

**Portraits**

**of Our**

**Future**



## About Foundations for Tomorrow

Foundations for Tomorrow is Australia’s pioneering organisation dedicated to advancing long-term governance, leadership and decision-making that safeguards the wellbeing of current and future generations. We convene researchers, policymakers, communities, and young leaders to address political short-termism.

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**Participants:** We extend our deepest gratitude to the fifteen Australians who generously shared their time, reflections, and lived experiences to shape this collection. Each portrait is presented using first names only to protect participants’ privacy, while ensuring their insights and perspectives remain central to this national conversation about the future we are building together.

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**Mannifera**, whose support has shaped Foundations for Tomorrow’s journey for several years. A profound shared commitment to a more complete democracy, an economy with fairness at its heart, and a vibrant civil society has been the foundation of an exceptional partnership.

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# Contents

About Foundations for Tomorrow	2
Contributors	2
Executive Summary	6
Fifteen Portraits to Inform our Future	10
Portrait 1: Pema: Arts and Culture as Civic Infrastructure	12
Portrait 2: Stafford: Agriculture Across Generations	22
Portrait 3: Malmi: Education in an AI-rich future	32
Portrait 4: Zen: Aligning Disaster Governance with Local Intelligence	42
Portrait 5: Sue: Ageing with Dignity and Agency	52
Portrait 6: Dee: Governing Coastlines for the Long-Term	62
Portrait 7: Nick: Designing a Circular Waste System	72
Portrait 8: Josh: Designing Education for Lifelong Capability	82
Portrait 9: Alana & Zee: Integrating Diverse Ways of Knowing	92
Portrait 10: Jamie: Honouring Communities through Energy Transitions	102
Portrait 11: Jacqui: Strengthening Cyber Capability through Inclusion	112
Portrait 12: Georgie: Renewing Democracy’s Architecture from the Ground Up	122
Portrait 13: James & Julien: Preserving the Human in a Digital Age	132
Portrait 14: Victoria: Reframing Mobility as a Regional Asset	142
Portrait 15: Rocket: Transforming Australia’s Justice System	152
The Path Forward	162
Future Generations Storylining Analysis	163
Policy Innovation Library	169

# Acknowledgement of Country

We, Foundations for Tomorrow, acknowledge Aboriginal and Torres Strait Islander Peoples as the Traditional Owners and Custodians of the Country and waterways on which we operate, and for which our livelihoods depend. We pay respect to Elders both past and present; we honour the resilience and strength embodied across generations of First Nations communities who have fought for their rights, their cultures and for self-determination. We also acknowledge those who tirelessly strive to protect, preserve and celebrate Aboriginal and Torres Strait Islander cultures, leaving a profound legacy for future generations of Elders and leaders.

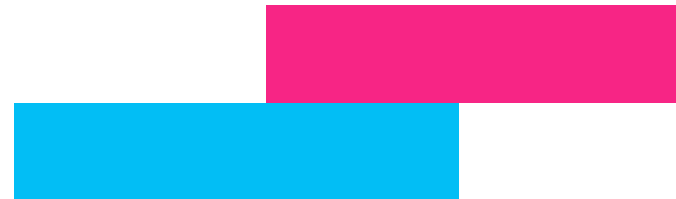
We recognise that sovereignty was never ceded.

We affirm that this always was, and always will be, Aboriginal land.

As an organisation committed to shaping a better future for Australia, we pledge to work in partnership with Aboriginal and Torres Strait Islander communities, embracing self-determination, social justice, sustainability, equality and reconciliation. We recognise that Aboriginal and Torres Strait Islander communities are diverse, with deep-rooted histories and rich cultures that continue to thrive despite past injustices. We deeply honour the contributions of Aboriginal and Torres Strait Islander Peoples and communities, and we strive to amplify their sacred wisdom, knowledge and expertise as we work collaboratively to pave the way for future generations.

## A Note on Country

We use the term "Australia" throughout this report for clarity and consistency. This continent has been home to sovereign First Nations for tens of thousands of years, known across hundreds of distinct language groups whose names for their own Countries and places carry living meaning and authority, among them Naarm (Melbourne), Gadigal (Sydney), Lutruwita (Tasmania), Meanjin (Brisbane), and Boorloo (Perth), alongside countless others across the continent. These names predate the formal naming of Australia in 1824 and extend far beyond it. This continent has always been, and remains, a place of sovereign First Nations whose leadership, cultures and custodianship continue to this day.



# Foreword

Australia stands at a moment where the gap between how decisions are made and how they are actually lived has never been more visible. Pressures across housing, aged care, the environment, and the cost of living continue to intensify, and it is increasingly clear that these challenges cannot be addressed through short-term, isolated responses. They demand governance that honours present needs while safeguarding the conditions we are creating for future generations.

Future Generations Policy brings this long-term perspective into the daily practice of decision-making. It positions intergenerational equity as a practical test of governance, asking whether present choices strengthen conditions for dignity, security, and opportunity across life stages, without transferring today's costs to those who had no role in incurring them. The framework equips leaders to assess trade-offs with clarity and accountability, anchoring long-term responsibility in the lived realities of people and communities.

Strong frameworks depend on remaining closely connected to the realities people navigate each day. Every long-term challenge is experienced in real time by workers in transforming industries, families planning amid instability, and communities adapting to shifts that will shape their identity for generations. These experiences reveal the values, pressures, and aspirations that credible governance must address. The knowledge required for better decisions already exists within communities and households, in the daily realities of those who live with the consequences of policy. When this insight is brought into decision-making, the framework becomes more precise, more accountable and more grounded in human experience.

The Portraits of Our Future collection responds to this imperative. It places lived experience at the centre of analysis, pairing the stories of fifteen Australians with rigorous examination of the policy decisions shaping their lives. Across generations, regions, and sectors, the collection surfaces shared concerns about dignity, security, and belonging, alongside the hope that future generations will inherit stronger foundations than those available today. It also demonstrates what it means to treat these concerns as substantive inputs into governance.

Additionally, this collection introduces Future Generations Storylining Analysis, a methodology developed through this project to translate lived experience into actionable policy insight. By integrating narrative storytelling with systems thinking, intergenerational fairness assessment, and foresight tools, it enables analysis that remains grounded in human reality while maintaining analytical depth. These portraits illustrate what becomes possible when governance is built on rigour and relationship, and when the voices of everyday Australians are recognised as evidence in their own right.

The future is shaped by the choices we make and the foundations we lay together. This collection is offered in that spirit.

**Taylor Dee Hawkins**  
Co-Founder and Managing Director  
Foundations for Tomorrow

# Executive Summary

Future Generations Policy approaches offer a powerful way to address Australia's most pressing challenges. They respond to immediate needs while strengthening the foundations required for future Australians to thrive.

Many national challenges persist because they are tackled in isolation, framed within short-term horizons, and shaped without sufficient insight from those most affected by public decisions. Over time, risks compound, opportunities narrow, and the long-term consequences of policy choices remain underexamined. A future generations approach shifts this pattern by expanding time horizons, integrating lived experience, and assessing the intergenerational implications of today's decisions.

This collection makes three core contributions.

### 1. **Introducing Future Generations Storylining Analysis:**

The report presents a novel methodology developed through this project: Future Generations Storylining Analysis. This approach integrates lived experience, systems thinking, intergenerational fairness assessment, and foresight tools. It translates personal narratives into actionable policy insight, revealing how today's decisions shape long-term outcomes and possibilities. A detailed overview of the methodology is provided in the Future Generations Storylining Analysis section.

### 2. **Providing 15 policy deep dives on issues defining Australia's future:**

The report offers in-depth analysis across fifteen policy domains central to Australia's long-term prosperity. These span aged care, agriculture, energy transition, justice, digital governance, and democratic participation. Each portrait begins

with the lived experience of an Australian navigating a specific policy challenge, situates that story within a rigorous analysis of the current policy landscape, and projects forward to two possible futures depending on whether the system changes or remains the same. Together, these elements demonstrate how applying Future Generations Storylining Analysis strengthens both diagnosis and design.

### 3. **Calling for the adoption of Future Generations Policy approaches:**

The report sets out a comprehensive, evidence-based case for a national shift toward future generations approaches in policy design and analysis across federal, state, and territory governments. It shows how embedding intergenerational thinking can improve decision-making, reduce long-term social and fiscal costs, and strengthen wellbeing over time.

In the sections that follow, Portraits of Our Future applies this approach to fifteen policy areas shaping Australia's trajectory:

- Portrait 1: Arts, culture and social cohesion: Pema's portrait
- Portrait 2: Agricultural innovation and succession planning: Stafford's portrait
- Portrait 3: AI and education: Malmi's portrait
- Portrait 4: Disaster management: Zen's portrait
- Portrait 5: Aged care and dignity in later life: Sue's portrait
- Portrait 6: Marine conservation: Dee's portrait
- Portrait 7: Work, economic security and precarity: Nick's portrait
- Portrait 8: Education and vocational training: Josh's portrait
- Portrait 9: Indigenous knowledge and integrated education systems: Alana and Zee's portrait
- Portrait 10: Energy transition and employment: Jamie's portrait
- Portrait 11: Gender equality in cyber security: Jacqui's portrait
- Portrait 12: Democracy and local government: Georgie's portrait
- Portrait 13: Digital wellbeing: James and Julien's portrait
- Portrait 14: Pacific migration: Victoria's portrait
- Portrait 15: The justice system: Rocket's portrait

By adopting an intergenerational approach to policymaking, Australia can move beyond short-term constraints and strengthen the conditions for shared prosperity, security, and dignity, for those living today and those who will follow.



# Introduction to the Portraits Project

## The human side of policy-making

Every policy decision carries consequences that unfold across time. Some effects are immediate; others remain invisible until they accumulate and become difficult to reverse. Yet policy design often privileges immediacy, measurable outputs and short political cycles, leaving long-term impacts insufficiently examined.

Portraits of Our Future brings these longer horizons into focus. Through fifteen portraits grounded in lived experience, the collection explores how policies and institutions affect real Australian lives across generations. Each portrait traces how everyday encounters with systems such as education, justice, housing, care, digital infrastructure, and local governance can constrain people's capacity to contribute and thrive, or steadily expand it.

Policy development often abstracts people into data points, target groups, or projected outcomes. This collection begins with lived experience to understand how policy intent is realised in practice, and how public decisions influence people's ability to adapt, participate, and plan for the future.

## The wellbeing economy foundation

Across Australia and internationally, governments and communities are rethinking how success is defined. A wellbeing economy places human and ecological wellbeing at the centre of decision-making. It recognises that economic activity should support secure, meaningful lives within healthy systems. Prevention, fair distribution, regeneration and meaningful participation become guiding principles of design.

This body of work is already well established within public policy. It has informed budgeting frameworks, performance measurement systems, and cross-government strategies oriented toward long-term

outcomes. For many policymakers, it offers a practical lens for aligning economic, social, and environmental objectives.

The Portraits of Our Future collection sits within this tradition. Across the portraits, wellbeing emerges as a set of conditions built over time through access to stable housing, secure livelihoods, inclusive institutions, and meaningful participation in decisions that shape daily life. These conditions determine whether individuals and communities can contribute, adapt, and withstand disruption.

Wellbeing economy thinking sets direction, while Future Generations Policy presents a method for assessing whether decisions are strengthening or weakening that direction over time. Both approaches call for systems that create enduring value, prevent avoidable harm, and distribute responsibilities fairly across communities and generations.

## The case for Future Generations Policy

Future generations are already arriving. Australia's population is projected to grow by millions in coming decades. The decisions we make today about energy, housing, education, digital infrastructure, and democracy itself will define the social, economic, and environmental conditions in which future Australians live and work.

A wellbeing economy recognises the importance of these foundations. It shifts attention from short-term outputs to the structural conditions that sustain wellbeing over time. Modern governance, however, struggles to maintain long-term orientation. Electoral cycles reward immediate gains, cost-benefit models often discount future wellbeing, and complex risks are frequently deferred even when evidence is clear. These dynamics are produced by structural features of governance, not by individual decision-makers alone.

Future Generations Policy builds on wellbeing economy thinking by focusing explicitly on how decisions unfold over time. It translates long-term responsibility into practical questions for policy design:

- Does the policy distribute opportunities fairly across life stages?
- Does it entrench or reduce inequality within and across generations?
- Will it constrain or expand future choices and capabilities?
- Are trade-offs justified in terms of long-term collective wellbeing?
- Does it prevent foreseeable harm when risks are uncertain but potentially severe?

*These questions are modified from the Future Generations Policy Framework<sup>1</sup>.*

Intergenerational responsibility is not a new idea. Indigenous cultures have centred care for future generations for millennia. The 1987 Brundtland Report<sup>2</sup> defined sustainable development as meeting present needs without compromising future capacity. What has changed is urgency. Climate impacts are intensifying, technological change is accelerating, and ecological decline alongside demographic shifts is placing a growing pressure on the systems that sustain wellbeing. The window for preventative action is narrowing.

## The analytical approach

This project introduces **Future Generations Storylining Analysis (FGSA)**, a methodology we developed to integrate lived experience with systems thinking and intergenerational fairness frameworks.

Across the portraits, consistent patterns emerge. Short-term decisions generate long-term costs. Exclusion produces blind spots in policy design. Sustained investment in people's capabilities strengthens resilience across time. These insights help identify leverage points that support fairer and more sustainable futures.

## An invitation

Portraits of Our Future was created by people under 35 who are working within the systems they describe and toward the futures they will live in. It forms part of the Foundations for Tomorrow's For Our Future campaign, a non-partisan effort to embed long-term, intergenerational thinking in Australian governance.

The collection demonstrates what becomes possible when responsibility to future generations is treated as a practical consideration in public decision-making and extended to the children, grandchildren, and great-grandchildren of Australians living today.

Future generations thinking is operational throughout the portraits. The future is shaped through decisions made across institutions, portfolios, and levels of government, often incrementally and under pressure.

These decisions determine whether risks are contained or compounded, and whether opportunities expand or contract over time.

This collection invites readers to approach those decisions with a longer view. It asks how today's choices carry weight across generations and how governance can be designed to support outcomes that endure. In doing so, it offers a way of reading policy that accounts for legacy alongside immediate results.





# Fifteen Portraits to Inform our Future

This collection presents fifteen portraits of present-day Australians living across the country, spanning different ages, backgrounds, and policy areas. Each portrait centres lived experience to show how public systems shape everyday life and how their effects extend across generations.

The portraits provide grounded insight into how policy decisions are encountered in practice, where pressures compound, and where opportunities exist to build fairer and more resilient futures.

### How to read the portraits

Each portrait follows a consistent structure to support clarity and synthesis across policy areas:

#### 1. Opening summary

Each portrait opens with a concise overview of the current policy trajectory in the relevant area and the potential for a future generations approach to intervene. This provides a lens for reading the portrait that follows.

#### 2. Today's ecosystem

*Through their eyes:* The portrait begins with the person at its centre: their life, work, and direct experience of the policy area. Drawing on longitudinal qualitative interviews, this section illustrates how policy decisions are experienced in real life: the pressures they create, the opportunities they shape, and the values at stake.

*Today's policy landscape:* The narrative is then situated within the broader policy context. This section draws on key research, legislation, and institutional arrangements to show how current settings influence outcomes across the sector.

#### 3. The value of a future generations approach

This section examines the intergenerational implications of the policy domain and the long-term value that could be unlocked through a future generations perspective. It draws on relevant international examples before applying a structured Future Generations Policy Analysis to a specific Australian case study. The analysis examines how present decisions distribute risk and opportunity across time through five dimensions of intergenerational fairness.

#### 4. Our opportunity to shape Australia's future

Each portrait concludes with two short speculative futures set in 2040. The first traces the likely consequences if current policy trajectories continue; the second explores what becomes possible when systems are deliberately redesigned with long-term wellbeing in focus. These scenarios are structured reflections on the choices that remain available and what is at stake in making them.

#### The Policy Innovation Library

At the end of this collection, the Policy Innovation Library presents international case studies showing how future generations approaches have been applied across each of the policy domains featured in these portraits.

## Portrait 1 Pema



## Arts and Culture as Civic Infrastructure

### The current policy trajectory of Australia's arts and culture ecosystem

Pema's story illustrates an arts and culture system structured around short-term, project-based funding cycles that privilege immediate deliverables over sustained practice. Funding settings incentivise frequent organisational resets, interrupting career pathways for artists, weakening ecosystems, and limiting the transmission of skills, repertoire, and institutional knowledge. Cultural activity continues to occur, but under conditions that strain continuity and reduce the sector's capacity to support long-term community participation and creative, civic dialogue. This approach risks narrowing the cultural resources available to future Australians and constraining the sector's ability to contribute to social understanding and democratic life.

### The potential of Future Generations Policy to intervene

A Future Generations Policy approach positions arts and culture as infrastructure for long-term civic capability instead of episodic outputs. It advocates for funding stability, workforce development, and ecosystem continuity to strengthen cultural institutions, sustain creative careers, and support the accumulation of shared cultural knowledge across generations. This approach seeks to nurture an ecosystem where future Australians retain and sustain access to the creative capacities required for social connection, critical reflection, and adaptive problem-solving.



■ Today's arts & cultural ecosystem

# Through Pema's Eyes

**Pema (he/him), 27**

*Meanjin, Yuggera Turrbal Country  
(Brisbane, Queensland)*

"Creative expression," Pema says, "is one of the strongest ways people make sense of themselves and each other." When supported, it invites people "to participate in their communities in new and meaningful ways," to "tell their stories and explore ideas that help them feel seen and connected." It also allows empathy to deepen. "When we experience each other's creativity, we understand each other more fully."



In Australia, however, Pema sees the spaces that make this expression and connection possible continuing to be treated as expendable. When budgets tighten or crises hit, "arts and creative programs become some of the first things to cut or delay." On paper, the cuts appear practical, framed as cost-saving measures and temporary adjustments. In reality, they obscure the fact that culture is also an economy, lived in real hours and real wages. "People overlook arts and creativity," Pema says, "but actually lots of jobs and economic benefits come from it." Strip away the framing and what remains is a belief that culture is ornamental, a non-essential that can be rebuilt later.

Pema sees a deeper risk: a nation that cuts culture is cutting off its ability to understand itself. Each cut removes places where people once gathered, learned, and carried stories forward. "Communities become more inward-looking and less able to imagine shared futures," he explains, arguing that culture serves as a "first line of defence" for sustained collective wellbeing and resilience.

Pema knows, from his own family, how culture makes endurance possible. His father escaped Tibet at a young age and arrived in Australia seeking a more secure future for his children. "I think about what it must have taken to start again in a completely foreign place." From his family, he learnt that belonging, what steadies people and binds them to one another, is "something you carry through culture, memory, and the connections you build." What governments reduce to budget decisions, many communities know as survival, as the threads that hold their lives together.

That understanding shapes how he perceives Australia's own inheritance. This country, he notes, has "the privilege to learn from the oldest continuing cultures on Earth," alongside the rich and diverse knowledge held across migrant and multicultural communities. Together, they form a deep reservoir of insight about continuity, resilience, and shared responsibility. "When we draw on the wisdom of all our communities," Pema explains, "we create policies that are more inclusive, more responsive, and ultimately better for everyone."





### Today's policy landscape: Australia's investment in arts and culture

The fragility Pema observes locally is mirrored at the national level. Australia's cultural ecosystem operates within a policy environment marked by chronic underinvestment, fragmented governance, and short-term funding cycles that institutionalise precarity and embed volatility into the system. Cultural policy remains reactive and contingent, governed as supplementary rather than as essential public infrastructure.

This stands in tension with Australia's own social reality. A nation shaped by more than 300 ancestries,<sup>3</sup> Australia publicly affirms its multicultural diversity<sup>4</sup> as a defining strength. Yet investment in the cultural infrastructure that translates diversity into belonging, participation, and shared identity remains fragile and uneven.

Between 2017 and 2021, Australia allocated only 0.9 - 1.0% of GDP to "recreation, culture, and religion", ranking 26th out of 33 comparable countries.<sup>5</sup> The 2023-24 Budget maintained investment<sup>6</sup> at 0.9% of GDP. More consequential than the level of investment

is its structure: intermittent, insecure, and rarely designed to accumulate capability over time.<sup>7</sup> Cultural spaces and organisations are therefore asked to operate without the continuity required to sustain careers, institutions, or community participation.

The COVID-19 pandemic exposed and intensified these structural vulnerabilities. By April 2020, 94%<sup>8</sup> of arts and recreation services reported negative impacts, compared with 53%<sup>9</sup> of other industries. The shock landed heavy on a workforce already shaped by insecurity. Full-time creative practice declined from 23% in 2016 to 9% in 2024.<sup>10</sup> Today, 78% of workers rely on freelance or self-employment arrangements with limited access to sick leave, superannuation, and other safeguards, and many have not returned to pre-pandemic working hours.<sup>11</sup> What appears as volatility in times of crisis is, in fact, the continuation of a longer-standing policy design.

This fragility sits uneasily alongside the sector's demonstrated value. Cultural activity contributed AUD 67.4 billion<sup>12</sup> to Australia's economy in 2023-24. Evidence consistently shows that participation in arts and culture is a long-term investment in societal wellbeing:<sup>13</sup> it improves mental and

physical health,<sup>14</sup> increases life satisfaction,<sup>15</sup> and strengthens community resilience.<sup>16</sup> Culture generates measurable public value, yet policy settings treat it as discretionary rather than as civic infrastructure that reduces downstream social and economic costs.

At the state level, governance fragmentation compounds instability. In Queensland, time-limited programs and metropolitan concentration constrain long-term planning and limit participation pathways, particularly for regional and multicultural communities. While the new 10-year cultural strategy signals ambition, with the 2025-26 Arts portfolio

allocating more than AUD 420.7 million,<sup>17</sup> its impact will depend on sustained coordination with national policy and insulation from short-term fiscal pressures. Comparisons with Victoria, where per capita investment is substantially higher<sup>18</sup>, show how uneven governance translates directly into uneven precarity across the sector.



## The value of a future generations approach

Short funding horizons and unstable program cycles constrain planning capacity and undermine the retention of organisational knowledge and long-standing community partnerships. Project-based delivery fragments workforce development and audience cultivation, while repeated funding resets prevent expertise and infrastructure from compounding over time. Fragility is reproduced across funding cycles and, ultimately, across generations.

A Future Generations Policy approach restructures these settings to build stability. It embeds long-horizon investment, cross-portfolio coordination, and sustained support for workforce and organisational development, shifting cultural policy from managing

recurring disruption to enabling durable growth and structural continuity. Organisations retain and deepen expertise and relationships instead of repeatedly reconstructing them with each funding round.

International examples demonstrate that alternative designs are possible. In Finland, the integration of arts within health, education, and community services enables creative participation and skills development to extend across the life course, supported by cross-portfolio coordination.<sup>19</sup> In Canada, the Multiculturalism Act<sup>20</sup> embeds cultural participation within durable legislative and governance frameworks, protecting continuity beyond electoral terms.

→ Further detail on these examples is provided in the Policy Innovation Library

The following analysis uses Future Generations Policy Analysis (FGPA) to assess Australia's 2023 National Cultural Policy, Revive: A Place for Every Story, A Story for Every Place, focusing on how its design choices may affect intergenerational outcomes.

### Case Study: Australia's 2023 National Cultural Policy

Australia's 2023 National Cultural Policy, Revive: A Place for Every Story, A Story for Every Place,<sup>21</sup> recentres culture within national life.<sup>22</sup> Through the work of Creative Australia,<sup>23</sup> Australian Government's principal arts investment and advisory body, it positions cultural participation as essential to national identity, social cohesion, and economic vitality.<sup>24</sup> The policy also restores some funding lost in earlier reforms and introduces new institutional structures for cultural leadership.<sup>25</sup> However, the policy continues to operate within short-term grant cycles<sup>26</sup> and fragmented governance structures.<sup>27</sup> As a result, Revive sits alongside existing funding arrangements without fundamentally reshaping them.

Small-to-medium organisations and independent artists remain particularly exposed to volatility, reflecting longer-standing structural pressures within the Australian arts funding systems.<sup>28</sup> The Australian Design Centre, for example, experienced a 51% funding cut in 2016, followed by the loss of federal and state support.<sup>29</sup> At the same time, existing investment mechanisms, including the National Performing Arts Partnership Framework (NPAPF), entrench a two-tiered funding structure that secures multi-year support for a small group of major companies while leaving smaller and independent organisations in precarious, competitive conditions, limiting the policy's capacity to deliver sector-wide stability<sup>30</sup>. While Revive signals renewed commitment and ambition, analysis suggests it does not yet resolve the deeper structural conditions that have historically produced episodic and insecure cultural work.<sup>31</sup>

### A Future Generations Policy lens on Australia's 2023 National Cultural Policy

Fairness Dimension	Alignment	Explanation
<b>Life Stage Equity</b>	→ Misaligned	Short-term funding normalises episodic practice, locking in fragmented capability pipelines and leaving future governments without institutions able to sustain cultural leadership and transmission.
<b>Distribution Across and Within Generations</b>	→ Partial Alignment	Access tends to concentrate around established institutions and metropolitan centres, which supports some continuity, but also passes forward blind spots in whose knowledge and cultural experience shape public life.
<b>Future Opportunities and Path Dependency</b>	→ Misaligned	Frequent policy and funding resets prioritise short-term activation over long-term accumulation, limiting the cultural capability future governments inherit and reinforcing reliance on short-term delivery.
<b>Proportionate and Justified Trade-offs</b>	→ Partial Alignment	Funding frameworks emphasise short-term visibility and flexibility, which can enable responsiveness, but often do so at the expense of long-term infrastructure, increasing renewal costs for future governments.
<b>Precautionary Approach</b>	→ Partial Alignment	Governance anticipates immediate delivery risks but not threshold losses in cultural memory and participation, passing forward systems oriented toward recovery after erosion rather than protection before loss.



# Our opportunity to shape Australia's future

Australia can strengthen its arts and cultural trajectory by applying a Future Generations Policy approach. Policymakers can treat arts and culture as long-term civic infrastructure and back them with predictable investment and durable governance arrangements. When governments maintain continuity, institutions retain knowledge, deepen participation, and build organisational capacity over time instead of repeatedly rebuilding it.

Australia now faces a policy inflection point. Existing settings risk allowing instability in the cultural sector to carry forward across generations. Different policy choices can instead build systems that reliably strengthen social connection, cultural knowledge, and collective meaning.

The following speculative futures, inspired by Pema's story, explore how Australia's cultural and civic landscape could diverge by 2040 under continued short-term settings or under redesigned policy frameworks.

## ■ Speculative futures

### A future of cultural oblivion

It's 2040, and the pattern Pema noticed had deepened into a reality harder to ignore. Australia's capacity for long-term thinking weakened as cultural investment rose and fell with each budget cycle. Creative programs were cut again and again, and the loss of shared spaces left the country with a widening imaginative deficit. People struggled to agree on the basics because the places that once helped them understand one another were no longer there. Without bridges to cross those divides, disagreements hardened into distance, and the national horizon narrowed.

Communities retreated as the centre hollowed out. Schools cut creative learning, local festivals folded, and intercultural programs slipped from public life. Without spaces to hold cultural heritage and exchange, knowledge flattened and was left to occupy a shrinking patch of common ground.

The consequences reached deep into civic life. Creative careers were no longer sustainable, pushing artists, cultural workers, and storytellers overseas. With fewer cultural anchors, communities felt more isolated. Policy grew reactive because the civic imagination required for generational planning thinned. Social division sharpened. More money went into managing conflict and crisis than into preventing it. The bill exceeded what steady cultural investment would have required.

Australia, once a multicultural success story, became a cautionary tale about what happens when a nation treats culture as expendable.

### A future of cultural renaissance

It's 2040, and Australia has rebuilt its civic fabric enriched by culture and connection. Creative programs have become part of the everyday civic infrastructure that supports connection, identity, and resilience. Culture came to be understood as a condition for effective governance rather than a discretionary add-on.

Investment followed. Creative learning returned to schools, cultural practice was integrated into health and community services, and local arts and community centres were supported as essential gathering places. Brisbane's Intercultural Futures Centre stands as a direct outcome of these choices, a place where multicultural communities teach continuity, belonging and shared responsibility. As people engaged with a wider range of stories, practices, and perspectives, the national imagination broadened; communities rediscovered the capacity to see beyond immediate pressures and to picture shared futures.

The effects are visible everywhere. Australia is now shaped by First Nations knowledge and by the insights carried from migrant communities. People step into public life with more ease, grounded by spaces that give them voice and confidence. Tensions soften as communities feel safer and more connected, and creative work feeds practical innovation across education, health, and climate adaptation. With stronger cultural foundations in place, fewer public resources are diverted to crisis response, and capability, trust, and participation develop in sustained and predictable ways.



## Portrait 2 Stafford



# Agriculture Across Generations

### The policy trajectory of Australian agriculture

Stafford's story exposes an agricultural system shaped by short policy cycles, volatile markets, and restricted entry pathways, even though farming operates on multi-decade horizons. Current settings prioritise near-term efficiency, output, and price responsiveness over long-term land stewardship and generational continuity. Rising land values, tighter credit conditions, and shifting program settings make it harder for new and mid-career farmers to enter the sector or plan succession. Production may continue, but the system's capacity to manage cumulative ecological and financial risk is placed under strain. Australia risks sustaining output while undermining long-term resilience.

### The potential of Future Generations Policy to intervene

A Future Generations Policy approach structures agricultural governance around the timeframes on which farming depends. It seeks to reduce uncertainty by providing stable policy signals, long-horizon investment frameworks, and structured support for land transfer and succession. These settings would strengthen continuity within farming regions and improve the sector's ability to adapt to climatic and economic pressures. They would also improve the likelihood that future Australians inherit productive land, viable farming communities, and a resilient agricultural system.

## Today's agriculture ecosystem

# Through Stafford's Eyes

### Stafford (he/him), 30

Peerapper Country  
(Marawah, Tasmania)

Stafford is a fourth-generation beef farmer in Marawah, a village of 150 people near Cape Grim, a place he proudly describes as having "the cleanest air in the world". He and his partner Christina, a large-animal veterinarian, are raising their 14-month-old son, named Oscar after Stafford's great-grandfather, on the 200 hectares his family has tended for more than a century.



He is part of a shrinking minority: young farmers who stay. Where earlier generations assumed continuity, he now sees peers stepping away. Too many, he says, "have just given it up" and feel compelled to walk away as mounting pressures leave little room to remain. His family chose to act before fragmentation became inevitable, making deliberate decisions about how to keep the land intact, what legacy to preserve, and who would take on the responsibility. "If we were to split it up 25% each," he explains, "the farm would be sold, and then it would be no longer."

Succession planning within a family solves only one part of the challenge. Stafford knows that even the most deliberate internal decisions can falter in the face of external uncertainty. "Farmers are the best adapters," he notes, "but you need to set the ground rules early so people can plan." He sees the tension repeatedly: families plan across generations, while policy shifts from term to term.

The strain begins with a decades-long barrier to entry. "Farm ownership is, at a minimum, a 20-year slog," Stafford explains. Agriculture is "asset-rich and cash-poor": land values soar while cash flow lags, making even skilled young farmers "high-risk" in the

eyes of banks. Credit dries up, and the doorway into farming narrows further. When the pressure builds, buyers step in. Corporate and foreign acquisitions pick up pace, and each sale sees knowledge that took generations to build slip away. Stafford summarises it plainly: "So many ways to get out and so few ways to get in."

Gaining entry is only the beginning. Adaptation depends on planning horizons that run 10 or 20 years into the future. Infrastructure upgrades, breeding cycles, pasture renewal, and the slow work of managing the land cannot be improvised. Yet policy arrives with little warning, forcing long-term decisions into short-term reactions and pushing smaller operators to the edge. This dynamic feeds a growing divide between urban Australia and the people producing its food. Stafford is clear about the stakes: "If we put regions against cities, we all lose."

What he carries is more than an enterprise; it represents a century of accumulated knowledge, responsibility, and care. Whether this inheritance endures depends on whether Australia builds the conditions to keep such legacies alive, or lets them slip quietly into the archives.





### Today's policy landscape: Australia's agricultural ecosystem

Australia's agricultural sector sits at the crossroads of two linked transitions: who will farm the land next, and whether those future farmers will have the stability required to adapt to climate change over decades. Policy often treats succession and adaptation as separate issues. In reality, they form a single system. Entry pathways, land ownership, credit access, and climate investment all interact to determine whether farming remains viable across generations.

Structural barriers to entry are narrowing the pipeline of new farmers. In New South Wales,<sup>32</sup> farm values have increased by more than 220%<sup>33</sup> since 1990, while the number of more affordable farms priced under AUD 500,000<sup>34</sup> has fallen by over half. Banks increasingly classify young farmers as high-risk borrowers,<sup>35</sup> and without family land or equity, most are unable to enter the sector.<sup>36</sup> At the same time, foreign ownership has reached 12.9%,<sup>37</sup> and consolidation across processing and supply chains has reduced local buyers and services. Abattoir closures,<sup>38</sup> including the shutdown of Bega's Strathmerton plant,<sup>39</sup> have extended transport distances, raised operating costs, and weakened rural economies.

These pressures are unfolding against a rapidly ageing farming population. The average beef farmer is now around 62 years old.<sup>40</sup> The window for generational transfer is narrowing. Without viable entry and succession pathways, land and capital consolidate faster than knowledge and stewardship can be transferred. Production may continue, but regional continuity and adaptive capacity erode.

Climate change further compounds these structural risks. Agriculture generates approximately 18% of Australia's emissions,<sup>41</sup> and 92% of farmers report experiencing significant climate impacts in recent years.<sup>42</sup> Yet policy settings continue to shift on short political cycles, misaligned with the 10 to 20-year timeframes required for infrastructure upgrades, breeding programs, water planning, and soil recovery. For farmers already facing insecure tenure or uncertain succession, this volatility discourages long-term adaptation investment.

International experience highlights the risks of misaligned intervention. In New Zealand, carbon incentives redirected more than 260,000 hectares<sup>43</sup> of productive farmland into forestry for carbon credits, weakening rural economies and food production. Subsequent restrictions on farm-to-forest conversions<sup>44</sup> reflect a hard lesson: climate policy must also protect long-term agricultural continuity instead of pursuing short-term emission gains in isolation.

## The value of a future generations approach

Farming depends on generational continuity. When entry pathways narrow and policy signals fluctuate, that continuity weakens. Skills transfer slows, succession falters, and land ownership consolidates. Australia may retain productive land, but it risks shrinking the pool of people with the experience, capital, and institutional backing required to manage it. The result is greater strain on regional economies and declining adaptive capacity across the sector.

A Future Generations Policy approach realigns governance with the timeframes farming demands. It anchors agricultural settings in policy stability, predictable signals, and long-horizon planning. This alignment strengthens succession pathways, supports earlier and more viable entry, and enables sustained investment in land stewardship, workforce development, and infrastructure. It replaces

reactive adjustment with deliberate continuity. The next generation of farmers will operate in a sector undergoing structural transition. They will confront climate volatility, market shifts, and technological change simultaneously. Those equipped with stable policy conditions and evidence-based frameworks can adapt with confidence and build enterprises designed to endure.

International examples demonstrate that such reform is achievable. Ireland's Land Mobility Service<sup>45</sup> creates structured, long-term land access arrangements beyond direct family succession, strengthening continuity and skills transfer. In Denmark, long-term climate agreements lock in durable rules across electoral cycles, giving farmers the certainty required to commit capital and labour to multi-decade decisions.<sup>46</sup>

→ Further detail on these examples is provided in the Policy Innovation Library

The following analysis applies Future Generations Policy Analysis (FGPA) to Australia's Agricultural Innovation Agenda to assess how its current design may influence outcomes for future farming cohorts.

### Case Study: Australia's Agricultural Innovation Agenda

Australia has set an ambitious target: Delivering Ag2030<sup>47</sup> aims to grow the agricultural sector to AUD 100 billion by 2030. The critical question is whether current innovation settings support the generational continuity required to achieve it. Despite investment, productivity growth has slowed significantly, declining from an average of 3.6% per year (1989–2005) to 0.6% in the 15 years to 2019–2020.<sup>48</sup>

The National Agricultural Innovation Agenda<sup>49</sup> promotes research and technological advancement, yet it remains insufficiently aligned with the long planning horizons that farming demands. Industry-led strategies such as the 2030 Roadmap<sup>50</sup> identify a key gap: structured support for generational renewal and succession planning.<sup>51</sup> Without integrating long-term workforce and land transfer considerations into innovation policy, current settings risk widening the divide between established operators and the emerging farmers needed to sustain the sector.

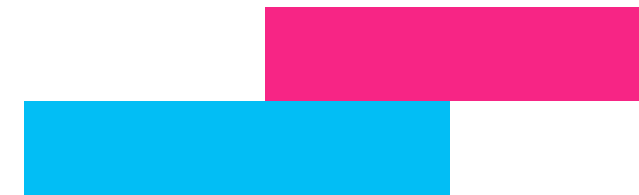
State-level initiatives, such as AgriVision 2050<sup>52</sup> and Tasmania's Sustainable Agri-Food Plan,<sup>53</sup> signal long-term intent yet alignment between these state strategies and national climate, land, and continuity policies remains limited. Meanwhile, consolidation in processing, withdrawal of regional services, and shifts in land ownership are reshaping rural economies faster than policy frameworks adapt, weakening the structural foundations on which innovation depends.

## A Future Generations Policy lens on Australia's Agricultural Innovation Agenda

Fairness Dimension	Alignment	Explanation
<b>Life Stage Equity</b>	→ Misalignment	Short-horizon policy and finance settings interrupt early-career capability formation and stewardship transfer, locking in ageing participation profiles and weakening renewal pipelines across farming lifecycles.
<b>Distribution Across and Within Generations</b>	→ Partial Alignment	Risk exposure and adjustment capacity concentrate unevenly as scale and capital determine who can absorb volatility, passing forward unequal access to assets, markets, and decision-making power. Emerging investment in natural capital and diversified enterprises does, however, create new pathways for young farmers who can demonstrate resilience and stewardship capability.
<b>Future Opportunities and Path Dependency</b>	→ Misalignment	Decisions calibrated to short electoral and market cycles normalise incremental adaptation, creating land-use and ownership lock-ins that constrain future options within brittle production and regional configurations.
<b>Proportionate and Justified Trade-offs</b>	→ Partial Alignment	Transition costs are deferred rather than absorbed collectively, leaving future governments with narrower and more expensive intervention options.
<b>Precautionary Approach</b>	→ Partial Alignment	Anticipation focuses on physical and market risks while neglecting thresholds in succession and governance, passing forward systems that manage exposure instead of retaining preparedness.



# Our opportunity to shape Australia's future



Education policy shapes the cognitive capacities future Australians will draw on in work, civic life, and public decision-making. When schools introduce advanced AI tools faster than students develop judgement and evaluative skills, early reliance can hardwire dependency into learning pathways. Over time, this weakens reasoning depth, distorts discernment, and reduces the ability to navigate complex information environments with confidence.

A future generations perspective helps identify where policy design matters most. One important leverage point lies in sequencing. Aligning the timing and conditions of AI adoption with stages of cognitive development, while ensuring schools have sufficient pedagogical space and institutional support, can help safeguard the development of foundational reasoning and evaluative skills.

The two speculative futures below, inspired by Malmi's story, explore how educational and cognitive conditions could diverge by 2040 under continued trajectories or under redesigned policy frameworks.

## ■ Speculative futures

### A future of loss and consolidation

It's 2040, and the farm Stafford's family held for more than a century has been sold to an international corporation. Across regions like Marrawah and Gunnedah, similar stories have unfolded. As older farmers retire without successors, land passes to distant owners.

Corporate management systems replace generational and Indigenous knowledge with uniform practices. These systems perform adequately in stable seasons but overlook Australia's microclimates and long ecological rhythms. As a result, soil health declines, biodiversity thins, and droughts and fires hit harder, while recovery takes longer.

Policy continues to respond incrementally. Short-term measures help some operators survive another season, but without structural support for succession or long-term planning, entire regions grow more vulnerable. Local abattoirs close, and suppliers disappear. Knowledge networks dissolve as experienced farmers leave and younger ones never arrive. Productivity gains plateau, and research and development shift toward low-risk, short-term returns that favour scale over resilience. Australia continues to export food, largely to low-price markets, but the system is brittle. When shocks arrive, responses are expensive and reactive. More public money flows into recovery than would ever have been required to sustain continuity.

Australia has lost the landholders and, with them, the culture of care built across generations. By the time the absence was fully recognised, much of the knowledge that once connected land, people, and place had already slipped beyond easy recovery.

### A future of adaptation and renewal

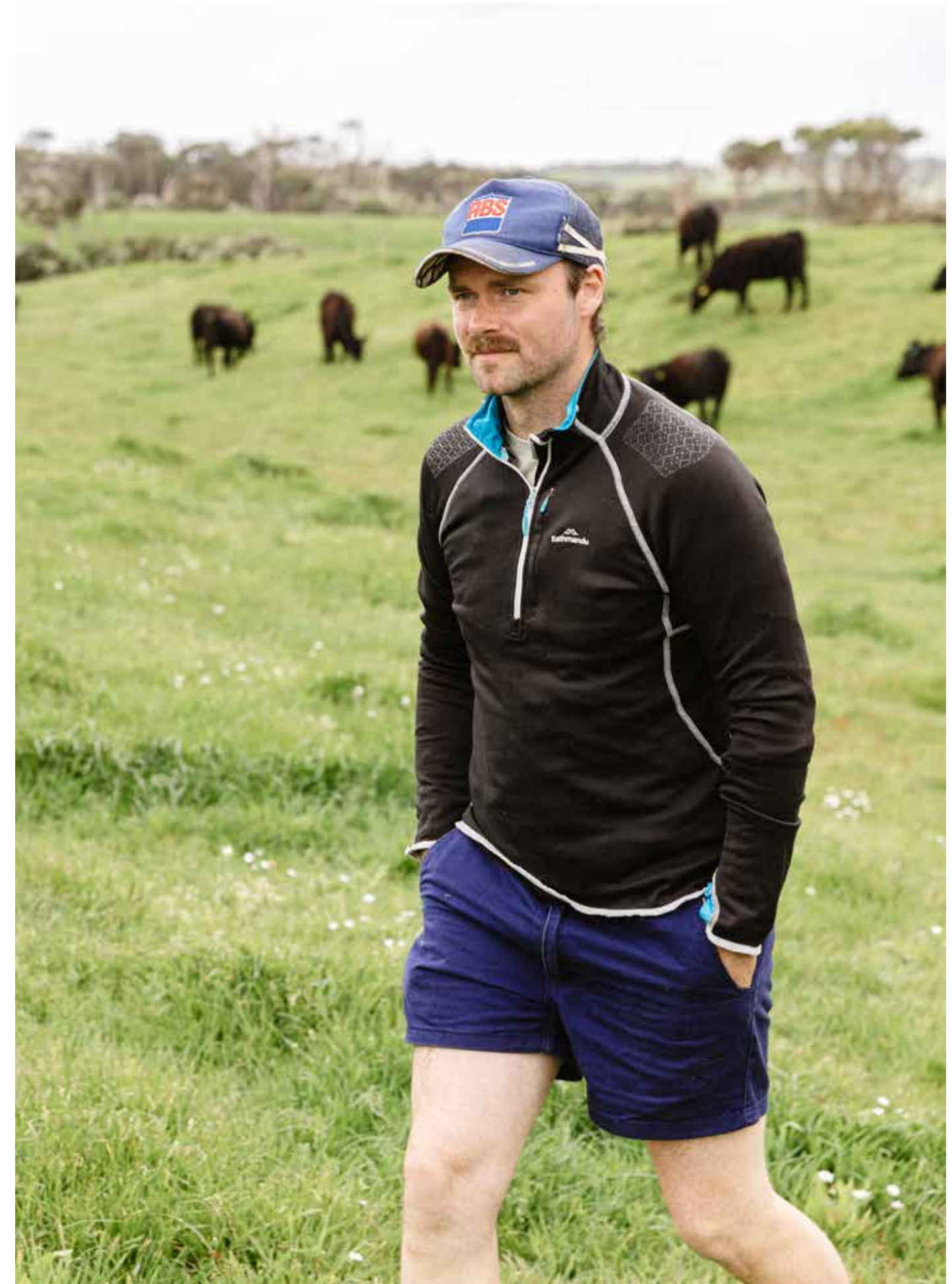
It's 2040, and Oscar, fifteen, works beside his father on the same Marrawah land five generations have cared for. The turning point came years earlier, when Australia aligned agricultural policy with the multi-decade decisions that farming demands. Stable and durable settings replaced constant adjustment, allowing families like Stafford's to plan with confidence.

With predictable rules in place, long-term investment resumed. Farmers upgraded water systems, redesigned breeding programs, and planned pasture renewal across cycles instead of seasons. Farms diversified beyond a single production line: mixed grazing integrates with native revegetation, on-farm energy generation, soil carbon projects, and value-added processing. Income no longer depends on a single commodity or market. Farming rewards patience again, and knowledge transfers steadily from one generation to the next.

Carbon policy evolves alongside production. Whole-farm accounting recognises the interaction between output, sequestration, and stewardship, rather than forcing single-use outcomes. Native vegetation corridors are restored alongside grazing land, strengthening biodiversity and drought resilience while generating stable revenue through environmental markets and stewardship payments. Integrated land-use models value complexity and long-term care, beyond quick returns.

Entry pathways reopened. Redesigned agri-loan schemes, land mobility arrangements, and cooperative ownership models enable young farmers without family land to enter the sector. Training in agritech, climate adaptation, and ecological restoration attracts a new cohort, combining innovation with inherited practice, while Indigenous co-management arrangements deepen land stewardship and anchor knowledge locally.

By 2040, consolidation pressure eases. Marrawah stabilises, then begins to grow. Local processing returns at smaller scales. Schools remain open. Oscar considers pursuing a degree in agricultural science, confident that when he returns home, the farm will still be a place where he can build a life.





## Portrait 3 Malmi



## Education in an AI-rich future

### The policy trajectory of AI and education

Malmi's story reveals an education system integrating AI faster than it develops the cognitive skills and teacher capacity required to use it well. Policy assumes that exposure produces competence, allowing tools to scale quickly while instructional design, curriculum alignment, and assessment reform lag behind. As long as assessment continues to reward outputs over process, this gap widens. Teachers are incentivised to prioritise completion and correctness over reasoning, judgement, and responsible AI use. Surface-level digital engagement therefore expands more quickly than students' capacity to evaluate, question, and think critically. If this trajectory continues, early reliance on automated support will shape learning pathways in lasting ways, embedding dependency, widening disparities in cognitive development, and limiting young people's informed participation in civic and economic life.

### The potential of Future Generations Policy to intervene

A Future Generations Policy lens realigns AI adoption with developmental readiness and institutional capability. It sequences technological integration alongside curriculum reform, teacher training, and assessment redesign, ensuring that skills development keeps pace with tool deployment. This approach reduces dependency and strengthens durable cognitive skills. It builds educational resilience and equips future learners to think independently, evaluate critically, and adapt responsibly within AI-rich environments.

## Today's education system in the age of AI

# Through Malmi's Eyes

### Malmi (she/her), 29

Wurundjeri Woi Wurrung Country, Kulin Nations (Melbourne, Victoria)

Malmi moves through the school with practiced alertness, shifting between students, devices, and the needs the system fails to register. Her days unfold as continuous triage, anchored in one commitment: "remain student-focused." Yet the more she adjusts in real time, the more visible the gap becomes. The system around her was designed for an earlier era, and it now strains to keep pace with the digital world younger generations inhabit.



Her students swipe and tap with native ease, but their fluency is thin and often misses the practical competencies they need. "They may not know how to file documents, set up keyboard shortcuts, or use digital calendars," she explains. And as generative AI enters the classroom, the gap widens. "Students don't understand the nuances of how to use AI in ways that are effective," Malmi observes. "They use it as a more advanced Google," treating it as a faster search engine rather than a tool for deeper thinking. The tools outpace their literacy, and the confidence on display often conceals a quiet dependence. "It is risky to treat technology as the solution to all problems," she cautions. Even well-intentioned adoption can backfire. A shortcut becomes a substitute, and soon the tool is doing the thinking the student never learned to attempt. "It's almost a double-edged sword," she points out. "Introducing these platforms without literacy can be dangerous."

What she seeks is simple yet structurally profound: a curriculum that teaches students how to think 'with' technology. "It needs to be more explicitly taught," she says, "how to use the tools in a way that helps you think" rather than outsourcing the thinking to them. "Technology should be an aide that helps humans be better at being human, not something we use for the sake of its existence." She sees AI as another wave in a long line of tools. Her main concern is the rapid rollout paired with the assumption that exposure alone will deliver the competence schools expect. "Somewhere along the way we shifted to this idea that just by using the tools students would receive 21st-century skills. We need a higher standard for what good tech use is, because not all tech use is equal," she argues. Her expectations remain grounded. "All technology has some impact. I know this will have an impact, I'm just not sure what it is yet."

In the absence of clear policy direction, Malmi rewrites digital practices where she can, stitching literacy through the gaps the system leaves open. She knows, though, that individual effort can only go so far. The strain runs deeper than a single classroom and will shape the level of cognitive resilience young people will carry into the rest of their lives.

Australia's education system was built for a slower world, long before algorithms and constant connectivity rearranged how children learn. Each year, the distance between use and understanding grows wider, and Malmi knows it will not close on its own. The faults she sees are not in the students. They sit in the assumptions holding up a system now struggling to keep pace with the world moving around it.



### Today's policy landscape: AI in education

AI is moving rapidly into Australian classrooms, reshaping how students learn and how teachers teach. The central policy question is no longer whether AI belongs in education, but how, when, and under what safeguards it should be introduced to strengthen human capability rather than displace it.

Adoption is accelerating faster than preparedness. 66% of Australian teachers<sup>54</sup> report using AI, nearly double the OECD average of 36%.<sup>55</sup> Yet the 2025 AI Preparedness Survey<sup>56</sup> by the Association of School Business Administrators found that no surveyed schools in Australia and New Zealand consider themselves fully prepared,<sup>57</sup> and 54% lack any formal AI governance framework.<sup>58</sup> Even with modest sample sizes, the pattern is clear: schools are absorbing powerful tools more quickly than the system can guide, regulate, or embed them responsibly.

This pace carries developmental risk. When schools introduce AI before students build foundational reasoning and metacognitive skills, technology can displace essential stages of cognitive formation.<sup>59</sup> Adolescence is a critical period for forming independent judgement;<sup>60</sup> a premature AI integration can therefore have lasting consequences for workforce readiness, democratic resilience, and personal agency.<sup>61</sup>

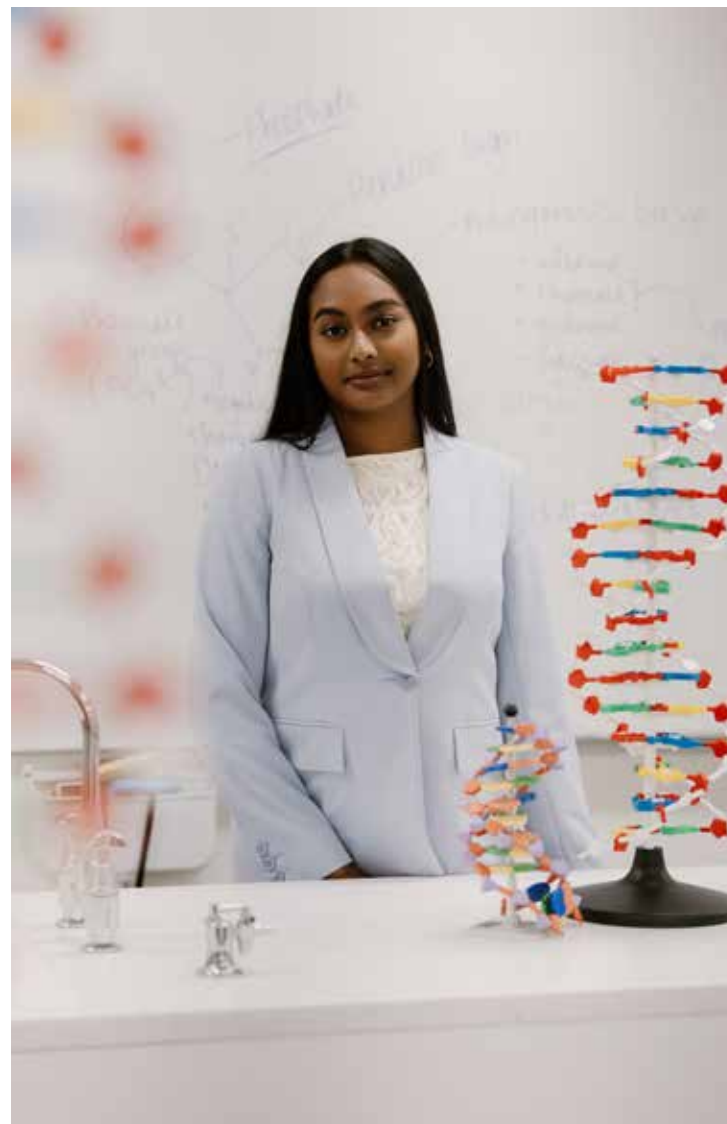
The risks are amplified by cognitive offloading,<sup>62</sup> the outsourcing of mental effort to external tools. When adolescents rely on AI before their prefrontal cortex matures by their mid-20s,<sup>63</sup> they may bypass the effort required to build discernment, persistence, and deep reasoning. Learning follows biological timelines, not political ones. Developmental windows that close cannot be reopened.<sup>64</sup> Evidence suggests that over-reliance on AI reduces engagement in the higher-order thinking processes that human-to-human education cultivates.<sup>65</sup> If dependency forms before critical thinking, deficits in judgment, creativity, and agency can persist into adulthood.<sup>66</sup>

Weak critical-literacy provision compounds these vulnerabilities. Without strong programs, AI tools widen gaps in discernment and collective knowledge. 97% of adults demonstrate poor or limited ability to verify information online and often overestimate their competence.<sup>67</sup> Younger users face greater risk. UNICEF's 2021 analysis notes that children are "particularly vulnerable to mis/disinformation" because their cognitive capacities are still developing,<sup>68</sup> and other research links excessive or dependency-forming technology use to attentional deficits and mental-health challenges.<sup>69</sup> In this context, AI can amplify the risks of misinformation when students lack the literacy to evaluate its outputs.

Governance has struggled to keep pace. States

including New South Wales, Queensland, and Victoria have adopted differing approaches to AI in schools, producing a fragmented national landscape. In 2023, Education Ministers approved the Australian Framework for Generative AI in Schools,<sup>70</sup> with implementation beginning in 2024. At the same time, broader misinformation reforms<sup>71</sup> stalled amid concerns about government overreach,<sup>72</sup> leaving the country reliant on voluntary industry codes with limited enforcement. The establishment of the Australian AI Safety Institute, announced in November 2025 and operational from early 2026, signals recognition of governance gaps, yet its focus on risk and compliance must be matched by equivalent investment in educational preparedness.<sup>73</sup>

The result is structural misalignment. As national regulation lags, schools increasingly shoulder responsibility for preparing students to navigate AI-driven environments, compensating for governance failures beyond the classroom. Meanwhile, assessment regimes continue to prioritise outputs over reasoning, limiting incentives for the metacognitive and evaluative skills a responsible AI use requires.



## The value of a future generations approach

When schools introduce high-capability AI tools before students develop reasoning, evaluation, and learning-to-learn skills, early reliance reshapes how those skills form. Habitual dependence can crowd out deliberate practice in analysis and synthesis, widening gaps in judgement, information literacy, and epistemic confidence. These effects do not remain confined to school. They shape workforce performance, civic participation, and the ability to navigate complex information environments throughout adult life.

A Future Generations Policy approach places governance design at the centre of technological change. It aligns the pace and scope of AI adoption with stages of cognitive development and institutional capacity. Instead of prioritising exposure, it prioritises sequencing and readiness. Policy can specify when tools enter classrooms, under what pedagogical

conditions they are used, and which safeguards accompany them. Such design strengthens critical reasoning, metacognition, and digital judgement before automation scales. When alignment holds, students use technology to extend thinking, not replace it.

International experience shows that alternatives exist. Singapore links long-horizon skills planning to curriculum design and assessment to developmental readiness,<sup>74</sup> supporting capability formation across student cohorts. Estonia, on the other hand, deploys digital tools through teacher-led models supported by strong public digital governance,<sup>75</sup> expanding access while reinforcing evaluation and reasoning within classrooms instead of substituting for them.

→ Further detail on these examples is provided in the Policy Innovation Library

The following analysis applies Future Generations Policy Analysis (FGPA) to the Australian Framework for Generative AI in Schools to assess how its design may shape learning outcomes for future cohorts and cognitive capability over the life course.

### Case Study: The Australian Framework for Generative AI in Schools

Released in November 2023, the Australian Framework for Generative AI in Schools<sup>76</sup> sets national expectations for how AI should operate in education. Built around six principles, Teaching and Learning, Human and Social Wellbeing, Transparency, Fairness, Accountability, and Privacy, Security and Safety, it states that AI must enhance learning while protecting equity, human agency, and data privacy.

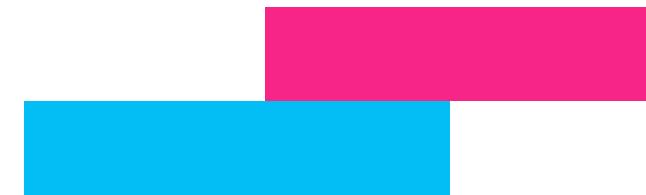
The Framework aligns with Australia's broader policy architecture, including the AI Ethics Framework,<sup>77</sup> the Alice Springs (Mparntwe) Education Declaration,<sup>78</sup> and UN Sustainable Development Goal 4.<sup>79</sup> Its most distinctive feature is its connection to the Australian Curriculum, particularly the Digital Technologies strand developed by ACARA, which provides the mandated structure for digital literacy across year levels.<sup>80</sup>

In practice, implementation remains uneven. Capacity varies significantly across states and territories, and disparities in digital infrastructure risk widening existing inequities.<sup>81</sup> While the AI Compliance and Standards Working Group,<sup>82</sup> led by Education Services Australia (ESA),<sup>83</sup> is developing National Product Expectations under the 2024-25 workplan to standardise privacy, transparency, and reliability requirements, system-wide preparedness and consistent application remain works in progress.

## A Future Generations Policy lens on the Australian Framework for Generative AI in Schools

Fairness Dimension	Alignment	Explanation
<b>Life Stage Equity</b>	→ Misalignment	Introducing AI during formative learning stages before foundational reasoning and metacognitive skills are secure shifts how thinking habits develop, passing forward cohorts whose early learning prioritised task completion over judgment formation.
<b>Distribution Across and Within Generations</b>	→ Misalignment	When capability-building depends on school resources, teacher capacity, and informal support, cognitive resilience accumulates unevenly carrying forward stratified outcomes in discernment, adaptability, and opportunity.
<b>Future Opportunities and Path Dependency</b>	→ Misalignment	Early reliance on AI as a substitute for reasoning normalises shallow skill formation, locking future learners into dependency pathways that become harder to reverse once expectations and assessment practices adjust around tool use.
<b>Proportionate and Justified Trade-offs</b>	→ Partial Alignment	Accelerating AI adoption trades speed and short-term efficiency for the slower work of cognitive capability-building, shifting the long-term cost of remediation and retraining onto future cohorts, institutions, and labour markets.
<b>Precautionary Approach</b>	→ Partial Alignment	Governance that emphasises access and safeguards without equal attention to cognitive readiness increases the chances that future generations inherit learning environments that reinforce dependence rather than support independent judgment.

# Our opportunity to shape Australia's future



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## ■ Speculative futures

### A future of digital dependence

It's 2040, and the pattern Malmi noticed at 29 has hardened into a national crisis. Early AI adoption produced a brief surge of enthusiasm: lesson preparation became faster, administration smoother, and digital competence appeared to rise. Beneath the surface, however, a literacy gap widened. Schools placed AI tools in students' hands before many had developed the reasoning to use them well. Support remained inconsistent, and teachers squeezed verification skills into minutes between curriculum demands.

Policy churn deepened the strain. Every new government arrived with new frameworks, initiatives, and compliance layers. Teacher workload rose and burnout followed. Capability-building thinned. Students learned to complete tasks efficiently, yet struggled to explain how they reached an answer or whether a source could be trusted. Dependence first became common, then largely invisible.

The workforce gradually split. A smaller group with strong critical thinking and technical fluency commanded higher wages. Many others moved through roles where reliance on AI limited advancement. Entry-level pathways narrowed as employers assumed baseline judgement that many workers had never been taught to develop. Retraining programs expanded, but they arrived unevenly and often too late to close the gap.

Civic consequences proved more difficult to contain. Distinguishing reliable information from manipulation became harder for many citizens. Trust in institutions declined. Algorithmic silos deepened as fewer people recognised how digital feeds shaped what they saw. Waves of reactive regulation did little to rebuild shared understanding because the underlying evaluative skills were missing. What began as casual deference to AI models in adolescence turned into dependence in adulthood. A few managed to catch up through intensive retraining, but most were left with lasting gaps in judgment and reasoning.

By 2040, Australia stands as a cautionary case: a nation that prioritised speed over depth, and convenience over capability, then paid the cost through democratic fragility, widening economic stratification, and lost human potential that earlier policy choices failed to safeguard.

### A future of digital wisdom<sup>64</sup>

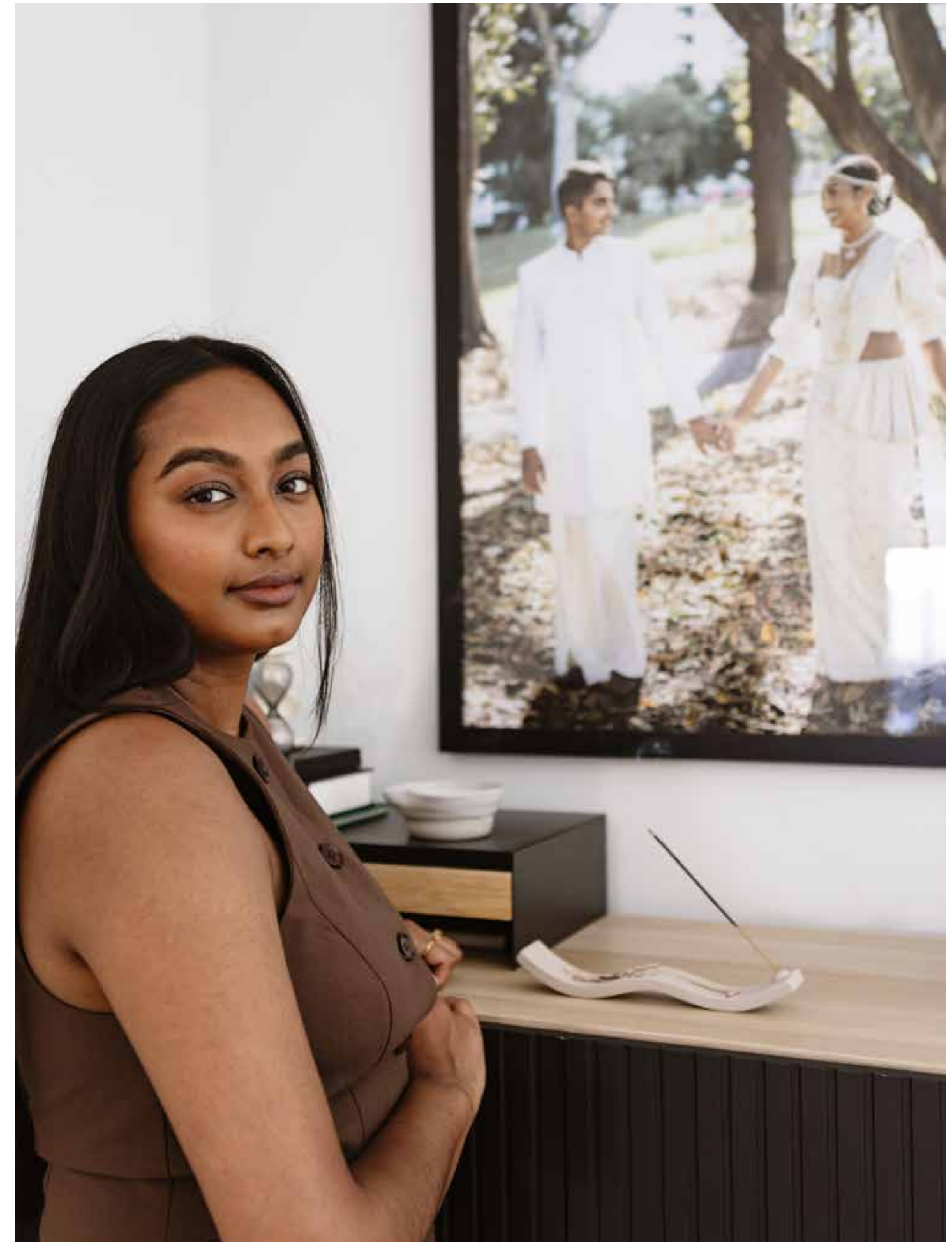
It's 2040, and Australia has embraced what Malmi argued for years: digital fluency is not the same as digital wisdom. A national 15-year Education Futures Strategy replaced the churn of reactive policy cycles with a long-horizon approach. The strategy positioned digital literacy, critical thinking, and information verification, alongside reading, mathematics, and ethical reasoning as core civic capabilities. These foundations became universal entitlements, no longer dependent on family income, school postcode, or access to private enrichment.

The shift succeeded because it followed how children learn. Instead of rigid year-level benchmarks, schools adopted clear capability progressions. Students moved from basic digital practices to source verification, algorithm awareness, and responsible use through mastery-based pathways, advancing when ready rather than when the calendar dictated. Teacher Innovation Hubs connected classrooms with research in cognitive science, AI ethics, and media literacy, while policymakers reduced compliance burdens to create space for professional judgment.

Professional learning became continuous rather than episodic. Governments rebalanced teacher workload so educators could focus on capability development and student resilience instead of drowning in administrative burden. Classroom practice changed accordingly. Students were expected to show their reasoning, explain their sources, and test AI outputs instead of accepting them uncritically. Tool use became visible, accountable, and intentional.

By 2040, the effects are evident in everyday life. Students verify instinctively. They use AI to draft, test, and extend ideas, not to replace thinking. In workplaces, graduates bring judgement alongside technical fluency, allowing roles to evolve with technology instead of disappearing beneath it. Democratic participation remains resilient because citizens navigate complex, information-dense environments with confidence and clarity.

The myth of the "digital native" has faded. In its place is a shared understanding that capability must be taught, sequenced, and supported. Australia stopped chasing each new tool and redesigned education around discernment, timing, and cognitive development, ensuring these capacities grow deliberately and equitably across generations rather than emerging through chance and privilege.





## Portrait 4 Zen



# Aligning Disaster Governance with Local Intelligence

### The policy trajectory of disaster governance

Zen's story reveals a disaster governance system designed for isolated emergencies rather than sustained climatic pressure. Current policy frameworks prioritise post-event response and short-term cost control, even as hazards strike more frequently and recovery periods overlap. Communities build practical knowledge through repeated exposure, yet institutional processes restart after each event, preventing lessons from carrying forward and slowing recovery. The result is mounting pressure on local capacity and rising long-term costs as hazards recur without corresponding changes in system design. Future Australians face greater exposure while governance structures struggle to retain experience or anticipate cascading impacts.

### The potential of Future Generations Policy to intervene

A Future Generations Policy lens reframes disaster governance around cumulative risk and longer recovery horizons. It shifts attention toward prevention, knowledge retention, and continuity across events. Stronger investment in these areas strengthens institutional learning and improves decision-making over time. It also allows local expertise to shape system design and helps governance structures remain responsive as climate volatility intensifies, increasing the likelihood that future generations inherit disaster management systems capable of responding effectively to repeated shocks.

■ **Today's disaster response ecosystem**

# Through Zen's Eyes

**Zen (he/him), 39**  
 Bundjalung Country  
 (Lismore, New South Wales)

Zen has lived in Lismore for eight years, long enough to see how a community adapts when institutions cannot keep pace with the realities they face. When floodwaters reached 14.5 metres, his second-floor practice, once assumed to be safely above the flood line, was inundated. Government alerts arrived "too late after days of heavy rain," he recalls, so "the community had to be the responders."



Having lived through both the 2017 and 2022 floods, Zen has watched Lismore develop what he calls a parallel system of "shadow governance": informal yet highly capable networks built on rich local knowledge that mobilise faster than formal systems. People turned to one another first because outside assistance often arrives after the crucial hours have passed. These networks coordinate rescues, share hyper-local information, move supplies across town, and adjust services long before official channels come to life. Schools shift classrooms without waiting for approval. Businesses install their own power. Mental health practitioners like Zen move immediately into outreach and telehealth. It is expertise shaped by repeated disruption, yet much of it remains largely invisible in policy discussions.

Zen plans ahead in every way he can. He bought a home in a low-risk zone and closely tracks policy changes to understand "what I can have some control over." The emotional toll, however, is constant. Resilience without change leaves people trapped in the same cycle. "It's a love-hate relationship with Lismore. You do become a bit numb, but it's scary," he says. He has also learned the longer rhythm of recovery. "It takes about three years after a big flood to bring in new energy and creativity." Communities heal, but on timelines formal systems rarely recognise or prepare for.

Lismore's experience sends a clear signal: when official systems lag behind lived reality, communities build the governance they need. Zen's story shows that people who face repeated climate impacts hold practical knowledge about what actually works. Recognising that intelligence means "shifting power, resources, and decision-making into the hands of the communities closest to the issues." As Zen puts it simply: "When frontline communities lead, we move from short-term fixes to long-term solutions rooted in place, wisdom, and lived experience."



## Today's policy landscape: Australia's disaster governance

Australia's disaster management approach was largely designed for rare, short-lived, and geographically contained emergencies.<sup>85</sup> Today, disasters arrive back-to-back and overlap, exposing institutions built for a different era. The 2022 Northern Rivers floods illustrate this shift. Two major floods struck within weeks, peaking at 14.4<sup>86</sup> and 11.4 metres.<sup>87</sup> 37 homes were destroyed, more than 1,400 were severely damaged, and 18,000 livelihoods across 3,170 businesses were disrupted.<sup>88</sup> Economic losses exceeded AUD 400 million,<sup>89</sup> but the material damage was only the beginning.

Insurance failures quickly became a second crisis. Only 34% of surveyed households were insured.<sup>90</sup> High premiums and "uninsurable" classifications pushed many families out of coverage entirely.<sup>91</sup> Delayed and inconsistent claims deepened financial strain and institutional distrust, prompting federal scrutiny.<sup>92</sup> At the same time, climate-driven hazards now overlap across the country,<sup>93</sup> turning acute shocks into chronic disruption. Annual declarations of major disasters exceed totals once recorded across entire decades in the 1970s.<sup>94</sup> Systems face repeated shocks with little time to recover, learn, or adapt. In places such as Lismore, recovery has blurred into a continuous cycle of response and adaptation, stretching agencies and eroding workforce capacity.<sup>95</sup>

Despite these changes, core governance settings remain anchored to command-and-control models and short-term relief mechanisms such as the Disaster Recovery Payment<sup>96</sup> (DRP) and Disaster Recovery Allowance<sup>97</sup> (DRA). These tools were designed for isolated events, not sustained climatic disruption. Fragmented authority, coordination failures, and unresolved trade-offs persist,<sup>98</sup> echoing findings from the 2020 Royal Commission.<sup>99</sup> Australia's disaster governance still prioritises response over ongoing risk reduction, leaving communities to operate in a riskscape far more continuous and complex than the system was designed to manage.

The strain is particularly visible in the disaster-response workforce. Frontline workers must support traumatised communities while managing their own losses. In northern New South Wales, health and social-service providers report rising burnout and turnover as damaged workplaces, disrupted records, and fractured professional networks undermine service continuity.<sup>100</sup> Local vulnerability intensifies demand.<sup>101</sup> Many practitioners rebuild their own lives while continuing to support others. The burden often falls even harder on private practitioners working outside coordinated service networks, where referral pathways and structural support remain weak.<sup>102</sup>

Government responses have introduced targeted initiatives such as the National Disaster Mental Health and Wellbeing Framework<sup>103</sup> (2024), NSW Recovery Services Capacity Grants,<sup>104</sup> and volunteer coordination programs.<sup>105</sup> These measures strengthen short-term operational support but remain time-limited and offer few pathways for workforce renewal, institutional learning, or flexible service delivery in regions facing repeated disasters.

Some policy innovation is emerging. In 2024, the Australian government, the NSW state government, and several local councils, including Lismore, reached a tripartite agreement to fund the restoration of roads and bridges damaged during the 2022 floods.<sup>106</sup> The arrangement provides recovery funding upfront rather than requiring councils to finance repairs and seek reimbursement later. This change removes significant financial pressure from local government and accelerates infrastructure recovery.<sup>107</sup> Although focused on infrastructure, the model signals how funding design could better support community recovery and resilience.

Meanwhile, communities continue to develop their own capabilities. During the 2022 floods, residents built early-warning systems, mapped evacuation routes, and established support hubs before formal response channels mobilised.<sup>108</sup> In Byron Shire, community resilience groups organised local mapping, communication trees, and resource distribution networks in real time.<sup>109</sup> Some of these efforts have since evolved into more structured initiatives, including Resilient Lismore<sup>110</sup> and the Living Lab Northern Rivers,<sup>111</sup> which connect community knowledge with researchers and government partners to develop adaptive strategies.

Yet these gains remain fragile. Without formal mechanisms to retain and integrate community knowledge between disasters, lessons fade as emergencies recede, volunteers burn out, and institutional memory resets. Bridging the gap between community capability and government practice requires governance models that treat local expertise as a core component of disaster management and build genuine partnerships between response agencies and affected communities.<sup>112</sup>

## The value of a future generations approach

Australia's disaster system was built for discrete emergencies, not recurrent and overlapping hazards. When governments rebuild recovery arrangements after each disaster, institutional knowledge fades, specialist workforces shrink, and planning remains focused on response. Short-term assistance can stabilise communities for a time, but exposure and vulnerability may continue to rise. Local communities adapt through lived experience, yet formal systems struggle to carry lessons forward between events. Recovery stretches longer, fiscal costs rise, and households face higher risk with less reliable institutional support.

A future generations approach redesigns disaster governance around continuity. Policy captures operational experience and embeds it into future planning and investment decisions. Local and First Nations knowledge of Country informs risk reduction strategies, and frontline expertise remains active

between disasters. Systems retain knowledge, capability, and local expertise between events instead of rebuilding them after each disaster. This reduces the financial and operational cost of repeated recovery while strengthening readiness over time.

International experience shows how this shift can work. The Netherlands' Room for the River program integrates community knowledge into long-term land-use and flood management, reducing risk while strengthening institutional learning over decades.<sup>113</sup> In Costa Rica, local emergency committees operate within the national disaster coordination system, allowing preparedness, trust, and operational capability to grow between events.<sup>114</sup> Both models organise disaster governance in ways that prioritise retained capability between disasters, ensuring future generations inherit systems that do not need to rebuild after every emergency.

→ Further detail on these examples is provided in the Policy Innovation Library

The following analysis applies Future Generations Policy Analysis (FGPA) to Australia's National Emergency Management Agency (NEMA) to examine how current design choices may shape long-term outcomes.

### Case Study: Australia's National Emergency Management Agency (NEMA)

Australia's federal disaster recovery system centres on short-term financial relief coordinated by the National Emergency Management Agency (NEMA)<sup>115</sup> under the Australian Government Crisis Management Framework (2024).<sup>116</sup> NEMA oversees national coordination through the Disaster Response Plan (COMDISPLAN),<sup>117</sup> while state and local governments deliver response and recovery on the ground.

The main federal stabilisation measures are:

- Disaster Recovery Allowance (DRA):<sup>118</sup> up to 13 weeks of income support for people who lose income following a declared disaster.
- Disaster Recovery Payment (DRP):<sup>119</sup> a one-off payment of AUD 1,000 per adult and AUD 400 per child for those most severely affected.

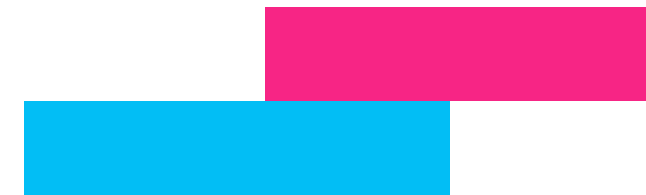
These mechanisms provide rapid financial relief after individual events and act as short-term shock absorbers. However, they are designed for discrete disasters rather than repeated and overlapping events. In communities such as Lismore, where response and recovery now blur into a continuous cycle, the system remains largely reactive and event-bounded.

Federal recovery arrangements therefore stabilise households in the short term but do little to retain workforce capability, embed community knowledge, or reduce exposure before the next disaster. Much of the practical recovery work instead falls to place-based organisations<sup>120</sup> with deep local knowledge and trust, such as Resilient Lismore.<sup>121</sup> Without formal mechanisms to recognise and support this capacity, it dissipates between events, leaving communities to rebuild both infrastructure and governance capability each time disaster strikes.

## A Future Generations Policy lens on Australia's National Emergency Management Agency

Fairness Dimension	Alignment	Explanation
<b>Life Stage Equity</b>	→ Partial Alignment	Recovery systems designed for short disruptions fail to protect key life transitions such as schooling, early career formation, housing security, and ageing. Repeated disasters interrupt these stages unevenly, allowing disadvantage to compound across the life course and generations.
<b>Distribution Across and Within Generations</b>	→ Misalignment	Event-based recovery concentrates repeated loss in high-risk regions, passing forward geographic inequalities in safety, insurability, mental health burden, and economic opportunity. Where people can live, work, and raise families becomes increasingly shaped by inherited exposure rather than choice.
<b>Future Opportunities and Path Dependency</b>	→ Misalignment	Recovery systems that reset after each disaster prevent institutional learning and workforce continuity, locking governance into reactive modes and leaving future governments with higher baseline risk and fewer options to reduce harm and exposure.
<b>Proportionate and Justified Trade-offs</b>	→ Partial Alignment	Prioritising rapid stabilisation over durable recovery trades short-term fiscal containment for long-term cost escalation, shifting uncounted recovery labour to households and communities and compounding social, economic, and budgetary liabilities.
<b>Precautionary Approach</b>	→ Partial Alignment	Failure to retain and act on local intelligence allows foreseeable risks to escalate. As thresholds are crossed through repeated displacement, workforce exit, and loss of insurability, future cohorts inherit exposure levels that no longer respond to incremental adjustment.

# Our opportunity to shape Australia's future



As climate-related shocks become more frequent and overlapping, systems that rebuild arrangements after each event pass higher exposure, weaker institutional memory, and reduced local capacity to the next cohort. Communities adapt through lived experience, but when formal systems fail to retain that learning, recovery slows and public costs rise.

A Future Generations Policy lens brings the leverage point into focus: durability. Aligning disaster governance with longer recovery horizons, while retaining workforce capability and locally grounded intelligence between events, can shift the system away from repeated reconstruction and toward sustained preparedness.

The two speculative futures below, inspired by Zen's story, explore how disaster risk and recovery conditions could diverge by 2040 under continued trajectories or under redesigned policy frameworks.

## ■ Speculative futures

### A future of institutional lag

It's 2040, and the pattern Zen once described has become a permanent dysfunction. Communities have continued to build capability through repeated crises, while institutions remain slow, reactive, and fragmented. Delays, duplication, and short-term resets have become routine features of governance.

The consequences have reshaped where people can live. Skilled workers and families have left high-risk regions for places where insurance, planning systems, and mental health support do not leave them carrying disproportionate burdens. Those who remain live in a cycle where recovery never fully ends, absorbing the emotional and financial weight of systems that can no longer protect them. Services rebuild, then thin out again. Local organisations burn through volunteers as each disaster demands a new surge of unpaid labour.

Government support still arrives, but typically late and in fragments. Payments stabilise households briefly, then fade, while the longer work of rebuilding capability is left to communities. Each inquiry produces recommendations; each season reproduces familiar failures. Learning rarely holds because governance resets too quickly to retain it.

By 2040, the gap between capability and institutional authority has become a source of deep inequality. Some places can recover because their networks are strong enough to substitute for governance. Others face prolonged displacement and deeper loss because they lack that capacity. As hazards have become continuous pressures, the failure to embed local intelligence has become one of Australia's most consequential missed opportunities. The country now stands more exposed, more uneven, and increasingly dependent on community heroism to compensate for institutional lag.

### A future of distributed resilience

It's 2040, and Zen trains a new generation of social workers in what is now known as the "Lismore Model". What first emerged as improvised coordination during the 2017 and 2022 floods evolved into a durable way of working: community-led decision-making paired with responsive institutional support. The lessons travelled. Flood experience informed fire readiness in the south, while coastal adaptations shaped drought responses inland. Local knowledge became the starting point rather than the footnote.

The shift took hold when governments began treating local networks like Lismore's as core operating capacity. Formal systems adapted, moving away from command-and-control toward supporting and amplifying the intelligence already present on the ground. Decision-making moved closer to communities, and support arrived early. Evacuation routes, communications protocols, and service delivery models were updated between seasons instead of being rediscovered during the next crisis. Workforce structures evolved as well. Social workers no longer had to choose between financial stability and serving high-risk communities. Funding models began to reflect the realities of frontline work: rapid adaptation, community partnership, and continuity of care.

By 2040, disasters still arrive, but far fewer communities wait for help that comes too late. Local intelligence guides decisions because it is embedded rather than consulted after the fact. Communities and formal institutions operate in sync instead of sequence. Recovery moves faster because capability remains in place, and prevention expands because planning horizons match the reality of ongoing risk. Trust holds because people can see that learning is retained, and that the system is designed to keep pace.



## Portrait 5 Sue



## Ageing with Dignity and Agency

### The policy trajectory of aged care

Sue's story reflects an aged-care system designed for shorter lifespans, stable family support, and relatively simple services. Today, it operates under very different conditions: longer lives, greater cognitive variability, and increasingly digital access to care. Policy settings emphasise efficiency, standardisation, and individual self-navigation, shifting responsibility onto people precisely when their capacity to manage complex systems often declines. Delays, fragmented pathways, and administrative burden narrow everyday choices and reduce practical independence. Families step in to bridge these gaps, absorbing time pressure, financial strain, and emotional labour. What appears efficient in the short term can accelerate loss of agency and increase long-term system demand.

### The potential of Future Generations Policy to intervene

A Future Generations Policy lens shifts aged-care design toward preserving agency earlier in the life course. Investing in prevention, continuity of support, and accessible system design can reduce avoidable decline and stabilise care needs over time. These settings increase the likelihood that autonomy, participation, and trust remain intact as people age, supporting care arrangements that remain viable for older Australians and for the generations who support them.

## Today's aged care ecosystem

# Through

# Sue's Eyes

**Sue (she/her), 76**  
 Yugambeh Country  
 (Beenleigh, Queensland)

Sue is 76 and planning her funeral down to the song. "We are going to have that Katy Perry song. I'm going up in a firework," she declares. "I've organised my funeral. I'd be very cross if someone else chose different things to me." She began planning it years ago after a battle with cancer. She wants her farewell to reflect the life she lived. "How you die is sometimes how you will be remembered, and I don't want to be remembered for being sad and depressed."



She is not afraid of death. What troubles her are the years between now and her final day, where choice slips through the cracks of systems meant to support her. She believes people thrive when they have agency and falter when it is taken away. Her life is evidence of this. As a teacher, she transformed "difficult" students by giving them control over their environment. When a stroke robbed her of speech, she rebuilt it tile by tile. "I got out the Scrabble tiles and taught myself how to speak all over again."

Sue now lives with dementia, which erases conversations almost as soon as they happen. "After you go, I won't remember what we've said." It is one more reason she holds onto agency wherever she can and avoids support groups that drain her optimism. She is also aware of the safety net around her. Strong intergenerational relationships allow her to stay supported while continuing to make her own choices, softening fears that many others carry as they live with dementia.

Her concerns sharpen when she looks beyond her own circumstances to those whose networks cannot bridge the gaps in the system. A friend in her eighties has been waiting three years for a home care package. After a fall, she lay on the floor for five hours until her son returned. "She was left there in pain," Sue recalls. For many, long waits for higher-level home care become a harm of their own.

Then there is the digital wall: the closed bank branch, emails lost through corporate mergers, and password recovery paths that take three generations of her family to unravel. "A lot of the oldies don't have access or can't use a computer. Without children or grandchildren, I'd be absolutely lost." These small hurdles collect across a week, then a month, then a year. A printed bank balance, a smartphone purchased only to reach services that once arrived by post, each one nudging independence a little further away.

Sue notices how often support is organised without the people it is meant to serve in mind. Help is arranged through portals, office hours, and administrative mazes instead of how people live their day-to-day lives. "Bring help to the people," she says. "Approaches of doctors or political representatives saying 'My door is always open' won't do." She has, however, seen glimpses of something more humane. Her local MP once held a community information day at a nearby school. "All the service people in one spot. Nothing for sale, just information." For once, she did not have to chase anything. The system came to her.

Sue's story is ultimately about designing a world that treats dignity as a daily condition. She knows ageing and death are part of life. What unsettles her is a system that makes people shrink before their time, because dignity is shaped as much by the small choices of an ordinary day as by the final moments that follow.



### Today's policy landscape: The infrastructure for an aging population

Australia's population is ageing rapidly, yet the systems designed to support older Australians have not kept pace. By 2056, nearly 9 million Australians will be over 65, compared with 4.2 million today.<sup>122</sup> When the Aged Care Act 1997 (Cth) was introduced, it assumed shorter lifespans, larger families, and lower rates of chronic disease.<sup>123</sup> Those conditions no longer hold. The system now operates in a context of longer lives and more complex care needs, yet it remains organised around provider efficiency rather than continuity of support across extended lifespans.

Life expectancy now reaches 81.1 years for men and 85.1 for women,<sup>124</sup> lengthening the period during which many people rely on stable care and health services. At the same time, family structures have shifted. The average household has declined from 3.6 members in 1961 to 2.5 in 2021,<sup>125</sup> reducing the pool of unpaid carers on which the system once depended. Chronic illness is more common and more complex,<sup>126</sup> with the number of conditions per person rising with age.<sup>127</sup> Meanwhile, the ratio of working-age Australians to retirees has fallen from 7.4 in the 1970s to a projected 3.2 by 2055.<sup>128</sup> These shifts expose a widening gap between demographic reality, clinical need, and the design of Australia's aged-care infrastructure, transferring care responsibilities and financial pressure onto younger generations.

The strain is visible in the workforce that sustains the system. More than 1.5 million Australians currently receive aged care,<sup>129</sup> and the sector will require 130,000 additional workers by 2050.<sup>130</sup> Yet workforce instability remains high, with annual turnover exceeding 1 in 4 workers and persistent dissatisfaction with pay and conditions.<sup>131</sup> Insecure employment and high churn undermine continuity of care, increase reliance on unfamiliar staff, and weaken the relationships that uphold trust and personal agency. Without sustained investment in wages, skills, conditions, and new service models, today's workforce shortage risks becoming tomorrow's unmet care need. Expanding community-based approaches, including local hub-and-spoke models that connect formal services with neighbourhood support and intergenerational participation, may offer more resilient pathways.

Less visible barriers further shape how older Australians navigate care. Digital-first service design, including reliance on the My Aged Care portal,<sup>132</sup> assumes levels of digital literacy that many older Australians do not possess. Fewer than 60% of Australians aged 50-65 can reliably assess information online,<sup>133</sup> and among those 70 and above, 75% are digitally disengaged.<sup>134</sup> For people without strong family or community support, this translates into practical exclusion from essential services.

Planning for later life also remains limited. Around 70% of Australians aged 65 and above have no advance care plan,<sup>135</sup> and access to palliative care remains uneven,<sup>136</sup> particularly in regional areas. Low rates of intergenerational housing, especially compared with many European countries,<sup>137</sup> leave many older Australians socially isolated from the family networks that often support care and planning.

These pressures weaken agency and preparedness across the life course. When care systems are technologically inaccessible or culturally sidelined, older Australians lose meaningful control over their later years. At the same time, younger generations inherit arrangements shaped by avoidance rather than capability. The result is an ageing infrastructure that struggles to deliver dignity, continuity, and sustainability across generations.



## The value of a future generations approach

When support pathways are complex or delayed, everyday decisions become harder to make. Functional independence declines incrementally, needs escalate, and responsibility shifts to families, informal carers, and future public expenditure. Administrative efficiency in the short term can therefore turn manageable support needs into acute care episodes, increasing fiscal cost, caregiver strain, and loss of personal agency over time.

A Future Generations Policy approach redesigns aged-care systems to protect agency earlier in the life course. Prioritising early support, continuity, and navigable access allows policy to intervene before people cross into higher levels of dependency. Timely, life-aligned assistance enables older Australians to

retain control for longer while moderating downstream demand for intensive services and stabilising care trajectories.

Examples from other countries show that different care architectures are possible. In the Netherlands, the Buurtzorg model<sup>138</sup> organises home care around continuity and local autonomy, using small self-managing teams to sustain trust, professional judgement, and relational knowledge over time. This approach reduces long-term service intensity while maintaining strong community-based care. In Kerala,<sup>139</sup> community-based palliative care integrates planning, shared responsibility, and support well ahead of crisis points, strengthening preparedness across households and neighbourhoods.

[→ Further detail on these examples is provided in the Policy Innovation Library](#)

The following analysis applies Future Generations Policy Analysis (FGPA) to the Aged Care Act 2024 and the Support at Home program to examine how current design choices may shape outcomes for future cohorts.

### Case Study: The Aged Care Act 2024 and Support at Home program

The Aged Care Act 2024,<sup>140</sup> which commenced in November 2025, represents the most significant reform of Australia's aged-care system since 1997. Introduced alongside the Support at Home program,<sup>141</sup> the legislation responds to the Royal Commission into Aged Care Quality and Safety, established in 2018,<sup>142</sup> which called for a system grounded in dignity, accountability, and stronger protections for older Australians.

Despite these reforms, Australia's care architecture remains institutionally divided. The Commonwealth funds and regulates aged care, while state governments oversee health services, creating coordination gaps that older people experience as fragmented support across medical care, home services, and long-term care.<sup>143</sup>

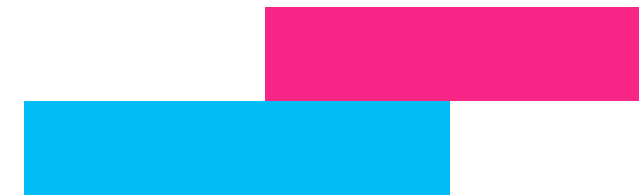
The previous legislative framework<sup>144</sup> primarily organised funding around providers rather than the people receiving care.<sup>145</sup> The Aged Care Act 2024 signals a shift in intent by recognising older people as rights-holders within the system and framing care around dignity, choice, and respect. This represents an important conceptual change, raising the question of whether formal rights can translate into genuine agency in everyday care experiences rather than remaining procedural entitlements.

The impact of the reform will depend on implementation. Structural constraints persist, including rigid service pathways,<sup>146</sup> delays in access to home support, and ongoing workforce instability.<sup>147</sup> While the Aged Care Act 2024 and the Support at Home establish a strong foundation for dignity-centred care, the absence of clear indicators for agency and timely service delivery<sup>148</sup> risks leaving rights recognised in legislation but unevenly realised in practice.

## A Future Generations Policy lens on The Aged Care Act 2024

Fairness Dimension	Alignment	Explanation
<b>Life Stage Equity</b>	→ Misalignment	Aged-care systems that require high coordination and self-navigation place the greatest burden at life stages marked by declining health, cognition, and confidence. Delayed support accelerates loss of independence, disrupting key ageing transitions and leaving future cohorts more likely to enter care later, with higher needs and fewer choices.
<b>Distribution across and within generations</b>	→ Misalignment	Formal provision implicitly assumes the presence of unpaid family coordination, which quietly redistributes responsibility toward those considered default caregivers, embedding unequal ageing outcomes based on household capacity rather than public design. What appears as individual coping is a structural transfer of care labour forward.
<b>Future opportunities and path dependency</b>	→ Partial Alignment	Delayed engagement with support normalises crisis-entry pathways, locking the system into managing advanced needs and reducing future governments' ability to rebalance toward prevention without absorbing significant transition costs.
<b>Proportionate and justified trade-offs</b>	→ Partial Alignment	Short-term fiscal restraint is achieved by limiting coordination, navigation, and early access. The hidden trade-off is higher downstream demand, greater workforce intensity, and rising informal care burden, costs that are deferred rather than avoided and inherited by future systems and families.
<b>Precautionary approach</b>	→ Partial Alignment	The system responds once decline is visible but does not act at early thresholds where small interventions would prevent irreversible dependence, narrowing the range of dignified ageing outcomes available to current and future cohorts.

# Our opportunity to shape Australia's future



As Australians live longer and family support becomes less available, system design carries greater consequences. Sue's story highlights a recurring pattern: agency rarely disappears all at once. It erodes when assistance arrives late and access depends on navigating complex procedures at the very moment people's capacity to do so is declining. Manageable support needs then escalate into intensive care, leaving future cohorts with systems that are harder to navigate, more expensive to sustain, and less effective at preserving choice.

A Future Generations Policy lens brings the leverage point into focus. Design choices that provide timely, continuous support can stabilise agency earlier in the ageing process. When systems deliver help before needs escalate, people retain independence for longer and demand for crisis-driven care declines. When support arrives too late, care shifts toward emergency responses, transferring higher costs and responsibility to the generations that follow.

The two speculative futures below, inspired by Sue's story, explore how aged-care access, agency, and system sustainability could diverge by 2040 under continued trajectories or redesigned policy frameworks.

## ■ Speculative futures

### A future of abandonment and lost agency

It's 2040, and the aged care crisis Sue once feared has unfolded into a normalised form of rationing. Home care package waitlists now stretch beyond five years. Residential care facilities remain chronically understaffed. Workers rotate constantly, paid too little to stay and asked to carry workloads too heavy to endure. Continuity of care has largely disappeared, and with it the trust that makes agency possible.

The digital divide has become a barrier to basic support. Most government services moved fully online during the 2030s, and face-to-face assistance steadily disappeared. Older Australians who cannot use digital tools, have no tech-capable relatives, or cannot afford devices and connectivity struggle to access services they are entitled to receive. Many stop trying. Some never receive the support they spent years waiting for.

Needs escalate because help arrives too late. Falls that could have been prevented become disabling injuries. Dementia care remains uneven and tightly means-tested, forcing many people to sell assets to secure assistance. Families sell homes to fund care, then confront the insecurity that follows. Responsibility shifts to whoever can absorb it, most often women, usually unpaid, and frequently exhausted.

The emotional cost spreads across generations. Adult children juggle work, parenting, and caregiving with little respite. Relationships strain under constant administrative burden and the grief of watching capability decline faster than it needs to. Younger adults organise their lives around anticipated care obligations, delaying savings, postponing milestones, or avoiding commitments they fear they cannot sustain.

By 2040, the intergenerational contract has begun to unravel. Ageing no longer carries an expectation of dignity. Australians now expect to struggle. Systems that once promised security now pass forward obligation, and the failure to protect agency earlier in life leaves each generation with less capacity to care well for the next.

### A future of dignity and agency

It's 2040, and Sue's great granddaughter, Lily, is in her twenties. When she thinks about ageing, she imagines a society that began protecting agency much earlier in life so that autonomy remains ordinary rather than exceptional.

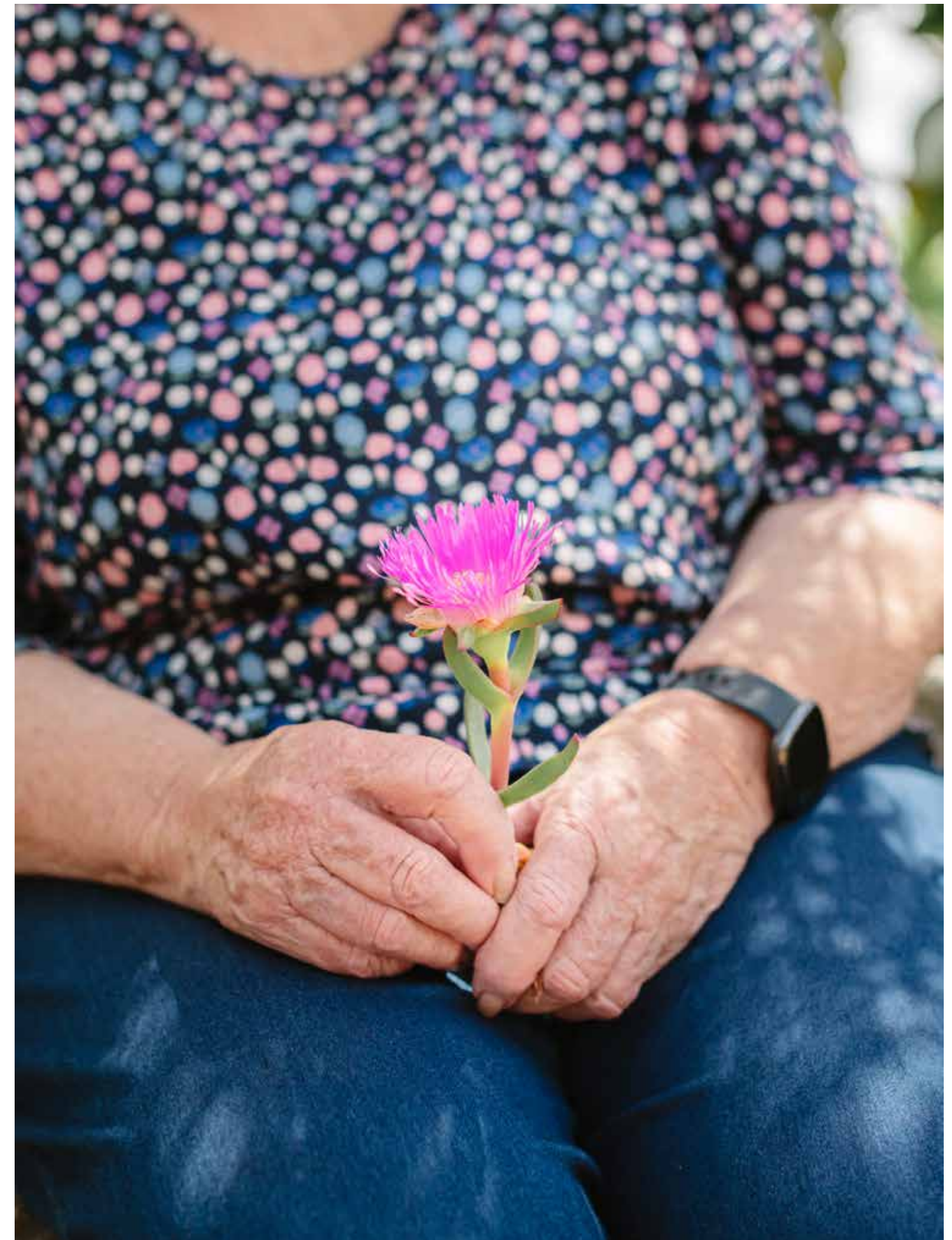
Support now arrives quickly. Home care packages are allocated within weeks. Every community has a regional hub, often co-located with libraries and health centres, where trained navigators help older people access services in person or online. No one is left alone to decipher portals, forms, and eligibility rules. Care is organised around daily life instead of administrative convenience.

Digital systems exist, but they do not replace human contact. Banks and government services maintain assisted pathways by default. People can set up accounts, recover passwords, and verify information without relying on children or grandchildren to translate the system. This prevents the small losses of autonomy that once gradually turned into dependence.

Care is relational and continuous. Workers stay long enough to be known and trusted. Memory cafés and dementia-friendly programs are widely available, helping people live well while preserving choice. Falls rarely become hours on the floor. Community responders, care teams, and neighborhood support networks coordinate closely, allowing help to arrive quickly through relationships already in place.

Death is discussed openly and early. Schools introduced end-of-life planning as part of civic literacy, and families now speak about wishes without taboo. Palliative care expanded across regions, allowing people to choose where they spend their final chapter: at home, in hospice, or within familiar community settings.

By 2040, dignity is no longer dependent on having strong family networks. It is built into how the system operates. When people reach the end of their life, they can still "go out like a firework," because the system is designed to protect and honour their agency all the way through.



## Portrait 6 | Dee



## Governing Coastlines for the Long-Term

### The policy trajectory of coastal health

Dee's story shows coastlines deteriorating faster than decisions are made. Governance still focuses on visible damage and short-term repair, while monitoring systems, data continuity, and early intervention receive limited and unstable support. Ecological pressure builds across years, yet decisions often arrive only after critical thresholds have already been crossed, raising the scale and cost of recovery. Environmental decline becomes harder to reverse, and coastal economies face greater exposure. Younger Australians risk inheriting coastlines with weakened ecological function and fewer viable options to prevent further degradation.

### The potential of Future Generations Policy to intervene

A Future Generations Policy approach shifts coastal governance toward earlier action in the degradation cycle. Strong monitoring systems, stable funding, and preventative decision-making allow governments to intervene before ecological damage becomes severe. These settings support healthier coastal ecosystems, more resilient local livelihoods, and continued access to places that anchor community identity and wellbeing.

## Today's marine conservation ecosystem

# Through Dee's Eyes

**Dee (she/her), 16**  
Karna Country  
(Adelaide, South Australia)

Australian summers carry a certain promise: long bright days, salt on skin, beaches that feel endless. For Dee and her friends, this promise shaped childhood itself. Adelaide's coastline was more than scenery. It was ritual, and relief. She calls it her "natural therapy. The one thing that heals me."



That promise began to fade in 2025, when algae blooms reached South Australia. The early reports felt distant, until her treasured beach changed from "crystal blue and golden sand" to something "brown and smells like dead fish." "The beach looks so depressed right now," she says, searching for words that match the feeling. Even swimming became unsafe. Her most recent attempt left her itching and nauseous.

For Dee, the loss feels personal and familiar. She grew up with disaster in the background: bushfire evacuations, smoke-thick skies, and her father's memories of the 1983 Ash Wednesday fires that led him into the Country Fire Service. The coastline's collapse feels like catastrophe returning in a new form.

At 16, Dee moves readily through conversations many adults still avoid. She grew up in a home where delicate topics were spoken aloud. Her mother, a veteran community organiser, raised her among "incredible women and trans people who taught me that sensitive topics are something that I can engage with." From that environment, and from marching at the frontlines of pro-choice advocacy, she gained both conviction and fluency. "I wish more people felt they could talk about these topics. Maybe we wouldn't be where we are." That upbringing shaped a commitment she carries forward. "No matter how much exposure I get, I will always feel passionate and

emotional and affected." She rejects the idea that passion should be restrained. "Showing that you really care needs to be normalised."

Her story reflects a generation growing up inside a widening gap between the world they were promised and the one they are inheriting. They carry consequences created long before they were born, often with the expectation that they will absorb the impact quietly. The collapse of Dee's beach shows how the cost of inaction appears first in the places young people are meant to inherit. When she speaks of the coastline, she is sounding an alarm. "It's our life. My happy place. Where I reset. To see it in such distress. I don't know where to go anymore."

Policy, for Dee, is not a distant debate. It is dead fish on golden sand. It is losing the only place she feels whole. It is watching a world she assumed was stable shift beneath her feet. Her plea is disarmingly simple: "Go look at the beach." The urgency is now widely recognised, though it took visible damage to make it undeniable. What remains unresolved is whether that recognition will translate into sustained, long-term commitment, or whether attention will fade as the crisis slips from view.

In Dee's world, policy is personal, grief is intergenerational, and the demand for change grows from a simple instinct: to keep a place alive long enough to pass it on.



## Today's policy landscape: South Australia's marine environment

South Australia's State of the Environment Report explains why ecological decline reached public beaches before decisive intervention followed. Biodiversity is falling, habitats are contracting, and several coastal ecosystems that store carbon and support marine life are nearing collapse.<sup>149</sup> As these systems degrade, ecological stability weakens and the state's capacity to respond to climate risk diminishes.

Some progress has been achieved through Indigenous Protected Areas, but broader pressures continue to damage South Australia's marine systems. Coastal development, dredging, nutrient and pesticide runoff, and invasive species place sustained stress on fragile ecosystems. 19 ecosystems are now classified as "in collapse."<sup>150</sup> These pressures persist because governance remains fragmented and intervention often begins only after visible damage occurs. Where coordination and sustained commitment exist, ecological decline can stabilise and recovery becomes possible.<sup>151</sup>

Current policy ambitions sit uneasily within this context. Australia's Strategy for Nature 2024-2030<sup>152</sup> commits the country to halting and reversing biodiversity loss by 2030, and Adelaide's designation as the world's second National Park City<sup>153</sup> demonstrates how coordinated urban action can shift environmental outcomes. Yet much of Australia's environmental governance still rests on an outdated

legislative foundation. The Environmental Protection and Biodiversity Conservation Act (EPBC Act),<sup>154</sup> introduced in 1999, primarily assesses environmental harm after it occurs.<sup>155</sup> Enforcement remains limited, processes are slow, and coordination across jurisdictions is weak, leaving preventative action structurally underpowered.

The spread of algal blooms illustrates the consequences of this reactive approach. Scientists warned for decades<sup>156</sup> that marine heatwaves,<sup>157</sup> nutrient runoff,<sup>158</sup> and ocean stratification,<sup>159</sup> would create conditions for widespread blooms, with risks to marine ecosystems and human health.<sup>160</sup> Yet monitoring systems and marine research did not receive sustained investment.<sup>161</sup> Preventative capacity remained limited even as risks escalated. Evidence also shows that intervention can succeed when resources and coordination align. Reef Builder, an AUD \$20 million initiative by The Nature Conservancy and the Australian government, restored 40 hectares of near-extinct shellfish reefs while generating local employment.<sup>162</sup>

South Australia's coastal ecosystems now face escalating pressure, and Australia continues to record among the highest rates of biodiversity loss globally.<sup>163</sup> Scientific monitoring, ecological restoration, and coordinated governance are no longer optional. They form the foundation of any credible strategy to protect marine ecosystems and the ecological services that future generations will depend on.



## The value of a future generations approach

Australia's coastal systems are changing faster than governance responses. Where intervention begins only after visible damage appears, prevention has already slipped out of reach. Algal blooms, habitat loss, and declining water quality develop gradually, often detected early through scientific monitoring and local observation. Yet policy action usually arrives only after beaches close, ecosystems fail, or health risks emerge. By then, recovery is slower, more expensive, and sometimes no longer possible.

A Future Generations Policy approach addresses this timing problem by changing how decisions are sequenced. Monitoring, applied science, and local observation become permanent features of governance rather than temporary initiatives. Early intervention allows governments to act while

ecosystems still retain adaptive capacity. These conditions increase the chances of containing or reversing damage before it reaches shared spaces and human health, helping communities maintain coastlines as ecological and social assets.

Experience in other contexts shows that earlier action is achievable. In the Baltic Sea region, Sweden's MARE research program<sup>164</sup> sustains long-term scientific modelling that supports coordination, shared evidence, and early-response. In Fiji, locally managed marine areas<sup>165</sup> give communities ongoing authority to observe ecological change and adjust management practices as conditions evolve, supporting continuous stewardship instead of post-impact repair.

[→ Further detail on these examples is provided in the Policy Innovation Library](#)

The following analysis applies Future Generations Policy Analysis (FGPA) to Australia's National Science Statement, A Future Made in Australia, to assess the trajectory it sets for coastal monitoring, intervention, and recovery.

### Case Study: The National Science Statement - A Future Made in Australia 2024

Australia's National Science Statement<sup>166</sup> highlights a persistent gap between scientific knowledge and policy action. Environmental laws can define thresholds, but effective protection depends on governments having the capability and continuity to act on evidence early. The Statement positions science as national infrastructure, essential for sustaining long-term social, economic, and ecological resilience.

The Statement outlines five strategic imperatives<sup>167</sup> designed to strengthen this capability. These include building strong research institutions, developing a future-ready scientific workforce, and ensuring that evidence informs policy and investment decisions. These priorities aim to strengthen the role of science within national decision-making systems.

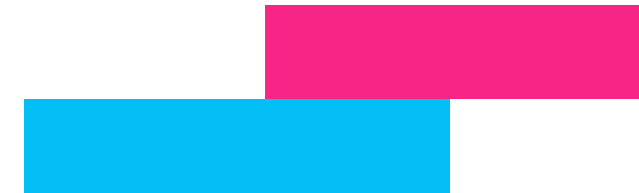
At the same time, structural tensions remain. A stronger focus on industry-oriented breakthroughs<sup>168</sup> risks sidelining basic research,<sup>169</sup> which provides the foundation for applied innovation. Without clear safeguards for discovery science, short-term incentives can weaken long-term research capacity that environmental monitoring, technological development, and evidence-based policy depend on.

The central challenge lies in translating scientific insight into timely action. When institutions cannot sustain that translation across electoral cycles, warnings remain recorded but unacted upon, allowing preventable environmental harm to continue.

## A Future Generations Policy Lens on Australia's National Science Statement

Fairness Dimension	Alignment	Explanation
<b>Life Stage Equity</b>	→ Misalignment	When decline becomes visible only after damage is entrenched, young people encounter environmental loss during formative stages of life, shifting the baseline conditions through which childhood and connection to place are experienced.
<b>Distribution Across and Within Generations</b>	→ Misalignment	Reactive coastal governance concentrates degradation in particular regions and communities, carrying forward place-based inequalities in environmental quality, health conditions, and local economic stability.
<b>Future Opportunities and Path Dependency</b>	→ Misalignment	Delayed intervention increases the likelihood ecological systems move beyond easy recovery, narrowing future policy options, and locking governments into containment, restoration, or managing decline.
<b>Proportionate and Justified Trade-offs</b>	→ Partial Alignment	Prioritising short-term responsiveness defers ecological and fiscal costs rather than avoiding them broadening the scale and complexity of obligations passed to future generations.
<b>Precautionary Approach</b>	→ Partial Alignment	Governance oriented toward responding to visible harm limits the use of early warning signals, increasing the risk that future cohorts inherit environments less responsive to incremental adjustment.

# Our opportunity to shape Australia's future



When the capacity to anticipate environmental harm is not sustained, future cohorts inherit coastlines only after degradation becomes visible. Short funding cycles for science, fragmented monitoring systems, and event-driven decision-making weaken the evidence base that early action depends on. As monitoring gaps widen, policy options narrow and governments fall back on costly, reactive interventions.

A Future Generations Policy lens focuses attention on how scientific evidence, monitoring systems, and decision authority are sequenced against ecological timeframes. When these elements are aligned, governments can intervene earlier, while preventive options remain viable and ecosystems retain the capacity to recover. When they are not, responsibility shifts to future generations who must manage damage that could have been prevented.

The two speculative futures below, inspired by Dee's story, explore how coastal governance and environmental conditions could diverge by 2040 under continued trajectories or redesigned policy frameworks.



## ■ Speculative futures

### A coastline abandoned and a community displaced

It's 2040, and the beach no longer appears on maps. Years of unchecked algal blooms have turned the water thick and murky, the shoreline crusted with the remains of marine life that never recovered. The Great Southern Reef collapsed in the early 2030s, its kelp forests reduced to drifting fragments that wash ashore like dark, tangled debris. Wetlands dried out or eroded, leaving salt scars that stretch inland.

Ecological collapse reshaped the local economy and culture. Fisheries declined as breeding grounds disappeared and fish stocks failed to recover. Small boats were sold, processing sheds closed, and the harbour gradually fell quiet. Local seafood vanished from markets and restaurant menus, replaced by imported products trucked in from distant coasts. What once anchored regional identity now survives mainly in stories older fishers tell children who have never tasted locally caught abalone or crayfish.

Councils issued permanent "no swimming" notices. Protective fencing now runs the length of the beach, punctuated by government-issued signs warning visitors of contamination risks. Children grow up avoiding the water and learning about coastal hazards instead of marine ecology. Families move inland. Local economies contract. Government agencies quietly revise coastal recovery targets as collapsed ecosystems are reclassified as "unrecoverable." Managed decline enters policy language and soon becomes planning orthodoxy.

Dee drives past the beach with the windows closed. Her sanctuary now lives only in memory. The loss settles quietly into daily life, yet feels heavier with each passing year. A generation grows up knowing the burden of repair will fall even harder on those who follow, with fewer living examples of what once sustained them.

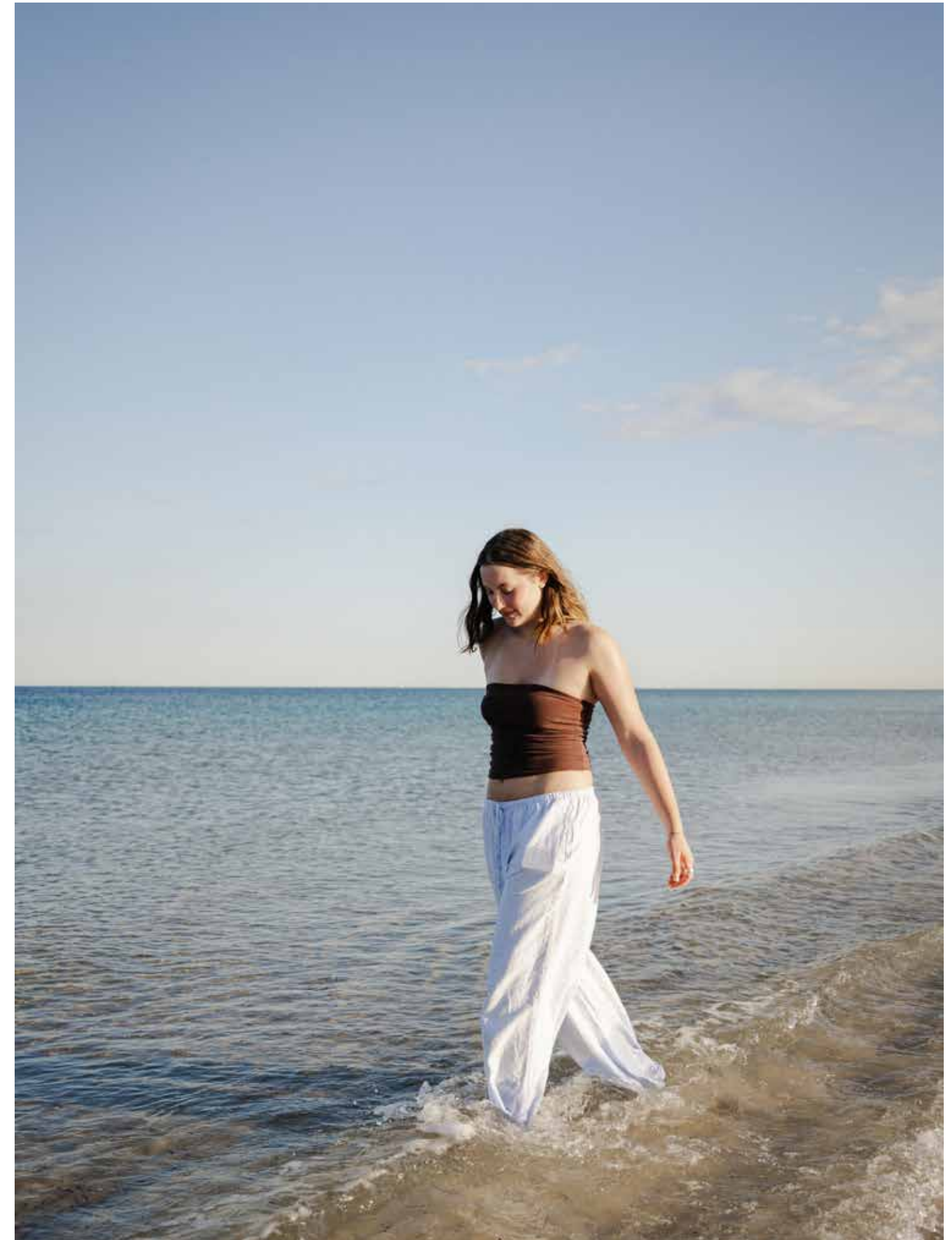
### A coastline restored and a community renewed

It's 2040, and the coastline that once broke Dee's heart has become a symbol of collective renewal. Marine life has returned, and species that struggled in the 2020s now thrive in restored ecosystems. Kelp forests along the Great Southern Reef sway again in dense underwater canopies. Oyster and shellfish reefs have also been rebuilt at scale, filtering the water column, consuming algal cells, stabilising sediments, and providing habitat for juvenile fish. What was once treated as environmental repair is now understood as rebuilding life-support infrastructure: clean water, food webs, and ecological balance.

Wetlands expanded during the 2030s now reduce nutrient runoff before it reaches the sea, lowering the conditions that once fuelled harmful algal blooms. River catchments are co-managed across state boundaries, with clear accountability for downstream impacts. The interdependence between paddocks, rivers, estuaries, and reefs is embedded in shared water-quality targets and coordinated governance.

The transformation extends beyond ecology. Marine sanctuaries are co-managed through deep partnerships between Indigenous custodians, scientists, councils, divers, and local volunteers who share authority and responsibility. Economic and ecological stability reinforce one another. Coastal towns support livelihoods in kelp and shellfish aquaculture, habitat restoration, community science, and environmental education. Restoration has seeded new forms of local enterprise, from regenerative tourism to small blue-carbon cooperatives, showcasing how ecological repair strengthens food security and regional prosperity.

The anxiety once tied to loss softened into pride. Caring for place has become part of how communities sustain wellbeing and the foundations of life. Dee, now an adult, swims again without fear. Her beach has returned as a sanctuary, intentionally protected and biologically alive. For the next generation, recovery has replaced loss.



## Portrait 7 Nick



# Designing a Circular Waste System

### The policy trajectory of Australia's waste system

Nick's story describes a waste system designed to remove materials rather than retain their value. Once disposed of, materials leave domestic production cycles, weakening incentives for recovery, reinvestment, and downstream accountability. Regulatory and commercial settings still make disposal the simplest and lowest-risk option, even as waste streams grow in volume and technical complexity. Recovery and onshore processing face higher costs, uncertain demand, and fragmented policy support, which limits their ability to scale. Innovation slows and Australia's economic leverage over material flows weakens. Environmental, fiscal, and strategic costs shift forward, leaving fewer tools to manage materials within the national economy.

### The potential of Future Generations Policy to intervene

A Future Generations Policy approach redesigns waste governance around long-term stewardship of material value. Durable standards, aligned regulation, and stable investment signals for domestic processing would reshape the incentives that guide material flows. Waste streams could function as reliable inputs for circular industries, supporting skills development, anchoring capital, and strengthening industrial capability onshore. This direction preserves economic opportunity while reducing the environmental and financial liabilities passed to future Australians.

## Today's approach to waste management and circular economy

# Through Nick's Eyes

**Nick (he/him), 29,**  
Eastern Kulin Nation  
(Melbourne, Victoria)

Nick never expected to work in waste. He studied international relations, worked in hospitality, and helped build artificial wave pools. The pull came later as he watched his father, a veterinarian who refused to look away from the world's waste, turn an unlikely passion into a family vocation. "My dad brings business experience; I bring design and marketing. It's a good mix of practical and new thinking." Together they now lead the Australian arm of an international clean tech company seeking to solve a waste crisis growing as quickly as the population. Their focus is transforming biosolids, what every human leaves behind each day, into usable resources, a process far removed from most Australians' daily awareness.



Nick has come to realise that Australia's waste system depends on that distance. "We've built a whole system designed to hide waste," he explains. "It's too easy for us to forget about our waste." Waste disappears down pipes, into trucks, and behind industrial fences. Public attention fades with it. "When you can't see something, you stop caring about it," Nick says. "Once it's out of sight, out of mind, yet it still impacts our environment and the community down the street." In policy circles, sustainability experts often speak to one another without widening the conversation to a broader audience. "We talk in our silos and think we're being heard. Meanwhile, the gap between the conversations we need to have, and our behaviour widens each year."

Inside that gap sits a policy environment shaped for familiar risks and familiar technologies. "We used to be a go-getter country," Nick says. "Now we're more of a hold off and wait." Small innovators feel the effects most sharply. Pilot projects stretch on, support weakens, and discussions repeatedly return to the same question: whether the solution already operates somewhere overseas.

Nick refuses to lose faith. He sees a workforce searching for purpose, engineers drawn to resource

recovery once they recognise how closely it connects to energy and sustainability, and families like his proving that innovation can span generations. "We focus on the bad," he says, "but there is a lot of good work happening."

Over time, Nick has come to believe the barrier is less about technology than permission: the signals that determine when innovators can scale and when risks remain contained often remain unclear. Without clear signals, waste returns to the ground as methane and microplastics, markets fail to form, and domestic capacity weakens. The consequences rarely stay hidden. As Nick puts it, even when waste disappears from view, "it still impacts our environment and the community down the street." With the right architecture, waste becomes a resource, businesses scale, and talent stays onshore.

"Some people say we can educate our way out of this, others say we can technology our way out, I think we need both," Nick says. Australia has the ideas and talent. What it needs is a system willing to move at the pace, and with the urgency, that the problem demands.



## Today's policy landscape: Australia's waste management landscape

Australia's waste regulations were originally designed to protect public health risk and manage disposal.<sup>170</sup> They remain oriented toward containing harm instead of recovering material value. Approval processes for waste-to-resource infrastructure are often lengthy and complex, deterring investment and slowing the development of new facilities.<sup>171</sup> For innovators like Nick, this means extended pilot phases, uncertain investment horizons, and persistent difficulty moving from demonstration to commercial scale.

These constraints reflect a broader structural feature of the system. Wastewater and biosolids governance has historically operated with limited public engagement, with public visibility and scrutiny only increasing more recently.<sup>172</sup> This context has contributed to slower institutional adaptation and evolving regulatory expectations. In practice, the deployment of recovery technologies can be slowed by approval processes and evolving policy frameworks. Some states have begun investing in advanced biosolids and wastewater treatment facilities, yet adoption remains slow and uneven without clearer national direction or incentives.<sup>173</sup>

Australia currently operates 5,509 waste and resource recovery facilities, including 1,272 landfills.<sup>174</sup> Despite this scale, the system remains organised around disposal rather than long-term resource management. Modelling shows that Greater Sydney's landfills could reach capacity by 2030,<sup>175</sup> pushing waste to regional and interstate sites. This shift would increase transport emissions, raise costs for councils and households, and transfer environmental burden onto regional communities.

Different states are experimenting with alternative approaches. Western Australia has invested in waste-to-energy (WtE) facilities that generate electricity by burning residual waste, with ash reused in construction materials.<sup>176</sup> Similar facilities have operated in Europe for decades.<sup>177</sup> However, evidence from countries such as Denmark shows that large WtE capacity can discourage resource recovery by creating constant demand for feedstock.<sup>178</sup> In response, Denmark has begun importing waste from abroad to maintain plant utilisation, raising concerns that disposal infrastructure can undermine circular economy goals.

Past policy decisions continue to shape present investment patterns. Landfill expansion and waste transport remain the lowest-risk options under existing regulatory and financial settings.<sup>179</sup> Recovery infrastructure struggles to attract capital at scale, reinforcing a system that favours disposal even as landfill capacity tightens.

At the same time, new waste streams are expanding rapidly. Solar panels, batteries, and electronic waste are increasing faster than processing infrastructure can be built. Several states have banned solar panels from landfill,<sup>180</sup> yet national recycling infrastructure remains insufficient to handle the growing volume. Compliance requirements therefore advance ahead of market readiness, shifting operational and financial risk onto waste operators and technology developers.

National policy signals an ambition to move toward circularity and domestic resource recovery, but governance remains fragmented.<sup>181</sup> States regulate waste systems independently, standards vary across jurisdictions, and market signals remain inconsistent. New South Wales introduced the Plastic Reduction and Circular Economy Act (2021), commonly known as the single-use plastics ban,<sup>182</sup> while other states have introduced similar measures with different scopes and timelines.<sup>183</sup> This patchwork approach creates uncertainty for innovators and investors.

The result is a widening gap between ambition and alignment. Innovators invest against shifting regulatory signals and uneven demand. Smaller and regional enterprises face greater barriers to scaling new solutions, while large incumbents are better positioned to absorb compliance risk. Without stronger coordination, Australia's emerging circular economy risks becoming narrower, less competitive, and less inclusive than its potential.



## The value of a future generations approach

Australia's waste system holds untapped economic and industrial value. Every waste stream represents a steady flow of materials that could support domestic manufacturing, skilled employment, and long-term investment. Yet current policy settings treat waste primarily as a disposal problem. Regulation and market incentives favour rapid removal and cost minimisation, weakening incentives to recover materials and manage them across their full life cycle.

A Future Generations Policy approach treats waste as long-term economic infrastructure. Aligning regulation, standards, and public investment with material lifespans would give firms clearer signals to plan, finance, and scale domestic recovery and processing capacity. Predictable recovery pathways

allow waste streams to function as reliable inputs for energy generation, construction materials, agriculture, and advanced manufacturing rather than residuals destined for landfill or export.

International experience shows what sustained policy alignment can achieve. In Taiwan, coordinated pricing, collection systems, and processing standards transformed the country from "Garbage Island"<sup>184</sup> into a globally competitive recycling and recovery industry.<sup>185</sup> In Denmark's Kalundborg's industrial area, firms exchange waste heat, water, and by-products as routine production inputs, embedding circular practices into everyday operations rather than relying on short-term pilot projects.<sup>186</sup>

→ Further detail on these examples is provided in the Policy Innovation Library

The following analysis applies Future Generations Policy Analysis (FGPA) to Victoria's Waste Reduction and Recycling Act 2021 to assess how its design may influence long-term material recovery, industrial capacity, and environmental outcomes.

### Case Study: Waste Reduction and Recycling Act 2021 (Victoria)

Victoria's Waste Reduction and Recycling Act 2021<sup>187</sup> is one of Australia's most significant attempts to shift waste policy from disposal toward material recovery and circular markets. The legislation introduced system-wide targets, standardised household recycling collections, and the establishment of Recycling Victoria<sup>188</sup> to coordinate reform. It also included funding to support business innovation and investment in new recovery infrastructure.

Recent policy changes have altered this institutional architecture. Following recommendations from the Silver Review on regulatory efficiency, the Victorian government announced that Recycling Victoria will be absorbed into the Environmental Protection Authority (EPA) as part of a broader economic reform agenda aimed at reducing the number of business regulators.<sup>189</sup> Other bodies, including Sustainability Victoria, are also being phased out under the same restructuring.<sup>190</sup>

These reforms aim to improve coordination and planning certainty within Victoria, which can support investment in processing infrastructure, product development, and workforce capability. However, national fragmentation remains a constraint. Waste standards, regulatory requirements, and market signals still vary across states, reflecting the decentralised structure of Australia's waste governance system and creating challenges for nationally coordinated circular economy markets.<sup>191</sup>

The Act has also drawn criticism for focusing primarily on downstream waste management.<sup>192</sup> While circular economy frameworks typically include upstream measures such as product design standards and extended producer responsibility,<sup>193</sup> these elements receive limited attention in the legislation.<sup>194</sup> As a result, the Act improves coordination and recovery capacity but leaves many of the structural incentives shaping production and waste generation largely unchanged.

## A Future Generations Policy Lens on the Waste Reduction and Recycling Act 2021

Fairness Dimension	Alignment	Explanation
<b>Life Stage Equity</b>	→ Partial Alignment	By embedding circular economy objectives in statutory institutions and system-wide targets, the Act stabilises capability pipelines across time rather than relying on episodic programs, which allows skills, regulatory learning, and institutional memory to be carried forward instead of resetting with each investment cycle.
<b>Distribution Across and Within Generations</b>	→ Partial Alignment	The Act redirects value creation toward domestic processing and innovation, yet uneven access to scale, capital, and approvals risks concentrating benefits among larger incumbents, shaping future circular markets that are narrower and less competitive than broad-based participation would allow.
<b>Future Opportunities and Path Dependency</b>	→ Positive Alignment	Legislating long-horizon circular objectives shifts expectations about infrastructure, materials, and market development, weakening default reliance on landfill and export pathways and expanding the option space that future governments inherit when responding to new waste streams and technologies. This flexibility narrows if waste-to-energy becomes a default end-point that locks in costly infrastructure and discourages higher-value recovery over time.
<b>Proportionate and Justified Trade-offs</b>	→ Partial Alignment	By encouraging investment ahead of mature markets and harmonised standards, the Act shifts uncertainty toward early-stage innovators and SMEs, with deferred costs likely to reappear later as public remediation, market consolidation, or missed domestic value capture.
<b>Precautionary Approach</b>	→ Positive Alignment	By intervening before landfill saturation and offshore dependency become irreversible, early coordination and investment reduce the likelihood that future governments inherit crisis-driven baselines requiring higher ongoing expenditure simply to maintain system function.

# Our opportunity to shape Australia's future



Within Australia's waste system, the intergenerational risk extends beyond rising volumes to the gradual loss of economic and governance control over material flows. When policy settings favour rapid disposal instead of sustained recovery, markets fail to develop, skills pipelines weaken, and domestic processing capacity remains thin. Short-term decisions taken to manage immediate pressures can narrow future options and raise the cost of later intervention. By the time impacts become visible, regulatory, industrial, and investment constraints may already be embedded.

A Future Generations Policy lens focuses attention on the infrastructure and incentives that determine where material value is retained or lost, and highlights where intervention can still preserve domestic control over material flows. Consistent alignment across regulation, investment, and national coordination can redirect those flows before structural limits take hold. The choices made now will shape whether future Australians inherit deferred environmental liabilities or a resilient circular economy supported by domestic industry, skilled workforces, and stable recovery systems.

The two speculative futures below, inspired by Nick's story, explore how material governance, economic capacity, and environmental outcomes could diverge by 2040 under continued trajectories or redesigned policy frameworks.

## ■ Speculative futures

### A future of waste crisis

It's 2040, and Australia's waste generation has nearly doubled. The country that once exported much of its waste now bears the full cost of decades of 'bury-and-forget' thinking.

Landfills have expanded into chains of capped mounds around major cities. Melbourne's largest site has become a rising mass of buried plastics and organics, releasing heat and gas into the surrounding landscape. Instead of building innovation hubs, Australia spent years constructing emergency trenches, transport corridors, and temporary fixes that absorbed public funds without altering the system's direction.

Many technologies designed for Australian conditions never progressed beyond pilot stages. Governments and industry waited for perfect solutions and, in their hesitation, delayed viable ones. International firms eventually acquired struggling startups and moved intellectual property offshore. Australia now imports expensive circular-economy technologies it once had the capability to develop and scale itself.

The economic toll is now evident. Waste management costs tens of billions each year, alongside rising environmental and public health impacts. Young engineers and entrepreneurs leave the sector in growing numbers, taking expertise and innovative capacity with them. Australia's reputation has shifted from the "lucky country" to the "wasteful country," defined by lost opportunity. None of this came as a surprise. The warning signs were visible for years, yet delay became the default response.

### A future of circular innovation

It's 2040, and Nick's younger cousin stands on the grounds of what used to be Melbourne's largest landfill. The heat that once rose from buried waste has disappeared. In its place stands the Asia-Pacific Circular Economy Innovation Hub, a broad campus where emerging technologies are tested, refined, and deployed into modular waste-to-resources systems serving cities and regional communities. What was once a monument to disposal has become a centre of regeneration.

The shift began when Australia stopped treating waste as something to hide and started treating it as material to manage deliberately. Policy, investment, and industry moved in the same direction. Landfills were gradually phased down through clear national pathways, while recovery infrastructure expanded across states. Technologies that once stalled at pilot stage finally moved to scale.

Companies like Nick's played a central role. Years spent working with biosolids and industrial by-products became valuable expertise as the system reorganised around recovery. The workforce evolved alongside it. Engineers became materials stewards, waste operators became resource technicians, and new careers emerged in circular manufacturing, advanced recycling, and materials redesign.

Regional cooperation followed. Australia helped establish Indo-Pacific platforms for workforce exchange, research, and technology deployment, accelerating circular solutions across neighbouring countries. Former landfill sites were transformed into renewable energy facilities, resource-recovery parks, and urban agriculture hubs. Materials that once leaked into oceans or settled underground now circulate through domestic industries.

By 2040, the system functions differently. Waste streams operate as reliable inputs for manufacturing, energy, and construction rather than residuals destined for burial. Reliance on landfill has dropped sharply. Circular industries anchor skilled employment and attract investment, while small and medium enterprises drive innovation across the sector. What began as a response to mounting waste pressure has become a defining feature of Australia's economic resilience.





**Portrait 8 Josh**



## Designing Education for Lifelong Capability

### The policy trajectory of education and training

Josh's story sits within parts of Australia's education system that still operate effectively under labour market uncertainty. Trade pathways build skills through paid work, supervision, and increasing responsibility. Learning remains closely connected to demand, and capability adjusts as conditions shift. Much of the broader education system follows a different model. Students are directed toward early specialisation and fixed credentials built on expectations of stable career paths. Policy incentives reward rapid completion and measurable outputs, concentrating financial and career risk at the beginning of working life. When labour markets change, these pathways offer limited flexibility, leaving many people with debt and qualifications that lose relevance faster than anticipated. The contrast reveals two logics operating side by side: one built for certainty, the other designed to function within change.

### The potential of Future Generations Policy to intervene

A Future Generations Policy lens reframes education around continuous capability development rather than early closure. Earn-and-learn models in the trades show how skills can grow through paid practice, mentoring, and staged progression, allowing learning to evolve as labour market demand shifts. Treating adaptability as a shared system responsibility would distribute risk more evenly between individuals, institutions, and employers. Education systems designed around progression, re-entry, and skill renewal strengthen workforce resilience and support longer working lives. Future generations inherit an education system designed to support continued learning as economies change, instead of relying on a single qualification earned at the start of adulthood.

■ **Today's approach to education**

# Through Josh's Eyes

**Josh (he/him), 27**  
Yolngu Country  
(Nhulunbuy, Northern Territory)

The first thing you notice is the heat. Forty degrees with humidity thick enough to taste. Josh and the crew stand shoulder-deep in a trench behind a community housing block in Nhulunbuy, repairing a sewage line. The air hangs heavy, the soil steams, and the work is the kind that tests a person. Josh doesn't mind. "If you stay long enough up here, you climb the ladder," he says. "The NT is pretty cowboy. If you're willing to have a crack, you can make it." There is a clarity to how things work in the Territory. You learn quickly because you have to. "Trades show you can learn while you work," Josh explains, rinsing off the red earth from his arms after his shift. "It's hands-on learning that uses both your body and your mind." The system rewards that approach. "You can upskill fast no matter what field you're in. You rock up, start learning, go to trade school and don't pay a dollar."



None of this was visible to him at eighteen. He had planned to be a chef until one term in a commercial kitchen made it clear that path was not for him. "Trying different trades taught me that all trades are challenging," he reflects, "but it helped me work out what mattered most to me." In many systems, that realisation would have cost years and a large debt. Here, it cost nothing. No loans, no stigma. Just information. He simply pivoted.

At 27, Josh owns his home on Yolngu Country and earns solid money maintaining the infrastructure that keeps schools, clinics, and housing blocks functioning across hundreds of kilometres. The work demands connection as much as technical skill, so he learned Yolngu language along the way. Given every option, he says he would choose the same path again.

The deeper turn in his story came earlier, long before the job and the house. As a kid "running amuck," testing boundaries and slipping into trouble, it was his grandmother who saw what he could not. "Nan gave me the idea to move," he recalls. She recognised the pattern: the people around him were "on their own path doing the wrong thing," nudging him toward a future he had not yet imagined. He left, first to Queensland, then north.

That instinct for practical learning began even earlier. His grandfather taught him to hunt, passing on lessons in reading a landscape, earning his place through effort, and absorbing knowledge quietly transferred from one generation to the next. The trades follow a similar rhythm. Apprentices learn from masters. Masters carry responsibility for those who follow. Capability moved through time and proximity.

While many of Josh's peers carry HECS debt for degrees they are no longer sure about, he has built something different: adaptability. He has tried several trades, earned while learning, shifted direction without penalty, and developed durable skills year after year. "Policymakers should understand that traditional education doesn't work for everyone," he argues. Apprenticeships, Josh maintains, do more than train workers and "deserve to be treated as equal to university pathways." They sustain knowledge, strengthen communities, and pass capability between generations. In the years ahead, that foundation may matter more than any single qualification.

## Today's policy landscape: Australia's education divide

Australia's education system operates through two distinct funding logics that shape how people access, finance, and value learning across their lives. One treats education as a shared public investment. The other treats it as an individual financial obligation carried into adulthood. This divide increasingly shapes who can adapt, who takes risks, and who carries the cost when labour markets change.

Vocational Education and Training (VET)<sup>195</sup> connects learning directly to employment through apprenticeships<sup>196</sup> and shared cost structures<sup>197</sup> that combine paid employment, supervision, and formal instruction. Higher education largely follows a different model. Through the HECS-HELP system,<sup>198</sup> individuals assume debt early in life in exchange for a qualification expected to deliver long-term career stability. For workers like Josh, the distinction matters. One pathway builds capability through practice and progression; the other often resets learning through new credentials, influencing both career mobility and long-term debt exposure.

Labour markets now move faster than the system that prepares people for them. Many young Australians enter occupations likely to transform or disappear within a decade,<sup>199</sup> yet education policy still centres on a single, early career choice. Graduates carry debt tied to qualifications that can lose relevance quickly, while employers increasingly seek adaptability, practical capability, and the capacity to retrain.

This tension reflects a deeper structural misalignment. Institutional incentives reward early specialisation and completion speed, while employers value iterative learning and skill renewal across working lives. Forecasts from the World Economic Forum indicate that nearly 4 in 10 core job skills will change by 2030.<sup>200</sup> CSIRO identifies sustained demand growth across care, digital, and cognitive work.<sup>201</sup> These signals are clear: the economy now operates through continuous transition, yet the education system still assumes predictability.

Financing mechanisms amplify this pressure. HECS-HELP<sup>202</sup> expanded access to university education, but its design concentrates financial risk at the start of working life. When indexation outpaces wage growth, graduates can see debt increase even while making repayments.<sup>203</sup> This dynamic discourages mid-career retraining and experimentation precisely when economies require it most. Recent reforms acknowledge these pressures,<sup>204</sup> yet the underlying financing architecture continues to place the burden of adaptation primarily on individuals.



## The value of a future generations approach

Australia's education system must prepare learners for labour markets defined by change. Yet much of its design still concentrates decision-making and financial exposure early in life, when information about aptitude, labour demand, and technological shifts is least reliable. Early specialisation increases the risk of skill mismatch and later correction, directing public resources toward retraining and remediation instead of sustained capability development.

A Future Generations Policy lens examines whether education systems distribute learning and risk in ways that remain workable across the life course. It shifts attention to sequencing, continuity, and the institutional settings that allow capability to grow alongside experience. Apprenticeships show how this can function in practice. Learning is embedded

in paid work, progression unfolds through stages of responsibility, and adjustment is possible without financial penalty. Investment is shared across individuals, employers, and government, creating pathways that remain responsive as labour markets evolve.

International systems illustrate how this design can be stabilised. Germany's Ausbildung<sup>205</sup> and Switzerland's apprenticeship model<sup>206</sup> integrate vocational and academic routes within a single framework. Predictable funding, continuous mentoring, and clear progression pathways support steady skills development while labour markets evolve, maintaining workforce capability across the life course and across generations.

→ Further detail on these examples is provided in the Policy Innovation Library

The following analysis applies Future Generations Policy Analysis (FGPA) to the Australian Apprenticeships Incentive System to assess the trajectory it sets for adaptive capacity beyond credential acquisition.

### Case Study: The Australian Apprenticeships Incentive System

The Australian Apprenticeships Incentive System,<sup>207</sup> introduced in 2022 and updated in 2025, provides financial support to employers and apprentices in priority occupations.<sup>208</sup> The program strengthens earn-and-learn pathways, enables apprentices to move between employers without losing training progress, and reduces reliance on student debt during skill development.<sup>209</sup>

Completion rates depend on more than financial incentives. Culturally safe workplaces, consistent mentoring, and wrap-around support significantly improve retention and long-term participation, particularly for First Nations learners and women.<sup>210</sup> Where these conditions are present, apprenticeships help build local capability and strengthen community workforces. Where they are absent, trained workers often leave in search of more stable opportunities.

Frequent policy adjustments have also created uncertainty for employers and training providers.<sup>211</sup> Incentives alone cannot address cost-of-living pressures, inconsistent supervision, or workplace discrimination. In regional and remote areas, limited access to training providers and suitable workplaces can further constrain participation and completion.<sup>212</sup>

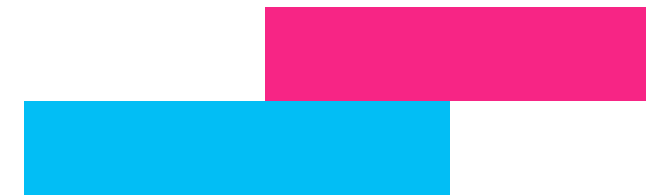
Recent policy extensions and additional allowances<sup>213</sup> signal growing recognition of these challenges. However, stable funding, consistent program settings, and reliable training access remain essential to sustain apprenticeship pathways and workforce development.

## A Future Generations Policy Lens on The Australian Apprenticeships Incentive System

Fairness Dimension	Alignment	Explanation
<b>Life Stage Equity</b>	→ Positive Alignment	When earn-and-learn pathways are stable, early-career workers build income and skill simultaneously, allowing capability to stack up earlier in life and be carried forward instead of being delayed through debt.
<b>Distribution Across and Within Generations</b>	→ Partial Alignment	Targeted support reduces entry barriers, yet uneven access to culturally safe supervision and quality workplaces limits completion, passing forward local skill gaps despite national equity gains.
<b>Future Opportunities and Path Dependency</b>	→ Partial Alignment	Mobility between employers expands opportunity, but frequent policy recalibration embeds short horizons, forcing future governments to manage entrenched volatility and ongoing subsidy cycles that intensify disruption.
<b>Proportionate and Justified Trade-offs</b>	→ Positive Alignment	Shared-cost design balances public and employer investment, building long-term capability. Unstable horizons, however, risk deferring fiscal exposure instead of securing durable infrastructure.
<b>Precautionary Approach</b>	→ Positive Alignment	Incremental reforms reduce attrition risk and rebuild mentoring density across cohorts. Sustained continuity would allow resilience to compound before labour-market shocks intensify.



# Our opportunity to shape Australia's future



Australia's education system reflects policy choices about where uncertainty sits. Current settings concentrate decision-making and financial risk early in life, before reliable signals about labour demand, technological change, or individual aptitude emerge. When mismatches appear, the system relies on later correction through retraining and remediation. Public investment shifts toward repair, while individuals absorb the consequences of early, difficult-to-reverse choices.

A Future Generations Policy lens shifts attention to how learning can develop across the life course. Education systems that support skill development alongside work, experience, and changing demand reduce reliance on repeated intervention. Apprenticeships show how this can function in practice: learning progresses through paid work, responsibility expands gradually, and investment is shared across individuals, employers, and government. The broader policy question is whether these principles remain confined to a single pathway or reshape the education system itself, determining whether future generations inherit institutions capable of continuous adaptation or systems that rely on repeated correction.

The two speculative futures below, inspired by Josh's story, explore how education system adaptability and risk distribution could diverge by 2040 under continued trajectories or redesigned policy frameworks.

## ■ Speculative futures

### An education system that traps people in wrong choices

It is 2040, and Josh's niece finishes a nursing degree carrying a crippling HECS debt. By her second year she knew she preferred aged care over acute care, but the degree structure did not allow early specialisation. Graduate programs required emergency experience she did not have. She accepted the position available, not the one she wanted. Debt narrowed her options.

Working near her family in regional Queensland proved impossible. Lower wages could not cover repayments and rising rent. At 28, she discovers a passion for mental health nursing. Retraining would mean taking on new debt. She stays where she is, confined to a choice she made years earlier when she had little information about the path ahead.

Across the economy, the pattern has become familiar. Law graduates leave the profession within a few years under the weight of debt and uncertain prospects. Teaching faces high attrition as early-career educators burn out or move elsewhere. As experienced teachers retire, mentoring pathways weaken and institutional knowledge fades. Universities respond by expanding enrolments, encouraged by funding structures that reward intake more than long-term outcomes.

Debt has introduced rigidity into the system, and rigidity has created waste. An education architecture designed to expand opportunity now locks many people into early decisions that are difficult to revisit. By 2040, the cost of that design is visible in stalled careers, skills shortages, and a generation cautious about learning pathways that carry risk without flexibility.

### An education system that values adaptability

It is 2040, and Josh's niece is finishing school. She is interested in health and does not need certainty to begin. She starts a paid nursing apprenticeship at the local hospital, earning from day one while studying in short, intensive blocks. A year in emergency care helps her realise she prefers aged care. She switches pathways with no penalty, debt, or sunk costs. What she gains instead is information and transferable skills, the same advantage her uncle once received.

By 25, she is a registered nurse with five years of practical experience and no education debt. At 30, she decides to specialise in mental health and takes three months of paid learning leave through a portable training credit available to all workers.

Josh, now 55, runs his own plumbing business and employs four apprentices: two local young people and one mid-career teacher seeking a new direction. Wage subsidies support first-year apprentices across multiple industries, reflecting a policy shift that recognises workforce training as a shared national investment. Hospitals participate. So do law firms, schools, and engineering companies.

This system emerged after Australia confronted a simple question: if trades can educate people while they earn and without long-term debt, why should other professions operate differently? Policymakers recognised the constraint was structural. Funding models, institutional incentives, and qualification frameworks had prioritised early specialisation and university revenue over workforce adaptability. Reforms followed. Training costs were shared between employers and government, retraining pathways expanded, and mentorship regained status alongside formal coursework.

By 2040, cultural expectations have also shifted. "What do you want to be when you grow up?" has given way to "What do you want to try first?" Education now unfolds as a sequence of learning stages rather than a single high-stakes decision. Josh's grandmother's advice to move, try something new, and learn through experience has become embedded in the system itself. When his niece asks about the past, he tells her that people once chose a path at eighteen and hoped it would last a lifetime. He smiles and adds, "We changed that."



## Portrait 9 Alana & Zee



## Integrating Diverse Ways of Knowing

### The policy trajectory of knowledge recognition across systems

Alana and Zee's story reveals public systems built around a narrow definition of valid knowledge. This design shapes outcomes across education, health, and community services. Institutional rules favour standardisation, procedural certainty, and comparability. As a result, codified expertise receives formal recognition, while relational, cultural, and experiential knowledge often remains marginal. In education, this limits how capability is identified and supported early. In health, it narrows diagnosis and care pathways and weakens trust, particularly for Indigenous and neurodivergent people. When difference is treated as misfit rather than insight, support arrives late and often through crisis. Across systems, this pattern delays recognition, fragments coordination, and reduces institutional capacity to respond to complex, interconnected needs.

### The potential of Future Generations Policy to intervene

A Future Generations Policy approach frames knowledge plurality as a foundation of long-term national capability. Institutional design that recognises and integrates multiple ways of knowing can reshape how value is identified across education, health, environmental stewardship, and governance. Earlier recognition of difference strengthens diagnosis, improves learning pathways, and builds trust between communities and institutions. Policies that support cultural intelligence, relational knowledge, and lived experience alongside formal expertise expand the range of insight available to decision-makers. Future generations inherit systems better equipped to navigate complexity, coordinate across sectors, and sustain collective wellbeing.

■ **Today's approach to integrated knowledge systems**

# Through

# Alana & Zee's Eyes

**Alana (she/her), 43 & Zee (she/her), 23**  
 | Wodi Wodi Country, Dharawal Nation  
 (Bulli, New South Wales)

For much of her schooling, Zee felt the system had room for only one way of thinking and one kind of story. As a neurodivergent First Nations person, she spent years trying to fit herself into a model that did not accommodate her. Her questions were "too much," her movement "too distracting," and her culture "acknowledged only in selected weeks". "Too many of us survive school in spite of the system," she says.



Moving through such an environment also meant carrying two different timelines. One holds more than sixty-five thousand years of memory and responsibility. The other resets every few months through media storms and policy cycles. Despite the rigidity of the systems around them, Zee and her mother Alana have built successful careers in First Nations health and research. Their achievements reflect personal persistence and determination in the absence of strong systemic support, and they hope future generations will not have to push through the same barriers.

Alana saw the consequences of narrow system design in her daughter's schooling and now recognises the same pattern in health and family services. Subsidies, leave policies, and child protection frameworks appear comprehensive from a distance but reveal fractures up close. "If the principles and belief systems of policy do not match community ways and the inherent humanness in people, there is already a disconnect," Alana explains. Zee traces this disconnect to its outcomes: "If we had better systems to deal with interconnected issues like drug addiction or rising rates of child removal, we could intercept these generational cycles."

Through her work in First Nations Health, Alana has also seen what becomes possible when knowledge systems meet. Cultural medicines offer a different approach to care. "We could tackle chronic disease and mental distress in ways that restore connection and dignity," she says. A system shaped by this understanding would honour relationships instead of treating people as problems to fix. Education could follow the same logic, "co-designed with local communities, flexible enough to reflect each place, and grounded in relationships." Such an approach would help nurture generations "who are connected, well, and able to navigate complex challenges together."

Alana and Zee do not reject contemporary science. They call for integration. "Australia has an extraordinary opportunity," Alana says. "We live in a place where the world's oldest continuing culture meets rapidly evolving scientific and technological knowledge. When we combine ways of thinking that have stood the test of tens of thousands of years with contemporary evidence, we don't dilute either knowledge system. Our responses become more honest, more grounded, and more sustainable."

What they have learned is that program reform alone is not enough without deeper cultural change. "Seeing different ways of knowing as a strength rather than a threat is the real long-term benefit," they explain. "When we genuinely respect and resource Indigenous and Western knowledge as equal partners, we improve policies and services, and also shift our national story towards maturity, reciprocity and shared responsibility."



### Today's policy landscape: inviting insights from multiple knowledge systems

Australia's education system plays a decisive role in shaping whose knowledge is recognised as legitimate. Curriculum design defines what counts as credible knowledge and how capability is measured. These choices shape how difference is interpreted early in life. For students like Zee, they determine whether unique ways of thinking are cultivated as intelligence or managed as deviation.

Current curriculum and assessment frameworks continue to centre Western disciplinary knowledge as the primary pathway to progression.<sup>214</sup> Indigenous knowledge appears more often as contextual content than as a foundation shaping how learning is structured, assessed, and governed. Authority over curriculum remains highly centralised, leaving limited space for local adaptation or shared decision-making with Indigenous communities.<sup>215</sup>

This structure frequently shifts the burden of engagement onto under-resourced Indigenous individuals and organisations. Genuine integration requires Indigenous leadership, fair remuneration, and protection of cultural and intellectual property. It also requires non-Indigenous practitioners with the cultural capability and institutional time to build respectful, sustained partnerships.

Australia's endorsement of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)<sup>216</sup> reinforces the stakes. Article 14 affirms the right of Indigenous peoples to establish and access education in their own culture, including within mainstream systems.<sup>217</sup> When curriculum structures make this access difficult in practice, policy settings risk drifting away from these commitments.

Evidence from multiple sectors shows what becomes possible when Indigenous and Western knowledge systems operate as partners rather than hierarchies. Combining scientific methods with Indigenous relational understandings of land, health, and community has strengthened responses to complex challenges.<sup>218</sup>

Indigenous fire management provides one of the clearest examples. Traditional Owners and rangers bring deep knowledge of seasonal rhythms, vegetation patterns, and cultural responsibility that sustains healthy landscapes. When combined with satellite imagery, emissions modelling, and Western fire ecology, these practices have reduced the frequency and intensity of late-season wildfires, protected biodiversity, and lowered carbon emissions.<sup>219</sup> Savanna burning initiatives now generate accredited carbon credits while supporting Indigenous employment and land stewardship, producing environmental stability, local livelihoods, and cultural

renewal that reach far beyond land management.<sup>220</sup>

Similar principles are visible in education. Two-Way Science programs across northern and central Australia integrate Indigenous and Western knowledge systems within the same learning environment.<sup>221</sup> Evaluations show stronger attendance, deeper engagement, and improved scientific literacy among Aboriginal students, alongside greater cultural understanding among non-Indigenous peers.<sup>222</sup>

The same approach is transforming healthcare. The Birthing in Our Community model in Queensland demonstrates how knowledge partnership can reshape clinical practice. Through co-governance between Aboriginal Community Controlled Health Organisations and hospital providers, the program integrates Indigenous kinship-based knowledge with evidence-based maternity care.<sup>223</sup> The results include a 50% reduction in preterm births, higher rates of healthy birthweight, and a 63% reduction in child removals.<sup>224</sup> By centering cultural safety, family, belonging, and self-determination, the model strengthens trust while improving health outcomes.<sup>225</sup>

These examples point to a broader lesson for public systems. When institutions recognise and resource multiple knowledge traditions, they expand the range of insight available to decision-makers. Systems become more responsive to lived reality, more capable of navigating complexity, and better equipped to support collective wellbeing across generations.



## The value of a future generations approach

Public systems decide which forms of knowledge are recognised early, which remain marginal, and which surface only after failure or harm. When Indigenous or other relational and experiential ways of knowing are treated as supplementary inputs, decision-making narrows. Trust weakens, engagement declines, and institutions lose access to insights needed to anticipate risk, sustain wellbeing, and navigate complexity across long time horizons.

A Future Generations Policy approach positions knowledge plurality as a core system capability. It focuses attention on how curriculum, pedagogy, and assessment recognise different forms of knowledge from the start. It also examines whether governance in education, health, environmental management, and social services integrates diverse knowledge systems when defining problems, assessing evidence, and exercising authority. Without this integration, institutions tend to intervene late, responding only after exclusion has produced higher costs and weaker outcomes.

Experience elsewhere shows that integration can reshape system performance. In Aotearoa New Zealand, Te Kotahitanga transformed mainstream education by embedding Māori relational pedagogy into everyday teaching practice.<sup>226</sup> Engagement and learning improved as classroom relationships and expectations changed. A similar principle guides environmental governance through the Te Awa Tupua Act,<sup>227</sup> which recognises the Whanganui River as a living entity and requires decisions to draw on both Māori guardianship and Western legal frameworks.<sup>228</sup> Ecological health, cultural continuity, and legal accountability operate together within the same governance structure. In both cases, redesigning core institutional architecture strengthened legitimacy, coordination, and long-term stewardship across systems.

➔ Further detail on these examples is provided in the Policy Innovation Library

The following analysis applies Future Generations Policy Analysis (FGPA) to the Australian Curriculum to assess how system design may enable or constrain the integration of diverse knowledge systems over time.

### Case Study: The Australian Curriculum (Version 9.0)

Version 9.0 of the Australian Curriculum<sup>229</sup> increases the visibility of Aboriginal and Torres Strait Islander Histories and Cultures and supports national truth-telling objectives. However, the curriculum's underlying structure remains largely unchanged.

While Indigenous perspectives appear more frequently in learning materials, authority over what counts as valid knowledge continues to sit within Western disciplinary frameworks.<sup>230</sup> This limits the influence of Indigenous knowledge on assessment standards, learning progression, and the broader architecture of how capability is recognised.

Implementation also faces workforce constraints. Most teachers have been trained within Western pedagogical and assessment traditions and report limited preparation to work confidently with Indigenous knowledge systems. Time pressures, insufficient professional development, and restricted classroom autonomy make it difficult to redesign learning environments. As a result, many educators approach Indigenous content cautiously or engage with it only superficially.<sup>231</sup>

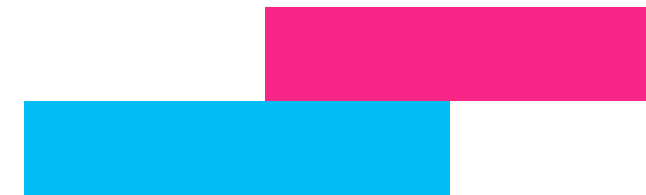
Political dynamics further shape how reform unfolds. Curriculum change occurs within short electoral cycles and highly contested cultural debates, encouraging cautious interpretation and conservative implementation.<sup>232</sup> Teachers are asked to deliver inclusion while operating within institutional structures that limit time, discretion, and authority.<sup>233</sup>

The result is a curriculum where Indigenous knowledge appears more prominently in content but has limited influence on how learning itself is defined, assessed, or valued.

## A Future Generations Policy Lens on the Australian Curriculum's inclusion of Indigenous knowledge

Fairness Dimension	Alignment	Explanation
<b>Life Stage Equity</b>	→ Misalignment	Slow and partial reform means successive cohorts move through education systems before broader ways of knowing are meaningfully recognised. As a result, generations of Indigenous and non-Indigenous Australians pass through schooling without developing a shared understanding of relational, cultural and place-based knowledge, leaving future institutions with reduced capacity for long-term judgment and adaptation.
<b>Distribution Across and Within Generations</b>	→ Misalignment	When decisions about what counts as knowledge sit within a single tradition, systems become less able to notice and use other forms of insight. Over time, this passes forward to institutions that struggle to recognise place-based and relational intelligence, narrowing who can meaningfully shape decisions and influence outcomes across generations.
<b>Future Opportunities and Path Dependency</b>	→ Partial Alignment	Current settings acknowledge the value of broader perspectives, but core curriculum structures remain unchanged. This keeps future governments oriented toward short-term responses to complex problems. As systems continue to rely on familiar forms of evidence, they gradually lose the ability to recognise other ways of understanding the world, reducing the range of futures they can realistically plan for or govern.
<b>Proportionate and Justified Trade-offs</b>	→ Misalignment	Favouring short-term certainty and stability over deeper structural change shifts costs into the future. Delaying investment in broader ways of knowing increases later spending on crisis response and remediation, leaving future governments and service systems with higher baseline costs and less room to prevent problems early.
<b>Precautionary Approach</b>	→ Partial Alignment	Steps to increase visibility of Indigenous knowledge provide some protection against complete erasure, but without securing its role in decision-making they remain vulnerable to reversal. If progress stalls or is unwound, trust, continuity and shared understanding can weaken beyond a point where rebuilding becomes slow and costly, passing forward systems with limited capacity for long-term stewardship.

# Our opportunity to shape Australia's future



Across education and other public systems, narrow definitions of knowledge quietly shape what institutions can see and respond to. When ways of knowing grounded in relationship, place, lived experience, or cognitive difference remain peripheral, people move through institutions without the shared interpretive capacity needed to navigate complexity together. Institutional judgement weakens, systems rely more heavily on late intervention, and future generations inherit structures that respond after harm has already taken hold.

A Future Generations Policy lens focuses attention on the design choices shaping how knowledge is recognised across public systems. Aligning curriculum governance and system standards with long-horizon capability building allows diverse knowledge to inform decisions earlier. Systems strengthen their capacity to anticipate risk, adapt practice, and maintain legitimacy across generations.

The two speculative futures below, inspired by Alana & Zee's story, explore how system-wide capability could diverge by 2040 under continued trajectories or redesigned policy frameworks.

## ■ Speculative futures

### A future of continued exclusion

It is 2040, and Australia is still governed by systems that never learned to look beyond the short term. Institutions cling to inherited routines, mistaking predictability for resilience. Education continues to prioritise compliance over curiosity. Health systems remain rigid and episodic, intervening late and often only after harm has taken hold. People move through services as cases rather than relationships. Preventable illness, mental distress, and crisis-driven care have risen as public spending expands around response rather than prevention. Families and communities carry the costs of models that disregard culture, connection, and the wider conditions that shape wellbeing.

Governance now struggles to operate in a world defined by volatility. The absence of Indigenous leadership and long-horizon ethics in decision-making has left policy reactive and fragmented. Climate shocks, demographic shifts, and workforce shortages expose the limits of systems designed for stability. Institutional responses continue to lag behind lived realities, widening the distance between community knowledge and formal authority. Trust erodes as people encounter services that function unevenly, if at all.

By 2040, exclusion is embedded in the country's institutional architecture. Australia never moved beyond symbolic recognition toward genuine partnership with its oldest knowledge systems. What might have strengthened resilience remained unrecognised. Communities now navigate increasingly complex futures within systems that were never built to hold them or uphold responsibility across generations.

### A future of integrated knowledge

It is 2040, and the country that once treated Indigenous knowledge as an adjunct now stands as a global example of governance grounded in multiple ways of knowing.

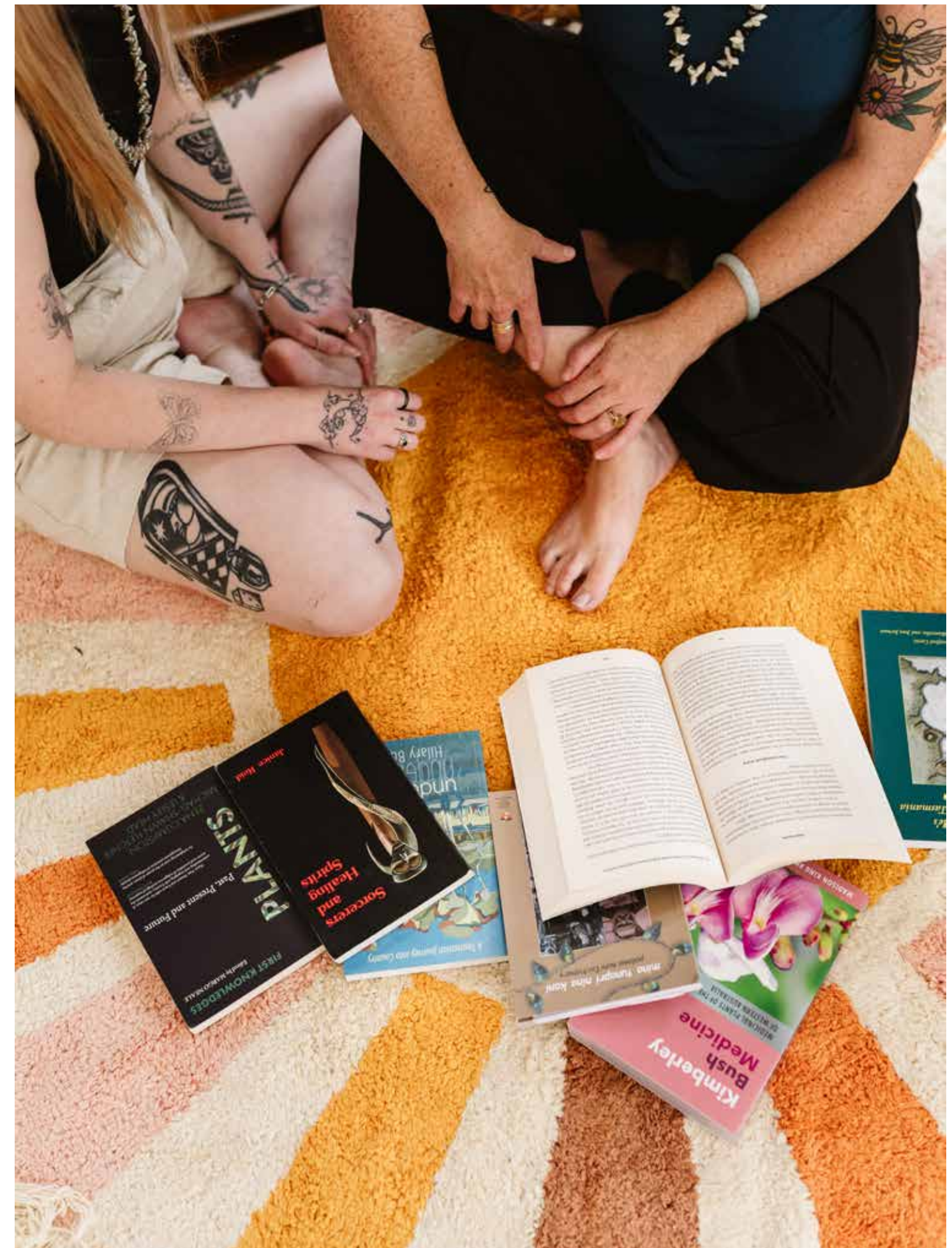
The shift began in education. Schools partnered with local communities to centre Indigenous pedagogies, reshaping learning around place, relationship, and responsibility. Difference came to be recognised as capability rather than deviation. Assessment expanded beyond standardised metrics to value story, art, care, and custodianship, and time on Country gained recognition as rigorous learning.

Health systems changed in parallel. Pregnancy, mental distress, and chronic illness are now addressed through communal and preventative models rather than narrow clinical pathways. Care prioritises continuity, dignity, and relationship, with community-governed services reducing crisis intervention and improving long-term outcomes.

Governance itself was redesigned. Indigenous and Western knowledge stood as equal partners in shaping policies that endure. First Peoples' law, ethics, and responsibility guide purpose and direction, while data, tools and scientific innovation support implementation. Cultural medicines work alongside Western clinical care under Indigenous governance, and evidence-based teaching sits within local language, lived history, and land-based learning.

Institutions now adapt to the communities they serve. Long-term planning replaced reactive cycles, with sustainability, intergenerational equity, and responsibility to Country guiding decision-making.

The cultural shift reshaped national identity. Australia came to treat its diverse knowledge systems as national assets. Difference became strength. Shared responsibility became the norm. Wellbeing now grows from foundations designed to endure across generations.





**Portrait 10 Jamie**



## Honouring Communities through Energy Transitions

### The policy trajectory of Australia's energy transition

Jamie's experience in the Latrobe Valley describes an energy transition governed primarily as an infrastructure challenge, even though its effects unfold through labour markets, institutions, and community identity. Policy progress is measured through visible outputs such as plants closed, renewable capacity installed, and capital deployed. Far less attention goes to maintaining regional capability. When transition planning focuses on delivery targets alone, workforce pathways weaken, institutional knowledge disperses, and community confidence erodes. Reporting cycles reduce long regional transitions to short administrative milestones. Economic change continues, yet the social foundations required to sustain it receive little coordinated support. As national attention shifts elsewhere, regions are left with diminished capacity to adapt, rebuild trust, or remain active participants in the emerging energy economy.

### The potential of Future Generations Policy to intervene

A Future Generations Policy lens treats continuity as a public asset within transition planning. Coordinating plant closures, investment flows, and workforce development would help retain skills, institutional knowledge, and regional confidence. This approach embeds social capability alongside physical infrastructure. Success is measured through the durability of regional participation in the new energy economy, ensuring that communities central to Australia's industrial past remain positioned to contribute to its energy future.

■ **Today's approach to a just transition**

# Through Jamie's Eyes

**Jamie (he/him), 53**  
Gunaikurnai Country  
(Traralgon, Victoria)

For more than fifty years, Jamie's family has been anchored in the Latrobe Valley, a place where identity, livelihood, and national purpose were once tightly interwoven. His parents migrated from the UK when he was two, drawn to an Australia that promised stability through industry. His wife was born in a town that no longer exists, replaced by an open-cut mine that fed Victoria's demand for electricity. Their lives, like thousands of others in the Valley, were built around work that kept the lights on for millions and offered a clear sense of contribution as they powered a nation.



This history is what makes one particular interaction linger in his mind. Someone asked where he worked and he replied, "Loy Yang B." The reaction revealed a growing prejudice. The woman "totally berated me and then stormed off after I told her I worked at a coal station," he recalls. "Maybe I should have said I was a brain surgeon." The criticism mattered less to him than what it revealed: a quiet rewriting of who deserves dignity in Australia's future. "Coal's a dirty word now."

Jamie is not resisting change. He knows the shift is underway. Closing the coal stations "could be a good thing," he says, "if new and better opportunities are made available." His concern lies in how the transition unfolds. He holds to a simple expectation: that a lifetime of work should count for something, and that communities who powered the country for decades should not be discarded the moment national priorities begin to shift.

The rupture he describes is not between coal and clean energy. It is between eras; an Australia built through industrial labour and an Australia that

speaks of the future as though those workers no longer exist. Jamie has lived through the turbulence of privatisation, the erosion of apprenticeships, and the weakening of worker protections. He watched manufacturing collapse and investment drift offshore, each shift pushing the Valley further from the centre of decisions that continue to shape its fate. It all "feels like we're getting hung out to dry," he says. Decisions are made far from the places that carry their consequences. Workers who sought stable jobs and decent lives fall through the gaps of systems designed for efficiency rather than continuity.

Jamie's story reminds us that energy policy is never only technical. It shapes identity, belonging, and the intergenerational contract between those who built the system and those who inherit it. His experience echoes across communities like the Latrobe Valley. What he asks for is simple: a transition that honours the work already done and ensures the Valley is not asked to pay twice, once for powering the country and again for a future that moves on without them.

## Today's policy landscape: Australia's energy landscape

Australia's move toward net zero is reshaping labour markets, institutions, and regional economies. In regions where closures concentrate, such as the Latrobe Valley, the transition tests whether national planning can deliver structural reform while sustaining social and economic continuity locally.

Victoria's emissions targets<sup>234</sup> and the planned closure of brown coal power stations<sup>235</sup> concentrate disruption in a region that supplied low-cost electricity for decades.<sup>236</sup> Even the mechanics of exit remain unresolved. Mine rehabilitation raises difficult questions about long-term water supply, as proposed rehabilitation pathways require securing large volumes of water and navigating complex approval processes for access and allocation.<sup>237</sup> These uncertainties prolong risk for communities already navigating an unsettled future.

As coal assets wind down, the Latrobe Valley confronts more than an economic adjustment. The transition raises fundamental questions about regional identity, economic resilience, and how the risks and benefits of energy transformation are distributed.

Generational dynamics sharpen these tensions. Younger Australians often support rapid renewable expansion and see opportunity in emerging industries. Older workers whose livelihoods are more closely tied to legacy energy systems express greater caution.<sup>238</sup> These perspectives shape competing expectations about fairness, predictability, and security. When pathways remain unclear or uneven, trust in transition governance weakens and legitimacy erodes.

National policy settings add further complexity. The Net Zero Plan directs major investment toward renewable generation, large-scale storage, and clean industrial development,<sup>239</sup> including a AUD 2 billion Green Aluminium Production Credit<sup>240</sup> and a AUD 1 billion Green Iron Investment Fund.<sup>241</sup> At the same time, fossil fuel subsidies continue.<sup>242</sup> These mixed signals reduce long-term planning certainty for both regions and investors.

Labour dynamics reveal both risk and opportunity. Regions such as the Latrobe Valley hold diverse deep capability across trades, services, and technical roles.<sup>243</sup> This capacity strengthens the transition when new industries match existing skills, arrive early enough to absorb displaced workers, and provide accessible retraining pathways.<sup>244</sup> In the absence of coordinated timing and planning, workforce capability remains underused and regional exposure to transition shocks deepens across generations.



## The value of a future generations approach

Energy transition policy shapes more than emissions outcomes. It determines whether regions retain skilled workers, functioning training pathways, and institutional knowledge as industries change, or lose these assets when facilities close and national priorities shift elsewhere. When transition support is short-term, conditional, or triggered only at the point of closure, disruption repeats across communities. Workforce pipelines fragment, local employers disengage, and confidence in public planning weakens.

A Future Generations Policy approach treats transition as a multi-decade process of retaining and redeploying capability. It asks whether closure planning, investment decisions, workforce development, and regional economic strategy are coordinated to carry skills, occupational identity, and productive capacity into emerging industries.

Early planning grounded in local labour markets strengthens a region's ability to adapt without prolonged dislocation. Reactive responses raise adjustment costs and make subsequent transitions harder to manage.

International and domestic experiences show that different outcomes are possible. In Norway, the Government Pension Fund converts extractive revenues into a permanent public asset, supporting economic stability across generations.<sup>245</sup> Here in Australia, Collie's Just Transition Working Group demonstrates how regional governance can retain skills, sustain trust, and guide economic change over extended timeframes instead of allowing disruption to arrive all at once and leaving communities to absorb it.<sup>246</sup>

→ Further detail on these examples is provided in the Policy Innovation Library

The following analysis applies Future Generations Policy Analysis (FGPA) to Australia's current workforce transition arrangements to assess whether they support continuity across generations.

### Case Study: The Energy Industry Jobs Plan & Clean Economy Workforce Development Plan

Australia has introduced new policy tools to manage the workforce impacts of the energy transition. The Energy Industry Jobs Plan,<sup>247</sup> established under the Net Zero Economy Authority Act 2024,<sup>248</sup> provides the most structured national mechanism to support workers affected by coal and gas closures. When activated, the plan grants enforceable rights to redeployment, retraining, and career support, shifting assistance from discretionary programs to legal obligations.

The plan's scope remains limited. Activation occurs only when specific closures are announced, and support ends six months after a facility shuts down.<sup>249</sup> This narrow timeframe restricts the system's ability to address longer-term regional adjustment and raises concerns about whether transition support reaches future cohorts entering affected labour markets.

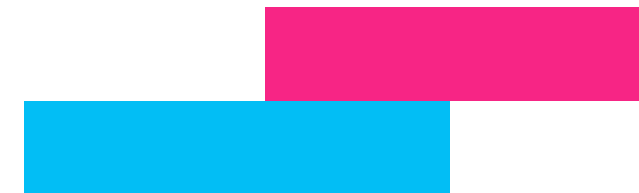
Victoria's Clean Economy Workforce Development Strategy 2023-2033<sup>250</sup> addresses a different part of the challenge. The strategy sets a ten-year horizon for workforce development in emerging industries such as renewable energy, electrification, and advanced manufacturing. Its anticipatory design improves skills planning and signals future labour demand.

Workforce planning alone cannot determine where new jobs appear. Without coordination between training systems, industry investment, and regional development, workers risk retraining for roles that do not materialise locally. These initiatives establish the foundations of Australia's just transition framework, but their effectiveness will depend on consistent activation, sustained funding, and alignment between skills development and labour demand.

### A Future Generations Policy Lens on the Energy Industry and Clean Economy Plan

Fairness Dimension	Alignment	Explanation
<b>Life Stage Equity</b>	→ Partial Alignment	Transition support is concentrated around moments of closure, favouring workers who can retrain or relocate quickly. Older workers and mid-career tradespeople face compressed timelines that interrupt mentoring roles and tacit knowledge transfer, which weakens capability pipelines just as regions most need continuity and yields thinner skills ecosystems to future transitions.
<b>Distribution Across and Within Generations</b>	→ Partial Alignment	Rights-based obligations improve immediate fairness for affected workers, yet conditional activation and uneven regional capacity mean support accrues unevenly. Over time, some regions retain adaptive capability while others experience repeated depletion, embedding geographic inequality in who carries transition risk across generations.
<b>Future Opportunities and Path Dependency</b>	→ Partial Alignment	Investment sequencing prioritises asset replacement over regional capability retention. When new industries arrive without aligned training, procurement, and local ownership pathways, regions inherit infrastructure without embedded skills or confidence, narrowing future options and locking regions into dependence on external operators rather than locally anchored renewal.
<b>Proportionate and Justified Trade-offs</b>	→ Partial Alignment	Short-term fiscal efficiency is achieved by limiting the duration and scope of transition support. The deferred cost appears later as workforce exit, lost institutional memory, and repeated intervention needs. These accumulated losses raise the long-term public cost of future transitions, shifting adjustment burdens forward in time.
<b>Precautionary Approach</b>	→ Partial Alignment	Governance triggers respond after closure decisions are announced rather than acting early to preserve capability, which delays intervention until disruption is unavoidable and normalises crisis management. Future governments inherit systems calibrated to respond late, long after thresholds are crossed.

## Our opportunity to shape Australia's future



Australia's energy transition tests continuity as much as emissions reduction. Climate risk demands rapid change, yet transition design that prioritises speed without sequencing places regional systems under strain. When closure timelines, investment decisions, and workforce planning move within short policy cycles, skills pipelines break. Local institutions struggle to adjust. New industries appear without the social and organisational foundations needed to sustain them.

A Future Generations Policy lens places durability at the centre of transition design. Aligning closure planning, capital investment, and workforce development across labour market, regional, and environmental timeframes helps retain and redeploy capability. Skills, institutional knowledge, and community confidence carry forward into emerging industries. When this alignment is absent, adjustment costs fall repeatedly on the same communities. The way the transition is governed will determine whether regions adapt alongside economic change or whether disruption deepens across generations.

The two speculative futures below, inspired by Jamie's story, explore how regional resilience and transition governance could diverge by 2040 under continued trajectories or redesigned policy frameworks.

## ■ Speculative futures

### The transition that fractured a community

It is 2040, and the rupture has become structural. Coal closures proceeded on schedule, yet support remained fragmented. Jobs disappeared as new industries stalled or bypassed the region entirely. Younger people left in search of work. Older workers entered retraining pathways that never translated into employment close to home. The Valley slowly became shorthand for abandonment, suspended between what it had been and what it had been promised it would become.

The quiet dismissal of the Valley's contribution hardened into policy decisions that moved forward without it. Distrust deepened as communities watched the country take what it needed and then move on. Nationally, the shift to clean energy was declared a success. Targets were met, infrastructure expanded, and reports praised efficiency. The social costs were written out of the narrative and absorbed by communities already carrying the weight of industrial decline. The Valley paid twice. It powered Australia for generations, then absorbed the fallout of a transition that treated it as an afterthought.

By 2040, the divide between regions invited into the future and those left behind has widened. In the Valley and in places like it, children grow up surrounded by absence: shuttered workshops, empty main streets, stories of work that once anchored families and communities. The legacy of contribution survives mostly in memory and footnotes, carried forward by a generation that remembers what the country chose to forget.

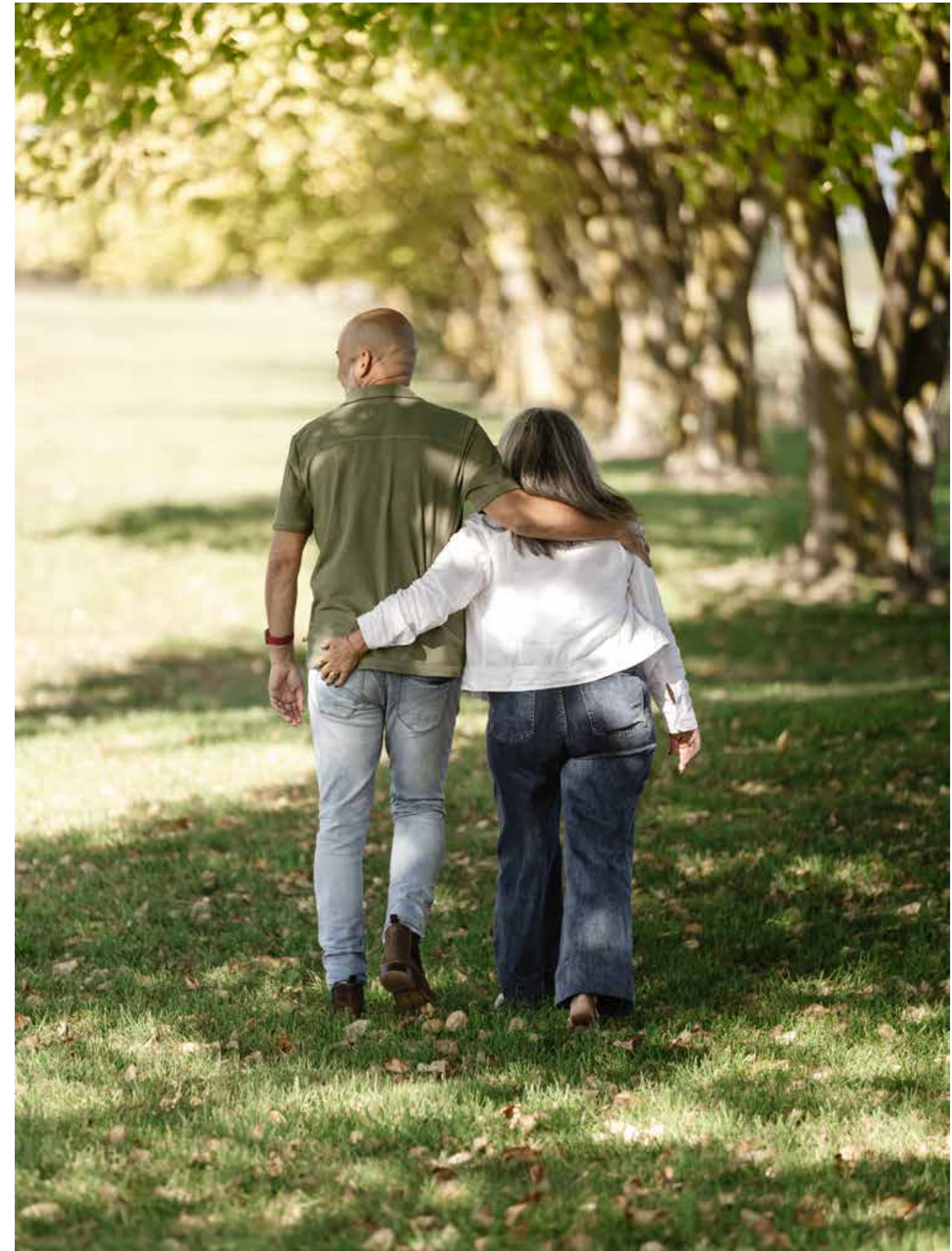
### The valley as a model for fairness

It is 2040, and the Latrobe Valley stands as proof that transitions designed with care can restore trust across generations. The coal stations are closed, yet the people who powered the nation for decades did not disappear into the margins. They were among the first partners in planning. Their experience shaped the decisions that followed, allowing them to carry their skills into the emerging energy economy.

Preparation began years before the final turbines shut down. Local TAFEs expanded their programs and apprenticeships returned as a central pathway into the region's industries. Workers who once maintained boilers now operate grid batteries, geothermal drilling systems, recycling plants, and electrified transport networks. The deep operational knowledge built in the old energy system became a foundation for the new one.

Community hubs anchored the transition. They provided job matching, counselling, childcare, and financial support for families navigating change. These spaces recognised the lives behind the statistics and treated transition as something lived in households and workplaces, not simply administered through policy. Progress is now measured by who remains included. A new generation is growing up in a region that reflects continuity instead of loss.

By 2040, the Valley has become a widely studied example of intergenerational fairness in practice. It shows that a country can change direction without discarding the people who carried it through the last century. The community has renewed itself, and the line between generations holds.



## Portrait 11 Jacqui



# Strengthening Cyber Capability through Inclusion

### The policy trajectory of cyber security capability

Jacqui's experience brings into focus a cyber security system where expertise exits faster than it consolidates. Governance and workforce design emphasise rapid technical response and demonstrable resilience, while the slower formation of judgement and interpretive skill receives far less structural support. Women enter cyber education and early-career roles in significant numbers, then leave at recurring transition points. Each departure narrows perspective and interrupts institutional learning. Workforce pipelines focus on throughput and immediate deployment, limiting the retention of diverse expertise long enough to shape standards, risk assessment, and routine practice. What presents as a staffing challenge becomes a deeper capability constraint, as cyber threats evolve continuously while the ability to recognise socially embedded risk develops across longer horizons.

### The potential of Future Generations Policy to intervene

A Future Generations Policy approach understands cyber security as a capability that matures through continuity. Workforce design would prioritise retention, progression, and inclusive career pathways that keep judgement, context, and diverse expertise embedded within institutions. As experience carries forward instead of being repeatedly lost, cyber defences gain depth and adaptability. Future Australians inherit digital systems shaped by sustained understanding of risk rather than episodic response.

## Today's approach to cyber security and inclusion

# Through Jacqui's Eyes

### Jacqui (she/her), 48

Wurundjeri Woi Wurrung and Boon Wurrung Country, Kulin Nations (Melbourne, Victoria)

In cyber security, Jacqui has learned to listen for what is missing. She first noticed it at university. Women arrived in her IT degree with confidence and aptitude, and by graduation most were gone. "A lot of women started with a bachelor's of IT," she recalls. "Not many women were finishing it."



For Jacqui, this absence signals vulnerability. She came to understand that cyber security depends on how people think, not only what they code or configure. When perspectives narrow, blind spots widen. "Cyber security is like a team sport," she says, and a team missing half its players cannot cover the field.

Her own entry into the field was unplanned. An accelerator program introduced her to information security, a discipline she had not even known existed. Training led to international work, and international work led to years overseas. In France, across Asia, and in the organisations she worked with, the same pattern appeared again and again. The rooms shaping digital security rarely reflected the communities they were meant to protect. With time, this pattern stopped feeling accidental and began to look structural.

A decade ago, that recognition turned into purpose. Jacqui founded the Australian Women in Security

Network with a clear mission: bring more women into the field, keep them in it, and support their progression into leadership. For her, the challenge extends beyond access. It is about visibility, confidence, belonging, and reshaping the story of who cyber security is for. "This next decade is about increasing awareness among women and girls and moving into schools," she says. "You need to stop the leaky pipeline first before we get more women and girls into this field."

After years of watching who leaves and who remains, Jacqui reached a clear conclusion. A nation facing constant digital threat cannot rely on a workforce shaped by exclusion. Cyber security built without cognitive breadth carries risk into its foundations. In a system as interconnected as cyberspace, absence itself becomes a form of vulnerability.



## Today's policy landscape: Strengthening Australia's cyber security through inclusion

Australia faces a cyber attack every six minutes.<sup>251</sup> Tens of thousands of incidents are reported each year, and recent breaches have exposed significant financial and personal harm.<sup>252</sup> National responses reflect strong technical ambition. The Cyber Security Act 2024<sup>253</sup> and the 2023-2030 Australian Cyber Security Strategy<sup>254</sup> strengthen standards, coordination, and incident response, backed by rapidly increasing public investment expected to exceed AUD 6 billion by 2026.<sup>255</sup>

Far less attention goes to how cyber capability forms and endures. The current system prioritises rapid response and visible resilience. Workforce pathways allow expertise to exit before judgement and institutional memory can take hold. For practitioners like Jacqui, the issue appears less as a shortage of tools than as a steady loss of people at critical career stages.

Women make up 17% of Australia's cyber security workforce, with far fewer in senior roles.<sup>256</sup> The imbalance begins early. Participation in IT education remains lower than in other STEM fields,<sup>257</sup> and attrition continues through training and employment. Pay gaps, limited career progression, and workplace cultures that reward homogeneity weaken retention further.<sup>258</sup> Representation of non-binary, gender-fluid, and gender-diverse people remains even more limited, with available data often too sparse to measure participation reliably.<sup>259</sup>

Government has begun to recognise this challenge. The Department of Home Affairs in Australia released an Inclusive Cyber Security Recruitment guide to support organisations in attracting women, First Nations peoples, and neurodivergent professionals.<sup>260</sup> The guide outlines practical steps for designing job advertisements, recruitment processes, and workplace practices that support diverse hiring and retention, while also highlighting the operational benefits of a broader workforce.

Public concern about digital security remains high, particularly around privacy and control of personal data.<sup>261</sup> Yet the policymaking processes shaping cyber frameworks rarely reflect the diversity of those most affected by digital risk. Inclusion appears in supplementary action plans, but durable mechanisms to retain diverse expertise through mid-career and into leadership remain limited.

This gap extends beyond representation. Cyber security increasingly depends on understanding human behaviour, trust, and social systems. Narrow workforce composition reduces cognitive diversity and restricts analytical range.<sup>262</sup> As experienced practitioners leave before their knowledge can settle into institutions, threat assessment and decision-making rely on partial perspectives. The result is a system where capability weakens as expertise exits before it can shape how institutions interpret risk.



## The value of a future generations approach

Australia's cyber security workforce reflects policy settings that favour rapid entry and short deployment cycles. Retention and progression receive far less attention. Experienced practitioners often leave before judgement and contextual understanding can settle into practice. Women and other under-represented groups exit at predictable transition points, narrowing the perspectives applied to threat assessment and response. Repeated turnover weakens institutional memory and anchors threat models in partial assumptions about user behaviour. Cyber systems may remain technically capable while becoming less prepared to recognise the social dimensions of risk.

A Future Generations Policy lens treats cyber capability as a function of whose experience remains within the system. Workforce diversification becomes a capability requirement rather than an equity

supplement. Policy design that supports retention, progression, and cognitive diversity allows judgement to mature within institutions. Teams gain broader interpretive range, institutional learning stabilises, and defensive capacity strengthens as threat environments evolve.

International practice illustrates elements of this approach. In Singapore, the Cyber Security Agency links school pathways, mid-career entry, and long-term retention within a single capability framework, reducing attrition at common exit points.<sup>263</sup> In the United Kingdom, the CyberFirst programme combines early skills development with targeted initiatives that engage girls and under-represented groups, strengthening the breadth and resilience of the national cyber workforce.<sup>264</sup>

→ Further detail on these examples is provided in the Policy Innovation Library

The following analysis applies Future Generations Policy Analysis (FGPA) to Australia's 2023-2030 Cyber Security Strategy to assess how its design choices may shape capability, diversity, and institutional resilience over time.

### Case Study: 2023-2030 Australian Cyber Security Strategy

The Australian Cyber Security Strategy 2023-2030<sup>265</sup> sets out a national ambition to become one of the world's most cyber-secure countries by the end of the decade. The strategy strengthens coordination between government and industry, expands intelligence sharing, and invests in new initiatives such as Digital ID to reduce exposure to cybercrime.

While broad in scope, the strategy focuses primarily on technical capability and incident response. It does not significantly change who participates in designing and governing cyber security systems. Equity and inclusion are not embedded as structural elements shaping workforce formation, retention, or leadership pathways.

The accompanying Action Plan<sup>266</sup> acknowledges underrepresentation in the cyber workforce, particularly among women and First Nations people. However, most measures concentrate on recruitment-stage interventions. Less attention is given to qualification pathways, mid-career retention, or workplace conditions that determine whether expertise remains within institutions long enough to shape standards and practice.

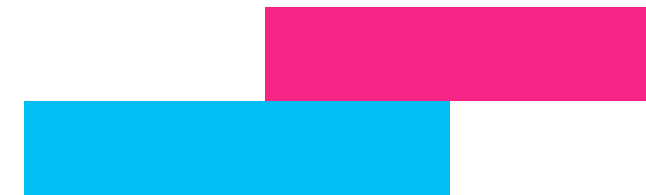
As a result, the system continues to draw from a relatively narrow set of technical pathways, with limited mechanisms to retain diverse and cross-disciplinary expertise. The strategy strengthens national response capacity, yet leaves deeper questions of workforce continuity and institutional learning largely unresolved.

From a capability perspective, broader inclusion is not only an equity concern. Diverse experience expands foresight, strengthens adaptive capacity, and supports cyber defences that remain effective in a rapidly evolving threat environment.

## A Future Generations Policy Lens on the Australian Cyber Security Strategy

Fairness Dimension	Alignment	Explanation
<b>Life Stage Equity</b>	→ Partial Alignment	Current pathways allow entry into cyber roles at multiple points, including mid-career transitions, but do not stabilise participation across key life stages. Early exits remain common before experience consolidates, repeatedly resetting capability rather than allowing it to mature and transfer forward.
<b>Distribution Across and Within Generations</b>	→ Misalignment	Decision-making influence concentrates within a narrow technical cohort, while the costs of incomplete threat perception are dispersed across users, institutions, and future cohorts. Such concentration normalises partial risk models that persist over time.
<b>Future Opportunities and Path Dependency</b>	→ Partial Alignment	Emphasis on rapid response and throughput improves short-term security outcomes while reinforcing linear career pathways, locking in response-heavy models that are less adaptable to social, legal, and behavioural dimensions of emerging risk.
<b>Proportionate and Justified Trade-offs</b>	→ Misalignment	Short-term efficiency gains from narrowly defined cyber roles shift coordination and interpretive costs forward. The erosion of cross-domain judgment reduces the value future systems can derive from today's workforce investments.
<b>Precautionary Approach</b>	→ Partial Alignment	Policy treats workforce formation as recoverable rather than fragile, delaying action on foreseeable risks linked to loss of depth and diversity. Once experience thresholds are crossed, constraints become costly and difficult to reverse.

# Our opportunity to shape Australia's future



In cyber security, the long-term risk extends beyond the growing scale and sophistication of attacks. It also lies in the erosion of judgement available to interpret and respond to them. When workforce design filters out diverse and cross-disciplinary experience, systems continue to operate but the range of risks identified, prioritised, and addressed narrows. These losses embed themselves in standards, operating procedures, and leadership pipelines, leaving cyber defences more reactive, less adaptive, and harder to strengthen.

A Future Generations Policy lens examines how workforce and institutional design shape the continuity of cyber capability. Effective defence relies on retaining experience long enough to influence governance, system architecture, and operational judgement. Systems that preserve this continuity strengthen their capacity to interpret evolving threats. Systems that lose it pass structural weakness forward to future Australians.

The two speculative futures below, inspired by Jacqui's story, explore how cyber defensive capability could diverge by 2040 under continued trajectories or redesigned policy frameworks.

## ■ Speculative futures

### A future of exclusion and poor outcomes

It is 2040, and cyber security in Australia still resembles the system built decades earlier. Workplace cultures remain unwelcoming, advancement pathways narrow, and bias persists across training and employment.

Over the preceding years, Australia moved through repeated cycles of digital instability with a workforce missing much of its available judgement. As AI-driven fraud evolved, it targeted demographics whose digital habits and vulnerabilities had never been fully considered when systems were designed. Women and girls, long told that securing devices was “too technical,” disengaged from proactive digital self-protection. Many relied on reactive education after harm occurred. The consequences spread across the economy. Blind spots in risk assessment allowed preventable breaches that deterred investor confidence and drove cyber insurance premiums sharply upward. Governments responded with reactive regulation and expanding compliance regimes that weighed heavily on small and medium enterprises, slowing digital adoption and innovation.

Exclusion reproduced itself. Fewer women entered the field, and those with experience left before influencing how cyber risks were defined and governed. The talent pool narrowed, deepening the workforce shortage. As domestic capability weakened, Australia relied increasingly on foreign cyber security contractors and infrastructure, reducing national sovereignty and limiting regional influence.

Public trust in digital systems steadily declined. Many citizens disengaged from online services or participated with minimal literacy about privacy, data rights, and device security. Governments and businesses absorbed rising recovery costs while households faced growing exposure to scams, coercion, and identity misuse.

By 2040, Australia had become a case study in the consequences of treating cyber security as specialist knowledge rather than a foundational civic capability. Systems built without diverse perspectives carried blind spots into their foundations. Digital exclusion reinforced social exclusion, transmitting risk and inequality into the next generation.

### Speculative Future 2: An inclusive cyber-resilient future

It's 2040, and Jacqui is at the national cyber security conference in Canberra. The keynote speakers, technical leads, and audience no longer tilt in one direction. The room reflects the country, rich in its diversity and broad in its perspective.

This outcome emerged from a practical recognition that cyber threats exploit human behaviour as often as technical weakness. Earlier systems designed by narrow cohorts missed patterns others could see. In response, teams widened to better reflect the populations they protected. Diversity came to signal technical strength rather than a human resources objective.

The foundations were established years earlier. Cyber literacy entered schools early and often, embedded alongside lessons on health and financial capability. Securing devices, managing data, and recognising manipulation became everyday skills practised at home, in classrooms, and in workplaces. Girls grew up confident in configuring privacy settings, questioning platforms, and understanding digital risk as something they could influence. Security shifted from a reactive response to a shared civic habit.

University cohorts stabilised and career pathways strengthened. Workplaces retained practitioners long enough for judgement to mature and pass between generations of professionals. Inclusion extended across culture, identity, and discipline, reshaping how risks were interpreted and how safeguards were built. Secure-by-design standards began to reflect how Australians actually live and move online.

The effects reached far beyond the workplace. Fewer systemic breaches lowered insurance and litigation costs, allowing public and private investment to focus on innovation instead of recovery. Citizens regained confidence in digital systems, increasing participation in e-governance and secure digital identity programs that made public services more accessible and efficient.

By 2040, cyber resilience operates as a distributed capability across society. Inclusion no longer requires explicit emphasis. It is visible in how the system functions.



## Portrait 12 Georgie



# Renewing Democracy's Architecture from the Ground Up

### The policy trajectory of democratic participation

Georgie's experience reveals a democratic system where access to participation depends heavily on economic security, housing stability, and available time. These conditions determine who can engage long before civic experience has the chance to develop. Local governance arrangements prioritise procedural compliance and administrative efficiency, while participation is treated as intermittent engagement rather than sustained involvement. For younger and less secure residents, entry into local decision-making is often brief. Unpaid roles, limited compensation, and rigid eligibility rules create predictable exit points during periods of financial pressure or life transition. As participants leave, institutions lose continuity and lived experience disappears with them. The result is decision-making shaped by a narrower range of social conditions, reducing local governance's capacity to anticipate emerging needs, align policy across life stages, or guide long-term social change.

### The potential of Future Generations Policy to intervene

A Future Generations Policy approach recognises democratic participation as infrastructure for long-term institutional capability. Designing civic roles that remain viable across life stages through fair remuneration, flexible pathways, and cohort continuity enables sustained civic learning and reduces reliance on individuals absorbing the personal costs of participation. Retaining experience within institutions strengthens contextual understanding and supports steadier governance as social conditions evolve. Decision-making remains grounded in the realities communities live with, strengthening democratic legitimacy and improving the capacity of institutions to govern for future generations.

## ■ Today's approach to local government participation

# Through Georgie's Eyes

### Georgie (she/her), 30

Whadjuk Noongar Country  
(Mosman Park, Western Australia)

Georgie entered local government the way many young people enter public service: out of necessity. At fifteen, after moving thirteen times with her mother and brother, she was searching for community and a place to belong. She found it in the Mosman Park Youth Advisory Council, a small room where young people could speak and adults occasionally listened. "Joining made me feel connected and part of my local community," she says. When Julia Gillard became Prime Minister, Georgie was in Year 9. "It felt like women really had a place in politics," she recalls. "I think that was a big motivation for me."



Mosman Park spans four square kilometres, and contains seven schools, with nearly a third of residents under twenty-five. The council did not reflect that reality. "So I put my hand up and did it." At twenty-one, she ran for council, beat an incumbent, and entered a chamber where she was often treated as an exception. "I was even called kiddo one time. No, I am Councillor Carey." Representation, she learned, did not end with election. It required insisting on belonging in a system never designed with her in mind.

By twenty-five, she had become Deputy Mayor and was experiencing firsthand the contradictions of local government: the expectation to serve selflessly while confronting the same structural barriers that prevent many younger people from running in the first place. She watched how systems built around home ownership, stable work, and accumulated savings quietly filtered out those living with precarity.

Her case for youth representation is grounded in lived experience. Younger people, she argues, "understand emerging challenges from the inside": housing precarity, climate impacts, digital governance, mental health. They also have "less attachment to entrenched political identities and institutions," and are more willing to "confront long-term issues because they'll live with the consequences." Their presence changes how decisions are framed, expanding the system's field of vision and bringing future impacts into present deliberations.

Yet exclusion remains embedded in the system's basic design. Commitment cannot bridge gaps when campaigning costs money, service requires unpaid hours, and councillor remuneration remains barely livable. "Most of us still work part-time just to make it work," Georgie says. Housing instability makes residency requirements harder to meet. "My rent has gone up astronomically," she notes, "but I have to stay because I'm deputy mayor." Prejudice persists too, including the assumption that young people lack "enough life experience." These pressures form an invisible governance tax paid simply to participate.

Still, she remains hopeful. "We have a way to go to get a representative local government, but we are getting there." For Georgie, youth representation is a democratic standard. One young councillor is not enough. "Build cohorts," she insists, "so no single young representative is isolated or overburdened with representational labour." Change happens through numbers, not exceptions. As pathways widen, expectations shift. "I stepped into politics at twenty-one thinking I was too young to matter, and I've learned the opposite. Sometimes the least expected voice is the one a community needs most."

What she wants now is simple and radical at once. "That every young Australian feels permission to show up, speak up, and shape the world around

them." This, to her, is the unfinished work of democracy. Local governments, closest to daily life, can trial new models to make that invitation real. "If we want a fairer, braver Australia, we need more people, especially youth, participating, questioning, imagining, and leading." The question is how policy can make stepping forward less costly.



## Today's policy landscape: Democracy and the participation gap

Australia's democratic system retains broad legitimacy, yet confidence in how it operates has weakened.<sup>267</sup> Many Australians still support democratic principles, but fewer feel that institutions reflect their lives or respond to their concerns. This gap shapes who participates and whose voices carry weight in decision-making. Electoral incentives reward short-term visibility,<sup>268</sup> while challenges in housing, climate, and infrastructure require stewardship across decades.

Representation remains uneven. Young people, renters, and historically marginalised communities continue to hold less influence within formal politics.<sup>269</sup> Insecure work, rising rents, and limited discretionary time place practical limits on participation. As these pressures intensify, political voice increasingly tracks economic security rather than citizenship, narrowing the range of lived experience informing policy.

Younger Australians continue to value democracy<sup>270</sup> but often channel their engagement through community initiatives, advocacy, and civic action outside formal institutions. Many view higher levels of government as distant or unresponsive.<sup>271</sup> Local government remains the most accessible entry point into formal politics, offering proximity to everyday concerns and fewer symbolic barriers to entry.<sup>272</sup> When these pathways weaken, early civic motivation fades.

The implications reach beyond participation rates. Younger Australians are the first generation expected to be worse off than their parents,<sup>273</sup> facing record housing stress<sup>274</sup> and declining wealth accumulation<sup>275</sup> while older households have seen significant gains.<sup>276</sup> When those most affected by long-term policy decisions struggle to access representation, the capacity of democracy to steward fairness across generations begins to fray.



## The value of a future generations approach

Australia's democratic participation settings determine who can enter, remain, and progress within local governance. When participation assumes stable housing, secure income, and discretionary time, many residents cannot sustain involvement. People living with housing and employment insecurity, including many younger Australians, enter councils and advisory bodies in small numbers and leave quickly. Participation demands, remuneration structures, and eligibility rules place sustained pressure on transitional life stages. High turnover weakens institutional memory, disrupts leadership pipelines, and limits councils' access to the lived experience needed for long-range social and economic planning.

A Future Generations Policy approach recognises participation as democratic infrastructure that requires deliberate investment. It asks whether local governance arrangements allow people to remain engaged across life stages through fair remuneration, flexible pathways, and clear progression into

leadership roles. Where experience remains within institutions, councils retain decision-making continuity and draw on a wider range of lived realities when setting priorities. This strengthens their capacity to anticipate and manage emerging challenges across longer time horizons.

Local governments elsewhere demonstrate that alternative designs are possible. Barcelona's Decidim platform provides standing digital participation channels between elections, allowing civic input to continue as personal and economic circumstances shift.<sup>277</sup> Porto Alegre's participatory budgeting embeds recurring public involvement in fiscal decisions, shaping priorities across successive budget cycles.<sup>278</sup> These models show how participation pathways can either narrow as precarity rises or be designed so future communities inherit institutions structured for broader engagement.

→ Further detail on these examples is provided in the Policy Innovation Library

The following analysis applies Future Generations Policy Analysis (FGPA) to Western Australia's Local Government Electoral Framework to assess how current electoral settings shape democratic participation across generations.

### Case Study: Western Australia's Local Government Electoral Framework

Western Australia's Local Government Act 1995<sup>279</sup> governs participation in the level of government closest to daily lives. While designed to operate neutrally, many of its provisions reflect assumptions about stable housing, secure income, and available time that no longer match contemporary social and economic conditions.

Councillor remuneration, typically ranging from AUD 4,000 to 35,000 per year,<sup>280</sup> often requires officeholders to rely on supplementary income or financial security. Campaign costs are largely privately funded, and residency requirements can disadvantage renters and people in more transient housing arrangements.<sup>281</sup> These features shape who is able to run for office, contributing to councils that are older and more economically secure than the populations they represent.

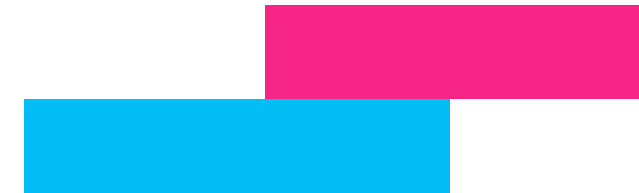
[Consultation](#) provisions under the Act also produce uneven participation pathways.<sup>282</sup> Requirements are broad and leave councils significant discretion in how they engage communities. Some councils invest in [youth advisory](#) bodies,<sup>283</sup> [deliberative forums](#), or co-design processes,<sup>284</sup> while others rely on more conventional consultation formats such as written submissions and public meetings. These formats tend to favour residents with greater time, confidence, and familiarity with institutional processes.

## A Future Generations Policy Lens on WA's Local Government Electoral Framework

Fairness Dimension	Alignment	Explanation
<b>Life Stage Equity</b>	→ Partial Alignment	Participation settings presume stability, normalising early exit from civic roles and interrupting leadership development. Over time, this thins capability pipelines and leaves future decision-makers with reduced exposure to emerging social conditions and fewer pathways for leadership renewal.
<b>Distribution Across and Within Generations</b>	→ Misalignment	Access to decision-making favours economically secure participants, skewing local knowledge and locking in epistemic blind spots that future councils inherit.
<b>Future Opportunities and Path Dependency</b>	→ Partial Alignment	Repeated exclusion narrows retained risk tolerance and policy experience, further entrenching conservative decision norms and shorter planning horizons over time.
<b>Proportionate and Justified Trade-offs</b>	→ Partial Alignment	Low upfront investment in participation design shifts costs to individuals, which defers investment in democratic capability while accumulating hidden liabilities in disengagement, reactive consultation, and higher remediation burdens.
<b>Precautionary Approach</b>	→ Partial Alignment	Rigid eligibility assumptions risk locking in participation gaps as economic volatility and housing mobility increase, reducing future capacity to re-establish broad access once eroded.



# Our opportunity to shape Australia's future



Local democratic systems face a design choice in how they sustain participation. When access to representation presumes stable housing, secure income, and discretionary time, many residents cannot remain involved. Leadership turns over quickly and experience leaves institutions before it can strengthen decision-making. Councils operate with thinner decision histories and narrower leadership pipelines, limiting their ability to plan across housing, infrastructure, and service pressures that unfold across decades.

A Future Generations Policy lens focuses attention on what capability institutions carry forward. Governance settings that allow people to remain involved across life stages help retain practical knowledge, sustain leadership pathways, and extend planning horizons. Systems designed this way maintain continuity in decision-making and strengthen councils' ability to anticipate and manage long-term change. Where participation relies on episodic engagement, councils must repeatedly rebuild experience as conditions shift.

The two speculative futures below, inspired by Georgie's story, explore how democratic capability could diverge by 2040 under continued trajectories or redesigned policy frameworks.

## ■ Speculative futures

### A future hollowed by exclusion

It is 2040, and local democracy has settled into a familiar pattern of decline. The average age of councillors continues to climb as rising rents push younger residents out of the communities they once hoped to represent. Campaigning remains expensive and opaque. Remuneration never adjusted to reflect early-career realities. Participation feels less like a civic right and more like a privilege reserved for those with surplus time, stable housing, and independent income.

Councils still speak earnestly about “engaging youth” while filling their chambers with the same narrow slice of experience. Civic education remains largely theoretical, leaving new generations distant from institutions they were rarely invited to understand. Media coverage reinforces the pattern, portraying young leaders as anomalies rather than contributors. Participation contracts to those who already know how to enter.

The effects ripple through the entire system. Without younger representatives, policy reflects the perspectives of those further removed from emerging realities. Housing precarity is debated in rooms where it is rarely lived. Climate decisions favour caution over transition. Digital governance drifts, shaped by people who did not grow up inside the systems they regulate. Younger citizens turn toward parallel civic spaces, building meaning and belonging outside democratic institutions altogether. The distance Georgie once crossed grows wider, harder, and lonelier.

Democracy erodes as cross-generational trust fractures. Inequality deepens, invitations to participate remain uneven, and short-term political incentives dominate decision-making without the presence of long-term voices to temper them. Participation rules and design flaws persist without correction. By 2040, the system still functions on paper yet feels hollow in practice: decisions serve the present only because those who will inherit the consequences were never in the room.

### A future strengthened by us

It is 2040, and Australia’s democracy is recognisably different. The barriers that once kept young people at a distance were deliberately dismantled. Governance training became accessible and publicly funded, helping first-time candidates understand compliance, budgeting, and decision-making. Campaigning became transparent and affordable. Remuneration was adjusted to reflect the realities of early careers and limited savings, allowing representatives to serve without financial strain. Residency requirements were updated to recognise the instability of modern housing, introducing flexibility that better reflects how people actually live.

The change is most visible inside council chambers. They now resemble the communities they represent. Younger representatives enter in cohorts rather than as isolated exceptions. Their presence is expected and reshapes how decisions unfold. Housing policy reflects the lived experience of unstable leases. Climate planning draws on the perspectives of those who will live longest with its outcomes. Digital governance benefits from insight provided by people who grew up inside the systems now being regulated. Media coverage reflects this shift. Young leaders are recognised for their decisions and contributions, and their age is no longer the headline.

Local governments also widened the pathways into public life. Citizen juries, youth assemblies, neighbourhood forums, and accessible digital platforms bring participation closer to everyday life. Civic learning begins early and remains practical, helping people understand how decisions are made and how influence can be exercised. Participation now resembles jury duty more than volunteerism: structured, supported, and recognised as part of shared civic responsibility.

The democracy that has emerged is more representative and more capable of navigating the decades ahead. Representation reflects the diversity of the country, decision-making integrates long-term stewardship alongside present needs, and institutions are structured to serve the full breadth of the public they govern.



## Portrait 13 James & Julien



## Preserving the Human in a Digital Age

### The policy trajectory of digital life

James and Julien's story describes a digital environment built to minimise friction and maximise continuous engagement. Platform design prioritises speed, convenience, and automated content delivery, exposing children to digital systems well before they develop the judgement, self-regulation, and creative intent needed to use them well. Passive consumption becomes the default interaction. Practices that support sustained attention, imaginative play, and relational presence receive less reinforcement. These patterns begin early and shape habits before intentional use can take hold. Digital tools occupy a growing share of everyday life while the capacities required for intentional and reflective use struggle to develop, weakening people's ability to focus, relate, and express themselves.

### The potential of Future Generations Policy to intervene

A Future Generations Policy approach reorients digital governance from regulating individual behaviour to shaping the environments in which development unfolds. Policy can align platform incentives, regulatory standards, and public investment with developmental timelines, strengthening prevention and capability formation in early life. Digital design can support rather than displace offline play, creativity, and social connection. Environments structured around creativity, connection, and intentional engagement help cognitive and emotional capacities strengthen alongside digital literacy. This approach protects the foundations of human development and ensures future generations grow up with digital systems that expand agency and support relational life.

■ **Today's approach to digital wellbeing**

# Through James and Julien's Eyes

**James (he/him), 9 & Julien (he/him), 12**  
 Ngunnawal Country  
 (Canberra, Australian Capital Territory)

When James and Julien are asked what worries them about the future, they return to a movie scene they cannot shake: people gliding through in automated chairs, entertained into numbness while machines handle everything else. The future they fear is unsettling because it already feels familiar. They recognise traces of it in the quiet disengagement they see around them, where attention thins and presence fades.



James recognises the pull in his own body. "I'll be watching videos and suddenly realise I don't even remember the last twenty minutes. That's when I know I need to stop." Julien notices it too. "People say watching Netflix is relaxing, but it's kind of like the worst version of the future we just imagined." What alarms them is the subtlety of the shift, how human presence drains away through small, forgettable choices. Minute by minute. Click by click. They see what many adults overlook: disconnection often arrives disguised as comfort.

What makes their perspective compelling is the deliberate way they push against that drift in the daily rhythm of their home. Their father taught them early that human connection is something you practice. He "always asks how we're feeling. He doesn't just ask if something's wrong. He wants to know what we're thinking about, what's on our minds," James says. "I think everyone should have a dad like ours. Someone who actually wants to know how you feel, not just if you did your homework." The brothers now extend that habit to each other. "We always ask each other, 'Are you okay?'" This emotional steadiness anchors them. It shows in how comfortably they fully inhabit who they are, instead of shrinking themselves to fit the flattened ideals they see online.

That grounding also sharpens their awareness of what happens when digital spaces begin shaping identity. "If you use it too much, you're going to lose your own sense of yourself." Their counterweight is creativity. James names himself without hesitation: "I'm crazy. I express myself a lot." Julien gestures to his clothes: "Fashion shows how I feel."

The brothers do not reject technology. Both still use digital devices and believe online digital spaces can strengthen relationships when approached with intention. Julien uses platforms to "stay connected with my friends," and to widen his view of the world. "Social media gives you world awareness," he says. For them, the boundary appears when technology stops supporting life and starts substituting for it.

Their vision for the future reflects that balance. "We want social media to stay here, but not for people to be addicted. People should still go outside, do sports, go to the shops, do something fun with other people." Julien captures the principle: "Use technology at the right time, for the right things." He draws a clear boundary around automation: robots for surgery, not for school. "That's for people." James puts it simply: "Humans are irreplaceable."



## Today's policy landscape: The digital world in Australia

Australia is highly connected,<sup>285</sup> and digital life now shapes learning, social life, rest, and identity.<sup>286</sup> Yet policy attention still focuses largely on responding to harms after they appear instead of shaping the conditions that support healthy digital engagement from the outset.<sup>287</sup> The policy challenge lies in balancing protection, agency, and design responsibility in ways that sustain digital wellbeing across lifetimes.

Research shows that digital environments influence cognition, attention, and socio-emotional development. Online spaces can strengthen learning and connection, yet heavy passive use is linked to weaker memory, reduced attention, and diminished emotional regulation.<sup>288</sup> Digital health has therefore become more than an individual concern. It now influences collective cognitive capability, social cohesion, and democratic participation.

Australian policy addresses multiple dimensions of the digital environment, including privacy, online safety, content regulation, algorithmic transparency, and access. The Online Safety Act 2021 provides important guardrails.<sup>289</sup> Legislation alone, however, cannot cultivate the literacy, cultural norms, or community practices required for healthy digital participation. Regulatory standards can define baseline protections, but broader systems must also support the development of resilient digital habits and capabilities.

Market incentives complicate this task. Business models built around attention capture convert human focus into economic value, making design choices a matter of governance rather than simple product preference. Research on digital transformation shows how these technologies reshape influence and decision-making,<sup>290</sup> reinforcing the need for policy approaches grounded in human agency and ethical foresight beyond purely commercial incentives.<sup>291</sup>

Younger generations already navigate these tensions daily. Many value flexibility, creativity, and purpose in digital spaces,<sup>292</sup> yet face environments engineered for constant engagement. Evidence suggests that habitual passive consumption can weaken creativity, while purposeful creation and meaningful participation strengthen capability.<sup>293</sup> Platform design therefore sits at the centre of public interest governance, as design choices shape how digital environments influence behaviour and development.

Debates around age-based restrictions illustrate the complexity of policy responses. Rising screen time has displaced sport, outdoor activity, and community connection, contributing to isolation.<sup>294</sup> At the same time, impacts depend less on access alone and

more on design, context, and patterns of use. Policy responses range from age thresholds to broader measures addressing platform standards, digital education, and shared civic digital infrastructure.<sup>295</sup>

Young people themselves often recognise risks such as cyberbullying, privacy breaches, and identity theft more clearly than adults assume. At the same time, evidence suggests that strict prohibition can deepen isolation rather than reduce harm.<sup>296</sup> These dynamics strengthen the case for participatory approaches that build digital capability and agency, enabling young people to navigate digital environments with greater awareness instead of relying solely on exclusion.



## The value of a future generations approach

Digital policy decisions shape the environments in which attention, learning, and social interaction develop across the life course. When governance focuses mainly on acute harms or age thresholds, it overlooks how platform incentives, market structures, and regulatory timing shape everyday patterns of use. Policy then reacts once harms become visible while leaving the design conditions that influence behaviour largely unchanged.

A Future Generations Policy approach examines whether digital governance aligns with human developmental and social timeframes. It shifts attention from responding to downstream effects toward shaping the environments that influence behaviour in the first place. This perspective evaluates how platform incentives, design standards, and public safeguards affect people's ability to sustain attention,

creativity, and connection across different stages of life. It clarifies whether policy settings strengthen these capacities or allow them to weaken across generations.

International experience demonstrates alternative approaches that combine protection with capability-building. In India, rapid and uneven digital expansion among children and young people has prompted policy and education responses that emphasise media literacy, contextual guidance, and age-appropriate use.<sup>297</sup> These measures recognise that digital risk emerges through the interaction of access, social context, and developmental stage.<sup>298</sup> The European Union has focused on upstream regulation, placing constraints on manipulative design practices and establishing clearer obligations for platforms used by children.<sup>299</sup>

→ Further detail on these examples is provided in the Policy Innovation Library

Future Generations Policy Analysis (FGPA) offers a structured way to assess whether digital policy settings are strengthening the long-term conditions that support attention, agency, and social connection across generations, or whether they continue to defer these considerations until remediation becomes more difficult and costly.

The following analysis applies Future Generations Policy Analysis (FGPA) to the Online Safety Amendment (Social Media Minimum Age) Act 2024 to assess how current policy settings influence the conditions shaping digital capability and wellbeing across generations.

### Case Study: Online Safety Amendment (Social Media Minimum Age) Act 2024

The Act 2024<sup>300</sup> introduces obligations for "age-restricted social media platforms" to take reasonable steps to prevent users under 16 from holding accounts, with significant penalties for non-compliance. The legislation does not mandate a specific verification method, allowing platforms to rely on approaches such as facial age estimation, activity-based analysis, or declared user information.

Human rights concerns were raised by the Australian Human Rights Commission both before and after the legislation was introduced. The Commission warned that the measure could affect several rights recognised in international human rights agreements, including children's rights to freedom of expression, access to information, and participation in cultural life.<sup>301</sup> Questions were also raised about the policy's effectiveness, given the likelihood that some young people may circumvent restrictions through technological workarounds.

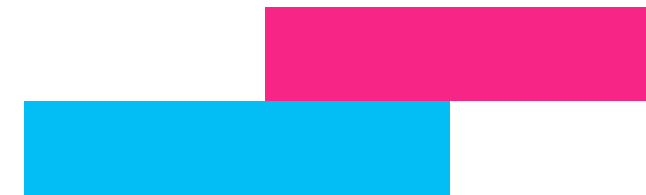
Privacy implications were also highlighted as age-assurance systems may require users, including adults, to provide sensitive personal information to private platforms in order to verify eligibility.<sup>302</sup> In response, the eSafety Commissioner released a Statement of Commitment to Children's Rights, outlining commitments to monitor, guide, and evaluate the implementation of the ban alongside broader digital safety initiatives.<sup>303</sup>

The legislation shifts formal responsibility toward platforms by introducing access controls. However, it primarily functions as a gate at the point of account creation. It does not alter the wider incentive structures that reward attention capture or address the broader conditions shaping children's digital environments, including platform design practices and uneven support across families and schools.

## A Future Generations Policy Lens on the Online Safety Amendment Act 2024

Fairness Dimension	Alignment	Explanation
<b>Life Stage Equity</b>	→ Partial Alignment	Early exposure to attention-intensive environments normalises high-frequency engagement before self-regulation and judgment have had time to develop, passing forward weaker baseline capability for intentional use.
<b>Distribution Across and Within Generations</b>	→ Partial Alignment	Uneven access to stabilising supports (time, supervision, offline alternatives) compounds into unequal accumulation of focus and self-direction, leaving future institutions managing wider variance in readiness.
<b>Future Opportunities and Path Dependency</b>	→ Partial Alignment	Passive defaults crowd out creative rehearsal and play, normalising shallow interaction patterns that are harder to reverse later and narrowing the adaptive capacity future cohorts carry into study, work, and civic life.
<b>Proportionate and Justified Trade-offs</b>	→ Partial Alignment	Short-term reliance on restriction and harm response defers investment in capability-building conditions, shifting costs forward into greater remediation needs and lower agency in adulthood.
<b>Precautionary Approach</b>	→ Partial Alignment	Gradual erosion occurs below visible thresholds, delaying intervention until patterns are entrenched, leaving future governments with fewer low-cost options to restore attention and creative capability.

# Our opportunity to shape Australia's future



Digital policy shapes the environments in which attention, effort, and judgement develop. When platforms make passive engagement easier than deliberate use, habits that sustain focus, creativity, and self-direction weaken. Digital environments then demand greater effort from users simply to remain attentive and intentional. These pressures affect more than individual behaviour. They influence how people relate to one another and how they participate in shared information spaces.

A Future Generations Policy approach reframes this challenge as a question of governance design. It asks whether platform incentives, regulatory standards, and public safeguards align with human developmental timelines. Policy can recalibrate design incentives and establish guardrails, but its impact depends on the social and developmental foundations people bring to digital environments. When these foundations are strengthened early and reinforced across life stages, regulation supports healthier patterns of engagement. When they remain fragile, policy struggles to influence behaviour beyond the surface.

The two speculative futures below, inspired by James and Julien's story, explore how connection, resilience, and digital capability could diverge by 2040 under continued trajectories or redesigned policy frameworks.

## ■ Speculative futures

### A future of disconnection and passive consumption

It is 2040, and people move through life competent and efficient yet faintly absent. Tasks are completed, feeds refreshed, days pass without being fully lived.

The erosion began in small increments. Families share rooms while each person watches something different. Conversation shrinks into logistics. Eye contact feels like an interruption. Emotional life is handled privately because speaking about it feels unfamiliar.

Schools have adapted to distraction rather than resisting it. Students learned to navigate interfaces more fluently than their own emotions. Teachers, stretched thin, monitored workflow instead of nurturing curiosity. Play was squeezed out first. Creativity followed. Children lost the rehearsal spaces where imagination and social problem-solving once took shape.

Workplaces deepened the drift. Efficiency overtook connection as companies automated roles and optimised for output. Collaboration became transactional. Beneath it all sat the design of digital products themselves, built to capture attention and make presence harder to sustain. The human residue was constant connectivity, fractured attention, and shrinking tolerance for slow thinking.

Public space reflected the shift. Shopping became self-service. Service work moved through automated systems designed to reduce cost at the expense of care. Public spaces felt like corridors between personalised digital worlds. Community survived as a label more than a practice. Corporate incentives steadily pushed systems toward frictionless, staff-light models that erased human touchpoints. Loneliness rose, yet continued to be treated as an individual problem.

Australia still functions, but largely on autopilot, shaped by thousands of design choices that made passive consumption effortless and presence harder to hold. Productivity remained, while rehearsal space receded: the everyday practice of play, imagination, and real connection that once built resilience.

### A future of intentional living and human connection

It is 2040, and Australia no longer treats digital wellbeing as a private struggle that families manage alone. The everyday environment has changed. Passive consumption is no longer the easiest default.

Homes rebuilt small habits that protect attention. Phones are put away at meals because that is normal again. Online life is discussed without panic and without secrecy. Children learn early how platforms try to keep them engaged, in the same way they learn road rules: through practice, supervision, and gradual independence.

Schools treat attention and creativity as part of learning rather than extracurricular activity. Students rehearse how to handle online conflict, algorithms, and comparison the way they practise writing. Play is protected as a developmental practice rather than a reward once work is finished. Creative making is resourced instead of squeezed into the margins.

Platforms operate under design standards that reward intentional use: time cues, friction for endless scroll, and settings that support agency over compulsion. Public life shifted as well. Communities invested in alternatives such as youth clubs, sports programs, maker spaces, and public play infrastructure, making offline life as rich and accessible as the online world.

By 2040, technology remains everywhere, and so do humans. People move between online and offline worlds with greater choice. Creativity appears again as a daily practice. Presence is not a luxury. It has become a norm.





**Portrait 14 Victoria**



## Reframing Mobility as a Regional Asset

### The policy trajectory of international engagement and migration

Victoria's story illustrates a migration system configured to fill immediate labour gaps, with limited attention to the long-term regional relationships migration creates. Policy settings prioritise speed, flexibility, and compliance control, moving people across borders faster than trust, family stability, and institutional learning can take root. Employer-led schemes concentrate decision-making at the point of placement, leaving Pacific skills and leadership under-recognised while families face repeated disruption. Frequent policy resets fracture continuity and weaken regional confidence. The system delivers labour supply, yet sidelines reciprocity and civic connection. Migration is treated as a transactional input even though it reshapes trust, belonging, and regional partnership across generations.

### The potential of Future Generations Policy to intervene

A Future Generations Policy approach defines mobility as a contributor to regional capability instead of a temporary labour instrument. It aligns migration, foreign policy, and development strategies around continuity and shared responsibility. Long-term pathways allow relationships, skills, and institutional trust to deepen across borders. Programs designed with Pacific leadership and two-way learning embed mobility within regional social infrastructure. Migration then strengthens families, public institutions, and cross-border partnership, supporting a region defined by enduring connection rather than repeated turnover.

## Today's approach to Pacific migration

# Through Victoria's Eyes

**Victoria (she/her), 33**  
Gubbi Gubbi/Kabi Kabi Country  
(Moreton Bay, Queensland)

Victoria's life unfolds on a border most Australians rarely notice. "When I leave my house I leave my Papua New Guinea (PNG) home and enter my Aussie home," she says. The shift is quick and constant, shaped by a history many have forgotten. The distance is only a doorway wide, yet it holds a century of lingering grievances.



For decades, Papua and New Guinea were administered by Australia. Their people held Australian citizenship and moved across the Torres Strait under treaty and kinship rights. As the fiftieth anniversary of PNG's independence approaches, Victoria sees little public reflection on what that shared past still demands. "I want to see a documentary that asks people what it was like in August 1975 when people had to leave PNG," she says. "What happened to all those 'Australian citizens' that now weren't citizens of anywhere?" The border moved. People did not. Many who had lived, worked, or served Australia found themselves suddenly unanchored, with no citizenship on either side.

Her own family arrived in Adelaide in 2004, unfamiliar with the systems around them. They relied on one another and the local PNG community. "That's how we survived," she says. "You can get lost if you don't know who you are." Later she moved to Brisbane to be closer to PNG and to her grandmother, trying to preserve threads of belonging across distance. Yet the separation between the two countries still feels wide, shaped less by geography than by cultural amnesia. "People in Queensland don't even know who South Sea Islanders are today."

Now thirty-three, Victoria works as a nurse midwife and runs a small business with her mother and sister. Her professional life adds weight to the bridge she carries. She notices how rural Queensland and Port Moresby echo each other in what families hope for: the safe arrival of the next generation. Yet the conditions surrounding that hope differ. In both places, women travel long distances in labour and arrive at clinics stretched beyond capacity, while

cultural expectations determine who seeks care early and who waits until the danger becomes visible. The need is shared. Capacity is not. She imagines what genuine partnership could look like: PNG's ingenuity in remote health informing Australian models, and Australia's training systems strengthening PNG's workforce. Knowledge moving in both directions.

Migration policy rarely supports this vision. "They don't make it easy unless you're in mining," she says. Relatives have had visitor visas denied despite complete applications. Pathways such as the Pacific Engagement Visa stall for lack of employers willing to participate. Programs like PALM prioritise labour placement before family or community needs are considered. "The whole process is trial and error. Why are we so reactive? Diaspora voices could help get this right." For Victoria, these frustrations sit within a colonial relationship that was abruptly severed and never fully reckoned with.

This history meets her again as she prepares to become an aunty, both within her family and in the cultural sense of stepping into Elder responsibility. She will guide younger generations through identities shaped by distance, memory, and belonging. "I'll be in charge of making sure everyone is OK." The role requires more than remembrance. It needs systems that recognise and support the bridges people like her already carry.

Her question is direct. "What do we owe future generations," she asks, "as one big Pacific family?" It is an invitation to reckon with shared history and to design mobility that reflects it.



## Today's policy landscape: Migration and regional resilience in the Indo-Pacific

Australia's relationship with Papua New Guinea (PNG), once defined by shared citizenship and movement across the Torres Strait, still carries the imprint of an unresolved colonial transition.<sup>304</sup> Yet migration policy continues to prioritise short-term labour supply over the long-term regional relationships that define the Indo-Pacific.

Early migration laws such as the Immigration Restriction Act 1901<sup>305</sup> and the Pacific Island Labourers Act 1901<sup>306</sup> treated Pacific mobility as labour supply rather than civic connection. These frameworks established patterns that privileged extraction over permanence.<sup>307</sup> Variations of this logic remain visible today. Australia is home to more than 7.6 million migrants,<sup>308</sup> yet temporary and employer-sponsored visas dominate migration pathways. Temporary migrants now comprise roughly 11% of the workforce,<sup>309</sup> offering flexibility for employers while leaving many workers in precarious conditions.<sup>310</sup>

Evidence of systemic vulnerability continues to surface. Investigations have revealed widespread underpayment and exploitation across temporary migration programs,<sup>311</sup> exposing how poorly regulated schemes weaken labour standards and erode public trust and can contribute to high workforce turnover.<sup>312</sup> Skills fail to settle within workplaces and communities, integration remains shallow, and risk concentrates among workers with the least bargaining power.

These dynamics shape the wider region as well. One-way labour flows draw skilled workers from Pacific economies while increasing Australia's reliance on temporary labour. The relationship becomes transactional rather than reciprocal.

The Pacific Australia Labour Mobility (PALM) program<sup>313</sup> illustrates these tensions. Introduced in 2022 to address labour shortages in agriculture, aged care, and hospitality, the scheme fills immediate workforce gaps. Yet evaluations highlight uneven worker protections, slow enforcement, and family separation across Pacific communities.<sup>314</sup> Without stronger pathways for skills recognition, mobility, and permanence, labour mobility remains disconnected from broader regional capability-building.



## The value of a future generations approach

Australia's migration and international engagement settings shape how relationships in the region are built and sustained. When mobility operates mainly as a short-term labour response, movement outpaces the formation of trust, skills exchange, and civic connection. Families face repeated separation. Pacific expertise remains underused in both origin and destination contexts. Confidence in regional partnership weakens as mobility functions more as labour supply than shared regional development.

A Future Generations Policy approach positions mobility as long-term social and institutional infrastructure. It asks whether migration pathways, foreign policy settings, and development programs support stable family life, reciprocal learning, and durable civic ties across borders. When mobility supports skills circulation, family stability, and two-

way knowledge exchange, it strengthens regional security, institutional resilience, and strategic alignment. When policy relies on temporary status and fragmented rights, labour supply is delivered while deeper regional capability remains underdeveloped.

International experience shows how this orientation can translate into practice. The African Union's Free Movement of Persons Protocol<sup>315</sup> links mobility to regional integration by enabling residence, work, and establishment across member states, supporting sustained economic and institutional ties. In the Pacific, Migration with Dignity<sup>316</sup> frameworks position mobility within broader resilience strategies, coordinating migration, education, and development policy to support community stability, skills transfer, and continuity across borders.

→ Further detail on these examples is provided in the Policy Innovation Library

The following analysis applies Future Generations Policy Analysis (FGPA) to the Subclass 192 Pacific Engagement Visa to examine how its design choices shape regional relationships over time.

### Case Study: The Subclass 192 Pacific Engagement Visa

Legislated in 2024, the Pacific Engagement Visa (PEV)<sup>317</sup> creates up to 3,000 permanent migration places annually for Pacific nationals through a ballot-based system. The visa bypasses traditional points tests and occupation lists, widening access beyond income thresholds, formal qualifications, or employer sponsorship.<sup>318</sup> By offering permanent residency rather than temporary placement, the program signals a shift toward family stability and longer-term settlement pathways.

The design begins to shift the logic of mobility away from short-term labour supply toward shared human-capital development. Permanent status enables families to remain together and allows skills, social networks, and institutional trust to deepen over time.

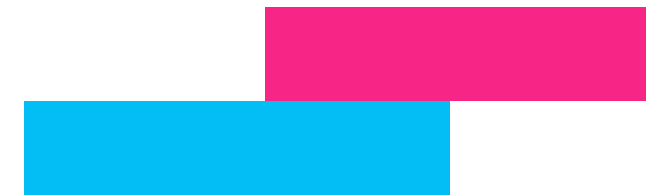
Its long-term impact, however, will depend on implementation. Transparent ballot administration will be needed to ensure equitable access. Settlement services must account for extended Pacific family structures. Education and skills programs will also need to support two-way learning and capability exchange. The PEV introduces an important structural change, but on its own it does not transform the wider migration system that shapes regional mobility.

## A Future Generations Policy Lens on the Subclass 192 Pacific Engagement Visa

Fairness Dimension	Alignment	Explanation
<b>Life Stage Equity</b>	→ Misalignment	Working-age-centred eligibility disrupts family continuity and caregiving networks, shifting future costs to health, aged-care, and community systems.
<b>Distribution Across and Within Generations</b>	→ Partial Alignment	Ballot-based access and cost barriers consolidate opportunity within established networks, narrowing who shapes future regional collaboration.
<b>Future Opportunities and Path Dependency</b>	→ Positive Alignment	Permanent migration pathways stabilise mobility but risk hardening early design assumptions without periodic review, leaving future governments with frameworks calibrated to past demographics and labour needs.
<b>Proportionate and Justified Trade-offs</b>	→ Partial Alignment	Administrative simplicity today transfers coordination and settlement pressures forward, resulting in dispersed responsibilities across agencies and higher baseline delivery costs for future administrations.
<b>Precautionary Approach</b>	→ Partial Alignment	Permanent migration pathways reduce instability and uncertainty in regional relationships, supporting long-term trust. However, without built-in review points, policies lack systematic risk scanning, early-warning indicators, and adaptive triggers to respond to emerging demographic, climate, or security shocks.



# Our opportunity to shape Australia's future



Australia's migration and regional engagement settings are currently calibrated to address short-term labour and mobility needs. When visas limit duration, rights, and pathways to permanence, relationships restart again and again. Families remain separated. Skills circulate only briefly. Regional confidence weakens as mobility functions as labour supply rather than shared regional development. Future Australians risk inheriting a neighbourhood defined by short-term exchange instead of durable cooperation.

A Future Generations Policy approach reframes mobility as a long-term capability system. It asks whether migration pathways support stable families, reciprocal movement, and lasting institutional ties across the region. Policies that enable longer residence, family continuity, and two-way mobility allow trust, skills, and institutional knowledge to deepen through repeated exchange. The central question becomes whether mobility remains organised around short-term extraction or is designed to sustain regional cooperation, workforce resilience, and strategic stability for decades to come.

The two speculative futures below, inspired by Victoria's story, explore how migration processes and regional stability could diverge by 2040 under continued trajectories or redesigned policy frameworks.

## ■ Speculative futures

### A fractured horizon

It is 2040, and the doorway has become a wall. Years of rising border anxiety, economic protectionism, and political backlash against migration have slowly closed it. Mobility has tightened as regional bodies fractured and cooperation weakened. Multilateral agreements gave way to ad-hoc arrangements shaped by short-term political interests rather than durable partnership. Each new government pursued visible domestic wins, prioritising immediate optics over long-term regional stability.

Workers still fill critical labour shortages, yet protections and long-term opportunities lag behind. Programs remain transactional, designed to meet short-term needs rather than support mutual development. Diaspora voices are rarely invited to shape policy design. Opportunities for exchange have narrowed, and migration policy has drifted back toward a familiar pattern of extraction, fuelling deep frustration across the region.

In classrooms, history remains selective. Students graduate without learning who once crossed the Torres Strait or who were left stateless in 1975 when the map shifted. Forgetting has become routine. The stories Victoria hoped would be remembered survive mainly in archives and family conversations, never reaching shared public understanding. Younger generations inherit the same disorientation, navigating systems that fail to recognise their histories and connections.

Without the steady movement of people and ideas, labour shortages deepen and innovation slows. Regional trust erodes as neighbours look elsewhere for partnership and support. What began as an effort to control borders has turned caution into separation, leaving Australia less connected and less secure in its own neighbourhood.

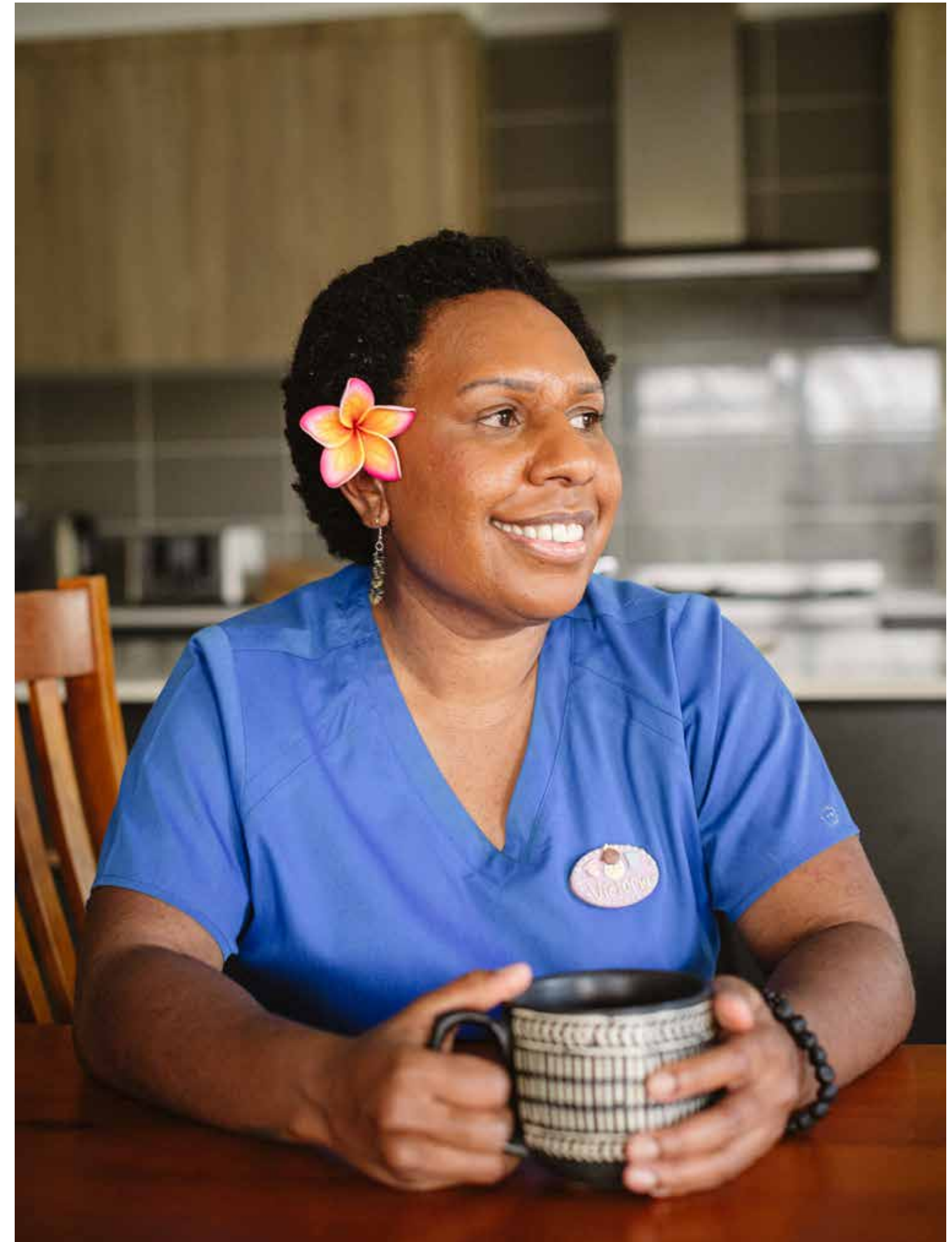
### A shared horizon

It is 2040, and the Torres Strait has become a shared civic and cultural corridor rather than a checkpoint, a living symbol of cooperation. Movement between Australia and Papua New Guinea (PNG) is routine, shaped by trust rather than suspicion. Families travel for births, funerals, study, and work without months of uncertainty. Mobility is now treated as a regional capability rather than a concession.

This shift began when diaspora leadership moved to the centre of policy design. People who live between worlds helped build health exchanges, shared qualifications, and joint training institutes. PNG's ingenuity in remote care informed Australian practice, while Australian training systems strengthened PNG's workforce without drawing it away. Reciprocity became embedded through shared investment, shared standards, and shared responsibility.

In schools, history is taught in full. Students learn the names that once disappeared from the margins and understand what happened in 1975 and why it still matters. Shared memory has become shared literacy, strengthening regional confidence and diplomatic stability.

For Victoria, the bridge she carries is no longer fragile. Institutions recognise the work she does across borders. Children grow up knowing they belong to two places that recognise one another.



## Portrait 15 Rocket



# Transforming Australia's Justice System

### The policy trajectory of Australia's justice system

Rocket's experience illustrates how the justice system converts initial contact into repeated return. Built around containment as a proxy for safety, it prioritises surveillance, control, and rule compliance. Far less attention goes to the conditions that enable personal and social stabilisation. Intervention concentrates on moments of crisis and withdraws before recovery takes hold. The drivers of contact therefore remain largely unchanged. Each return to custody interrupts employment, disrupts housing, and weakens family and community ties. Reintegration becomes harder each time. Disciplinary timelines are short and administratively efficient. Recovery from long-term disadvantage unfolds over years. The mismatch is built into the system itself. Risk becomes structural rather than behavioural. Justice responses therefore manage repeated disruption as a routine function. The conditions that produce contact remain in place, shaping outcomes across generations.

### The potential of Future Generations Policy to intervene

A Future Generations Policy approach redirects justice toward the conditions that sustain safety and participation. It reduces reliance on repeated custodial cycles by extending support beyond crisis points and aligning responses with the time required for housing stability, health recovery, skills development, and social reintegration. Earlier stabilisation becomes possible. Community capacity to support people leaving custody strengthens. The likelihood that disadvantage is reproduced declines. Such a recalibration supports safer communities and a justice system capable of stewarding long-term social outcomes across generations.

■ Today's approach to justice and incarceration

# Through Rocket's Eyes

**Rocket (she/her), 44**  
Larrakia Country  
(Darwin, Northern Territory)

Her relationship with the system began long before she ever entered it. "My parents met in jail. I grew up thinking jail was normal." The pattern repeated around her. Women she once served time with now have children walking into the same institutions. "The system isn't broken," she says. "It's designed like this." By her teens, addiction and violence shaped her world more than any support service ever did. By forty-four, she had been inside more than twenty times. "Each time I got out, I knew I was coming back."



She describes prison plainly. The boredom that "breaks your brain." Work she calls "slave labour", earning cents on the dollar for private companies. It's a place she refers to as a "university," where people learn "better contacts, better ways to commit crime, better ways to get away with it." To her, the failure is structural. "If prison was going to work, it would have changed me at eighteen." The conclusion she draws is simple. "We are not creating community safety. We are destroying it." Even the language carries weight. "Stop calling people prisoners. We are people who have been to prison." The label follows you out the gate. "Your sentence never stops," she says. "If you treat people like criminals for life, what do you think they are going to be?"

Rocket recalls the moment the system revealed its reflexes. She was three months from release when her mother offered her a lolly during a visit. Rocket took it, put it in her mouth, and that was enough to trigger a transfer to high security. "It wasn't even a good lolly," she recalls, half-amused by the absurdity of what it set in motion. By nightfall she had lost the job she had earned, the routine she depended on, and the fragile belief she might finally stay out. The lesson was familiar. In prison, the smallest misstep can reorder a life. High security nearly ended hers. "I didn't think I was going to make it," she recalls. Isolation pressed in until days blurred together. "It was just a really depressing, heavy situation."

What pulled her back arrived almost incidentally. A friend stopped her in the corridor and said, "Hey, Rocket, you left something down in your cell," before handing her a photograph of her dog, Ollie, the anxious rescue who had steadied her through the worst of her addiction. "His fur has so many of my

tears." In that small square of paper she saw the one relationship that had never given up on her. It read as a warning and a promise at once. "That photo right there saved my life and changed the whole direction of my world."

Getting out for good meant rebuilding a life from scratch. "I had to change my Facebook, phone number, address, my whole circle." The first year was quiet and lonely, but it made space for different people and different expectations. "The people I have in my life now, it's no comparison. I'm so thankful I was able to break that cycle."

Today, Rocket is an award-winning podcast host, works with the Justice Reform Initiative, speaks in parliaments, and delivers keynotes across the country. "My life now is surreal," she says. "I put in a lot of hard work." The lesson she carries is clear. Punishment and isolation have never changed a life. Care, connection, and naming the reasons harm occurs in the first place do. "People don't just wake up and decide to break into a place," she says. "If we wrap them up in care and connection, we can reshape their path."

Rocket's story points to one simple truth: cycles do not break on their own. The remedy has to be deliberate, a redirection strong enough to shift the momentum that keeps people trapped. Systems, she believes, can be rebuilt in the same way lives are transformed: through patience, attention, and refusing to accept harm as inevitable. Her message is stripped back to its core: "Never give up on people," she says. "That is all it takes to change a person's life."



## Today's policy landscape: Australia's justice system

Australia's imprisonment patterns expose deep systemic failure, most starkly in the Northern Territory (NT). The NT records the highest incarceration rate in the country at 1,411 per 100,000 adults, nearly five times the national average.<sup>319</sup> Aboriginal and Torres Strait Islander people are incarcerated at a rate of 2,559 per 100,000,<sup>320</sup> making them the most incarcerated people in the world.<sup>321</sup> The NT also records the highest two-year return-to-prison rate at 60.3%.<sup>322</sup> Repeated contact with the justice system has become routine.

Policy settings continue to expand the system's punitive reach. Australia still sets the minimum age of criminal responsibility at 10 in most jurisdictions,<sup>323</sup> despite repeated calls from the United Nations Committee on the Rights of the Child to raise it to 14.<sup>324</sup> In 2025, amendments to the NT Youth Justice Act widened the use of coercive measures.<sup>325</sup> The changes reintroduced head-covering restraints, broadened the definition of "reasonable force," and removed the principle that detention be used only as a last resort for children.

The Correctional Services Legislation Amendment Act 2025<sup>326</sup> expanded coercive authority inside NT prisons. It allows private and interstate personnel to be appointed as special officers. The change was introduced to address staffing pressures but intensified concerns about accountability and the expanding role of privatisation within a system already marked by disproportionate impacts on Aboriginal Territorians.<sup>327</sup>

Reintegration settings deepen these pressures. Many people leave custody with debt, minimal savings,<sup>328</sup> and restricted access to financial assistance.<sup>329</sup> These conditions undermine the ability to secure stable housing or employment. Both are among the strongest predictors of reduced reoffending,<sup>330</sup> yet they remain structurally underprovided.

The consequences extend across generations. A 2023 Australian Institute of Criminology report found that more than half of young people in youth justice centres had a parent who had previously been incarcerated. Justice system contact often passes through structural conditions rather than isolated individual behaviour.<sup>331</sup> Early exposure to incarceration within families increases developmental vulnerability,<sup>332</sup> disrupts education,<sup>333</sup> and narrows employment pathways.<sup>334</sup>

The fiscal cost is substantial. Governments spend AUD 6.8 billion each year on prisons.<sup>335</sup> Expenditure has increased by 50% over the past decade.<sup>336</sup> Incarceration costs an average of AUD 436 per person per day,<sup>337</sup> making it one of the most expensive policy

responses available. Yet jurisdictions with the highest imprisonment rates, including the Northern Territory, continue to record the highest return-to-custody rates.<sup>338</sup> High expenditure has not translated into safer outcomes.

Current policy settings prioritise custodial expansion over reintegration. Housing, income support, education, and employment remain scarce at the point of release. Without these stabilising supports, many people cycle repeatedly through custody.<sup>339</sup> In communities already experiencing concentrated imprisonment, the effects ripple outward.<sup>340</sup> Social cohesion weakens, economic participation declines, and incarceration begins to operate as a policy-driven amplifier of inequality.<sup>341</sup>

Australia's justice architecture trades short-term control for long-term instability. It reproduces intergenerational disadvantage<sup>342</sup> and places growing pressure on public budgets.<sup>343</sup> Reform is therefore not peripheral to Australia's commitments to human rights, fiscal responsibility, and community safety. It sits at their centre.



## The value of a future generations approach

Justice system design determines how risk, safety, and public cost move through society. When governments rely on custody without providing stabilising support, disruption spreads. Prison interrupts schooling and employment, destabilises family life, and weakens links to housing and health care. Communities and frontline systems absorb the strain. Children growing up in these environments encounter the same institutions earlier and more often. Justice contact becomes predictable system demand. What appears as individual offending reflects deeper structural conditions, with consequences for community safety, social cohesion, and public expenditure.

A Future Generations Policy approach assesses whether justice systems support the time required for stabilisation and recovery. It shifts focus away from short custodial cycles and toward early intervention

and continuity across housing, health, education, and employment. When these supports are coordinated and sustained, repeated justice contact falls and community safety strengthens.

Other systems demonstrate what different design choices can achieve. In Norway, the principle of normality requires prisons to mirror everyday life as closely as possible.<sup>344</sup> People in custody maintain access to education, vocational training, health care, and regular family contact. These conditions reduce institutional shock on release and lower reoffending by supporting stable reintegration. In Australia, Justice Reinvestment initiatives such as Bourke's redirect funding away from incarceration and into locally governed prevention.<sup>345</sup> These arrangements have reduced custody rates while strengthening community capacity to address risk before it escalates.

→ Further detail on these examples is provided in the Policy Innovation Library

The following analysis applies Future Generations Policy Analysis (FGPA) to the Northern Territory Correctional Services framework to examine how current justice settings shape long-term social outcomes and system demand.

### Case Study: The NT Correctional Services Act

The Correctional Services Act 2014 (NT)<sup>346</sup> governs custodial management and prison labour in the Northern Territory. Under section 54,<sup>347</sup> sentenced prisoners may be directed to work in prison industries. Although framed as a rehabilitative activity, prisoners are not recognised as employees,<sup>348</sup> receive wages well below minimum standards,<sup>349</sup> and do not have access to standard workplace protections.<sup>350</sup>

Education and training programs operate within the correctional system but face significant constraints, including limited funding, staffing shortages, and uneven access across facilities.<sup>351</sup> Much custodial labour also does not align with skills in demand in the external labour market, limiting its value for post-release employment.<sup>352</sup> Initiatives such as Sentenced to a Job<sup>353</sup> aim to strengthen pathways into work after release, yet barriers including unstable housing, stigma, and unmet health needs continue to restrict outcomes.<sup>354</sup>

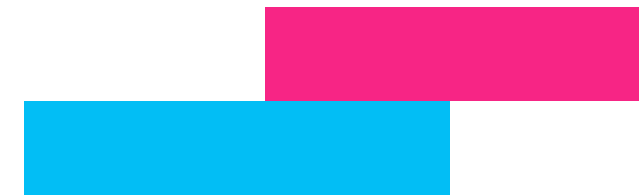
Recent plans to establish an Industry Skills and Employment Directorate<sup>355</sup> indicate growing recognition of these challenges. The effectiveness of this reform will depend on whether prison-based work and training programs are linked to housing, health, and employment pathways beyond the prison system.

## A Future Generations Policy Lens on the justice system

Fairness Dimension	Alignment	Explanation
<b>Life Stage Equity</b>	→ Misalignment	Early justice contact disrupts sensitive developmental transitions, weakening skill formation, identity consolidation, and durable attachment to education, work, and institutions at life stages where recovery windows are limited and disadvantages can compound over time.
<b>Distribution across and within generations</b>	→ Misalignment	Custodial labour practices and unstable release conditions concentrate economic insecurity and elevated support needs in already disadvantaged communities, while shifting downstream costs into health, housing, child protection, and education systems borne disproportionately by future generations.
<b>Future opportunities and path dependency</b>	→ Misalignment	Sustained reliance on incarceration establishes a high and rigid corrections baseline, embedding infrastructure, workforce, and political expectations that constrain future governments' capacity to reallocate resources toward prevention without fiscal, service, or political disruption.
<b>Proportionate and justified trade-offs</b>	→ Misalignment	Containment prioritises administrative simplicity and short-term control over coordinated, least-disruptive alternatives, obscuring full system costs and transferring coordination burdens and inefficiencies to future policymakers and frontline services.
<b>Precautionary approach</b>	→ Misalignment	The expansion of coercive authority elevates exposure to high-severity, potentially enduring harms despite uncertain benefits. In the absence of strong safeguards, oversight, and least-restrictive thresholds, long-term risks to wellbeing, institutional trust, and system legitimacy remain insufficiently managed.



# Our opportunity to shape Australia's future



Beyond individual harm, repeated containment weakens the foundations that support stability at scale. Custodial cycles interrupt education, employment, and family ties. Skills fail to consolidate. Institutional trust erodes. Community safety declines. Governments respond with increasingly intensive interventions while the conditions that produce crisis remain unchanged. Public spending rises, shifting growing costs onto future budgets and leaving future generations to manage a justice system built to respond to breakdown rather than sustain collective wellbeing.

A Future Generations Policy approach tests whether justice interventions match the time required for stabilisation and recovery. Justice governance must align with the longer horizons required for recovery. Prioritising early intervention, continuity of support, and prevention can reduce repeated system contact and stabilise outcomes before disruption takes hold. These choices shape the system future governments inherit: one capable of governing risk, or one structured to absorb it.

Below are two speculative futures inspired by Rocket's story that examine how justice system capacity and community safety by 2040 diverge under continued trajectories or altered policy settings.

## ■ Speculative futures

### A future of continued cycles

It is 2040, and nothing fundamental has shifted. “Tough on crime” politics still dominate even as the evidence drifts further from the claim. Governments expanded prisons through the 2020s and 2030s, entrenching containment as the default response to harm. Facilities now operate beyond capacity. High-security units push people into crisis rather than stabilisation. Addiction remains criminalised, and mental-health care stays uneven, accessible in some postcodes and absent in others. People leave custody with little secured: no savings, no qualifications, no stable housing, and no ongoing care. Many soon return to a system calibrated to catch them slipping. The revolving door keeps turning, a machine feeding its own demand.

Families live with prolonged instability. Children cycle through foster care. Classrooms carry the weight of trauma no one addressed. Employers report rising absenteeism tied to addiction and mental ill-health. Emergency departments absorb the consequences of systems that intervene only after a crisis erupts. Local services strain as burnout becomes routine. Communities fray, and trust in institutions continues to fade. Perceptions of safety decline even where crime rates remain stable. Contact with the justice system threads through households until what was once exceptional passes without remark.

Governments keep pouring billions into the same architecture: more beds, more units, and more security measures. The supports that might have stabilised housing, youth work, mental-health care were repeatedly crowded out of budgets. Lost productivity, emergency care, child-protection costs, and incarceration itself deepen the economic drag.

The cycles now stretch across generations. Children of those incarcerated decades earlier raise families under the same weight. Early encounters with the justice system harden into pathways that remain difficult to leave. The system’s failure extends beyond prison walls. It thins the foundations on which genuine safety rests: trust, opportunity, capability, and connection. A nation that invested in containment over care now sees the cost in classrooms, workplaces, hospitals, and neighbourhoods, and in the stories future generations tell about what they were left to inherit.

### A system that chooses repair

It is 2040, and Australia’s justice system reflects what lived experience had shown for decades: people change when systems stop working against them. Reform began with a national reckoning that crime is shaped by poverty, trauma, and disconnection, and that these forces can be interrupted. Governments rebuilt the system to stabilise lives rather than compound their fractures. Prisons now function as circuit breakers at critical turning points.

The change is visible from the first step inside. Health workers, housing coordinators and educators meet people at the door and begin repairing the conditions that brought them into custody. Cells resemble rooms. Clothing mirrors life outside. Days settle into routines of learning, treatment, and paid work with proper rights and protections. Training aligns with labour-market pathways, and people leave with qualifications and savings that matter beyond the gate.

Reintegration begins well before release. Months in advance, people apply their skills in real settings, rebuilding confidence and social connection. By the time they leave, the foundations are already in place: documents secured, appointments booked, familiar staff walking alongside them. A working phone, transport fees, and a stable address remove the fragility that once made returning almost predictable. Small details that once made life precarious now hold it steady.

Reoffending falls as unstable housing, untreated health needs, and financial precarity lose their grip. Families experience fewer ruptures. Schools and frontline services face fewer crises flowing toward the justice system. Children step into futures no longer shaped by stigma and precarity. People with lived experience design programs, train staff, and advise on policy. Sentencing centres dignity. The age of criminal responsibility rises. Youth incarceration declines as early intervention takes hold. Prisons shrink while community hubs and on-Country programs rebuild connection to kin, culture, and place. Addiction is treated as a health condition, and trauma-informed care begins on day one.



# The Path Forward

## From short-term fixes, to long-term stewardship

Australia is reaching the limits of short-term policymaking. The portraits in this collection show a consistent pattern across housing, agriculture, education, climate transition, digital systems, democracy, and justice. Systems built for a different era still shape the conditions younger generations will inherit. When institutions operate on short cycles, long-term effects compound quietly until they become costly, destabilising, and difficult to reverse.

The stories we feature show that the issue is a structural design failure rather than a simple lack of effort or intent. Policy systems respond to immediate pressures and give less attention to continuity, prevention, and capability. In the short term, systems appear stable. In practice, risk shifts forward, resilience weakens, and opportunities narrow for the generations that follow.

Future Generations Policy helps bring these dynamics into view. It extends the time horizon used to evaluate policy choices. The framework asks decision-makers to examine how current actions shape future capability and whether systems strengthen resilience or weaken it. Across the portraits, the contrast is evident. When institutions ignore long horizons, disadvantage deepens. When systems invest early, coordinate across portfolios, and maintain policy stability, capability grows and recovery becomes less costly.

This perspective aligns with a wellbeing economy approach. Economic strength depends on social connection, institutional trust, ecological stability, and human capability. Long-term prosperity requires systems that endure, adapt, and sustain value across generations.

The portraits also point to the risks that emerge when systems continue to prioritise short-term responses.

Inequality will widen, trust in institutions will weaken, fiscal pressures will rise, and regional vulnerability will deepen. These pressures grow through repeated decisions that favour immediate relief. Younger generations, regional communities, and those with the least capacity to absorb disruption will bear the greatest burden. Over time, fairness and national resilience will decline together.

Across the portraits, three areas of institutional change appear especially important. The first is defining shared long-term wellbeing outcomes and tracking them transparently. The second is embedding intergenerational thinking in decision-making through future impact assessments, long-term budget alignment, and cross-portfolio coordination where challenges span decades. The third is establishing durable avenues for generational voice and oversight, including deliberative forums and independent mechanisms that safeguard long-term interests beyond electoral cycles. These reforms improve decision quality and help ensure that policies remain sound as conditions change.

Intergenerational thinking is an act of stewardship and design. The future is shaped through the policies, incentives, and institutions built today. The central question for Australia is whether governance will continue to respond to pressure cycle by cycle, or whether it will safeguard the capabilities that sustain wellbeing across generations.

When long-term responsibility guides decision-making, better choices follow. Foreseeable harm can be addressed before it becomes entrenched. Opportunity can be renewed and expanded. Each generation inherits stronger foundations. This is the generational dividend at stake.

# Future Generations Storylining Analysis

This report introduces Future Generations Storylining Analysis (FGSA), a methodology developed through the Portraits of Our Future collection. FGSA emerged from a practical problem: many tools used to evaluate long-term policy impacts are either too abstract to capture how change is lived or too focused on immediate measurable outputs to account for what unfolds across generations.

FGSA was designed to support understanding rather than judgement. Its purpose is to illuminate long-term consequences, surface tensions and trade-offs, and open space for dialogue about alternative pathways that better support future generations. The approach supports sensemaking at the point where choices are still open, before decisions become difficult to reverse.

The methodology translates lived experience into policy insight through a structured analytical sequence. It integrates human-centred storytelling, Narrative Causal Layered Analysis (N-CLA), futures exploration, and Future Generations Policy Analysis into a coherent process. While each of these practices exists independently, FGSA brings them together in a way that grounds foresight and policy analysis in lived realities and connects individual experience to broader institutional and cultural dynamics.

FGSA is interpretive in nature. It does not seek to predict specific futures. Rather, it provides a structured way to examine how present choices shape the range of futures that remain possible and how policy decisions can expand or constrain options for generations yet to come.

Storytelling plays a central analytical role in this process. In FGSA, narratives are not illustrative additions to analysis. They function as the entry point through which systems are examined and policy implications are interpreted.

## Design principles

FGSA is guided by four methodological principles that shape how evidence is gathered, interpreted, and translated into policy insight.

### Interpretive orientation

FGSA adopts an interpretive approach to policy analysis. The method focuses on understanding how present decisions shape long-term consequences across systems and generations. Its purpose is to illuminate trade-offs, reveal systemic dynamics, and support reflection while policy choices remain open and adaptable.

### Narrative grounding

Lived experience forms the starting point of analysis. In FGSA, narrative serves as a core source of policy insight. Personal stories reveal how systems are encountered in everyday life, where gaps appear between policy intent and outcomes, and where pressures accumulate across time. These narratives provide the empirical grounding for the analytical stages that follow.

### Sequenced analysis

FGSA proceeds through a structured sequence of analysis. The process begins with lived experience and moves through systems framing, policy evaluation, and futures exploration. Each stage builds on insights developed in the previous stage, allowing understanding to deepen progressively. Layered analysis adapted from Causal Layered Analysis supports interpretation across these stages by connecting surface experiences with systemic drivers, worldviews, and deeper narratives.

### Transferable insight

The portraits included in this collection are designed to generate deep insight into how systems operate in practice. The aim is to identify patterns, tensions, and leverage points that can inform policy thinking across contexts. FGSA therefore emphasises the transferability of insight while recognising the specificity of each individual story.

## FGSA as a sequenced process

FGSA unfolds through four stages: narrative analysis, systems framing, policy evaluation, and futures exploration.

The sequencing reflects how people encounter policy in practice. Lived experience reveals the pressures created by systems. Systems operate through institutional arrangements and cultural assumptions. These dynamics shape how societies imagine the future and determine which possibilities remain open.

The methodology draws on Causal Layered Analysis (CLA), a well-established and widely used foresight method developed by Sohail Inayatullah. CLA examines issues across four layers: surface problems, systemic drivers, dominant worldviews, and deeper cultural narratives. FGSA adapts this approach through Narrative Causal Layered Analysis (N-CLA), which uses lived experience and personal narratives as the starting point for layered interpretation.

Rather than appearing as a standalone step, layered analysis supports the movement between stages. It helps interpret current system dynamics and connect them to possible future trajectories.

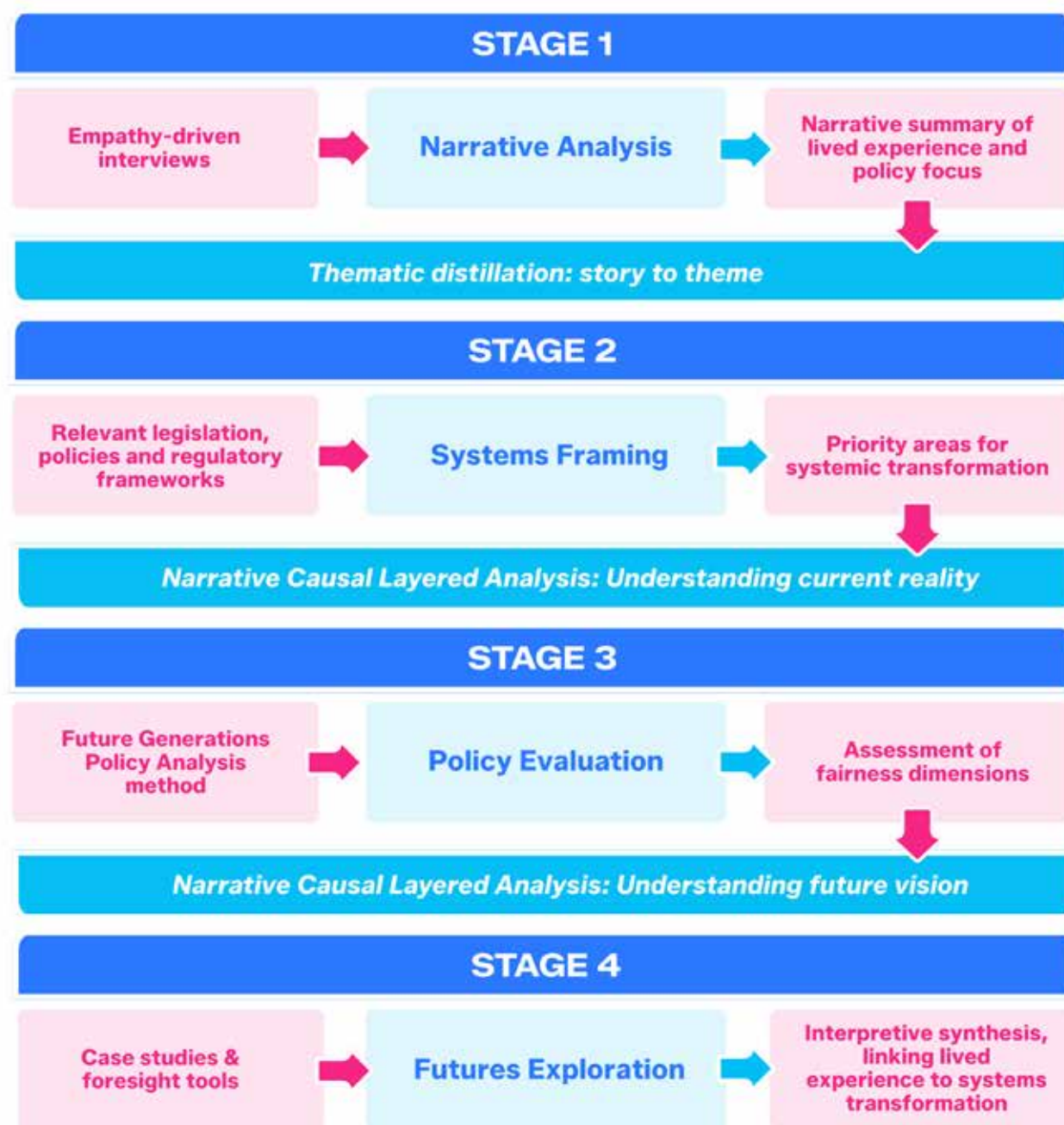


Figure 1: The Future Generations Storylining Analysis Methodology

## Stage 1: Narrative analysis

FGSA begins with the human frame, using narrative analysis to understand how individuals experience systems and policies in their everyday lives. Empathy-driven interviews capture lived realities and provide the foundation for examining how institutional arrangements shape opportunities, constraints, and future prospects.

Participants engage through in-depth conversations and written reflections that allow space for sense-making and consideration of long-term futures. Lived experience is treated as a legitimate source of policy insight. Personal narratives often reveal tensions between policy intent and outcomes, highlight pressures created by system design, and surface opportunities for reform.

Interviews are semi-structured and dialogic, allowing participants to guide emphasis and interpretation. Researchers prioritise active listening, clarification, and reflection so that the narrative reflects participants' meanings while situating their experiences within broader policy contexts.

The analytical purpose of this stage is to construct a coherent narrative that illustrates the challenges and possibilities present within the relevant policy domain. From these narratives, recurring themes are distilled. These themes signal where systemic pressures appear most clearly and indicate which element of the broader policy landscape requires closer examination in the next stage.

## Stage 2: Systems framing

Once the focal issue emerges from the narrative, FGSA situates it within its policy and institutional context. Systems framing examines the legislation, regulatory frameworks, institutional arrangements, and governance responsibilities that shape current outcomes.

The objective is to clarify how the system currently operates and which elements most directly influence the challenge surfaced in the narrative. The analysis focuses on the structural question revealed through lived experience. For example, a story about justice reform may centre the challenge of preventing people from cycling back into prison after release. A story about energy transitions may focus on how coal-dependent communities are supported during economic transformation.

Mapping this policy landscape provides orientation. It identifies the actors, incentives, and institutional settings that stabilise current conditions and shape the boundaries within which change can occur.

At this point, the analysis draws on Narrative Causal Layered Analysis (N-CLA), an adaptation of Causal Layered Analysis that uses narrative as the entry point to layered interpretation. This perspective helps connect visible policy outcomes with deeper systemic drivers, dominant assumptions, and cultural narratives that sustain current arrangements. These insights help explain why certain patterns persist and prepare the ground for evaluating policy performance.



Figure 2: Value transformation in Causal Layered Analysis

### Stage 3: Policy evaluation

The next stage evaluates how current policies perform through the lens of intergenerational fairness. This evaluation is conducted using Future Generations Policy Analysis, which applies the Intergenerational Fairness Dimensions of the Future Generations Policy Framework.

Drawing on insights from narrative analysis and systems framing, the evaluation examines how policies affect people across the life course, how benefits and burdens are distributed across and within generations, and how present decisions influence future opportunities. It also considers whether short-term trade-offs are justified by clear long-term benefits and whether policies anticipate long-term risks through precaution.

This structured assessment highlights where policies support intergenerational fairness, where progress exists alongside unresolved tensions, and where systemic dynamics continue to reinforce short-term outcomes. By making these dynamics visible, the evaluation clarifies where policy design may require adjustment to better support long-term wellbeing.

The layered insights generated through Layered Analysis continue to inform interpretation at this stage. Understanding the worldviews and cultural narratives embedded in policy settings helps explain why certain policy choices persist and where meaningful shifts may become possible.

#### Future Generations Policy Analysis (Intergenerational Fairness)

Future Generations Policy Analysis is the primary policy-facing component of FGSA and the mechanism through which intergenerational implications are examined across the portraits. The analysis draws on the Future Generations Policy Framework and applies its Intergenerational Fairness Dimensions to interpret how current policies and institutional arrangements shape outcomes across time.<sup>356</sup>

Building on insights developed through narrative analysis, systems framing, and layered interpretation, this evaluation examines how policy choices affect present and future generations. The analysis considers how current systems distribute benefits and burdens, how they influence future opportunities, and whether policy design supports long-term resilience.

Policies are assessed across five dimensions of intergenerational fairness.

- **Life stage equity:** Examines how different age groups are affected by the policy and whether its impacts are balanced across the life course.
- **Distribution across and within generations:** Considers how benefits and burdens are shared across time, geography, and social groups.
- **Future opportunities and path dependency:** Explores how present decisions influence the capacity of future generations to adapt, innovate, and respond to emerging challenges.
- **Proportionate and justified trade-offs:** Assesses whether short-term sacrifices are accompanied by clear and collective long-term benefits.
- **Precautionary approach:** Evaluates whether policies anticipate long-term risks and act early to prevent foreseeable harm, even in conditions of uncertainty.

To support clarity and dialogue, each dimension is interpreted using three alignment indicators:

- ↗ Positive Alignment: Supports intergenerational equity and long-term wellbeing outcomes
- ↗ Partial Alignment: Shows mixed outcomes or early progress but contains unresolved risks
- ↗ Misalignment: Reinforces inequity or short-term bias that undermines long-term outcomes

### Stage 4: Futures exploration

The final stage examines how present conditions could evolve over time and how different decisions today might shape the circumstances inherited by future generations. Insights from the narrative, the policy landscape, and the policy evaluation are brought together to explore possible trajectories.

Foresight tools are used to develop speculative futures that illustrate how current system dynamics may unfold. Each portrait presents two contrasting futures. One explores the risks that emerge if existing trajectories continue. The other examines the possibilities that arise when systems are intentionally redesigned to support long-term wellbeing and intergenerational fairness.

These futures function as interpretive tools. They help clarify the consequences of present choices and highlight how institutional decisions, cultural narratives, and policy design interact over time. The aim is to make long-term implications visible so that policymakers and communities can better understand the pathways through which different futures may emerge.

Across the four stages, FGSA connects lived experience with systems analysis, policy evaluation, and futures exploration. This sequencing allows individual stories to illuminate systemic dynamics and enables policy discussions to consider both immediate outcomes and the longer-term legacies of today's decisions.

## Addressing limitations and methodological choices

As an interpretive methodology grounded in narrative research, FGSA involves a series of methodological choices that shape how insights are produced and interpreted. These choices are acknowledged explicitly to clarify both the strengths and the limitations of the approach.

#### Scale, representation, and scope

The Portraits of Our Future collection is based on fifteen in-depth portraits and is not designed to achieve statistical representation. FGSA prioritises depth of insight over breadth of coverage. Lived experience is used to illuminate how systems operate in practice and to surface pressures that may not appear in aggregate policy analysis.

The analytical aim is transferability. Recurring dynamics, risks, and leverage points are identified across portraits to inform broader policy thinking while preserving the specificity of individual stories.

#### Narrative–structural balance

Story-led research requires analytical structure to ensure interpretation remains grounded and systematic. FGSA addresses this by embedding narrative inquiry within a sequenced analytical process that includes systems framing, layered interpretation, policy evaluation, and futures exploration.

Narrative Causal Layered Analysis and Future Generations Policy Analysis link lived experience to institutional arrangements, cultural assumptions, and policy design. Narrative therefore functions as an analytical entry point that enables emotional resonance while supporting deeper systemic analysis.

#### Interpretive judgement and positionality

FGSA is an interpretive methodology. Judgement is exercised in identifying themes, framing policy systems, interpreting cultural narratives, and constructing speculative futures.

These interpretive steps are supported through transparent sequencing, collaborative review within the research team, and grounding in participant testimony, policy contexts, and established analytical frameworks. The methodology does not claim neutrality. It aims to maintain reflexivity, coherence, and accountability in how interpretations are formed.

#### Power, voice, and co-construction

Participants' lived experiences form the primary source of insight within the collection. Narratives are developed through dialogue between participants and researchers, with participants recognised as knowledge holders who contribute meaningfully to the analytical process. Interpretation is anchored in participants' expressed values, concerns, and aspirations, and the analysis seeks to ensure that these perspectives remain visible as the narratives are translated into policy and systems insights.

The research team retains responsibility for synthesis, interpretation, and framing. This relationship introduces an inherent asymmetry that is acknowledged as part of the methodological design. FGSA addresses this dynamic by grounding analysis in participant testimony and by maintaining transparency in how narratives are interpreted and translated into policy insight.

### Preparatory rather than predictive foresight

FGSA does not attempt to predict future events or assign probabilities to specific outcomes. The speculative futures included in each portrait function as preparatory tools that explore plausible trajectories grounded in present-day system dynamics.

By clarifying how different choices may influence future conditions, the futures exercise helps illuminate risks, trade-offs, and opportunities under conditions of uncertainty.

### Purpose and use

These methodological choices reflect a deliberate balance between analytical rigour and accessibility. FGSA is designed to support policy and governance discussions while remaining grounded in lived realities.

Its contribution lies in its capacity to connect personal experience with systemic analysis, illuminate long-term consequences, and support more reflective decision-making across generations.



# Policy Innovation Library

## Portrait 1 Pema

### Finland: Embedding arts within health and wellbeing systems

Since launching its Art and Culture for Well-being Action Programme<sup>357</sup> in 2010, Finland has integrated arts and culture into health and social policy,<sup>358</sup> treating creative expression as preventative infrastructure rather than a discretionary sector. National coordination bodies such as Taikusydän<sup>359</sup> embed cultural participation across schools, community services, and healthcare, reframing creativity as foundational to wellbeing.

Evidence from initiatives like ArtsEqual<sup>360</sup> shows improved mental health, reduced loneliness, stronger equality, and greater inclusion, alongside long-term social and economic returns through lower downstream costs.<sup>361</sup> Continued progress depends on shared indicators and cross-sector coordination, which would reinforce a core wellbeing economy principle: sustained, preventative cultural investment aligned across portfolios generates cumulative benefits that strengthen social resilience over time.

This model demonstrates how culture, when treated as essential infrastructure and governed collaboratively, produces wellbeing gains that compound across generations.

### Canada: Embedding belonging through durable governance frameworks

Canada embedded multiculturalism as a guiding governance principle through the Charter of Rights and Freedoms (1982) and the Canadian Multiculturalism Act,<sup>362</sup> making it the first country<sup>363</sup> to legislate multiculturalism nationally. Institutions such as the Department of Canadian Heritage<sup>364</sup> and advisory bodies including Canadian Council of Multiculturalism and Cohesion (COMAC)<sup>365</sup> operationalise this commitment through sustained funding, cultural grants, youth programs and cultural trade initiatives.<sup>366</sup>

These frameworks have supported integration<sup>367</sup> by enabling minority communities to retain cultural identity while participating fully in civic, social and political life. Evidence points to strong senses of belonging<sup>368</sup> among immigrants, high political engagement<sup>369</sup> and recognition within federal and provincial planning of culture's contribution to regional economic resilience.<sup>370</sup>

While disparities persist,<sup>371</sup> Canada's experience shows how legislated, institutionally anchored approaches can sustain cohesion and cultural expression over time. The lesson is clear: long-term cultural wellbeing is built through durable systems that treat cultural participation as an intergenerational public good rather than a short-term program.

## Portrait 2 Stafford

### Ireland's succession innovation: Opening new pathways into farming

Ireland faced an ageing farming population, with an average farmer age above 57,<sup>372</sup> alongside significant barriers<sup>373</sup> limiting entry for young people. In response, the Land Mobility Service<sup>374</sup> was launched in 2021 to connect farmers seeking succession partners with new entrants. The service supports long-term leasing, collaborative farming arrangements and succession planning, underpinned by tax incentives and training programs.<sup>375</sup> Since 2015, it has facilitated over 950 arrangements,<sup>376</sup> with 44% of agreements<sup>377</sup> in 2022 involving long-term leases that provide investment security while allowing retiring farmers to retain ownership. The model explicitly recognises that succession does not always occur within families.

Further strengthening could come from expanded structured training and mentoring, supporting both entrants and landowners to build the confidence, communication skills and long-term planning capacity needed to sustain collaborative arrangements over time.

### Denmark's long-term climate agreements: Building policy certainty for generational adaptation

Denmark recognised that short-term policy cycles were limiting farmers' ability to make the long-term investments required for climate adaptation.<sup>378</sup> In 2021, the government, farmers' organisations, environmental groups, and political parties negotiated long-term climate agreements<sup>379</sup> with clear targets, timelines, and support mechanisms extending to 2030 and beyond.<sup>380</sup> This process culminated in the 2024 Green Tripartite Plan,<sup>381</sup> one of the most comprehensive national agricultural climate policies globally,<sup>382</sup> combining nature restoration with production efficiency and introducing the world's first carbon tax on agricultural emissions.

The model demonstrates how early clarity, cross-sector negotiation and stable long-term rules can unlock investment, reduce resistance, and accelerate transition in politically sensitive sectors. At the same time, effective delivery depends on local implementation capacity, particularly given reliance on ambitious afforestation targets and municipal delivery in a context of stretched local resources.<sup>383</sup> Addressing these constraints through strengthened local capacity, stable long-term financing and streamlined governance will be central to translating Denmark's policy ambition into sustained on-the-ground impact.

## Portrait 3 Malmi

### Singapore: Future Skills Framework for anticipatory planning

Launched in 2015, Singapore's SkillsFuture Movement<sup>384</sup> marked a major shift from a qualification-based education model to a lifelong, skills-first approach.<sup>385</sup> At its core is the Singapore Skills Taxonomy,<sup>386</sup> framework aligning education, training and industry needs. Tools such as the Career Skills Passport<sup>387</sup> and real-time skills dashboards enable coordinated, forward-looking workforce planning across government, employers and education providers,<sup>388</sup> while recognising diverse learning pathways and anticipating emerging skills demand.<sup>389</sup>

The movement has significantly strengthened Singapore's lifelong learning culture, supporting skills development, career transitions and worker empowerment. In 2023, around 520,000 individuals, roughly one-fifth of the workforce, and 23,000 employers participated in training programs supported by SkillsFuture Singapore (SSG).<sup>390</sup> According to SSG's survey, 93% reported that training played a pivotal role in career advancement.<sup>391</sup>

As with any large-scale system, continued effectiveness depends on coordination and inclusion. Strengthening alignment across programs, deepening industry engagement and widening access for lower-wage and non-standard workers will help ensure the system remains cohesive and equitable.<sup>392</sup>

### Estonia: AI Leap Program

Estonia's AI Leap 2025 program<sup>393</sup> represents a deliberate evolution of the country's long-standing digital education strategy, building on the legacy of the Tiger Leap initiative<sup>394</sup> of the 1990s that introduced computers and the internet to all schools. AI Leap aims to equip students and teachers with the tools and skills needed for an AI-driven economy through early, system-wide investment rather than fragmented experimentation.

The program initially provides 20,000 upper-secondary students and 3,000 teachers with access to leading AI tools, with expansion to vocational education and incoming student cohorts in 2026. Delivery is governed through a dedicated public-private AI Leap Foundation, combining state oversight with private-sector capability. Teacher capacity sits at the centre of the model, enabling educators to use AI to personalise learning, support student progress and integrate technology in developmentally appropriate ways. International partnerships<sup>395</sup> further broaden equitable access to high-quality tools.

Effective delivery depends on careful calibration<sup>396</sup> to ensure tools reflect local linguistic and cultural contexts, meet safeguards for use with minors, and are embedded in ways that strengthen critical engagement rather than passive reliance. In doing so, the program reinforces its core strength: a teacher-centred, coherent approach that positions Estonia to embed digital and cognitive resilience into education in ways that are equitable, adaptive and enduring across generations.

## Portrait 4 Zen

### Netherlands: Room for the River: Learning from local knowledge

Following the 1993 and 1995 floods, the Netherlands' Room for the River<sup>397</sup> program (2005-2015) reimagined flood management by giving rivers more space and treating communities as genuine partners.<sup>398</sup> Local knowledge on water behaviour, land use, and cultural priorities complemented technical assessments, producing interventions that were more adaptive, socially supported, and legally durable than traditional engineering alone.

The program delivered multiple benefits<sup>399</sup> across agriculture, nature restoration, housing, and cultural heritage, showing how climate adaptation can advance multiple public outcomes simultaneously. Key considerations remain<sup>400</sup> around measuring long-term risk reduction, valuing cultural and ecological gains, and assessing transferability to other contexts with different legal and environmental conditions. Developing adaptive evaluation tools that integrate environmental and socio-cultural outcomes would strengthen learning across contexts.

### Costa Rica: Community-based disaster risk management

Costa Rica has built one of the world's most effective disaster preparedness systems, supported by a communication network that covers 97% of the country.<sup>401</sup> Its approach begins with the recognition that communities are the first and most capable responders. The National Commission for Risk Prevention and Emergency Response<sup>402</sup> (CNE) coordinates national efforts while empowering local emergency committees<sup>403</sup> with autonomy, training, and structured institutional support.

By embedding community expertise within a strong national framework,<sup>404</sup> Costa Rica achieves disaster preparedness that is faster, more trusted, and more resilient. The next challenge is scaling these community-led models to meet intensifying climate hazards while safeguarding the local ownership that underpins their success.

## Portrait 5 Sue

### Buurtzorg, Netherlands: Community-led home care

Founded in 2006, Buurtzorg<sup>405</sup> transformed home care through self-managing, nurse-led teams that replace hierarchy with trust and proximity. Small neighbourhood teams take full responsibility for coordination, treatment, and community engagement, improving continuity and relationships while reducing administrative burden. Local autonomy also fuels innovation, with frontline initiatives<sup>406</sup> often scaling nationally. Independent evaluations<sup>407</sup> show savings of up to 40% through reduced care hours without compromising quality, demonstrating that human-centred design can improve both outcomes and efficiency.

A 2023 scoping review<sup>408</sup> found that international replication efforts often encounter institutional and regulatory constraints. Successful adaptation would depend on<sup>409</sup> enabling regulatory settings, sustained organisational support, and investment in workforce capability.

### Kerala, India: Compassionate communities and palliative care

Kerala has built one of the world's leading community-based palliative care systems, with more than 70% of its population receiving access, compared with only 1% nationally.<sup>410</sup> The Compassionate Community movement<sup>411</sup> drove the success by reframing palliative care as a shared civic responsibility, enabling more than 1,700 home-care units led by local governments, civil society organisations, and trained volunteers. Clinicians provide medical support while volunteers offer psychosocial and spiritual care, fostering "death literacy" and embedding dignity, connection, and community participation into end-of-life care.

This ecosystem demonstrates<sup>412</sup> how social capital can expand equitable access and create long-term community resilience. Yet the same system places significant strain<sup>413</sup> on providers, who often face heavy workloads, limited training, and emotional fatigue. Sustainable this model depends on protecting provider wellbeing, including manageable workloads, clear training pathways and support structures that sustain those who make community-led care possible.

## Portrait 6 Dee

### Baltic Nest: Integrating Science into Baltic Sea Policy

Baltic Nest is a science-based decision support system developed under Sweden's MARE research program<sup>414</sup> to address long-standing eutrophication and declining fish stocks<sup>415</sup> in the Baltic Sea. Nutrient runoff from agriculture and wastewater has driven recurring algal blooms and oxygen-depleted seabeds. Baltic Nest<sup>416</sup> integrates ecological, oceanographic, biogeochemical and socio-economic data to link land-based nutrient flows to marine outcomes, enabling HELCOM (the Helsinki Commission) to simulate interventions<sup>417</sup> such as improved wastewater treatment or changes in agricultural practices and assess their environmental and economic impacts.

The system underpins the Baltic Sea Action Plan (BSAP) by supporting scientifically grounded, country-specific nutrient reduction targets aligned with "good ecological status" outcomes, including water clarity, oxygen levels, algal blooms and fish stock recovery. As BSAP has moved into national implementation, HELCOM has expanded its indicator set to track a wider range of variables, from chlorophyll concentrations and oxygen deficits to benthic habitat health. Baltic Nest has played a central role in enabling this more comprehensive, science-informed monitoring framework.<sup>418</sup>

At the same time, implementation highlights the complexity of translating science into policy where economic and sectoral interests diverge. Scientific recommendations on nutrient limits often collide with agricultural and regional development priorities, leading to debate over uncertainty, cost-benefit assumptions and the selection of appropriate measures.<sup>419</sup> Greater alignment between agricultural, coastal and marine policies, alongside co-produced scientific advice with affected stakeholders, would strengthen the pathway from modelling to durable ecosystem recovery.

### Fiji's Locally Managed Marine Areas: A Community-Led Model for Marine Governance

Fiji's Locally Managed Marine Area (LMMA) network shows how coastal recovery accelerates when community authority, scientific monitoring and adaptive management reinforce one another. Faced with overharvesting, weak enforcement and climate pressures, nearshore fisheries were deteriorating, threatening food security in communities reliant on customary qoliqoli fishing grounds. In Ucunivanua village on Viti Levu, the near disappearance of the kaikoso clam by the late 1990s prompted a partnership with University of the South Pacific researchers to establish a 24-hectare tabu (no-take) area, grounded in customary practice and guided by scientific monitoring.<sup>420</sup>

Within seven years, clam populations had recovered and village incomes increased. This success catalysed the formation of the Fiji LMMA network in 2001, bringing together communities, NGOs, scientists and government agencies. The network supports training in biological monitoring, mapping, enforcement and social data collection, while fostering cross-community learning and adaptive governance. By 2009, more than 250 LMMAs covered over 10,000 km<sup>2</sup> with monitoring showing increased fish biomass, species recovery and expanded leadership roles for women and youth. Average household incomes in participating communities rose by more than 40% within a few years.<sup>421</sup>

Comparative research indicates that while LMMAs strengthen governance capacity, knowledge and participation, outcomes vary across sites, with uneven benefits, inter-community tensions and limited integration of scientific data constraining consistency.<sup>422</sup> Even so, Fiji's LMMA model demonstrates how locally grounded authority, youth leadership and science-based monitoring can jointly shape marine governance from the ground up.

## Portrait 7 Nick

### Taiwan's circular waste economy: From garbage island to global model

In the 1990s, Taiwan was known as "Garbage Island,"<sup>423</sup> with overflowing landfills, low collection rates, and minimal recycling. Today, it is a global leader in waste reduction and resource recovery.<sup>424</sup> Transformation began in 1997 with the 4-in-1 Recycling Program,<sup>425</sup> which coordinated community organisations, local governments, recycling enterprises and a central recycling management fund. This integrated structure created clear responsibilities and stable financing for nationwide recycling efforts.

Momentum deepened in 2022 with the release of Taiwan's Pathway to Net Zero Emissions in 2050,<sup>426</sup> positioning circularity as a core pillar of climate strategy and reinforcing cross-ministerial collaboration. Behavioural change was driven by the Pay-As-You-Throw system,<sup>427</sup> which requires residents to purchase authorised rubbish bags, creating a direct incentive to reduce waste and sort recyclables. Supported by the country's distinctive musical garbage trucks,<sup>428</sup> the system has normalised participation and supported the growth of a domestic circular economy sector.

Taiwan's experience shows how integrated policy, stable financing and civic engagement can transform waste management from a national liability into a circular economy asset. Ongoing progress will depend on deeper coordination across households, businesses and government, particularly to address persistent plastic pollution and strengthen producer responsibility.<sup>429</sup>

### Kalundborg's industrial symbiosis: Turning waste into value

Since the 1960s, the Danish town of Kalundborg has pioneered industrial symbiosis, where companies exchange energy, water and by-products to generate shared environmental and economic benefits. Surplus steam from the Asnæs power plant supplies neighbouring industries and district heating, refinery gypsum becomes plasterboard, pharmaceutical sludge is converted into fertiliser, and fly ash is reused in cement and road construction. These exchanges have reduced raw material use, lowered energy demand and cut waste-management costs.<sup>430</sup>

A 2020 lifecycle assessment found that the symbiosis saves more than three million cubic metres of groundwater annually and recycles around 62,000 tonnes of residual materials each year.<sup>431</sup> Unlike linear supply chains, industrial symbiosis prioritises reuse and the valorisation of by-products. Replication elsewhere has proven more complex, with barriers including coordination across firms, geographic dispersion and reluctance to redesign processes around secondary materials.<sup>432</sup>

Emerging approaches suggest that hybrid models, combining Kalundborg-style exchanges with regional planning and digital coordination tools, may offer more scalable pathways for wider adoption.<sup>433</sup>

## Portrait 8 Josh

### Germany: Where trades carry the same prestige as university

Germany's Ausbildung system is a globally recognised dual vocational training model that combines classroom learning with paid, workplace-based training. Spanning more than 320 recognised professions, programs typically last two to three and a half years and conclude with standardised, EU-recognised examinations. Apprentices pay no tuition and earn around EUR 900-1,300 per month while training. The system underpins Germany's low youth unemployment (2.9% in 2025), strong industrial base and high workforce skill levels, with approximately 1.3 million participants enrolled in 2025 and a graduate job placement rate of around 92%. Rooted in medieval guild traditions, Ausbildung has evolved to incorporate digital skills and global competencies, making it a model studied and adapted internationally.<sup>434</sup>

At the same time, research notes that transferability depends heavily on local cultural, historical and economic conditions. The system relies on a strong labour market, excludes some school-leavers through selective company recruitment and faces growing pressure from academisation and changing higher-education pathways.<sup>435</sup> These dynamics highlight that Ausbildung's success extends beyond design to the broader ecosystems that sustain it.

### Switzerland: Where two-thirds choose vocational pathways

Switzerland's vocational education and training (VET) system is a highly structured dual apprenticeship model, with around two-thirds of young people entering apprenticeships after compulsory schooling.<sup>436</sup> Programs combine paid workplace training with part-time vocational education across more than 250 recognised professions. Strong alignment with labour-market needs delivers high employment outcomes, social prestige and multiple progression routes, including the Federal Vocational Baccalaureate<sup>437</sup> and access to universities of applied sciences. The system demonstrates how integrating rigorous vocational education with real-world experience can produce highly skilled, adaptable and employable graduates.<sup>438</sup>

Despite its strong performance, the system faces emerging pressures. Demographic change has created shortages of young people to fill available apprenticeships, while growing parental preference for academic pathways risks eroding VET's status as the default route into skilled employment.<sup>439</sup> Sustaining the model will depend on continuing to reinforce its value to families, employers and policymakers, ensuring it remains a cornerstone of Switzerland's economic and social resilience.

## Portrait 9 Alana & Zee

### New Zealand's Te Kotahitanga: Indigenous pedagogies in practice

Māori students in Aotearoa New Zealand have historically experienced lower academic achievement and higher disengagement, reflecting curricula that lacked cultural relevance and marginalised Māori ways of knowing. Te Kotahitanga was developed as a professional learning program to address this gap by fostering culturally responsive pedagogy grounded in respectful teacher-student relationships, Māori worldviews, language and identity. At its core is the recognition that teaching and learning are fundamentally relational processes.<sup>440</sup>

Schools implementing Te Kotahitanga reported marked improvements in Māori student engagement, attendance and academic achievement, alongside increased cultural awareness and stronger relationships between teachers and students.<sup>441</sup> The program has been widely valued by educators and school leaders for improving classroom practice and learning environments. Sustaining these gains depends on stable facilitation, full staff participation and careful integration into school structures.<sup>442</sup>

Challenges in scaling, distributing leadership, and maintaining a shared understanding of Māori identity outcomes point to the importance of school-wide commitment, mentoring networks and embedded leadership to support long-term, system-level impact.<sup>443</sup>

### Te Awa Tupua (Whanganui River): Integrated Indigenous and Western legal knowledge for environmental governance

The Te Awa Tupua (Whanganui River Claims Settlement) Act 2017<sup>444</sup> recognises the Whanganui River as a legal person, embedding the Māori principle *Ko au te Awa, ko te Awa ko au* ("I am the River and the River is me")<sup>445</sup> within New Zealand's statutory framework. The settlement, shaped through nearly two centuries of negotiation between the Crown and Whanganui iwi, deliberately merges Indigenous and Western legal systems to create shared responsibility for the river's wellbeing.

Governance is exercised through Te Pou Tupua,<sup>446</sup> a co-guardianship body comprising one representative appointed by the Crown and one by Whanganui iwi.<sup>447</sup> Decisions must account for both scientific measures of ecosystem health and Māori relational knowledge grounded in *whakapapa* and *kaitiakitanga*.<sup>448</sup> This integrated approach treats ecological integrity, legal responsibility and cultural identity as inseparable. Early evidence<sup>449</sup> indicates improved collaboration between communities, regional authorities and environmental agencies, aligning conservation, cultural revitalisation and legal protection.

Internationally, the Whanganui River is viewed as a leading example of integrated epistemic governance,<sup>450</sup> demonstrating how Indigenous ontologies can strengthen environmental law by reframing ecosystems as living systems rather than extractive resources, while enhancing both ecological outcomes and social legitimacy.

## Portrait 10 Jamie

### Norway's Government Pension Fund: Turning resource wealth into generational wealth

Norway faced a strategic choice: consume its oil wealth in the present or invest it for a post-oil future. It chose the long view, establishing the Government Pension Fund (GPF), which now manages more than AUD 1.7 trillion by redirecting oil and gas revenues into diversified global investments governed by strict ethical guidelines. Fossil fuel income is treated as borrowed wealth from future generations, with current extraction funding long-term prosperity rather than short-term gain.<sup>451</sup>

Norway treats its fossil fuel income as borrowed wealth from future generations, requiring current profits to fund tomorrow's prosperity.<sup>452</sup> These revenues fund companies whose ambition is to achieve net zero emissions by 2050 through structured voting.<sup>453</sup> This model is recognition that resource wealth should benefit not just current shareholders but future generations who will live with the environmental and economic consequences of today's extraction.<sup>454</sup>

The fund actively aligns its portfolio with climate objectives, using structured voting to support companies committed to net-zero emissions by 2050. Around 74% of financed emissions are now covered by net-zero 2050 targets, and GPF investments have contributed to more than 1,800 MW of renewable electricity capacity, demonstrating how resource wealth can be stewarded to balance intergenerational equity with climate responsibility.<sup>455</sup>

Despite these ambitious and forward-looking principles, applying ethical investment principles at this scale remains complex.<sup>456</sup> Recent controversies over holdings linked to human rights violations in Gaza and the West Bank have exposed gaps between policy intent and practice, raising questions about due diligence, consistency, and human rights obligations.<sup>457</sup> Strengthening transparency, oversight and enforcement would help ensure the fund's investments align more reliably with its ethical mandate and sustain public trust.

### Collie, Western Australia: A community designs its own future

The town of Collie offers a grounded example of how coal-dependent communities can lead their own transition. Following the announcement of the Muja power station closure, residents established the Just Transition Working Group and developed a locally driven plan built around four pillars: supporting affected workers, diversifying the economy beyond coal, honouring industrial heritage while building a new identity, and aligning transition pathways with climate commitments.<sup>458</sup>

This approach has attracted significant public investment, with AUD 80 million committed through the Industry Attraction and Development Fund (AUD 60 million) and the Collie Futures Fund (AUD 20 million), supporting emerging industries and positioning Collie as a reference point for other coal regions.<sup>459</sup> The transition process, however, has been complex and at times contested. Earlier efforts, including union-led initiatives in 2007, encountered strong resistance, highlighting the challenges of navigating local politics, trust, and competing interests.<sup>460</sup>

Ongoing progress depends on strengthening mechanisms for conflict resolution, inclusive decision-making and sustained government support. Done well, community-led transitions like Collie's can deliver fairer local outcomes and inform broader policy frameworks that support just and equitable transitions across other carbon-intensive industries.<sup>461</sup>

## Portrait 11 Jacqui

### Singapore: SG Cyber Women Initiative: Expanding the cyber talent pipeline

Singapore's Cyber Security Agency<sup>462</sup> (CSA) is diversifying the cyber workforce through the SG Cyber Women initiative, partnering with industry and education providers to attract and equip more women and girls. Activities include Capture-The-Flag competitions, technical workshops, mentorship, and the nationwide SG Cyber Women X Series. These sit alongside broader programs such as the Cyber Security Associates and Technologists (CSAT) scheme, which supports mid-career transitions into cyber roles. This ecosystem approach<sup>463</sup> broadens the talent pool and reinforces that cyber security is a field for problem-solvers of all backgrounds.

As the initiative matures, independent evaluation and longitudinal tracking would help clarify how early participation translates into sustained inclusion, retention and leadership over time.

### United Kingdom: CyberFirst and TechFirst: Building a diverse future cyber workforce

The UK's CyberFirst program is a comprehensive effort to inspire young people,<sup>464</sup> particularly girls and under-represented groups, to pursue cyber security. It combines competitions, bursaries, and a national Schools and Colleges scheme to make cyber careers accessible and aspirational, while emphasising the full range of skills needed in the sector.<sup>465</sup> In 2025, the government expanded this model<sup>466</sup> through TechFirst, a GBP 187 million program embedding cyber security, AI, and broader digital skills across the education system. By 2024-25, CyberFirst had engaged 350,000 students and generated GBP 41.4 million<sup>467</sup> in social value, demonstrating strong returns on human and economic capital.

Participation patterns suggest the importance of continued focus on equity.<sup>468</sup> Engagement remains higher in less-deprived areas, and many younger students remain undecided about cyber pathways. Strengthening targeted outreach, reducing socio-economic barriers and reinforcing transitions from interest to employment will be central to sustaining a diverse and resilient cyber workforce.

## Portrait 12 Georgie

### Barcelona, Spain - Decidim: Digital enabled deliberative participation

Launched in 2016, Decidim ("We Decide") is an open-source platform designed to broaden citizen participation in Barcelona's governance.<sup>469</sup> It enables residents to propose, debate, prioritise and vote on municipal policies, while tracking government responses. The platform was first used to co-design the Municipal Action Plan (2016-2019), generating over 25,000 citizen contributions, 12,000 proposals and 670 in-person meetings.<sup>470</sup> Since then, Decidim has supported participatory budgeting, citizens' initiatives and policy deliberation through a hybrid system that links digital tools with offline assemblies.

Barcelona additionally expanded the platform through DecidimKids,<sup>471</sup> creating dedicated, safe spaces for children and young people to influence municipal decision-making. These initiatives offer a strong model for democratic innovation, showing how transparent, open-source infrastructure can widen access to participation.<sup>472</sup>

Ongoing design tensions persist, particularly where transparency and proposal collection take precedence over deeper deliberation or shared decision-making. To further strengthen the platform's democratic outcomes, the initiative could seek to embed deliberative practice more consistently across municipal departments alongside a stronger policy follow-through.

### Porto Alegre, Brazil: The origin of participatory budgeting (PB)

In 1989, Porto Alegre pioneered Participatory Budgeting (PB),<sup>473</sup> a transformative approach that allowed citizens to directly decide how portions of the municipal budget were allocated. Introduced in response to deep social and economic inequality and championed by the Workers' Party, PB created neighbourhood assemblies and thematic forums where residents debated priorities and voted on investments such as sanitation, schools and housing. Elected citizen delegates then negotiated with municipal officials, embedding transparency and accountability into budget decisions. Evidence shows that PB led to spending more closely aligned with community needs, increased investment in sanitation and health, and measurable reductions in infant mortality of around 5-10%.<sup>474</sup>

As political participation patterns have shifted, the model has evolved. The Youth Participatory Budgeting initiative now invites young people aged 14-30 to propose and vote on investments in areas such as education, employment and social inclusion, responding to declining engagement with traditional political institutions.<sup>475</sup>

Participatory budgeting has since become one of the world's most influential governance innovations,<sup>476</sup> strengthening social inclusion and civic trust by giving marginalised communities a direct voice in public spending. At the same time, tight municipal budgets, political cycles and the need to address urgent social needs can constrain long-term strategic impact.<sup>477</sup> Closer integration of PB with broader municipal planning and budget frameworks would help ensure participatory decision-making supports both immediate priorities and sustainable development over time.

## Portrait 13 James & Julien

### India's capability-based approach to digital wellbeing

India is experiencing rapid and uneven digital expansion among children and young people, creating new opportunities for participation alongside heightened risks related to online harm, unequal access and digitally mediated vulnerability.<sup>478</sup> Rather than framing digital wellbeing primarily through restriction or enforcement, India's policy and education landscape has increasingly emphasised capability-building, recognising that children's engagement with technology is shaped by access, context and developmental stage.<sup>479</sup>

The National Education Policy 2020 embeds digital literacy, ethical technology use, and critical thinking within a broader vision of holistic education.<sup>480</sup> Digital competencies are positioned alongside social, emotional, and cognitive development, with an emphasis on agency, responsibility, and inclusion.<sup>481</sup> This approach is reinforced by large-scale civil society initiatives delivering age-appropriate digital citizenship and online safety education, particularly in low-resource and high-variability settings where infrastructure and parental supervision are uneven.

Research indicates that strengthening digital capability supports safer, more meaningful online participation over time,<sup>482</sup> offering a more durable pathway than reliance on age-based controls or exclusion alone.<sup>483</sup> At the same time, significant variation in access, gendered participation and implementation across regions highlights the importance of context-sensitive and locally grounded approaches.<sup>484</sup> The literature also points to the need for longitudinal, child-centred research to better understand how capability-building translates into sustained wellbeing outcomes as digital environments continue to evolve.<sup>485</sup>

### The EU Digital Fairness Act (DFA)

The Digital Fairness Act<sup>486</sup> (DFA) is the European Commission's forthcoming legislative initiative to address manipulative and unethical digital commercial practices that exploit consumer vulnerabilities. Announced in President von der Leyen's 2024 mission letter, the DFA responds to growing evidence that existing consumer protection frameworks are no longer sufficient in digital environments designed to persuade, nudge, and sometimes pressure users into harmful decisions.<sup>487</sup>

In 2024, the Commission's Digital Fairness Fitness Check<sup>488</sup> reviewed three core consumer protection directives and found that online behaviour exposes consumers to more sophisticated forms of manipulation. While existing rules remain relevant, enforcement gaps, legal uncertainty and fragmented national approaches limit their effectiveness. The Commission found that 97% of popular websites used at least one dark pattern, underscoring the scale of the challenge.<sup>489</sup>

The DFA aims to address dark patterns, addictive design, influencer marketing abuses, behavioural targeting and opaque subscription models. While Article 25<sup>490</sup> of the Digital Services Act prohibits deceptive interfaces, it does not capture the full range of manipulative techniques or evolving business models built on behavioural data. The DFA therefore represents a second regulatory step, extending protections across e-commerce platforms, app developers and digital advertisers. A public consultation<sup>491</sup> launched in July 2025, with a legislative proposal expected in late 2026.

## Portrait 14 Victoria

### The African Union Free Movement Protocol

Adopted in 2018, the African Union's Free Movement of Persons Protocol<sup>492</sup> is one of the most ambitious mobility frameworks in the global majority world. Building on regional precedents, most notably ECOWAS' long-standing visa-free regime,<sup>493</sup> it envisions continent-wide rights of entry, residence and establishment. By reducing visa barriers and promoting mutual recognition of skills,<sup>494</sup> the protocol aims to expand intra-African trade, improve access to education and health systems, and strengthen a shared pan-African identity.

The value of coordinated, pan-continental governance is already evident. During the COVID-19 pandemic, AU-led mechanisms including Africa CDC, the African Vaccine Acquisition Trust, and the AU vaccine delivery task team mobilised more than 945 million vaccine doses, strengthening health sovereignty and expanding equitable access across member states.<sup>495</sup> Such efforts show how regional blocs can leverage mobility frameworks and collective governance to enhance resilience and shared prosperity.

Implementation challenges remain,<sup>496</sup> including uneven economic development,<sup>497</sup> security concerns and public-health considerations. A 2024 AU-ECA report<sup>498</sup> points to slow uptake, driven in part by limited political and public awareness and weak coordination across ministries such as immigration, trade, education and labour. Addressing these gaps through targeted advocacy, stronger civil-registration systems and more integrated border management would support more effective and durable rollout.

### Kiribati's "Migration with Dignity" policy

Kiribati's National Labour Migration Policy<sup>499</sup> (2015), aligned with its Migration with Dignity strategy,<sup>500</sup> reframes migration as a proactive and dignified response to climate risk and limited domestic employment. Rather than treating migration as a crisis outcome, the policy integrates labour mobility into national development planning,<sup>501</sup> prioritising fair recruitment, pre-departure preparation and the protection of migrant rights, including decent work and minimum-wage standards. It also seeks to maximise the developmental benefits of remittances and skills transfer.

Through a whole-of-government, stakeholder-driven approach, Kiribati positions mobility as both a climate-adaptation strategy and a way to safeguard culture and identity amid accelerating environmental change.<sup>502</sup> At the same time, academic analysis<sup>503</sup> highlights practical constraints: relatively few I-Kiribati have been able to migrate and settle abroad, underscoring the gap between aspiration and available pathways. Strengthening regional partnerships and expanding labour-mobility options will be central to translating this forward-looking policy into wider, tangible outcomes.

## Portrait 15 Rocket

### Norwegian Correctional Service: Future-Oriented Correction and Reintegration

Norway maintains one of the world's lowest recidivism rates, at roughly 20%,<sup>504</sup> supported by the principle of normality,<sup>505</sup> which seeks to make prison life resemble the community as closely as possible. Educational and vocational programs strengthen<sup>506</sup> employability, a key predictor of reduced reoffending and long-term stability. The Norwegian Correctional Service (NCS) uses a forward-looking, evidence-based operational model<sup>507</sup> that integrates assessments of crime trends, technological change, social shifts and disruptions such as pandemics. Individualised sentence-planning<sup>508</sup> remains central, with each person's needs, risks, and strengths used to guide rehabilitation, responsibility building and meaningful engagement.

Research<sup>509</sup> on Bastøy and Leira prisons, however, highlights the fragility of this model. Budget cuts, staff turnover, increased centralisation and COVID-19 disruptions have weakened key features<sup>510</sup> of the trust-based system. Bastøy's larger scale and reduced local autonomy have strained staff-prisoner relationships and introduced more rigidity,<sup>511</sup> suggesting that humane, high-trust environments require stable resources and smaller, locally empowered settings.

Protecting the integrity of this model requires sustained investment and a commitment to outcomes measured over generations rather than budget cycles. Long-term safety emerges from building human capability and the relational conditions that hold people steady, not through larger punitive systems.

### Justice Reinvestment in Bourke, NSW

Since 2012, Just Reinvest NSW and the Bourke Aboriginal Community Working Party have implemented a Justice Reinvestment<sup>512</sup> model aimed at reducing youth contact with the criminal justice system. The approach reallocates resources from incarceration to community-led prevention, informed by extensive consultation, including early forums where residents co-designed local governance and youth interventions. The initiative focuses on addressing the drivers of youth crime such as property offences, vehicle theft and bail breaches.

To date, programs have engaged more than 3,350 community members,<sup>513</sup> including at least 480 children and young people receiving targeted support. Of the 114 young people assisted through First Nations-led initiatives, an estimated 73<sup>514</sup> would likely have returned to detention without intervention. These results illustrate how culturally grounded, community-controlled programs can reduce reoffending and shift long-term justice outcomes at a population level.

Sustaining impact remains a challenge.<sup>515</sup> The model relies heavily on short-term philanthropic funding and operates alongside financing mechanisms that can sit uneasily with community self-determination. Its place-based design also limits transferability without deep local adaptation. Long-term public investment and community-owned governance are therefore essential to embed justice reinvestment as a durable, intergenerational wellbeing strategy rather than a time-limited intervention.

## References

1 Hawkins, T. D., Harris Rimmer, S., Stephenson, E., Day, M. and Furlong, A. (2026) *Future Generations Policy, Governance and Leadership: Ending 'Polycratinisation'*. Singapore: Palgrave Macmillan Singapore. Available at: <https://doi.org/10.1007/978-981-95-4173-7> (Accessed: 2 March 2026).

2 World Commission on Environment and Development (1987) *Our Common Future*. Oxford: Oxford University Press.

3 Australian Bureau of Statistics (2022) *Understanding and using Ancestry data*. Available at: <https://www.abs.gov.au/statistics/detailed-methodology-information/information-papers/understanding-and-using-ancestry-data>.

4 Australian Bureau of Statistics (2025) *Australia's population by country of birth*. Available at: <https://www.abs.gov.au/statistics/people/population/australias-population-country-birth/latest-release> (Accessed: 05 July 2025).

5 Organisation for Economic Co-operation and Development (2025) *General government spending*. Available at: <https://www.oecd.org/en/data/indicators/general-government-spending.html> (Accessed: 05 July 2025).

6 Organisation for Economic Co-operation and Development (2025) *Government at a Glance 2025*. Paris: OECD Publishing. Available at: [https://www.oecd.org/en/publications/2025/06/government-at-a-glance-2025\\_70e14c6c.html](https://www.oecd.org/en/publications/2025/06/government-at-a-glance-2025_70e14c6c.html) (Accessed: 02 July 2025).

7 Pennington, A. and Eltham, B. (2021) *Creativity in crisis: Rebooting Australia's arts and entertainment sector after COVID*. Canberra: The Centre for Future Work, The Australia Institute. Available at: [https://australiainstitute.org.au/wp-content/uploads/2021/07/Creativity\\_in\\_Crisis\\_-\\_Rebooting\\_Australias\\_Arts\\_\\_\\_Entertainment\\_Sector\\_-\\_FINAL\\_-\\_26\\_July.pdf](https://australiainstitute.org.au/wp-content/uploads/2021/07/Creativity_in_Crisis_-_Rebooting_Australias_Arts___Entertainment_Sector_-_FINAL_-_26_July.pdf) (Accessed: 05 July 2025).

8 Australian Bureau of Statistics (2020) *Business Indicators, Business Impacts of COVID-19, April 2020*. Available at: <https://www.abs.gov.au/statistics/economy/business-indicators/business-conditions-and-sentiments/apr-2020> (Accessed: 18 July 2025).

9 Australian Bureau of Statistics (2020) *Business Indicators, Business Impacts of COVID-19, April 2020*. Available at: <https://www.abs.gov.au/statistics/economy/business-indicators/business-conditions-and-sentiments/apr-2020> (Accessed: 18 July 2025).

10 David Throsby and Katya Petetskaya, *Artists as Workers: An Economic Study of Professional Artists in Australia* (Sydney: Macquarie Business School, Macquarie University, 2024), research report prepared for Creative Australia. Available at: <https://creative.gov.au/research/artists-workers-economic-study-professional-artists-australia> (Accessed: 3 August 2025).

11 Department of Infrastructure, Transport, Regional Development, Communications and the Arts (2025) *Cultural and Creative activity*. Available at: <https://www.infrastructure.gov.au/research-data/bureau-communications-arts-and-regional-research/arts/cultural-and-creative-activity> (Accessed: 22 July 2025).

12 Department of Infrastructure, Transport, Regional Development, Communications and the Arts (2025) *Cultural and Creative activity*. Available at: <https://www.infrastructure.gov.au/research-data/bureau-communications-arts-and-regional-research/arts/cultural-and-creative-activity> (Accessed: 22 July 2025).

13 Verboord, M., Fritsch, L., Yodovich, N., Karels, A., Page Pereira, L. and Myrczik, E. (2024) 'Does culture improve affective well-being in everyday life? An experimental sampling approach', *Poetics*, 107, 101948. doi:10.1016/j.poetic.2024.101948.

14 Koivisto, T.-A. (2024) 'Art and culture promote health and well-being', *Suomen Lääkärilehti (Suom Lääkäril)*, 79, e42185. Available at: <https://www.laakarilehti.fi/e42185>.

15 Wang, S., Mak, H. W. and Fancourt, D. (2020) 'Arts, mental distress, mental health functioning and life satisfaction: Fixed-effects analyses of a nationally-representative panel study', *BMC Public Health*, 20(1), 208. doi:10.1186/s12889-019-8109-y.

16 Wearing, A., Dalton, B. and Bertram, R. (2020) *Making a difference: The social impact of Australia's arts and cultural sector*. University of Technology Sydney, Social Impact Toolbox and Nelson Meers Foundation. Available at: <https://www.socialimpacttoolbox.com/wp-content/uploads/2020/11/Making-A-Difference-The-Social-Impact-of-Australias-Arts-Cultural-Organisations.pdf> (Accessed: 27 July 2025).

17 Arts Queensland (2025) *A thriving creative sector across Queensland*. Available at: <https://www.arts.qld.gov.au/about-us/queenslands-time-to-shine-strategy-2025-2035/delivering-queenslands-creative-future> (Accessed: 27 July 2025).

18 This number is based on the population of Queensland in March 2025 (5,647,468) the funding of the 10 year strategy (420,070,000) and the population of Victoria at the same time (~7,053,100) and their budget funding 2025-26 plan for the next 5 years (552,200,000).

19 CultureForHealth (2025) *Arts and Culture for Well-being Action Programme Finland*. Available at: <https://www.cultureforhealth.eu/mapping/arts-and-culture-for-well-being-action-programme-finland/> (Accessed: 28 July 2025).

20 Canadian Multiculturalism Act, R.S.C. 1985, c. 24 (4th Supp.). Available at: <https://laws-lois.justice.gc.ca/eng/acts/c-18.7/page-1.html> (Accessed: 28 July 2025).

21 Department of Infrastructure, Transport, Regional Development, Communications and the Arts (2023) *A new National Cultural Policy*. Available at: <https://www.arts.gov.au/what-we-do/new-national-cultural-policy> (Accessed: 28 July 2025).

22 Bureau of Communications, Arts and Regional Research (2024) *Analysis of the cultural and creative sector: Revive sectoral analysis*. Department of Infrastructure, Transport, Regional Development, Communications and the Arts. Available at: <https://www.infrastructure.gov.au/sites/default/files/documents/analysis-of-the-cultural-and-creative-sector-revive-sectoral-analysis-december2024.pdf> (Accessed: 30 July 2025).

23 Creative Australia (2025) *Creative Australia*. Available at: <https://creative.gov.au/> (Accessed: 30 July 2025).

24 Bureau of Communications, Arts and Regional Research (2024) *Analysis of the cultural and creative sector: Revive sectoral analysis*. Department of Infrastructure, Transport, Regional Development, Communications and the Arts. Available at: <https://www.infrastructure.gov.au/sites/default/files/documents/analysis-of-the-cultural-and-creative-sector-revive-sectoral-analysis-december2024.pdf> (Accessed: 30 July 2025).

25 Caust, J. (2024) *Is Revive a game changer or more of the same? Whose needs are addressed in Australia's new cultural policy and what will change?* Available at: <https://www.tandfonline.com/doi/full/10.1080/10286632.2024.2421304> (Accessed: 4 March 2026).

26 Pennington, A. and Eltham, B. (2021) *Creativity in crisis: Rebooting Australia's arts and entertainment sector after COVID*. Canberra: The Australia Institute. Available at: [https://australiainstitute.org.au/wp-content/uploads/2021/07/Creativity\\_in\\_Crisis\\_-\\_Rebooting\\_Australias\\_Arts\\_\\_\\_Entertainment\\_Sector\\_-\\_FINAL\\_-\\_26\\_July.pdf](https://australiainstitute.org.au/wp-content/uploads/2021/07/Creativity_in_Crisis_-_Rebooting_Australias_Arts___Entertainment_Sector_-_FINAL_-_26_July.pdf).

27 Chingaipe, S. (2025) 'The shrinkage of Australian arts funding', *The Saturday Paper*, 6–12 December. Available at: <https://www.thesaturdaypaper.com.au/news/politics/2025/12/06/the-shrinkage-australian-arts-funding>.

28 Flack, E. (2025) 'Shrinking casts, diminished reach, less ambition: the arts in Australia needs more than just tax reform', *The Guardian*, 23 September. Available at: <https://www.theguardian.com/culture/2025/sep/24/shrinking-casts-diminished-reach-less-ambition-the-arts-in-australia-needs-more-than-just-tax-reform> (Accessed: 28 September 2025).

29 Cahill, L. (2025) 'Defunding success in the arts is not saving money – it's destroying value', *ArtsHub*, 8 July. Available at: <https://www.artshub.com.au/news/opinions-analysis/defunding-success-in-the-arts-is-not-saving-money-its-destroying-value-2808157/> (Accessed: 28 July 2025).

30 Australian Government (2021) *National Performing Arts Partnership Framework*. Available at: <https://creative.gov.au/investments-opportunities/multi-year-investment/national-performing-arts-partnership-framework> (Accessed: 28 July 2025).

31 Caust, J. (2024) *Is Revive a game changer or more of the same? Whose needs are addressed in Australia's new cultural policy and what will change?* Available at: <https://www.tandfonline.com/doi/full/10.1080/10286632.2024.2421304> (Accessed: 4 March 2026).

32 Webber, A. (2025) 'Navigating challenges and opportunities in NSW agriculture', *NSW Farmers*. Available at: <https://www.nswfarmers.org.au/NSWFA/NSWFA/Posts/Blog/Navigating-Challenges-and-Opportunities.aspx> (Accessed: 11 September 2025).

33 Webber, A. (2025) 'Navigating challenges and opportunities in NSW agriculture', *NSW Farmers*. Available at: <https://www.nswfarmers.org.au/NSWFA/NSWFA/Posts/Blog/Navigating-Challenges-and-Opportunities.aspx> (Accessed: 11 September 2025).

34 Webber, A. (2025) 'Navigating challenges and opportunities in NSW agriculture', *NSW Farmers*. Available at: <https://www.nswfarmers.org.au/NSWFA/NSWFA/Posts/Blog/Navigating-Challenges-and-Opportunities.aspx> (Accessed: 11 September 2025).

35 Mohsin, M. (2015) 'Agribusiness financing in Australia: Issues and research agenda', *International Journal of Economics and Finance*, 7(7), pp. 1–1. doi:10.5539/ijef.v7n7p1.

36 Kohne, R. (2019) 'Helping young farmers onto farms', *Future Farmers Network*, 29 November. Available at: <https://futurefarmers.com.au/helping-young-farmers-onto-farms/> (Accessed: 11 September 2025).

37 Australian Government (2024) *Register of foreign ownership of agricultural land: Report of registrations as at 30 June 2023*. Available at: <https://foreigninvestment.gov.au/sites/foreigninvestment.gov.au/files/2024-10/2023-rfo-agricultural-land.pdf>.

38 Sustainable Table (2025) 'The abattoir crisis: What it means for small- and medium-scale farmers and ethical meat production', 24 March. Available at: <https://www.sustainabletable.org.au/journal/the-abattoir-crisis> (Accessed: 11 September 2025).

39 The Bullvine (2025) 'Death by consolidation: The silent killer decimating Australian dairy communities and your farm's future', 13 May. Available at: <https://www.thebullvine.com/news/death-by-consolidation-the-silent-killer-decimating-australian-dairy-communities-and-your-farms-future/> (Accessed: 13 September 2025).

- 40 Jobs and Skills Australia (2025) *121312 Beef Cattle Farmers (ANZSCO)*. Available at: <https://www.jobsandskills.gov.au/data/occupation-and-industry-profiles/occupations/121312-beef-cattle-farmers> (Accessed: 13 September 2025).
- 41 Climate Council (2024) 'Farming Down Under: Agriculture's role in Australia's climate pollution', 23 August. Available at: <https://www.climatecouncil.org.au/resources/australia-agriculture-climate-change-emissions-methane/> (Accessed: 13 September 2025).
- 42 Farmers for Climate Action (2025) *Climate impacts on farming*. Available at: <https://farmersforclimateaction.org.au/climate-smart-farming-toolkit/climate-impacts-on-farming/> (Accessed: 16 September 2025).
- 43 Kebbell, A. (2024) 'Entire communities built around agriculture and livestock are dissolving as forest march into pastoral farming regions. Kate Acland sounds a warning that too much is being lost', *interest.co.nz*, 2 November. Available at: <https://www.interest.co.nz/rural-news/130546/entire-communities-built-around-agriculture-and-livestock-are-dissolving-forest> (Accessed: 16 September 2025).
- 44 McClay, T. (2025) 'Legislation introduced to restrict farm-to-forest conversions', *Beehive.govt.nz*, 10 June. Available at: <https://www.beehive.govt.nz/release/legislation-introduced-restrict-farm-forest-conversions> (Accessed: 16 September 2025).
- 45 Land Mobility Service (2023) *About us – The Land Mobility Service*. Available at: <https://landmobility.ie/about-us-the-land-mobility-service/> (Accessed: 24 September 2025).
- 46 Searchinger, T. and Waite, R. (2024) 'Denmark's groundbreaking agriculture climate policy sets strong example for the world', *World Resources Institute*, 12 November. Available at: <https://www.wri.org/insights/denmark-agriculture-climate-policy> (Accessed: 24 September 2025).
- 47 Department of Agriculture, Fisheries and Forestry (2022) *Delivering Ag2030*. Available at: <https://www.agriculture.gov.au/agriculture-land/farm-food-drought/ag2030> (Accessed: 24 September 2025).
- 48 Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) (2025) *Australian farm productivity – broadacre and dairy estimates*, 3 July. Available at: <https://www.agriculture.gov.au/abares/research-topics/productivity/agricultural-productivity-estimates> (Accessed: 24 September 2025).
- 49 Australian Government, Department of Agriculture (2020) *National Agricultural Innovation Agenda*. Available at: <https://www.agriculture.gov.au/agriculture-land/farm-food-drought/innovation/national-ag-innovation-agenda#daff-page-main>.
- 50 National Farmers' Federation (2020) *2030 Roadmap: Australian agriculture's plan for a \$100 billion industry*. Available at: [https://nff.org.au/wp-content/uploads/2020/02/NFF\\_Roadmap\\_2030\\_FINAL.pdf](https://nff.org.au/wp-content/uploads/2020/02/NFF_Roadmap_2030_FINAL.pdf).
- 51 National Farmers' Federation (2020) *2030 Roadmap: Australian agriculture's plan for a \$100 billion industry*. Available at: [https://nff.org.au/wp-content/uploads/2020/02/NFF\\_Roadmap\\_2030\\_FINAL.pdf](https://nff.org.au/wp-content/uploads/2020/02/NFF_Roadmap_2030_FINAL.pdf).
- 52 Department of Natural Resources and Environment Tasmania (2023) *AgriVision 2050 – Tasmania Government policies*, 27 September. Available at: <https://nre.tas.gov.au/agriculture/agrivation-2050-tasmania-government-policies>.
- 53 Department of Natural Resources and Environment Tasmania (2023) *AgriVision 2050 – Tasmania Government policies*, 27 September. Available at: <https://nre.tas.gov.au/agriculture/agrivation-2050-tasmania-government-policies>.
- 54 Organisation for Economic Co-operation and Development (2025) *Results from TALIS 2024 - Country notes: Australia*. Paris: OECD Publishing. Available at: [https://www.oecd.org/en/publications/results-from-talis-2024-country-notes\\_e127f9e2-en/australia\\_75d1e7a1-en.html](https://www.oecd.org/en/publications/results-from-talis-2024-country-notes_e127f9e2-en/australia_75d1e7a1-en.html).
- 55 Organisation for Economic Co-operation and Development (2025) *Results from TALIS 2024 - Country notes: Australia*. Paris: OECD Publishing. Available at: [https://www.oecd.org/en/publications/results-from-talis-2024-country-notes\\_e127f9e2-en/australia\\_75d1e7a1-en.html](https://www.oecd.org/en/publications/results-from-talis-2024-country-notes_e127f9e2-en/australia_75d1e7a1-en.html).
- 56 Association of School Business Administrators (2025) *Where are we on the AI journey? Insights from the ASBA Term 2 2025 Survey: ASBA AI Preparedness Survey Report*. Available at: [https://www.asba.asn.au/public/265/files/National/ASBA%20AI%20Preparedness%20Survey%20Report%20-%20June%202025\(1\).pdf](https://www.asba.asn.au/public/265/files/National/ASBA%20AI%20Preparedness%20Survey%20Report%20-%20June%202025(1).pdf).
- 57 Association of School Business Administrators (2025) *Where are we on the AI journey? Insights from the ASBA Term 2 2025 Survey: ASBA AI Preparedness Survey Report*. Available at: [https://www.asba.asn.au/public/265/files/National/ASBA%20AI%20Preparedness%20Survey%20Report%20-%20June%202025\(1\).pdf](https://www.asba.asn.au/public/265/files/National/ASBA%20AI%20Preparedness%20Survey%20Report%20-%20June%202025(1).pdf).
- 58 Association of School Business Administrators (2025) *Where are we on the AI journey? Insights from the ASBA Term 2 2025 Survey: ASBA AI Preparedness Survey Report*. Available at: [https://www.asba.asn.au/public/265/files/National/ASBA%20AI%20Preparedness%20Survey%20Report%20-%20June%202025\(1\).pdf](https://www.asba.asn.au/public/265/files/National/ASBA%20AI%20Preparedness%20Survey%20Report%20-%20June%202025(1).pdf).
- 59 Nagata, A. and Tsuchiya, K. J. (2025) '“Screen time” to “AI time”: AI use and cognitive, emotional, and behavioral outcomes in children and adolescents', *Journal of Epidemiology*, p. JE20250445. doi:10.2188/jea.JE20250445.
- 60 Baker, A. E., Galván, A. and Fuligni, A. J. (2025) 'The connecting brain in context: How adolescent plasticity supports learning and development', *Developmental Cognitive Neuroscience*, 71, 101486. doi:10.1016/j.dcn.2024.101486.
- 61 Clarke, S. and Whittlestone, J. (2022) 'A survey of the potential long-term impacts of AI: How AI could lead to long-term changes in science, cooperation, power, epistemics and values', *AIES '22: Proceedings of the 2022 AAAI/ACM Conference on AI, Ethics, and Society*, pp. 192–202. doi:10.1145/3514094.3534131.
- 62 Dong, X., Wang, J., Xing, Q. and Sun, J. (2025) 'Differences between children and young adults in the effects of difficulty and value of learning items on cognitive offloading strategies', *Psychological Research*, 89(2), p. 69. doi:10.1007/s00426-025-02100-9.
- 63 Kolk, S. M. and Rakic, P. (2022) 'Development of prefrontal cortex', *Neuropsychopharmacology*, 47, pp. 41–57. doi:10.1038/s41386-021-01137-9.
- 64 Ionescu, A., Furdui, R., Gavreliuc, A., Greenfield, P. M. and Weinstock, M. (2023) 'The effects of sociocultural changes on epistemic thinking across three generations in Romania', *PLOS ONE*, 18(3), p. e0281785. doi:10.1371/journal.pone.0281785.
- 65 Gerlich, M. (2025) 'AI tools in society: Impacts on cognitive offloading and the future of critical thinking', *Societies*, 15(1), p. 6. doi:10.3390/soc15010006.
- 66 Fasko, D. and Fair, F. (2020) *Critical thinking and reasoning: Theory, development, instruction, and assessment*. Leiden: Brill/Sense Publishing.
- 67 Park, S., Notley, T., Thomson, T. J., Hourigan, A. and Dezuanni, M. (2024) *Online misinformation in Australia: Adults' experiences, abilities, and responses*. Sydney: Western Sydney University. Available at: [https://researchers-admin.westernsydney.edu.au/ws/portalfiles/portal/156759765/Online\\_Misinformation\\_in\\_Australia\\_2024\\_web\\_version.pdf](https://researchers-admin.westernsydney.edu.au/ws/portalfiles/portal/156759765/Online_Misinformation_in_Australia_2024_web_version.pdf).
- 68 Howard, P. N., Neudert, L.-M., Prakash, N. and Vosloo, S. (2021) *Digital misinformation / disinformation and children*. New York: UNICEF Office of Global Insight and Policy. Available at: <https://www.unicef.org/innocenti/media/856/file/UNICEF-Global-Insight-Digital-Mis-Disinformation-and-Children-2021.pdf>.
- 69 Belic, I., Winskel, H., Allen, K. and Longstaff, M. G. (2025) 'Communication preferences and factors predicting smartphone addiction among four generations of Australians: Gender and generational differences', *Journal of Technology in Behavioral Science*, 10, pp. 373–381. doi:10.1007/s41347-024-00437-3.
- 70 Department of Education (2023) *Australian framework for generative artificial intelligence (AI) in schools*. Canberra, ACT: Department of Education. Available at: <https://www.education.gov.au/schooling/resources/australian-framework-generative-artificial-intelligence-ai-schools>.
- 71 Department of Infrastructure, Transport, Regional Development, Communications and the Arts (2025) *Misinformation and disinformation*. Canberra, ACT: Australian Government. Available at: <https://www.infrastructure.gov.au/media-communications-arts/internet/misinformation-and-disinformation>.
- 72 Australian Parliament (2024) *Communications Legislation Amendment (Combatting Misinformation and Disinformation) Bill 2024*. House of Representatives, 47th Parliament. Available at: [https://www.aph.gov.au/Parliamentary\\_Business/Bills\\_Legislation/Bills\\_Search\\_Results/Result?bld=r7239](https://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/Bills_Search_Results/Result?bld=r7239).
- 73 Ayres, T. (2025) Establishment of Australian AI Safety Institute. Available at: <https://www.minister.industry.gov.au/ministers/timayres/media-releases/establishment-australian-ai-safety-institute> (Accessed: 28 February 2026).
- 74 Government of Singapore (2025) *Our SkillsFuture story: Empowering every Singaporean to build future-ready skills for fulfilling careers*. Available at: <https://www.skillsfuture.gov.sg/> (Accessed: 12 June 2025).
- 75 Petrone, J. (2025) 'AI Leap 2025: Estonia sets the global standard for AI in education', *e-Estonia*. Available at: <https://e-estonia.com/ai-leap-2025-estonia-sets-ai-standard-in-education/> (Accessed: 12 June 2025).
- 76 Department of Education (2023) *Australian framework for generative artificial intelligence (AI) in schools*. Canberra, ACT: Department of Education. Available at: <https://www.education.gov.au/schooling/resources/australian-framework-generative-artificial-intelligence-ai-schools>.
- 77 Department of Industry, Science and Resources (2019) *Australia's AI Ethics Principles*. Canberra, ACT: Department of Industry, Science and Resources. Available at: <https://www.industry.gov.au/publications/australias-ai-ethics-principles>.
- 78 Department of Education (2019) *The Alice Springs (Mparntwe) Education Declaration*. Canberra, ACT: Department of Education. Available at: <https://www.education.gov.au/indigenous-education/resources/alice-springs-mparntwe-education-declaration>.
- 79 United Nations (2025) *Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (Sustainable Development Goal 4)*. New York: United Nations. Available at: <https://sdgs.un.org/goals/goal4>.

80 Australian Curriculum, Assessment and Reporting Authority (ACARA) (2015) Digital Technologies – Sequence of content F–10. Available at: [https://docs.acara.edu.au/resources/Digital\\_Technologies\\_-\\_Sequence\\_of\\_content.pdf](https://docs.acara.edu.au/resources/Digital_Technologies_-_Sequence_of_content.pdf) (Accessed: 5 March 2026).

81 Productivity Commission (2023) Advancing Prosperity: Productivity Commission Five-Year Productivity Inquiry. Available at: <https://www.pc.gov.au/inquiries/completed/productivity/report> (Accessed: 5 March 2026).

82 Department of Education (2025) *2024 review of the Australian framework for generative artificial intelligence in schools*. Canberra, ACT: Department of Education. Available at: <https://www.education.gov.au/download/17416/australian-framework-generative-artificial-intelligence-ai-schools/41436/2024-review-australian-framework-generative-ai-schools/pdf>.

83 Education Services Australia (2025). Available at: <https://www.esa.edu.au/>.

84 This speculative future was refined through the guidance of Chanah Wainer, doctoral candidate, education designer and sessional lecturer at UNSW.

85 Productivity Commission (2026) Report on Government Services: Emergency management. Available at: <https://www.pc.gov.au/ongoing/report-on-government-services/emergency-management/> (Accessed: 28 February 2026).

86 Lismore City Council (2022) *Flood history*. Available at: <https://www.lismore.nsw.gov.au/Community/Natural-hazards-and-emergency-information/Flood-information-for-Lismore1/Flood-history> (Accessed: 16 June 2025).

87 Lismore City Council (2022) *Flood response*. Lismore, NSW: Lismore City Council. Available at: <https://www.lismore.nsw.gov.au/files/assets/public/v/1/2.-community/8.-natural-hazards-and-emergencies/flood-response-report.pdf>.

88 Lismore City Council (2022) *Lismore flooding: impacts & recovery statement*. Lismore, NSW: Lismore City Council. Available at: <https://www.lismore.nsw.gov.au/files/assets/public/v/1/2.-community/8.-natural-hazards-and-emergencies/lismore-flooding-impacts-and-recovery-statement.pdf>.

89 Lismore City Council (2022) *Lismore flooding: impacts & recovery statement*. Lismore, NSW: Lismore City Council. Available at: <https://www.lismore.nsw.gov.au/files/assets/public/v/1/2.-community/8.-natural-hazards-and-emergencies/lismore-flooding-impacts-and-recovery-statement.pdf>.

90 Resilient Lismore (2024) *Falling through the cracks: 2024 Lismore flood zone survey and outreach project*. Lismore, NSW: Resilient Lismore. Available at: [https://resilientlismore.org.au/wp-content/uploads/2024\\_RL-Flood-Zone-Outreach-Report.pdf](https://resilientlismore.org.au/wp-content/uploads/2024_RL-Flood-Zone-Outreach-Report.pdf).

91 White, L. (2023) 'Insurance crisis deepens for homes, business and local councils in flood prone areas of northern NSW', *ABC News*, 9 February. Available at: <https://www.abc.net.au/news/2023-02-09/new-south-wales-floods-lismore-insurance-crisis-730/101944920> (Accessed: 16 June 2025).

92 House of Representatives Standing Committee on Economics (2023) *Flood insurance inquiry: terms of reference*. Canberra, ACT: Parliament of Australia. Available at: [https://www.aph.gov.au/Parliamentary\\_Business/Committees/House/Economics/FloodInsuranceInquiry/Terms\\_of\\_Reference](https://www.aph.gov.au/Parliamentary_Business/Committees/House/Economics/FloodInsuranceInquiry/Terms_of_Reference) (Accessed: 16 June 2025).

93 Australian Institute for Disaster Resilience (2025) *Major incidents report 2024–25*. Melbourne, VIC: Australian Institute for Disaster Resilience. Available at: [https://www.aidr.org.au/media/11931/aidr\\_major-incidents-report\\_2024-25.pdf](https://www.aidr.org.au/media/11931/aidr_major-incidents-report_2024-25.pdf).

94 Australian Institute for Disaster Resilience (2025) *Major incidents report 2024–25*. Melbourne, VIC: Australian Institute for Disaster Resilience. Available at: [https://www.aidr.org.au/media/11931/aidr\\_major-incidents-report\\_2024-25.pdf](https://www.aidr.org.au/media/11931/aidr_major-incidents-report_2024-25.pdf).

95 Butler, P.C., Flin, R., Bearman, C., Hayes, P., Penney, G. and McLennan, J. (2024) 'Emergency management decision-making in a changing world: 3 key challenges', *Australian Journal of Emergency Management*, 39(4), pp. 23–28. doi:10.47389/39.4.23.

96 Services Australia (2025) Queensland Ex-Tropical Cyclone Alfred, March 2025 – Australian Government Disaster Recovery Payment. Available at: <https://www.servicesaustralia.gov.au/qld-ex-tropical-cyclone-alfred-mar-2025-australian-government-disaster-recovery-payment> (Accessed: 16 June 2025).; Services Australia (2025) Queensland Ex-Tropical Cyclone Alfred, March 2025 – Disaster Recovery Allowance. Available at: <https://www.servicesaustralia.gov.au/qld-ex-tropical-cyclone-alfred-mar-2025-disaster-recovery-allowance> (Accessed: 16 June 2025).

97 Services Australia (2025) Queensland Ex-Tropical Cyclone Alfred, March 2025 – Australian Government Disaster Recovery Payment. Available at: <https://www.qld.gov.au/community/disasters-emergencies/disasters/money-finance/eligibility-apply/tc-alfred-march-2025> (Accessed: 16 June 2025).; Services Australia (2025) Queensland Ex-Tropical Cyclone Alfred, March 2025 – Disaster Recovery Allowance. Available at: <https://www.qld.gov.au/community/disasters-emergencies/disasters/money-finance/eligibility-apply/tc-alfred-march-2025> (Accessed: 16 June 2025).

98 Royal Commission into National Natural Disaster Arrangements (2020) *National natural disaster arrangements*. Available at: <https://www.royalcommission.gov.au/natural-disasters> (Accessed: 16 June 2025).

99 Royal Commission into National Natural Disaster Arrangements (2020) *Royal Commission into National Natural Disaster Arrangements: Report*. Canberra, ACT: Commonwealth of Australia. Available at: <https://www.royalcommission.gov.au/system/files/2020-12/Royal%20Commission%20into%20National%20Natural%20Disaster%20Arrangements%20-%20Report%20%20%5Baccessible%5D.pdf>.

100 SafeWork NSW (2023) *Evidence check: burnout in the health care and social assistance sector*. Sydney, NSW: SafeWork NSW. Available at: [https://www.safework.nsw.gov.au/\\_data/assets/pdf\\_file/0011/1379414/Evidence-check-burnout-in-the-health-care-and-social-assistance-sector.pdf](https://www.safework.nsw.gov.au/_data/assets/pdf_file/0011/1379414/Evidence-check-burnout-in-the-health-care-and-social-assistance-sector.pdf) (Accessed 16 June 2025).

101 Resilient Lismore (2024) *Falling through the cracks: 2024 Lismore flood zone survey and outreach project*. Lismore, NSW: Resilient Lismore. Available at: [https://resilientlismore.org.au/wp-content/uploads/2024\\_RL-Flood-Zone-Outreach-Report.pdf](https://resilientlismore.org.au/wp-content/uploads/2024_RL-Flood-Zone-Outreach-Report.pdf).

102 Longman, J., Pittaway, E., Matous, P., Howard, A., Rawsthorne, M. and Chung, K. (2025) Collaboration between disaster agencies and communities key to future disaster resilience. Sydney: University Centre for Rural Health, The University of Sydney. Available at: <https://www.sydney.edu.au/sydney-environment-institute/news-analysis/news/2025/03/26/collaboration-between-disaster-agencies-and-communities-key-to-f.html> (Accessed: 2 March 2026).

103 National Emergency Management Agency (2024) *National Disaster Mental Health and Wellbeing Framework: Supporting Australians' mental health through disaster*. Canberra, ACT: NEMA. Available at: <https://www.nema.gov.au/sites/default/files/2024-08/28108%20NEMA%20National%20Disaster%20Mental%20Health%20and%20Wellbeing%20Framework%20FA%20v4.pdf>.

104 NSW Government (2025) *Recovery Services Capacity Grants*. Available at: <https://www.nsw.gov.au/recovery-services-capacity-grants> (Accessed: 16 June 2025).

105 NSW Government (2025) *Spontaneous Volunteers Support Program*. Available at: <https://www.nsw.gov.au/grants-and-funding/spontaneous-volunteers-support-program> (Accessed: 16 June 2025).

106 Transport for NSW (2024) New agreements deliver \$296 million of road repair funding in just three months. Available at: <https://www.transport.nsw.gov.au/system/files/media/documents/2024/New%20agreements%20deliver%20%24296%20million%20of%20road%20repair%20funding%20in%20just%20three%20months.pdf> (Accessed: 2 March 2026).

107 Transport for NSW (2025) Dumaresq overflow channel bridge back in business. Available at: <https://www.transport.nsw.gov.au/system/files/media/documents/2025/250205%20JMR%20Dumaresq%20overflow%20channel%20bridge%20back%20in%20business.pdf> (Accessed: 2 March 2026).

108 Darab, S., Hartman, Y. and Pittaway, E. E. (2020) 'Building community resilience: Lessons from flood-affected residents in a regional Australian town', *The International Journal of Community and Social Development*, 2(4), pp. 409–425. doi:10.1177/2516602620981553.

109 Byron Shire Council (n.d.) Byron Shire Community Resilience Network. Available at: <https://www.byron.nsw.gov.au/Environment-Resilience/Emergency-Recovery/Byron-Shire-Community-Resilience-Network> (Accessed: 2 March 2026).

110 Resilient Lismore (2024) Available at: <https://resilientlismore.org.au/> (Accessed: 16 June 2025).

111 Living Lab Northern Rivers (2025) Available at: <https://llnr.com.au/> (Accessed: 16 June 2025).

112 Pittaway, E., Longman, J., Webster, S. et al. (2025) Recognition and relationship-building: key ingredients for effective collaboration between disaster management agencies and community. Available at: <https://www.preventionweb.net/publication/documents-and-publications/recognition-and-relationship-building-key-ingredients> (Accessed: 2 March 2026).

113 Utrecht University (n.d.) *Room for the River*. Water, Climate and Future Deltas – Integrated flood risk management in practice. Available at: <https://www.uu.nl/en/research/water-climate-and-future-deltas/storylines/flood-risk-management/integrated-flood-risk-management-in-practice/room-for-the-river> (Accessed: 20 June 2025).; STOWA (n.d.) *Room for the river*. Available at: <https://www.stowa.nl/deltafacts/waterveiligheid/waterveiligheidsbeleid-en-regelgeving/room-river> (Accessed: 20 June 2025).

114 Comisión Nacional de Emergencias (2025). Available at: <https://www.cne.go.cr/> (Accessed: 20 June 2025).; Comisión Nacional de Emergencias (2025). Available at: [https://www.cne.go.cr/rectoria/instancias\\_coordinacion/index.aspx](https://www.cne.go.cr/rectoria/instancias_coordinacion/index.aspx) (Accessed: 20 June 2025).

115 National Emergency Management Agency (2025). Available at: <https://www.nema.gov.au/> (Accessed: 20 June 2025).

116 Department of the Prime Minister and Cabinet (2024) *Australian Government Crisis Management Framework*. Canberra, ACT: Commonwealth of Australia. Available at: <https://www.pmc.gov.au/sites/default/files/resource/download/agcmf-framework-2.pdf>.

117 National Emergency Management Agency (2025) *Australian Government Disaster Response Plan 2025 (COMDISPLAN)*. Canberra, ACT: National Emergency Management Agency. Available at: <https://www.nema.gov.au/sites/default/files/2025-07/Australian%20Government%20Disaster%20Response%20Plan%202025%20%28COMDISPLAN%29.pdf>.

118 Australian Government (2025) *Disaster Recovery Allowance*. <https://www.disasterassist.gov.au/Documents/Fact-sheets/Disaster-Recovery-Allowance-Factsheet.pdf>.

119 Services Australia (2025) *Understanding government disaster support*. Available at: <https://www.servicesaustralia.gov.au/understanding-government-disaster-support?context=60042> (Accessed: 20 June 2025).

120 Donnarumma, S., Doyle, K. and Russ, E. (2023) *Community sector involvement in disaster management*. Lismore, NSW: Southern Cross University and Resilient Lismore. doi:10.25918/report.315.

121 Resilient Lismore (2024) *Resilient Lismore Social Impact Report*. Available at: <https://resilientlismore.org.au/publications/resilient-lismore-social-impact-report/> (Accessed: 20 June 2025).

122 Ageing Australia (2025). Available at: <https://ageingaustralia.asn.au/> (Accessed: 12 November 2025).

123 Australian Institute of Health and Welfare (2024) *The ongoing challenge of chronic conditions in Australia*. Available at: <https://www.aihw.gov.au/reports/australias-health/chronic-conditions-challenge> (Accessed: 12 November 2025).

124 Australian Institute of Health and Welfare (2025) *Deaths in Australia*. Available at: <https://www.aihw.gov.au/reports/life-expectancy-deaths/deaths-in-australia/contents/life-expectancy> (Accessed: 12 November 2025).

125 Qu, L., Baxter, J. and Gorniak, M. (2023) *Population, households and families*. Australian Institute of Family Studies. Available at: <https://aifs.gov.au/all-research/facts-and-figures/population-households-and-families> (Accessed: 12 November 2025).

126 Australian Institute of Health and Welfare (2024) *The ongoing challenge of chronic conditions in Australia*. Available at: <https://www.aihw.gov.au/reports/australias-health/chronic-conditions-challenge> (Accessed: 12 November 2025).

127 Australian Institute of Health and Welfare (2024) *Chronic conditions*. Available at: <https://www.aihw.gov.au/reports/australias-health/chronic-conditions> (Accessed: 25 February 2026).

128 Wood, D. and Griffiths, K. (2019) *Generation gap: Ensuring a fair go for younger Australians*. Melbourne, VIC: Grattan Institute. Available at: <https://grattan.edu.au/wp-content/uploads/2019/08/920-Generation-Gap.pdf>.

129 Australian Government Department of Health and Aged Care (2025) *Aged care*. Available at: <https://www.health.gov.au/topics/aged-care?language=en> (Accessed: 12 November 2025).

130 Royal Commission into Aged Care Quality and Safety (2021) *Final report: Executive summary*. Canberra, ACT: Commonwealth of Australia. Available at: <https://www.royalcommission.gov.au/system/files/2021-03/final-report-executive-summary.pdf>.

131 Australian Institute of Health and Welfare (2024) *2023 Aged Care Provider Workforce Survey: Summary report*. Canberra, ACT: Australian Institute of Health and Welfare. Available at: [https://www.gen-agedcaredata.gov.au/getmedia/fbbe3584-c404-4bf7-b50f-f309c80ccd13/2023-ACPWS\\_Summary\\_Report](https://www.gen-agedcaredata.gov.au/getmedia/fbbe3584-c404-4bf7-b50f-f309c80ccd13/2023-ACPWS_Summary_Report).

132 Australian Government Department of Health and Aged Care (2022) *My Aged Care Service and Support Portal*. Available at: <https://www.health.gov.au/resources/apps-and-tools/my-aged-care-service-and-support-portal?language=en> (Accessed: 15 November 2025).

133 eSafety Commissioner (2020) *Building Australian adults' confidence and resilience online*. Sydney: eSafety Commissioner. Available at: [https://www.esafety.gov.au/sites/default/files/2020-09/Digital%20Confidence%20report\\_0.pdf](https://www.esafety.gov.au/sites/default/files/2020-09/Digital%20Confidence%20report_0.pdf).

134 eSafety Commissioner (2018) *Understanding the digital behaviours of older Australians: Summary of national survey and qualitative research*. Sydney: eSafety Commissioner. Available at: <https://www.esafety.gov.au/sites/default/files/2019-08/Understanding-digital-behaviours-older-Australians-summary-report-2018.pdf>.

135 Kim, J. and Sheppard-Lowe, S. (2022) 'Older adults' digital engagement and health: A systematic review', *Health Expectations*, 25(6), pp. 2823–2838. doi:10.1111/hex.13264.

136 Wenham, S., Cumming, M. and Saurman, E. (2020) 'Improving palliative and end-of-life care for rural and remote Australians', *Public Health Research & Practice*, 30(1), e3012001. doi:10.17061/phrp3012001.

137 Ring, M., Villar, F., Ristolainen, H. and Tiilikainen, E. (2025) 'Resistant, adaptive, and supported agency: Examining narratives of Finnish older home care clients', *Journal of Aging Studies*, 75, 101342. doi:10.1016/j.jaging.2025.101342.

138 Buurtzorg (2025). <https://www.buurtzorg.com/about-us/> (Accessed: 15 November 2025).

139 Kumar, S. K. (2007) 'Kerala, India: A regional community-based palliative care model', *Journal of Pain and Symptom Management*, 33(5), pp. 623–627. doi:10.1016/j.jpainsymman.2007.02.005.

140 *Aged Care Act 2024 (Cth)*. Available at: <https://www.legislation.gov.au/C2024A00104/latest/text> (Accessed: 15 November 2025).

141 Australian Government (2025) *Support at Home program*. Available at: <https://www.myagedcare.gov.au/aged-care-programs/support-at-home-program> (Accessed: 15 November 2025).

142 Royal Commission into Aged Care Quality and Safety (2021) *Aged Care Royal Commission*. Available at: <https://www.royalcommission.gov.au/aged-care> (Accessed: 15 November 2025).

143 Griffith, G. (2006) Commonwealth–State responsibilities for health: 'Big Bang' or incremental reform? NSW Parliamentary Library Research Service, Briefing Paper No. 17/06. Available at: <https://www.parliament.nsw.gov.au/researchpapers/Documents/commonwealth-state-responsibilities-for-health-b/health.pdf> (Accessed: 12 November 2025).

144 *Aged Care Act 1997 (Cth)*. Available at: <https://www.legislation.gov.au/C2004A05206/latest/text> (Accessed: 20 November 2025).

145 Australian Government Department of Health and Aged Care (2025) *Aged Care Act: About*. Available at: <https://www.health.gov.au/our-work/aged-care-act/about?language=en> (Accessed: 20 November 2025).

146 Simply Retirement (2024) *Aged care reforms 2024*. Available at: <https://simplyretirement.com.au/aged-care-2024> (Accessed: 20 November 2025).

147 Australian Association of Community, Aged and Disability Workers (2025) *Key challenges facing community, aged, and disability workers in Australia*. Available at: <https://aacad.com.au/2025/09/19/key-challenges-facing-community-aged-and-disability-workers-in-australia/> (Accessed: 20 November 2025).

148 Dovidia (2025) *Senate report delivers clear mandate for aged care action*. Available at: <https://dovidia.com.au/news/senate-report-delivers-clear-mandate-for-aged-care-action/> (Accessed: 20 November 2025).

149 Environment Protection Authority South Australia (2025). Available at: <https://soe.epa.sa.gov.au/> (Accessed: 07 August 2025).

150 Environment Protection Authority South Australia (2025). Available at: <https://soe.epa.sa.gov.au/> (Accessed: 07 August 2025).

151 Victorian Government (2024) *Hooded plover*. Available at: <https://www.environment.vic.gov.au/conserving-threatened-species/threatened-species/hooded-plover> (Accessed: 07 August 2025).

152 Department of Climate Change, Energy, the Environment and Water (2024) *Australia's Strategy for Nature 2024–2030*. Available at: <https://www.dccew.gov.au/environment/biodiversity/conservation/publications/australias-strategy-for-nature> (Accessed: 07 August 2025).

153 Green Adelaide (2021) *Adelaide named the world's second National Park City*. Available at: <https://www.greenadelaide.sa.gov.au/news/2021-adelaide-becomes-national-park-city> (Accessed: 07 August 2025).

154 Department of Climate Change, Energy, the Environment and Water (2025) *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*. Available at: <https://www.dccew.gov.au/environment/epbc> (Accessed: 07 August 2025).

155 Samuel, G. (2020) *Independent Review of the EPBC Act – Final Report*. Canberra: Department of Agriculture, Water and the Environment Available at: <https://www.dccew.gov.au/sites/default/files/documents/epbc-act-review-final-report-october-2020.pdf> (Accessed: 07 August 2025).

156 Glibert, P.M., Allen, J.I., Artioli, Y., Beusen, A., Bouwman, L., Harle, J., Holmes, R. and Holt, J. (2014) 'Vulnerability of coastal ecosystems to changes in harmful algal bloom distribution in response to climate change: projections based on model analysis', *Global Change Biology*, 20(12), pp. 3845–3858. doi:10.1111/gcb.12662.

157 Feng, Y., Xiong, Y., Hall-Spencer, J.M., Liu, K., Beardall, J., Gao, K., Ge, J., Xu, J. and Gao, G. (2024) 'Shift in algal blooms from micro- to macroalgae around China with increasing eutrophication and climate change', *Global Change Biology*, 30(1), e17018. doi:10.1111/gcb.17018.

158 Sarkar, S.K. (2018) *Marine algal bloom: Characteristics, causes and climate change impacts*. Singapore: Springer.

159 Istvánovics, V., Honti, M., Torma, P. and Kousal, J. (2022) 'Record-setting algal bloom in polymictic Lake Balaton (Hungary): A synergistic impact of climate change and (mis)management', *Freshwater Biology*, 67(6), pp. 1091–1106. doi:10.1111/fwb.13903.

160 Moore, S.K., Trainer, V.L., Mantua, N.J., Parker, M.S., Laws, E.A., Backer, L.C. and Fleming, L.E. (2008) 'Impacts of climate variability and future climate change on harmful algal blooms and human health', *Environmental Health*, 7(Suppl 2), S4. doi:10.1186/1476-069X-7-S2-S4.

161 Primary Industries and Regions SA (2025) *Harmful Algal Bloom Science Forum: Meeting minutes summary*. Available at: [https://pir.sa.gov.au/\\_\\_data/assets/pdf\\_file/0010/482095/algal-bloom-science-forum-summary.pdf](https://pir.sa.gov.au/__data/assets/pdf_file/0010/482095/algal-bloom-science-forum-summary.pdf).

162 The Nature Conservancy Australia (2024) Reef Builder Summary Report 2024. Melbourne: The Nature Conservancy Australia.

163 Biodiversity Council (2023) *South Australia's biodiversity in a changing climate: the path to nature positive by 2030*. Available at: <https://soe.epa.sa.gov.au/files/documents/Expert-Paper-Biodiversity.pdf> (Accessed: 07 August 2025).

164 Baltic Nest Institute (2021) 'Nest — a decision support system for management of the Baltic Sea'. Available at: <https://nest.su.se/nest/> (Accessed: 16 August 2025).

165 United Nations Development Programme (2012) *Fiji Locally-Managed Marine Area Network, Fiji*. Equator Initiative Case Study Series. New York, NY: Equator Initiative. Available at: [https://www.equatorinitiative.org/wp-content/uploads/2017/05/case\\_1348160544.pdf](https://www.equatorinitiative.org/wp-content/uploads/2017/05/case_1348160544.pdf).

166 Australian Government Department of Industry, Science and Resources (2024) *Australia's National Science Statement: A Future Made in Australia*. August. Available at: <https://www.industry.gov.au/sites/default/files/2024-08/australias-national-science-statement-2024.pdf>.

167 Australian Government Department of Industry, Science and Resources (2024) *Australia's National Science Statement: A Future Made in Australia*. August. Available at: <https://www.industry.gov.au/sites/default/files/2024-08/australias-national-science-statement-2024.pdf>.

168 Williams, D. (2024) 'Australia's National Science Statement – Will It Work?', *Science Victoria* (Royal Society of Victoria), 3 November. Available at: <https://www.rsv.org.au/articles/national-science-statement-2024>.

169 Group of Eight (2023) 'Go8 submission in response to Australia's Draft National Science and Research Priorities', *Publications and Submissions*, 3 October. Available at: <https://go8.edu.au/go8-submission-in-response-to-australias-draft-national-science-and-research-priorities>.

170 Agriculture and Resource Management Council of Australia and New Zealand and Australian and New Zealand Environment and Conservation Council (1997) *Australian guidelines for sewerage systems: Effluent management* (National Water Quality Management Strategy, Paper No. 11). Canberra: Commonwealth of Australia. Available at: <https://www.waterquality.gov.au/sites/default/files/documents/effluent-management.pdf>.

171 NSW Environment Protection Authority (2025) Draft NSW Waste and Circular Infrastructure Plan. Sydney: NSW Government.

172 Hayes, J.E., Fisher, R.M., Assal, M., Kearnes, M. & Stuetz, R.M. (2025) Mapping biosolids management: identifying the roles of non-community stakeholders. ARC Training Centre for the Transformation of Australia's Biosolids Resource, UNSW & RMIT University, Sydney and Melbourne.

173 Water Services Association of Australia (2025) Weighing up the options: Sustainable biosolids management across Australia and New Zealand. Melbourne: Water Services Association of Australia. Available at: <https://wsaa.asn.au/Common/Uploaded%20files/library/report/Weighing%20up%20the%20options%20-%20WSAA%202025.pdf?version=6EB75CC4> (Accessed: 2 March 2026).

174 Department of Climate Change, Energy, the Environment and Water (2022) *National Waste Report 2022* (Final 1.2, updated 10 February 2023). Canberra: Department of Climate Change, Energy, the Environment and Water. Available at: <https://www.dcceew.gov.au/sites/default/files/documents/national-waste-report-2022.pdf>.

175 NSW Environment Protection Authority (2025) *NSW Waste and Circular Infrastructure Plan: Chapter 1: Meeting our residual waste and food and garden organic waste needs*. Sydney: NSW Environment Protection Authority (First published September 2025). Available at: <https://www.epa.nsw.gov.au/sites/default/files/2025-09/25p4616-nsw-waste-and-circular-infrastructure-plan.pdf>.

176 Ramboll (2018) Kwinana Waste to Energy Project: ARENA Life Cycle Assessment. Australian Renewable Energy Agency. Available at: <https://arena.gov.au/assets/2018/12/kwinana-waste-to-energy-project.pdf> (Accessed 2 July 2026).

177 Chaliki, P., Psomopoulos, C.S. and Themelis, N.J. (2016) 'WtE plants installed in European cities: a review of success stories', *Management of Environmental Quality*, 27(5), pp. 606–620. <https://doi.org/10.1108/MEQ-01-2015-0018>.

178 IEA Bioenergy Task 36 (2021) Waste-to-Energy and Social Acceptance: Copenhill WtE Plant in Copenhagen. IEA Bioenergy. Available at: [https://www.ieabioenergy.com/wp-content/uploads/2021/03/T36\\_WtE-and-Social-Acceptance\\_Copenhill-WtE-plant-in-Copenhagen.pdf](https://www.ieabioenergy.com/wp-content/uploads/2021/03/T36_WtE-and-Social-Acceptance_Copenhill-WtE-plant-in-Copenhagen.pdf) (Accessed 18 July 2025).

179 Australian Senate Environment and Communications References Committee (2018) Never waste a crisis: the waste and recycling industry in Australia. Canberra: Commonwealth of Australia.

180 Nimesha, K.M.D., Robert, D.J., Giustozzi, F. and Setunge, S. (2024) 'Sustainable management of end of life crystalline silicon solar panels in Australia: Advancing circular economy practices', *Solar Energy*, 282, 112933. doi:10.1016/j.solener.2024.112933.

181 Department of Climate Change, Energy, the Environment and Water (2025) *National Waste Policy Action Plan*. Australian Government. Available at: <https://www.dcceew.gov.au/sites/default/files/documents/nwpap-australian-government-implementation-plan.pdf> (Accessed: 18 December 2025).

182 New South Wales (2021) Plastic Reduction and Circular Economy Act 2021 No. 31. Available at: <https://legislation.nsw.gov.au/view/html/inforce/current/act-2021-031> (Accessed 21 July 2025).

183 Victoria Government. (2022). Environment Protection Amendment (Banning Single-Use Plastic Items) Regulations 2022. Victorian Legislation. Available at: <https://content.legislation.vic.gov.au/sites/default/files/2022-09/22-085sra%20authorised.pdf>

184 Rapid Transition Alliance (2019) 'Taiwan's transition – from garbage island to recycling leader', 18 June. Available at: <https://rapidtransition.org/stories/taiwans-transition-from-garbage-island-to-recycling-leader/> (Accessed: 13 March 2025).

185 Chen, K. (2016) 'Taiwan: The World's Geniuses of Garbage Disposal', *The Wall Street Journal*, 17 May. Available at: <https://www.wsj.com/articles/taiwan-the-worlds-geniuses-of-garbage-disposal-1463519134> (Accessed: 13 March 2025).

186 Paché, G. (2024) 'Kalundborg industrial symbiosis: Circular strategy in the light of mutualism', *Journal of Strategic Innovation and Sustainability*, 19(3), pp. 89–97. Available at: <https://hal.science/hal-04870887v1/file/Pache-JSIS.pdf>.

187 Victoria (State) (2021) *Circular Economy (Waste Reduction and Recycling) Act 2021* (No. 55 of 2021) (Authorised Version). Available at: <https://content.legislation.vic.gov.au/sites/default/files/2021-12/21-055aa%20authorised.pdf> (Accessed: 13 March 2025).

188 Victorian Government (2024) 'Building Victoria's circular economy'. Available at: <https://www.vic.gov.au/building-victorias-circular-economy> (Accessed: 13 March 2025).

189 Victorian Government (2024) Independent Review of the Victorian Public Service: Final Report. Melbourne: Victorian Government. Available at: <https://www.vic.gov.au/sites/default/files/2025-12/Independent-Review-of-the-VPS-Final-Report.pdf> (Accessed: 5 March 2026).

190 Victorian Government (2024) Independent Review of the Victorian Public Service: Final Report. Melbourne: Victorian Government. Available at: <https://www.vic.gov.au/sites/default/files/2025-12/Independent-Review-of-the-VPS-Final-Report.pdf> (Accessed: 5 March 2026).

191 Department of Climate Change, Energy, the Environment and Water (2022) *National Waste Report 2022* (Final 1.2, updated 10 February 2023). Canberra: Department of Climate Change, Energy, the Environment and Water.

192 Gajanayake, A. and Iyer-Raniga, U. (2025) 'If there is waste, there is a system: Understanding Victoria's circular economy transition from a systems thinking perspective', *Ecological Economics*, 227, 108395. <https://doi.org/10.1016/j.ecolecon.2024.108395>.

193 Frantzeskaki, N., Moglia, M., Newton, P., Prasad, D. and Pineda Pinto, M. (2025) *Future Cities Making: Mission-oriented Research for Urban Sustainability Transitions in Australia*. Singapore: Springer Nature. <https://doi.org/10.1007/978-981-97-7671-9>.

194 Victoria (State) (2021) *Circular Economy (Waste Reduction and Recycling) Act 2021* (No. 55 of 2021) (Authorised Version). Available at: <https://content.legislation.vic.gov.au/sites/default/files/2021-12/21-055aa%20authorised.pdf> (Accessed: 25 February 2025).

195 Study Australia (2025) 'Australia's education system'. Available at: <https://www.studyaustralia.gov.au/en/plan-your-studies/australias-education-system> (Accessed: 03 December 2025).

196 TAFE Gippsland (2024) 'Highest Paid Apprenticeships'. Available at: [https://www.tafegippsland.edu.au/about/mediacentre/2024/highest\\_paid\\_apprenticeships](https://www.tafegippsland.edu.au/about/mediacentre/2024/highest_paid_apprenticeships) (Accessed: 03 December 2025).

197 NSW Government (2025) 'For employers – Smart and Skilled'. Available at: <https://www.nsw.gov.au/education-and-training/vocational/funding/smart-skilled-employers> (Accessed: 3 December 2025).

- 198 Department of Education, Australian Government (2024) 'Higher Education Loan Program (HELP)'. Available at: <https://www.education.gov.au/higher-education-loan-program> (Accessed: 03 December 2025).
- 199 Foundation for Young Australians (FYA) and AlphaBeta (2015) *The New Work Order: Ensuring young Australians have skills and experience for the jobs of the future, not the past*. Melbourne, VIC: Foundation for Young Australians, August. Available at: <https://www.fya.org.au/app/uploads/2021/09/new-work-order-2015.pdf>.
- 200 World Economic Forum (2025) *The Future of Jobs Report 2025*. Geneva: World Economic Forum, 7 January. Available at: [https://reports.weforum.org/docs/WEF\\_Future\\_of\\_Jobs\\_Report\\_2025.pdf](https://reports.weforum.org/docs/WEF_Future_of_Jobs_Report_2025.pdf).
- 201 Naughtin, C., Hajkowicz, S., Schleiger, E., Bratanova, A., Cameron, A., Zamin, T. and Dutta, A. (2022) *Our Future World: Global megatrends impacting the way we live over coming decades*. Brisbane, Australia: CSIRO, July. Available at: <https://www.csiro.au/-/media/D61/Our-Future-World-Megatrends-report/Our-Future-World-report-2022-2.pdf>.
- 202 Australian Government, Department of Education (2024) *Higher Education Loan Program (HELP)*. Available at: <https://www.education.gov.au/higher-education-loan-program> (Accessed: 12 December 2025).
- 203 Jericho, G. and Thrower, J. (2024) 'People are starting with much larger HECS/HELP debts than in the past – and it is only going to get worse', *The Australia Institute*, 23 April. Available at: <https://australiainstitute.org.au/post/people-are-starting-with-much-larger-hecs-help-debts-than-in-the-past-and-it-is-only-going-to-get-worse/> (Accessed: 12 December 2025).
- 204 Department of Education, Australian Government (2025) 'Legislation to reduce student loan debt passes Parliament', 31 July. Available at: <https://www.education.gov.au/newsroom/articles/legislation-reduce-student-loan-debt-passes-parliament> (Accessed: 12 December 2025).
- 205 GoAusbildung (2025). Available at: <https://goausbildung.com/> (Accessed: 12 December 2025).
- 206 Presence Switzerland (2025) 'Vocational education and training', About Switzerland, 3 September. Available at: <https://www.aboutswitzerland.eda.admin.ch/en/vocational-education-and-training> (Accessed: 12 December 2025).
- 207 Department of Employment and Workplace Relations (2025) *Australian Apprenticeships Incentive System factsheet* (Last updated 1 July 2025). Canberra: Department of Employment and Workplace Relations. Available at: <https://www.dewr.gov.au/download/13748/australian-apprenticeships-incentive-system-factsheet/40471/australian-apprenticeships-incentive-system-factsheet/pdf>.
- 208 Australian Apprenticeships (2025) 'Key Apprenticeship Program'. Available at: <https://www.apprenticeships.gov.au/key-apprenticeship-program> (Accessed: 12 December 2025).
- 209 Department of Employment and Workplace Relations (2025) *Australian Apprenticeships Incentive System factsheet* (Last updated 1 July 2025). Canberra: Department of Employment and Workplace Relations. Available at: <https://www.dewr.gov.au/download/13748/australian-apprenticeships-incentive-system-factsheet/40471/australian-apprenticeships-incentive-system-factsheet/pdf>.
- 210 National Aboriginal Community Controlled Health Organisation (2024) Strategic Review of the Australian Apprenticeships Incentive System: Submission to the Department of Employment and Workplace Relations. Canberra, ACT: NACCHO. Available at: <https://www.naccho.org.au/wp-content/uploads/2025/05/Apprenticeships-Incentive-System-NACCHO-submission-May24.pdf>.
- 211 Department of Employment and Workplace Relations (2024) Skills for tomorrow: Shaping the future of Australian apprenticeships—Strategic Review of the Australian Apprenticeship Incentive System: Final report 2024. Canberra: Commonwealth of Australia. Available at: <https://www.dewr.gov.au/download/16795/strategic-review-australian-apprenticeship-incentive-system-final-report/39422/strategic-review-australian-apprenticeship-incentive-system-final-report/pdf>.
- 212 Department for Education, Skills SA (2023) National VET Completions Report. Adelaide: Government of South Australia.
- 213 Australian Apprenticeships (2025) 'Updates on the Strategic Review of the Australian Apprenticeships Incentive System', 28 March. Available at: <https://www.apprenticeships.gov.au/updates-strategic-review-australian-apprenticeships-incentive-system> (Accessed: 12 December 2025).
- 214 Paige, K., O'Keeffe, L. and Osborne, S. (2024) 'Silence is not an option: pre-service teachers embedding First Nation knowledge and practices in primary/middle mathematics and science', *International Journal of Science Education*, 46(1), pp. 28–45. doi:10.1080/09500693.2023.2217986.
- 215 Stoianoff, N. (2019) *Indigenous Knowledge Governance: Developments from the Garuwanga Project, Intellectual Property Forum*, Issue 117, September. Available at: <https://yumi-sabe.aiatsis.gov.au/sites/default/files/outputs/2024-04/Stoianoff%20Pages%20from%20IP%20Forum%20%20%20%20%20Issue%20117%20%20%20%20September%202019%20%28002%29.pdf> (Accessed: 12 February 2025).
- 216 United Nations Department of Economic and Social Affairs (2007) 'United Nations Declaration on the Rights of Indigenous Peoples'. Available at: [https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP\\_E\\_web.pdf](https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf) (Accessed: 12 February 2025).
- 217 United Nations Department of Economic and Social Affairs (2007) 'United Nations Declaration on the Rights of Indigenous Peoples'. Available at: [https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP\\_E\\_web.pdf](https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf) (Accessed: 12 February 2025).
- 218 Ijatuyi, E.J., Lamm, A., Yessoufou, K., Suinyuy, T. and Patrick, H.O. (2025) 'Integration of indigenous knowledge with scientific knowledge: A systematic review', *Environmental Science & Policy*, 170, 104119. doi:10.1016/j.envsci.2025.104119.
- 219 Ansell, J., Evans, J., Rangers, A., Rangers, A.S., Rangers, D., Rangers, J., Rangers, M., Rangers, N.N., Rangers, W., Rangers, Y. and Rangers, Y.M. (2020) 'Contemporary Aboriginal savanna burning projects in Arnhem Land: a regional description and analysis of the fire management aspirations of Traditional Owners', *International Journal of Wildland Fire*, 29(5), pp. 371–385. doi:10.1071/WF18152.
- 220 Tear, T.H., Wolff, N.H., Lipsett-Moore, G.J., Ritchie, M.E., Ribeiro, N.S., Petracca, L.S., Lindsey, P.A., Hunter, L., Loveridge, A.J. and Steinbruch, F. (2021) 'Savanna fire management can generate enough carbon revenue to help restore Africa's rangelands and fill protected area funding gaps', *One Earth*, 4(12), pp. 1776–1791. doi:10.1016/j.oneear.2021.11.013.
- 221 Deslandes, C., Deslandes, S., Broun, D., Hugh, C., Walsh, F., Bradshaw, F. and Griffith, J. (2019) *Two-way science: An integrated learning program for Aboriginal desert schools*. Melbourne: CSIRO Publishing.
- 222 CSIRO (2021) *Indigenous STEM Education Project: Final Evaluation Report: September 2014 – June 2021*. Canberra: CSIRO. Available at: <https://www.csiro.au/-/media/Education-and-Outreach/Impact-Library/ISEP/Files/ISEP-Final-Evaluation-report.pdf> (Accessed: 18 February 2025).
- 223 Institute for Urban Indigenous Health (2025) 'Birthing in Our Community'. Available at: <https://www.iuih.org.au/our-services/health-and-wellbeing-services/birthing-in-our-community/> (Accessed: 18 February 2025).
- 224 Department of Health (2023) 'The South-East Queensland "Birthing in Our Community" project', *National Indigenous Australians Agency (NIAA)*. Available at: <https://www.niaa.gov.au/our-work/closing-gap/south-east-queensland-birthing-our-community-project> (Accessed: 18 February 2025).
- 225 Watego, K., Brodhurst-Hill, M., Murray, C., Mangoyana, C., Emery, A., Woon, J., Williams, K., Reid, N., Engstrom, T., Nelson, C. and Sullivan, C. (2025) 'Indigenous people's perspectives on sharing health data for service delivery purposes: an inquiry using Indigenous methodologies', *The Lancet Regional Health – Western Pacific*, 65.
- 226 Bishop, R., Berryman, M. and Wearmouth, J. (2014) 'Te Kotahitanga', in *Te Kotahitanga: Towards effective education reform for indigenous and other minoritised students*. Wellington: NZCER Press, pp. 1–26.
- 227 New Zealand Legislation (2017) *Te Awa Tupua (Whanganui River Claims Settlement) Act 2017*, Public Act 2017 No. 7. Available at: <https://www.legislation.govt.nz/act/public/2017/0007/latest/whole.html> (Accessed: 18 February 2025).
- 228 Cribb, M., Macpherson, E. and Borchgrevink, A. (2024) 'Beyond legal personhood for the Whanganui River: collaboration and pluralism in implementing the Te Awa Tupua Act', *The International Journal of Human Rights*, pp. 1–24. doi:10.1080/13642987.2024.2314532.
- 229 Australian Curriculum, Assessment and Reporting Authority (2025) 'The Australian Curriculum (Version 9.0)'. Available at: <https://www.australiancurriculum.edu.au/> (Accessed: 18 February 2025).
- 230 Lowe, K., Golledge, C., Poulton, P. and Thompson, K. (2025) 'Curriculum as policy deception: a critical analysis of Aboriginal and Torres Strait Islander knowledge inclusion in the Australian Curriculum', *The Australian Educational Researcher*, 52(3), pp. 2561–2582. doi:10.1007/s13384-025-00824-6.
- 231 Paige, K., O'Keeffe, L. and Osborne, S. (2024) 'Silence is not an option: pre-service teachers embedding First Nation knowledge and practices in primary/middle mathematics and science', *International Journal of Science Education*, 46(1), pp. 28–45. doi:10.1080/09500693.2023.2217986.
- 232 Anson, D.W. (2025) 'Weapons of mass construction: The role of the Australian Curriculum in political discourse', *The Curriculum Journal*, 36(1), pp. 164–179. doi:10.1002/curj.283.
- 233 Leif, E., Alfrey, L. and Grove, C. (2021) 'Challenges for delivering inclusive education in Australia', *Teacher Magazine*, 7 September. Available at: [https://www.teachermagazine.com/au\\_en/articles/challenges-for-delivering-inclusive-education-in-australia](https://www.teachermagazine.com/au_en/articles/challenges-for-delivering-inclusive-education-in-australia) (Accessed: 18 February 2025).
- 234 Department of Energy, Environment and Climate Action (2025) 'Victoria's electricity future', 25 November. Available at: <https://www.energy.vic.gov.au/renewable-energy/victorias-electricity-future> (Accessed: 2 December 2025).

- 235 ABC News (2022) 'Victoria's Loy Yang A power station will close as early as 2035. What does that mean for energy generation in the state?', ABC News, 29 September. Available at: <https://www.abc.net.au/news/2022-09-30/loy-yang-power-plant-agl-coal-closure/101484962> (Accessed: 16 May 2025).
- 236 Geoscience Australia (2025) 'Coal', 14 May. Available at: <https://www.ga.gov.au/education/minerals-energy/australian-energy-facts/coal> (Accessed: 16 May 2025).
- 237 Department of Energy, Environment and Climate Action (2023) Latrobe Valley Regional Rehabilitation Strategy Amendment. Melbourne: Victorian Government. Available at: <https://www.water.vic.gov.au/our-programs/long-term-water-resource-assessments-and-strategies/latrobe-valley-regional-rehabilitation-strategy> (Accessed: 5 March 2026).
- 238 Energy Consumers Australia (2023) 'Age is just a number ... until you bring up the energy transition', 25 July. Available at: <https://energyconsumersaustralia.com.au/news/age-is-just-a-number-until-you-bring-up-the-energy-transition> (Accessed: 16 May 2025).
- 239 Department of Climate Change, Energy, the Environment and Water (2025) 'Net Zero', 25 November. Available at: <https://www.dcceew.gov.au/climate-change/emissions-reduction/net-zero> (Accessed: 2 December 2025).
- 240 Australian Government (2025) 'New green aluminium production credit will support the transition to green metals', 20 January. Available at: <https://www.industry.gov.au/news/new-green-aluminium-production-credit-will-support-transition-green-metals> (Accessed: 16 May 2025).
- 241 Department of Industry, Science and Resources (2025) 'New fund will position Australia at the centre of the global green iron market', 7 March. Available at: <https://www.industry.gov.au/news/new-fund-will-position-australia-centre-global-green-iron-market> (Accessed: 16 May 2025).
- 242 Grudnoff, M. and Campbell, R. (2025) *Fossil fuel subsidies in Australia 2025: Federal and state government assistance to major producers and users of fossil fuels in 2024–25*. Canberra: The Australia Institute. Available at: <https://australiainstitute.org.au/wp-content/uploads/2025/03/P1669-Fossil-fuel-subsidies-2025-Web.pdf>.
- 243 Australian Bureau of Statistics (2021) 'Latrobe Valley (SA3): 2021 Census All persons QuickStats'. Available at: <https://www.abs.gov.au/census/find-census-data/quickstats/2021/20504> (Accessed: 16 May 2025).
- 244 McCoy, J., Davis, D., Mayfield, E. and Brear, M.J. (2024) 'Labour implications of the net-zero transition and clean energy exports in Australia', *Energy Research & Social Science*, 112, 103506. doi:10.1016/j.erss.2024.103506.
- 245 Norges Bank Investment Management (2025) 'About the fund'. *Norges Bank Investment Management*. Available at: <https://www.nbim.no/en/about-us/about-the-fund/> (Accessed: 16 May 2025).
- 246 Government of Western Australia, Department of the Premier and Cabinet (2020) *Collie's just transition plan*. Available at: [https://www.wa.gov.au/system/files/2020-12/Collies%20Just%20Transition\\_09%20December%202020\\_web.pdf](https://www.wa.gov.au/system/files/2020-12/Collies%20Just%20Transition_09%20December%202020_web.pdf).
- 247 Net Zero Economy Authority (2025) 'Energy Industry Jobs Plan'. Available at: <https://www.netzero.gov.au/energy-industry-jobs-plan> (Accessed: 16 May 2025).
- 248 Net Zero Economy Authority (2025) 'Energy Industry Jobs Plan'. Available at: <https://www.netzero.gov.au/energy-industry-jobs-plan> (Accessed: 16 May 2025).
- 249 Mining & Energy Union (2025) *Energy Industry Jobs Plan Statutory Review: Mining and Energy Union Submission*, September 2025. Available at: [https://meu.org.au/wp-content/uploads/2025/10/MEU-Submission\\_EIJP-Statutory-Review\\_Sep2025-1.pdf](https://meu.org.au/wp-content/uploads/2025/10/MEU-Submission_EIJP-Statutory-Review_Sep2025-1.pdf) (Accessed: 2 December 2025).
- 250 State of Victoria (2023) *Clean Economy Workforce Development Strategy 2023–2033*. Available at: <https://www.vic.gov.au/sites/default/files/2023-06/VSA-CleanEconomyWorkforceDevelopmentStrategy2023-2033.pdf>.
- 251 Australian Government, Department of Defence (2024) Annual cyber threat report highlights evolvingthreat. Available at: <https://www.minister.defence.gov.au/media-releases/2024-11-20/annual-cyber-threat-report-highlights-evolving-threat> (Accessed: 13 October 2025).
- 252 Queensland Government (2022) Optus data breach. Available at: <https://www.qld.gov.au/community/your-home-community/cyber-security/cyber-security-for-queenslanders/case-studies/optus-data-breach> (Accessed: 13 October 2025).
- 253 Australia (2024) Cyber Security Act 2024 (Cth), No. 98. Available at: <https://www.legislation.gov.au/C2024A00098/asmade/text>.
- 254 Australian Government, Department of Home Affairs (2023) 2023–2030 Australian cyber security strategy: Action plan. Available at: <https://www.homeaffairs.gov.au/cyber-security-subsite/files/2023-cyber-security-strategy-action-plan.pdf>.
- 255 Hipolito, M. (2025) Australian IT spending to reach AUD \$172.3 billion by 2026. SecurityBrief Australia, 8 September. Available at: <https://securitybrief.com.au/story/australian-it-spending-to-reach-aud-172-3-billion-by-2026> (Accessed: 13 October 2025).
- 256 RMIT University (2024) *Gender dimensions in the Australian security industry*. Available at: <https://www.rmit.edu.au/news/ccsri/understanding-gender-dimensions-project-study> (Accessed: 13 October 2025).
- 257 Do, T., Le Bodic, P., Martin, C. and Strengers, Y. (2021) *Championing girls and women in information technology: a review of challenges, opportunities and initiatives*. Melbourne: Monash University. Available at: [https://www.monash.edu/\\_\\_data/assets/pdf\\_file/0005/2748515/Women-in-STEM-and-IT-Report.pdf](https://www.monash.edu/__data/assets/pdf_file/0005/2748515/Women-in-STEM-and-IT-Report.pdf)
- 258 Australian Government, Department of Industry, Science and Resources (2025) *Snapshot of disparity in STEM*. Available at: <https://www.industry.gov.au/publications/advancing-women-stem-strategy/snapshot-disparity-stem> (Accessed: 18 October 2025).
- 259 RMIT University (2024) *Gender dimensions in the Australian security industry*. Available at: <https://www.rmit.edu.au/news/ccsri/understanding-gender-dimensions-project-study> (Accessed: 18 October 2025).
- 260 Department of Home Affairs (2025) Inclusive Cyber Security Recruitment. Canberra: Australian Government, Department of Home Affairs. Available at: <https://www.homeaffairs.gov.au/cyber-security-subsite/files/inclusive-cyber-security-recruitment.pdf> (Accessed: 5 March 2026).
- 261 Office of the Australian Information Commissioner (2023) *Australian community attitudes to privacy survey 2023*. Available at: <https://www.oaic.gov.au/engage-with-us/research-and-training-resources/research/australian-community-attitudes-to-privacy-survey/australian-community-attitudes-to-privacy-survey-2023>
- 262 Mangelsdorf, M.E. (2018) 'The trouble with homogeneous teams', *MIT Sloan Management Review*, 59(2), pp. 43–47. Available at: <https://www.oreilly.com/library/view/the-trouble-with/53863MIT59232/>
- 263 Government of Singapore (2021) *Singapore cybersecurity strategy 2021*. Singapore: Cyber Security Agency of Singapore. Available at: [https://ccdcoc.org/uploads/2018/10/Singapore\\_Cybersecurity\\_Strategy\\_2021.pdf](https://ccdcoc.org/uploads/2018/10/Singapore_Cybersecurity_Strategy_2021.pdf).
- 264 UK National Cyber Security Centre (2025) CyberFirst programme overview. Available at: <https://www.ncsc.gov.uk/cyberfirst/overview> (Accessed: 18 October 2025).
- 265 Australian Government, Department of Home Affairs (2023) *2023–2030 Australian cyber security strategy*. Available at: <https://www.homeaffairs.gov.au/about-us/our-portfolios/cyber-security/strategy/2023-2030-australian-cyber-security-strategy>.
- 266 Australian Government, Department of Home Affairs (2023) *2023–2030 Australian cyber security strategy: Action plan*. Available at: <https://www.homeaffairs.gov.au/cyber-security-subsite/files/2023-cyber-security-strategy-action-plan.pdf>.
- 267 Australia. Strengthening Democracy Taskforce (2024) *Strengthening Australian democracy: a practical agenda for democratic resilience*. Belconnen, ACT: Department of Home Affairs. Available at: <https://www.homeaffairs.gov.au/about-us-subsite/files/strengthening-australian-democracy.pdf>.
- 268 Committee for Economic Development of Australia (2025) *Short-termism is holding Australia back*. Available at: <https://www.ceda.com.au/research-and-policy/research/economy/short-termism-is-holding-australia-back> (Accessed: 02 September 2025).
- 269 Stockemer, D. and Sundström, A. (2022) *Youth without representation: the absence of young adults in parliaments, cabinets, and candidacies*. Ann Arbor: University of Michigan Press.
- 270 Fu, J., Wyn, J. and Churchill, B. (2021) *Young Australians' confidence in political institutions and their civic engagement*. Melbourne: The University of Melbourne. Available at: [https://education.unimelb.edu.au/\\_\\_data/assets/pdf\\_file/0007/3820660/Youth-confidence-and-c3ivics-Eric-report.pdf](https://education.unimelb.edu.au/__data/assets/pdf_file/0007/3820660/Youth-confidence-and-c3ivics-Eric-report.pdf).
- 271 Bordeleau, J.-N. (2025) Turning away from democracy? Democratic antipathy and support for undemocratic practices among young Australians. Adelaide: Jeff Bleich Centre, Flinders University. Available at: <https://www.flinders.edu.au/jeff-bleich-centre/democracy-report>.
- 272 Dean, L., Ghazarian, Z. and Lee-Koo, K. (2024) 'The participation of young people in Australian politics', in *Australian politics at a crossroads*. London: Routledge, pp. 227–240.
- 273 Walsh, L., Huynh, T.B. and Deng, Z. (2025) *The 2025 Australian Youth Barometer*. Melbourne: Monash Centre for Youth Policy and Education Practice (CYPEP). doi:10.26180/30184270.
- 274 Hand, T. and MacKenzie, D. (2021) 'Young people, income, and housing support: Keeping young people living below the poverty line and in rental stress', *Parity*, 34(3), pp. 20–23. doi:10.3316/informit.770044821348422.
- 275 Per Capita (2025) *The lost decade*. Melbourne: Per Capita. Available at: <https://percapita.org.au/wp-content/uploads/2025/03/The-Lost-Decade-FINAL.pdf>.
- 276 Grattan Institute (2019) *Generation gap*. Melbourne: Grattan Institute. Available at: <https://grattan.edu.au/wp-content/uploads/2019/08/920-Generation-Gap.pdf>.
- 277 Observatory of Participatory Democracy (2024) *Decidim Barcelona*. Available at: <https://oidp.net/en/practice.php?id=1407>.
- 278 World Bank (n.d.) *Empowerment case studies: participatory budgeting in Brazil*. Available at: <https://documents1.worldbank.org/curated/en/600841468017069677/pdf/514180WP0BR0Bu10Box342027B01PUBLIC1.pdf>.

- 279 Western Australia (1995) *Local Government Act 1995* (WA), No. 74 of 1995. Available at: [https://www.legislation.wa.gov.au/legislation/prod/filestore.nsf/FileURL/mrdoc\\_6744.pdf/\\$FILE/Local%20Government%20Act%201995%20-%20%5B00-00-00%5D.pdf?OpenElement](https://www.legislation.wa.gov.au/legislation/prod/filestore.nsf/FileURL/mrdoc_6744.pdf/$FILE/Local%20Government%20Act%201995%20-%20%5B00-00-00%5D.pdf?OpenElement).
- 280 Western Australia (2025) *Local Government Chief Executive Officers and Elected Council Members Determination No. 1 of 2025*, 4 April. Available at: <https://www.wa.gov.au/government/publications/local-government-chief-executive-officers-and-elected-council-members-determination-no-1-of-2025>.
- 281 Western Australia (2025) *Local Government Chief Executive Officers and Elected Council Members Determination No. 1 of 2025*, 4 April. Available at: <https://www.wa.gov.au/government/publications/local-government-chief-executive-officers-and-elected-council-members-determination-no-1-of-2025>.
- 282 Western Australia (2025) *Local Government Chief Executive Officers and Elected Council Members Determination No. 1 of 2025*, 4 April. Available at: <https://www.wa.gov.au/government/publications/local-government-chief-executive-officers-and-elected-council-members-determination-no-1-of-2025>.
- 283 Western Australia, Department of Communities (2024) *Youth advisory councils*. Available at: <https://www.wa.gov.au/organisation/departments-of-communities/youth-advisory-councils>.
- 284 Government of Western Australia (2004) *Operational Guideline 5: Council forum guideline*. Available at: <https://sitemfinitypublicblobs.blob.core.windows.net/prod-blob/docs/default-source/local-government-%28blog%29/operational-guidelines/operational-guideline-5-council-forum-guideline.pdf>.
- 285 Meltwater (2025) *2026 Global digital report*. Available at: <https://www.meltwater.com/en/global-digital-trends>.
- 286 Korte, M. (2020) 'The impact of the digital revolution on human brain and behavior: where do we stand?', *Dialogues in Clinical Neuroscience*, 22(2), pp. 101–111. doi:10.31887/DCNS.2020.22.2/mkorte.
- 287 Zulman, D.M., Vijan, S., Omenn, G.S. and Hayward, R.A. (2008) 'The relative merits of population-based and targeted prevention strategies', *Milbank Quarterly*, 86(4), pp. 557–580. doi:10.1111/j.1468-0009.2008.00534.x.
- 288 Korte, M. (2020) 'The impact of the digital revolution on human brain and behavior: where do we stand?', *Dialogues in Clinical Neuroscience*, 22(2), pp. 101–111. doi:10.31887/DCNS.2020.22.2/mkorte.
- 289 Australian Government, Department of Infrastructure, Transport, Regional Development, Communications and the Arts (2025) *Current legislation*. Available at: <https://www.infrastructure.gov.au/media-technology-communications/internet/online-safety/current-legislation>
- 290 Filgueiras, F. and Raymond, A. (2023) 'Designing governance and policy for disruptive digital technologies', *Policy Design and Practice*, 6(1), pp. 1–13. doi:10.1080/25741292.2022.2162241.
- 291 Verhoef, P.C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J.Q., Fabian, N. and Haenlein, M. (2021) 'Digital transformation: a multidisciplinary reflection and research agenda', *Journal of Business Research*, 122, pp. 889–901. doi:10.1016/j.jbusres.2019.09.022.
- 292 Scully, C. (2024) '8 ways Gen Z will change the workforce', *Stanford News*, 14 February. Available at: <https://news.stanford.edu/stories/2024/02/8-things-expect-gen-z-coworker> (Accessed: 13 October 2025).
- 293 Yang, H., Yang, S., Oh, O.H.S. and Tan, J. (2025) *Connected yet constrained: investigating the impact of social media use on creativity*. SSRN Working Paper. doi:10.2139/ssrn.5220311.
- 294 Australian Sports Commission (2023) *AusPlay results 2015–2023*. Available at: <https://www.ausport.gov.au/clearinghouse/research/ausplay/2015-2023> (Accessed: 13 October 2025).
- 295 Zulman, D.M., Vijan, S., Omenn, G.S. and Hayward, R.A. (2008) 'The relative merits of population-based and targeted prevention strategies', *Milbank Quarterly*, 86(4), pp. 557–580. doi:10.1111/j.1468-0009.2008.00534.x.
- 296 Bibizadeh, R.E., Procter, R., Girvan, C., Webb, H. and Jirotko, M. (2025) 'Digitally un/free: the everyday impact of social media on the lives of young people', *Learning, Media and Technology*, 50(2), pp. 205–218. doi:10.1080/17439884.2023.2237883.
- 297 Stevenson, K., Jayakumar, E., See, H., Ryu, Y. and Das, S. (2022) *Children's perspectives of digital citizenship in India, Korea and Australia: Report of findings from children's digital citizenship and safety roundtables*. Perth: Edith Cowan University and ARC Centre of Excellence for the Digital Child.
- 298 Government of India, Ministry of Education (2020) *National Education Policy 2020*. New Delhi: Ministry of Education. Available at: [https://www.education.gov.in/sites/upload\\_files/mhrd/files/NEP\\_Final\\_English\\_0.pdf](https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf) (Accessed: 13 October 2025).
- 299 European Union (2024) *Digital Fairness Act (DFA): updates*. Available at: <https://www.digital-fairness-act.com/> (Accessed: 13 October 2025).

- 300 Parliament of Australia (2024) *Online Safety Amendment (Social Media Minimum Age) Bill 2024*, Parliament No. 47. Available at: [https://www.aph.gov.au/Parliamentary\\_Business/Bills\\_Legislation/Bills\\_Search\\_Results/Result?bld=r7284](https://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/Bills_Search_Results/Result?bld=r7284) (Accessed: 13 October 2025).
- 301 Australian Human Rights Commission (2024) *Human Rights Explainer: Proposed Social Media Ban for Under-16s in Australia*. Sydney: Australian Human Rights Commission. Available at: [https://humanrights.gov.au/sites/default/files/2024-11/AHRC\\_Social-Media-Ban-Explainer.pdf](https://humanrights.gov.au/sites/default/files/2024-11/AHRC_Social-Media-Ban-Explainer.pdf) (Accessed: 5 March 2026).
- 302 Australian Human Rights Commission (2024) *Online Safety Amendment (Social Media Minimum Age) Bill 2024: Submission to the Senate Standing Committees on Environment and Communications*. Sydney: Australian Human Rights Commission, 22 November. Available at: [https://humanrights.gov.au/\\_data/assets/file/0016/65104/Online-Safety-Amendment-Social-Media-Minimum-Age-Bill-2024-Submission\\_0.pdf](https://humanrights.gov.au/_data/assets/file/0016/65104/Online-Safety-Amendment-Social-Media-Minimum-Age-Bill-2024-Submission_0.pdf) (Accessed: 5 March 2026).
- 303 eSafety Commissioner (2025) *eSafety's Implementation of the Social Media Age Restrictions: Statement of Commitment to Children's Rights*. Canberra: eSafety Commissioner.
- 304 McDermott, P.M. (2009) 'Australian citizenship and the independence of Papua New Guinea', *UNSW Law Journal*, 32(1), pp. 50–74.
- 305 Australia (1901) *Immigration Restriction Act 1901* (Cth). Available at: <https://www.naa.gov.au/explore-collection/immigration-and-citizenship/immigration-restriction-act-1901> (Accessed: 11 July 2025).
- 306 Australia (1901) *Pacific Island Labourers Act 1901* (Cth). Available at: <https://www.naa.gov.au/students-and-teachers/learning-resources/learning-resource-themes/society-and-culture/migration-and-multiculturalism/pacific-island-labourers-act-1901>.
- 307 Crock, M. and Parsons, C. (2023) *Australia as a modern migration state: past and present*. Background paper to the World Development Report 2023: Migrants, Refugees, and Societies. Washington, DC: World Bank. Available at: <https://thedocs.worldbank.org/en/doc/659cc1ee23366043a8581072c718b531-0050062023/original/Australia-and-Migration-2022-23-FORMATTED.pdf>.
- 308 Australian Bureau of Statistics (2020) *Migration, Australia*. Available at: <https://www.abs.gov.au/statistics/people/population/migration-australia/latest-release> (Accessed: 11 July 2025).
- 309 Berg, L. and Farbenblum, B. (2018) 'Remedies for migrant worker exploitation in Australia: lessons from the 7-Eleven wage repayment program', *Melbourne University Law Review*, 41(3).
- 310 World Bank (2023) *Pacific labor mobility: the benefits, concerns, and opportunities*. Available at: <https://www.worldbank.org/en/country/pacificislands/brief/pacific-labor-mobility-the-benefits-concerns-and-opportunities>.
- 311 Coates, B., Wiltshire, T. and Reysenbach, T. (2023) *Short-changed: how to stop the exploitation of migrant workers in Australia*. Melbourne: Grattan Institute. Available at: <https://grattan.edu.au/wp-content/uploads/2023/05/Short-changed-How-to-stop-the-exploitation-of-migrant-workers-in-Australia.pdf> (Accessed July 25 2025).
- 312 Australian Council of Trade Unions (ACTU) (2020) *Wage theft: the exploitation of workers is widespread and has become a business model*. ACTU Submission No. 11/2020, 6 March. Available at: <https://www.actu.org.au/wp-content/uploads/2023/06/media1449199d11-actu-submission-to-senate-economics-committee-inquiry-into-the-unlawful-underpayment-of-employee-remuneration-20200306-1.pdf>.
- 313 Australian Pacific Labour Mobility Scheme (2025). Available at: <https://www.palmscheme.gov.au/>.
- 314 Killen, G., Hawking, T. and Richardson, D. (2024) *PALM visas, superannuation and tax*. Canberra: The Australia Institute. Available at: <https://australiainstitute.org.au/wp-content/uploads/2024/11/P1731-Palm-tax-and-super-Web.pdf>.
- 315 International Organization for Migration (IOM) (2017) *African Union continental free movement of persons protocol: implications for migration governance in Africa*. Standing Committee on Programmes and Finance, Twentieth Session (S/20/10), 26 April. Available at: <https://www.iom.int/sites/g/files/tmzbd1486/files/2019-01/S-20-10%20-%20African%20Union%20Continental%20free%20movement%20of%20persons.pdf>.
- 316 McClain, S.N. and Bruch, C. (2021) 'Migration with dignity: a framework to manage climate change and prevent conflict', *Peace & Justice Studies Chronicle*. Available at: <https://www.peacejusticestudies.org/chronicle/migration-with-dignity-a-framework-to-manage-climate-change-and-prevent-conflict/> (Accessed: 11 July 2025).
- 317 Australian Government, Department of Foreign Affairs and Trade (2024) *Pacific Engagement Visa*. Available at: <https://www.dfat.gov.au/geo/pacific/people-connections/people-connections-in-the-pacific/pacific-engagement-visa>.
- 318 Australian Government, Department of Foreign Affairs and Trade (n.d.) *How is the Pacific Engagement Stream Visa (PEV) different from the Pacific Australia Labour Mobility (PALM) scheme?* Available at: <https://www.dfat.gov.au/sites/default/files/pev-differs-palm-factsheet.pdf>.

- 319 Australian Bureau of Statistics (ABS) (2025) *Corrective services, Australia* (September quarter). Available at: <https://www.abs.gov.au/statistics/people/crime-and-justice/corrective-services-australia/latest-release>.
- 320 Australian Institute of Health and Welfare (2025) *Safety and justice for First Nations people*. Available at: <https://www.aihw.gov.au/reports/australias-welfare/indigenous-community-safety>.
- 321 Amnesty International Australia (2022) 'The overrepresentation problem: First Nations kids are 26 times more likely to be incarcerated than their classmates', 8 September. Available at: <https://www.amnesty.org.au/overrepresentation-explainer-first-nations-kids-are-26-times-more-likely-to-be-incarcerated/> (Accessed: 11 December 2025).
- 322 Sentencing Council Victoria (2022) *Released prisoners returning to prison*. Available at: <https://www.sentencingcouncil.vic.gov.au/sentencing-statistics/released-prisoners-returning-to-prison>.
- 323 Australian Institute of Health and Welfare (AIHW) (2025) *Youth justice in Australia 2023–24*. Available at: <https://www.aihw.gov.au/reports/youth-justice/youth-justice-in-australia-2023-24/contents/youth-justice-in-context/australian-and-international-approaches-to-youth-j> (Accessed: 4 December 2025).; Stutchbury, E. (2025) *The minimum age of criminal responsibility in Australia*. Melbourne: Australian Institute of Family Studies, Child Family Community Australia. Available at: <https://aifs.gov.au/resources/resource-sheets/minimum-age-criminal-responsibility-australia> (Accessed 4 December 2025).
- 324 Australian Human Rights Commission (2019) *UN calls for national action to protect the rights of children and young people in Australia* (media release), October. Available at: <https://humanrights.gov.au/about-us/media-centre/search-listing-media-releases/media-releases/un-calls-national-action-protect-rights-children-and-young-people> (Accessed: 11 December 2025).
- 325 Northern Territory (2025) *Youth Justice Legislation Amendment Act 2025* (NT), Serial No. 31. Available at: [https://legislation.nt.gov.au/en/LegislationPortal/Bills/~link.aspx?\\_id=B306457A4A004E2CB9952B640A5750F4&\\_z=z](https://legislation.nt.gov.au/en/LegislationPortal/Bills/~link.aspx?_id=B306457A4A004E2CB9952B640A5750F4&_z=z).
- 326 Northern Territory (2025) *Correctional Services Legislation Amendment Act 2025* (NT), Act No. 3. Available at: <https://legislation.nt.gov.au/en/Bills/Correctional-Services-Legislation-Amendment-Bill-2025-S12?format=assented>.
- 327 North Australian Aboriginal Justice Agency (2025) 'More legislation, more harm – NAAJA expresses concerns over police and corrections legislation', 20 February. Available at: <https://www.naaaja.org.au/more-legislation-more-harm-naaja-expresses-concerns-over-police-and-corrections-legislation/> (Accessed: 11 December 2025).
- 328 Financial Counselling Australia (2018) *Double punishment: how people in prison pay twice*. Melbourne: Financial Counselling Australia. Available at: <https://www.financialcounselingaustralia.org.au/fca-content/uploads/2019/10/Double-Punishment-Final.pdf>.
- 329 Australian Government, Services Australia (2025) *Crisis payment*. Available at: <https://www.servicesaustralia.gov.au/crisis-payment>.
- 330 Productivity Commission (2021) *Australia's prison dilemma: Commission research paper*, 29 October. Available at: <https://www.pc.gov.au/inquiries-and-research/prison-dilemma/> (Accessed: 11 December 2025).
- 331 Remond, M., Zeki, R., Austin, K., Bowman, J., Galouzis, J., Stewart, K.A. and Sullivan, E. (2023) *Intergenerational incarceration in New South Wales: characteristics of people in prison experiencing parental imprisonment*, *Trends and Issues in Crime and Criminal Justice*, no. 663, pp. 1–24.
- 332 Besemer, K.L., Van de Weijer, S.G. and Dennison, S.M. (2018) 'Risk marker or risk mechanism? The effect of family, household, and parental imprisonment on children's and adults' social support and mental health', *Criminal Justice and Behavior*, 45(8), pp. 1154–1173. doi:10.1177/0093854818782711.
- 333 Bell, M.F., Segal, L., Dennison, S., Kinner, S.A., Dawe, S., Spittal, M.J. and Preen, D.B. (2023) 'Numeracy and literacy attainment of children exposed to maternal incarceration and other adversities: a linked data study', *Journal of School Psychology*, 100, p. 101241. doi:10.1016/j.jsp.2023.101241.
- 334 Dobbie, W., Grönqvist, H., Niknami, S., Palme, M. and Priks, M. (2018) *The intergenerational effects of parental incarceration*. NBER Working Paper No. 24186. Cambridge, MA: National Bureau of Economic Research. Available at: [https://www.nber.org/system/files/working\\_papers/w24186/w24186.pdf](https://www.nber.org/system/files/working_papers/w24186/w24186.pdf).
- 335 Schlicht, M. (2025) 'The cost of prisons in 2025', *Institute of Public Affairs*, 5 October. Available at: <https://ipa.org.au/read/the-cost-of-prisons-in-2025> (Accessed: 11 December 2025).
- 336 Schlicht, M. (2025) 'The cost of prisons in 2025', *Institute of Public Affairs*, 5 October. Available at: <https://ipa.org.au/read/the-cost-of-prisons-in-2025> (Accessed: 11 December 2025).
- 337 Schlicht, M. (2025) 'The cost of prisons in 2025', *Institute of Public Affairs*, 5 October. Available at: <https://ipa.org.au/read/the-cost-of-prisons-in-2025> (Accessed: 11 December 2025).

- 338 Sentencing Council Victoria (2022) *Released prisoners returning to prison*. Available at: <https://www.sentencingcouncil.vic.gov.au/sentencing-statistics/released-prisoners-returning-to-prison>.
- 339 Bell, M.F., Segal, L., Dennison, S., Kinner, S.A., Dawe, S., Spittal, M.J. and Preen, D.B. (2023) 'Numeracy and literacy attainment of children exposed to maternal incarceration and other adversities: a linked data study', *Journal of School Psychology*, 100, p. 101241. doi:10.1016/j.jsp.2023.101241.
- 340 Sampson, R.J. and Loeffler, C. (2010) 'Punishment's place: the local concentration of mass incarceration', *Daedalus*, 139(3), pp. 20–31. doi:10.1162/daed\_a\_00020.
- 341 Gordon, M.B., Iglesias, J.R., Semeshenko, V. and Nadal, J.-P. (2007) *Crime and punishment: the economic burden of impunity*. arXiv preprint arXiv:0710.3751. doi:10.48550/arXiv.0710.3751.
- 342 Leigh, A. (2020) *The second convict age: explaining the return of mass imprisonment in Australia*. IZA Discussion Paper No. 13025. Bonn: Institute of Labor Economics (IZA). Available at: <http://andrewleigh.org/pdf/SecondConvictAge.pdf> (Accessed: 19 July 2025).
- 343 Western, B. and Pettit, B. (2010) 'Incarceration and social inequality', *Daedalus*, 139(3), pp. 8–19.
- 344 Denny, M. (2016) 'Norway's prison system: investigating recidivism and reintegration', *Bridges: A Journal of Student Research*, 10(10), pp. 21–37.
- 345 Youthlaw Australia (2013) *Justice reinvestment in Bourke* (briefing paper). Available at: [https://youthlaw.asn.au/wp-content/uploads/2016/07/Justice-Reinvestment-in-Bourke\\_Briefing-paper-Aug-2013.pdf](https://youthlaw.asn.au/wp-content/uploads/2016/07/Justice-Reinvestment-in-Bourke_Briefing-paper-Aug-2013.pdf).
- 346 Northern Territory (2014) *Correctional Services Act 2014* (NT). Available at: <https://legislation.nt.gov.au/Legislation/CORRECTIONAL-SERVICES-ACT-2014>.
- 347 Northern Territory (2014) *Correctional Services Act 2014* (NT). Available at: <https://legislation.nt.gov.au/Legislation/CORRECTIONAL-SERVICES-ACT-2014>.
- 348 Australian Prisoners Union (2007) *Work health and safety*. Available at: <https://australianprisonersunion.org.au/work-health-safety/>.
- 349 Costigan, M. (2022) 'Inmates usually work for around \$2 an hour', *The Canberra Times*, 18 October. Available at: <https://www.canberratimes.com.au/story/7947179/prisoners-are-often-paid-2-an-hour-but-corporate-australia-wont-let-you-know-it/> (Accessed: 11 December 2025).
- 350 Australian Prisoners Union (2009) *Proper payment for work*. Available at: <https://australianprisonersunion.org.au/payment-of-proper-employment-entitlements/>.
- 351 University of New South Wales (2015) *Audit of prisoner participation in industries and education 2008–2015*. Available at: [https://www.arts.unsw.edu.au/sites/default/files/documents/Audit\\_prisoner\\_participation\\_in\\_industries\\_and\\_education\\_20082015\\_FINAL.pdf](https://www.arts.unsw.edu.au/sites/default/files/documents/Audit_prisoner_participation_in_industries_and_education_20082015_FINAL.pdf).
- 352 Giles, M., Le, A.T., Allan, M., Lees, C., Larsen, A.-C. and Bennett, L. (2004) *To train or not to train: The role of education and training in prison to work transitions*. Adelaide: NCVET. Available at: <https://www.ncver.edu.au/research-and-statistics/publications/all-publications/to-train-or-not-to-train-the-role-of-education-and-training-in-prison-to-work-transitions> (Accessed: 11 December 2025).
- 353 Northern Territory Government (2025) *Employ a prisoner*. Available at: <https://nt.gov.au/law/prisons/sentenced-to-a-job>
- 354 Mills, A., Terry, A., Lindsay Latimer, C. and Milne, B. (2022) *Going straight home? Post-prison housing experiences and the role of stable housing in reducing reoffending in Aotearoa New Zealand*. Auckland: School of Social Sciences, University of Auckland. Available at: <https://www.auckland.ac.nz/assets/arts/or-research/research-institutes-centres-groups/compass/social-research-or-projects/docs/GSH%20final%20report%20final%20and%20complete.pdf> (Accessed: 11 December 2025).
- 355 Northern Territory Government, Department of Corrections (2025) *Department of Corrections annual report 2024–25*. Available at: [https://corrections.nt.gov.au/\\_data/assets/pdf\\_file/0010/1567108/department-of-corrections-annual-report-2024-25.pdf](https://corrections.nt.gov.au/_data/assets/pdf_file/0010/1567108/department-of-corrections-annual-report-2024-25.pdf).
- 356 Hawkins, T.D., Harris Rimmer, S., Stephenson, E., Day, M. and Furlong, A. (2026) *Future Generations Policy, Governance and Leadership: Ending 'Policrastination'*. Singapore: Palgrave Macmillan.
- 357 CultureForHealth (2025) *Arts and Culture for Well-being Action Programme Finland*. Available at: <https://www.cultureforhealth.eu/mapping/arts-and-culture-for-well-being-action-programme-finland/> (Accessed: 18 July 2025).
- 358 Taikusydän (2025) *Arts & Health Coordination Centre in Finland*, 19 May. Available at: <https://taikusydan.turkuamk.fi/en/about/info-2/> (Accessed: 18 July 2025).
- 359 Taikusydän (2025) *Arts & Health Coordination Centre in Finland*, 19 May. Available at: <https://taikusydan.turkuamk.fi/en/about/info-2/> (Accessed: 18 July 2025).
- 360 ArtsEqual (2025). Available at: <https://www.artsequal.fi/en/home>
- 361 Organisation for Economic Co-operation and Development (2021) *Economic and social impact of cultural and creative sectors: Note for Italy G20 Presidency Culture Working Group*. Paris: OECD Publishing. Available at: [https://www.oecd.org/content/dam/oecd/en/publications/reports/2021/08/economic-and-social-impact-of-cultural-and-creative-sectors\\_6d8452e4/4d4e760f-en.pdf](https://www.oecd.org/content/dam/oecd/en/publications/reports/2021/08/economic-and-social-impact-of-cultural-and-creative-sectors_6d8452e4/4d4e760f-en.pdf) (Accessed: 18 July 2025).

- 362 Canadian Multiculturalism Act, R.S.C. 1985, c. 24 (4th Supp.). Available at: <https://laws-lois.justice.gc.ca/eng/acts/c-18.7/page-1.html> (Accessed: 22 July 2025).
- 363 Canadian Heritage (2024) *About the Canadian Multiculturalism Act*. 3 June. Available at: <https://www.canada.ca/en/canadian-heritage/services/about-multiculturalism-anti-racism/about-act.html> (Accessed: 22 July 2025).
- 364 Canadian Heritage (2025) Available at: <https://www.canada.ca/en/canadian-heritage.html> (Accessed: 22 July 2025)
- 365 Community Civic Engagement Organization (2025) *Why multiculturalism is Canada's strength: A community perspective*. Available at: <https://ccomac.org/why-multiculturalism-is-canadas-strength-a-community-perspective/> (Accessed: 11 September 2025)
- 366 Canadian Heritage (2025) Available at: <https://www.canada.ca/en/canadian-heritage.html> (Accessed: 11 September 2025).
- 367 Banting, K. (2022) 'Multiculturalism policy in Canada: Conflicted and resilient', in Lindquist, E. A., Howlett, M., Skogstad, G., Tellier, G. and 't Hart, P. (eds) *Policy success in Canada: Cases, lessons, challenges*. Oxford: Oxford University Press, pp. 183–205.
- 368 Banting, K. (2022) 'Multiculturalism policy in Canada: Conflicted and resilient', in Lindquist, E. A., Howlett, M., Skogstad, G., Tellier, G. and 't Hart, P. (eds) *Policy success in Canada: Cases, lessons, challenges*. Oxford: Oxford University Press, pp. 183–205.
- 369 Banting, K. (2022) 'Multiculturalism policy in Canada: Conflicted and resilient', in Lindquist, E. A., Howlett, M., Skogstad, G., Tellier, G. and 't Hart, P. (eds) *Policy success in Canada: Cases, lessons, challenges*. Oxford: Oxford University Press, pp. 183–205.
- 370 Government of Alberta (2025) *Immigration and Multiculturalism: Ministry business plan, 2025–28 (Budget 2025)*. Available at: <https://open.alberta.ca/dataset/67215cef-dc6a-4f52-9f90-fae7aa650325/resource/62e7d2b6-4a31-46b7-9cfb-b3194c2ae3d0/download/im-business-plan-2025-28.pdf>.
- 371 Banting, K. (2022) 'Multiculturalism policy in Canada: Conflicted and resilient', in Lindquist, E. A., Howlett, M., Skogstad, G., Tellier, G. and 't Hart, P. (eds) *Policy success in Canada: Cases, lessons, challenges*. Oxford: Oxford University Press, pp. 183–205.
- 372 Central Statistics Office (2022) *Census of Agriculture 2020 – preliminary results: Demographic profile of farm holders*. Available at: <https://www.cso.ie/en/releasesandpublications/ep/p-coa/censusofagriculture2020-preliminaryresults/demographicprofileoffarmholders/>.
- 373 Conefrey, T. (2019) *New risks and old problems: The uncertain outlook for Irish agriculture*. Central Bank of Ireland. Available at: <https://batsindo.com/wp-content/uploads/2019/12/Central-Bank-of-Ireland-The-Uncertain-Outlook-for-Irish-Agriculture-2019.pdf>.
- 374 Land Mobility (2025) *About*. Available at: <https://landmobility.ie/#about> (Accessed: 11 September 2025).
- 375 Land Mobility (2025) *About us: Land mobility service*. Available at: <https://landmobility.ie/about-us-the-land-mobility-service/> (Accessed: 11 September 2025).
- 376 Land Mobility Service (2023) *Generational Renewal and Support Service: 2023 report*. Available at: <https://landmobility.ie/wp-content/uploads/2023/09/Land-Mobility-Booklet-2023-Version-3-Updated-copy.pdf>.
- 377 Land Mobility Service (2023) *Generational Renewal and Support Service: 2023 report*. Available at: <https://landmobility.ie/wp-content/uploads/2023/09/Land-Mobility-Booklet-2023-Version-3-Updated-copy.pdf>.
- 378 Højte, S., Johansen, A. B., Fraas, E. and Flatz, J. (2024) *Impact and opportunities of the 2023–27 CAP reform in Denmark*. Copenhagen: CONCITO. Available at: <https://concito.dk/files/media/document/Impact%20and%20Opportunities%20of%20the%202023-27%20CAP%20Reform%20in%20Denmark.pdf>.
- 379 Ministry of Food, Agriculture and Fisheries of Denmark (2021) *The agreement on a green transition of the agricultural sector*. Available at: <https://en.fvm.dk/news-and-contact/focus-on/the-agreement-on-a-green-transition-of-the-agricultural-sector> (Accessed: 11 September 2025).
- 380 Ministry of Food, Agriculture and Fisheries of Denmark (2021) *Emissions from the agricultural sector will be reduced by 55 to 65 per cent: Fact sheet 1*. Copenhagen: Ministry of Food, Agriculture and Fisheries of Denmark. Available at: [https://en.fvm.dk/Media/638484225533540724/Fact\\_Sheet\\_1\\_ny.pdf](https://en.fvm.dk/Media/638484225533540724/Fact_Sheet_1_ny.pdf).
- 381 Ministeriet for Grøn Trepert (2024) *Om Den Grønne Trepert – og aftalerne om et Grønt Danmark*. Available at: <https://mgtp.dk/groent-danmark/om-den-groenne-trepert> (Accessed: 11 September 2025).
- 382 Searchinger, T. and Waite, R. (2024) 'Denmark's groundbreaking agriculture climate policy sets strong example for the world', *World Resources Institute*, 12 November. Available at: <https://www.wri.org/insights/denmark-agriculture-climate-policy> (Accessed: 11 September 2025).
- 383 Larsen, R. B. (2024) 'Deep dive into the Green Tripartite – what's in, what's not and the tricky issue of implementation', *ARC2020*, 12 November. Available at: <https://www.arc2020.eu/deep-dive-into-the-green-tripartite-whats-in-whats-not-and-the-tricky-issue-of-implementation/> (Accessed: 11 September 2025).

- 384 Government of Singapore (2025) *SkillsFuture Movement*. Available at: <https://www.skillsfuture.gov.sg/aboutskillsfuture> (Accessed: 12 June 2025).
- 385 Government of Singapore (2025) *SkillsFuture Movement*. Available at: <https://www.skillsfuture.gov.sg/aboutskillsfuture> (Accessed: 12 June 2025).
- 386 Gog, S. J. (2025) *How Singapore's data-driven approach is building a skills-first economy*. Available at: <https://www.weforum.org/stories/2025/01/singapore-data-driven-approach-build-skills-first-economy/> (Accessed: 12 June 2025).
- 387 Government of Singapore (2025) *Careers & Skills Passport (MySkillsFuture)*. Available at: <https://www.myskillsfuture.gov.sg/csp> (Accessed: 12 June 2025).
- 388 Government of Singapore (2025) *SkillsFuture Movement*. Available at: <https://www.skillsfuture.gov.sg/aboutskillsfuture> (Accessed: 12 June 2025).
- 389 Government of Singapore (2025) *Skills frameworks*. Available at: <https://jobsandskills.skillsfuture.gov.sg/frameworks/skills-frameworks> (Accessed: 12 June 2025).
- 390 SkillsFuture Singapore (2024) *More employers and mid-career workers taking up SSG-supported training*. Available at: <https://www.ssg.gov.sg/newsroom/more-employers-and-mid-career-workers-taking-up-ssg-supported-training/> (Accessed: 12 June 2025).
- 391 SkillsFuture Singapore (2024) *More employers and mid-career workers taking up SSG-supported training*. Available at: <https://www.ssg.gov.sg/newsroom/more-employers-and-mid-career-workers-taking-up-ssg-supported-training/> (Accessed: 12 June 2025).
- 392 Tay, P. (2025) *A 10-year review of SkillsFuture*. Available at: <https://www.ntuc.org.sg/uportal/news/A-10-Year-Review-Of-SkillsFuture-By-Patrick-Tay-Assistant-Secretary-General-NTUC/> (Accessed: 12 June 2025).
- 393 Petrone, J. (2025) 'AI Leap 2025: Estonia sets the global standard for AI in education', *e-Estonia*. Available at: <https://e-estonia.com/ai-leap-2025-estonia-sets-ai-standard-in-education/> (Accessed: 15 June 2025).
- 394 Petrone, J. (2025) 'AI Leap 2025: Estonia sets the global standard for AI in education', *e-Estonia*. Available at: <https://e-estonia.com/ai-leap-2025-estonia-sets-ai-standard-in-education/> (Accessed: 15 June 2025).
- 395 Education Estonia (2025) *Estonia launches AI Leap 2025 to transform education*, 26 February. Available at: <https://www.educationestonia.org/estonia-launches-ai-leap-2025-to-transform-education/> (Accessed: 15 June 2025).
- 396 Eesti Elu (2025) 'Estonia among the first to nationally integrate AI into schools', *Eesti Elu*, 41, 9 October. Available at: <https://eestienu.ee/estonia-among-the-first-to-nationally-integrate-ai-into-schools/> (Accessed: 12 December 2025).
- 397 Utrecht University (n.d.) *Room for the River*. Water, Climate and Future Deltas – Integrated flood risk management in practice. Available at: <https://www.uu.nl/en/research/water-climate-and-future-deltas/storylines/flood-risk-management/integrated-flood-risk-management-in-practice/room-for-the-river> (Accessed: 20 June 2025).
- 398 STOWA (n.d.) *Room for the river*. Available at: <https://www.stowa.nl/deltafacts/waterveiligheid/waterveiligheidsbeleid-en-regelgeving/room-river> (Accessed: 20 June 2025).
- 399 STOWA (n.d.) *Room for the river*. Available at: <https://www.stowa.nl/deltafacts/waterveiligheid/waterveiligheidsbeleid-en-regelgeving/room-river> (Accessed: 20 June 2025).
- 400 STOWA (n.d.) *Room for the river*. Available at: <https://www.stowa.nl/deltafacts/waterveiligheid/waterveiligheidsbeleid-en-regelgeving/room-river> (Accessed: 20 June 2025).
- 401 World Humanitarian & Natural Disaster Network (2025) *Disaster response services and tools*. Available at: <https://whndn.org/portfolio-item/disaster-response-service-and-tools-costa-rica/> (Accessed: 20 June 2025).
- 402 Comisión Nacional de Emergencias (2025). Available at: <https://www.cne.go.cr/> (Accessed: 20 June 2025).
- 403 Comisión Nacional de Emergencias (2025). Available at: [https://www.cne.go.cr/rectoria/instancias\\_coordinacion/index.aspx](https://www.cne.go.cr/rectoria/instancias_coordinacion/index.aspx) (Accessed: 20 June 2025).
- 404 Comisión Nacional de Emergencias (2025). Available at: <https://www.cne.go.cr/> (Accessed: 20 June 2025).
- 405 Buurtzorg (2025). About us. Available at: <https://www.buurtzorg.com/about-us/> (Accessed: 15 November 2025).
- 406 Buurtzorg (2025). *The Buurtzorg model*. Available at: <https://www.buurtzorg.com/about-us/buurtzorgmodel/> (Accessed: 15 November 2025).
- 407 Hegedüs, A., Schürch, A. and Bischofberger, I. (2022) 'Implementing Buurtzorg-derived models in the home care setting: A scoping review', *International Journal of Nursing Studies Advances*, 4, 100061. doi:10.1016/j.ijnsa.2022.100061.
- 408 Hegedüs, A., Schürch, A. and Bischofberger, I. (2022) 'Implementing Buurtzorg-derived models in the home care setting: A scoping review', *International Journal of Nursing Studies Advances*, 4, 100061. doi:10.1016/j.ijnsa.2022.100061.

- 409 Bernstein, E., Tatiana, S., Minnaar, J. and Lobb, A. (2022) *Buurtzorg case*. Harvard Business School. Available at: <https://www.buurtzorg.com/wp-content/uploads/2022/11/Buurtzorg-Case-Final.pdf>.
- 410 Kumar, S. K. (2007) 'Kerala, India: A regional community-based palliative care model', *Journal of Pain and Symptom Management*, 33(5), pp. 623–627. doi:10.1016/j.jpainsymman.2007.02.005.
- 411 Kumar, S. (2025) *Compassionate communities – lessons from Kerala*. WHO Collaborating Centre for Building Country Capacity in Palliative Care and Long Term Care. Available at: <https://pcconference.co.za/wp-content/uploads/2025/07/Kumar-S-Compassionate-Communities-Lessons-from-Kerala.pdf>.
- 412 Kumar, S. K. (2007) 'Kerala, India: A regional community-based palliative care model', *Journal of Pain and Symptom Management*, 33(5), pp. 623–627. doi:10.1016/j.jpainsymman.2007.02.005.
- 413 Indirabhai, R. M., Leela, C., Rahul, A. and Anish, T. S. (2025) 'The bittersweet experiences of providers of home-based palliative care (HBPALC): A qualitative study on the provider perspectives of HBPALC in Kerala, India', *International Journal for Equity in Health*, 24(1), p. 44. doi:10.1186/s12939-024-02354-6.
- 414 Baltic Nest Institute (2021) 'Nest – a decision support system for management of the Baltic Sea'. Available at: <https://nest.su.se/nest/> (Accessed: 16 August 2025).
- 415 Marine Research on Eutrophication (MARE) (2006) *Restoring the Baltic Sea – using Baltic NEST*. Available at: <https://mistra.org/wp-content/uploads/2023/02/RestoringtheBalticSea-usingBalticNEST.pdf>.
- 416 Stockholm University (2025) 'Research group Baltic Nest Institute'. *Stockholm University*. Available at: <https://www.su.se/english/research/research-catalogue/research-groups/f/baltic-nest-institute> (Accessed: 16 August 2025).
- 417 Wulff, F., Sokolov, A. and Savchuk, O. (2013) *Nest – a decision support system for management of the Baltic Sea: A user manual*. Stockholm: Stockholm University (Baltic Nest Institute Technical Report 10). Available at: <https://su.diva-portal.org/smash/get/diva2:1598180/FULLTEXT01.pdf>.
- 418 Karlsson, M., Gilek, M. and Lundberg, C. (2016) 'Eutrophication and the ecosystem approach to management: a case study of Baltic Sea environmental governance', in *Environmental governance of the Baltic Sea*. Cham: Springer International Publishing, pp. 21–44.; Baltic Marine Environment Protection Commission – Helsinki Commission (HELCOM) (2023) *State of the Baltic Sea 2023: Third HELCOM holistic assessment 2016–2021 (HOLAS 3)*. Available at: <https://helcom.fi/wp-content/uploads/2023/10/State-of-the-Baltic-Sea-2023.pdf> (Accessed: 18 July 2025).
- 419 Karlsson, M., Gilek, M. and Lundberg, C. (2016) 'Eutrophication and the ecosystem approach to management: a case study of Baltic Sea environmental governance', in *Environmental governance of the Baltic Sea*. Cham: Springer International Publishing, pp. 21–44.
- 420 United Nations Development Programme (2012) *Fiji Locally-Managed Marine Area Network, Fiji*. Equator Initiative Case Study Series. New York, NY: Equator Initiative. Available at: [https://www.equatorinitiative.org/wp-content/uploads/2017/05/case\\_1348160544.pdf](https://www.equatorinitiative.org/wp-content/uploads/2017/05/case_1348160544.pdf).
- 421 United Nations Development Programme (2012) *Fiji Locally-Managed Marine Area Network, Fiji*. Equator Initiative Case Study Series. New York, NY: Equator Initiative. Available at: [https://www.equatorinitiative.org/wp-content/uploads/2017/05/case\\_1348160544.pdf](https://www.equatorinitiative.org/wp-content/uploads/2017/05/case_1348160544.pdf).
- 422 Alberts, E.C. (2023) 'Study finds locally managed marine areas in Fiji yield mixed results', *Mongabay*, 30 June. Available at: <https://news.mongabay.com/2023/06/study-finds-locally-managed-marine-areas-in-fiji-yield-mixed-results/> (Accessed: 16 August 2025).
- 423 Rapid Transition Alliance (2019) 'Taiwan's Transition – from Garbage Island to Recycling Leader', *Rapid Transition Alliance*, 18 June. Available at: <https://rapidtransition.org/stories/taiwans-transition-from-garbage-island-to-recycling-leader/> (Accessed: 13 March 2025).
- 424 Chen, K. (2016) 'Taiwan: The World's Geniuses of Garbage Disposal', *The Wall Street Journal*, 17 May. Available at: <https://www.wsj.com/articles/taiwan-the-worlds-geniuses-of-garbage-disposal-1463519134> (Accessed: 13 March 2025).
- 425 Resource Circulation Administration (RECA), Ministry of Environment (Taiwan) (n.d.) '4-in-1 Recycling Program'. Available at: <https://www.reca.gov.tw/en/4in1rc> (Accessed: 13 March 2025).
- 426 National Development Council (Taiwan) (2025) 'Taiwan's Pathway to Net-Zero Emissions in 2050'. Available at: [https://www.ndc.gov.tw/en/Content\\_List.aspx?n=B927D0EDB57A7A3A](https://www.ndc.gov.tw/en/Content_List.aspx?n=B927D0EDB57A7A3A) (Accessed: 13 March 2025).
- 427 Allen, C. (2012) *Taiwan: Community Action Leads Government Toward Zero Waste*. Global Alliance for Incinerator Alternatives (GAIA), June. Available at: <https://www.no-burn.org/wp-content/uploads/ZW-Taiwan.pdf>.
- 428 Jackson, A. and Wang, A. (2025) 'Taiwan's garbage trucks offer classical music and a catch-up', *Taipei Times*, 29 July. Available at: <https://www.taipetimes.com/News/feat/archives/2025/07/29/2003841083> (Accessed: 12 December 2025).
- 429 Inman, M., Chook, J.W. and Ferdin, A.E.J. (2025) 'Circular economy in Taiwan: what the public thinks about going plastic-free', *Behind the Paper*, 28 June. Available at: <https://communities.springernature.com/posts/circular-economy-in-taiwan-what-the-public-thinks-about-going-plastic-free> (Accessed: 13 December 2025).
- 430 Paché, G. (2024) 'Kalundborg industrial symbiosis: Circular strategy in the light of mutualism', *Journal of Strategic Innovation and Sustainability*, 19(3), pp. 89–97. Available at: <https://hal.science/hal-04870887v1/file/Pache-JSIS.pdf>.
- 431 Paché, G. (2024) 'Kalundborg industrial symbiosis: Circular strategy in the light of mutualism', *Journal of Strategic Innovation and Sustainability*, 19(3), pp. 89–97. Available at: <https://hal.science/hal-04870887v1/file/Pache-JSIS.pdf>.
- 432 Scafà, M., Marconi, M. and Germani, M. (2018) 'A critical review of industrial symbiosis models', in Peruzzini, M., Pellicciari, M., Bil, C., Stjepandic, J. and Wognum, N. (eds.) *Transdisciplinary Engineering Methods for Social Innovation of Industry 4.0: Proceedings of the 25th ISPE Inc. International Conference on Transdisciplinary Engineering (TE 2018), Modena, Italy, 3–6 July 2018*. Advances in Transdisciplinary Engineering, 7. Amsterdam: IOS Press, pp. 1184–1193. doi:10.3233/978-1-61499-898-3-1184.
- 433 Paché, G. (2024) 'Kalundborg industrial symbiosis: Circular strategy in the light of mutualism', *Journal of Strategic Innovation and Sustainability*, 19(3), pp. 89–97. Available at: <https://hal.science/hal-04870887v1/file/Pache-JSIS.pdf>.
- 434 GoAusbildung (2025). Available at: <https://goausbildung.com/> (Accessed: 12 December 2025).
- 435 Deissinger, T. (2015) 'The German dual vocational education and training system as "good practice"?', *Local Economy*, 30(5), pp. 557–567. doi:10.1177/0269094215589311.
- 436 Presence Switzerland (2025) 'Vocational education and training', *About Switzerland*, 3 September. Available at: <https://www.aboutswitzerland.eda.admin.ch/en/vocational-education-and-training> (Accessed: 12 December 2025).
- 437 State Secretariat for Education, Research and Innovation (2025) 'Federal vocational baccalaureate', *Swiss VPET System – A Brief Guide*. Available at: <https://www.berufsbildung-schweiz.ch/en/federal-vocational-baccalaureate> (Accessed: 12 December 2025).
- 438 Hoffman, N. and Schwartz, R. (2015) *Gold Standard: The Swiss Vocational Education and Training System*. International Comparative Study of Vocational Education Systems. Washington, DC: National Center on Education and the Economy. Available at: <https://www.ey.com/content/dam/ey-unified-site/ey-com/en-us/campaigns/innovation/documents/ey-gold-standard-swiss-apprenticeship.pdf>.
- 439 Hoffman, N. and Schwartz, R. (2015) *Gold Standard: The Swiss Vocational Education and Training System*. International Comparative Study of Vocational Education Systems. Washington, DC: National Center on Education and the Economy. Available at: <https://www.ey.com/content/dam/ey-unified-site/ey-com/en-us/campaigns/innovation/documents/ey-gold-standard-swiss-apprenticeship.pdf>.
- 440 Bishop, R., Berryman, M. and Wearmouth, J. (2014) 'Te Kotahitanga', in *Te Kotahitanga: Towards effective education reform for indigenous and other minoritised students*. Wellington: NZCER Press, pp. 1–26.
- 441 Bishop, R., Berryman, M. and Wearmouth, J. (2014) 'Te Kotahitanga', in *Te Kotahitanga: Towards effective education reform for indigenous and other minoritised students*. Wellington: NZCER Press, pp. 1–26.
- 442 Meyer, L.H., Penetito, W., Hynds, A., Savage, C., Hindle, R. and Sleeter, C. (2010) *Evaluation of Te Kotahitanga: 2004–2008: Report to the Ministry of Education*. Wellington: Ministry of Education, New Zealand. Available at: [https://thehub.sia.govt.nz/assets/documents/42353\\_TK-Evaluation\\_V2-16082010\\_0.pdf](https://thehub.sia.govt.nz/assets/documents/42353_TK-Evaluation_V2-16082010_0.pdf).
- 443 Hynds, A., Sleeter, C., Hindle, R., Savage, C., Penetito, W. and Meyer, L.H. (2011) 'Te Kotahitanga: A case study of a repositioning approach to teacher professional development for culturally responsive pedagogies', *Asia-Pacific Journal of Teacher Education*, 39(4), pp. 339–351. doi:10.1080/1359866X.2011.614684.
- 444 New Zealand Legislation (2017) *Te Awa Tupua (Whanganui River Claims Settlement) Act 2017*, Public Act 2017 No. 7. Available at: <https://www.legislation.govt.nz/act/public/2017/0007/latest/whole.html> (Accessed: 18 February 2025).
- 445 Vicente, M. (2020) 'A river with standing: Personhood in Te Ao Māori', *Purse*, 12 (Autumn), doi:10.70733/9bndf72t5bdj.
- 446 Te Pou Tupua (2023) FAQs. Available at: <https://www.tepoutupua.nz/faqs> (Accessed: 18 February 2025).
- 447 Young, D. (2012, updated 2017) *Whanganui tribes, Te Ara – The Encyclopedia of New Zealand*. Available at: <https://teara.govt.nz/en/whanganui-tribes/print> (Accessed: 18 February 2025).
- 448 McAllister, T., Hikuroa, D. and Macinnis-Ng, C. (2023) 'Connecting science to Indigenous knowledge', *New Zealand Journal of Ecology*, 47(1), pp. 1–13. doi:10.20417/nzjecol.47.3521.
- 449 Cribb, M., Macpherson, E. and Borchgrevink, A. (2024) 'Beyond legal personhood for the Whanganui River: collaboration and pluralism in implementing the Te Awa Tupua Act', *The International Journal of Human Rights*, pp. 1–24. doi:10.1080/13642987.2024.2314532.

- 450 Talbot-Jones, J. and Bennett, J. (2022) 'Implementing bottom-up governance through granting legal rights to rivers: a case study of the Whanganui River, Aotearoa New Zealand', *Australasian Journal of Environmental Management*, 29(1), pp. 64–80. doi:10.1080/14486563.2022.2029775.
- 451 Bhopal, A. (2023) 'The Norwegian oil fund in a warming world: what are the interests of future generations?', *Ethics, Policy & Environment*, 26(1), pp. 106–120. doi:10.1080/21550085.2021.1940451.
- 452 Bhopal, A. (2023) 'The Norwegian oil fund in a warming world: what are the interests of future generations?', *Ethics, Policy & Environment*, 26(1), pp. 106–120. doi:10.1080/21550085.2021.1940451.
- 453 Norges Bank Investment Management (2025) *Responsible investment*. Available at: <https://www.nbim.no/en/responsible-investment/> (Accessed: 16 May 2025).
- 454 Halvorssen, A.M. (2021) *How the Norwegian sovereign wealth fund balances ethics, ESG risks, and returns: Can this approach work for other institutional investors?* Pension Research Council Working Paper No. PRC WP2021-16. Philadelphia: Pension Research Council, The Wharton School, University of Pennsylvania. Available at: <https://repository.upenn.edu/server/api/core/bitstreams/67ac3175-1592-4e9c-80a5-c18d91505ddd/content>.
- 455 Norges Bank Investment Management (2024) *Responsible investment 2024*. Available at: <https://www.nbim.no/en/news-and-insights/reports/2024/responsible-investment-2024/web-report-responsible-investment-2024/> (Accessed: 16 May 2025).
- 456 Bhopal, A. (2023) 'The Norwegian Oil Fund in a warming world: what are the interests of future generations?', *Ethics, Policy & Environment*, 26(1), pp. 106–120. <https://doi.org/10.1080/21550085.2021.1940451>
- 457 Kobbeltvedt, J.H. (2025) 'Investing in conflict: the road to complicity is getting shorter'. Available at: <https://www.ihrb.org/latest/investing-in-conflict-the-road-to-complicity-is-getting-shorter> (Accessed: 13 December 2025).
- 458 Government of Western Australia, Department of the Premier and Cabinet (2020) *Collie's just transition plan*. Available at: [https://www.wa.gov.au/system/files/2020-12/Collies%20Just%20Transition\\_09%20December%202020\\_web.pdf](https://www.wa.gov.au/system/files/2020-12/Collies%20Just%20Transition_09%20December%202020_web.pdf).
- 459 Government of Western Australia, Department of the Premier and Cabinet (2020) *Collie's just transition plan*. Available at: [https://www.wa.gov.au/system/files/2020-12/Collies%20Just%20Transition\\_09%20December%202020\\_web.pdf](https://www.wa.gov.au/system/files/2020-12/Collies%20Just%20Transition_09%20December%202020_web.pdf).
- 460 Goods, C. and Ellem, B. (2024) 'An improbable driver of "just transitions"? Union power in the coal heartland of Western Australia's energy shift', *Energy Research & Social Science*, 117, p. 103721. doi:10.1016/j.erss.2024.103721.
- 461 Australian Government (2025) *The Collie Jobs and Skills Centre: supporting workers' transition*. Available at: <https://www.netzero.gov.au/collie-jobs-and-skills-centre-supporting-workers-transition> (Accessed: 13 December 2025).
- 462 Government of Singapore (2021) *Singapore cybersecurity strategy 2021*. Singapore: Cyber Security Agency of Singapore. Available at: [https://ccdcoe.org/uploads/2018/10/Singapore\\_Cybersecurity\\_Strategy\\_2021.pdf](https://ccdcoe.org/uploads/2018/10/Singapore_Cybersecurity_Strategy_2021.pdf).
- 463 Gonzalez, S. (2025) 'Cross-border cooperation can help to tackle global cyber talent shortage'. *GovInsider*. Available at: <https://govinsider.asia/intl-en/article/cross-border-cooperation-can-help-to-tackle-global-cyber-talent-shortage> (Accessed: 13 December 2025).
- 464 UK Government, Department for Science, Innovation and Technology (2024) *Inspiring and equipping future talent: scaling impact of the CyberFirst programme*. Available at: <https://www.gov.uk/government/calls-for-evidence/call-for-views-on-the-cyberfirst-programme/inspiring-and-equipping-future-talent-scaling-impact-of-the-cyberfirst-programme> (Accessed: 13 October 2025).
- 465 UK National Cyber Security Centre (2025) *CyberFirst schools programme*. Available at: <https://www.ncsc.gov.uk/cyberfirst/cyberfirst-schools> (Accessed: 13 October 2025).
- 466 UK Government (2025) *PM launches national skills drive to unlock opportunities for young people in tech* (press release), 8 June. Available at: <https://www.gov.uk/government/news/pm-launches-national-skills-drive-to-unlock-opportunities-for-young-people-in-tech>
- 467 UK National Cyber Security Centre (2025) *CyberFirst: ten years of inspiring the next generation of cyber security experts*. Available at: <https://www.ncsc.gov.uk/collection/ncsc-annual-review-2025/chapter-02-resilience-at-scale/cyberfirst>.
- 468 UK Government (2021) *CyberFirst evaluation* (independent report). Available at: <https://www.gov.uk/government/publications/independent-evaluations-of-cyber-discovery-and-cyberfirst-programmes/cyberfirst-evaluation>.
- 469 Observatory of Participatory Democracy (2024) *Decidim Barcelona*. Available at: <https://oidp.net/en/practice.php?id=1407>.

- 470 Decidim Project (2025) *About Decidim*. Available at: <https://docs.decidim.org/en/develop/understand/about.html> (Accessed: 02 September 2025).
- 471 Observatory of Participatory Democracy (2025) *DecidimKids: a new digital module for child participation in Barcelona*. Available at: <https://oidp.net/en/content.php?id=1905>.
- 472 Barandiaran, X.E., Calleja-López, A., Monterde, A. and Romero, C. (2024) 'Decidim: a brief overview', in *Decidim: a technopolitical network for participatory democracy – philosophy, practice and autonomy of a collective platform in the age of digital intelligence*. Cham: Springer, pp. 1–33. doi:10.1007/978-3-031-50784-7\_1.
- 473 World Bank (n.d.) *Empowerment case studies: participatory budgeting in Brazil*. Available at: <https://documents1.worldbank.org/curated/en/600841468017069677/pdf/514180WP0BR0Bu10Box342027B01PUBLIC1.pdf>.
- 474 Gonçalves, S. (2014) 'The effects of participatory budgeting on municipal expenditures and infant mortality in Brazil', *World Development*, 53, pp. 94–110. doi:10.1016/j.worlddev.2013.01.009.
- 475 European Commission (2022) *Youth participatory budgeting*. Available at: <https://european-social-fund-plus.ec.europa.eu/en/social-innovation-match/case-study/youth-participatory-budgeting> (Accessed: 02 September 2025).
- 476 Gonçalves, S. (2014) 'The effects of participatory budgeting on municipal expenditures and infant mortality in Brazil', *World Development*, 53, pp. 94–110. doi:10.1016/j.worlddev.2013.01.009.
- 477 Inter-American Development Bank (2005) *Assessment of participatory budgeting in Brazil*. Washington, D.C.: Sustainable Development Department, Inter-American Development Bank. Available at: <https://publications.iadb.org/en/publications/english/viewer/Assessment-of-Participatory-Budgeting-in-Brazil.pdf>.
- 478 Stevenson, K., Jayakumar, E., See, H., Ryu, Y. and Das, S. (2022) *Children's perspectives of digital citizenship in India, Korea and Australia: Report of findings from children's digital citizenship and safety roundtables*. Perth: Edith Cowan University and ARC Centre of Excellence for the Digital Child.
- 479 Government of India, Ministry of Education (2020) *National Education Policy 2020*. New Delhi: Ministry of Education. Available at: [https://www.education.gov.in/sites/upload\\_files/mhrd/files/NEP\\_Final\\_English\\_0.pdf](https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf) (Accessed: 13 October 2025).
- 480 Government of India, Ministry of Education (2020) *National Education Policy 2020*. New Delhi: Ministry of Education. Available at: [https://www.education.gov.in/sites/upload\\_files/mhrd/files/NEP\\_Final\\_English\\_0.pdf](https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf) (Accessed: 13 October 2025).
- 481 Kunal and Dhillon, S.S. (2023) 'Digital literacy skills in the context of NEP-2020', *International Journal of Applied Research*, 9(7), pp. 185–190.
- 482 Stevenson, K., Jayakumar, E., See, H., Ryu, Y. and Das, S. (2022) *Children's perspectives of digital citizenship in India, Korea and Australia: Report of findings from children's digital citizenship and safety roundtables*. Perth: Edith Cowan University and ARC Centre of Excellence for the Digital Child.
- 483 Kunal and Dhillon, S.S. (2023) 'Digital literacy skills in the context of NEP-2020', *International Journal of Applied Research*, 9(7), pp. 185–190.
- 484 Stevenson, K., Jayakumar, E., See, H., Ryu, Y. and Das, S. (2022) *Children's perspectives of digital citizenship in India, Korea and Australia: Report of findings from children's digital citizenship and safety roundtables*. Perth: Edith Cowan University and ARC Centre of Excellence for the Digital Child.
- 485 Stevenson, K., Jayakumar, E., See, H., Ryu, Y. and Das, S. (2022) *Children's perspectives of digital citizenship in India, Korea and Australia: Report of findings from children's digital citizenship and safety roundtables*. Perth: Edith Cowan University and ARC Centre of Excellence for the Digital Child.
- 486 European Union (2024) *Digital Fairness Act (DFA): updates*. Available at: <https://www.digital-fairness-act.com/> (Accessed: 13 October 2025).
- 487 Helberger, N., Kas, B., Micklitz, H.-W., Namysłowska, M., Naudts, L., Rott, P., Sax, M. and Veale, M. (2024) *Digital fairness for consumers*. Brussels: BEUC – The European Consumer Organisation. Available at: [https://www.beuc.eu/sites/default/files/publications/BEUC-X-2024-032\\_Digital\\_fairness\\_for\\_consumers\\_Report.pdf](https://www.beuc.eu/sites/default/files/publications/BEUC-X-2024-032_Digital_fairness_for_consumers_Report.pdf).
- 488 European Commission (2024) *Commission staff working document: fitness check on EU consumer law on digital fairness*, 4 October. Available at: [https://commission.europa.eu/document/707d7404-78e5-4aef-acfa-82b4cf639f55\\_en](https://commission.europa.eu/document/707d7404-78e5-4aef-acfa-82b4cf639f55_en).
- 489 European Commission (2024) *Commission staff working document: fitness check on EU consumer law on digital fairness*, 4 October. Available at: [https://commission.europa.eu/document/707d7404-78e5-4aef-acfa-82b4cf639f55\\_en](https://commission.europa.eu/document/707d7404-78e5-4aef-acfa-82b4cf639f55_en).
- 490 European Union (2022) *Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market for Digital Services and amending Directive 2000/31/EC (Digital Services Act)*. Available at: [https://www.eu-digital-services-act.com/Digital\\_Services\\_Act\\_Article\\_25.html](https://www.eu-digital-services-act.com/Digital_Services_Act_Article_25.html) (Accessed: 13 October 2025).

- 491 Tamim, J. (2025) *Digital Fairness Act public consultation*, 20 November. Available at: <https://digitalfairnessact.com/public-consultation> (Accessed: 18 December 2025).
- 492 International Organization for Migration (IOM) (2017) *African Union continental free movement of persons protocol: implications for migration governance in Africa*. Standing Committee on Programmes and Finance, Twentieth Session (S/20/10), 26 April. Available at: <https://www.iom.int/sites/g/files/tmzbdl486/files/2019-01/S-20-10-%20-%20African%20Union%20Continental%20free%20movement%20of%20persons.pdf>.
- 493 African Union (2025) *Economic Community of West African States (ECOWAS)*. Available at: <https://au.int/en/recs/ecowas>.
- 494 Adepoju, A., Boulton, A. and Levin, M. (2010) *Promoting integration through mobility: free movement under ECOWAS*. UNHCR. Available at: <https://www.unhcr.org/sites/default/files/legacy-pdf/49e479c811.pdf>.
- 495 Global Governance Academy (2022) *African Union at 20: successes and challenges*. Available at: <https://gga.org/african-union-at-20-successes-and-challenges/> (Accessed: 11 July 2025).
- 496 Gnanguénon, A., Thiam, D. and Aduku, E.B. (2025) 'Fragmentation and foreign influence: emerging challenges to ECOWAS integration', *Afripoli*, 23 October. Available at: <https://afripoli.org/fragmentation-and-foreign-influence-emerging-challenges-to-ecowas-integration> (Accessed: 13 December 2025).
- 497 Olamilekan, L.A. and Umar, H.B. (2025) *Economic inequality and healthcare access in ECOWAS: the impact of government health spending*. Preprint. doi:10.20944/preprints202504.0605.v1.
- 498 United Nations Economic Commission for Africa and African Union Commission (2024) 'Urgent need to reverse slow progress on ratifying the protocol on free movement of persons – joint ECA–AUC report', 5 June. Available at: <https://www.uneca.org/stories/urgent-need-to-reverse-slow-progress-on-ratifying-the-protocol-on-free-movement-of-persons> (Accessed: 11 July 2025).
- 499 Government of Kiribati (2015) *Kiribati national labour migration policy*. Available at: <https://www.unescap.org/sites/default/files/Kiribati%20National%20Labour%20Migration%20Policy.pdf>.
- 500 McClain, S.N. and Bruch, C. (2021) 'Migration with dignity: a framework to manage climate change and prevent conflict', *Peace & Justice Studies Chronicle*. Available at: <https://www.peacejusticestudies.org/chronicle/migration-with-dignity-a-framework-to-manage-climate-change-and-prevent-conflict/> (Accessed: 11 July 2025).
- 501 Government of Kiribati (2015) *Kiribati national labour migration policy*. Available at: <https://www.unescap.org/sites/default/files/Kiribati%20National%20Labour%20Migration%20Policy.pdf>.
- 502 Kupferberg, J.S. (2021) 'Migration and dignity – relocation and adaptation in the face of climate change displacement in the Pacific – a human rights perspective', *The International Journal of Human Rights*, 25(10), pp. 1793–1818. doi:10.1080/13642987.2021.1889515.
- 503 Voigt-Graf, C. and Kagan, S. (2017) *Migration and labour mobility from Kiribati*. Development Policy Centre Discussion Paper No. 56. Canberra: Crawford School of Public Policy, The Australian National University. Available at: <https://openresearch-repository.anu.edu.au/server/api/core/bitstreams/843d5b00-9264-4d00-adfa-9cf9290cde03/content>.
- 504 Denny, M. (2016) 'Norway's prison system: investigating recidivism and reintegration', *Bridges: A Journal of Student Research*, 10(10), pp. 21–37.
- 505 Denny, M. (2016) 'Norway's prison system: investigating recidivism and reintegration', *Bridges: A Journal of Student Research*, 10(10), pp. 21–37.
- 506 McNeeley, S. (2023) 'The effects of vocational education on recidivism and employment among individuals released before and during the COVID-19 pandemic', *International Journal of Offender Therapy and Comparative Criminology*. doi:10.1177/0306624x231159886.
- 507 Norwegian Correctional Service, Directorate of Correctional Service (KDI) (2021) *Operational strategy for the Norwegian Correctional Service 2021–2026*. Oslo: KDI. Available at: [https://img3.custompublish.com/getfile.php/4888894.823.ijuubwissujnwu/KDI\\_strategibrosjyre\\_TRYKK\\_FINAL2\\_Engelsk.pdf](https://img3.custompublish.com/getfile.php/4888894.823.ijuubwissujnwu/KDI_strategibrosjyre_TRYKK_FINAL2_Engelsk.pdf).
- 508 Norwegian Correctional Service, Directorate of Correctional Service (KDI) (2021) *Operational strategy for the Norwegian Correctional Service 2021–2026*. Oslo: KDI. Available at: [https://img3.custompublish.com/getfile.php/4888894.823.ijuubwissujnwu/KDI\\_strategibrosjyre\\_TRYKK\\_FINAL2\\_Engelsk.pdf](https://img3.custompublish.com/getfile.php/4888894.823.ijuubwissujnwu/KDI_strategibrosjyre_TRYKK_FINAL2_Engelsk.pdf).
- 509 Nyvoll, P.S. (2025) "'Exceptional' open prisons under pressure: austerity, instability and distrust", *The British Journal of Criminology*, 65(6), pp. 1280–1297. doi:10.1093/bjc/azaf018.
- 510 Nyvoll, P.S. (2025) "'Exceptional' open prisons under pressure: austerity, instability and distrust", *The British Journal of Criminology*, 65(6), pp. 1280–1297. doi:10.1093/bjc/azaf018.
- 511 Nyvoll, P.S. (2025) "'Exceptional' open prisons under pressure: austerity, instability and distrust", *The British Journal of Criminology*, 65(6), pp. 1280–1297. doi:10.1093/bjc/azaf018.
- 512 Youthlaw Australia (2013) *Justice reinvestment in Bourke* (briefing paper). Available at: [https://youthlaw.asn.au/wp-content/uploads/2016/07/Justice-Reinvestment-in-Bourke\\_Briefing-paper-Aug-2013.pdf](https://youthlaw.asn.au/wp-content/uploads/2016/07/Justice-Reinvestment-in-Bourke_Briefing-paper-Aug-2013.pdf).
- 513 Youthlaw Australia (2013) *Justice reinvestment in Bourke* (briefing paper). Available at: [https://youthlaw.asn.au/wp-content/uploads/2016/07/Justice-Reinvestment-in-Bourke\\_Briefing-paper-Aug-2013.pdf](https://youthlaw.asn.au/wp-content/uploads/2016/07/Justice-Reinvestment-in-Bourke_Briefing-paper-Aug-2013.pdf).
- 514 Youthlaw Australia (2013) *Justice reinvestment in Bourke* (briefing paper). Available at: [https://youthlaw.asn.au/wp-content/uploads/2016/07/Justice-Reinvestment-in-Bourke\\_Briefing-paper-Aug-2013.pdf](https://youthlaw.asn.au/wp-content/uploads/2016/07/Justice-Reinvestment-in-Bourke_Briefing-paper-Aug-2013.pdf).
- 515 Li, B., Katz, I. and Raven, M. (2025) *Maranguka: a study based on publicly available evidence*. Melbourne: Australia and New Zealand School of Government (ANZSOG). Available at: <https://anzsog.edu.au/app/uploads/2025/09/CASE-STUDY-Maranguka-ANZSOG-version.pdf>.

