Mapping Repair Incentives for Southern Sydney

FINAL PHASE ONE REPORT

April 2026

Funded by:

NSW GOVERNMENT

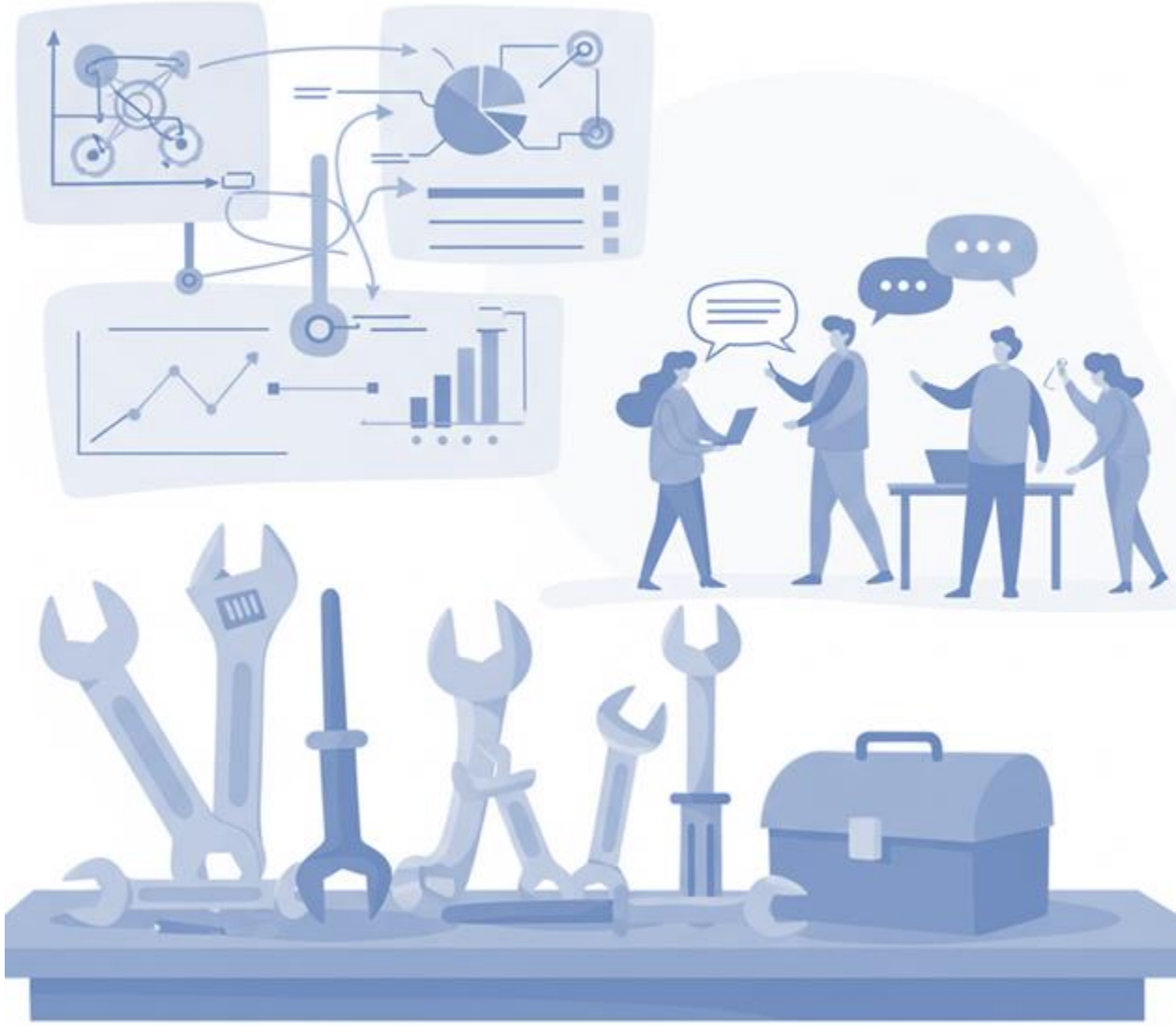
SSROC

Written by:

Dr Stephanie Downes, Jennifer Marcotte-Oullet, Griff Palmer, and Dr Bethany Sugg (WRAP)

Reviewed by:

Jennifer Macklin and Lauren Brumley (BehaviourWorks Australia)



WRAP is a global environmental action NGO transforming our product and food systems to create Circular Living. We examine sustainability challenges through the lens of people's day-to-day lives. We transform the systems that provide the products we consume. We catalyse action from policy makers, businesses, NGOs and citizens to make it happen.

Contents

Glossary

This glossary offers definitions for key terms and concepts used throughout this report. It is intended to support a common understanding of terminology, for clarity and consistency.

Term	Definition
Repair Rebate Scheme	An incentive program where consumers or repairers receive money back after paying for a repair on an eligible product.
Repair Voucher Scheme	An incentive program that gives consumers a voucher or discount before the repair, which can be used with approved repair providers.
Scheme Administrator	The organisation responsible for managing and operating a repair scheme, including processing claims and overseeing participation.
Repair Provider	A business or technician approved to carry out repairs under a repair scheme.
Consumer	An individual who accesses the repair scheme.
WRAP	Waste and Resources Action Programme, a UK-based non-governmental organisation that works on improving resource efficiency and reducing waste.
BWA	BehaviourWorks Australia, a research unit at Monash University, Australia.
SSROC	Southern Sydney Regional Organisation of Councils, a regional body that collaborates on sustainability, waste management, and environmental programs.
NSW EPA	New South Wales Environment Protection Authority, the government agency responsible for environmental protection and waste regulation in NSW.
LGA	Local Government Area, a geographic region administered by a local council.
E-product	A manufactured product or device or component part that has an electronic circuit which during operation can generate or emit a physical field of radiation.
Repair Cafe	A free, community-driven meeting place where volunteers with repair skills help visitors fix broken household items.
Diagnostic	An assessment carried out to identify a fault and determine the nature and cause of a problem, often as a basis for deciding whether and how it can be repaired.
Economic	Relating to costs, financial benefits, market activity, and the broader economy.
Financial	Relating specifically to money, funding, budgets, and payments.
Social	Relating to impacts on communities, people's wellbeing, employment, and social equity.
Environmental	Relating to impacts on the natural environment, including waste, pollution, and resource use.
EPR	Extended Producer Responsibility, a policy approach where producers are responsible for the lifecycle impacts of their products, including end-of-life.
CO_2	Carbon dioxide, a greenhouse gas released through activities such as manufacturing, transport, and energy use.

01
Executive Summary

Project overview

Purpose: To gather evidence on the potential of incentives to activate repair programs, policy and greater connection across councils and repair networks in Southern Sydney.

The *Mapping repair incentives for Southern Sydney* project is funded by the NSW Environmental Protection Agency (EPA) via the Southern Sydney Regional Organisation of Councils (SSROC).

The project is being delivered in two phases across 2025 to 2027, under a partnership between The Waste and Resources Action Programme (**WRAP; Phase 1** lead) and BehaviourWorks Australia at Monash University (**BWA; Phase 2** and overall lead).

Phase 1 was governed by two research questions.

1) What are the key design, economic and governance features of existing repair incentive schemes globally?

CATEGORY	RESEARCH AREA REVIEWED IN LITERATURE/INTERVIEWS
Scheme context	Socio-geographic assessment
	Motivations
Scheme operation	Governance structures
	Set-up and operational needs
	Focus materials
	Monetary value (of the bonus/voucher)
Scheme evaluation	Operational learnings: barriers to success (and strengths)
	Community and environmental outcomes.

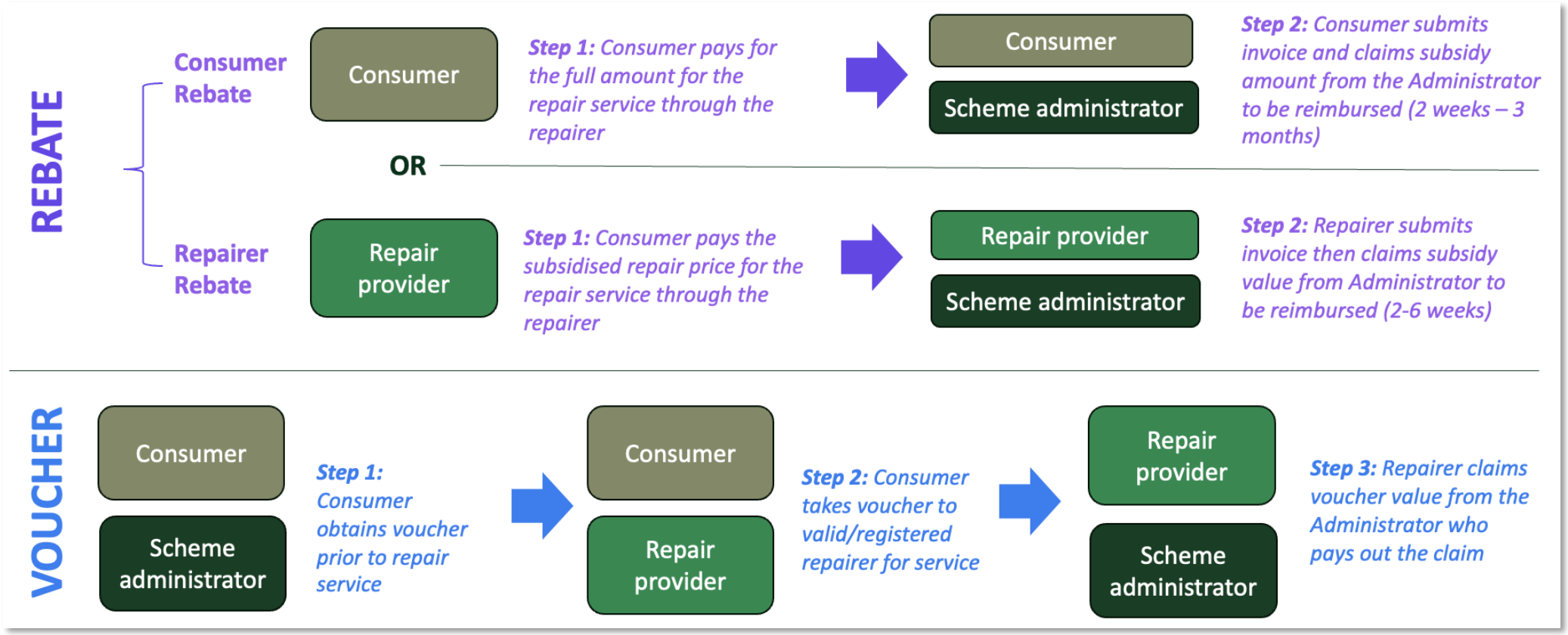
By assessing scheme data quality, barriers and strengths, value and other features, the 16 identified schemes from the literature review were shortlisted to 4 schemes for further deep dive analysis in research question #2:

2) Which schemes are most viable for the Southern Sydney, financially, socially and environmentally?

This question involved a comparison of findings from shortlisted schemes to the existing Sydney repair market, voucher/rebate schemes, and deeper demographics, including recommendations for a Southern Sydney scheme.

Types of repair incentive schemes

The literature review identified 16 repair schemes (9 rebate and 7 voucher) across 7 countries. Voucher schemes typically covered more product types (e-products, textiles, furniture) and rebate schemes were primarily e-products (large and small appliances and IT dev ices & equipment). The schemes can be classified under three types as per the figure below: **Consumer Rebate Repair Scheme, Repairer Rebate Repair Scheme**, and **Repair Voucher Scheme.**



1) What are the key design, economic and governance features of existing repair incentive schemes globally?

Scheme motivations

The top three reasons for initiating a repair scheme were:

1. To align with existing circular economy / sustainability policy with a need to reduce waste to landfill and/or fulfil climate policies
2. To encourage consumers to repair and extend the life of items
3. In response to community demand for affordable repair services

Repairers & Repairs

Overall, there were two ways that repairers were identified / vetted, regardless of if the scheme was a rebate or voucher:

1) Repairers must formally register for the scheme
2) Registration is not required but a repair directory is made available for the consumers

- 10 out of 16 schemes required repair businesses to register
- 12 out of 16 schemes included a directory/map of repairers in the region

Administration

- 56% of the schemes were managed/funded by local government
- 25% of the schemes were managed / funded by state/national government (often with some with the support of an NGO / consulting group)
- Many of the repair schemes were part of a broader social/economic relief package

The scheme budget

- Set-up costs per scheme were not estimated explicitly in literature nor interviews but were noted as significant
- The annual budget varies significantly across the 16 repair schemes from $2,000 to over $50 million AUD
- A 50% repair subsidy is available in 10 of the 16 schemes
- The repair value was typically between $89 to $358 per repair
- A diagnostic fee is included in 10 of the 16 schemes

Indicators of success and strengths across the repair schemes

For the Scheme Administrator:

Drivers of success

- Mapping repairers
- Identify and/or expand repairers and network
- Enable long-term financing

Measures

- Redemption rates
- Additional funds secured to extend the product categories and/or duration
- Reduction in waste / emissions
- Proportion of lower income households participating
- Received consumer / repairer feedback
- Number of individual policy-makers engaged in scheme outcomes

For the Consumer:

Drivers of success

- Repeat redemptions
- Ease of access to repairers due to directory/ registered repairers
- Ease of application
- Free choice of provider / use of remote repairers
- Broadened product range
- Low cost to undertake scheme benefits

Measures

- Growth in community participation in repair (attempted and completed)
- Increased intention to repair among participants and the wider community

For the Repairer:

Drivers of success

- Existing strong repair network of businesses
- Direct support for participating repairers
- Established and growing network of repair charities and non-profits

Measures

- More business generated for repair service providers
- A behavioural shift in consumer repair behaviour, which may be reflected via the repair businesses and Repair Cafes, and not solely via the consumers

Key barriers and limitations to setting-up & running a repair scheme

Theme	Barriers/limitations
Design	• A lack of knowledge of smaller, independent repairers reduces repair uptake • Consumer confusion of product eligibility and repair service restrictions • Consumer does not have digital access, so an in-person claim option is potentially required • Product categories not covered by the scheme • Complex document-upload process • Promotion of scheme not far reaching to the non-converted consumer • Repairers must already be members / contracted, preventing smaller, independent repairers' participation
Financial, social & environmental	• Funding to continue the scheme (or at least for a whole year) • Upfront payments creating scheme accessibility concerns for lower income individuals • Unredeemed vouchers and consumers needing more time to redeem voucher • Repairers unable to complete repairs of older products due to unavailable parts • Fraud/fake vouchers impacting scheme budget • Emissions savings / landfill diversion not estimated from the start of the initiative making it more difficult to advocate for scheme extension/expansion

2) Which schemes are most viable for the Southern Sydney financially, socially and environmentally?

Features across the 16 schemes:

- There is a strong correlation between the **scheme budget** and the **population.**
- There is a strong correlation between the **scheme population** and the **number of repair redemptions.** In a small scheme such as the Canning City Council scheme there is a population of around 110,000 thousand people, with 35 repair businesses, and a maximum annual budget of $12,000. For larger schemes such as the French National Reparation scheme there is a population of 68,500,000 people, with around 6,500 repair businesses and an average annual budget of $688,336,700.
- For **social impacts,** incentives are proven to increase consumer repair behaviours and foster or repeat repair behaviours and increase demand for repairer business
- **Environmental impact data** was limited, however schemes that collected data showed an associated reduction in landfill diversion tonnage and CO_2 emissions.

We used these features to shortlist four schemes for a deeper dive analysis based on population, data availability, design features, and geographic uniqueness and longevity of scheme:

1. **Australia:** Canning City Council (Consumer rebate),
2. **France:** French National Reparation (Repairer rebate),
3. **Germany:** Thuringia Reparaturbonus (Repairer rebate)
4. **Austria:** Vienna-Wiener Reparaturbon (Voucher)

We assessed the scheme models for suitability in the Sydney market, account for waste streams, rebate and voucher programs, and incentives uptake across SSROC, Sydney and NSW regions, and compared this to economic (financial, social and environmental) insights from the four above schemes.

Recommendations for a Southern Sydney repair scheme

Based on assessments of shortlisted and other repair schemes and taking into account the Sydney repair market and SSROC kerbside and bulky waste audits, key features recommended for a successful repair scheme rollout and uptake, for both vouchers and rebates for Southern Sydney, are:

Scheme Design

- ✓ Maintain a **digital registry of repair businesses**, with newly identified and established service providers.
- ✓ Maximise accessibility by providing **mapped repairers/database.**
- ✓ **Include a broad range of product types to be repaired (e.g. large and small appliances, devices, textiles, footwear and furniture)** with clear instructions for repairers and consumers.

Financial Features

- ✓ **Repair value:** A 50% repair subsidy with a repair value total under $200 per consumer. Smaller items may have a small cap, or the scheme may include a multi-redemption option.
- ✓ **Include a rebate for a diagnostic assessment** to benefit both consumers and repairers.
- ✓ **Track key financial metrics** including annual budget, set-up and running costs, repairers, and redemptions.
- ✓ **Ensure budget covers a whole year** to avoid fluctuating interest in the scheme.

Social & Environmental Impacts

- ✓ **Track key social metrics** including feedback survey information from consumers/repairers at claim point, including satisfaction, repeat usage, increased business.
- ✓ **Re-evaluate scheme design regularly** based on user feedback to re-gain/continue interest.
- ✓ **Determine a method for estimating landfill diversion and CO_2 savings** using existing online calculators and product weights (low-cost option).

Additional scope and boundary considerations

Areas for further consideration:

- **Budget** available for the scheme, given both voucher and rebate schemes require significant resources to administer, design and evaluate the scheme.
- **Process for budget shortages within the scheme period:** The Scheme Administrator will need to track rebates to ensure that a consumer is able to claim or that there's a notification to state otherwise on the scheme website.
- **Number of redemptions** per household / person.
- **Fraud and cyber protection:** Most schemes have put measures in place to mitigate this risk via IT infrastructure.
- **Environmental impacts:** The Scheme Administrator should consider how environmental impacts will be estimated, based on best practice approaches and CO_2 savings associated with product types to be included in a Southern Sydney repair scheme.

Barriers that may reduce success in a Southern Sydney repair scheme:

- **Wider systemic issues** including an immature network of repairers, lack of repairers and/or parts for certain products.
- **Limited promotion, marketing and outreach** limits awareness among citizens, has frequently led to slow adoption during the early phases of various schemes.
- **Poor instructions from the Scheme Administrator** leads to confusion on what products are repairable and if repairers are accessible beyond the region.
- **Redemption periods** that are not specified may reduce ability to track success.
- **Slow or unpredictable rebate disbursements create a financial and operational barrier:** a delay and/or lack of clarity about when reimbursement will occur can undermine trust in the scheme, strains cash flow, and discourages participation, ultimately limiting uptake by consumers and/or repairers.

Recommendations for voucher versus rebate choice

The following design, governance and consumer uptake criteria are recommended for choosing a voucher or rebate scheme suitable for Southern Sydney, as well as ways to maximise repairer engagement for both incentive types.

Basis for Choosing Scheme Type		When Rebate is Recommended	When Voucher is Recommended
Relevant scheme models		*e.g., Schemes in the City of Canning and Thuringia*	*e.g., Scheme in Vienna*
Design & Governance	**Administrative & institutional capacity**	Limited administrative capacity, need simple post-claim processing	Considerable programme administration, repair business accreditation system, digital issuance/redemption possible
	Repair market structure	Consumer rebate best where repair services are informal and delivered by a large number of small, independent providers	Dense, formal repair network with scheme-certified repairers
	Fraud & misuse risk	Lower fraud risk; post-audit controls acceptable	Need transaction control and pre-approved vendors; fraud risk susceptibility
	Budget control & predictability	Budget flexibility acceptable; claims processed after spending	Hard budget caps often set; need real-time spending control
	Data & monitoring needs	Delayed reporting acceptable; lighter monitoring sufficient	Require real-time, structured redemption data
Consumer uptake	**Behavioural objectives**	Want neutral, broad participation without provider steering	Want to steer users to certified/local repairers; ecosystem building
	Equity & access	Most consumers can front up costs and wait for reimbursement (lower consumer admin)	Affordability barriers significant; need low upfront cost for consumers
	Geographic factors	Rural / low-density areas, and/or sparse certified providers	Urban / high-density areas with provider coverage

02

Introduction & Methodology

Context

This report aims to identify key learning which will support the development of repair incentive pilots in Southern Sydney. A key action to grow resilience in the region is to increase the amount of products that are repaired instead of being disposed of. Without this, Australia is unlikely to reach the national goal of 10% waste reduction per person. Of particular concern is the amount of e-waste and how to address it: by 2030 Australia's e-waste generation is expected to rise 30% to 657,000 tonnes per year.

The NSW government waste strategy to 2041 has relevant targets to reduce waste generated per person by 10% and achieve an 80% average recovery rate from all waste streams by 2030. The strategy notes repair as a circular solution to reduce waste and support these targets. The 2023 SSROC Regional Bulky Waste Audit shows that electronics, furniture and white goods together represent a substantial proportion of bulky and kerbside waste. Repair and re use of household items prior to kerbside disposal can divert materials from landfill, reducing CO_2 emissions associated with disposal, transport and the environmental impact of new production. Designing the scheme to encompass these categories (e-products, textiles and furniture plus potentially bicycles) will maximise material diversion, optimise repair uptake, and facilitate broader engagement across multiple repair sectors.

Repair is often neglected despite many repair networks and markets existing throughout local communities. Repair schemes, particularly repair incentive models, have demonstrated success in Europe. However, repair schemes are not without challenges, from repairer perspectives rarely being considered in the design and product value chains, to maintaining a skilled workforce. Sydney has a repair culture that is in its infancy compared to Europe and Phase 2 surveying will provide insights into the consumer and repairer perspectives. There exists select organisations for learning the importance and skills behind repair. There is a strong imperative to grow Sydney's repair culture, including to support the growing importance of reuse.

Context continued

Local Councils can face challenges such as incentivising consumer choice for repair, especially for electrical products, financial constraints and liability issues. Kerbside collection methods need to optimise repair and reuse opportunities by, for example, using non-compacting trucks and training staff to limit damage during handling and transport. However, this can be cost and resource prohibitive.

In the SSROC region, whitegoods, electrical and e-waste make up ~10.7% of clean-up waste (by weight), with furniture (wooden, composite and metal) being the largest component of clean-up waste. Reusable furniture presents the largest landfill diversion opportunity (24%) followed by textiles (4%) and e-waste (4%). Importantly, it is noted that 55% of clean-up waste could be diverted from landfill if households used alternative reuse and recycling pathways. Moreover, for true circularity, intervention is needed before (kerbside) disposal. An Australia Institute survey indicates that 66% of consumers would repair at least some of their clothes, shoes or bags if repairs were eligible for government-funded discounts, a substantial increase compared to the 39% currently undertaking repairs. This suggests strong public support.

SSROC is looking for ways to increase the appeal of repair as an alternative to disposal or replacement, including by making repair services more affordable, known and convenient. For households, the hope is to improve repair service accessibility and increase motivation to repair products. It also aims to better inform councils about how to support repair within their local government area. For state government policymakers, the hope is to provide evidence about effectiveness of repair programs to inform policy-making. Whilst summaries of repair schemes exist, this Phase 1 literature review seeks to dive deeper into scheme set up, incentive, redemptions, budgets and other nuances to shape recommendations for a Southern Sydney repair scheme.

Approach

The Phase 1 approach was detailed in a Research Plan, agreed upon with SSROC in November 2025, and is summarised below. The governing research questions are in green text. The Appendix contains further methodology details, and the Executive Summary presents the key findings and recommendations.

Step 1 – Literature Review

Question: *For the repair incentive schemes that exist globally, what are their key design, economic and governance features?*

NOV 2025
Research Plan
- Determine the best approach and research categories (Table 1) to address the Phase 1 research questions

NOV 2025 TO FEB 2026
Desktop Literature Review & Interviews (Appendix B)
- Identify repair schemes (see three types and schemes)
- Investigate scheme features per research categories (Table 2)
- Identify gaps in literature
- Supplement investigation with interviews (Appendix B)
- High-level analysis of all identified schemes across financial, social and environmental elements
- Synthesise data via financial framework – identifying economic relationships and patterns across the schemes (technical details in Appendix B)

Step 1 findings were summarised in a presentation report shared with SSROC for steering group circulation.

Step 2 – Shortlisting & Deep Dive

Question: *Which schemes are most viable in the Sydney context (financially, socially, environmentally)?*

FEB 2026
Present and confirm shortlisted models
- 16 identified repair schemes shortlisted to 4 schemes → presented to SSROC/
- See Appendix B for shortlisting justifications

Deeper economic and financial analysis of shortlisted models
- Deeper economic and financial assessment of shortlisted scheme models in comparison to the Sydney market related to repairs and incentives
- Suitability statement recommended the most suitable model for Southern Sydney, based on defined evaluation metrics → presented to SSROC.

Step 3 – Reporting

Purpose: *Summarise outputs for a potential repair scheme and advocacy*

MAR 2026
Draft Phase 1 Report (this report)
- Summarise the design, financial, social and environmental research, high-level economic assessment, recommendations for a potential Southern Sydney repair scheme

MAR 2026
Final Phase 1 Report & presentation
- Address feedback from SSROC
- Present the final Phase 1 report (Executive Summary) to SSROC, Steering Group & Expert Advisory Group
- 2027: Revise any Phase 1 recommendations if required

Research categories

TABLE 1: OVERVIEW OF THEMATIC AREAS ASSESSED IN THE LITERATURE REVIEW

The sixteen identified repair schemes from the literature review and the type of repair schemes under which they can be classified are presented overleaf.

Category	Research Area	What WRAP assessed (where possible)	See report section
Scheme context	Socio-geographic assessment	• Scale: local/regional/national • Scheme location – noting similarities to the Sydney market and community • Demography: income, age by category, internet penetration	*This section* Financial Features Financial Features
	Motivations	• Pull drivers e.g. supportive government policy and legislation, community demand, large repairer community • Push drivers e.g. waste management costs, cheap product flooding local market, low economic activity • Type of incentive e.g. pre vs post repair voucher; discount via repairer	Scheme Design Scheme Design *This section*
Scheme operation	Governance structures	• Governance structures i.e. ownership (government, NGO, cooperative, private sector), managing entity, application process for funding, criteria to participate • Pilot evaluation requirements (where relevant) e.g. indicators tracked and reported, value for money calculations, success criteria • Context to whether schemes were part of a wider social/economic relief scheme	Scheme Design Scheme Design Scheme Design
	Focus materials	• Focus materials e.g. electronics, bikes, clothing and their product variations, e.g. amount of operational processes • Expansion plans e.g. moving into similar product categories (e-bikes) or completely different ones (furniture)	Scheme Design
	Set-up and operational needs	• Set-up and operational needs e.g. fraud prevention processes, data collection • Monetary value of the scheme e.g. total/annual budget broken down into set-up and running (annual) costs • Take up – how many people used the service? Repeat users? Demographics of users? • How were repairers networked or pre-identified to operators? E.g. vetted/procured • To what extent did scheme operators co-design/ communicate with repairers before or during the scheme	Scheme Design Financial Features Social Impacts Scheme Design Scheme Design
	Monetary value (of the bonus/voucher)	• Value to the consumer (e.g. money off, post-purchase consumer rebate or claimable tax rebate) • Value to the repairer (if different e.g. receiving a rebate via a consumer purchase voucher) • Limits on repair value e.g. repairs up to 200AUD	Financial Features
Scheme evaluation	Operational learnings: barriers to success (and strengths)	• Limitations e.g. entry barriers for repairs; sustainability of the scheme (financial and environmental) • Other barriers to success e.g. promotion of the scheme, funding amount, market demand, administration barriers, regulatory burdens • Strengths and points of difference that contribute to the success e.g. insider knowledge, sub-product categories to focus on	Operational Learnings
	Community and environmental outcomes	• Community outcomes and benefits e.g. upskilling and job creation; new businesses/community groups • Environmental outcomes and benefits e.g. amount of material diverted from landfill, CO_2e emissions saved	Social Impacts Environmental Impacts

Identified repair schemes

Identified repair schemes (Table 2)

Across seven countries, sixteen relevant repair voucher schemes were identified, five of which had previously been identified by SSROC in earlier work. The desktop review additionally identified six reduced value-added tax or tax incentive schemes for repair, alongside numerous repair café initiatives. These have been considered out of scope because they do not directly conform to the repair voucher model under examination. They have, however, been documented.

For all included schemes, literature was available covering their scale, timeline, incentive type, governance structure and management entity, application process, criteria to participate for both consumers and repairers, funding source, focus material and incentive amount. By contrast, the availability of literature relating to qualitative evaluation topics such as scheme uptake, repeat participation, user demographics, expansion plans, barriers to success and community and environmental outcomes, varied depending on the scheme.

Most of the sixteen identified schemes have been operational for the past three to four years, with the longest-running programme active since 2017:

- 31% were pilots that lasted for less than a year.
- 50% spanned one to five years, some of which remain ongoing.
- The final ~20% exceeded 5 years, for example the RUT Tax Reduction in Sweden, and the Graz and Vienna-Wiener Reparaturbon schemes in Austria.

Approximately 38% of the schemes operated as consumer rebate schemes, 19% were repairer rebate schemes (together totalling 56% rebate schemes), while the remaining 44% were voucher schemes. Two of the schemes, namely the Thuringia Reparaturbonus repairer rebate scheme and the Vienna-Wiener Reparaturbon voucher scheme, provided a framework for other schemes in their respective countries.

Types of repair schemes

The sixteen schemes can be classified under three types of repair schemes:

- Consumer applies for Rebate Repair Scheme: Consumer pays full amount for repair service. They later submit an invoice for the rebate through an online portal/ official website to be reimbursed in 2 weeks to 3 months.
- Repairer applies for Rebate Repair Scheme: Consumer pays subsidised price for repair service. The repairer submits an invoice and is reimbursed the subsidy amount from the administrator.
- Repair Voucher Scheme: Consumer applies for voucher through an online portal/ official website and is sent a digital voucher that can be claimed for a point-of-sale subsidy on a product repair in the geographical scheme region.

LEGEND: The figures and tables throughout the report using the following legend for the scheme names:

(**R**) Rebate	ᶜ Consumer acquires rebate	(**V**) Voucher
* Local Government funded	^ A framework for others	Deep dive analysis

Identified repair schemes

The 16 identified schemes are listed below with scheme duration (months/years) and the webpage link in the scheme name.
Shortlisted schemes for the deep dive analysis for the Sydney market are shaded green.

TABLE 2: IDENTIFIED REPAIR SCHEMES WITH WEBSITE LINK AND DURATION

Type	Country	Scheme *(with main webpage link)*	2017	2018	2019	2020	2021	2022	2023	2024	2025
Rebate	AUSTRALIA	Canning City Council * [c]								Nov	
R	GERMANY	Saxony Reparaturbonus							Nov		
R	GERMANY	Thuringia Reparaturbonus ^									
R	GERMANY	Aschaffenburg * [c]									
R	GERMANY	Berlin * [c]									Jan
R	GERMANY	Starnberg * [c]									
R	GERMANY	Miltenberg * [c]									
Tax Rebate	SWEDEN	RUT repair tax deduction [c]	Jul								
R	FRANCE	French National Reparation						Dec - only e-products	Nov – added textiles	May -added furniture	
Voucher	AUSTRIA	Austria Wide Reparaturbonus						April			
V	AUSTRIA	Graz* ^									
V	AUSTRIA	Vienna-Wiener Reparaturbon* ^							e-products removed		Bicycles removed
V	FRANCE	Bike Repair Scheme				Apr	Mar				
V	SPAIN	Bizkaia Bizkaia Repara *									Nov
V	UK	ReStart *									Apr
V	UK (England)	Fix Your Bike Scheme					Jul	May			

Types of repair incentive schemes

Three incentive scheme types are evaluated in this project (Figure 1) – this is expanded in the behavioural journeys in the next page and further described in Appendix A.

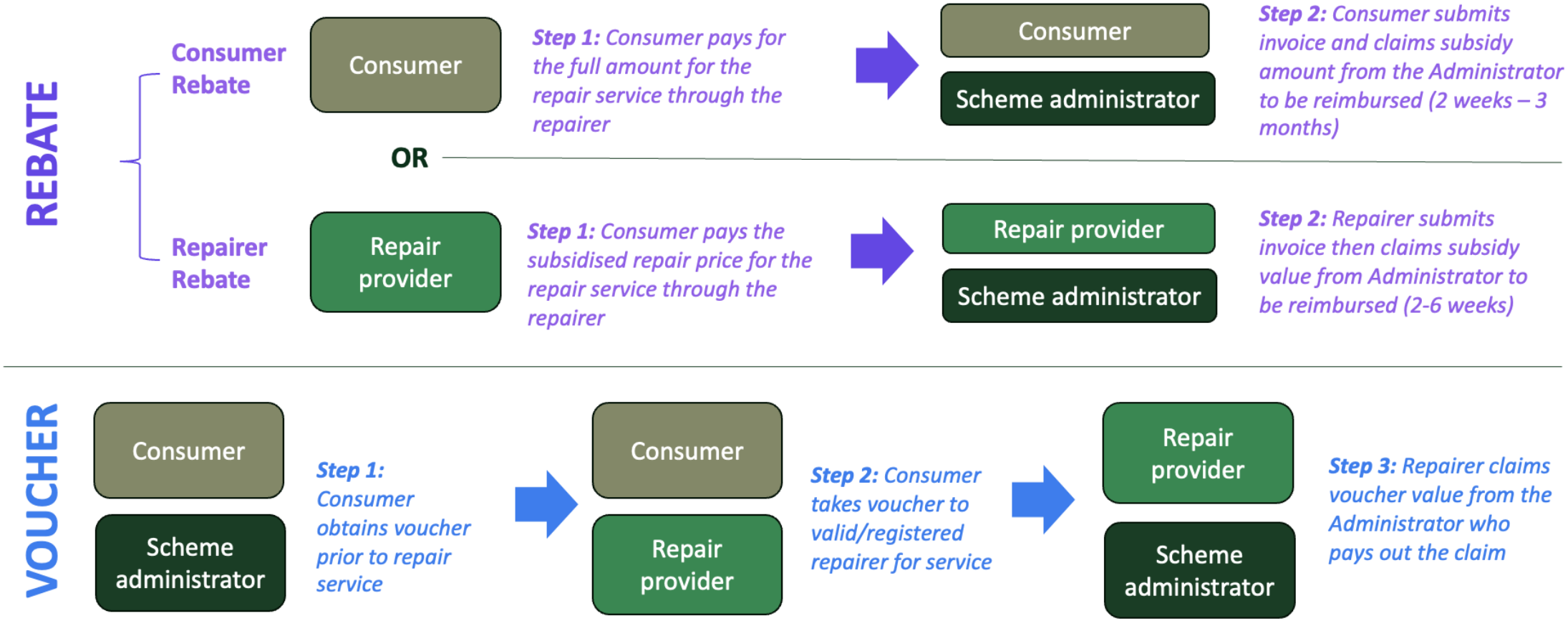


FIGURE 1: PROCESS FOR CLAIMING REBATES AND VOUCHERS

Behaviour journeys for different repair scheme types

Each scheme type has different combinations of benefits and 'costs' for consumers and repairers.

- The **Consumer rebate** requires the **consumer** to pay the full cost of repair upfront and then spend effort to receive the rebate. They must either know about the scheme beforehand (or confirm eligibility after hearing about it from a repairer) to ensure their repair qualifies. The **repairer** has the least to do in this scheme type; they continue business-as-usual operations while potentially benefiting from increased custom, particularly if featured in a rebate-related repair directory.
- The **Repairer rebate** largely maintains the status quo for **consumers**. They must still decide to try a repair and find a suitable service. Through no effort of their own they receive the benefit of the subsidised cost. The **repairer** must register and keep records of all eligible repairs. They receive only part payment upfront and must spend effort to claim the rest. They likely do not receive increased consumer awareness benefits from the scheme.
- The **Voucher** requires the **consumer** to register for the voucher ahead of time (often before a repair opportunity has even arisen). Expending this effort allows them to only ever be out-of-pocket for the discounted amount. Once a repair is started, their effort is largely complete. The **repairer** has a similar effort level to the repairer rebate: they must first register, then keep records of eligible repairs and redeemed vouchers. They receive only part payment upfront and must spend effort to claim the rest. They will likely benefit from increased custom by appearing in the voucher-related repair directory.

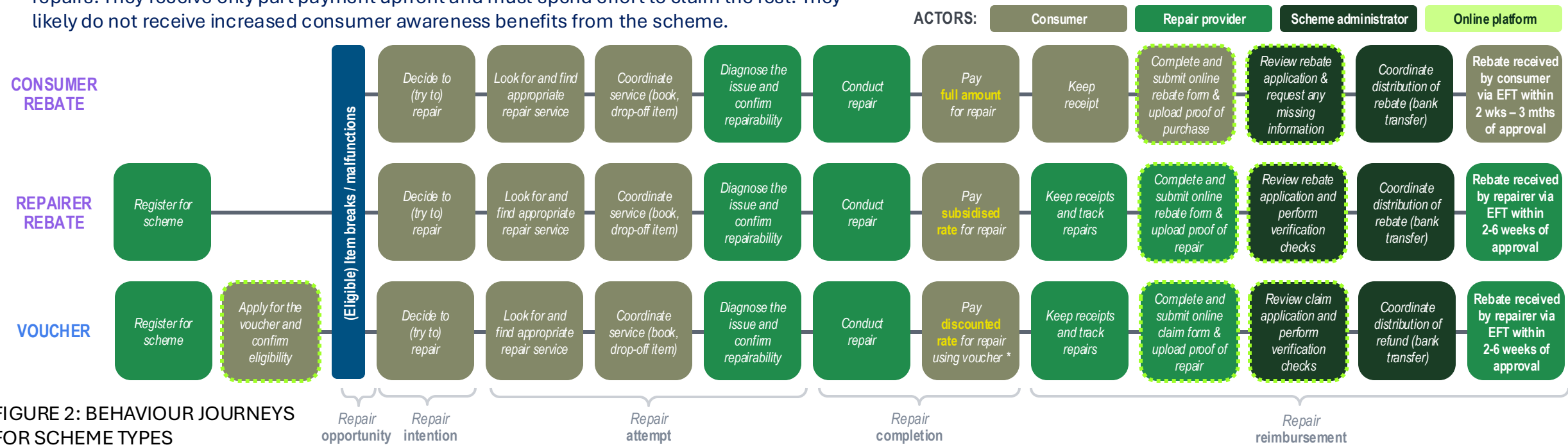


FIGURE 2: BEHAVIOUR JOURNEYS FOR SCHEME TYPES

Behaviour journeys for different repair scheme types

The behaviours required from consumers and repairers to participate vary across scheme types.

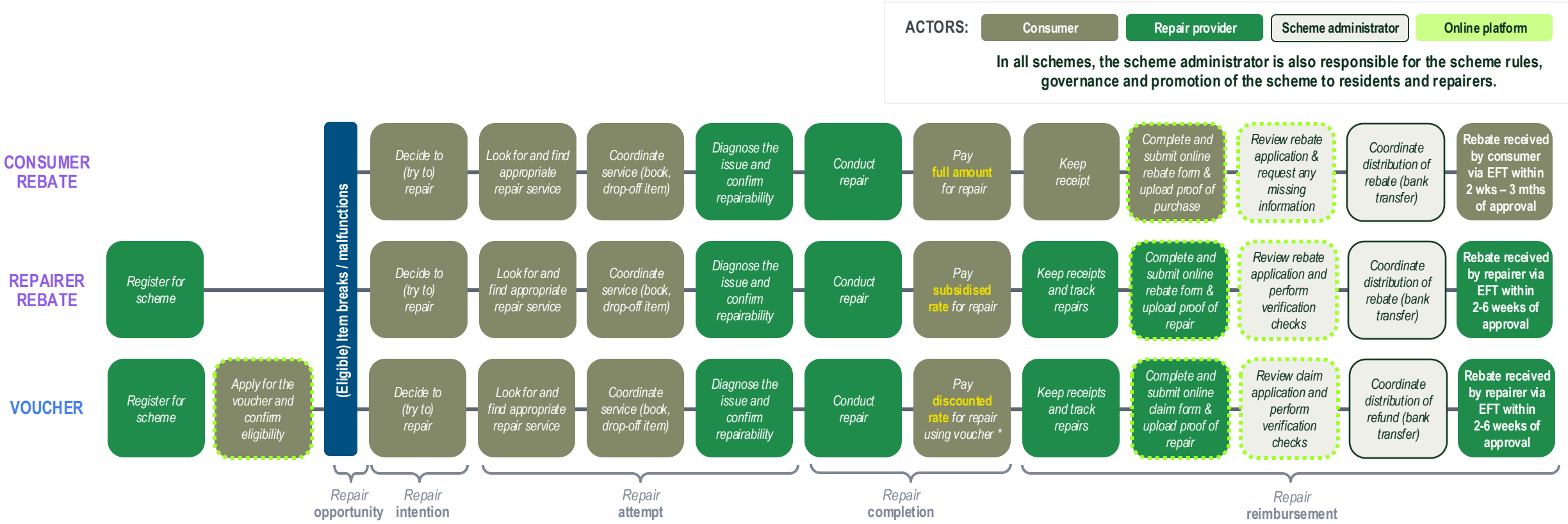


FIGURE 2: BEHAVIOUR JOURNEYS FOR SCHEME TYPES

Benefits and costs for consumers and repairers

Rebate schemes

- The **Consumer rebate** requires the **consumer** to pay the full cost of repair upfront and then spend effort to receive the rebate. They must either know about the scheme beforehand (or confirm eligibility after hearing about it from a repairer) to ensure their repair qualifies. The **repairer** has the least to do in this scheme type; they continue business-as-usual operations while potentially benefiting from increased custom, particularly if featured in a rebate-related repair directory.
- The **Repairer rebate** largely maintains the status quo for **consumers**. They must still decide to try a repair and find a suitable service. Through no effort of their own they receive the benefit of the subsidised cost. The **repairer** must register and keep records of all eligible repairs. They receive only part payment upfront and must spend effort to claim the rest. They likely do not receive increased consumer awareness benefits from the scheme.

Voucher schemes

- The **Voucher** requires the **consumer** to register for the voucher ahead of time (often before a repair opportunity has even arisen). Expending this effort allows them to only ever be out-of-pocket for the discounted amount. Once a repair is started, their effort is largely complete. The **repairer** has a similar effort level to the repairer rebate: they must first register, then keep records of eligible repairs and redeemed vouchers. They receive only part payment upfront and must spend effort to claim the rest. They will likely benefit from increased custom by appearing in the voucher-related repair directory.

Caveats and exclusions

Caveats, limitations and assumptions

- Not all quantitative and qualitative data is available for schemes, including with supplementation of interviews. WRAP takes a broad view of the literature, combined with our expertise, to make recommendations for Southern Sydney.
- The diversity and distinction between scheme models means we are unable to indicate cause and effect, and we make judgements on data interpretation accordingly.
- Success of repair schemes is subjective and scheme-specific. We thus present a range of success factors.
- Much of the literature assessed is not in the English language and thus requires some subjective interpretation.
- Not all financial data is available and/or sharable beyond the project team. We will make inferences based on best practice and collected data/information.
- Multiple stakeholders were contacted for interviews with only a 50% success rate for completion of interviews (email/videoconference). We have included additional research effort to try and fill remaining gaps in data/information.

Out of scope

- Phase 1 does not include piloting any recommended actions. Careful scheme design is needed with consideration of aspects such as which repair types should include a diagnostic fee, product eligibility and any conditions that could limit the efficacy of the scheme in Southern Sydney.
- This assessment has not included any investigation into linkages with Right to Repair legislation and any deep dive research into waste, circular economy and wider sustainability policies.
- The research excludes investigation into product warranties and liabilities.
- WRAP have not engaged any consumers or repairers as part of the research; however, this will occur in Phase 2.
- Research analysis excluded standard financial indicator modelling and detailed economic modelling techniques.

03 Scheme Design

Research themes covered in this section

Sixteen identified and assessed repair schemes

Four shortlisted schemes + Sydney market

Scheme Context

Motivations

- Pull and push drivers

Scheme Operation

Governance structures

- Governance structures
- Pilot evaluation requirements
- Schemes part of a wider social/economic relief?

Focus materials

- Focus materials
- Expansion plans

Set-up and operational needs

- Set-up and operational needs incl. application process
- How repairers were networked or pre-identified to operators
- Extent of scheme operators engaging repairers

Deep Dive

A deeper dive of the **design features** of the four shortlisted models is compared to the Sydney market with insights for suitability for a Southern Sydney repair scheme provided

Motivations

What we found

The top three reasons for initiating a repair scheme:

1. To align an existing circular economy / sustainability policy with a need to reduce waste to landfill and/or fulfil climate ambitions
2. To encourage consumers to repair and extend the life of items
3. In response to community demand for affordability measures

Other reasons motivating initiation of a repair scheme included Increasing / preserving repair services (e.g., Austria Wide Reparaturbonus and Vienna-Wiener Reparaturbon), supporting reduced cost of living and repair affordability (ReStart London), increasing physical activity during COVID-19 (UK Fix Your Bike scheme), used as a tool to help promote a just transition (ReStart London), and to help expand the use of Repair Cafes (many Germany-based schemes, in particular).

Early repair schemes within a country have acted as catalysts for the development of similar initiatives in other regions, while their initial success has also driven the expansion of these schemes to include additional products aligned with major regional waste streams. For example, the Austria Wide Reparaturbonus voucher scheme started after the success of the Vienna-Wiener Reparaturbon, adopting e-products and later bicycles. In late 2025, the Austrian government announced the next iteration for repair incentives starting from 2026 (Device Saver Premium).

Schemes part of a strong existing repair culture

- **France national scheme:** France's repair scheme builds on a well-established repair culture, supported by consumer associations such as Halte à l'Obsolescence Programmée. The 2020 anti-waste law for a circular economy (AGEC) promotes product maintenance and repair to extend product longevity. France was the first country to introduce a mandatory repairability index, embedding repair considerations into design decisions and ensuring that repair options are communicated to consumers at point of sale. At an EU level, the Directive on Repair of Goods (in force from 2024, with transposition required by July 2026), obligates Member States to implement at least one measure promoting repair, such as financial incentives, campaigns, or training. This compliments Directive EU/2024/825 on Empowering Consumers in the Green Transition, which ensures consumers receive better information about products that they buy.

- **Vienna (Austria):** Vienna has maintained an established repair network since 1999 through the Reparaturnetzwerk Wien. The network's long history demonstrates the importance of repair as a local consumption practice. In 2024, the Repair Network completed ~ 173 000 repairs, preventing 15, 300 tons of CO_2 and 1,723 tonnes of waste, showing the scheme's strength.

- Broadly speaking, extended producer responsibility (EPR) has been most widely applied to three waste streams as per EU Directives: packaging, WEEE (Waste Electrical & Electronic Equipment), and batteries. However, several countries have begun expanding EPR frameworks to address product categories such as textiles, paint, construction materials, tyres, and fishing equipment. France was the first country to implement Textiles EPR (2008). Following the revision of the Waste Framework Directive (WFD) in 2025, all EU Member States must introduce eco-modulated EPR textiles schemes. Other countries such as the Netherlands, Hungary, and Latvia, also implemented national textile EPR systems prior to the EU requirements coming into force.

Governance structures

Evaluation data and tracking

More than half the identified repair schemes noted that indicators for success and evaluation were being tracked, through the data itself is not readily available given many of the schemes are underway. Examples of indicators tracked are:

- Number of claims
- City spend / Community investment
- Location of claim (e.g., suburb)
- Demographics of claimant
- Number of approved repairs / rejected claims
- Consumer / repairer feedback
- How did the consumer hear about the scheme
- Scheme impact on purchasing
- Interest in other related schemes administered by this entity
- Items repaired (also helps estimate CO_2 emissions saved)
- Number of approved repairs
- Product age at repair
- Number of certified repairers
- Number of vouchers issued/used

Schemes part of a wider social/economic relief

Many of the repair schemes were part of a broader social/economic relief:

- Many scheme-related cities run **repair cafes / hubs / other volunteer / not-for-profit repair services** (e.g., Canning City Council and German repair schemes).
- The Sweden RUT repair tax deduction is part of a **wider repair tax framework**.
- France National Reparation has a **national circular economy agenda** (Anti-Waste and Circular Economy Law; AGEC) combined with the **EU Right-to-Repair** that situates the funds within broader cost-of-living/circularity policies.
- France Bike Repair scheme is part of the **wider "Coup de Pouce Velo" Program** (repair voucher, cycling refresher course, and 60% of scheme funds for installing more bike parking).
- Bizkaia Bizkaia Repara falls within the **framework** of the Bizkaia 2030 Local Waste Prevention and Management Plan passed by the General Assemblies and is part of the wider Spanish repair and reuse and circular economy initiative, Ecovidrio.
- The London-based ReStart scheme was positioned as **cost-of-living support** (making repair affordable) and circular economy intervention.

Scheme funding / management

As illustrated in Table 3, the majority of schemes (56% of the schemes) were managed/funded by local government and 25% of the schemes were managed / funded by state/national government (though some with the support of an NGO / consulting group). The French National Reparation is funded by an Extended Producer Responsibility (EPR) scheme.

Governance structures (continued…)

TABLE 3: OVERVIEW OF SCHEME FUNDING AND MANAGEMENT

*Purple= Rebate scheme Blue= Voucher scheme

Country	Scheme	Who owns and/or supports the running of the scheme?
AU	**Canning City Council * [c]**	City of Canning (local government) owns and runs the program. The repair scheme is administered through the City's sustainability team via an online application (Rebately platform)
DE	**Saxony Reparaturbonus**	State government program (Saxony), publicly announced by the Environment Minister. The managing entity is the Sächsische Aufbaubank (SAB).
DE	**Thuringia Reparaturbonus ^**	Thungaria ministry for Environment, Energy, Nature conservation and forestry and the Thuringia Consumer Advice Centre governs implementation
DE	**Aschaffenburg * [c]**	Aschaffenburg District Office
DE	**Berlin * [c]**	State of Berlin and the State's investment bank, IBB.
DE	**Starnberg * [c]**	Starnberg Waste Management Company
DE	**Miltenberg * [c]**	District of Miltenberg
SE	**RUT repair tax deduction [c]**	Government programme run by Skatterverket
FR	**French National Reparation**	French National Government, supported by the Halte à l'Obsolescence Programmée (HOP) and funded by EPR fees.
AT	**Austria Wide Reparaturbonus**	Administered by the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK), and managed by Kommunalkredit Public Consulting (KPC)
AT	**Graz* ^**	City of Graz
AT	**Vienna-Wiener Reparaturbon* ^**	City of Vienna with consulting support *(interview)*
FR	**Bike Repair Scheme**	Ministry of Ecological Transition
ES	**Bizkaia Bizkaia Repara ***	Provincial Council of Bizkaia
UK	**ReStart ***	Joint initiative between ReLondon (NGO/charity-like circular economy body), North London Waste Authority (local government), The Restart Project, and FixFirst (tech partner). Administered via North London Waste Authority's Community Fund with delivery partners.
UK	**Fix Your Bike Scheme**	UK Department for transport and the Energy Saving Trust (EST).

Set-up and operational needs

Roles and tasks for setting up the repair schemes

In general, the set-up costs per scheme were not estimated explicitly in literature nor interviews, however the roles associated with the setting up and running of repair schemes were significant and often included individual staff in kind or contributions for the administering entity. Roles were required to primarily establish and promote the scheme such as criteria/instructions, IT set up / management of a claim portal, and staff for scheme design, communications and promotion.

Set-up and running costs in the Thuringia Reparaturbonus rebate scheme which has a similar population size to Sydney, accounted for approximately 13% of the scheme budget, comprised of project administration and implementation, and indirect costs for project management.

Promotion of the schemes was a combination of existing communications resources and use of low-cost social media channels / flyers / other advertising pathways – many of which are likely achievable by councils and State Government.

A scheme not shortlisted had previously noted in an interview that poor promotion led to slow uptake, and WRAP recommends a Southern Sydney scheme considers promotion channels early in the design and as part of the budget.

Stakeholders of the London-based ReStart voucher scheme noted the set-up and running costs were approximately 40 to 50% of the budget. For the payments/claims, both rebate and voucher schemes required support to, for example, check repairer registrations / check repairer qualifications and issue and audit payments.

Data collected for tracking the success and benefits of the schemes is described in the Governance section above – this too required staff resources to assess and report for business cases/justification for funding.

Fraud incidents

Literature for fraud cases has been primarily for the repair schemes in Austria, associated with repair claims being falsely submitted by repairers. The repair scheme was suspended in the 2023 summer whilst investigations were underway. There were 15 arrests for 3.5 million Euros in repair bonus fraud incidents using fake companies in Austria, including one repairer falsely submitting 200,000 Euros of claims in 2022 and 2023.

An interviewee noted that after fraud was uncovered, technical changes were made to the claim system to improve security, including shifting redemptions to consumers. The fraud issues with the Vienna and Austria based schemes are widely known in other geographies, which may have helped to motivate additional fraud measures being implemented across repair schemes identified in this report, preventing this from recurring.

- Canning City Council requires itemized receipts, proof of residence, purchase dates, and eligibility checks. The Rebately used for the rebates collects and manages applications and payment processing.
- In Saxony, applications for the repair scheme are submitted digitally via the SAB online portal that requires digital identity verification via Verimi.
- In London, the ReStart scehme issues a unique QR code that is then scanned by participating repair shops and requires registration of repairers.

Focus materials – Product type per scheme

Product types per scheme

The repair schemes covered many items, categorised in 6 broad categories in Table 4. Voucher schemes typically covered more product types and rebate schemes covered electronics/household appliances. Consumers are often referred to their local Repair Café for products not covered by the repair scheme. Choice of products may have been guided by repair schemes already successful in the country, and/or waste stream priorities. Explicit instructions on product inclusions/exclusions is crucial.

Two schemes in particular should be called out as the product types covered varied over the course of the scheme:

- The French National Reparation rebate scheme started with solely e-products in 2022, adding textiles from 2023 and furniture in 2024. At first, consumers were pointed to different websites for these different categories, but these are now consolidated here with additional information here.
- The Vienna-Wiener Reparaturbon voucher scheme started in one region in 2019, inspiring subsequent schemes, including the Austria Wide Reparaturbonus in 2022 that only focused on e-products. To avoid duplication, the Vienna-based scheme excluded e-products from 2023. Similarly, bicycles were excluded from the scheme from 2025. As of 2026, the scheme has been replaced by the Device Saver program in which repairs for mobile phones, and luxury, wellness, or entertainment devices will no longer be subsidized.

Scheme evolution

Some schemes have provided an indication of strategic adjustment, including introducing a scale-back scheme program (Vienna - see point above), expansion beyond e-products (German schemes, such as Saxony and Thuringia), feasibility for large appliances and textiles (ReStart), and expanding the ability to help consumers with DIY repairs.

TABLE 4: PRODUCTS AVAILABLE FOR REPAIR PER SCHEME (also see Appendix B for categories)

Country	Scheme *(hyperlink per scheme is the webpage with product lists)*	Products available for repair					
		Large household appliances	Small household appliances	IT equipment & devices	Textiles	Furniture	Bicycles
AU	Canning City Council * [c]						
DE	Saxony Reparaturbonus						
DE	Thuringia Reparaturbonus ^						
DE	Aschaffenburg * [c]						
DE	Berlin * [c]						
DE	Starnberg * [c]						
DE	Miltenberg * [c]						
SE	RUT repair tax deduction [c]						
FR	French National Reparation			(from 2022)	(From 2023)	(From 2024)	
AT	Austria Wide Reparaturbonus						
AT	Graz* ^						
AT	Vienna-Wiener Reparaturbon* ^	(till 2022)					(till 2024)
FR	Bike Repair Scheme						
ES	Bizkaia Bizkaia Repara *						
UK	ReStart *						
UK	Fix Your Bike Scheme						

Engaging repairers

10 out of 16 schemes required repair businesses to register

12 out of 16 schemes included a directory/map of repairers in the region

Repairer registration

Overall, there were two ways that repairers were identified / vetted, regardless of if the scheme was a rebate or voucher: 1) repairers must formally register for the scheme; 2) registration is not required but a repair directory is made available for consumers.

These are shown by scheme in Table 5 overleaf.

The majority of repair schemes required registration of repairers – this may be associated with preventing fraud but can also be a barrier when fees are part of the process (e.g., French National Reparation). The registration helps build the map/directory of repair services available which likely increases consumer uptake of the scheme.

Many of the rebate schemes do not require repairer registration, however a repair map/directory is provided that is likely formed through web searches / existing directory sources (e.g., Canning City Council). In the case of the Thuringia Reparaturbonus, the administrators noted that a voucher model would have ensured early engagement and on-boarding of repairers, therefore they used the rebate approach to build a repairer database and understand the region's repair landscape.*

The Vienna-Wiener Reparaturbon scheme operators noted that administration burden is reduced by engaging repair businesses directly as opposed to consumers. In other regions in Austria where consumers submit invoices for repairs to the administrator, it was noted that around 18% of consumer subsidy applications were rejected due to formal criteria not being met.*

*Source: interview

Engaging repairers on the journey

From interviews, WRAP were able to gather select insights on how repairers were engaged along the design and execution of schemes:

- For the Vienna-Wiener Reparaturbon scheme, membership in the Vienna Repair Network requires that participating businesses demonstrate a clear focus on repair activities, with at least 50% of their workforce engaged in this area and services offered across multiple brands.
- Whilst repairers were engaged along the scheme journey and adjustments were made to the scheme design accordingly, the London Restart voucher scheme noted that, upon reflection, more time could have been spent to test software and identify barriers with repairers, and baselining repair rates, providing repairers with a direct contact within the Scheme Administrator.
- The Berlin rebate scheme is considered a "business champion" example, as strong engagement from the repair business community has supported advocacy and uptake. More broadly, involving repairers in scheme design contributes to greater overall scheme success.
- The French National Reparation has the most complex repairer registration process, given the multiple associated repair initiatives, however this can mean several repairers are excluded. At the same time, unregistered repairers may benefit from registered repairers being inundated with repairs.

Providing access to repair services

Most of the rebate and voucher schemes provide a list / map directory for consumers to locate repairers for key product types within their region (see Table 6 - embedded hyperlink in scheme name). Some schemes regularly update the directories/map, and the number of repairers varies considerably or are only Repair Cafes.

Repairer registration and repairer access criteria

*Purple= Rebate scheme Blue= Voucher scheme

TABLE 5: OVERVIEW OF REGISTRATION CRITERIA AND THE PROVISION OF REPAIRS PER SCHEME

Country	Scheme *(hyperlink is for the scheme map/directory)*	Repairer to register?	Repairer registration criteria / key insights on provision of repairs *(with associated hyperlinks)*
AU	Canning City Council * [c]	N	Soley must be a legitimate repair business who can provide a repair receipt for a service.
DE	Saxony Reparaturbonus	**Y**	The repairs must be carried out by specialist companies approved for the program. Registration via SMWA portal.
DE	Thuringia Reparaturbonus ^	N	Any commercial business offering electrical appliance repairs. Any repairer in the EU. See here for details.
DE	Aschaffenburg * [c]	N	Must be from a qualified repair business as per details here.
DE	Berlin * [c]	N	Repairs can be carried out in commercial and non-commercial repair shops (craft businesses, workshops, electronics stores, repair cafés).
DE	Starnberg * [c]	**Y**	Repair businesses must register using a portal, then they are put on an interactive map for consumers to locate specific product repair services.
DE	Miltenberg * [c]	N	Specialist companies and repair cafés can be used for repairs.
SE	RUT repair tax deduction [c]	**Y**	Application for repairers is online here.
FR	French National Reparation	**Y**	The French National Reparation scheme has formal repairer labelling for the repairers (here). The certification involves a seven-step qualification process. Eco-organisations funded by companies subject to EPR are responsible for planning, according to a set of specifications.
AT	Austria Wide Reparaturbonus	**Y**	Companies are eligible if they have a registered branch in Austria and either hold one of the trade licences specified in the participation application or carry out one of the listed licence-free trades. After the funding authority reviews and approves the online application, the companies are included as partner companies on the funding information website.
AT	Graz* ^	**Y**	The scheme can only be used for repair services carried out by businesses that are authorized to carry out repairs in Austria, registered in the Austrian repair guide or be a member of the Graz repair network "GRAZ Reparatur!", and are not completing repairs still within warranty.
AT	Vienna-Wiener Reparaturbon* ^	**Y**	Must be members of the 'Wiener Reparaturnetzwerk' with an additional agreement with the City of Vienna. Repair claims can be done via an app.
FR	Bike Repair Scheme *(link for repairs & rentals)*	**Y**	A portal was available for repairers to register: www.coupdepoucevelo.fr
ES	Bizkaia Bizkaia Repara *	N	The repair business must be open for the entire duration of scheme (Nov 2025-Feb 2026), and here is an app for tracking repairs/vouchers.
UK	ReStart *	**Y**	Repairers register here, requiring them to address key questions and upload a copy of their business registration number.
UK	Fix Your Bike Scheme	**Y**	Repairers require registration and insurance, possession of valid public liability insurance with a minimum cover of 2 million pounds.

Application process and criteria

The claim application process is described below per scheme and is distinct per scheme, and the process is detailed further per scheme type in Appendix A. Almost all schemes required residency/citizenship for the region and to be 18+ years old (it is unclear if the Repairer checks the citizenship in a Repairer Rebate option).

TABLE 6: OVERVIEW OF APPLICATION PROCESS AND APPLICATION CRITERIA PER SCHEME

*Purple= Rebate scheme Blue= Voucher scheme

Country	Scheme	Application process + Portal/Website link
AU	**Canning City Council * [c]**	Applicants submit an online form via Rebately with proof of purchase and residence. Applicants without digital access can go to the Canning Civic Centre.
DE	**Saxony Reparaturbonus**	The application for funding takes place after successful repair and payment of the invoice. Applications must be submitted digitally to the Saxon Development Bank (Sächsische Aufbaubank - Förderbank) via the funding portal. Verification via the service provider Verimi.
DE	**Thuringia Reparaturbonus ^**	Consumers can submit claims online or by post, then repair bonus transferred to consumers bank account with email confirmation of received application.
DE	**Aschaffenburg * [c]**	Digital platform or QR code at the District Office Aschaffenburg. Repair invoices must be submitted to the district administration within 3 months.
DE	**Berlin * [c]**	Electronic application and management system of the IBB Business Team.
DE	**Starnberg * [c]**	Applied for directly through the AWISTA Starnberg KU using an application form.
DE	**Miltenberg * [c]**	Upload identification documents and personal data into the online portal for a rebate reimbursement within 3 months of the repair invoice. Application through formerly https://www.landkreis-miltenberg.de/Energie - see instructions here..
SE	**RUT repair tax deduction [c]**	Login to use service with a Swedish ID: https://www7.skatteverket.se/portal/rotrut
FR	**French National Reparation**	Originally consumers were directed to different sites for different product types however this information is being consolidated now here by HOP // Stop Planned Obsolescence is an independent, non-profit organization.: https://www.bonusreparation.org/
AT	**Austria Wide Reparaturbonus**	Consumer requests a repair voucher here, then downloads or prints it and takes it to a participating repair business.
AT	**Graz* ^**	Applications submitted electronically via city of Graz e-government portal (instructions here).
AT	**Vienna-Wiener Reparaturbon* ^**	Register online with data verified, then download/store a digital voucher with a QR code. The repair businesses scan or enter voucher code to validate.
FR	**Bike Repair Scheme**	Registration was via https://www.coupdepoucevelo.fr/auth/home.
ES	**Bizkaia Bizkaia Repara ***	Consumers can accumulate up to 5 vouchers online in a single repair or in different repairs, in several establishments or in just one. Repair shops will enter the person's identification details on a platform and attach a copy of the purchase receipt.
UK	**ReStart ***	Residents apply online, receive a QR code; redeem at local repairer and the repairer claims reimbursement.
UK	**Fix Your Bike Scheme**	Consumers register online, receive and validate the voucher, find a participating repairer and repairer redeems voucher.

Design deep dive

Accessibility to repairers

The evaluation of the French National Reparation scheme estimated that 85% of consumers consider the proximity to electric and electronic equipment repairers to be a priority. Further, evidence from WRAP's Reduce, Re-use, Recycle survey in Wales highlights that convenience and proximity are key determinants of consumer engagement with repair services. Most users travel only short distances, typically, around 2-5kms, and prefer locations accessible by car or public transport, while longer journeys or limited transport options reduce participation. Applying these insights to Southern Sydney, a repair bonus scheme should ensure that incentives are redeemable at multiple accessible locations across the council areas, aligned with existing repair infrastructure and promotion of available repairers (e.g., digitally). By addressing convenience and aligning with residents' travel behaviours, the scheme can overcome a key barrier to uptake.

A repairer database that collects and stores information on the businesses and individuals who can conduct repairs in the Southern Sydney area, as well as the products they are able to repair, will be key to the success of the scheme. The repairer database should include a map of available repairers, and if possible, including distances if the mapping software functionality permits, as distance from repairers can be a large factor in a successful redemption.

An accurate repairer database will provide clear and effective communication so consumers of the scheme can easily identify and find locations where their items can be repaired, as well as allowing easier scheme administration and data recording. In addition, maintaining a database allows program administrators to identify geographic or product-service gaps, monitor coverage across different repair categories, and target outreach or support where services are lacking. This improves transparency, enables households to make informed choices, and helps local businesses connect with potential consumers across a repair network.

Even where repairers are not formally accredited, listing businesses and service options reduces barriers to participation, increases the likelihood that items are repaired rather than discarded, and encourages engagement with the local repair ecosystem. Examples of such approaches include the French National Reparation, Vienna-Wiener Reparaturbon voucher programmes and to a certain extent Canning Council, which maintain public listings of participating repair businesses.

It is also worth mentioning that major NSW voucher programs (e.g., Active and Creative Kids, Dine & Discover) often have existing operators and are easy to find through many avenues aside from the administrating organisation. According to Evaluation of NSW COVID-19 Voucher Programs report, 17% of the 'NSW Stay' voucher consumers couldn't find a suitable business to redeem the voucher. This implies that knowledge of providers is a key factor in the success of voucher and rebate uptake.

Considering a multi-purpose digital platform

To increase consumer uptake in an online repair bonus, a repair scheme for Southern Sydney should consider a robust digital platform that enables seamless instructions, tracking, and redemption options (such as Canning City Council's use of Rebately). The system should enforce clear eligibility rules, automated validation, and structured workflows to minimise user error and reduce transaction friction, thereby enhancing consumer confidence. Online-only platforms can create digital exclusion. This can be mitigated by integrating alternative 'offline' access channels where possible, such as telephonic request and verification processes, offline or manual voucher distribution at community hubs, libraries or council offices (for voucher schemes), and staff-assisted redemptions, ensuring equitable access across populations with varying digital literacy and connectivity.

Design deep dive (continued…)

Offering a broad range of product categories for repairs

SSROC's bulky waste audit (2023) indicates that bulky and household clean-up collections are dominated by furniture and wood-based items, with additional substantial volumes from textiles, household goods, and small appliances, a significant proportion of which are assessed as reusable (see Table 7). Designing the scheme to encompass these categories (e-products, textiles and furniture plus potentially bicycles) will maximise material diversion, optimise repair uptake, and facilitate broader engagement across multiple repair sectors.

We note that choice of product range may be dependent on types of repairers available in the region, pending an initial mapping exercise, and that categories can be added/removed later as has been done in the Vienna-Wiener Reparaturbon scheme. See additional information on product redemptions on the next page.

TABLE 7: WASTE AND REPAIR INSIGHTS IN THE SSROC PER PRODUCT CATEGORY (SOURCE: SSROC WASTE AUDIT REPORTS, 2023)

Large appliances	Small appliances	IT equipment & devices	Textiles	Furniture
White goods [e.g., air conditioner, fridge/freezer, dishwasher, washing machine, dryer] and electrical was 5.4% of bulky waste.		An average of 0.47kg e-waste items per household per week in kerbside collections. 5.3% of bulky waste was e-waste.	0.36 kg of textiles per household per week in kerbside collections (around 40% of are 'unwearable'). 42% of donated items in NSW are textiles	Furniture comprised 29% of SSROC bulky waste collection. Indoor furniture comprised 10% of donated items in NSW.

Rebate versus Voucher

Based on our assessments, either a rebate (consumer or repairer) or a voucher scheme would be appropriate for use in the Southern Sydney. Both rebate schemes and vouchers have been rolled out successfully internationally and also in the Sydney metropolitan area. Both types have advantages and disadvantages: rebates schemes can be more resistant to fraud by may also be less user friendly, whilst conversely voucher schemes can be more user friendly but potentially vulnerable to fraud.

To increase repairer engagement in a voucher-based repair scheme model, the Scheme Operator/Administrator should streamline voucher redemption procedures, provide timely reimbursement, and offer onboarding support (e.g. information packet, branding, promotion guidelines, site visits, ongoing customer support) to guide businesses through the process. Targeted incentives, such as higher reimbursement rates for under-represented repair categories or for areas with limited service coverage, can further broaden the network of participating providers and ensure residents have equitable access to a wide range of repair services.

To increase repairer engagement in a consumer rebate-based repair scheme model, the Scheme Operator/Administrator should simplify claim submission, provide consistent timelines for rebate approval and payment, and offer digital tools and guidance to reduce administrative burdens. SSROC should engage with repairers to promote and raise awareness about the scheme, particularly to communicate the expected business benefits of the scheme and increased visibility and potential consumer traffic. This can motivate repairers to expand the available service network. For any repairer-rebate scheme, the Scheme Operator/Administrator should simplify claim submission, provide consistent timelines for rebate approval and payment, and offer digital tools and guidance to reduce administrative burdens.

See Executive Summary for a decision table on rebate versus voucher design.

Design deep dive (continued…)

Product types

The shortlisted schemes had a broad range of product types, with all types claimed for repairs (Figure 3). E-products were the most claimed product type, in particular IT equipment, devices and large appliances. The French National Reparation stakeholders noted that 60% of existing electronic device repairers were not registered as part of the scheme (i.e., the consumers cannot claim a rebate).

The next largest category was textiles, ranging between 25% and 55%; the highest being the French National Reparation scheme that has repairers, repair culture and clear instructions on repair values for individual textiles items. Furniture was approximately 21% of repairs. The exception is the French National Reparation scheme that has had little furniture repairs undertaken post introduction to the scheme in May 2024 due to low numbers of repairers and low-cost furniture being cheaper than repairs.

In the SSROC regional bulky waste audit, (2023), data showed that e-waste and textiles are highly prevalent in kerbside collections, with furniture and white goods deemed the highest potential for repair or reuse (by weight and volume). Small appliances are less likely to be repaired than other e-product categories in the SSROC region.

By incorporating a range of product types, the programme can expand the operational footprint of local repair businesses, generate increased service volume, and strengthen sector capacity and resilience, thereby enhancing both environmental and socio-economic outcomes of the intervention.

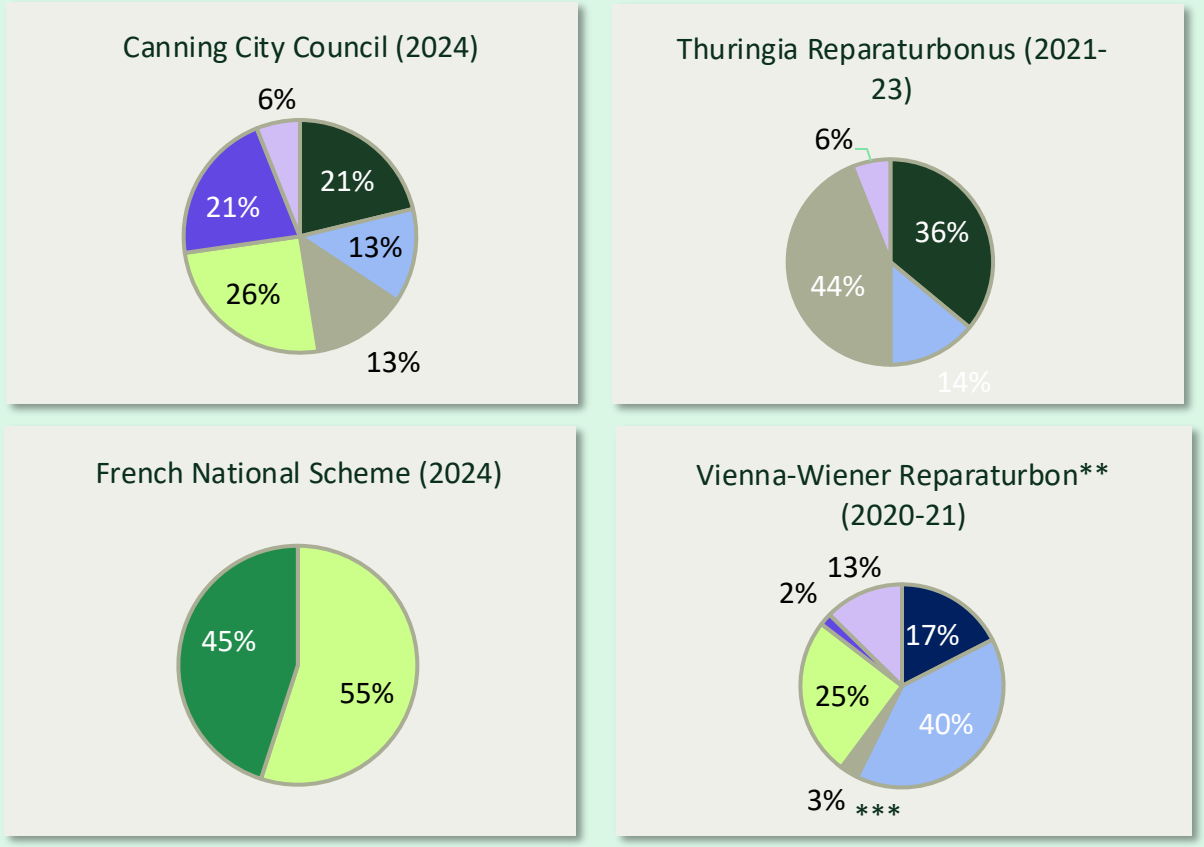


FIGURE 3: PRODUCT CATEGORIES REDEEMED PER SCHEME (PERCENTAGE)

*** For the Vienna-Wiener Reparaturbon scheme, e-products were excluded from the scheme after 2022. Whilst furniture types of repairs remained similar post 2022 (around 2 to 4.5%), textiles and small product repairs increased to be the dominant type of repairs by 2025. Bicycles repairs decreased over time and removed in 2025 after they were taken up by the Austria-wide repair scheme.*

**** Musical instruments is included under Textiles for Vienna-Wiener Reparaturbon. 'Other' refers to product subtypes not in the other categories (e.g., jewelry).*

04 Financial Features

Research themes covered in this section

Sixteen identified and assessed repair schemes

Four shortlisted schemes + Sydney market

Scheme Context

Socio-geographic assessment

- Demography: income, age by category, internet penetration
- Scheme location – noting similarities to the Sydney market and community

Scheme Operation

Set-up and operational needs

- Monetary value of the scheme (budget, set-up, running costs)
- Take up – how many people used the service? Repeat users? Demographics of users?

Monetary value

- Value to the consumer
- Value to the repairer
- Limits on repair value

Deep Dive

A deeper dive of the **financial features** of the four shortlisted models is compared to the Sydney market with insights for suitability for a Southern Sydney repair scheme provided

Socio-geographic assessment

For the cities/countries in which the identified schemes were located:

- **Population:** The population of the schemes varied considerably, from around 10,000 people in Miltenberg to 68.5 million people in France. Four schemes had a similar population to the SSROC region (1.86 million people as of 2024), namely Vienna-Wiener Reparaturbon (2 million), Thuringia Reparaturbonus (2.1 million), Bizkaia Repara (1.1 million), and Restart London (~1 million)
- **Population density (Figure 4):** Four schemes had a similar or higher population density to SSROC (2,680 people per square kilometre), namely Berlin, Graz, Vienna-Wiener Reparaturbon, and ReStart London.
- **Median regional/national age** range is 35.8 to 48.5 years (Sydney: 36.8 years).
- **Internet penetration** was above 80% across all scheme countries.
- **Income:** All scheme countries are classified as 'high income' (World Bank).

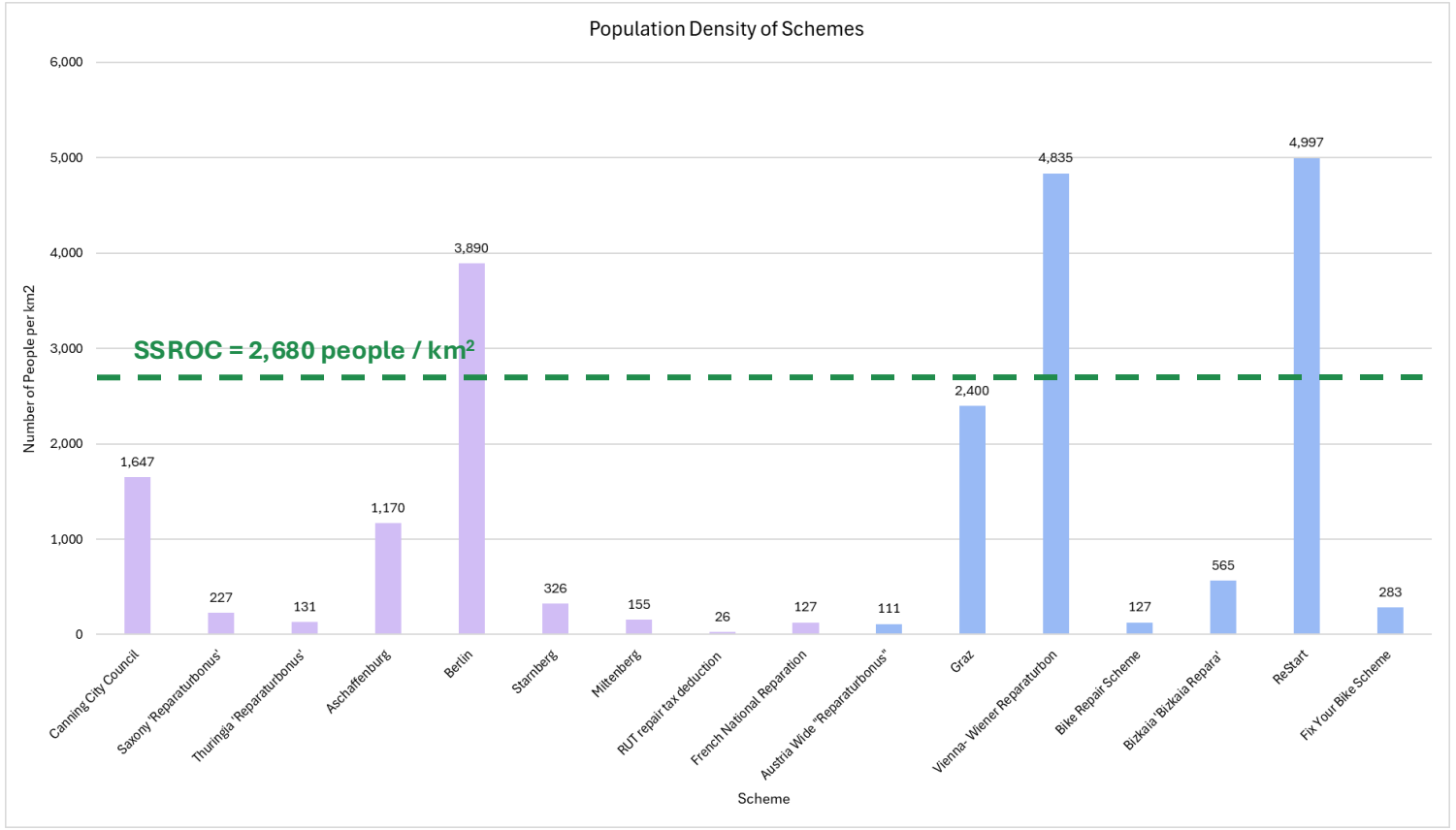


FIGURE 4: POPULATION DENSITY OF SCHEMES (PEOPLE/KM^2)

Annual budget, population and repair subsidies

Annual budget and population

There is a strong correlation between the maximum annual budget allocated in a scheme year and the population**

The annual budget varies significantly across the 16 repair schemes from $2,000 to over $50 million AUD (Table 8; see also widely varying number of repairers in Table 10 further below). The annual budget is not determined by scheme type (i.e., rebate/voucher) but the strong correlation between maximum annual budget and region population indicates that we can shortlist schemes with a similar population to the SSROC region to help indicate budget range for a Southern Sydney scheme.

Some schemes set a smaller budget (often to pilot a scheme) in Year 1 that was then increased significantly in Year 2 onwards (e.g., Canning City Council, Thuringia Reparaturbonus, and UK Fix Your Bike Scheme). Others had less funds over time (e.g., Aschaffenburg and Vienna-Wiener Reparaturbon – though Vienna was due to the reduction in product types offered). Finally, several schemes had set multi-year budgets (e.g., Vienna-Wiener Reparaturbon and Saxony). At least two schemes (e.g., Thuringia Reparaturbonus and Vienna-Wiener Reparaturbon) noted that funds ran out before the year concluded, meaning rebates / vouchers could not be claimed in that year or possibly not at all pending the following year's budget and products included for repair.

The majority of schemes had a budget per capita of under $1.00, with three exceptions. The RUT repair tax deduction is a distinct scheme and is inclusive of fixed repairs, the French National Reparation is funded by Extended Producer Responsibility fees, and the French Repair Bike Scheme was a short duration scheme targeted solely at bicycles.

Repair subsidy

No scheme offered a 100% rebate; all required consumer co-investment (Table 9). A 50% repair subsidy is available in 10 of the 16 schemes with some small schemes (e.g., Aschaffenburg, Starnberg, and Miltenberg) offering a 20 to 25% subsidy. The subsidy percentage was bound by maximum value (up to $89 to $358 per repair across the schemes) and sometimes minimum repair fee values. Stakeholders noted that having a set claim period, in alignment with funding, was important to consider. There is no link between annual budget and subsidy - the subsidy is more likely associated with typical regional repair costs.

Many of the schemes allowed consumers to claim multiple times, for example:

- Saxony Reparaturbonus: Two repairs per year.
- Austria Wide Reparaturbonus: One voucher per device.
- France National Reparation: Multiple rebate claims possible.
- UK Fix Your Bike Scheme: Originally a limit of two per household and later changed to one per person (redeemed within 60 days).
- Aschaffenburg: Consumers are eligible to apply for up to two repairs/devices per year.

The diagnostic fee (i.e., assessment of the extent and likely cost of the repair) is included in 10 of the 16 schemes (a different ten schemes to the 50% subsidy). Six of these were the German repair schemes, which only offered the diagnostic fee should the repair be completed. For the other four (Canning City Council, RUT repair tax deduction, and the Austria and Vienna schemes), the diagnostic fee could be claimed without the repair being undertaken but for the two voucher schemes, this was a separate voucher to a repair. Whilst the French National Reparation rebate scheme does not cover a diagnostic fee, stakeholders noted that it is important but can be sometimes more expensive than the repair itself.

***Correlation is r = 0.90 (n = 15)** and excludes the Swedish RUT repair tax deduction scheme (due to its vastly different scheme model).*

Annual budget and population

TABLE 8: TOTAL ANNUAL BUDGET, TOTAL SCHEME REGION POPULATION, AND MAXIMUM TOTAL ANNUAL BUDGET PER CAPITA

Total population is based on estimates in the past five years. Per capita budget figures are based on the highest annual budget allocated during the scheme's lifetime, where funding levels vary over time. Not all schemes had budgets available publicly for all years, and where possible this was acquired through stakeholder interviews. Hyperlinks are the sources for the values provided, unless the values are from stakeholder interviews.

Country	Scheme	Annual Budget (AUD)	Population	Annual budget per capita (AUD)
AU	**Canning City Council * [c]**	Year 1: $2,000; Year 2: $12,000 (interview)	106,944	$0.11
DE	**Saxony Reparaturbonus**	$2Million (2023-2024); $3.34m (2025); $3.34m (2026)	4,042,422	$0.83
DE	**Thuringia Reparaturbonus ^**	2021-2022: $839,455; 2022-2023: $1,469,046; 2023-2024: $1,194,000	2,100,277	$0.70
DE	**Aschaffenburg * [c]**	$10,616	170,945	$0.06
DE	**Berlin * [c]**	2024: $2.21 Million	3,685,265	$0.60
DE	**Starnberg * [c]**	2022: $13,300 (No figures available for following years scheme years)	139,329	$0.10
DE	**Miltenberg * [c]**	2022: $6,600 (plus subsidies for repair non-profits)	127,547	$0.05
SE	**RUT repair tax deduction [c]**	> $129 Billion (wider initiative – excluded from analysis)	10,587,710	$12,183
FR	**French National Reparation**	Electronics: $724,880,000 over 6 years (equating to $120,813,333 per year; other products not included in this budget value)	68,551,653	$1.76
AT	**Austria Wide Reparaturbonus**	$55 Million per year	9,177,982	$5.99
AT	**Graz* ^**	$198,000/year	318,158	$0.62
AT	**Vienna-Wiener Reparaturbon* ^**	2020 – 2022: $3,359,300 over 3 years; 2023 – 2026: $2,017,416 over 4 years (interview)	2,020,320	$0.55
FR	**Bike Repair Scheme**	2020-2021: $141 Million	68,551,653	$2.06
ES	**Bizkaia Bizkaia Repara ***	Nov 2025-Feb 2026: $88,467 ($265,401 extrapolated for one year)	1,167,233	$0.22
UK	**ReStart ***	$193,150	1,947,800	$0.10
UK	**Fix Your Bike Scheme**	$40.46 million	58,620,101	$0.69

Repair subsidies and criteria

TABLE 9: SUMMARY OF REPAIR SUBSIDY, VALUES AND CRITERIA PER SCHEME
Hyperlinks evidence the values provided.

Country	Scheme	Repair value/criteria (AUD)		
		% Subsidy	Min/Max value (AUD)	Diagnostic Fee Included
AU	Canning City Council * [c]	50% off repair	No Minimum; Maximum: $100	Y
DE	Saxony Reparaturbonus	50% off repair	Minimum: $134, Maximum: $354 (Two repairs per person per year)	Y+
DE	Thuringia Reparaturbonus ^	50% off repair	Minimum invoice: $89 Maximum per person per year: $178 Average cost per repair: $306 with $128 paid on average per repair voucher	Y+
DE	Aschaffenburg * [c]	20% off repair	No Minimum; Maximum: $89	Y+
DE	Berlin * [c]	50% off repair	Minimum invoice: $133 Maximum invoice: $356	Y+
DE	Starnberg * [c]	20% off repair	Maximum per year: $89	Y+
DE	Miltenberg * [c]	25% of invoice	$35 off bills up to $267 $71 for bills exceeding $267	Y+
SE	RUT repair tax deduction [c]	50% off repair	$12,111/ year per individual consumer (products and buildings)	Y
FR	French National Reparation	N/A	Minimum: $27 Maximum: $107	N
AT	Austria Wide Reparaturbonus	50% off repair	No Minimum Maximum: $358	Y ($52 separate diagnostic voucher)
AT	Graz* ^	50% off repair	No Minimum Maximum: $178	Unknown
AT	Vienna-Wiener Reparaturbon* ^	50% off repair	No Minimum Maximum: $178	Y ($96 separate diagnostic voucher)
FR	Bike Repair Scheme	50% off repair	No Minimum Maximum:$89	Unknown
ES	Bizkaia Bizkaia Repara *	5x $18 vouchers	Maximum: $90	Unknown
UK	ReStart *	50% off repair	Maximum: $101	Unknown
UK	Fix Your Bike Scheme	N/A	Maximum: $101 per voucher	Unknown

Diagnostic fee note: *'+' = Diagnostics fee is included if the repair is completed (motivation for diagnostic fee not documented).*

Repairers and redemptions

Scheme repairers

There is a significant correlation between the budget and total number of repairers**

Nine of the sixteen schemes were able to provide the number of repairers part of the scheme (Table 10). There was more data available for voucher schemes, which also overall are more likely to require registration of repairers (Table 5). The schemes with the most repairers listed are:

- Saxony Reparaturbonus (approximately 600 repairers; repairer rebate)
- French Bike Repair scheme (voucher; 4,129 repairers)
- Austria Wide Reparaturbonus (voucher; 6,000 repairers)
- and the highest was the French National Reparation (repairer rebate; 12,434 repairers as of 2026 from interview sources)

Repair schemes not requiring repairer registration still are able to approximately estimate repairers through, for example, providing mapping of repairers for consumers (Table 6). However, the number of repairers across the schemes is difficult to estimate for multiple reasons, including:

- Some schemes require registration of repairers, whilst others do not (Table 6).
- Some schemes do not collect this information and/or do not list this publicly.
- The role of Repair Cafes and similar functions is not always clear.
- Product types available has varied in many schemes, hence repairer numbers vary.

What is clear is that tracking of repairers is recommended as part of scheme design to support social benefits (see next section), but also to better foster a repair culture.

***Correlation is r = 0.79 (n = 9)** and excludes the Swedish RUT repair tax deduction and schemes missing data for the number of repairers. Repairers count is registered if this applies.*

Scheme redemptions

There is a strong correlation between the population and the number of repair redemptions***

Overall, the number of people accessing the scheme was one of the most difficult metrics to track as not all consumers accessing vouchers redeem them, and the data is often not being collected. Multiple schemes showed that the number of people applying to access the scheme was higher than completed redemptions, regardless of scheme type (Table 10). For example, many people applied for vouchers for the bike repair schemes, but hundreds of thousands of vouchers were not redeemed.

Conversely, the number of redemptions was one of the most collected variables for schemes. All schemes showed evidence of redemptions. Fourteen of the sixteen schemes had data available, allowing WRAP to evaluate the linkage between the population (Table 8) and the redemptions in Table 10. The strong correlation we estimated infers that population (and hence likely budget) for a scheme potentially helps to increase redemption rates of the repair incentives and provides motivation for renewed funding when advocating to funding bodies and policy makers. The largest number of redemptions to date across all products if for the French national Reparation rebate scheme (3,470,163; from interview) which also has the largest number of repairers, a very strong repair culture and network, the highest budget (excluding the Swedish scheme), and the addition of more product types to the scheme over time. The Vienna-Wiener Reparaturbon scheme started with all product types, then excluded electronics after Austria introduced a nation-wide repair voucher scheme for these in 2022. Consequently, the redemptions went from 35,000 repairs in the first 15 months to 2021 to approximately 6,000 to 8,000 repairs annually from 2023.

****Correlation is r = 0.83 (n = 14)** and excludes the Swedish RUT repair tax deduction and schemes missing data for the number of redemptions. Population is taken some time in the past 5 years.*

Repairers and redemptions

TABLE 10: OVERVIEW OF NUMBER OF REPAIRERS, SCHEME USERS AND REDEMPTIONS PER SCHEME

The number of repairers are those registered, if registration is required for the scheme (see Table 5). We approximated data for 1 year for the schemes with limited data/shorter duration. 'Unknown' values (grey cells) indicate no values from literature or interviews. Hyperlinks are the sources for the values provided, unless the values are from interviews.

Country	Scheme	Number of Repairers	People Accessing the Scheme	Redemptions
AU	**Canning City Council * [c]**	37	2024-2025: 50 (interview)	2024-2025: 70 (interview)
DE	**Saxony Reparaturbonus**	Approx. 600	Unknown	Oct,2023- Dec,2025: 24,500 (1yr = 19,600)
DE	**Thuringia Reparaturbonus ^**	Unknown	2021-2023: Unknown May-October 2024: 10,098 (1yr = 24,235)	2021-2023: 30,288 May-October 2024: 9,329 (1yr =22,390)
DE	**Aschaffenburg * [c]**	Unknown	Unknown	Unknown
DE	**Berlin * [c]**	2024: >100	Unknown	Sept,2024-Junly,2026: >14,000 (1yr = 16,800)
DE	**Starnberg * [c]**	Unknown	2024: 52; 2023: 82; 2022: 129 (1yr average: 88)	2024: 49; 2023: 82; 2022: 124 (1yr average: 85)
DE	**Miltenberg * [c]**	Unknown	Unknown	Jan-4th July 2024: 121 (1yr = 238)
SE	**RUT repair tax deduction [c]**	Unknown	Unknown	Unknown
FR	**French National Reparation**	11,145 total as of 2025 (interview) 7,618 from electronic products 2025 (interview)	Unknown	2025 only: 1,805,234; To date: 3,470,163 (interview) 2025 electronic products only: 1,059,234 (interview)
AT	**Austria Wide Reparaturbonus**	6,000	Unknown	April 2022- May 2025: 1.7m (1yr = 537,000)
AT	**Graz* ^**	27	Unknown	Nov-Dec 2016: 8; 2017: 163; 2018: 1042; 2019: 2,956 (1yr average: 1,042)
AT	**Vienna-Wiener Reparaturbon* ^**	150 (note: this value varied across life of the scheme due to varying product types annually)	Unknown	Sept 2020-Jan 2024: 48,000 (1yr = 14,000) Phase two from April 2025: Unknown
FR	**Bike Repair Scheme**	4,129	April 2020- March 2021: 1,707,903	April 2020- March 2021: 1.2 Million
ES	**Bizkaia Bizkaia Repara ***	97	Unknown	2024: 5,000; 2025: 5,000
UK	**ReStart ***	Unknown	April-December 2025: 3,396 (1yr = 4,528)	April-December2025: 890 (1yr = 1,187)
UK	**Fix Your Bike Scheme**	Unknown	July 2020-April 2021: 400,000 (1yr = 480,000)	July 2020-October 2021: 189,000 (1yr = 141,750)

Financial deep dive

Annual budget and redemptions

The annual budgets are markedly different across the schemes; however, all result in repair claims. However, given that scheme budget and population are strongly linked (see above), we can infer that all shortlisted schemes except the French National Reparation scheme are viable for the Sydney market (see right).

Both low (<$10,000 AUD) and higher budgets would be suitable for Southern Sydney. The Canning City Council scheme share similarities due to operating in the same country and in an urban area, however it has a much lower total population. The population of Thuringia is similar to SSROC; however, the density is lower (131 people per square kilometre). The Vienna-Wiener Reparaturbon and Canning City Council schemes are both funded through local government sources. The average base income per annum and unemployment rate in the major cities closest to each scheme compares well with Sydney, and we therefore do not factor this in here.

The Canning City Council and Thuringia Reparaturbonus schemes (both rebate) significantly increased their annual budgets in Year 2 of the schemes due to high consumer demand motivating larger second year budgets. Thuringia Reparaturbonus stakeholders noted that the first phase of the scheme was a pilot to gain practical experience and learn from any shortcomings towards a second phase (e.g., increased digitisation, improving ease of use for consumers, and integrating Repair Café services as a repair option under the scheme).

Of the four schemes the Vienna-Weiner Reparaturbon scheme represented the best value for money when looking at the average cost to the scheme per redemption (Table 11). This may be because consumers may apply for a voucher but not always undertake the repair or undertake a diagnostic assessment but not then proceed with a repair (Table 10).

TABLE 11: AVERAGE ANNUAL REPAIR REDEMPTIONS/BUDGET PER SCHEME

Scheme	Average annual repair redemptions	Average annual budget / average annual redemptions
Canning City Council * [C]	70	$100 AUD per redemption
Thuringia Reparaturbonus ^	9,329	$142 AUD per redemption
French National Reparation	1,059,234 (interview)	$114 AUD per redemption
Vienna-Wiener Reparaturbon* ^	28,000	$57 AUD per redemption

In the far future, and with a larger budget than likely at Southern Sydney scale, the following examples may help in understanding success rates for incentive schemes:

- **At a State scale, past successful NSW voucher programs for experiences / activities** had budgets of over $100million, a high uptake rate, and more than one redemption allowed per consumer. These schemes featured vouchers for activities where consumers were likely aware of where to find providers (e.g., Dine & Discover, Parents, and Active Kids voucher programs).
- **Multiple rebate schemes for energy, solar panels and batteries, bins, containers and other products and services** are available in NSW and nationally. The current energy rebates are typically $75 to $285 per individual, with rebates initially helping to reduce debt for individuals, however benefits of energy and solar rebates are quantified and already have strong political support.
- The **NSW EPA has recently introduced mandatory EPR for batteries**, and there may be potential for other products to be included under the same legislation in the future that could potentially link a point-of-sale contribution, such as repair, similar to the repair scheme in France.
- **Funding for a major repair scheme in the long term** could turn to the NSW voucher scheme models above, or EPR-related rebate schemes such as the Return and Earn program that is funded by 520 beverage suppliers, including $515 million in contributions in 2024/25 and $217 million in refunds to consumers.

Financial deep dive (continued…)

Inclusion of a diagnostic fee

Fear of hidden costs or unsuccessful repairs can limit uptake. It is recommended that a repair incentive scheme for Southern Sydney incorporate a subsidised diagnostic fee to offset initial assessment costs incurred in many repairs (as per Canning City Council and Thuringia Reparaturbonus rebate schemes). This reduces consumer uncertainty and upfront financial risk, enabling informed repair decisions and increasing overall uptake. Clear guidance on the diagnostic fee being at the repairer site or a call-out fee also needs consideration.

Compensating consumers for repairer visits for diagnostics informs consumer decisions about whether repair is possible, before they replace the item. Diagnostics improves efficiencies by screening out non-viable repairs, supporting extension of the product's life, and generating valuable data on repairability, failure modes, and service patterns. Further, allowing subsidies for diagnostics can inform future programme design of the repair scheme.

Repair costs and repairers

Repair value claimable per product type was scheme-specific (Table 8). Three of the schemes had a broad range of product types that were included for repairs (Canning City, French National, and Vienna-Wiener Reparaturbon schemes). In Table 8, one scheme had $178/repair available (Vienna-Wiener Reparaturbon), whilst others had $177 (Thuringia Reparaturbonus), $115 (French National Reparation) and $100 (Canning City Council), respectively (Table 9). For some schemes, the repair amount claimable for certain products such as large appliances was increased after evaluation early in the scheme, and this is an ongoing evaluation item based on repairer fees and parts costs and availability for certain products.

From the research on repair willingness in NSW (conducted by NSW EPA) and the 2023 SSROC waste audits, consumers are likely to repair large appliances, with willingness to pay approximately $100 to $180 per item and repair costs are typically 20-30% of the product value. This repair value aligns well with maximum repair claim values for the Canning City Council and Thuringia Reparaturbonus schemes that had 21 to 36% of repair scheme redemptions within the large appliances product category (Figure 3). However, there are social considerations (see next section) as to whether a repair option will be chosen.

Repairers

The four shortlisted schemes each have a wide range in the number of repairers available (figure not available for the Thuringia Reparaturbonus scheme, however consumers could claim repairs at Repair Cafes). Despite the seemingly small number, the Canning City Council scheme had the largest number of repairers available per capita. This is encouraging for the Southern Sydney region that may choose to start with a smaller budget and already are mapping repairer locations.

The Vienna-Weiner Reparaturbon scheme experienced a decrease in repairers over the course of the scheme, due to reduced product types eligible for the scheme in later years. In the French National rebate and Vienna-Wiener Reparaturbon voucher schemes, repairers had to be signed up to a network and/or have an additional certification, whereas for the Canning City and Thuringia Reparaturbonus rebate schemes, consumers were able to choose the repairer themselves (Table 5). The Thuringia Reparaturbonus scheme was set up as a rebate to help build a network of repairers (quicker than needing an existing pool of repairers in a voucher scheme).

05 Social Impacts

Research themes covered in this section

Sixteen identified and assessed repair schemes	*Four shortlisted schemes + Sydney market*
Scheme Evaluation	**Deep Dive**
Community and environmental outcomes • Community outcomes and benefits	A deeper dive of the **social impacts** of the four shortlisted models is compared to the Sydney market with insights for suitability for a Southern Sydney repair scheme provided

Social community outcomes and benefits

Social benefits of repair schemes can be for the actors involved (Scheme Administrator, Repairer, and Consumer) and/or the wider community. Scheme stakeholders noted a wide range of ages and genders partook in the schemes. *Deeper discussion of social outcomes is presented in the next page.*

TABLE 12: NUMBER OF REPAIRERS PER SCHEME

Country	Scheme	Benefits	Source
DE	**Thuringia Reparaturbonus ^**	• Improved repair business perceptions, public attitudes, and increased participation in repair cafes.	Online
DE	**Berlin * [c]**	• The scheme helped strengthen the local economy.	Online
FR	**French National Reparation**	• The scheme led to job creation potential in repair sector, including network growth from ~1,200 to ~5,600 certified repairers within 1 year, which suggests ecosystem development.	Interview
AT	**Vienna-Wiener Reparaturbon* ^**	• The scheme received enquiries from all over the world, with numerous cities now planning similar initiatives. • The scheme helped to double the number of member companies in the Vienna Repair Network from 72 to over 140 businesses in 2024 since its introduction in 2019. The strengthened repair network, combined with the 99% repair success rate, was crucial to demonstrating to consumers that repairing products is worthwhile.	Interview
FR	**Bike Repair Scheme**	• The scheme allows consumers to use the repair bonus to repair their own bike, if they know how to (i.e., empowering repair in users)	Online
ES	**Bizkaia Bizkaia Repara ***	• The scheme noted a strengthening of the commercial fabric of the repair sector and promotion of green jobs.	Online
UK	**ReStart ***	• Supports local high-street repair businesses and aligns with North London Waste Authority's community fund and borough events promoting reuse/repair culture. • This scheme also tracked users from low to medium household incomes to understand how the scheme was able to support especially lower income households. • Quantifying jobs/upskilling associated with the repair scheme is currently underway.	Interview
UK	**Fix Your Bike Scheme**	• Businesses reported substantial additional activity and consumer flows; some saw the scheme as raising awareness of cycle workshops and bringing in first-time consumers.	Online

Social deep dive

Incentive schemes and consumer repair behaviours

For a new scheme, implementing a targeted financial incentive mechanism is critical to changing consumer behaviour, increasing repair uptake, and fostering a culture of repair. Empirical evidence from the Thuringia Reparaturbonus and a complementary German-wide study demonstrates that financial considerations are the dominant factor influencing whether consumers pursue repairs. Across Germany, only around one in four electrical appliances are repaired when defective, with high repair costs and transaction effort (e.g., time and logistics) consistently cited as key barriers. A report presenting the findings of a German-wide and a Thuringia-specific study indicate that the majority of respondents weigh up the costs and benefits of repair versus replacement (71–75%), and over half of respondents (57–64%) stated they would undertake more repairs if supported by financial incentives (Poppe et al. 2024).

Survey data from Thuringia Reparaturbonus specifically show that approximately one-third of repair bonus recipients would not have pursued repairs without the incentive, while over 40% would have undertaken repairs only at higher personal cost, and 24% stated the repair would not otherwise have been worthwhile. Overall, over 70% of consumers express a greater likelihood of pursuing repairs if financial support is available, confirming that subsidies such as a repair incentive act as a highly effective behavioural lever, generating additional repairs, reducing premature replacement, and extending product lifetimes.

A separate point to raise is the existing repair culture. The extent of an existing repair culture is also an influencing factor. As seen in Austria and other regions, pairing a repair incentive with direct financial support for repair is likely to lead to longer- term behaviour change.

.

Type of consumer claiming the incentive: Stakeholders from two schemes (Thuringia Reparaturbonus and French National Reparation) noted that only 4 to 5% of the population partook in the repair schemes, often impacting hose already keen to repair and less so those who need behavioural conversion. In the French National Reparation scheme evaluation for e-products, the repairers found only 30% of consumers knew about the repair scheme. Therefore, maximising investment in marketing and outreach to maximise awareness and motivation to use, will be crucial to broad uptake of a Southern Sydney scheme.

Incentive schemes and repeated uptake by consumers

Some of the shortlisted schemes and relevant schemes in NSW indicate a repeated claim behaviour.

For example:

- The French rebate and Vienna-Wiener Reparaturbon voucher schemes offer unlimited claims.
- The Vienna-Wiener Reparaturbon voucher scheme noted that a third of consumers redeemed 2 vouchers, and a further 18% redeemed 3 or more vouchers. This scheme also found that 40% of consumers would not have repaired without the subsidy.
- Canning City Council scheme data implies that either there are multiple claims per repairer or per household.
- The NSW COVID-19 related voucher programs showed that 40% of consumers claimed the maximum number of vouchers for the Dine & Discover program and 70% for the Parents voucher program, which was typically around 5 vouchers.

Social deep dive (continued...)

Repair incentives may increase repairer business

The French National Reparation scheme helped to double the number of certified repairers in electronic and electrical equipment between 2022 and 2023, as consumers demanded repairers close by their homes to join the initiative.

From WRAP's research, there is some evidence that repair schemes may increase business opportunities for existing repairers. This can be through more repairers joining a scheme (if registrations are required), which may lead to an increase in repairs, but not necessarily new jobs. For example, in the Vienna-Wiener Reparaturbon scheme, there was overall a 38% increase in repairs (interview source), however repairers were negatively impacted by unplanned scheme suspensions that impacted recruitment planning within their business.

In the Austria-wide scheme (noting this voucher scheme was modelled off the Vienna-Wiener Reparaturbon scheme), 80% of repair businesses reported an increase in the number of repairs during the trial, with many consumers returning for repairs even after the vouchers expired.

For the Thuringia Reparaturbonus rebate, research showed an increase in demand in some repair shops, and some businesses identified an increased appreciation of repair services among the public, however not all businesses stated experienced an increase in repairs.

There was little evidence of business-to-business uplift in the schemes, however some stakeholders noted that the unregistered repairers were unconcerned about registration as they had enough repair business without the scheme, and admin processes and costs to register were a burden for the repairer.

Repair, Emotional Durability, and Community Wellbeing

There are multiple lines of evidence for the emotional connection to repairing items, and we present some high-level examples here:

- Maintaining and restoring a product's functionality can strengthen emotional durability by reinforcing the ongoing relationship between people and their possessions, as care, maintenance and continued interaction help preserve and deepen attachment over time.
- Evidence also indicates that when functionality is successfully restored, owners are more likely to retain products, supporting the continuation of emotional attachment rather than replacement.
- Experimental research further demonstrates that individuals value objects more highly when they have invested labour in them, suggesting that involvement in repair can enhance perceived worth and attachment.
- Research also explores how attachment influences decisions to repair rather than replace, highlighting the behavioural implications of emotional bonds.
- The Welsh Repair and Reuse Activities evaluation indicate that participation in repair and reuse activities can improve wellbeing and social connection, pointing to wider emotional and social benefits associated with repair engagement.

06 Environmental Impacts

Research themes covered in this section

Sixteen identified and assessed repair schemes	*Four shortlisted schemes + Sydney market*
Scheme Evaluation	**Deep Dive**
Community and environmental outcomes • Environmental outcomes and benefits	A deeper dive of the **environmental impacts** of the four shortlisted models is compared to the Sydney market with insights for suitability for a Southern Sydney repair scheme provided

Environmental impacts

The environmental impacts are described here in terms of waste diverted from landfill as a weight (kg or tonnes) and/or greenhouse gas emissions saved (CO_2). The available evidence suggests repair incentive schemes can contribute to measurable environmental benefits through waste prevention and emissions reductions, but the lack of standardised monitoring frameworks makes cross-scheme comparison difficult.

The tabulated values at right (Table 13) are presented for schemes with available data at the time of the literature review and stakeholder interviews. Many of the repair schemes assessed were motivated, in part, to align with existing environmental policies.

Well established repair schemes in Thuringia and Vienna (under the wider repair network) are diverting 600 to 780 tonnes of waste annually, whereas short schemes (in Spain) and those in their infancy (in Australia) show considerably less diversion. This may also be due to low budget/repairers available. For products, the Vienna repair network that includes the Vienna-Wiener Reparaturbon (Reparaturnetzwerk Wien) estimates that 24 tonnes CO_2 is saved per item repaired. The French National Reparation rebate scheme provides a range of emissions saved from smartphone (13kg CO_2e each) to appliances (TV; 124kg CO_2e).

However, the associated environmental impacts of the schemes is overall poorly tracked, with inconsistent methodologies applied across jurisdictions. The incomplete data exposes a real challenge for regular monitoring and evaluation of the schemes. Further, as mentioned by a scheme stakeholder, it is challenging to verify the CO_2 emissions saved specific to the repair scheme, taking into account other environmental factors (e.g., transport, accessibility to spare parts, energy / manufacturing efficiency of products).

TABLE 13: TONNES OF WASTE/CO^2 DIVERTED FROM LANDFILL PER SCHEME

The tonnes of landfill diverted and reductions in CO_2 emissions (as an equivalent; CO_2e) as a result of the repair scheme. Only schemes where one or both of these variables are included. We approximated data for 1 year for the schemes with limited data/shorter duration. 'Unknown' values (grey cells) indicate no values from literature or interviews. Hyperlinks are the sources for the values provided, unless values are from interviews.

Scheme	Tonnes of waste diverted from landfill	CO_2e saved avoided
Canning City Council * [c]	2024-25 Using the NSW Reuse Impact Calculator: 1.38 tonnes 1yr	2024-25: 167.7kg CO_2e avoided in 1yr (interview)
Saxony Reparaturbonus	2023: 219 tonnes of e-waste	Unknown
Thuringia Reparaturbonus ^	May-Oct 2024: 390 tonnes of e-waste (1yr = 780 tonnes)	May-Oct 2024: 2,971t CO_2e (1yr = 5.94 tonnes)
French National Reparation	*Not available yet through methodology and estimates are underway*	Repairing a broken TV saves a CO_2 equivalent of a 350 km car journey 2020 forecast estimated the emissions potentially avoided range from 13 kg CO_2e for a smartphone to 124 kg CO_2e for a TV
Vienna-Wiener Reparaturbon* ^ (Reparaturnetzwerk Wien)	600 tonnes annually	Live Tracker for Autumn 2020 to early 2026: 55,837 items have been repaired and 3,209.49 tonnes CO_2 saved. Each repair saves 24kg of CO_2 on average, across all product categories
Bizkaia Bizkaia Repara *	Oct-Dec 2024: 14 tonnes (1yr = 56 tonnes)	Unknown

Environmental deep dive

Maximising landfill diversion and emission savings

The 2023 SSROC Regional Bulky Waste Audit shows that electronics, furniture and white goods together represent a substantial proportion of bulky and kerbside waste, repair and reuse of household items before they are disposed at the kerb can divert materials from landfill, reducing both CO_2e emissions associated with disposal, transport and the environmental impact of new production. Incorporating these product categories into an incentive scheme for Southern Sydney captures high potential waste diversion and landfill avoidance, reflecting the dominant local waste streams and maximising the environmental effectiveness of the programme.

Findings from the Thuringia Reparaturbonus impact assessment, which focused on electronics, show that a relatively small number of product groups dominate CO_2 savings. While white goods—such as washing machines, dishwashers, refrigerators, and other large household appliances—represented just over one-third of all repairs under the Thuringia Reparaturbonus scheme, they accounted for nearly two-thirds of total scheme's CO_2e savings (1,936 tonnes CO_2e), underscoring their disproportionate contribution to emissions reduction and waste prevention.

Repairs of other resource- and material-intensive electronics, including flat-screen TVs, monitors, and desktop PCs, contribute additional CO_2 reductions, while smaller appliances and frequently repaired items such as smartphones contribute comparatively little CO_2 reductions. Large appliances also demonstrate particularly favourable subsidy-to-savings ratios, with lower cost per kilogram of CO_2 avoided relative to smaller electronic items.

Environmental impact example methodologies

There are multiple methodologies for estimating emissions savings that vary in complexity. Examples below may be suitable for a Southern Sydney repair scheme:

- **Reuse impact calculators:** Some programmes estimate impacts using dedicated tools such as the NSW Reuse Impact Calculator, which converts quantities of reused items into estimated waste diversion and CO_2e savings using predefined environmental factors. The overseas Repair Café Carbon Calculator also estimates savings per product type, except is is specific to repairs.
    - For example, furniture makes up 28.8% of the SSROC bulky waste weight = 29 tonnes. If it is assumed that this waste is repairable, the emissions savings could amount to around 30 tonnes CO_2e.

- **Lifecycle assessment (LCA) factors**: Several schemes derive emissions reductions by applying average lifecycle emission factors for products (e.g., electronics or bicycles) to estimate the CO_2 avoided when a product is repaired instead of replaced.

- **Waste-weight tracking:** Some programmes calculate environmental outcomes by recording the weight of repaired or reused items (e.g., tonnes of e-waste repaired) and treating this as waste diverted from landfill.

- **Mass-based lifecycle conversion method** *used in the Repair Network Vienna (*Reparaturnetzwerk Wien*) to monitor repair activity- wider than the repair incentive scheme)*: Environmental impacts are estimated using a model adapted from the Finnish reuse network Kierrätyskeskus by the Austrian Institute for Ecology, where repair businesses report the average weight of repaired items, which is multiplied by product-specific CO_2 factors (per kg) and adjusted with a lifespan discount factor to estimate emissions avoided from repair instead of replacement.

Environmental deep dive (continued…)

Repair displacing the purchasing of new items

Repair can displace new consumer purchases. A 2025 WRAP report created with leading resale and repair businesses and brands, quantified the impact that circular business models are having in displacing new clothing purchases. Findings suggest that for every five items repaired, four of these displace a new purchase (82.2% displacement rate).

This report is highly relevant to SSROC, as new clothing consumption per capita shows similarity between UK and Australia. For example, repairing a rip in your waterproof jacket instead of buying a new one could save over 45kg CO_2e, equivalent to running almost 300 washing cycles.

In the context of textiles, WRAP research indicates that consumers undertake an implicit cost-benefit assessment when deciding whether to repair or replace an item, as well as assessing the price of a repair service against the perceived likelihood that an item will be successfully restored. This highlights cost as a key barrier to consumers' use of repair services.

Also relevant to SSROC and focused on Australia, BehaviourWorks Australia have developed a framework for understanding, measuring and communicating waste prevention, including displacement. The report estimates that repairing clothing, furniture and electronics across a 4-week period displaced waste disposal by 47% for clothing, 44% for furniture and 59% for electronics. Overall, the findings indicate that 49-56% of participants were fairly or very likely to repair an item.

** Based on items acted upon in a 4-week period that displaced waste generation (N=1024)*

Further considerations for environmental benefits

Evidence from WRAP's research on textiles suggests that consumers typically make an implicit cost–benefit assessment when deciding whether to repair or replace an item. This decision includes the price of repair against and/or the likelihood that the item will be successfully repaired. As a result, even when repair offers greater environmental benefits, higher repair costs can discourage consumers from choosing repair services, making cost a significant barrier to uptake.

Further considerations for impact monitoring

Some other considerations in estimating environmental benefits are the value and criticality of materials used for different product types, energy efficiency improvements in new items versus extending the lifespan of less efficient older appliances, and warranty extension impacts on CO_2. For the latter, research published in 2019 shows that a warranty extension on one year on all washing machines, notebooks, vacuum cleaners and smartphones in the EU would save approximately 4 $MtCO_2$ annually by 2030, equating to the removal of around 2 million cars off the road for one year.

Further considerations for product lifespan and reparability

To overcome key barriers to repair in Australia, policy and market interventions have been suggested. These include establishing right-to-repair mandates, improving product labelling for repairability and durability, encouraging the creation of spare part markets, and developing government supported apprenticeships to build labour capacity. There is recent evidence that including repair of large appliances (whitegoods) as part of product stewardship has major cost and emission savings, and similar studies have been undertaken across multiple jurisdictions.

07 Operational Learnings

Research themes covered in this section

Sixteen identified and assessed repair schemes

Scheme Evaluation

Operational learnings – successes and barriers

- Limitations
- Other barriers to success
- Strengths and points of difference that contribute to the success

Barriers and limitations

A series of barriers to repair incentive schemes were identified through both literature and stakeholder interviews, outlined in Table 13. **The largest barrier to continuing the repair schemes is ongoing funding and is thus excluded from Table 14**

TABLE 14: REPAIR SCHEME BARRIERS AND LIMITATIONS

Theme	Barriers/limitations
Administration & redemptions	• A lack of knowledge of smaller, independent repairers reduces uptake • Consumer confusion of product eligibility and repair service restrictions (e.g., alterations and maintenance versus repairs) • Consumer does not have digital access, so an in-person claim option is potentially required • Product categories not covered by the scheme, making alternative repairer access required • Insufficient data collected (e.g., at application stage, consumption and repair behaviour questions in pre/post claim surveys , environmental behaviours) • Complex document-upload process or ID verification • Many applications including incomplete or incorrect documentation creating reimbursement delays
Promotion of the scheme	• Launch day website crash due to abundance of consumers accessing vouchers, suggesting a gradual release may be advised • Promotion via usual channels may be insufficient, but budget constraints prevent otherwise
Repair barriers	• Repairers must already be members / contracted, preventing smaller, independent repairers' participation • Lack of knowledge of smaller, independent repairers reduces uptake, suggesting a possible stronger networking and involvement of local actors • Inability to complete repairs of some products due to lack of training, unavailable tools and parts
Financial, social & environmental	• Not enough budget for a year – too many redemptions and so some consumers miss out • Limited provision for repairer skills development within the scheme suggests that alignment with relevant social initiatives—such as vocational training programmes, apprenticeships, workforce reintegration schemes, and community-based repair organisations (e.g. repair cafés or social enterprises)—may be beneficial • Upfront payments creating scheme accessibility concerns for lower income individuals • Unused downloads of vouchers and consumers needing more time to redeem voucher, suggesting time bound redemptions or reallocation of incentives • Fraud/fake vouchers and fraud investigation impacting scheme budget • Emissions savings / landfill diversion not estimated from the start of the initiative making it more difficult to advocate for scheme extension/expansion

Scheme success and strengths

Success of repair schemes has been measured or defined in different ways across the repair schemes, which may lead to extende d /increased funding for subsequent years. These success features can be summarised for the Administrator, Consumer and Repairer actors as follows – extracted from both literature and stakeholder interviews:

For the Scheme Administrator:

Drivers

- Having a map of repairers (or a labelling/identifier for repairers) – this could be achieved through repairer registrations
- Identify and/or expand repairers and network
- Enable long-term financing

Measures

- Consumer redemption rates
- Additional funds secured to extend the product categories and/or duration of the scheme
- Reduction in waste / CO_2 emissions saved
- Proportion of lower income households participating relevant to middle/upper income households
- Received feedback from repairers/consumers (this helps to evaluate and change scheme design for efficiency, etc.)
- Number of policy-makers engaged in scheme outcomes (to expand the scheme to other jurisdictions and/or to renew funds)

For the Consumer:

Drivers

- Multiple/unlimited redemptions
- Ease of access to repairers due to directory/ registered repairers
- Ease of application (e.g., no claim process)
- Free choice of provider / use of remote repairers
- Broadened product range
- Low cost to undertake scheme benefits (e.g., upfront discount offered)

Measures

- Increase in proportion of community attempting and completing repair at all, repeatedly
- Increase in participant / community intentions to repair than replace

For the Repairer:

Drivers

- Existing strong repair network of businesses
- Direct support for participating repairers

Measures

- More business generated for repair service providers
- A behavioural shift in consumer repair behaviour, which may be reflected via the repair businesses and Repair Cafes, and not solely via the consumers.

Multiple schemes have now begun to release evaluation reports to document the methods and success of the repair schemes, including Graz, French Repair Bike Scheme and UK Fix Your Bike Voucher Scheme. Environmental impact assessments have also been carried out, for example for the Thuringian Repair Bonus Scheme.

Checklist of decisions / actions required for success

The following provides a summary checklist for scheme design for Southern Sydney, taking into account the report findings.

Planning of a repair scheme

- ✓ Choose either Consumer Rebate and Voucher based on needs (see Executive Summary for decision table).
- ✓ Aim for of a budget of between $250,000 and$1,000,000 (based on population alignment with the SSROC region), and including set-up and running costs (e.g., 1 scheme lead role and leveraging existing functions such as IT and Comms).
- ✓ Engage repairers during scheme design stage to father evidence on repair network, capacity and capabilities, and to increase repairer buy-in.
- ✓ Design a process if a budget shortage occurs mid-scheme/within a financial year to ensure participation rate is not reduced in future scheme years.
- ✓ Invest in substantial marketing and outreach to ensure broad awareness of scheme as promotion is a major barrier to scheme uptake. This includes for advocacy.

Design of incentive

- ✓ Include both diagnostic services and repairs, from widest range of repairers possible. Be clear on distinguishing between repairs, alterations and maintenance services.
- ✓ Include broad range of products, particularly including whitegoods, other electronic/electrical items, textiles/accessories, furniture.
- ✓ Provide clear information on eligibility and sub-product categories.
- ✓ Set rebate value at 50% of repair cost, with a maximum cap set at $200 or less (smaller items may have a small cap).
- ✓ Consider multiple redemptions per person (if budget is sufficient).

Design for accessibility

- ✓ Develop, provide and regularly update a registry of known repairers (consider also a mapping option for increased user experience).
- ✓ Use a fit-for-purpose digital platform to process the incentive (considering a non-digital option for those without access).
- ✓ Balance the needs of simple application process (including required documentation) with fraud prevention and detection.
- ✓ Reliably verify and payout reimbursements within a defined timeframe.
- ✓ Engage repairers ad hoc across the scheme, and consider an associated point person in the scheme for which repairers can contact.

Design for monitoring and evaluation

- ✓ Develop good tracking system before scheme launch to ensure data collected, including redemptions and surveying participants at point of application/claim.
- ✓ Evaluate monitoring data for advocacy and wider repair network initiatives in NSW and other jurisdictions.
- ✓ Re-evaluate scheme design regularly based on user feedback to re-gain/continue interest.
- ✓ Consider most appropriate way to measure / estimate environmental benefits of scheme outcomes. Due to issues with CO_2 estimates, landfill diversion may be more appropriate.

08
Appendices

APPENDIX A
Repair scheme types

Claim process overview – Consumer and repairer rebate schemes

Consumer applies for the repair rebate

Consumer: pays the full amount for a repair service through a registered repairer involved in the repair scheme. The subsidised price can include the diagnostic fee for repair, even if their repair is incomplete.

Repairer gives the consumer a receipt for the repair work. This may include information such as the name of the product repaired, the total repair amount and total amount of subsidy, the date of the repair, the name of the business where the repair was performed.

Consumer submits an invoice to claim the subsidy amount back from the administration body by logging into the scheme's official website, or a portal found on a scheme's official website.

- Personal documentation is required for submission from the consumer (personal ID, proof of residency and/ or address).
- Repair claim documentation includes the name of the product repaired, the total repair amount and total amount of subsidy, the date of the repair, the name of the business where the repair was performed.

Scheme administrator reviews the consumer's invoice details and either

1. approve the invoice details and organise rebate amount to be transferred via electronic bank transfer to the consumer's bank account, or

2. contact the consumer requiring more information. The consumer then provides this missing info or corrects wrong information. It is approved by the administration team and then the consumer is reimbursed via electronic bank transfer into their personal account.

Repairer applies for the repair rebate

Repairer charges consumers a discounted price for repair services at point of sale. The subsidised price can include the diagnostic fee for repair, if their repair is complete / incomplete.

Repairer keeps accurate receipts and tracking of product repairs.

- Alongside giving the consumer a receipt for their repair purchase, repair businesses will store a copy of each repair receipt, which includes information such as: the name of the product repaired; total repair amount and total amount of subsidy; date of the repair and the name of the business where the repair was performed.
- The repairer then submits an invoice to claim the subsidy amount back from the administration body by logging into the scheme's official website, or a portal found on a scheme's official website.
- Documentation required for submission from the repairer may include: business identification details such as registered business name, business address (within the scheme's eligible jurisdiction), banking details for reimbursement, and repair invoice documentation showing repair date, description of repair service, labour and parts cost, total repair cost, subsidy/rebate amount claimed.

Scheme administrator reviews the repair businesses' invoice details and either:

A) Approve invoice details and organise rebate amount to be transferred via electronic bank transfer to the repair businesses' bank account.

B) contact the repair business requiring more information. The business then provides this missing info or corrects wrong information. This is approved by the administration team and then the business is reimbursed via electronic bank transfer.

Claim process overview – Voucher scheme

Repair Voucher Scheme

The Consumer visits the official scheme administration website, or a linked portal found on the the administration website, to confirm their eligibility and apply for voucher.

- They must provide personal information and documentation such as personal ID, proof of residency and/or proof of address.
- If eligibility criteria are met, the online system issues a repair voucher to the consumer, usually in the format of a digital PDF or QR code (Austrian National), printable document (Vienna, Austria) or digital document stored within an online user account (Bizkaia, Spain).
- Vouchers usually specify: a maximum reimbursement value, expiry date (e.g. 3 weeks for the Austrian National Voucher scheme), and conditions for use (e.g. single-use, non-transferable).
- The consumer takes the voucher an redeems at participating repairs.

Repairer registers for participation: Vouchers are redeemed at participating repairers. Participation requirements for repairers usually included: be legally registered businesses in the eligible territory; offer professional repair services for eligible product categories; register with the scheme administration in advance, and; comply with reporting, invoicing, and audit requirements. There are two sub-pathways:

1) separate diagnostic voucher (Austrian national and Vienna Scheme), sub-pathway
2) diagnostic fee not included within the voucher subsidy amount. Some schemes impose additional criteria such as the use of original or compatible spare parts, minimum warranty on the repair work and compliance with environmental or consumer protection standards. To redeem the repair voucher, the consumer brings the product and voucher to a participating repairer before the repair is carried out.

Upon presentation of voucher by a consumer, the repairer confirm product eligibility, verifies voucher validity (often digitally) and performs the repair. The repairer claims voucher value and is reimbursed the subsidy value from the administrator on a consistent basis, dependent on the scheme (e.g. UK bike repair scheme reimburses on a weekly basis).

Repairers must provide administrators with the following information types: voucher identifier (QR code number or voucher ID); repair invoice/receipt; proof of repair completion; repair date and item description, and; repair cost breakdown (labour and parts). Note, that due to repairer fraud cases, the Vienna repair voucher reimbursement is now to the consumer directly.

The Scheme Administrator performs verification checks on the repairers who have submitted product repair claim information, for criteria such as that the voucher was valid and not previously redeemed, the repairer was registered and eligible at the time of repair and that the repair meets scheme rules (eligible product, cost caps, repair type).

APPENDIX B
Technical Methodology

Literature review

Research process

- To identify academic and grey (i.e., not peer reviewed) literature on repair voucher schemes and country-specific scheme variants, a desktop literature review was undertaken using a Rapid Evidence Assessment Methodology (REA) methodology supported by Boolean Search term techniques.
- The review followed a structured three-stage process. Where initial REA searches returned limited information (e.g. user uptake, demographic or environmental impacts), additional terminology was incorporate into the search terms to identify additional sources.
- Global repair schemes (rebate/ voucher / other) were first identified using SSROC and WRAP sources supplemented by searches conducted via Google, Google Scholar and AI tools such as ChatGPT.
- Language specific scheme names were then used to locate relevant information for each repair scheme. AI deep searches were undertaken to locate the 15 most frequently cited sources for each scheme.
- As Table 1 shows, sources were analysed against three primary research categories (scheme context, operation and evaluation) and 8 sub-categories (socio-geographic assessment, motivations, governance structures, set-up and operational needs, focus materials, monetary value, formative learnings, community and environmental outcomes). These are presented individually or combined, as appropriate.
- Key evidence gaps were recorded in a tracking table. Boolean search terms were subsequently refined to address identified gaps, and a second REA search was undertaken using AI tools. Queries were designed to avoid duplicated search returns.
- Retrieved papers were analysed. Where partial data existed, targeted follow-up emails were issued to relevant scheme stakeholders to request clarification or supplementary information for specified topics, alongside interviews where appropriate (see next page). Specifically, these were from five schemes. Five other schemes were contacted but did not respond.

Focus of the research

WRAP conducted a high-level analysis of all identified repair scheme models based on the following features in addition to the scheme type (rebate, voucher) and products offered under the scheme to shortlist for a deeper economic analysis:

- Financial: Annual budget, subsidy offered, diagnostic fee inclusion.
- Demographics: Population, population density, affordability.
- Social: Redemptions, repairers included, accessibility to repairers.
- Environmental: Tonnes diverted from landfill and CO2 emissions saved.

Interviews

- Semi-structured interviews were used to address knowledge gaps, drawing on overseas counterparts from relevant schemes within WRAP and BWA's European networks. Stakeholders were selected by aligning identified data gaps with scheme actors. Interviews focused on operational needs and topics including policy, strategy, governance, success factors, transactions, administration, staff time and problem-solving processes.

- Stakeholders from the Scheme Administrator and associated organisations were interviewed, with additional information requested and received via email. Only half the contacted schemes responded to interview/information requests, and some contacts referred WRAP to other contacts instead (Table 16).

- Stakeholders were identified through the desktop literature review of official scheme websites and documentation, which provided contact information of scheme administrators, project managers and/or individuals involved with scheme design. Additional WRAP, BWA, and SSROC scheme contacts were recruited. The list of contacts have been anonymised for confidentiality.

- Interview questions were tailored to thematic gaps in the literature review research categories and design elements of strategic relevance to scheme implementation in Southern Sydney. Questions were sent in advance to interviewees. Interviews were recorded and documented.

After this report is reviewed by SSROC, any potential confidential information provided by interviewed stakeholders will be confirmed for internal SSROC report versus public report usage.

TABLE 16: SCHEMES CONTACTED AND/OR INTERVIEWED TO COMPLEMENT LITERATURE

Type	Country	Scheme	Contacted?	Interviewed ?
Rebate	AUSTRALIA	Canning City Council * [c]	**Y**	**Y**
R	GERMANY	Saxony Reparaturbonus		
R	GERMANY	Thuringia Reparaturbonus ^	**Y**	**Y**
R	GERMANY	Aschaffenburg * [c]	**Y**	
R	GERMANY	Berlin * [c]	**Y**	
R	GERMANY	Starnberg * [c]	**Y**	
R	GERMANY	Miltenberg * [c]	**Y**	
Tax Rebate	SWEDEN	RUT repair tax deduction [c]		
R	FRANCE	French National Reparation	**Y**	**Y**
Voucher	AUSTRIA	Austria Wide Reparaturbonus		
V	AUSTRIA	Graz* ^	**Y**	
V	AUSTRIA	Vienna-Wiener Reparaturbon* ^	**Y**	**Y**
V	FRANCE	Bike Repair Scheme		
V	SPAIN	Bizkaia Bizkaia Repara *		
V	UK	ReStart *	**Y**	**Y**
V	UK	Fix Your Bike Scheme		

Shortlisting and deep dive processes

Shortlisting process

1. **Key Features (all 16 schemes):** This stage provides a range of options for Southern Syndey to consider when designing a voucher or rebate scheme to pilot in Southern Syndey, and key success factors, learnings and considerations.

2. Initial Shortlisting (16 schemes reduced to 12 schemes): The number of schemes is reduced based on outlier features. Qualitative shortlisting is based on removal of schemes that are e.g., single product types, have poor data or inappropriate model for Southern Sydney. This helps to better focus and not skew the economic and financial analysis.

3. Secondary Shortlisting (12 schemes reduced to 4 schemes): The remaining 12 schemes are quantitively assessed from a financial and economic perspective including standardising numerical values (e.g. monetary value of incentive standardised to per capita, annual, AUD) and grouping values. Four distinct schemes are chosen (see justification next page).

Using a multi-feature assessment of scheme features (see box at right), the 16 schemes were shortlisted to four schemes:

- **Australia:** Canning City Council (Consumer rebate),
- **France:** French National Reparation (Repairer rebate),
- **Germany:** Thuringia Reparaturbonus (Repairer rebate)
- **Austria:** Vienna-Wiener Reparaturbon (Voucher)

Deep dive process

Using the high-level findings thus far, dive deeper into key economic features compared to the Sydney market to pinpoint the key factors and design elements most likely to maximise the impact and uptake of a successful repair incentive scheme in Southern Sydney. For scheme suitability to the Sydney market, we performed a high-level economic assessment of the waste streams, rebate and voucher programs, and incentives uptake across Southern Sydney and NSW regions, and compared this to economic insights from the four above schemes, specifically:

- Design features that are beneficial for a repair scheme in Southern Sydney
- Comparison of demographics, budget, repairers and redemptions and what is more likely for a Southern Sydney scheme
- Product categories redeemed in comparison to the SSROC waste audit findings
- Deeper research for social and environmental benefits based on products, behavioural impacts, and scheme data

Qualitative

- **Scheme type:** Rebate vs Voucher
- **Product types:** Focus materials / product categories
- **Sustained funding:** Scheme duration to date
- **Access to repairers:** Vetted/ procured/ mapped repairers
- **Incentive to engage:** Diagnostic fee

Quantitative

- **Population:** Population total over scheme region
- **Density of access:** Population density over scheme region
- **Affordability:** Median household income
- **Affordability:** % population employed
- **Funding available:** Annual budget
- **Incentive to engage:** % subsidy for the repair
- **Success factor:** Average annual repair redemptions
- **Success factor:** Number of businesses/ repairers across scheme life
- **Success factor (environmental):** Tonnes diverted from landfill

Shortlisting justification

Legend: Rebate | Voucher

Repair schemes shortlisted

1. Canning City Council (Consumer Rebate)
- Same country as SSROC + uses Rebately
- Wide range of product types
- Good data at product level

2. French National Reparation (Repairer Rebate)
- Wide product range for a repairer rebate scheme
- Good data available
- *Note: Population is large, but useful model*

3. Thuringia Reparaturbonus (Repairer Rebate)
- Population closest to SSROC of German schemes
- Appliances and devices/IT equipment only
- Good economic data and model followed by other schemes

4. Vienna-Wiener Reparaturbon (Voucher)
- Best example of a voucher scheme with a long history and repair success, similar population size
- Provided a model that other schemes followed

Repair schemes NOT shortlisted

Saxony Reparaturbonus
- Lower number of repairs than Thuringia (both repairer rebate schemes)

Aschaffenburg
- Low subsidy offered, funding and population vs SSROC
- Poor social and enviro impact data

Berlin
- Short scheme duration that has exhausted funds
- Other German repairer rebate schemes have more data

Starnberg
- Low subsidy offered
- Low funding
- Low population compared to SSROC
- Low number of repairs achieved

Miltenberg
- Low subsidy offered
- Low population vs SSROC
- Low number of repairs achieved
- Poor social/enviro impact data

RUT repair tax deduction
- Different repair scheme, unlikely to be replicated by SSROC or at State level.

Austria Wide Reparaturbonus
- Good information but Vienna voucher scheme has similar set up, more information and better aligned for population.

Graz
- No diagnostic fee offered
- Low affordability of population
- Low funding

Bike Repair Scheme
- Bike only scheme
- Short scheme duration

Bizkaia Bizkaia Repara
- Short scheme duration

ReStart
- Short scheme duration
- No diagnostic fee
- Low-income
- Poor social/enviro data

Fix Your Bike Scheme
- Bike only scheme
- Short scheme duration

FIGURE 5: JUSTIFICATION FOR REPAIR SCHEMES NOT SHORTLISTED

Population, exchange rates, and product categories

Population

The population statistics were gathered from mixed sources as no single site has recent consistent data down to council level (Table 16). Each statistic was chosen from a reputable source (e.g., government) in the region/country related to the scheme. Estimates in the past five years were sought (e.g., form census data).

TABLE 16: METHODOLOGY FOR SOCIO-GEOGRAPHIC METRICS

Metric	How the metric defined/calculated
Population	Population of the area covered by each scheme found in the literature review from online population archive data sources
Population density (people/km²)	Found during online literature review from online population archive data sources
Net national weekly income (AUD)	Values converted from USD to AUD, divided by 52 to get weekly income. Sources: Adjusted Net National Income (2021): Staff estimates, World Bank; The Changing Wealth of Nations: Measuring Sustainable Development in the New Millennium; Payscale.
Internet penetration (%)	Percentage of the total population with access to the internet out of 100%. Sources: SSROC, Canning City Council, World Bank

Exchange rate

The exchange rates to convert Euros, Pound Sterling, Swedish Kronor, and US dollars types to Australian dollars (AUD) were sourced through Google Finance (Table 17). These were used across all financial estimates in the report described in Table 19.

TABLE 17: EXCHANGE RATES

Exchange Rate	Exchange rate date	Source
Euro/AUD = 1:1.768	3rd Dec 2025	Google Finance
Pounds/ AUD = 1: 2.023	3rd Dec 2025	Google Finance
Swedish Kronor (SEK)/ AUD = 6.17 : 1	3rd Dec 2025	Google Finance
USD/ AUD = 1: 1.532	1st Dec 2025	Google Finance

Product categories

Product categories for the focus materials in the repair schemes are defined differently per region/sector. In this project, we have chosen to use a simplified suite of product types, described in Table 18.

TABLE 18: SCHEME PRODUCT CATEGORIES AND DEFINITIONS.

Product Type	Definition
Large Household Appliances	Large electrical appliances typically used in homes for cleaning, cooking, or food storage. These products are usually heavy, fixed in place, or difficult to move (e.g., refrigerators, washing machines, ovens, and dishwashers).
Small Household Appliances	Smaller electrical appliances used for everyday household tasks that are portable and easy to move (e.g., kettles, toasters, blenders, coffee machines, and vacuum cleaners).
IT Equipment & Devices	Electronic products used for computing, communication, and information processing (e.g., laptops, desktop computers, tablets, smartphones, printers, and computer accessories).
Textiles	Products made from woven or knitted fabrics used in clothing or household materials. Examples include clothing, towels, bedding, curtains, and other fabric-based household items. May include footwear.
Furniture	Movable objects designed to support various human activities such as sitting, sleeping, working, or storage. Examples include chairs, tables, sofas, beds, wardrobes, and desks.
Bicycles	Human-powered vehicles with two wheels.
Other	This includes multiple items that do not fit into the above categories but may be repaired under select schemes, such as jewellery, garden equipment, and sometimes bicycles.

Variables, assumptions and limitations

TABLE 19: CALCULATIONS, ASSUMPTIONS AND LIMITATIONS

Metric	How the variable is defined/calculated	Associate assumptions and limitations
Annual budget per capita	Highest annual budget data from online literature review and dividing it by the total population of the scheme's geographical region.	*Annual budgets can vary from year to year depending on programme design and scope. Moreover, some schemes are not structured around fixed annual budgets and instead operate in phases. These phases can vary significantly in duration, and the relationship between allocated budget and timeframe can differ substantially across programme cycles.*
Average annual budget	Taken from online desktop review and interviews. Where annual budget varies from year to year an average is calculated	*The Sweden tax rebate has been excluded due to high values being unapplicable to the research context (particularly in correlations). Where values for multiple years were available but different, an average was taken.*
Average annual repair redemptions	Total number of redemptions from online literature review and interviews divided by total number of years the data represented.	*If there were different values over multiple years, they were added together and divided by the total number of years. Assumes that redemptions could be averaged over multiyear time frames to annually. This does not account for yearly variation in redemptions across a scheme's lifetime. Repair uptake per year changes, hence values are an average across available years. The Aschaffenburg repair schemes did not have the literature available to calculate average annual repair redemptions. Canning information is for internal use only.*
Total annual budget (for schemes where budget was distributed per repair incentive)	Total number of repairers info taken from total number of repairers sheet, value multiplied by the by the budget given per repairer	*People who 'accessed the scheme' redeemed their voucher/ lodged a repair invoice. Vouchers may be applied for but not redeemed*
Mean maximum subsidy value	All maximum subsidy values added together and divided by total number of schemes (8)	*Excludes Sweden's RUT repair tax deduction, as the value was too large and not a typical rebate model.*
Mean scheme annual budget	All annual rebate scheme budget values added together and divided by total number of schemes (7)	*Excludes Sweden's RUT repair tax deduction, as the value was too large and not a typical rebate model.*
Average annual repair redemptions	Taken from online desktop review and interviews with scheme operators. Where redemptions varies from year to year an average is calculated	*Redemptions for the French national scheme cover only electronics. Other data was available but not for the annual budget for this scheme.* *The correlation between population and redemptions only includes schemes with data for both these variables.*
Number of repair businesses	Taken from online desktop review and interviews with scheme operators.	*Note that this variable indicates both individual repairers and a business with multiple repairers – this is not distinguished in literature or interview data.* *The correlation between population and redemptions only includes schemes with data for both these variables.*

Thank you