant barrier to entry**

# Conclusion

EOS is focused on the next stage of business growth – market interest is strong

## Market Need

- Acute drone threat - strong market need
- Directed energy systems seen as critical to future layered systems

## World Leader

- EOS new contract:
  - World-first export contract for 100kW system
  - Successful commercialisation of key EOS IP
  - Critical strategic milestone

## Growth Opportunity

- Market is emerging and growing fast
- Competition is currently limited
- EOS sees this market as a significant future growth opportunity



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**Q&A**



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