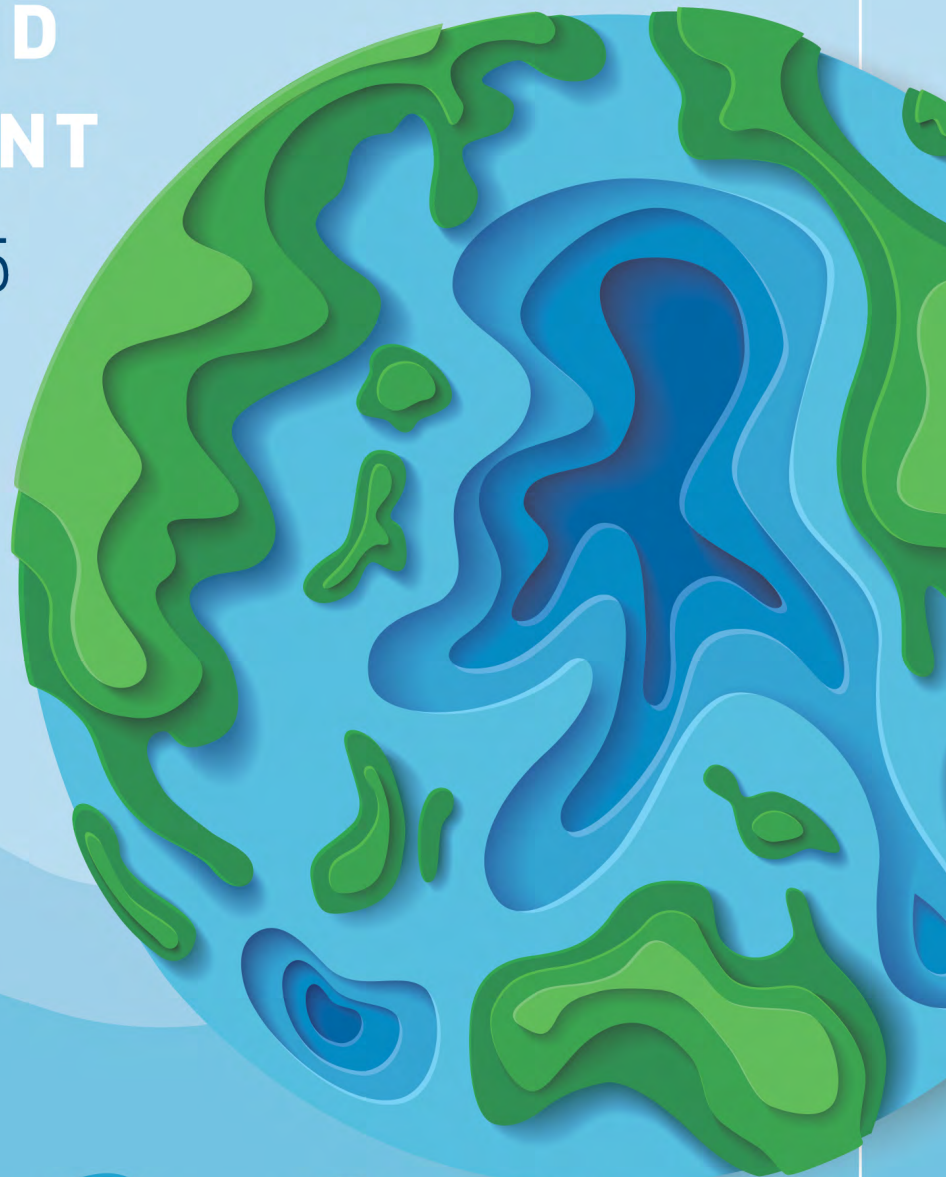




FUTURE EARTH AUSTRALIA

**ACCELERATING
SUSTAINABILITY
THROUGH SCIENCE
IMPACT AND
ENGAGEMENT**

2022-2025





Hosted by the Australian Academy of Science

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FUTURE EARTH

Future Earth was initiated by the International Council for Science (ICSU) and draws together thousands of researchers across hundreds of individual and collaborative research programs across the world. It builds on more than three decades of global environmental change research programmes and carries forward the legacy of DIVERSITAS, the International Geosphere-Biosphere Programme (IGBP) and the International Human Dimensions Programme on Global Environmental Change (IHDP).

Future Earth is sponsored by the Science and Technology Alliance for Global Sustainability, comprising the International Council for Science (ICSU), the International Social Science Council (ISSC), the Belmont Forum of funding agencies, the United Nations Educational, Scientific, and Cultural Organization (UNESCO), the United Nations Environment Programme (UNEP), the United Nations University (UNU) and the World Meteorological Organization (WMO).

Future Earth is designed to provide the knowledge needed to support transformations towards sustainability. A focus on systems-based approaches seeks to deepen our collective understanding of complex Earth systems and human dynamics across different disciplines and to use this understanding to underpin evidence-based policies and strategies for sustainable development.



FUTURE EARTH AUSTRALIA

Future Earth Australia embodies the themes and vision of the Global Future Earth research network and shares the vision to enhance sustainability through the lens of the Sustainable Development Goals (SDGs). We seek to enable and promote sustainability knowledge generation and dissemination through promoting a transdisciplinary approach spanning biophysical, technological, and social sciences, the humanities, and the arts to address the sustainability challenges facing Australia.

Future Earth Australia provides both national and international platforms for Australian scientists to engage with leaders in policy, business, industry, civil society, and community to co-produce knowledge and generate impactful actions.

GOVERNANCE AND FINANCES

Future Earth Australia was founded by the Australian Council of Learned Academies (ACOLA) and is hosted by the Australian Academy of Science (AAS). It is a partnership of Australian universities, research institutes and industry, government and civil society working to advance sustainability and supports the Australian activities of Future Earth internationally.

Membership is open to government agencies, businesses, research institutions and community organisations engaged in sustainability programs or research in Australia. The original founding members are the University of Queensland, the University of Sydney, Macquarie University, the Australian National University, and CSIRO (Commonwealth Scientific and Industrial Research Organisation). By the end of 2021 membership has expanded to include a growing list of Australian Universities and Government Agencies, with commitments of between three to five years¹.

At present, the core operational funding for Future Earth Australia (FEA) consists of membership fees. As of 1 July 2022, there are two tiers of research institutional membership fees, which reflect member institutions total Cat 1- Cat 4 research income. Institutions with a total income of > \$50M pay \$35k per year and those with an income of < \$50M pay \$20k per year.

Projects and events are funded separately through grants, sponsorships, and donations. The 2022-2025 Strategic plan seeks to increase our project-based funding through promotion of our role as catalysts and coordinators of national and global transdisciplinary research programs (see Approach)

A Steering Committee oversees the strategic direction of FEA, which currently represents each of the member Universities operating under agreed Terms of Reference (Appendix I).

The Executive Committee of the Australian Academy of Science's Council provides high level oversight and input into proposed strategies and activities.

At its inception, Future Earth Australia had a dedicated Advisory council, chaired by Prof Ian Chubb, which included thought-leaders and influencers in Australian sustainability. This Council is no longer active; however, it is proposed that FEA re-instates a similar council around specific programs (see Objective 2).

1. Active members as of December 2021: CSIRO, University of Queensland, Sydney University, ANU, Griffith University, RMIT, University of Western Sydney, University of the Sunshine Coast, Southern Cross University, Monash University

STRATEGIC DIRECTION

In 2016, ACOLA produced a comprehensive business plan for Future Earth Australia², which reviewed the environmental, social, and economic challenges faced by Australia, examined the scope and activities of the sustainability sector, and discussed the rationale for supporting a platform such as Future Earth Australia.

The document was based on consultations with a range of stakeholders from around Australia representing government, business, academia and the arts, nongovernment organisations and civil society, including a national forum held in Canberra in April 2016. The ACOLA plan articulated the vision and mission as well as the three themes that reflect Future Earth globally and in Australia (Figure 1).

The Future Earth Australia 2017 Business plan articulated the vision, mission, and objectives for FEA, while the 2018-2021 plan reflected more on the current policy and research direction of its members.

The 2022-2025 Strategic plan builds upon its predecessors, and the learnings gained during the past three years, including the adjustments that occurred due to the COVID pandemic. Our strategic direction is also considered in relation to other Future Earth national committees as well as national and global science for sustainability strategies, such as the International Science Council "[Unleashing Science](#)," which provides clear messages relating to the urgent need for transformation change through

“
***bold, strategic and
collaborative action
from governments,
science policy makers,
science funders,
scientists, the private
sector and civil society.***
”

2. Cork, S and Finnigan, J 2016. A plan for Future Earth Australia. Enabling Australia's social, economic, and environmental future. ACOLA

THE SUSTAINABLE DEVELOPMENT GOALS

The [United Nations Sustainable Development Goals \(SDGs\)](#) call for action by all countries—poor, rich and middle-income—to promote prosperity while protecting the planet. They recognize that ending poverty must go together with strategies that build economic growth and addresses a range of social needs including education, health, social protection, and job opportunities, while tackling climate change and environmental protection.

Throughout our strategic plan there is an expressed intent to enhance sustainability by enabling and translating the SDGs from research to practice.

Our program activities will be centered around three broad themes, mirroring those of the broader Future Earth network (Figure 1):

- 1 Transformations towards sustainability: how can Australia and our region best contribute to getting from where we are now to the objective of global sustainability?
- 2 Global sustainable development: how to sustainably raise all of humanity to a decent standard of living, with a particular focus on Australia and our region?
- 3 Dynamic planet: how does the human–Earth system (defined as the intersection of societal and biophysical processes) function and what are the contributions and challenges of Australia and our region?

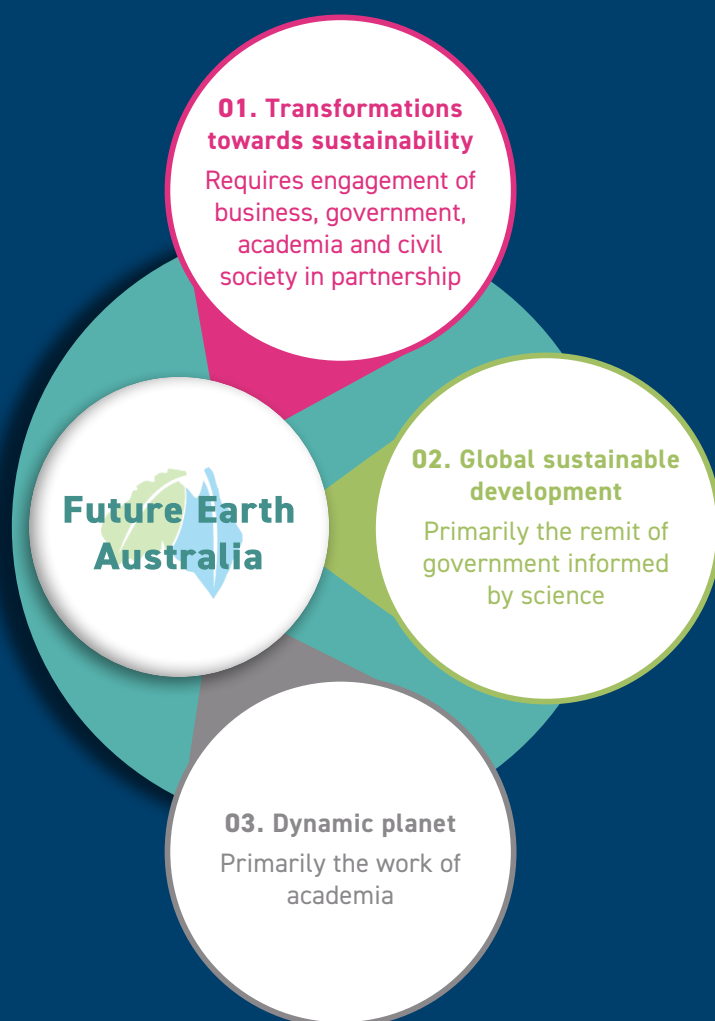


Figure 1. The three themes that Future Earth pursues in its activities



An aerial photograph of a river flowing through a landscape with green vegetation and sandy banks, positioned vertically along the left edge of the page.

VISION

THE VISION OF FUTURE EARTH IS *FOR PEOPLE TO THRIVE IN A SUSTAINABLE AND EQUITABLE WORLD*. FOR FUTURE EARTH AUSTRALIA, THE VISION IS THAT *AUSTRALIA AND ITS PEOPLE THRIVE IN, AND CONTRIBUTE TO, A SUSTAINABLE AND EQUITABLE WORLD*.

AIM

OUR CORE AIM IS TO *ACCELERATE TRANSFORMATION TOWARDS A MORE SUSTAINABLE AND EQUITABLE PLANET*.

FUTURE EARTH AUSTRALIA WILL ACHIEVE THIS BY COORDINATING, ENABLING, PROMOTING, AND TRANSLATING RESEARCH AND PRACTICE THAT SPANS THE BIOPHYSICAL, TECHNOLOGICAL, AND SOCIAL SCIENCES, THE HUMANITIES, AND THE ARTS TO ADDRESS THE SUSTAINABILITY CHALLENGES FACING AUSTRALIA, OUR REGIONAL NEIGHBOURS, AND THE REST OF THE WORLD, IN CLOSE COLLABORATION WITH GOVERNMENT, BUSINESS AND CIVIL SOCIETY GROUPS.

MISSION

THE MISSION THAT WE SET OURSELVES IS TO *PROMOTE AND ESTABLISH AN INTERCONNECTED PLATFORM OF EXPERTISE AND INNOVATION CAPABLE OF FORMING SOLUTIONS TO THE SUSTAINABILITY CHALLENGES, ESPECIALLY THOSE FACING AUSTRALIA AND OUR REGION*.

APPROACH

Future Earth Australia is building networks of experts from research, policy, NGOs, industry, and the community to conduct transdisciplinary solutions-oriented programs around priority and emerging sustainability challenges. Engagement activities play a key role in establishing and maintaining these networks, including workshops, conferences and frequent telephone and email exchanges.

Over the coming three years, our approach will build upon four objectives.

- 1 Inspire and connect transdisciplinary and cross-sector initiatives to identify, monitor and address key sustainability issues in Australia and our region.
- 2 Support the implementation of recommendations and actions arising from Future Earth Australia Decadal Strategies.
- 3 Promote the inclusion of Australian sustainability research leaders and funders in global research networks with a focus on Future Earth Global and the Belmont Forum.
- 4 Create pathways for ECRPs to connect with communities, policy makers and industry through facilitation of co-designed and transdisciplinary research projects and programs.

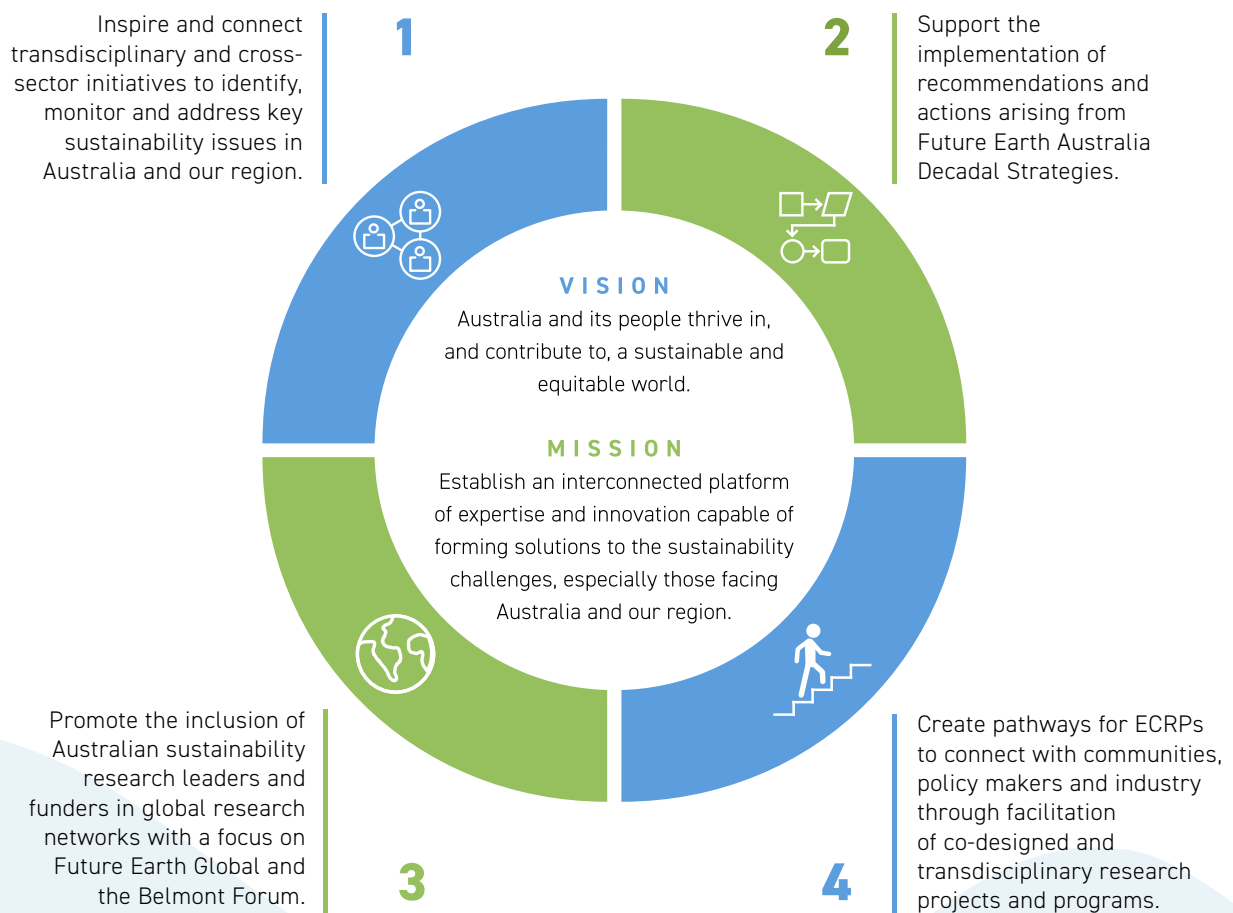


Figure 2 Vision and objectives of Future Earth Australia

OBJECTIVE 1

Inspire and connect transdisciplinary and cross-sector initiatives to identify, monitor and address key sustainability issues in Australia and our region

Through our existing network of academic institutions and industry partners, Future Earth Australia will act as a key convener of sustainability focused research programs and policy focused strategies. Collaborative opportunities that arise through the recommendations of our existing Decadal strategies will be explored and FEA will commit to supporting collaborative research proposals, workshops, conferences, and innovations. Emerging and national priority areas may be considered as subject matters for future decadal strategies by the Steering Committee. Decadal strategies will be determined through a thorough horizon scan of national priorities and existing initiatives to ensure FEA adds value and partners with existing initiatives.

EXAMPLES:

- Support national and global collaborative research proposals addressing key sustainability challenges.
- Support co-design and systems thinking workshops to generate strong, transdisciplinary, and collaborative research proposals.
- Conduct thorough horizon scans to identify emerging national sustainability challenges and opportunities to collaborate on future decadal strategies.

OBJECTIVE 2

Support the implementation of recommendations and actions arising from Future Earth Australia Decadal Strategies

Over the course of the past strategic plan, Future Earth Australia produced three major decadal strategies.

1. [Sustainable cities and regions: 10-year strategy to enable urban systems transformation](#)
2. [Sustainable Oceans and Coasts National Strategy 2021-2030](#),
3. [Just Adaptation strategy – Re-imagining climate adaptation](#)

Each of these strategies come with a call to action along with key recommendations that should see Australia on a pathway towards impact and achievements in these critical areas. Future Earth Australia has a role to play in achieving this impact. Dedicated Advisory committees advise relation to any major programs that are developed under this objective.

EXAMPLES:

- Support implementation of CSIRO's Transformative Urban Futures seminar and congress series to accelerate recommendations from the Sustainable Cities and regions decadal strategy.
- Engage with community science groups to create co-design research program proposals and concepts as per recommendation in the Sustainable Oceans and Coasts National Strategy.
- Engage with the Australian Academy of Science in its mission to improve the recognition and inclusion of Indigenous knowledge and perspectives into research-based advice.

OBJECTIVE 3

Promote the inclusion of Australian sustainability research leaders and funders in global research networks with a focus on Future Earth Global and the Belmont Forum.

International engagement and collaboration enrich Australian science and enhance our capacity. They allow us to leverage local knowledge, expertise, and capital into more expansive projects, amplifying our investment and providing a far greater contribution to global science than would be achieved operating independently. In the 2022 pre-budget submission to parliament, the Australian Academy of Science sets out a proposed research strategy which includes “*a new science engagement and diplomacy strategy to enhance our international research collaboration and secure Australia’s ability to participate and benefit from global science*”³. Future Earth Australia seeks to enable

this proposed strategy through an active promotion of the [Belmont Forum](#) to key Australian research funding agents. Access to funding schemes such as the Belmont Forum will allow FEA to promote increased engagement with partnerships such as the Future Earth Knowledge Action Network and Global Research Projects.

Through our connections with FE offices in Europe, we will explore opportunities around research collaborations under the EU Horizons program.

OBJECTIVE 4

Create pathways for ECRP’s to connect with communities, policy makers and industry through facilitation of co-designed and transdisciplinary research projects and programs.

Future Earth Australia will actively promote early career researchers and seek to establish lasting networks and pathways for transformative career options. This will be achieved through the establishment of transdisciplinary research collaborations specifically set up to progress recommendations and actions from the FEA decadal strategies.

FEA has an existing and strong collaboration with the American Geophysical Unions’ [Thriving Earth Exchange](#). Thriving Earth Exchange shares the Future Earth Vision of strengthening and enhancing collaboration among communities, scientists, and partner organisations to promote transitions towards healthy, resilient, thriving, just, and ecologically responsible futures.

Future Earth Australia has access to a large network of community science programs and will promote the establishment of the Thriving Earth Exchange [Community science for sustainability fellows](#) here in Australia. The program will allow Early Career Researchers to establish a career focusing on community co-design and stakeholder engagement thus setting them up to better transverse the boundary between academia and industry⁴.

Future Earth Australia will conduct its activities guided by its strategies and performance indicators, aligned with our vision and objectives.

3. Pre-budget submission to the 2022-2023 Federal Budget. Australian Academy of Science / January 2022
4. <https://www.nature.com/articles/d41586-022-00192-6>



PATHWAY TO IMPACT

For all activities, FEA will plot a course along a pathway to impact (Figure 3). The text in the diagram refers to the general activities and processes that are needed to successfully operate Future Earth Australia. In addition, each separate project will follow this pathway to achieve its specific impacts and outcomes. This means that at any stage of the project, members and the executive may be provided with a clear update about what has been achieved and what has yet to happen.

PATHWAY TO IMPACT

- Workshops
- Conferences and symposia
- National and international networks
- EMCR scholarships
- Social media and newsletters
- Appearances
- Surveys
- Online communities

- Cross discipline, cross-sectoral network development
- International presence
- An engaged community of practice
- FEA stakeholder networks consolidated

INPUTS

- Human resources - FEA
- Human resources - Experts
- AAS support
- Member support
- Communications support
- Travel

PROCESSES

OUTPUTS

- Facilitate knowledge co-production and usage
- Discussion papers and reports
- FEA networking events
- Co-badged events

IMPACTS (1-2 YEARS)

OUTCOMES (3-5 YEARS)

- Increased uptake of sustainability research
- FEA stakeholder networks continue to grow
- Significant contribution to sustainability knowledge
- Increased community awareness of sustainability issues
- Political influence

Figure 3 Diagram of steps to be taken to achieve short-term impacts and long-term outcomes.

MEASURES OF SUCCESS

Annual operational plans will be developed which include measurable indicators (KPIs) (Appendix II). FEA will follow the Australian Academy of Sciences fiscal year reporting cycle. Key achievements and tracking towards KPIs will be reviewed and reported back to the Steering Committee as a standing agenda at all meetings.

FUTURE EARTH AUSTRALIA STEERING COMMITTEE: TERMS OF REFERENCE

1. PURPOSE OF STEERING COMMITTEE

- Members of the Steering Committee will act as champions of Future Earth in Australia and will provide oversight and direction to the Future Earth Australia Secretariat.
- The Steering Committee shares responsibility with the Director of Future Earth Australia for communicating the intent and benefits of Future Earth Australia to their home institution, the research community, and to the broader Australian community.

2. OBJECTIVES

- Provide information and guidance on issues relating to planning, development, implementation, and evaluation of Future Earth Australia activities.
- Work collaboratively to problem solve issues/matters as they arise.
- Provide support/input/feedback to the Future Earth Australia secretariat.
- Ensure that Future Earth Australia projects are consistent with Future Earth Australia priorities and objectives as outlined in the Strategic Plan.

3. MEMBER ROLES AND EXPECTATIONS

Members are expected to:

- Establish links with other key stakeholders and consult appropriately within their institution and networks.
- Disseminate information obtained in this committee to those they represent.
- Facilitate the provision of feedback on Future Earth Australia documentation as required.
- Support the chairperson(s) in relation to conflicts of interest of steering committee members.
- Provide advice on current sustainability research trends across the physical and social sciences as well as the arts and humanities.
- Provide concise, regular, unbiased advice on short-, medium- and long-term research priorities and knowledge uptake needs, with sufficient resolution to enable Future Earth Australia's activities to be prioritised and efficiently planned, managed, and executed.

- Oversee progress of Future Earth Australia initiatives, and identify and advise on further needs, challenges, and opportunities.
- Facilitate effective interaction between Future Earth Australia partners, particularly in guiding the development of mutually beneficial collaborations between traditionally separate disciplines.

4. MEMBERSHIP

Membership is multidisciplinary and includes representation from all Future Earth Australia members. Nominations are sought from the member University. The Steering Committee will review its own membership regularly, to ensure that its membership maintains appropriate capacity to fulfill its roles and responsibilities. Steering Committee members will usually serve three-year terms and are instated (or re-instated) with each new membership period of their home institutions. Members may be invited to sit for an extension of a further three years. Member terms will be staggered where possible to maintain continuity.

Co-chairs will be selected from the Steering Committee and will serve for one year, with a possible one year extension.

5. MEETINGS

- The Steering Committee will meet quarterly.
- The first meeting of the year will be a longer annual planning session, which will be held in person at the Future Earth Australia Offices.
- Annual meeting schedules will be released by the first meeting each year.
- Quorum for meetings is 50% of members +1
- Minutes and Agenda are the responsibility for the Future Earth Australia secretariat and will be circulated one-week prior (agenda) and 2 weeks post (minutes) meeting.

6. REVIEW

These Terms of Reference may be reviewed by the Steering Committee as required to ensure that the Steering Committee can appropriately support the Future Earth Australia initiative. The success of the Steering Committee may be measured by the extent to which it assists in the growth of Future Earth Australia, the attraction of funding for activities, the facilitation of program outcomes and the development of external partnerships.



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