

# U n m a n n e d A r t i f i c i a l l y I n t e l l i g e n t R o b o t i c s

## PESTLE Analysis

Addressing the value delivery of



To the Australian and Tasmanian Governments

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## 1.0 Introduction

A PESTLE Analysis is a management framework used to analyse internal and external factors affecting projects, brands and businesses.

The PESTLE acronym stands for Political, Economic, Social, Technological, Legal and Environmental, which comprise a suite of considerations to be taken into account.

We consider this to be the best framework to respond to the request of Senator Abetz to provide detail of the positive impacts government involvement would have for both the enterprise and the respective governments in commercialising the Unmanned Artificially Intelligent Robotics (UAIR) enterprise and the Fire Air Intelligence technology.

Our identified considerations and opportunities are as follows.

## 2.0 Political

### **Political considerations include:**

It is a fundamental responsibility of the government to protect the population – UAIR commercial operations and Fire Air technologies saves lives, property, fauna, flora and infrastructure over and above existing technologies.

Opportunity for the government to be viewed as a forward leaning, technology savvy, commercially oriented government.

Relevant to current government priorities:

- Royal commission into National Natural Disaster Arrangements – Established in response to the extreme bushfire season of 2019 – 20 which resulted in loss of life, property and wildlife and environmental destruction.
- Technology Investment Roadmap Discussion Paper – A framework to accelerate low emissions technologies.

Unique and compelling opportunity for Tasmania to:

- Implement leading edge technologies across government departments and enterprises, particularly in emergency response and management.
- Establish a niche industry within the aerospace Industry.
- Lead the nation in Unmanned Artificially Intelligent Robotics operations.

- Be a world leader in Unmanned Artificially Intelligent Robotics technologies.

Early support, collaboration and adoption by the Tasmanian and Australian Governments would:

- Bring the costs of production down.
- Remove barriers to entry.
- Assist in commercial penetration – become their own biggest customer.
- Assist with legislation, regulations and standards.
- Advocate the technology nationally and internationally to governments and industry.
- Assist with financial leveraging.
- Assist with the complexities of integrating and harmonising the technology into the market.
- Create the scale up necessary to have capacity to move into international markets.

### 3.0 Economic

#### **Economic opportunities include:**

Reduce government expenditure across government departments.

Place downward pressure on increased costs of the incidence and severity of environmental disasters as a result of destructive anthropogenic climate change.

Reduces the economic burden of a large volunteer workforce dislocated from employment for extended periods.

Increase economic activity locally, nationally and internationally.

Increase GDP.

Provide a commercial return on investment (ROI).

Provide post COVID-19 economic stimulus.

Create an entire new industry within the aerospace industry.

Establish an advanced manufacturing hub for:

- Aerospace design.
- Artificial intelligence.

- Robotics.
- Autonomous technology solutions.
- UAV simulator manufacturing.
- UAV Aircraft manufacturing.
- Mobile ground command centre manufacturing.
- Internationally recognised education and training.

Increasing revenue streams into Tasmania from both national and international sales and operations.

Providing direct employment opportunities:

- Locally.
- Nationally.
- Internationally.

Stimulate existing commercial activities of both goods and services required to support the enterprise(s).

Indirectly create employment opportunities through existing and new value chain partners.

Attract new entrants and component manufacturers.

Penetrate significant export markets for:

- Operations.
- Hardware.
- Software.
- Education and Training.
- Career opportunities.

## 4.0 Social

**Social impacts include:**

Saving lives, property, flora, fauna and infrastructure.

Reduces risk to first responder and frontline personnel, many of which are volunteers.

Reduces the emotional burden of a large workforce dislocated from family for extended periods.

Decrease the size, extent and impact of natural disasters.

Exceed public expectations on government response to combating natural disasters.

Reduce government response time to natural disasters.

Increase the service levels to dislocated and remote population distributions.

Quell the increased fear and unrest the population is suffering as a result of destructive anthropogenic climate change.

Increase the population.

Increase career and employment options and opportunities for the population.

Increase education options for the population.

Increase the level of industry sophistication.

## 5.0 Technological

### **Technology opportunities include:**

The harnessing and exploitation of 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> industrial revolution technologies that fundamentally change the way we manage, power and move our economic activities.

Applying those technologies to advanced manufacturing and commercial operations of Unmanned Artificially Intelligent Robotics in the aerospace industry.

3<sup>rd</sup> Industrial revolution technologies:

- Internet of people.
- Internet of things.
- Renewable energy.
- Autonomous transport.

4<sup>th</sup> Industrial revolution technologies:

- Artificial intelligence.
- Machine learning.

5<sup>th</sup> Industrial revolution technologies:

- Robotics.

Opportunity to develop an AI repository of Tasmania for Tasmania.

Opportunity to harness and exploit cascading and trickle down technologies from military applications and apply them to civil operations.

## 6.0 Legal

**Legal considerations include:**

Mitigating risk to the general population.

Reducing risk to first responders and frontline personnel.

Reducing insurance risk.

Assisting with legislation, regulations and standards to accelerate diffusion of the technology into the market.

Taking advantage of changing laws - eg India relaxed the laws governing UAV use to employ the technology to assist in the COVID-19 coronavirus pandemic.

## 7.0 Environmental

**Environmental considerations include:**

Saving lives, property, fauna, flora and infrastructure.

Protecting the environment.

Reducing noxious emissions from natural disasters.

Reducing emissions from the aviation industry which is considered an Energy Intensive Industry (EII).  
(Current difference in fuel consumption between helicopter and UAV operations is 200 litres per hour for the helicopter versus 2 litres per hour for the UAV).

Making a positive contribution toward climate change mitigation.

Combating the effects of increased incidence and severity of natural disasters.

Contributing to sustainability.

Reducing carbon emissions.

Reducing carbon footprint.

This analysis is forwarded for your information and consideration, please do not hesitate in contacting me should you have any queries.

Regards,

A handwritten signature in black ink, appearing to read 'Howard Johnson', with a small flourish at the end.

Howard Johnson

Chief Operating Officer

UAIR

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