



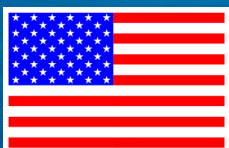
ORBITAL[®]
UAV

2018 Annual General Meeting
CEO's Presentation

23 November 2018

Emerging world leader in tactical
UAV propulsion systems and
flight critical components

Global UAV defence outlook



- Proposed spending of **\$7 billion** for unmanned aircraft systems and associated technologies by the U.S. military in FY19

FY2019 U.S. DoD budget

- An estimated production of **2,530 drones in 2026 worth \$4.4 billion**

Teal Group



- “Autonomous systems will continue to increase in prevalence for military applications and Australia is a leader in developing unmanned systems.”*

Minister for Defence Christopher Pyne

- Australia to spend nearly **\$7 billion** buying unmanned military planes from America

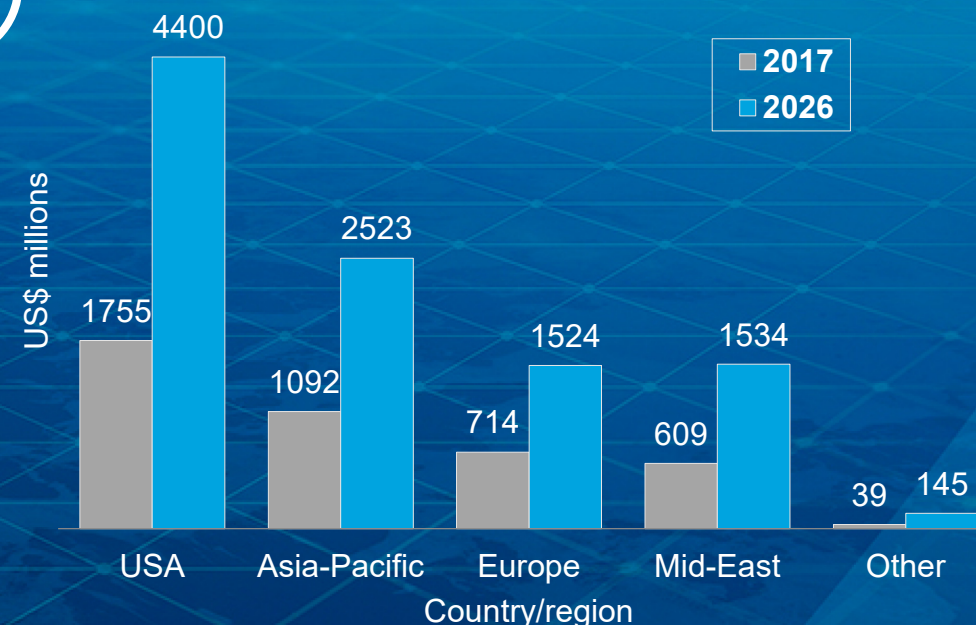
SMH

- Australian Navy commissions first unmanned aircraft squadron

ABC

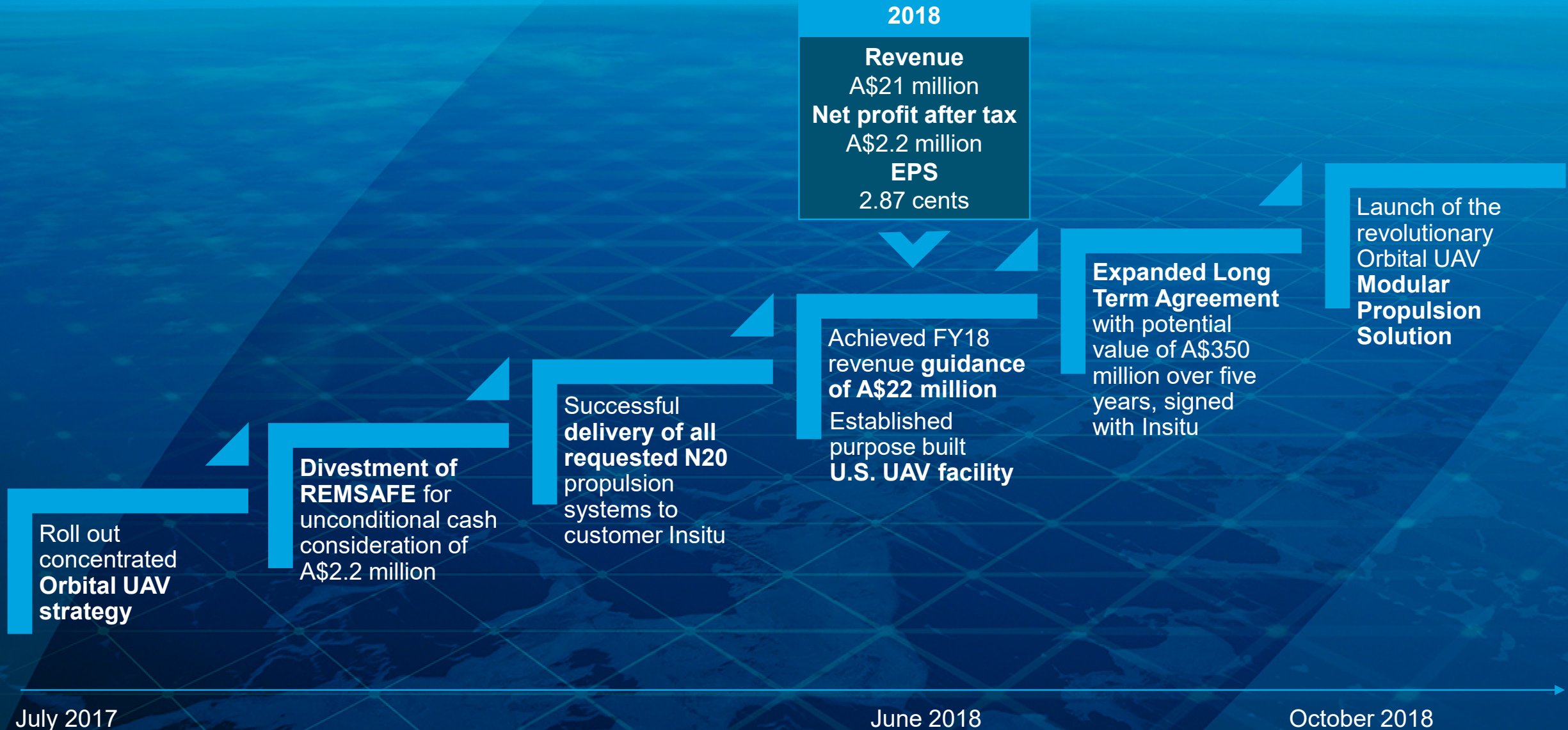


UAV production by region*



Teal Group Predicts Worldwide Military UAV Production of \$80 Billion Over the Next Decade

Year in review



Where we compete

Combat UAV

- **Price per aircraft:** \$55 million - \$65 million*
- **Payload:** up to 1,700 kg
- **Length:** up to 11 m
- **Wingspan:** up to 20 m
- **Max endurance:** 27 hours
- **Max altitude:** 50,000 ft

Example: MQ-9 Reaper



Tactical UAV

- **Price per aircraft:** \$2.5 million - \$4 million per system**
- **Payload:** up to 5 kg
- **Length:** up to 2 m
- **Wingspan:** up to 5 m
- **Max endurance:** 24 hours
- **Max altitude:** 20,000 ft

Example: ScanEagle3



Mini UAV

- **Price per aircraft:** ~\$180,000 per system***
- **Payload:** up to 3.5 kg
- **Length:** up to 0.9 m
- **Wingspan:** up to 1.5 m
- **Max endurance:** 60-90 minutes
- **Max altitude:** 500 ft

Example: The Raven



* Includes aircraft, sensors, ground control stations, and communications | ** Includes air vehicles or AVs, a ground control station, remote video terminal, launch system and recovery system
*** Includes UAVs, ground control stations and spare parts

Market landscape



90% Market Share



TEXTRON Systems



Tactical UAV
\$14.6Bn*



* UAS Market Outlook with Special Focus on Tactical Systems, Teal Group Corporation | For the years 2017-2026

Case study: Insitu ScanEagle[®] propulsion system

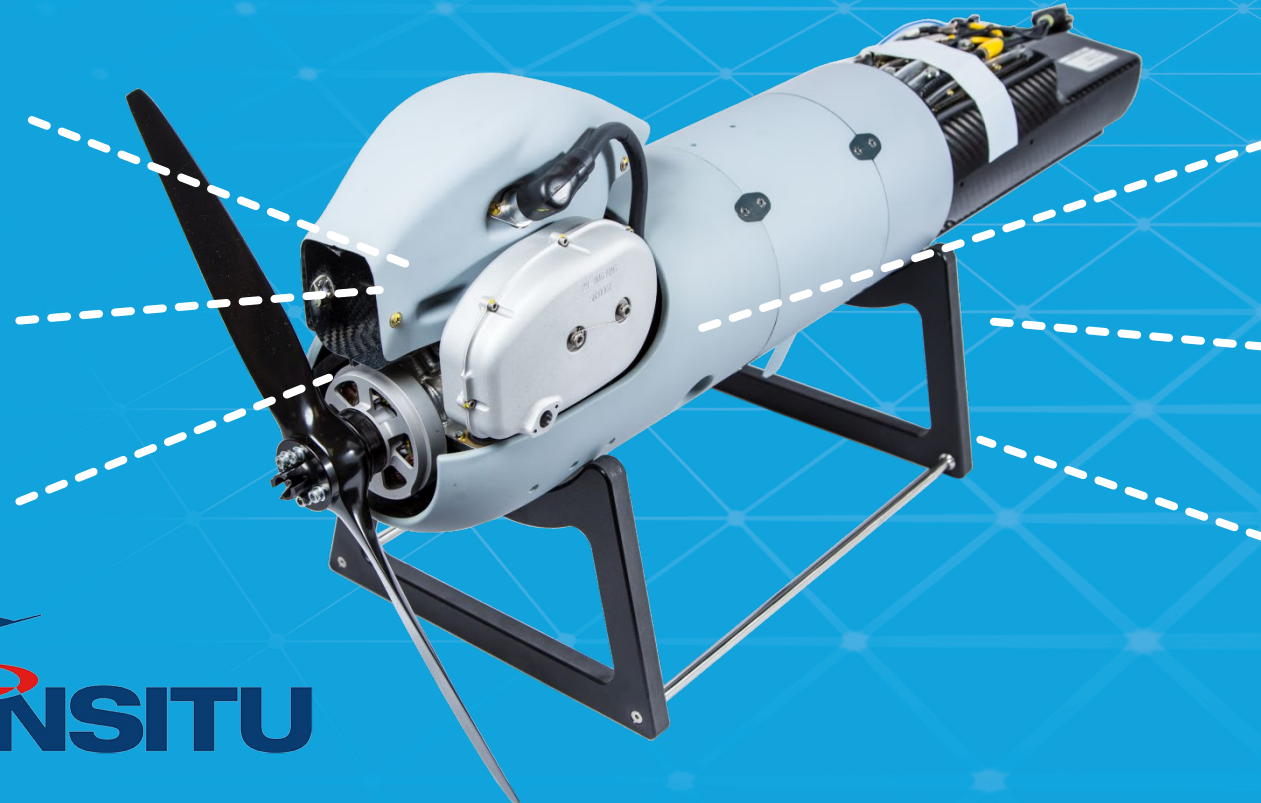


ORBITAL UAV supplies the complete, fully assembled and mission-ready ScanEagle[®] propulsion system

FlexDI™
Revolutionary fuel delivery and engine management components

Proprietary Combustion System

Compact Engine Package
High power-to-weight ratio



Electronic Control Unit
Light weight military specification

Ultra-light Weight Fuel & Oil Tank System

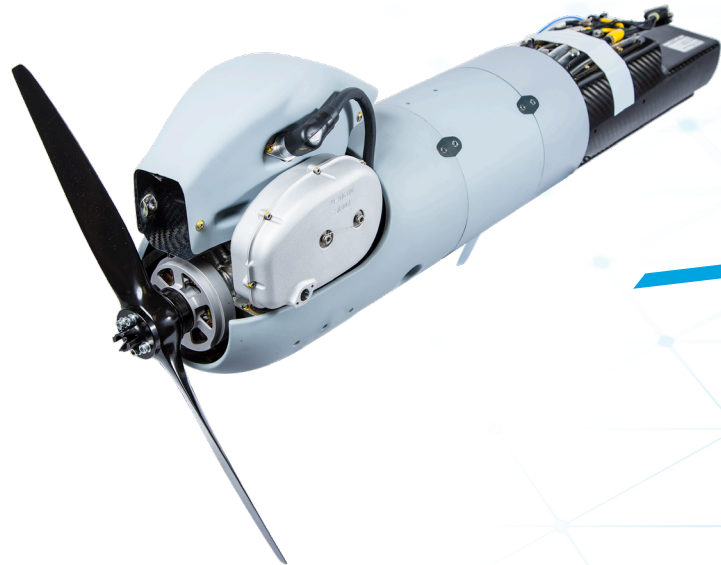
Specialised Muffler
Minimises noise and temperature signatures



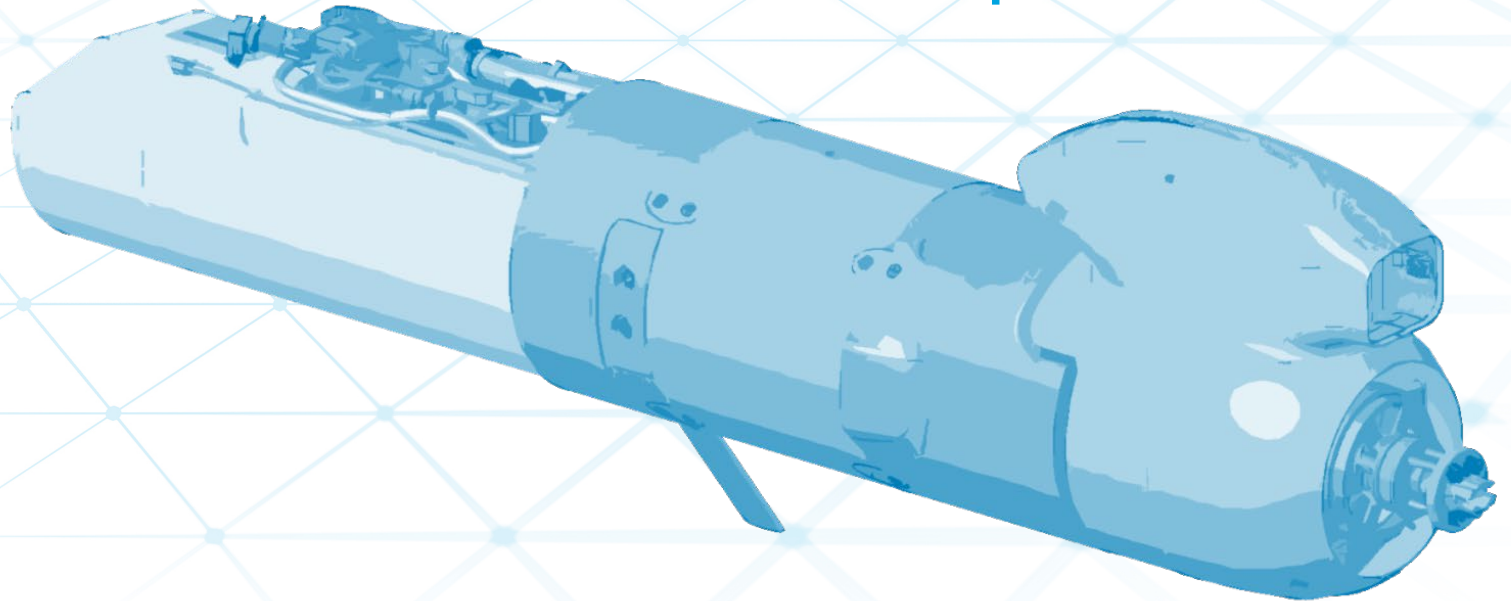
Evolution of the propulsion system



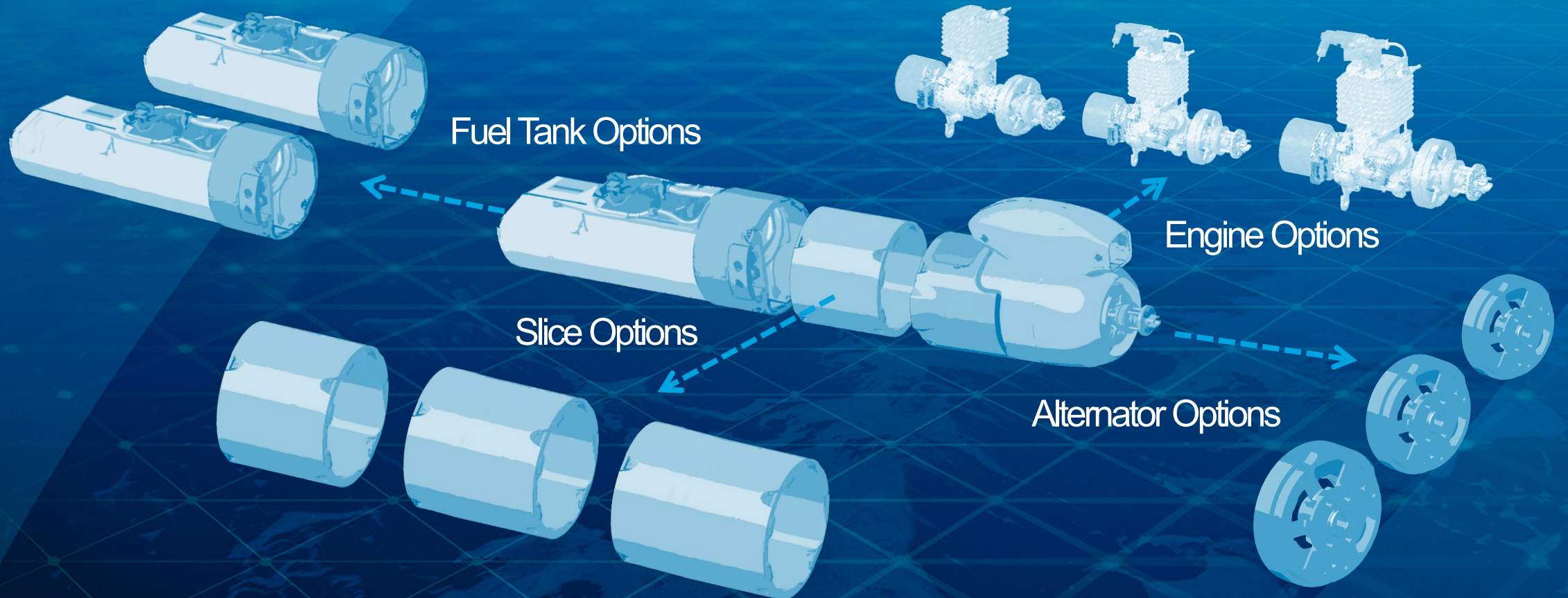
Existing propulsion system



Optimised for the
Modular Propulsion Solution*



Introducing the revolutionary Modular Propulsion Solution*




* Stylised for confidentiality reasons

Strong existing relationships



ORBITAL UAV has existing relationships with the largest players in the tactical UAV market

 <p>INSITU Long Term Agreement (LTA)</p>	<p>2016 LTA 3 years A\$40-120M 1 engine : 1 platform</p>	<p>2018 LTA 5 years (from October 2018) A\$120-350M 5 engines : entire fleet</p>
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<p>TEXTRON Systems</p>	<p>Total sales to date ~A\$18M</p>
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Expanded Insitu LTA



2017/18

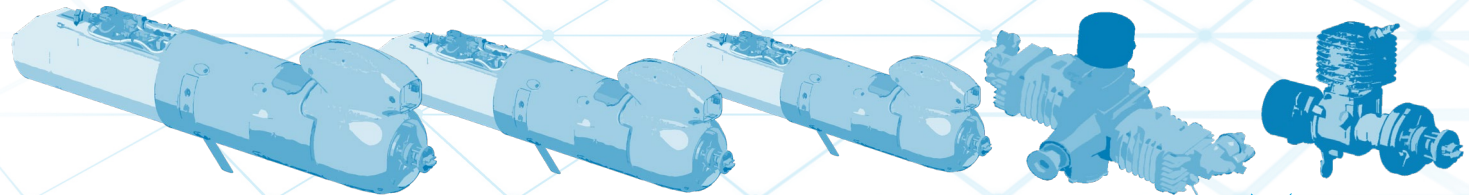
LTA - 3 years
A\$40-120M



ScanEagle2

2018/19

LTA - 5 years (from October 2018)
A\$120-350M



Illustrative purposes only*



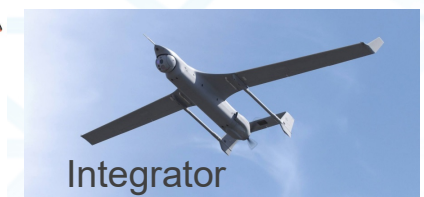
ScanEagle



ScanEagle2



ScanEagle3



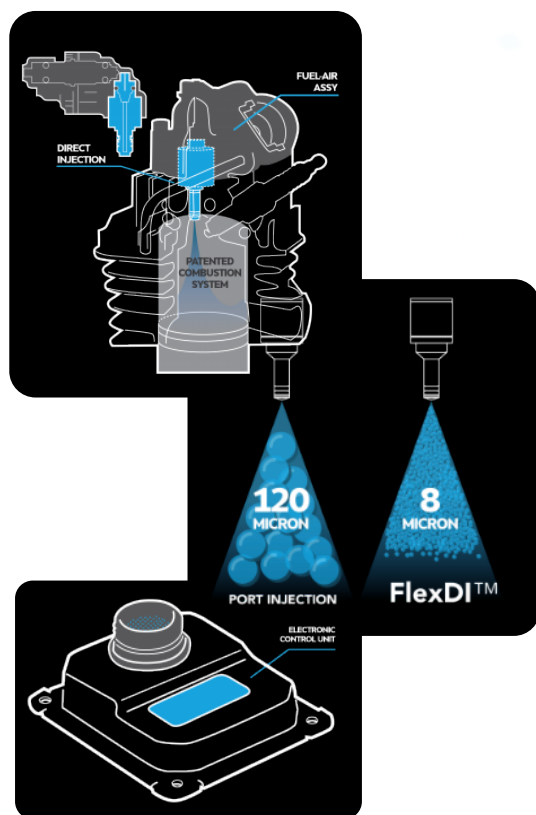
Integrator

*Due to design confidentiality.

Global experience and expertise



Heavy fuel 2 stroke IP and knowhow



Supplier relationships



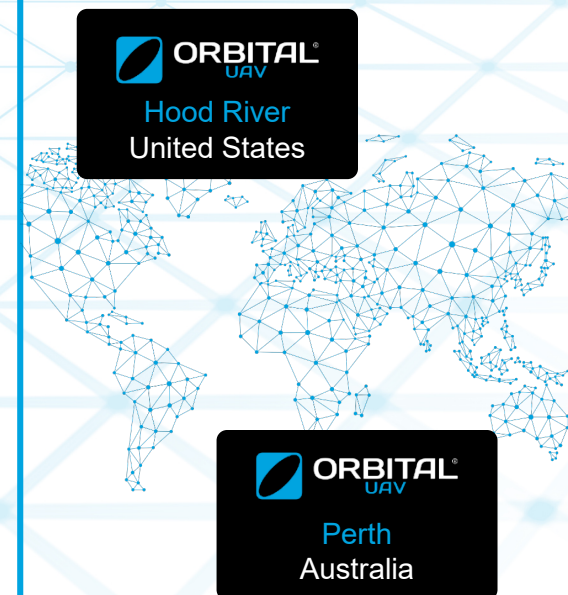
35 years
of experience developing
innovative engine solutions

10 years
of experience as the global
leader in spark ignited heavy
fuel propulsion

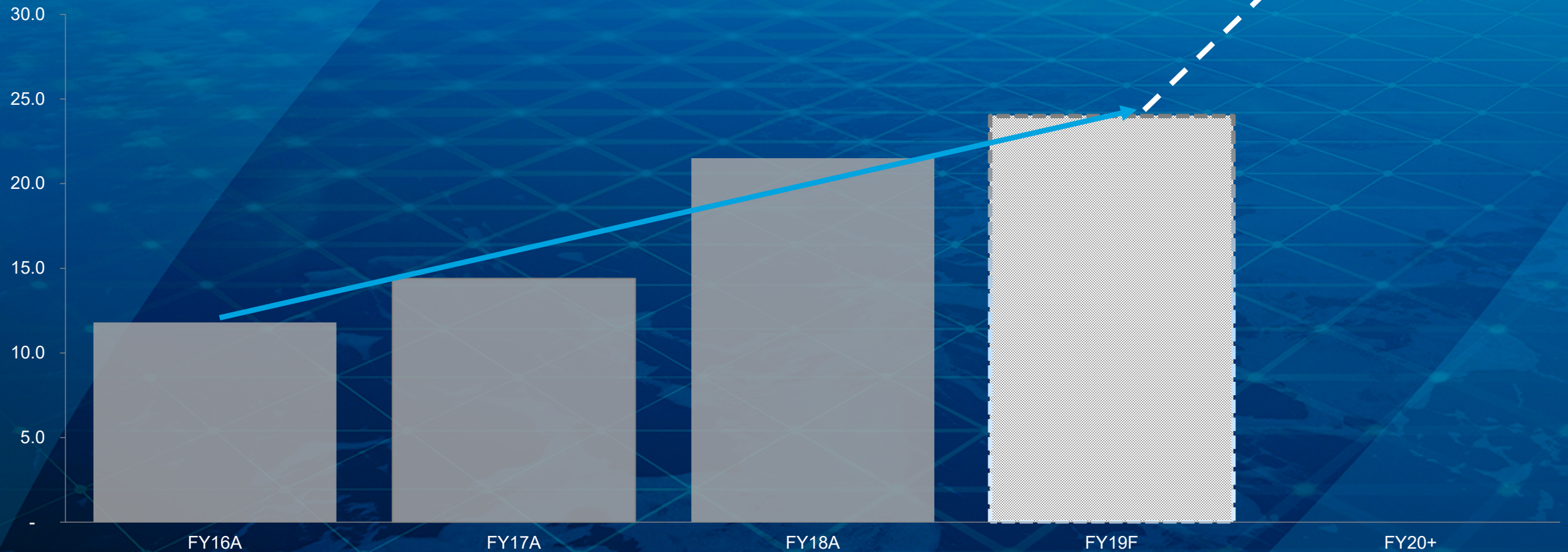
Tier one customer experience



Dual Australia and U.S. facilities



Revenue guidance FY19



Closing remarks



- **UAV strategy**, focused on capturing tier one customers in the \$14.6 billion tactical UAV market.
- **Mitigated revenue volatility** of one product / one platform business.
- Revolutionary **Modular Propulsion Solution** enables rapid deployment across multiple platforms.
- Demonstrable growth through significantly **expanded Long Term Agreement** with Insitu Inc.
- **Five engines in production** in 2019.
- FY19 **revenue guidance of A\$24 million** reflecting H1 development of Modular Propulsion Solution.

Board of Directors and Management



Board of Directors



John Welborn
Chairman
Non-Executive Director



Todd Alder
Chief Executive Officer
and Managing Director



Steve Gallagher
Non-Executive Director



Terry Stinson
Non-Executive Director



Kyle Abbott
Non-Executive Director

Management



Todd Alder
Chief Executive Officer &
Managing Director



Roulè Jones
Chief Financial Officer
& Company Secretary



Dr Geoff Cathcart
VP Chief Technical Officer



John Tubb
General Manager APD



Martin Johnston
General Manager
Operations



Liezl Ulrich
Organisational
Development Manager



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UAV

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