

# Annual Report 2021/22



Earth Observation Australia Inc.

# **REGISTERED OFFICE**

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earth-observation-australia

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# ACKNOWLEDGEMENTS

This report was prepared for Earth Observation Australia Inc. by the following contributors:

- Emerita Professor Megan Lewis Earth Observation Australia Inc. and The University of Adelaide
- Ms Joanne Edkins Earth Observation Australia Inc. and The University of Queensland
- Ms Larissa Mar Fan
   Earth Observation Australia Inc. and The University of Queensland
- Ms Sylvia Michael
   Earth Observation Australia Inc. and The University of Queensland

# **About EOA**

Earth Observation Australia Inc. (EOA) is a not-for-profit organisation whose members are individuals with an interest in Earth observation (EO). EOA activities are guided by five priority actions:

- Connection and Coordination
- Securing Australia's Role in the International Earth Observation Community
- Infrastructure and People
- · Access to Earth Observation Data and Services, and Generating Value

These five priorities are defined in the <u>Australian Earth Observation Community Plan 2026</u> (the Plan). That Plan is directly linked to the Australian Space Agency's Civil Space Priority Roadmap for Earth observation.

### **Governance and Membership**

EOA is governed by a Management Committee of thirteen members.

Membership to EOA is free and open to anyone interested in Earth observation, irrespective of their affiliation, career stage, application, or geographic location. As of June 2022, EOA had 647 subscribed members, who reflect the diversity and ubiquitous nature of EO in Australia, with interested individuals and representatives from research, education, all levels of government, professional organisations, media, non-government organisations (NGOs), not for profit organisations (NFPs), defence, large business, start-ups, and small and medium enterprises.

In the 2021/22 financial year, the highest proportion of membership was from the:

- Research & Education sector (41%)
- SME Industry (14%)
- State and Territory Government (12%)
- Research sector (10%)

Geographically our membership is spread across all states and territories in Australia with most members residing in:

- Queensland (22%)
- New South Wales (19%)
- ACT (13%)
- Internationally (15%)

# Support

Support of EOA is provided by:

- The University of Queensland's Remote Sensing Research Centre at the School of Earth and Environmental Sciences for operations and accommodation resources and as host of the registered office of EOA
- The Queensland and New South Wales state governments through the Joint Remote Sensing Research Program for operations resources
- Geoscience Australia for support of EOGN and EOA activities
- Sponsorship for the Advancing Earth Observation Forum

In addition, all activities by the EOA Management Committee have been provided on a voluntary basis by its members.

EOA gratefully acknowledges and sincerely thanks these groups and individuals for their support.

# **Primary Activities**

EOA activities during this period included:

- Delivery of the on-line AEO (Advancing Earth Observation) Mini Forum 21
- Delivery of four webinars as part of the AEO Webinar Series Building the Earth Observation Community
- Planning and preparation of the Advancing Earth Observation Forum (AEO22)
- Two newsletters
- · Posting of five third-party survey and community notices
- Delivery of a three-part Earth Observation for Government Network (EOGN) on-line workshop
- · Assisted with facilitation of four Digital Earth Australia training sessions
- · Contribution to six national strategic plans and initiatives
- Representation by a number of our MC members on national and international committees and advisory groups
- Representation by a number of our MC members at fourteen non-EOA events

All activities were held in accordance with Australian and Queensland government travel and public gathering directives in response to the COVID-19 pandemic, to ensure the safety and wellbeing of attendees.

# **Future Directions**

The future directions of EOA are driven by our vision to provide a venue for the inclusive collaboration, communication, and cooperation of Australia's diverse EO community. We are now midway through the decade of the <u>Advancing Australian Earth Observation Community Plan</u> <u>2026</u>, with our activity driven by its five priorities.

With rapid progress in national Earth observation programs, some of the goals we have been working towards are coming to fruition, while there is new urgency to progress others. EOA will be undertaking a review of our achievements in relation to the Plan, and seeking feedback from members, stakeholders and the broader EO community on our priorities and focus for the future. Incorporating feedback from this review, we propose to develop and refine our established activities as well as establishing new initiatives and directions for the coming year.

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# EARTH OBSERVATION AUSTRALIA INC.

Earth Observation Australia Inc. (EOA) is a not-for-profit organisation whose members are individuals with an interest in Earth observation.

### **Mission**

"By 2026, the Australian Earth Observation sector will develop and deliver high-quality Earth Observation information, infrastructure, and services that are used widely by government, industry, research and the community in Australia and internationally."

During 2016 our forward-looking <u>Australian Earth Observation Community Plan 2026</u> was developed - through community consultation - to progress this mission by way of five priority areas of action:



**1. Connection and Coordination** — establishing a consistent vision within the Australian Earth observation community and delivering processes for internal coordination to ensure effective collaboration, resource use, and advocacy for Earth observation in Australia and internationally.



2. Securing Australia's Role in the International Earth Observation Community — Australia must be an essential component of the international Earth observation capability, delivering benefits to the international community and securing our access to and involvement in international Earth observation programmes.



**3.** Infrastructure and People — developing, supporting and sustaining a wealth of trained professionals and quality infrastructure to enable world-leading Earth observation research, innovation and application development.



**4.** Access to Earth Observation Data and Services — ensuring all Australian Earth observation producers and users can easily and reliably access the data and services they need.



**5. Generating Value** — strengthening end-user engagement to enable delivery of high-quality Earth observation products and services suited to user needs and supporting commercial development of Earth observation applications.

# EARTH OBSERVATION AUSTRALIA INC. (cont.)

Australia's active Earth observation (EO) community is distributed across interested individuals, defence, research and education, government, private industry, not-for-profits, and non-government organisations. EOA enables these disparate individuals and organisations to impartially connect, learn, share and work to grow capability and improve essential EO activities and services for the future.

A coordinated and consistent approach is essential to:

- Strengthen Australia's competencies and growing capabilities in Earth observation
- Support Australia's professional reputation and recognition in the international EO arena and to give back to the global EO community
- Link civil and defence applications for dual use, public good, and sovereign capability to lower the risk to Australian industry and government, and
- Support the Australian Space Agency (ASA) whose responsibilities include the coordination of civil space matters

### **History**

Earth observation - a suite of activities used to gather data about the Earth from satellites, aircraft, remotely piloted systems and more - is ever increasingly underpinning decision-making. This need has driven rapid expansion in the number and variety of research, processing, innovation, and collection bodies who service it. The technology is also rapidly changing and developing.

Since its 2013 inception, from the common vision of colleagues who saw the need for a unifying focus within this developing and complex industry, EOA has grown significantly. We are a community of more than 640 members, we host whole-of-community events and webinars regularly and are actively engaged in preparation of the inaugural Advancing Earth Observation Forum series (AEO 2021-22), with the aims of connection, coordination, engagement, and capacity building.

This report intends to acknowledge and thank the support of:

- The University of Queensland
- Geoscience Australia
- The voluntary activities of the 2021/22 Management Committee

and, to present:

- A summary of our membership
- An overview of the 2021/22 activities of EOA
- The 2021/22 financial statement
- An overview of EOA's planned future activities in 2023, aligned to the future strategic direction of EOA as defined in the Plan

# **MESSAGE FROM THE PRESIDENT**

I acknowledge the traditional custodians of the lands and waters of Australia in which EOA works. I offer my respect to elders past, present and emerging as we recognise and build our shared knowledge and experiences.

Firstly, I extend my thanks to the diverse group of people across government, industry and academia who have made 2021-2022 an outstanding year for EOA. We are fortunate to be building on the strong foundations laid by the Australian Earth Observation Community Coordinating Group (2013-2018), which led to the formation of EOA in 2019, and our formal incorporation as an association in 2020.

Our mission continues to be guided by the five pillars of the <u>Advancing Australian Earth</u> <u>Observation Community Plan 2026</u>, with a particular emphasis on Connection and Coordination this year. The following highlights of EOA's achievements during 2021-2022 are expanded elsewhere in this report.

- Planning and delivery of the inaugural Advancing Earth Observation Forum 2021-2022 and associated events was our highest priority and the focus of enormous effort. EOA and the broader Earth observation community are deeply indebted to the Forum Directors and team of organisers, led by Professor Stuart Phinn, for their work over several years to make this a reality in Brisbane in August 2022.
- Our membership and diversity of representation across various EO sectors continues to grow. We are seeking to broaden our membership and strengthen our engagement, drawing more actively and deeply on members' experiences and expertise through our continued and expanded communications, social media, and webinars.
- In addition, we have developed guidelines to reinvigorate and support working groups focussing on particular areas of need and interest. A Small to Medium Enterprise (SME) Working Group has new terms of reference and is aiming to raise the profile of and address issues faced specifically by SMEs active in EO.
- We established the first EOA Awards to recognise and celebrate individuals and groups that have made outstanding and influential contributions to building the EO community and its capabilities. The first awards and commendations were made at the 2022 AEO Forum, and we intend to continue and expand the scope of these awards in coming years.
- The Earth Observation for Government Network continued its workshop series with Earth Observation for Pre and Post-Fire Applications (online) and facilitation of four Digital Earth Australia training sessions.

This has been a landmark year for EO in Australia, with the release of national strategic roadmaps and forward plans that clearly establish the economic, social and environmental importance of EO, and which will drive future research and development, investment, education and workforce development over the next decade. All call for coordinated national approaches to

# MESSAGE FROM THE PRESIDENT (cont.)

achieve ambitious goals. EOA has contributed to shaping these discussions, plans, and initiatives, and we continue to champion and actively support their implementation. They include:

- Australian Space Agency National Plan for Space consultations 2021-2022
- Australian Space Agency Earth Observation from Space Roadmap, released November 2021
- Australian Academy of Science Decadal Plan for Australian Space Science 2021-2030, released January 2022
- Space + Spatial Industry Growth Roadmap 2030, awaiting release
- Inclusion@Work Index: Mapping the State of Inclusion in the Space, Spatial and Surveying
   Industries, 2022
- SmartSat Cooperative Research Centre Queensland Earth Observation Hub, launched April 2022

I sincerely acknowledge and thank the Management Committee (Professor David Antoine, Dr Renee Bartolo, Professor Alfredo Huete, Associate Professor Karen Joyce, Dr Stefan Maier, Dr Jasmine Muir, Dr Cindy Ong, Professor Stuart Phinn and Dr Dan Wu) who have worked so collaboratively since their election in 2020 to oversee and guide our increasing portfolio of activities. In particular, I thank outgoing Committee members David Antoine, Alfredo Huete, Karen Joyce, Jasmine Muir, and Dan Wu for their unique perspectives and valuable contributions to the management of EOA. The 2022 EOA elections for Management Committee and Executive positions provide opportunities for new members to join the MC, and I look forward to welcoming them to work alongside continuing members.

EOA's achievements and impact are driven and underpinned by the core Executive team of Professor Stuart Phinn (Past President and University of Queensland Chair), Dr Amy Parker (Vice-President), Ms Sylvia Michael (Secretary), and Ms Jo Edkins (Treasurer) together with Ms Larissa Mar Fan (Partnerships Coordinator). We are extremely fortunate to have such a passionate and committed team who contribute to EOA and the EO community well above and beyond their formal roles. It is a pleasure to work with them and I thank them for their continued expert work and support.

Geoscience Australia continues to actively support EOA and we thank many people there for our collaborations to jointly progress Earth observation in Australia. We are also very grateful for the many sponsors who generously supported the AEO Forum 2022.

Thank you again to all for your contributions and support, and I look forward to working with you in the coming year.

Professor Megan Lewis President, Earth Observation Australia

# **Operations and Management**

EOA has been fortunate with the ongoing support and commitment of The University of Queensland's Remote Sensing Research Centre (RSRC) at the School of Earth and Environmental Sciences, the Queensland and New South Wales state governments through the Joint Remote Sensing Research program (JRSRP), and the EOA Management Committee. All contributions to the EOA community is gratefully acknowledged.

Earth Observation Australia Inc. is a Queensland Incorporated Association and an Australian Registered Body. EOA is led by a Management Committee consisting of:

- An executive committee:
  - President
  - Vice President
  - The University of Queensland Chair
  - Secretary
  - and Treasurer
- Eight non-executive positions as well as Immediate Past President, in accordance with its Constitution and By-Laws.

All current members of the Management Committee (other than President) were elected to their positions at the 2020/21 Annual General Meeting, other than Dr Stefan Maier who accepted a Non-Executive position made vacant by the resignation of Dr Dan Wu in February 2022.

In addition, Professor Stuart Phinn resigned as President at the end of August 2021 and took on the position of The University of Queensland Chair. Emerita Professor Megan Lewis was appointed President in September 2021 by the EOA Management Committee.

## **Executive Management Team**



**Emerita Professor Megan Lewis** President (from Sep 2021) The University of Adelaide



Dr Amy Parker Vice President CSIRO Centre for Earth Observation



Professor Stuart Phinn UQ Chair and Immediate Past President (from Sep 2021) The University of Queensland, Remote Sensing Research Centre The University of Queensland



Ms Sylvia Michael Secretary The University of Queensland



Ms Joanne Edkins Treasurer The University of Queensland

# **Non-Executive Management Committee**



Professor David Antoine Curtin University



**Dr Renee Bartolo** Department of Climate Change, Energy, the Environment and Water



Professor Alfredo Huete University of Technology Sydney



Dr Cindy Ong CSIRO



Dr Stefan Maier (Feb 2022 to Jun 2022) Director, maitec



Dr Dan Wu (Sep 2020 to Feb 2022) ESRI Australia



Dr Karen Joyce James Cook University / She Maps / GeoNadir



Dr Jasmine Muir FrontierSI

# **Support staff**



Ms Larissa Mar Fan National Earth Observation Partnerships Coordinator The University of Queensland

#### **Members**

EOA membership is free and open to anyone interested in Earth observation, irrespective of their affiliation, career stage, application, or geographic location. As of June 2022, we have 647 individual members from the Australian and international EO community, an increase from 490 in the previous year.

Our membership reflects the diversity and ubiquitous nature of EO information in Australia, with interested individuals and representatives from research, education, all levels of government, professional organisations, media, non-government organisations (NGOs), not for profit organisations (NFPs), defence, large business, start-ups, and small and medium enterprise.

Table 1 and Figure 1 show the spread of membership across each of these major sectors. Table 2 and Figure 2 show the spread of membership across the states and territories, and our international representation.

Sector	Number	Percentage	Percentage reported in 2020/21
Research & Education	237	41%	35%
Industry - SME	82	14%	10%
Government - States & Territories	71	12%	16%
Research	58	10%	9%
Government - Commonwealth	55	9%	12%
Industry - Large	22	4%	2%
Other	22	4%	3%
Defence	9	2%	1%
Professional Association	8	1%	Included in Other
Government - Local	6	1%	New Category
Not for Profit	6	1%	Included in Other
Australian Space Agency	6	1%	Included in Other

#### Table 1: Membership representation across the major sectors

#### Table 1 Notes:

- This year's report includes both national and international members.
- Sectors with <5 members are grouped into Other.
- Government Local was previously included in the 'Government States & Territories' category.
- Members for whom we could not identify a sector are excluded. Those members represent ~10% of our membership.

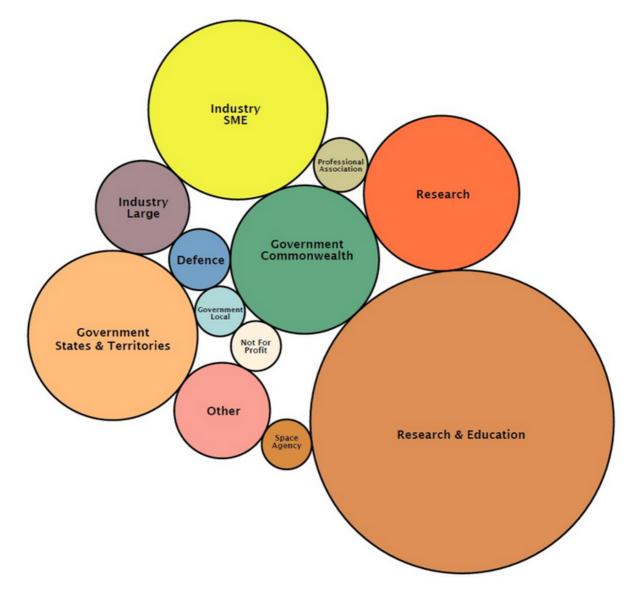


Figure 1: Membership representation across the major sectors

#### Figure 1 Definitions:

- The category Other includes groups with individual representation of <5 members.
- Industry Large includes commercial organisations with at least 200 staff.
- Industry SME (small and medium enterprises) include commercial organisations with less than 200 employees and include micro businesses, sole traders, consultants, and start-ups.

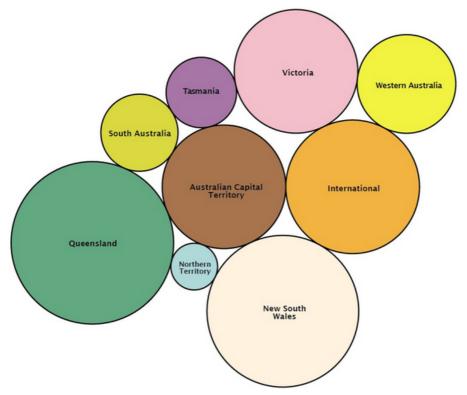
State / International	Count	Percentage	Percentage reported in 2020/21
Queensland	133	22%	26%
New South Wales	116	19%	23%
International	90	15%	Not provided
Australian Capital Territory	77	13%	15%
Victoria	77	13%	14%
Western Australia	49	8%	9%
South Australia	30	5%	6%
Tasmania	25	4%	6%
Northern Territory	11	2%	2%

#### Table 2: Membership geographic distribution

#### Table 2 Notes:

- This year's report includes both national and international members.
- Members for whom we could not identify a location (state, territory, or international) are omitted. Those members represent ~6% of our membership.





# **Supporters**

EOA gratefully acknowledges the support of the following listed groups:

#### Table 3: Earth Observation Australia Inc. supporters

Name	Description	Dates Active
The University of Queensland's Remote Sensing Research Centre (RSRC) at the School of Earth and Environmental Sciences	Operations and infrastructure. Hosts the registered office of EOA	From 2013, on-going
Queensland and New South Wales state governments through the Joint Remote Sensing Research Program (JRSRP)	Operations resources	From 2013, on-going
Geoscience Australia	EOA activities	From 2018, on-going
Geoscience Australia	Earth Observation for Government Network (EOGN) activities	From 2018, on-going
Sponsors	Advancing Earth Observation (AEO) Forum 2021-22	From 2020 to 2022

# **Advancing Earth Observation Forum**

The inaugural Advancing Earth Observation Forum (AEO22) was initially to be held in Brisbane at the Brisbane Convention & Exhibition Centre (BCEC) in August 2020. Due to the global Coronavirus (COVID-19) pandemic the Forum was postponed twice.



To maintain interest, and as a leadup to AEO22, a series of online webinars was held, staring with the full day AEO Mini Forum on 24 August 2021. The AEO Mini program included a Keynote address by Dr Trevor Dhu of Microsoft, short and interactive presentations, a Town Hall, Learning Labs, and a Debate. This event attracted over 250 attendees. Details and recordings are available at <u>www.earthobsforum.org/aeomini</u>.

Four webinars were held in the Building the Earth Observation Community series linking the AEO Mini Forum to the face-to-face AEO22. The topics were the following with the recordings available at <u>www.earthobsforum.org/aeowebinars</u>:

- Engaging with Australia's Analytics Data Hubs, 17 November 2021
- Drone Earth Observation critical pillars in Earth observation sciences and applications, 2 February 2022
- SMEs and Government Partnering to Grow Australian Earth Observation Capabilities, 31 March 2022
- Airborne Earth observation critical pillars in Earth observation sciences and applications, 2 June 2022

The objective of AEO22 was to be a unique, engaging, and interactive series of events with a focus on learning, contributing, and connecting. To that end the Forum included a diversity of presentation and engagement sessions and formats.



#### AEO Forum Sponsors:

We acknowledge and thank the sponsors of the AEO Forum, their involvement and support is an acknowledgement of the importance of investing in Australia's Earth observation future:

- Geoscience Australia
- Queensland Government
- Planet
- Curtin University
- Australian Space Agency
- TERN
- SmartSat CRC, and
- ETMC Technologies
- Australian Association of Uncrewed Aerial Systems
- Australian Institute of Marine Science
- APAC Geospatial Pty Ltd
- Astron Environmental Consultants
- Australian Space Data Analysis Facility
- Aviation Australian
- Bureau of Meteorology
- CSIRO
- Department of Agriculture, Water, and the Environment
- DUG Technology Pty Ltd
- Maxar
- She Maps, and
- The University of Southern Queensland

#### Organising Committee:

The Forum Organising Committee (OC) is led by four directors, all nationally- and internationallyrecognised leaders in EO:

- Professor Stuart Phinn The University of Queensland and Earth Observation Australia Inc.
- Dr Renee Bartolo Department of Agriculture, Water and the Environment and Earth Observation Australia Inc.
- Dr Glenn Campbell The University of Southern Queensland
- Dr Karen Joyce James Cook University, She Maps, and GeoNadir

Other members of the OC include:

- Emerita Professor Megan Lewis The University of Adelaide and Earth Observation Australia Inc.
- Ms Jo Edkins The University of Queensland and Earth Observation Australia Inc.
- Ms Alison Soady She Maps
- Ms Larissa Mar Fan The University of Queensland and Earth Observation Australia Inc.
- Ms Sylvia Michael The University of Queensland and Earth Observation Australia Inc.

### **Newsletters**

EOA distributes regular electronic newsletters to subscribed members. For the 2021/22 FY, newsletters were distributed in November 2021 and June 2022.

Content included:

- Upcoming events of interest, including the Advancing Earth Observation Forum 2021-22 series of events
- Reference articles
- EO collaborations, including the Earth Observation for Government Network (EOGN)
- Upcoming and recent webinars, including the Whole of Community series and technical presentations
- · Release of and links to government strategy and policy documents
- Research and industry grants
- Employment and study opportunities
- Member spotlight
- · Other items of interest

# **Whole of Community Webinars**

During the 2021/22 financial year, the regular Whole of Community webinars hosted by EOA were replaced by the AEO (Advancing Earth Observation) Mini Forum 2021 and the AEO 2021/22 Webinar Series - Building the Earth Observation Community.

# **Survey and Community Notices**

As a service to our members and associated groups, EOA actively promotes surveys, questionnaires, and notices that are relevant to the Earth observation community.

Notices were posted for third party groups for the following:

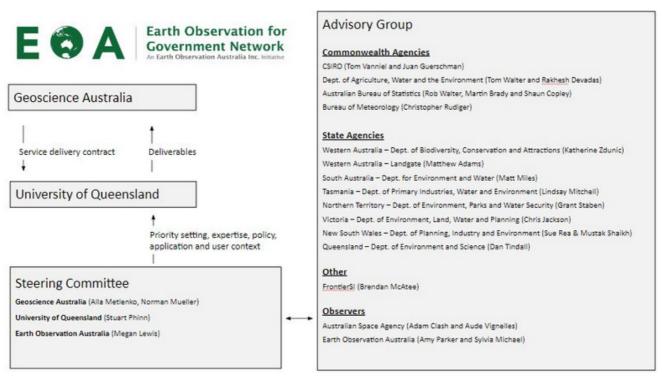
- Open call for new NovaSAR-1 acquisitions, July 2021
- Contributions to the Space+Spatial 2030 Roadmap, July 2021
- Contributions to developing a diversity and inclusion baseline within the Space, Spatial and Surveying sectors via the Inclusion@Work Index 2021 survey, August 2021
- Opportunity to collect coincident surface observations for Landsat 8 and 9 and contribute to international cross calibration and validation efforts, November 2021
- Sentinel-2 user contributions to image quality and data access requirements for the Aerospacelab Multispectral Companion Mission (MSCM), June 2022

### **Earth Observation for Government Network**

Earth Observation for Government Network (EOGN) works to make available, fit-for-purpose, validated and authoritative EO data and its derived products and services to support decision making, management and other activities in Australia by governments, private industry, research, and non-government organisations. It does this by:

- Engaging with providers of EO data and its derived products and services including Commonwealth and state government agencies as well as small and large private businesses, with researchers and developers of EO activities, and with the diverse community of users of EO data, products, and services
- Understanding the complete EO landscape including end-users' current and future needs, the appropriateness of available products and services, and research ranging from emerging through to proven, continental activities
- Advising government on existing or emerging user need gaps, activities that are ready to be transitioned from research infrastructure to nationally available products on government infrastructure, and mechanisms to allow cross-agency and community collaboration for the advancement of EO in Australia
- Supporting the improvement of available products and services and the transition of activities to nationally available products and services by providing a targeted collaboration and priority setting network

EOGN is run by EOA and fully funded by Geoscience Australia (GA) under the following model.



#### Figure 3: Earth Observation for Government Network structure

# EOA ACTIVITIES (cont.)

EOGN activities during 2021/2021 included:

• Earth Observation for Pre and Post Fire Applications - November/December 2021

<u>Session 1</u>: Earth Observation for Pre and Post Fire Applications: fuel load, flammability, and fire management through to fire extent, intensity and the recovery process. <u>Session 2</u>: Understanding user needs and 'fit-for-purpose requirements' <u>Session 3</u>: Identifying shared goals, opportunities, and formats for ongoing collaboration

- Digital Earth Australia training
- Facilitating the participation of 70 people in two-day sandbox training sessions

Information from EOGN activities will be used to build an Australian Earth Observation Capability Database.

#### Governance

On 1 July 2021, an online Special General Meeting of the EOA membership was held to present changes to the EOA Constitution and introduce the EOA By-laws. A quorum of members attended and the new Constitution and By-laws were approved. Details of the meeting, including minutes, are available here.

# **Contributions and Submissions**

- Australian Space Agency National Plan for Space consultations 2021-2022
- Australian Space Agency Earth Observation from Space Roadmap, released November 2021
- Australian Academy of Science Decadal Plan for Australian Space Science 2021-2030, released January 2022
- Space + Spatial Industry Growth Roadmap 2030, awaiting release
- Inclusion@Work Index: Mapping the State of Inclusion in the Space, Spatial and Surveying
   Industries, 2022
- SmartSat Cooperative Research Centre Queensland Earth Observation Hub, launched April 2022

# **Participation on Committees and Advisory Groups**

EOA is represented by Management Committee members on the following committees and advisory groups:

- Asia-Oceania Group on Earth Observations Coordinating Board
- Australian Academy of Science Decadal Plan for Australian Space Science 2021-2030
   Executive Working Group
- IEEE International Geoscience and Remote Sensing Symposium 2025 Organising Committee
- Space + Spatial Industry Growth Roadmap 2030 Steering Committee
- SmartSat Cooperative Research Centre Queensland Earth Observation Hub Advisory
   Committee
- Space, Spatial & Surveying Industry Inclusion at Work Index survey and report Research Steering Committee

# **EOA Representation at Non-EOA Events**

Earth Observation Australia Inc. is very fortunate in having national and international leaders contribute to its management. Members of the Management Committee represented EOA at the following events during the 2021/22 financial year.

- Australian Space Data Analysis Facility (ASDAF) Earth Observation Sundowner Post AEO Mini Event, Perth, 25 August 2021) (J. Muir presenter)
- 12th Australian Space Forum, Adelaide, 15 September 2021 (M. Lewis)
- Spatial Information Day and Asia Pacific Spatial Excellence Awards (APSEA) South Australia, Adelaide, 17 September 2021 (M.Lewis)
- FrontierSI Queensland Partner Forum, Brisbane, 13 October 2021 (S. Phinn presenter and L. Mar Fan)
- Deloitte, Queensland Government, and EOA hosted Become a Market Leader , Brisbane, 14 October 2021 (S. Phinn presenter and S. Michael)
- 14th Asia-Oceania Group on Earth Observations Symposium, on-line, 10-12 November 2021 (M. Lewis)
- Al Opportunities: Al in Space and Earth Observation and Analysis, Brisbane, 16 November 2021 (S. Phinn presenter)
- GEO Week side event "Envisioning AOGEO in 2022 and beyond", on-line, 26 November 2021 (M. Lewis chair and moderator)
- Southern Space Symposium, on-line, 29-30 November 2021 (M. Lewis)
- Australian Space Data Analysis Facility (ASDAF) Earth Observation Sundowner, Perth, 1 December 2021 (J. Muir presenter)
- 13th Australian Space Forum, Adelaide, 3 March 2022 (M. Lewis)
- Australian Space Agency EO Roadmap Industry Pitch webinar (online), 30 March 2022 (M. Lewis presenter)
- Group on Earth Observations (GEO) Annual Symposium Nexus session "Towards Integrated EO Solutions in Tonlé Sap Basin, Cambodia", on-line, 3 May 2022 (M. Lewis chair and moderator)
- Pre 2035 Oceania Summit Adelaide Workshop, Adelaide, 3 May 2022 (M. Lewis panel member)
- Australian Space Data Analysis Facility (ASDAF) Earth Observation Sundowner, Perth, 11 May 2022 (A. Parker presenter)

# **FUTURE DIRECTIONS**

The future directions of EOA are driven by our vision to provide a venue for the inclusive collaboration, communication, and cooperation of Australia's diverse EO community.

We are now midway through the decade of the <u>Advancing Australian Earth Observation</u> <u>Community Plan 2026</u>, with our activity driven by its five priorities. With rapid progress in national Earth observation programs, some of the goals we have been working towards are coming to fruition, while there is new urgency to progress others. EOA will be undertaking a review of our achievements in relation to the Plan, and seeking feedback from members, stakeholders and broader EO community on our priorities and focus for the future.

Incorporating feedback from this review, we propose to develop and refine our established activities, including:

- · Growing and diversifying our membership base
- Continuing to provide informative, relevant, and regular Whole of Community meetings, technical presentations, and newsletters
- Contributing to shaping national strategic discussions, roadmaps, and initiatives relevant to Earth observation
- Developing models for diverse groups in the EO sector to effectively engage and collaborate with each other, including working groups focussed in areas of specific need and interest
- Developing mutually beneficial relationships with national and international EO and geospatial organisations, associations and groups
- Developing a pathway towards future financial and operational sustainability for EOA Inc.

New initiatives and directions for the coming year also include:

- Establishing a model to support organisation, funding and delivery of future biennial Advancing Earth Observation Forums, with a specific goal of a 2024 forum hosted by a new organising group
- Expanding our activity to support Australian Earth observation community international engagement, particularly in the Asia Pacific region and with the Group on Earth Observations and its thematic and regional groups
- Coordinating and contributing to surveys, studies and processes that provide up-to-date evidence of the scale, scope and impact of the Earth observation sector in Australia. Such information aims to support advocacy, engagement with sub-sectors, understanding of R&D capabilities and trends, as well as identifying potential gaps and risks to future EO use

# Treasurer's Report for the 2021/22 Financial Year

At the time of publishing this report EOA has not maintained a bank account and does not independently manage income and expenditure. This means that there are no formal EOA financial reports or returns to submit for the 2021/22 financial year. EOA currently qualifies as a Level 3 Incorporated Association[1], and therefore an independent financial audit is not required.

EOA activities are achieved through:

- In-kind Contributions and Support
- Funding

All EOA operations and project funding is currently managed via The University of Queensland (UQ). This report reflects these contributions.

# **In-kind Contributions and Support**

EOA benefits from in-kind contributions and support through the following sources:

**1. The University of Queensland**'s Remote Sensing Research Centre at the School of Earth and Environmental Sciences. In addition to in-kind staff UQ also provides infrastructure support for EOA operations such as office space, telecommunications, software & hardware, webinars, and general operating costs.

#### Table 4: 2021/22 In-kind staff costs

UQ's in-kind contributions and support are:

Position	Number of units (FTE - Full Time Equivalent)	Contribution
<b>Director (Phinn, Level E)</b> for strategic and operational guidance on all EOA related activities and projects[2]	0.2	49,326
In-kind overheads/infrastructure on funded positions - refer to Funding section[2]	-	-
Total		\$49,326

[1] Level 3 Incorporated Association in Queensland is defined as having both the value of assets and revenue less than \$20,000. Ref: <u>https://www.qld.gov.au/law/laws-regulated-industries-and-accountability/queensland-laws-and-regulations/associations-charities-and-non-for-profits/incorporated-associations/financial-responsibilities-for-incorporated-associations/making-your-association-annual-report
 [2] Staff costs are inclusive of salary and oncosts (salary related), and indirect costs (infrastructure)
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**2.** Volunteer contributions are made by the **EOA Management Committee and members** to various EOA activities.

**3. Queensland and New South Wales state governments** support EOA operations through the Joint Remote Sensing Research Program.

# Funding

Project funding agreements and finances are managed by The University of Queensland. Funded EOA projects for the 2021/22 financial year (AUD\$, GST exclusive) are as follows:

#### Earth Observation Australia Inc.

Geoscience Australia (GA) have provided project funding from 1 April 2018 to 30 June 2023, with The University of Queensland providing in-kind support. This funding enables EOA to:

- Consult with the community on technical, scientific, ethical, and professional issues e.g. data needs, technical best practice, emerging capabilities.
- Foster collaboration between the EO community and industry/government/not-for-profit entities that use information derived from Earth observation data, products, and services.

Project funding was received by UQ during the 2021/22 financial years for activities in the 2022/23 financial year.

	Geoscience Australia funding	UQ In-kind
Business Manager	81,071	
Communications and collaboration officer	48,017	
Operations and travel	20,912	
Overheads and infrastructure on personnel		51,635
Total (GST exclusive)	\$150,000	\$51,653

#### Table 5: EOA project funding 2021/22

#### 2. Earth Observation for Government Network (EOGN)

Geoscience Australia have funded the EOGN project from 27 August 2021 to 30 June 2023, with The University of Queensland providing in-kind support. This funding supports the running of EOGN and delivery of targeted workshops.

Project funding was received by UQ during the 2021/22 financial years for activities in the same financial year.

#### Table 6: Earth Observation for Government Network funding 2021/22

	Geoscience Australia funding	Geoscience Australia funding	UQ In-kind
Partnerships officer	63,685		
Engagement officer	42,457		
Operations costs of webinars and meetings	9,000		
Coordination of EOGN advisory group			11,204
Administration costs of webinars and meetings		9,000	
Website content and development			5,000
Overheads and infrastructure on personnel			25,474
Total (GST exclusive)	\$150,000	\$9,000	\$41,678

#### 3. Advancing Earth Observation Forum 2022

Revenue for the AEO Forum 2022 has been generated through sponsorship and delegate registrations. The governing agreements and finances are managed by The University of Queensland.The Forum was held in August 2022, a full profit and loss statement will be published in the EOA 2022/23 financial year Annual Report.

#### Table 7: Advancing Earth Observation Forum funding 2021/22

	Revenue	UQ In-kind
Sponsorship	55,681	
Registrations	104,082	
Research Program Manager for AEO Forum (FTE 0.3) [3]		37,862
Overheads and infrastructure on personnel [3]		22,109
Total (GST exclusive)	\$159,763	\$59,971

[3] Staff costs are inclusive of salary and oncosts (salary related), and indirect costs (infrastructure)

# **Verification of Financial Statement**

EOA Inc's financial records show the association keeps adequate financial records to correctly record and explain transactions, and to enable a true and fair financial statement to be prepared.

Joanne Edkins, EOA Treasurer Earth Observation Australia Inc. 12 October 2022