Dead Weight

The case for providing an environmentally sustainable way for Australia to dispose of its dead

The problem: A fossil-fueled finale

Australia is a nation in transition. We are decarbonising our grid, electrifying our transport, and working towards a more circular economy. Yet, there is a significant sector that remains largely tethered to outdated and unsustainable practices and that is what we do with our dead.

Each year, approximately 180,000 Australians die[1]. Currently, roughly 70% are cremated by fire[2], generally using fossil gas. The remainder are interred via burial (including natural), which takes up land, a finite resource. This status quo comes at a cost.

1. The environmental cost of traditional methods

Cremation: The atmospheric externalities

Cremation is an energy-intensive process. A single cremation consumes enough natural gas to power a typical household for a month, releasing between 160kg and 400kg of CO2 directly into the atmosphere[3]. When multiplied by the national death rate, the sector contributes tens of thousands of tonnes of emissions that currently sit outside our national carbon accounting frameworks.

The NSW Environment Protection Authority states that fire based cremations involve the emission of carbon monoxide, nitrogen oxides, sulphur dioxide, particulate matter (PM10 and PM2.5), volatile organic compounds, polychlorinated dioxins and furans, polycyclic aromatic hydrocarbons, polychlorinated biphenyls, heavy metals including mercury, lead and cadmium, hydrogen chloride, hydrogen fluoride[4, 5]. The link between air pollution and the risk of ending up in hospital with lung and heart issues is well recognised[6].

Burial: The land-use crisis

Traditional burial has been proven to be even more environmentally damaging than cremation[3], introducing persistent toxins into the soil and groundwater table, creating a long-term ecological debt for future generations[7]. Further, traditional burial represents a perpetual lock up of high-value urban land. In cities like Sydney and Melbourne, cemetery space is at a premium, leading to shortages that drive up costs for vulnerable families.

2. The solution: A new disposition option - Human composting

A policy shift toward disposition methods that treat human remains as biological nutrients rather than industrial waste is not a hard sell if the price is right.

Overwhelmingly, Australians care about the environment, if they can afford to.

Human Composting (legally known as Natural Organic Reduction (NOR) in the United States) epitomises circular economy principles. It involves the accelerated conversion of remains into nutrient-rich soil, harnessing the energy of the microbes, bacteria, virus and fungi that naturally live on and in us. There are five steps:

(1) the body is placed in a custom reusable pod together with a carefully calibrated mix of organic material, including a biodegradable shroud. A funeral ceremony often accompanies this step;

(2) microbes break the body down during 4-6 weeks in this controlled micro-environment;

(3) the contents of the pod are removed, mechanically reduced to a uniform size and returned to the pod;

(4) the breakdown of the body is complete after a further period of 2-4 weeks;

(5) the contents of the pod are removed (a second ceremony may occur here) and the humus soil remains are available for use as compost.

This process supports:

- *Carbon sequestration:* Instead of releasing carbon into the air, this process captures it in the soil.
- *Energy efficiency:* The process can use less energy than required for fire cremation when powered by renewable resources.
- *Resource conservation:* this process eliminates the need for hardwood caskets, concrete vaults, and chemically intensive embalming fluids such as formaldehyde.
- *Economic value:* One body can produce approximately a ute load of soil, which can be used for land regeneration and reforestation projects if family and friends don't wish to utilise the end product.

Every level of government in Australia has land care and rehabilitation responsibilities, which could benefit from natural fertilisers rather than chemical ones. Why purchase blood and bone (available in any gardening store) or compost and fertilisers that are manufactured and expensive.

Industrialisation has come at a huge cost. We have exploited the planet for centuries. We are seeing biodiversity in crisis or lost everywhere. At the very end of life, we could be intentional about giving back to the planet. ***Every body can help the planet.***

3. Market failures/Death is big business

The body disposition industry in Australia is characterised by barriers to entry for new and innovative technologies where the existing laws favour crematoria and traditional cemetery operators, there are zoning and environmental issues, and high start up costs, especially for research and development.

Propel Funeral Partners and InvoCare (now private equity firm TPG[8]) are multinationals that have been buying up small family businesses for years. InvoCare has about 25% of the market share, with 300 funeral homes and 17 crematoria facilities in Australia in 2023[9]. Propel has grown significantly since its November 2017 listing on the stock exchange, to 208 operating locations across Australia and New Zealand[10].

Nursing homes are now requiring residents to state on entry what funeral home will look after them in the event of their demise, further locking in the existing market options.

In 2019 NSW Cemeteries and Crematoria commissioned a report called *Pathways towards sustainable burial and cremation options for NSW*, which found sustainable practice inhibited by industry inertia including a heavily profit-driven operating environment, a lack of consumer choice, consumer disempowerment, and a lack of incentives for innovation and change[11].

This report also referred to ‘the emergence of a growing not-for-profit funeral sector and sustained pressure from consumer advocacy groups, such as Choice, that continue to place pressure on the mainstream sector, currently unregulated, to improve practices. The sector is, then, subject to more scrutiny than it has been in recent years, making this perhaps a prime opportunity to address issues relating to both the sustainability of the sector and the need for improved consumer choice and empowerment.’

Despite the 2021 Australian Competition and Consumer Commission report on the Funeral Sector Services[12], the issue of lack of price transparency remains. Consumers are rarely presented with lower-cost, lower-emission alternatives. A cardboard coffin can cost a funeral company $150 but be marked up to $1000 retail.

Funeral Homes in several states don't own their own cremators and can drive bodies extensive distances to cremate.

4. Uptake of sustainable body disposal options

As of 2026, human composting (as NOR) is legal in 14 USA states. Although it is not yet legal across Australia, interest continues to grow across the community sector, academic research circles, and environmental organisations. Pricing in the United States typically ranges between USD $4,950[13] and $7,000[14], making it more affordable than most traditional burials while generally sitting above the cost of a basic direct

cremation.

Eco-friendlier options are already expanding in Australia. For example,

- *Shrouded cremation:* Approved by NSW Health in 2025 for use in NSW crematoriums[15]
- *Alkaline hydrolysis*, also known as water cremation, is currently available in Queensland and Tasmania[16].

Social license for new technologies is growing. E-petitions have been made to the NSW and WA Governments in support of human composting. Articles on more environmentally friendly death care options feature in mainstream media. For example, the 2024 The Last Goodbye docuseries and Grave Matters podcast produced by SBS, and Rethinking Burial Options in the March 2026 edition of ABC Gardening Australia.

5. Modernise the rules: make space for new death-care technology

Legislation and regulations governing funerals and crematoria in Australia are fragmented, with significant inconsistencies across jurisdictions, creating challenges for both consumers and industry operators. These inconsistencies often stem from a patchwork of state-based laws, local government by-laws, and historical regulations that have failed to keep pace with modern, sustainable, and diverse cultural needs. Law reform is an opportunity to future-proof the system for new technologies. For example, the 2023-24 the WA Government conducted a review and consultation on the future of Cemetery and Crematoria[17] to update the Cemetries Act (1986) and the Cremation Act (1926). Submissions closed in February 2024 with the report still pending.

6. The cost of grief

Dying is an expensive business. A 2023 report by Australian Seniors found around 33 per cent of over 50s who have paid for a funeral experienced some financial hardship due to the costs incurred. Of those, approximately 66 per cent said it took months to financially recover[18].

For this reason, direct cremation (without ceremony) has taken off in the market, but does it meet the social-emotional needs of our community? In 2022 the British medical journal *The Lancet*, commissioned a detailed report, *The Value of Death - Bringing Death Back into Life*[19]' focusing on three components: dying, death and grief. This report returns repeatedly to the importance of community.

Radically reimagining a better system for death and dying, the commission set out a new vision of how death and dying could be based on the following five principles:

- tackling the social determinants of death, dying, and grieving
- dying is understood to be a relational and spiritual process rather than simply a physiological event
- networks of care lead support for people dying, caring, and grieving

- conversations and stories about everyday death, dying, and grief become common
- death is recognised as having value.

In addition, it speaks directly to:
- the economic and emotional cost of death, dying and grief
- the need for engagement and agency
- the issue of a medicalised system and the cost
- the need for communal grief
- and the need to talk about, honour and recognise a life, publicly.

In short, we can do death better, particularly if we involve the community more.

7. Recommendations

It is time to reform the sector, with all levels of government engaging and showing leadership on this issue.

1. Update state and territory laws to provide clear pathways for new technologies such as human composting.
2. Removal of any subsidies, phase out any implicit subsidies for fossil gas use in crematoria and introduce a polluter pays levy on carbon-intensive disposition methods.
3. Require all new crematoria facilities (including pet*) to be electric, and to decommission infrastructure over a certain age.
4. Require all cremation facilities (including pet*) to report to the National Pollutant Inventory[20] so there is usable data.
5. Review and update the national Emission Estimation Technique manual for Crematoria[21].
6. Prioritise the development of conservation burial grounds where interment is used to fund and protect the restoration of native bushland, rather than manicured, water-intensive lawns.
7. Support for not-for-profits to enter and grow in the sector.

8. Conclusion

Australians expect their institutions to innovate in the face of the climate crisis. There is no rational reason why our commitment to sustainability should end at death. By moving from a linear burn-and-bury model to a circular return-and-restore model, Australia can lead the world in ethical, economical, and ecological death care.

Sustainable death care is not just a niche market; it is a public policy necessity.

We could change the industry by providing a new option, one that could be done by not-for-profits in collaboration with local councils or community groups throughout Australia.

*This not only relates to human body disposal, pet cremation is a rapidly growing sector.

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