



CAPIM

Centre for Anthropogenic Pollution Impact and Management

Prospectus

The Pollution Challenge

Globally, pollution is widespread and a substantial problem that compromises human and environmental health as well as the ecosystem services we rely on for clean air and water, agriculture, and recreation. Pollution is responsible for 16% of all global deaths annually¹. That is, more deaths than tobacco smoking every year and nearly 15 times more deaths than war and all form of violence combined. While we have achieved substantial global economic growth over the past few decades, it has often been associated with large amounts of pollution.

In Australia, it is estimated we have over 160,000 contaminated sites, containing about 75,000 different chemicals and with clean-up costs of approximately \$160 billion². Our pollution problem is substantial, and we need safe, effective and evidence-based approaches to assess and manage it.

The Opportunity

Making decisions and solving our pollution problems are challenging. Understanding the impacts and managing pollution requires expertise across multiple disciplines including biology, chemistry and engineering as well as legal, economics and social science. Decisions often need to be made based on limited information and require collaborative teams of experts and practitioners to develop solutions that are evidence-based and work in the real-world. Government and industry need information and solutions they can rely on but do **not** necessarily have the internal capacity for the research and development required.

1 Landrigan P.J. et al., 2017. The Lancet Commission on Pollution and Health. The Lancet, 19 October 2017

2 Fergusson, L., 2017. Anthrosols and technosols: the anthropogenic signature of contaminated soils and sediments in Australia. Water Air and Soil Pollution 28:269

Governance and management

The management of CAPIM is led by the Director. The Strategic Advisory Group will be composed of representatives from Core member organisations, senior University of Melbourne representatives and the Director. The Strategic Advisory Group's role will be to provide oversight of CAPIM's activities and performance, strategic direction, and funding and financial sustainability. The Research Advisory Committee will be composed of representatives from Core, Associate and/or Subscription member organisations, University of Melbourne research member representatives and the Director. The role of the Research Advisory Committee is to advise on research priorities, emerging research issues and horizon scanning, and research quality and standards.

The CAPIM research agenda will have three components:

- Priority research to meet current needs of industry and government;
- Long term strategic research; and
- Commissioned projects.

Current priority research areas will incorporate suggestions generated across the CAPIM membership with reviewing and prioritising being undertaken by the Strategic Advisory Group and funded from Central CAPIM funds or philanthropy.

Long term-strategic research will incorporate suggestions generated across the CAPIM membership, with the Research Advisory Committee reviewing and prioritising research areas to be funded by Central CAPIM funds, philanthropy and/or competitive government research funding.

Commissioned projects will be developed with the commissioning organisation(s) and funded by the commissioning organisation(s) and potentially competitive government funding.

CAPIM will have projects of various lengths, with the majority being under three years, thus addressing defined problems and ensuring timely delivery.

CAPIM's internal processes manage any commercial or other potential conflicts of interests that arise with multiple partners with differing roles in pollution impact and management.

Flexible IP arrangements can be undertaken depending on the organisation and whether it is a commercial or public good project. Access rights to Background and Project IP will be clarified in Project Agreements.



What is CAPIM?

CAPIM collaborates with government and industry on interdisciplinary pollution research that provides solutions for a healthier, safer and more sustainable future.

The Centre for Anthropogenic Pollution Impact and Management (CAPIM) is an interdisciplinary research organisation based at the University of Melbourne. We collaborate with our partners to ensure both research excellence and real-world impact (**Figure 1**).

CAPIM aims to:

- Drive the pollution agenda in Australia and globally;
- Undertake research on emerging pollution issues, techniques and technologies to ensure we are at the forefront of pollution research; and
- Ensure our partners have access to cutting edge knowledge and technology.

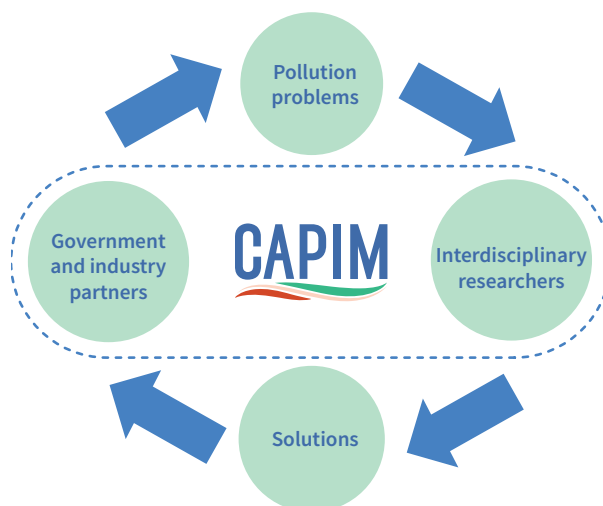
Our interdisciplinary research concentrates on the identification of pollution in the environment - in water, soil, air and waste - and the impact assessments and management strategies for human health and ecological sustainability.

Our expertise includes:

- Traditional pollutants (e.g. metals, nitrogen and hydrocarbons);
- Emerging contaminants such as per- and poly-fluoroalkyl substances (PFAS) and microplastics; and
- Nonchemical pollutants, such as light and noise.

Our research provides evidence-based outcomes that are used by government, industry and the community to determine risks, make decisions and more safely manage polluted environments.

Figure 1: CAPIM model of research



The CAPIM approach

CAPIM is based on a membership model, with members coming from government, industry and research organisations. Our government and industry members collaborate with CAPIM research members to develop CAPIM's strategic and research directions and participate in our research programs.

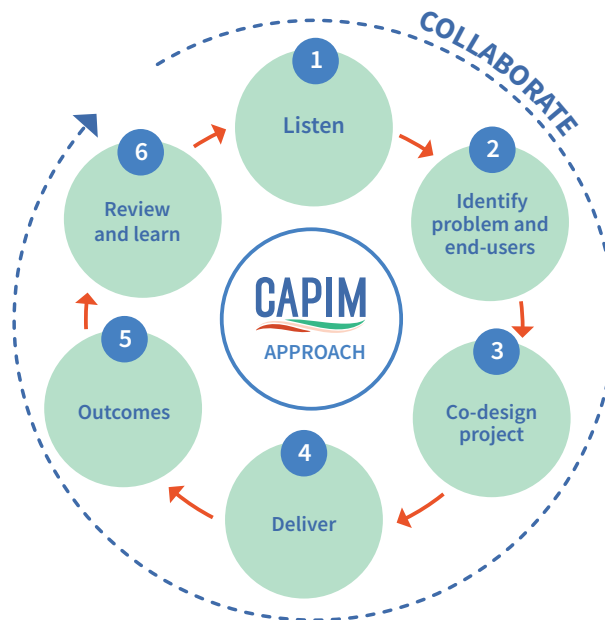
CAPIM's collaborative approach to research partnerships (Figure 2) include:

- To scope and co-design pollution research projects;
- Regular communication to ensure the research stays aligned to end-user needs;
- Consistent high quality research that helps our partners make decisions and provide solutions to their pollution problems;
- Appropriate intellectual property and confidentiality arrangements; and
- Timely reporting of research project outcomes.

CAPIM provides member and non-member organisations with a range of services including:

- Individually funded or co-funded commissioned research projects;
- Appropriate commercialisation approaches
- Specialised training opportunities for the pollution professionals, researchers and leaders of tomorrow; and
- Engagement with potential talent pool of research students (honours, masters and PhD) or early career researchers. Students and early career researchers collaborate directly with CAPIM research partners on real- world research problems and see the integration of their research outcomes into policy, practice and new technologies. Our partners play a key role in ensuring our students and early career researchers are collaboration focused and job-ready.

Figure 2: CAPIM's approach to collaborative research



Visit capim.unimelb.edu.au for more information on our recent research projects and facilities.



Why partner with CAPIM?

By becoming a CAPIM member, industry and government organisations gain access to a range of benefits including:

- **Global Translational Research Leaders:** A world-leading multidisciplinary research team focused on working with you to solve your pollution problems with a demonstrated history of delivering globally recognised translational research.
- **Real-world understanding of your needs:**
 - CAPIM researchers have worked in and with Industry and Government organisations in many different jurisdictions. We understand how translational research works.
 - CAPIM has the internal processes and experience to manage the inevitable commercial or other potential conflicts of interests that arise with multiple partners with differing roles in pollution impact and management.
- **Access to innovation:** Core members have first access to innovations from CAPIM for use in commercial or government programs.
- **Experts:** Core members have access to world-leading expertise on tap for targeted responses to problems with short timeframes.
- **Leverage:** Significant leverage for any funding invested.

CAPIM has three levels of membership: Core, Associate and Subscription. More information can be found below ([Table 1](#))

Table 1: Benefits of partnering with CAPIM as members and on commissioned research projects.

Benefits to organisation	Core member	Associate member	Subscription member	Commissioned projects
Membership of the Strategic Advisory Group	✓	✗	✗	✗
Can apply for position on Research Advisory Committee	✓	✓	✓	✗
Involvement in priority and strategic directions for CAPIM's research	✓ (input to priorities and decision making)	✓ (input to priorities)	✓ (input to priorities)	✗
Employees can be members of CAPIM-led and funded research teams	✓	✓	✓	✗
Priority access to CAPIM capabilities	✓	✓	✗	✗
Reduced CAPIM project management costs for commissioned projects	✓	✓ (limited)	✓ (limited)	✗
Priority to scope, co-design and collaborate on CAPIM-funded research projects with CAPIM research members	✓	✗ (via commissioned projects only)	✗ (via commissioned projects only)	✗
Be part of training tomorrow's future pollution professionals and researchers	✓	✓	✓	✓
Priority for developing, and access to, postgraduate research projects and students	✓	✓	✗	✓
Company logo on CAPIM website, slides at CAPIM events, CAPIM newsletter, etc.	✓ (large)	✓ (medium)	✓ (small)	✗
Free tickets to CAPIM events	✓ (unlimited)	✓ (limited)	✓ (limited)	✗
Cash contribution	Minimum \$75,000 p.a. ex GST	\$20,000 p.a. ex GST	\$5000 p.a. ex GST	As negotiated per project

For those interested in supporting CAPIM outside of holding membership or funding a specific project, there is an opportunity to provide support in the form of a donation. Please contact the Director for more information.

Collaborating with CAPIM on individual commissioned research projects has several benefits including those outlined in [Table 1](#). Working with CAPIM on commissioned projects enables your organisation to direct your funds into a project(s) that meets your specific research and development needs. The interdisciplinary nature of CAPIM researchers means that we can build the research team

with the necessary experience and expertise to undertake and deliver research that meets your organisation's needs. As with all CAPIM research, commissioned projects are developed using a collaborative approach, that incorporates co-design, to ensure our research provides usable outcomes for your organisation while upholding research excellence ([Figure 2](#)).



More information

To find out how to become involved in CAPIM, or for more information, please contact:

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