

11 October 2018

The Committee Secretary
State Development, Natural Resources and Agricultural Industry Development Committee
Parliament House
George Street
Brisbane Qld 4000

By email

Dear Sir/Madam

Submission to Inquiry into job creation opportunities in Queensland arising from the establishment of an Australian space industry

The Space Industry Association of Australia was established in 1992 to promote and assist the development of a viable and self-sustaining space sector in Australia and to encourage, advocate for and promote education, research and development in space science in Australia. Our members include Australian satellite operators, global aerospace prime contractors, Australian owned companies, State and Territory Governments, the CSIRO, research institutes of Australian universities, scientists, engineers, consultants and young professionals. As the peak space industry body in Australia we have been at the forefront of space policy formulation and debate in this country for over 25 years.

The SIAA takes a leading role in advising government on behalf of the space industry. We also provide a forum to promote networking and collaboration among members. Through meetings and events held in various Australian locations, we engage with our members to devise and communicate policies to support the development of the Australian space industry. We actively promote and facilitate commercial, industrial and research opportunities for our members nationally and internationally. We were very pleased to co-host a very successful Space Industry Forum at the University of Queensland on 11 September 2018 which was opened by Mr Chris Whiting MP and attended by over 130 people.

We also harness the skills and expertise of our membership to address issues of common concern to corporations, businesses and individuals involved in or seeking to become involved in the space sector in Australia and internationally.

In March 2017 the SIAA published a White Paper 'Advancing Australia in Space'. In that document we pointed out that the Australian space sector currently produces annual revenues of \$3-4 billion and employs between 9,500 and 11,500 people from its 0.8% share of the global space economy. We argued that there is an opportunity to double this within five years - if the Australian Government was prepared to commit to the establishment of an Australian Space Agency to lead a cohesive national space strategy. Further, we argued the agency should have an aim of capturing 4% of the world market for Australian industry within 20 years, a five-fold increase in the industry's current global market share.

We further argued that the development of a mature and innovative Australian space sector and a level of sovereign space capability underpinned by world class space science and technology should become an urgent national priority. A copy of the SIAA White Paper is available at <a href="http://www.spaceindustry.com.au/Documents/SIAA%20White%20Paper%20-%20Advancing%20Australia%20in%20Space.pdf">http://www.spaceindustry.com.au/Documents/SIAA%20White%20Paper%20-%20Advancing%20Australia%20in%20Space.pdf</a>

The subsequent report of the Expert Reference Group commissioned by the then Commonwealth Minister of Industry and Science, Senator Arthur Sinodinos, which led to the establishment of the Australian Space Agency, substantially adopted the policy position set out by the SIAA in its White Paper.

Other SIAA submissions on Commonwealth matters include:

- Comments on Draft Launch Licensing Procedures June 1999
- Submission to Department of Industry Science and Resources on Proposed Launch Safety & Insurance Regulations - 13 October 2000
- Submission to Department of Industry Science and Resources on Proposed Space Activities Regulations 2001 - 29 March 2001
- Submission to Department of Industry Science and Resources on Proposed Flight Safety
   Code and Maximum Probable Loss Methodology 5 June 2001
- Submission to Senate Economics Legislation Committee on the Space Activities Amendment Bill 2002 - August 2002
- Submission to Space Activities Act Review April 2016
- Supplementary Submission to Space Activities Act Review May 2016
- Submission to Senate Inquiry into Space Activities Amendment (Launches and Returns)
   Bill 2018 July 2018

Copies of all SIAA White Papers and submissions can be found at: <a href="http://www.spaceindustry.com.au/publications.php">http://www.spaceindustry.com.au/publications.php</a>

We note that on 6 September 2018, the Hon Yvette D'Ath referred an inquiry to the State Development, Natural Resources and Agricultural Industry Development Committee to examine the opportunities to create jobs across Queensland, in particular regional Queensland, and promote existing supply chain capability from the establishment of an Australian space industry.

We understand that in undertaking this inquiry, the Committee will consider:

- a. The Australian Government's establishment of an Australian Space Agency on 1 July 2018;
- b. The space supply chain, which has been broadly categorised as, Space systems (including communication satellites), Ground systems, Applications and ancillary services, and End use (e.g. improved telecommunications, mapping and emergency management);
- c. The review of space supply chain capability released by the Australian Government prior to the Agency being announced;
- d. Queensland's areas of competitive advantage in relation to identified capability which, at a high level, have been identified as communications, earth observations, position, navigation and timing; and
- e. Areas of regional Queensland where supply chain capability exists, particularly in areas of competitive advantage.

One of the services we provide to SIAA members is access to our Australian Space Capability Database. In this database we collect information about the capability and activities of Australian-based organisations in a wide range of areas of commerce, academia and government. The database currently lists 542 Australian organisations or organisations with a presence in Australia. While your committee will no doubt receive detailed evidence on particular activities and capabilities of organisations in Queensland that are actively involved in the space supply chain, we hope that the following information from our database will be useful to the Inquiry. (We emphasise that the data is collected mainly from public domain sources on a best efforts basis and may not fully reflect the complete list or current status of all organisations in Queensland with the relevant capabilities).

## The key findings are:

- According to our database there are 126 organisations with a presence in Queensland, representing 23% of the total number of organisations listed in the database.
- The names and addresses of these organisations are set out in Attachment 1.
- A statistical count of the capabilities of these organisations are set out in Attachment 2.

In conclusion, it is clear that the space sector in Queensland has considerable capability in a wide range of commercial and research activities and Queensland organisations make an important contribution to the national economy. The SIAA supports the Inquiry's objective of identifying the areas in which Queensland organisations have a competitive advantage and we hope to build on the strong relationships we have established with the Queensland Government and our membership in Queensland in order to support the further development of the Australian space sector and in the national economic and social goals for the space sector being advanced by the Australian Space Agency.

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Thank you for the opportunity to make a submission to the Inquiry.

Yours faithfully

Anchay E Davis

**MICHAEL DAVIS** 

CHAIR

SPACE INDUSTRY ASSOCIATION OF AUSTRALIA

## Attachment 1 – Organisations with a Queensland Presence

Organisation	Address	Locations	Capability
2SG Technology Group Pty Ltd	144 Edward Street BRISBANE QLD 4000	QLD	Broadband Internet of Things Position, navigation and timing
BLogix Pty Ltd	2/58 Metroplex Ave MURARRIE QLD 4172	QLD	Telemetry, tracking and control Mobile satellite communications
AAM Pty Ltd	Level 1, Leichhardt Court 2/33 Waterloo Road MACQUARIE PARK NSW 2113 - 55 Little Edward Street SPRING HILL QLD 4000 - Ground Floor 152 Wharf Street BRISBANE QLD 4000	NSW NT QLD SA VIC	Remote sensing and Earth observation Logistics and program management
ACIL Allen Consulting	Level 9, 60 Collins Street MELBOURNE VIC 3000	ACT NSW QLD SA VIC WA	Consulting and financial services Policy research and advocacy
AECOM Australia Holdings Pty Ltd	Level 8, 540 Wickham Street FORTITUDE VALLEY QLD 4006	ACT NSW NT QLD SA TAS VIC WA	Launch platforms and infrastructure Scientific and engineering support Ground station network Community engagement Consulting and financial services Government coordination and oversight Logistics and program management
Airbus Australia Pacific Ltd (Airbus Group)	65-75 Pandanus Ave BRISBANE AIRPORT QLD 4007	NSW QLD	Scientific and engineering support Suppliers of material and components Education and training

Altair Engineering Software Pty Ltd	Suite 512 1 Queens Road MELBOURNE VIC 3004	ACT NSW NT QLD SA TAS VIC WA Overseas	Engineering Consulting Services Scientific and engineering support Broadband Broadcasting Internet of Things Mobile satellite communications Remote sensing and Earth observation
Applied Satellite Technology Australia Pty Ltd (AST)	Satellite House 33A Walters Drive OSBORNE PARK WA 6017	NSW QLD WA	Satellite operator Broadband IT services
Ashurst	Level 26 181 William Street MELBOURNE VIC 3000	ACT NSW QLD VIC WA	Legal
Asia Pacific Aerospace Pty Ltd	PO Box 1355 750 Macarthur Avenue Central PINKENBA QLD 4008	QLD	Launch vehicle subsystems
Asteroid Enterprises Pty Ltd	116 Pennine Drive OUTH MACLEAN QLD 4280	QLD	asteroid resources, mining, and processing Resources and space mining Consulting and financial services
Astronomical Association of Queensland (AAQ)	PO Box 6101 ST LUCIA QLD 4067	QLD	Astronomy Community engagement Not for profit pro-Space organisation
Astrophysics Group, University of Southern Queensland	DARLING HEIGHTS QLD 4350	QLD	Astronomy Research Centre
AusTest Laboratories	Unit 2 9 Packard Avenue CASTLE HILL NSW 2154	NSW QLD SA VIC	Scientific and engineering support
Australian Airports Association Ltd (AAA)	2/4 Brindabella Circuit CANBERRA AIRPORT ACT 2609	ACT NSW NT QLD SA TAS VIC WA	Aviation

Australian Droid and Robot Pty Ltd	QLD 4068	QLD	Aviation
Australian Geospatial-Intelligence Organisation (AGO), Department of Defence	Department of Defence, PO Box 4925 KINGSTON ACT 2604 - Geospatial Analysis Centre (GAC): Bendigo Business Centre, PO Box 2793 BENDIGO VIC 3554	ACT NSW QLD SA VIC	Remote sensing and Earth observation Government coordination and oversight
Australian Institute of Marine Science (AIMS), Commonwealth	1526 Cape Cleveland Road CAPE CLEVELAND QLD 4810	NT QLD WA	Ground station network Remote sensing and Earth observation Government coordination and oversight Research Centre
Australian National Fabrication Facility (ANFF)	151 Wellington Road CLAYTON VIC 3168	ACT NSW QLD SA VIC WA	Suppliers of material and components Not for profit pro-Space organisation
Australian Rocketry Pty Ltd	PO Box 84 BROWNS PLAINS QLD 4118	QLD	Suppliers of material and components Launch services Community engagement
Australian Space Research Institute Ltd (ASRI)	PO Box 266 MOUNT OMMANEY QLD 4074	ACT QLD SA	Fundamental and applied research for space systems Launch vehicle subsystems Community engagement Education and training Not for profit pro-Space organisation
Australian Trade and Investment Commission (Austrade), Commonwealth	Level 3 60 Collins St MELBOURNE VIC 3000 - Level 23 Aon Tower, 201 Kent Street SYDNEY NSW 2000	ACT NSW NT QLD SA TAS VIC WA	Business incubation and development Government coordination and oversight Policy research and advocacy

Aviation Labour Group Holdings Pty Ltd	Unit 3, Level 1 Building 105 2-6 Leonardo Drive BRISBANE AIRPORT OLD 4008 - PO Box 1231 HAMILTON CENTRAL OLD 4007	VIC	Aviation recruitment Aviation
Bentley Systems Pty Ltd	Level 10 2 Southbank Boulevard SOUTHBANK VIC 3006	NSW QLD VIC WA	Scientific and engineering support IT services
3igmate	Level 22 144 Edward Street BRISBANE QLD 4000	NSW QLD VIC WA	Internet of Things Position, navigation and timing
Boeing Australia Holdings Pty Ltd	Level 10, Exchange House 10 Bridge Street SYDNEY NSW 2000 - Level 1, 55 Blackall Street BARTON CANBERRA ACT 2600	ACT NSW QLD SA VIC	Fundamental and applied research for space systems Ground segment systems and equipment Scientific and engineering support Broadband Broadcasting Internet of Things Mobile satellite communications Position, navigation and timing Remote sensing and Earth observation Aviation Education and training Logistics and program management Research Centre Vitrual reality services
Bordernet Pty Ltd	Level 1 Suite 18 46 Cavill Avenue SURFERS PARADISE QLD 4217 - Suite 18 46 Cavill Avenue SURFERS PARADISE QLD 4217	QLD	Broadband
Brisbane Astronomical Society Inc (BAS)	PO Box 15892 CITY EAST QLD 4002	QLD	Astronomy Community engagement Education and training Not for profit pro-Space organisation

Bureau of Meteorology (BOM), Commonwealth	B Block, Treasury Building, Parkes Place W, PARKES ACT 2600 - GPO Box 1289 MELBOURNE VIC 3001 - 700 Collins Street DOCKLANDS VIC 3008	ACT NSW NT QLD SA TAS VIC WA	Fundamental and applied research for space systems Ground station network Remote sensing and Earth observation Education and training Government coordination and oversight
CB Aerospace	HEMMANT QLD 4174	QLD	Satellite subsytems and components Scientific and engineering support
Central Queensland University (CQUniversity)	Canning Street ROCKHAMPTON QLD 4700	NSW QLD SA VIC WA	Education and training Not for profit pro-Space organisation
Centre for Defence Industry Capability (CDIC), Department of Industry, Innovation and Science, Commonwealth	Level 8 10 Binara Street CANBERRA ACT 2600	ACT NSW NT QLD SA TAS VIC	Business incubation and development Government coordination and oversight
Centre for Hypersonics, The University of Queensland	Level 2, Frank White Building (43), School of Mechanical and Mining Engineering, The University of Queensland ST LUCIA QLD 4072	QLD	Fundamental and applied research for space systems Launch vehicle subsystems Education and training Not for profit pro-Space organisation
Centre of Excellence for Quantum Computation & Communication Technology, ARC	c/- School of Physics The University of New South Wales SYDNEY NSW 2052	ACT NSW QLD VIC	Fundamental and applied research for space systems Education and training Not for profit pro-Space organisation
CGI Group, Australia	Level 5, East Tower 410 Ann Street BRISBANE QLD 4000	NSW QLD TAS VIC	Consulting and financial services IT services Logistics and program management

Cisco Systems Australia Pty Ltd	Level 24 177 Pacific Highway NORTH SYDNEY NSW 2060	ACT NSW QLD SA VIC WA	Broadband Internet of Things
CNC Project Management Pty Ltd	10-12/247 David Low Way PEREGIAN BEACH QLD 4573	NSW NT QLD VIC	Remote sensing and Earth observation
Conor Silke	38/170 Forster Road MOUNT WAVERLY VIC 3149	ACT NSW QLD SA TAS VIC	Audio Visual and Video Conferencing
Cooperative Research Centre for Spatial Information (CRCSI) (Now FrontierSI)	Level 5 204 Lygon Street CARLTON VIC 3053	ACT NSW QLD VIC WA	Position, navigation and timing Remote sensing and Earth observation Education and training Not for profit pro-Space organisation Policy research and advocacy
Cubic Defence Australia Pty Ltd	336-342 Bayswater Road GARBUTT QLD 4814	QLD	Education and training IT services Vitrual reality services
Curiosat		QLD	Internet of Things
Decon Corporation Pty Ltd	207-209 Colchester Road KILSYTH VIC 3137	NSW QLD SA VIC	Ground segment systems and equipment Logistics and program management
Defence Science and Technology Group (DST Group), Department of Defence	David Warren Building, 24 Scherger Drive CANBERRA AIRPORT ACT 2609 - PO Box 7931 CANBERRA BC ACT 2610 - PO Box 1500 EDINGBURGH SA 5111	ACT NSW QLD SA TAS VIC	Fundamental and applied research for space systems Launch services Satellite operator Government coordination and oversight

Department of Agriculture and Water Resources, Commonwealth	42-44 Qantas Drive EAGLE FARM QLD 4009	ACT QLD	Government Government coordination and oversight Regulator
Dialog Pty Ltd (Dialog Information Technology)	Level 7 35 Boundary Street SOUTH BRISBANE QLD 4101	ACT NSW NT QLD SA VIC WA	IT services Logistics and program management
DigitalGlobe Australia Pty Ltd	11 Eagle Street BRISBANE QLD 4152 - DigitalGlobe Inc. 1300 W. 120th Avenue Westminster, CO 80234 USA - Kim Seng Promenade #09-01/02 Great World City, East Tower 237994 SINGAPORE	QLD Overseas	Satellite operator Internet of Things Remote sensing and Earth observation
Earth Observation Australia (EOA)	c/- School of Geography Planning & Environmental Management University of Queensland BRISBANE QLD 4072	QLD	Community engagement Not for profit pro-Space organisation Policy research and advocacy
Ecology and Heritage Partners Pty Ltd	292 Mount Alexander Road ASCOT VALE VIC 3032	ACT NSW QLD SA VIC	Space heritage Remote sensing and Earth observation Logistics and program management
EM Solutions	55 Curzon Street TENNYSON QLD 4105 - PO Box 3164 YERONGA QLD 4104	QLD	Broadband

ESRI Australia Pty Ltd	Level 3 111 Elizabeth Street BRISBANE QLD 4000 - PO Box 15459 BRISBANE CITY EAST QLD 4002	ACT NSW NT QLD SA TAS VIC WA	Internet of Things Remote sensing and Earth observation IT services
Farmscan Ag Pty Ltd	11/493 South Street TOWOOMBA QLD 4350	QLD WA	Internet of Things Position, navigation and timing
Faro Asia Pacific	12 Cordelia Street SOUTH BRISBANE QLD 4101 - 3 #01-01 Xi Lin District, Centre Building B, Changi South Street 2 SINGAPORE 486548	QLD Overseas	Suppliers of material and components
Fast Network		QLD	Remote sensing and Earth observation Consulting and financial services
Frequentis Australasia Pty Ltd	10/14 Ashtan Place BANYO QLD 4014	QLD	Aviation
Future Fleet Pty Ltd (Future Fleet International)	1/253 South Street CLEVELAND QLD 4163	QLD	Supplier of user devices and equipment
Gap Geo Pty Ltd	2/16 Duncan Street WEST END QLD 4101 - PO Box 5745 WEST END QLD 4101	QLD	Position, navigation and timing Remote sensing and Earth observation
GE Aviation Systems Australia Pty Ltd	3 Hakea Street BRISBANE AIRPORT QLD 4007	QLD	Scientific and engineering support Aviation
Geoimage Pty Ltd	72 Costin Street FORTITUDE VALLEY QLD 4006	QLD	Remote sensing and Earth observation
Geomatic Technologies Pty Ltd	Level 6 4 Riverside Quay SOUTHBANK VIC 3006	QLD VIC	Position, navigation and timing Remote sensing and Earth observation IT services
Gilmour Space Technologies	6 Pimpama-Jacobs Well Road PIMPAMA QLD 4209	QLD	Launch vehicle subsystems Launch services

GIS People Pty Ltd	Unit 3, 27 Commercial Road NEWSTEAD QLD 4006 PO Box 7391 EAST BRISBANE QLD 4169	QLD	Remote sensing and Earth observation Education and training IT services
Global Innovation Centre Pty Ltd	PO Box 1797 NOOSA HEADS QLD 4567	QLD	Business incubation and development IT services Logistics and program management
Gobal Satellite Phones & Data Communications Pty Ltd (GLOBALSAT.com.au)	58 Darling Street West WEST IPSWICH QLD 4305	QLD	Mobile satellite communications Supplier of user devices and equipment
Griffith University	Parklands Drive SOUTHPORT QLD 4215 - 226 Grey Street SOUTH BANK QLD 4101	QLD	Not for profit pro-Space organisation
Groundprobe Pty Ltd	72 Newmarket Road WINDSOR QLD 4030	QLD WA	Remote sensing and Earth observation
GVH Aerospace Australia Pacific	Level 1 40 Ross Street NEWSTEAD QLD 4006	QLD WA	Aviation
Hawker Pacific Pty Ltd	112 Airport Avenue BANKSTOWN AIRPORT NSW 2200	ACT NSW NT QLD VIC	Aviation
Heliaq Advanced Engineering	REDLANDS QLD 4000	QLD	Launch vehicle subsystems Ground station network Launch services Consulting and financial services
Hypersonix Pty Ltd	c/- School of Mechanical and Mining Engineering University of Queensland ST LUCIA QLD 4072	QLD	Launch vehicle subsystems
Insitu Pacific Ltd	95 Mina Parade ALDERLEY QLD 4051	QLD	Aviation
Integrated Marine Observation System (IMOS)	c/- University of Tasmania, Private Bag 110 HOBART TAS 7001	QLD TAS	Remote sensing and Earth observation Research Centre

International Aerospace Law and Policy Group Pty Ltd (IALPG)	Unit 1D, Clayfield Villaggio 7/139 Junction Road CLAYFIELD QLD 4011	OLD	Education and training Legal Policy research and advocacy
Investment Attraction South Australia	Level 9, The Conservatory 131-139 Grenfell Street ADELAIDE SA 5000	QLD	Business incubation and development Government coordination and oversight
iVolve	Level 7, Building A4, SW1 52 Merivale Street SOUTH BRISBANE QLD 4101 - GPO Box 680 BRISBANE QLD 4001	QLD	
James Cook University (JCU)	1 James Cook Drive TOWNSVILLE CITY QLD 4814	QLD	Fundamental and applied research for space systems Astronomy Education and training
Jeto Lab	Gold Coast QLD	QLD	Mechanical engineering, 3-D printing, software development, artificial intelligence, data analysis, project management, heavy lifting petrol drones Fundamental and applied research for space systems Ground segment systems and equipment Scientific and engineering support Suppliers of material and components Tourism Supplier of user devices and equipment Business incubation and development Education and training IT services Logistics and program management Marketing and communication Policy research and advocacy
John Morris Group	61-63 Victoria Avenue CHATSWOOD NSW 2067	NSW QLD SA VIC WA	Scientific and engineering support Suppliers of material and components
Kacific Australia Pty Ltd	NSW 2000 - 10A Institution Hill, 239664 SINGAPORE	NSW QLD Overseas	ICT Ground station network Satellite operations support Satellite operator Broadband Mobile satellite communications

KLX Aerospace Solutions	17 Ashtan Place BANYO QLD 4014	QLD Overseas	Suppliers of material and components Logistics and program management
KPMG Australia Pty Ltd	Level 38, Tower Three, 300 Barangaroo Avenue SYDNEY NSW 2000	ACT NSW QLD SA TAS VIC WA Overseas	Internet of Things Consulting and financial services Investment IT services Legal Logistics and program management Marketing and communication
L3 Micreo Pty Ltd	7 Hi Tech Court EIGHT MILE PLAINES QLD 4113	QLD	Suppliers of material and components
Leica Geosystems, Australisia	270 Gladstone Road DUTTON PARK QLD 4102	QLD	Position, navigation and timing Supplier of user devices and equipment
Lockheed Martin Space Systems	Mezzanine Level, 8 Brisbane Avenue BARTON ACT 2600	ACT NSW QLD SA VIC	Ground segment systems and equipment Scientific and engineering support Ground station network Launch services Telemetry, tracking and control Education and training Logistics and program management
M2M Connectivity	1 Barrett Street KENSINGTON VIC 3031	NSW QLD VIC WA	Telemetry, tracking and control Internet of Things Mobile satellite communications Supplier of user devices and equipment IT services
Mangoesmapping Pty Ltd	Suite 13, Jack Street Business Centre 1 Jack Street ATHERTON QLD 4883 - PO Box 323 HERBERTON QLD 4887	QLD	Suppliers of material and components Position, navigation and timing Supplier of user devices and equipment Consulting and financial services
Masters and Young	2/5 Booran Drive WOODRIDGE QLD 4114	QLD	Suppliers of material and components

Minter Ellison	Level 10 25 Grenfell Street ADELAIDE SA 5000	ACT NSW NT QLD SA VIC WA	Legal
Moody Space Centre	BRISBANE QLD	QLD	Launch platforms and infrastructure Launch services
National Committee on Space Engineering (NCSpE), Engineers Australia (IAE)	c/- Electrical College Engineering House 11 National Circuit BARTON ACT 2600	ACT NSW NT QLD SA TAS VIC WA	Community engagement  Not for profit pro-Space organisation
Northrop Grumman Australia Pty Ltd	Level 1, 216 Northbourne Avenue BRADDON ACT 2612	ACT NSW QLD SA VIC	Position, navigation and timing
Omnispace Australia Pty Ltd	VIC 3124 - 1775 Tysons Boulevard, 5th Floor, Tysons VA 22102 UNITED STATES OF AMERICA	QLD VIC Overseas	Ground station network  Mobile satellite communications
Ozius Spatial	CAMP HILL QLD 4152	QLD	Remote sensing and Earth observation Consulting and financial services
Pivotel Group Pty Ltd	Locked Bag 100 SOUTHPORT QLD 4215	QLD	Ground station network Mobile satellite communications
Position Partners	7 Transit Drive CAMPBELLFIELD VIC 3061	ACT NSW NT QLD SA TAS VIC WA	Position, navigation and timing

owerhouse Logistics Pty Ltd	Level 2, Unit 21, 1801 Botany Road BANKSMEADOW NSW 2019	NSW NT QLD SA VIC WA	Aviation Logistics and program management
roducts for Industry Pty Ltd (PFI)	3/12 Archimedes Street DARRA QLD 4076 - PO Box 3084 DARRA QLD 4076	QLD	Launch platforms and infrastructure Suppliers of material and components Mobile satellite communications Aviation
inetiQ Australia	Module 4, Endeavour House 11 Fourth Avenue MAWSON LAKES SA 5095	ACT QLD SA VIC	Scientific and engineering support
ueensland Department of State Development, Manufacturing, frastructure and Planning	Level 18, 1 William St., Brisbane, QLD 4000	QLD	Government coordination and oversight Policy research and advocacy
aytheon Australia Pty Ltd	4 Brindabella Circuit CANBERRA AIRPORT ACT 2609	ACT NSW NT QLD SA VIC WA	Defence Fundamental and applied research for space systems Ground segment systems and equipment Satellite subsytems and components Ground station network Satellite operator Telemetry, tracking and control Broadband Position, navigation and timing Remote sensing and Earth observation Supplier of user devices and equipment Education and training Logistics and program management
CR Laser	Level 23, Gateway 1 Macquarie Place SYDNEY NSW 2000	NSW QLD SA VIC WA	
emote Sensing Research Centre (RSRC), The University of ueensland	Chamberlain Building (35), School of Earth & Environmental Sciences,	QLD	Remote sensing and Earth observation Education and training Not for profit pro-Space organisation

Rio Tinto Ltd	360 Collins Street MELBOURNE VIC 3000	NT QLD TAS VIC WA	Position, navigation and timing Remote sensing and Earth observation
Royal Aeronautical Society Australian Division (RAeS)	PO Box 1583 Crows Nest 2065	ACT NSW QLD SA VIC WA	Aviation Community engagement Education and training Government coordination and oversight Not for profit pro-Space organisation Policy research and advocacy
SatPlus	2/12 Action Street NOOSAVILLE QLD 4566 - 223 Nepean Highway EDITHVALE VIC 3196	QLD VIC	Supplier of user devices and equipment
Silanna Semiconductor Pty Ltd	Level 1, 37 Brandl Street EIGHT MILE PLAINS QLD 4113	NSW QLD	Satellite subsytems and components
Sirion Global	PO Box 433 SOUTHPORT QLD 4215	QLD	Satellite operator Position, navigation and timing
SkyMesh Pty Ltd	37 Baxter Street FORTITUDE VALLEY QLD 4006	NSW NT QLD SA TAS VIC WA Overseas	Broadband
SkyNet Satellite Communications Pty Ltd	1/16 Edmondstone Street NEWMARKET QLD 4051	QLD	Broadband Internet of Things Mobile satellite communications IT services Logistics and program management

Space Industry Association of Australia Ltd (SIAA)	c/- Nova Systems 27-31 London Road Mile End SA 5031	ACT NSW NT QLD SA TAS VIC WA	Business incubation and development Community engagement Not for profit pro-Space organisation Policy research and advocacy
Spatial Industries Business Association (SIBA)	64 Sylvan Road TOOWONG QLD 4066	QLD	Business incubation and development Not for profit pro-Space organisation Policy research and advocacy
SpeedCast Managed Services Pty Ltd (SpeedCast)	Unit 4F, Level 1, 12 Lord Street BOTANY NSW 2019	NSW QLD SA VIC WA	Ground station network Telemetry, tracking and control Broadband Broadcasting Mobile satellite communications IT services
Starlab Education Pty Ltd	QLD 4565	QLD	Astronomy Community engagement Education and training
Station Innovation Pty Ltd	3/5 Mckenzie Place YARRAWONGA NT 0830 - 8 Fogarty St ALICE SPRINGS NT 0870 509 Boundary Road TORRINGTON QLD 4350	NT QLD	Remote sensing and Earth observation
Surveying & Spatial Sciences Institute (SSSI)	Unit 7, Level 1, 27-29 Napier Close DEAKIN ACT 2600 - PO Box 307 DEAKIN WEST ACT 2600	ACT NSW NT QLD SA TAS VIC	Remote sensing and Earth observation Community engagement Education and training Not for profit pro-Space organisation Policy research and advocacy

SYPAQ Systems Pty Ltd	Level 5 441 St Kilda Road MELBOURNE VIC 3004	ACT NSW QLD SA VIC WA Overseas	Ground segment systems and equipment Satellite subsytems and components Scientific and engineering support Ground station network Satellite operations support Telemetry, tracking and control Internet of Things Remote sensing and Earth observation Supplier of user devices and equipment Consulting and financial services IT services Logistics and program management
TAE Pty Ltd (TAE Aerospace)	AMBERLEY QLD 4306	QLD SA	Suppliers of material and components
Talk Satellite	2 Upper Mortimor House Oakley Road Beare Green, SURREY United Kingdom	NSW QLD	Community engagement
Teakle Composites	29 Colebard Street West ACACIA RIDGE QLD 4110	QLD	Ground segment systems and equipment Launch vehicle subsystems Satellite subsytems and components Suppliers of material and components
Telstra Corporation Ltd	242 Exhibition Street MELBOURNE VIC 3000 - (Telstra Holdings) Level 23 400 George Street SYDNEY NSW 2000 - Locked Bag 6507 SYDNEY NSW 2011	ACT NSW NT OLD SA TAS VIC WA	Ground station network Broadband Broadcasting
Thales Australia Holdings Pty Ltd	7 Murray Rose Avenue OLYMPIC PARK NSW 2128	ACT NSW QLD	Ground segment systems and equipment Launch vehicle subsystems Satellite subsytems and components Satellite operator Remote sensing and Earth observation Education and training Logistics and program management Policy research and advocacy

The University of Queensland	Sir Fred Schonell Drive ST LUCIA QLD 4072	QLD	Launch vehicle subsystems Remote sensing and Earth observation Education and training Not for profit pro-Space organisation
TR Pty Ltd	18 Joseph Street BLACKBURN NIRTH VIC 3130	ACT NSW QLD SA VIC	Broadcasting Π services
Trimble Navigation Australia Pty Ltd	Level 1 120 Wickham Street FORTITUDE VALLEY QLD 4006	QLD	Position, navigation and timing Remote sensing and Earth observation Supplier of user devices and equipment
University of Southern Queensland (USQ)	West Street DARLING HEIGHTS QLD 4350	QLD	Fundamental and applied research for space systems Launch platforms and infrastructure Scientific and engineering support Suppliers of material and components Astronomy Ground station network Resources and space mining Position, navigation and timing Remote sensing and Earth observation Education and training Not for profit pro-Space organisation
Vipac Engineers & Scientists Ltd	279 Normanby Road PORT MELBOURNE VIC 3207 - Private Bag 16 PORT MELBOURNE VIC 3207	NSW QLD SA VIC WA	Satellite systems Scientific and engineering support Logistics and program management
VRT Systems	38B Douglas Street MILTON QLD 4064	QLD	Internet of Things

## Attachment 2 - Statistical count of the space-related capabilities of organisations with a presence in Queensland

Category	Description	No. of entries
Astronomy	Study and observation of celestial objects and extra terrestrial phenomenon	7
Aviation	Aviation sector engineering or services	12
Biomedical science and health	Use and study of biological, physiological and clinical health principles	0
Broadband	Transmissions of telecommunications signals by way of several frequencies	13
Broadcasting	Distribution and transmission of telecommunications signals transmission and reception	5
Business incubation and development	Support for entrepreneurs and those commencing space related business	7
Community engagement	Exposing society to space and developing the existing knowledge and activity in space amongst society	13
Consulting and financial services	Assisting organisations or entities solve organisational or financial concerns	10
Education and training	Formal instruction including academic curriculum, professional development programs, internships etc.	24
Exploration	Discovery and investigation of outer space using knowledge and technology	0
Fundamental and applied research for space systems	Research of practical applications involved in space segment activity	10
Government coordination and oversight	Administration or supervision of space activity by a government body	11
Ground segment systems and equipment	Materials or processes involved in management of spacecraft or satellite data from Earth	8
Ground station network	Components of the ground segment facilitating those of the space segment	13
Insurance	Advising on or providing insurance issues and liability solutions	0
Internet of Things	Connection of everyday appliances or tools with each other and the internet	14
Investment	Providing money to space related activity for a return	1
IT services	Providing information technology advice and solutions	16
Launch brokerage	Arranging and managing the financial considerations of a launch	0
Launch platforms and infrastructure	Planning, building or maintaining launch site facilities or equipment	4
Launch services	Providing all aspects of a commercial launch	6
Launch vehicle subsystems	Components necessary for a complete, functioning and desirable launch apparatus	9
Legal	Advising on, managing and solving legal and regulatory issues	4
Logistics and program management	Organising and executing programs or components of a program	18
Marketing and communication	Promoting and delivering information to particular audiences	2
Mobile satellite communications	Services utilising long wave frequencies between mobile devices on earth and space craft or between two or more space craft	11

Category	Description	No. of entries
Not for profit pro-Space organisation	Non-governmental entities whose activities are not centred around monetary profit Investigating or promoting strategies, attitudes and approaches for the Australian space sector as a	19
Policy research and advocacy	whole of for industries within Global navigation satellite systems providing geospatial signals in order to link geographical and time	12
Position, navigation and timing	data with other information	16
Regulator	supervising, monitoring, auditing or enforcing directives and laws	1
Remote sensing and Earth observation	Obtaining data or from Earth through light transmission and reception	29
Research Centre	University and other advanced research and development entities	5
Resources and space mining	Exploration or extraction of materials sourced from outer space	2
Satellite operations support	Providing assistance to satellite operators	2
Satellite operator	Directly controlling the operations and activity of satellites	7
Satellite subsystems and components	Supporting systems or materials for satellite systems	6
Satellite systems	Conducting satellite design, development and assembly	1
Scientific and engineering support	Solutions or testing related to manufacturing processes, including hardware or IT services	15
Space based experiments	Conducting experiments in outer space	0
Supplier of user devices and equipment	Providing any applications capability with equipment	10
Suppliers of material and components	Providing any other manufacturing capability under this category with matter or information as required  Providing and facilitating the communication between spacecraft or between a spacecraft and ground	14
Telemetry, tracking and control	station	6
Tourism	Human leisure and travel in outer space	1
Vitrual reality services	Computer simulations portraying or incorporating real life situations or experiences	2
Total		366