Information Memorandum

CREATING A GEOSPATIAL PEAK BODY

May 2022

Australia's peak body for geospatial comprising
surveying, spatial & earth observation and aligned sectors.

Professionals | Businesses

SSSI SURVEYING & SPATIAL SCIENCES INSTITUTE

SIBA

gita Australia and New Zealand

Foreword

With the fourth industrial revolution now in full swing, it is driving an economy wide digital transformation that is changing the way we work. SSSI and SIBA|GITA believe now is the time to come together to create a new organisation to serve the interests of the geospatial sector more broadly.

A new structure will provide significant benefits to members both as individuals and businesses and most importantly, to the sector.

Being one voice enables us to accomplish so much more. This includes achieving our objectives of expanding the geospatial sector to create more opportunities, addressing the skills shortages in our workforce and creating a national skills and career pathway. All of which are priorities for both individuals and businesses.

As a peak body that is agile and impactful, we can carve out a strong market position, achieve greater efficiencies and improve internal processes to deliver greater return for members.

The new organisation will be collaborative, inclusive and will engage more strongly with other sectors such as engineering, infrastructure, space, property development and agriculture to develop synergies and opportunities for our members in areas such as digital twins, IoT and precision agriculture.

We shall strengthen our respective positions as trusted voices and become 'the' trusted voice for Australia's geospatial sector. We will advise and engage with Australian governments, businesses, educational institutions, regulators, research organisations and users of geospatial services and technology.

This can only be achieved through collaboration with our members and other stakeholders.

Drawing on decades of experience, goodwill and shaping programs to support the sector and its professionals to capitalise on opportunities that are surfacing driven by rapid technological change, SSSI and SIBA|GITA together have the expertise to best represent the current and emerging interests of professionals and businesses within the geospatial sector.

"By merging, SSSI and SIBA|GITA we can do more for our sector. We become a powerful voice that represents both professionals and businesses and we can create a stronger foundation for sustainable sector growth. At the moment we are experiencing significant workforce capability and capacity issues. We need to work with government, education and training and industry to ensure we have the structures and programs in place to nurture a skilled and qualified workforce in the future. With our combined skills and resources, we can advocate for initiatives which will advance our sector and drive meaningful change."

Paul Digney
SSSI, President

"In my career as a land surveyor, the only thing that has been consistent is change. Technology and digital disruption continue to offer the spatial community limitless opportunities. Yet on several matters the spatial community's conversation has not changed at all, particularly around workforce shortages, the age and diversity of the workforce, remuneration, competency recognition etc. To be able to address these issues we must be united in our representation, we must have significant numbers to change the current situation and to keep our momentum going. The merger of SSSI and SIBA|GITA is a vital step in the process."

Alistair Byrom
SIBA|GITA, Chair

Why do we need a Peak Geospatial Body?

When we talk about our industry sector, who are we really talking about? In the past, we have had two clearly defined camps – surveying and spatial sciences. The lines have blurred. Surveying and spatial are complementary, and are just two parts of the overall geospatial picture.

Geospatial is an all encompassing term covering the accurate knowing of 'where' which includes surveying; hydrography, cartography, Global Navigation Satellite Systems (GNSS) and Positioning, Navigation and Timing (PNT); spatial analytics; earth observation from space, airborne and terrestrial platforms; and 3D scanning also from airborne and terrestrial platforms.

Geospatial also includes smart technologies such as, big data, Artificial Intelligence (AI), advanced robotics, automation, edge computing, continuous internet connectivity, sensors everywhere, digital twins and advanced interoperability – the same technologies associated with the Fourth Industrial Revolution (4IR) driving an economy wide digital transformation. The industry is made up of those technologies, services, software, hardware data and knowledge.

It is time we are defined as one. Collectively we are geospatial, but we are comprised of a plethora of disciplines and technologies.

We will strongly engage with all stakeholders including, individuals, the industry, government at all levels, not-for-profit organisations and NGOs, researchers and educators and the technology and opensource communities. All of these stakeholders are integral as we go through the transformation to the new integrated geospatial information ecosystem that delivers knowledge on demand. We are talking about SSSI and SIBA|GITA coming together and forming a new peak geospatial body that is truly representative of the entire sector.

We are a diverse group that represents many disciplines and supports the work of many industry sectors from agriculture land administration, energy and resources, security and defence to health and education. While we have begun this transition, we must substantially accelerate our progress to remain globally competitive. Geospatial supports and drives innovation and change in other industry sectors. While we often work in the background, our sector has yet to be fully understood or recognised for what we do and the significant contributions we make.

To achieve this we must strengthen our voice.

It's time we are united as one and clearly articulate to the other parts of the economy how as a vital industry sector we drive innovation and change within the broader community.

Forming a peak body representing geospatial is the first step we take in finding our voice and becoming a true representative body of the geospatial sector allowing us to capitalise on emerging opportunities brought about by 4IR.

As the peak geospatial industry body we have the ability to increase the representation of the interests of our members to build a vital, diverse and thriving geospatial community. We can drive the national agenda for industry transformation and growth.

This peak body will be unique in that it represents both individual and business members of all types which includes public, private, research and education, regulators, NFP etc. Each member, no matter of size, discipline or jurisdiction will have the opportunity to actively participate in the growth and development of our peak body and the geospatial industry.

A single, unified voice advocating on behalf of the geospatial community which is exactly what our senior colleagues in government, corporates and other sectors have been asking for.

Figure 1: Geospatial segments

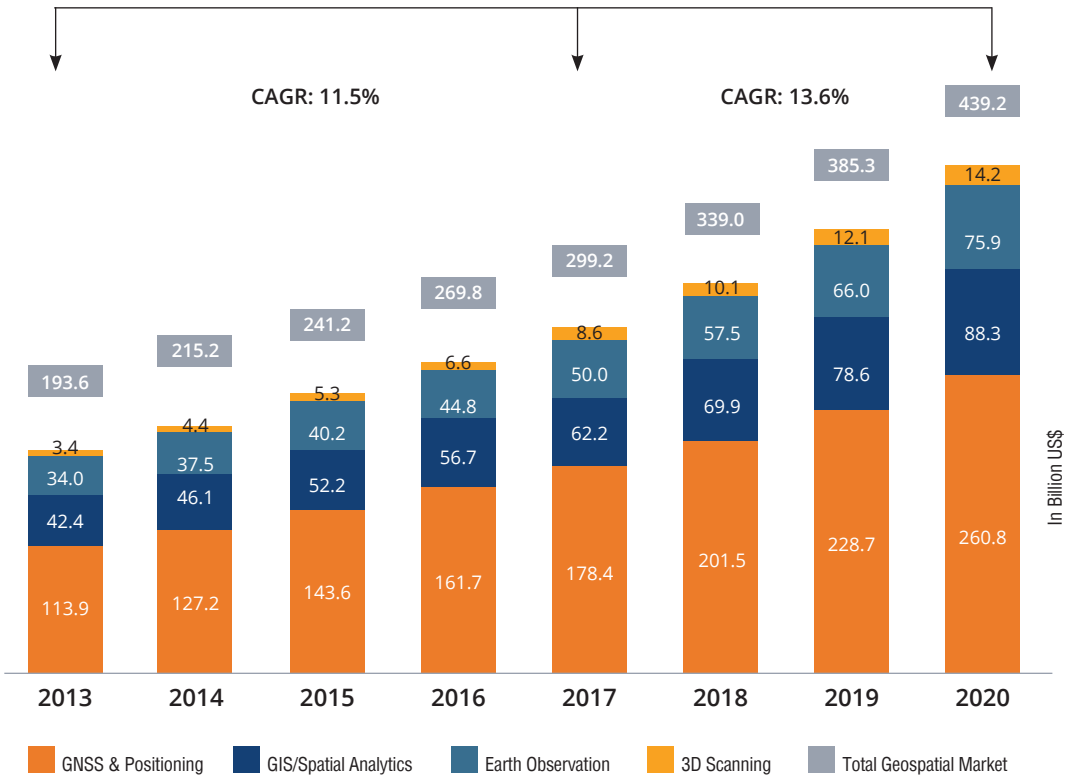
PART B

The value of the Geospatial Sector in Australia: Our missed opportunity

A review of the market research reports available in the public domain has determined that the size of the Australian geospatial sector in direct revenue generated is A$2.9 billion p.a. and is growing at a Compound Annual Growth Rate (CAGR) of 5.5%.

The most recent estimate of the global market size for geospatial technologies is displayed below in Figure 2. The CAGR is also expected to continue to accelerate.

Figure 2: Global Market Size – Geospatial technologies

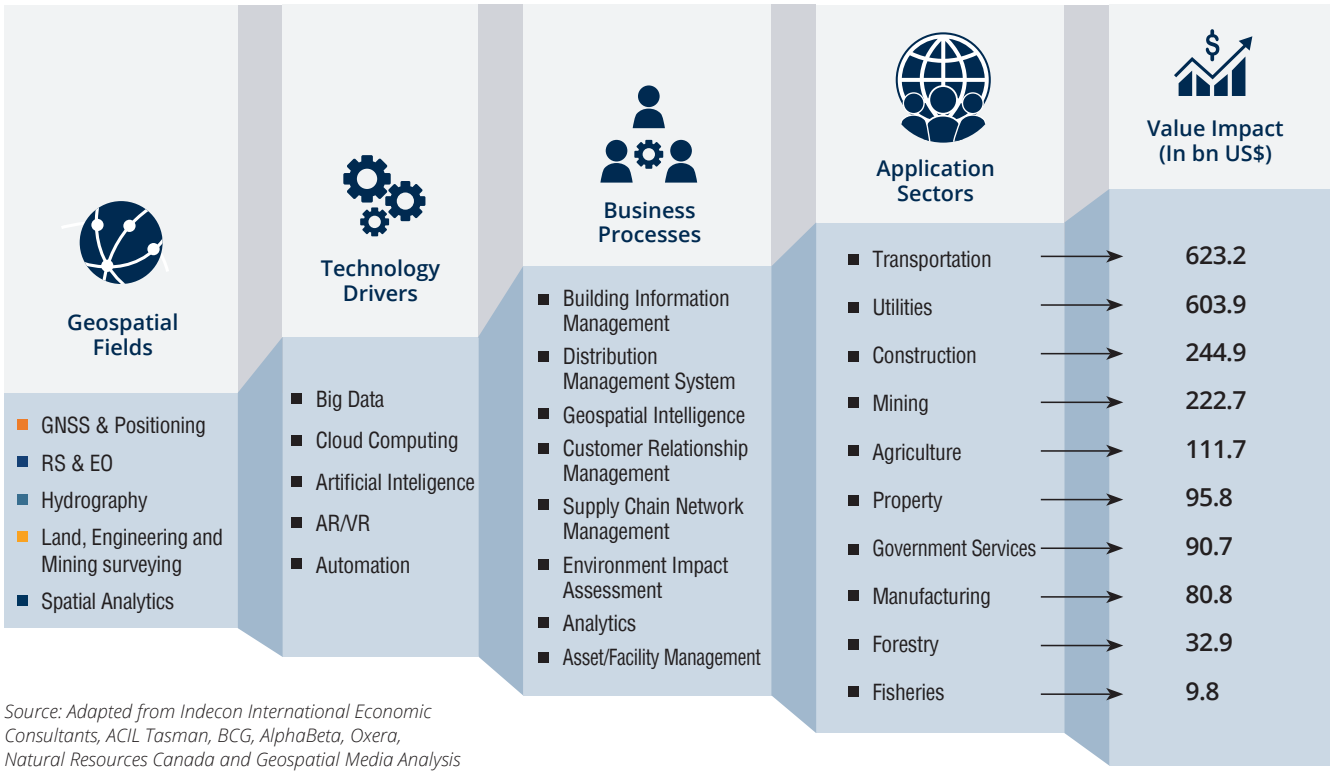


Source: GeoBuiz 2018

The economic impact of geospatial technologies on the whole economy is far greater. A report by AlphaBeta prepared for Google in 2016 estimated that Geospatial services could have a significant productivity impact in sectors representing approximately 75% of GDP and the GeoBuiz 2018 report values the global economic impact of geospatial technologies at more than US$2 trillion.

The economic impact of geospatial technologies and services in Australia is at least $26 billion p.a[1] noting that this is difficult to accurately define given the wide reaching impacts of geospatial information. We belong to a sector that is of vital importance to the economy and its importance is increasing as the whole economy transforms to greater reliance on digital technologies.

Figure 3: Value Impact from Geospatial



Source: Adapted from Indecon International Economic Consultants, ACIL Tasman, BCG, AlphaBeta, Oxera, Natural Resources Canada and Geospatial Media Analysis

While not immediately obvious from the diagram above, some sectors of particular importance in Australia include land and property development where our surveyors underpin $trillions of property ownership and financial transactions each year. Another little known activity is seabed mapping (hydrography) which is critical to all operations at sea and directly underpins $9billion of economic activity annually within Australia that includes commercial fishing and aquaculture, offshore energy generation, shipping and tourism.

With average growth of geospatial globally running at more than 13% CAGR, why is Australia only growing at 5.5% CAGR?

While we do not yet fully understand the causes of the slower growth in the Australian market compared to the global average, we can point to what we believe are some of the main causes. These include:

- A **severe skills shortage** at all levels of seniority within the geospatial sector.
- **Fragmented landscape** of representative industry and professional bodies, with more than 20 bodies representing a sector that directly employs around 18,000 people nationally which dilutes the voice of any individual representing body. Combining the national industry and professional bodies are a great step forward to reduce this fragmentation.
- **Low recognition** of the wider community about the **value and importance of geospatial services** to underpinning economic growth.
- **Lack of substantive government industry policy** directed at developing the geospatial sector.
- A highly **risk averse government procurement policy** and culture of transferring as much risk as possible onto the supplier, that on the whole discourages capability development or any form of innovation when selecting service providers.

Achieving the sector's growth potential is of vital importance and the new organisation will tackle this through influential advocacy and policy development. We are developing strategies to address the known causes and our priorities (outlined in Part D) are aligned with driving the transformational change in our geospatial sector and reaching our potential.

[1]The figure of $26 billion is by extrapolation (with care to avoid double counting between sectors) based on the following studies:
- The economic impact of geospatial services, AlphaBeta 2016
- The value of Australian seabed mapping data to the blue economy Deloitte Access Economics 2021
- Geobuiz - Geospatial Industry Outlook & Readiness Index 2018
- The value of Spatial Information, ACIL Tasman 2008
- The Global Geospatial Analytics sector, MarketsandMarkets™ 2021

PART C

The benefits of being a member of the new peak geospatial body for professionals and businesses

The discussions between SSSI and SIBA|GITA have been ongoing for several of years and both parties are committed to taking this significant step. Merging SSSI and SIBA|GITA is an effective strategy for organisational growth, improving operational efficiencies and enhancing the services and reach for the geospatial sector across Australia. Other reasons for coming together include:

1. There is no existing peak body that represents the entire geospatial sector in Australia. This peak body will champion the interests of professionals and businesses and help grow the geospatial sector.
2. Both organisations are financially constrained by remaining largely reliant on membership revenue. This limits the ability of either organisation to raise capital for programs to support their members. Our new structure increases our ability to attract funding which will allow us to develop more services that can generate revenue and reduce our reliance on memberships.
3. Both organisations recognise the need to reform and modernise our operations. This merger will provide increased value to members and strengthen our geospatial sector representation.
4. Our industry is changing rapidly into fully digital workplaces and the combined organisation will help guide our members to benefit from the opportunities that these changes can offer.
5. Our alignment with the space industry is a significant opportunity, and engaging with the space industry as one body, representing individuals and businesses, significantly improves our influence.
6. This is an important step towards reducing the fragmentation that currently exists with the representative bodies within the geospatial sector.

Membership will comprise of individual memberships representing geospatial professionals and business memberships that are aimed at attracting businesses operating across the sector.

Benefits for Individuals

As an individual member of the new peak organisation, not only will you receive the same great benefits as currently offered by SSSI, but improved opportunities for training and development. We have taken great care to ensure our status as a professional body is retained but our aim is to increase the number of services provided.

Membership will be open to geospatial professionals, as well as allied professionals. This is an acknowledgement of the many complimentary sectors that work alongside geospatial. This category is also inclusive of students, researchers, public servants – based in Australia or internationally.

These benefits include:

- Access to Australia's best-connected geospatial network events, and professional social gatherings
- Insights to national and global geospatial issues and trends
- Professional development: certification, training and CPD events
- Opportunities to volunteer and participate on various committees and working groups
- Access to publications such as Position Magazine (circulated bi-monthly) and Journal of Spatial Sciences, plus regular industry information updates
- Recognition of experience, skills & industry knowledge together with the public celebration of exceptional contributions through the APSEAs and our Fellowship program

Benefits for Business

SIBA|GITA members will receive the same benefits along with having access to professional memberships for their staff. Business memberships will be enhanced and open to broader groups that impact industry such as government, not-for-profits, educational and research institutions and aligned businesses from the private sector. We will strengthen our links to other allied professional and industry bodies across a range of relevant disciplines and industry sectors such as technology, space, engineering, infrastructure/ construction, property and government.

Other benefits include:

- Access to national and international geospatial industry networks
- An influential voice to advocate and recommend policies on key issues impacting business
- Opportunities to celebrate and recognise team successes through awards and regional events
- Company profile-raising in targeted geospatial fields
- A range of workforce development activities

PART D

Our priorities

Our overarching purpose: **We exist to build a vital, diverse and thriving geospatial community**

Our priorities are listed below :

- **Strengthening the Workforce** – evaluate the productivity needs of the sector, deliver programs that attract new talent to our sector, together with talent retention while cultivating a qualified workforce that can meet sector demand and enable growth. This involves working on a sector wide basis and adopting the key recommendations of the National Workforce RoadMap prepared for the geospatial sector in April 2022 involving:
- **Professional Development and Certification** – building industry capability through relevant Certification, micro-credentialling and offering training and skills development programs to assist professionals to meet certification standards more efficiently. This means improved structure and recognition of Certification.
- **National Competency Frameworks** – develop a national Geospatial Competency Framework to support greater harmonisation and clarity around skills needed throughout the workforce for all disciplines.
- **Environmental Scan** – conduct biennial Environmental Scans to understand the problem, forecast peaks and troughs in workforce demand, evaluate the skills pipeline and anticipate changing market conditions that will impact productivity and access to skills.
- **Taxonomy of Occupations** – development of a Taxonomy of Occupations to give definition to job families, functions and tasks across the geospatial workforce aligned to the competency framework while incorporating ANZSCO and industry defined occupations.
- **National Skills and Career Pathway** – develop a National Skills and Career Pathway to help inform and influence career choices and provide greater visibility with education and training pathways into the industry.
- **Policy and Advocacy** – provide a unified voice to government, our geospatial community, and business customers to identify and drive awareness of the value of the sector to support greater and more affective take-up of spatial technology, services and promote the effective use of spatial data.
    - Issues-based industry representation.
    - Policy Development and input, including driving industry input into a Federal Government geospatial industry development policy.
    - Economic development and industry growth opportunities, particularly in other industry sectors.
    - Influence key Data Standards.
    - Identification of R&D requirements and opportunities.
- **Identifying new growth opportunities** – address the causes of Australia's geospatial sector growth lagging the global average and open up opportunities for our members. This involves:
    - Identify new markets for business members and assist business and individual members to stay ahead of the curve with the continued emergence of digital transformation trends (Industry 4.0/5.0, IoT, Digital Cadastre, etc) in both Australia and internationally.
    - Broaden the roles for geospatial professionals alongside other professions.
    - Train for new in-demand skills development for individual members.
    - Strengthen CPD requirements across all disciplines, leading to individuals being more competitive when applying for jobs/promotions and improving businesses' competitiveness in the marketplace.
    - Skills recognition (adoption of Certification across recruitment and procurement).
- **Profile and Engagement** – elevate the profile of the geospatial sector, its importance and economic impact on the overall economy and broader community and celebrate member achievements and major successes through a continuation and strengthening of:
    - Enhanced public relations and marketing
    - Asia Pacific Spatial Excellence Awards (APSEA's)
    - Our national Conference and other events
    - Fellowship program

PART E

The new organisation

The Board of Directors

The new organisation will be governed by a skills-based Board. That is, there will be an overall skills matrix that defines what complete set of skills is needed for the Board to provide effective leadership, governance and strategic direction for the new organisation. The selection and appointment of new directors will be completed in a well-structured and transparent way to ensure the outcome is well understood by SSSI and SIBA|GITA members and that they maintain confidence in this process.

The intention is that there will be between 7-9 directors, and where possible directors will come from within the membership, but there is a provision to appoint independent external directors where specific skills needed cannot be filled from within the membership.

Diversity will be one of several important criteria used to select Directors, as a diverse Board is more likely to provide greater insights and drive innovation.

Figure 4 on page 10 shows the intended Governance Structure including the key committees and Special Interest Groups.

The role of Volunteers

Volunteers are the lifeblood of a member-based association. The members of SSSI and SIBA|GITA are the subject matter experts on a wide range of topics and as the below structure shows they will continue to be important contributors to committees in the new organisation. Our volunteers participate and assist in the delivery of important services to members. It is also intended to increase the staff (in line with affordability) to reduce the burden on some members. Member input will remain crucial, but the organisation should have primary carriage of service delivery so that it is delivered to a consistent professional standard nationally.

International status

The new organisation will retain its Professional Body status, continuing its relationship as a member of global bodies, such as the International Federation of Surveyors (FIG).

SSSI & SIBA|GITA also has several relationships with other international bodies. The new organisation will seek to continue these relationships but intends to strengthen those where it aligns with our strategies of creating growth opportunities, volunteering opportunities or further professional development for our professional members, and importantly the opportunity for new business relationships for our company members of the new organisation.

International Partnerships

We currently have formal relationships with the following organisations:

- Australasian Hydrographic Society (AHS)
- Association of Geographic Information (AGI)
- The International Council for the Exploration of the Sea (ICES)
- Federation of International Surveyors (FIG)
- International Hydrographic Organisation (IHO)
- International Property Measurement Standards (IPMS)
- International Society Digital Earth (ISDE)
- Survey and Spatial New Zealand (SS+NZ)
- Urban and Regional Information Systems Association (URISA)
- Open Geospatial Consortium (OGC)
- The Pacific Geospatial & Surveying Council (PGAC)
- The ASEAN Federation of Land Surveying and Geomatics (ASEAN FLAG)
- The Association of Surveyors Papua New Guinea (ASPNG)
- International Society of Photogrammetry and Remote Sensing (ISPRS

National Partnerships

The new organisation will work with other member-based associations to reduce industry fragmentation. Our goal is to align and partner with as many organisations for the best of the industry. For instance, we currently have formal relationships with

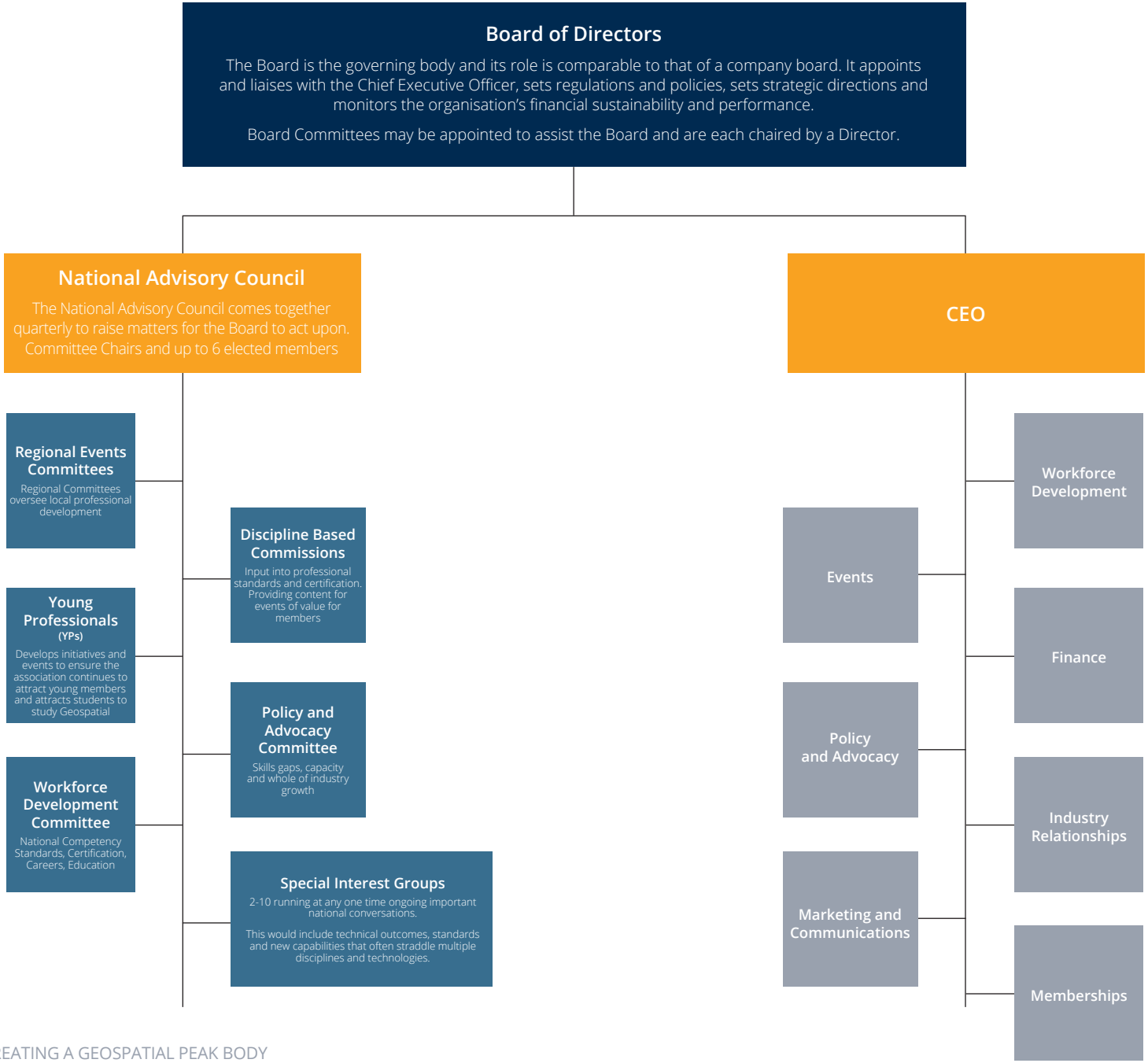
- Australian Institute of Mining Surveying (AIMS)
- Earth Observation Australia (EOA)
- Institution of Surveyors NSW (ISNSW)
- Mapping Sciences Institute of Australia (MSIA)
- The Surveying Taskforce
- Destination Spatial

Government Partnerships

We also work in partnership with a number of the government representative bodies, including the below, and will continue to grow and strengthen these relationships.

- Australia and New Zealand Land Information Council (ANZLIC), now known as The Spatial Information Council
- Council of the Reciprocating Surveyors Boards of Australia and New Zealand (CRSBANZ)
- Intergovernmental Committee of Surveying and Mapping (ICSM)

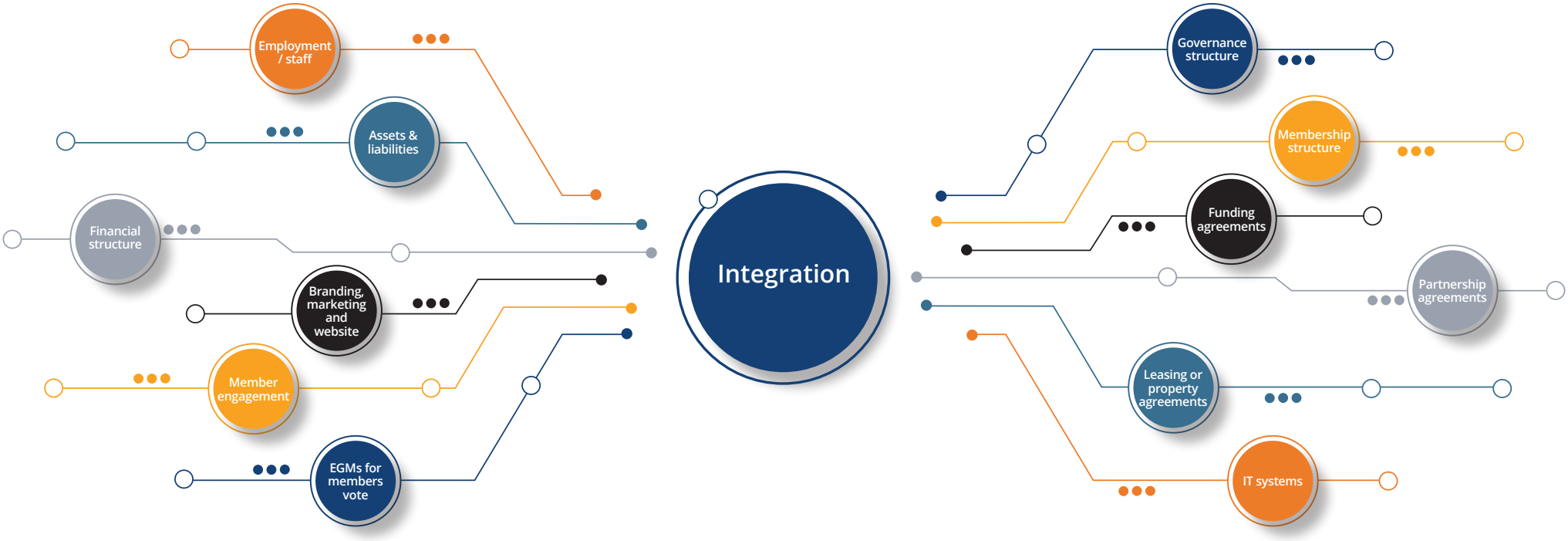
Figure 4: Draft Corporate Governance Structure of Merged Organisation



Transition

There will be a new name and brand to reflect the combined new organisation while retaining the history, growth and purpose of both current organisations. Existing members will automatically transition to the new organisation and become Foundation Members.

There is a substantial process to complete to transition into the new organisation and it is anticipated that it will take a minimum of 6 months following a majority vote by members should that occur. The following processes must be completed to transition us into the new organisation:



Foundational membership of the new organisation

Membership of the new organisation will be a seamless transition for existing members. The renewals process will continue for the 2022/2023 financial year with members required to renew their status with either SSSI or SIBA|GITA. All those financial members will automatically become Foundation Members of the new organisation.

Members will be asked to vote at Extraordinary General Meetings for both organisations intended to be called on 24 May 2022. If the motions are supported, we shall move into the next important phase of the merger prior to a final binding member vote to be held later in 2022.. The new organisation will be launched during the first quarter of 2023, subject to member support.

Have any questions?

Contact us at consultation@sssi.org.au and keep an eye on our websites for further updates:

www.sssi.org.au/merger
www.spatialbusiness.org/proposed-merger