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Understanding Repair in Aotearoa New Zealand: Attitudes, Experiences, and the Right to Repair

A Report by the University of Canterbury and Repair Network Aotearoa, February 2025

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Executive Summary

This study explores consumer views on Right to Repair legislation and attitudes and motivations toward repair, in order to delineate the factors that facilitate or impede repair in Aotearoa New Zealand. An online survey was implemented in October 2024 with a convenience sample of 1,500 consumers over 18 years old in Aotearoa New Zealand.

The findings show that overall there is a strong level of support for Right to Repair legislation. In particular, survey respondents agreed that manufacturers should provide information on product durability and repairability, that products should have repairability labels, and repair manuals should be provided free of charge and software updates provided beyond the warranty period.

Although a large number of respondents rarely or never repair their possessions, almost half repair sometimes, often or always. Most try to repair items themselves, ask family or friends to assist, pay to have items repaired, or take back to retailers for repair. Few respondents have participated in repair cafés.

In terms of impediments toward repair, respondents indicate they have poor knowledge about where to get information about repair, whether their items are repairable, or where to actually get items repaired. In addition, respondents agreed they do not have the skills, training or confidence to undertake repair, but many were interested in gaining repair skills. In addition, respondents agreed that they did not have the necessary tools or parts for repair. They also felt there is minimal repair service in the marketplace and repair service is too expensive. The low price of new products also makes it less likely that respondents will repair their possessions.

In terms of factors that may enable repair, respondents were aware of the environmental benefits of repair, that repair creates less waste, extends product lifespans, and saves money. Respondents wanted to reduce waste by repairing and felt positive emotions toward repair. They also agree that repair is an important social norm that individuals should follow.

The sample reflects a subsection of NZ society. Future research in this area should seek representative samples or use alternative methods to seek input from underrepresented groups.

This report provides recommendations for those interested in facilitating repair behaviour including repair cafés, policy makers, and product manufacturers and marketers.

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Background

Aotearoa New Zealand is among the top waste producing nations in the OECD (OECD, 2024). In response, the country has set a goal to be a low-emission, low-waste society built upon a circular economy by 2050 (Ministry for the Environment, 2023). In support of that goal, Repair Café Aotearoa New Zealand (RCANZ) set out to foster a repair culture by supporting the development of local repair cafés and facilitating a national network for repair. Repair reduces waste by keeping products in use as long as possible (Ministry for the Environment, 2023) contributing to a circular economy and the United Nations Sustainable Development Goal 12, Responsible Consumption and Production. Currently, there are over 75 repair cafés across Aotearoa New Zealand, now under the guidance of the Repair Network Aotearoa (see www.repairnetworkaotearoa.org.nz).

Since its inception in 2020, RCANZ has joined the international Right to Repair movement, advocating for legislation in Aotearoa New Zealand to address the eight laws currently obstructing repair. In 2023, RCANZ undertook the first repair survey to explore people's thoughts on repair and experiences with repairing items (RCANZ, 2023). This current study builds on that work, with the goal to explore consumer views on Right to Repair legislation and attitudes and motivations toward repair in general, in order to delineate the factors that facilitate or impede repair in Aotearoa New Zealand.

Literature on Repair

Repair is the process of returning a faulty product to a condition where it can continue to fulfil its intended use. Repair practices can extend the product lifespan delaying the impacts of disposal and product replacement (Sonego et al., 2022; van der Velden, 2021). Specifically, increasing lifespans through repair, can reduce the use of finite resources, the emission of pollutants and the amount of waste (Cooper, 2010). Repair has been studied at the individual level (Svensson-Hoglund, Russell, & Richter, 2023), community level (Madon, 2022; Ozanne, 2024), and in terms of commercial repair (Godfrey & Price, 2023; Godfrey et al., 2022; Laitala et al. 2021). It has also been explored in terms of specific product categories, such as computers (Woidasky & Cetinkaya, 2021), clothing (McQueen et al., 2022; Zhang & Hale, 2022) and more broadly (Rogers, Deutz, & Ramos, 2021).

Consumers can choose either commercial repair or self-repair. Commercial repair can be carried out by the manufacturer, their authorised repair networks, or by independent repairers. Self-repair involves individual consumers carrying out the repair themselves or being supported to repair in a community setting (e.g., repair café). A survey of consumers in Norway found that a large share of repairs are conducted by consumers through self-repair. The main barrier hampering self-repair is the low price of new products, meaning consumers are more likely to buy new (Laitala et al., 2021). When it comes to self-repair, attitudes and abilities were important determinants suggesting it is

key for consumers to have the skill set to perform repair (Parajuly et al., 2023). Jaeger-Erben and colleagues (2021) found that the behavioural and financial costs for repair are perceived as high and that current social and material settings are more likely to impede than to enable repair. In clothing repair, self-repair was found to be the most common form of repair, with women being more highly engaged in repair (McQueen et al., 2022).

Many impediments currently frustrate consumers' ability to undertake self-repair (Svensson et al., 2018). Specifically, consumers need access to parts, tools, diagnostics, schematics, skills, repair documentation, and the right to repair without invalidating the product's warranty (Ozanne et al., 2021; Parajuly et al., 2023). Given these impediments, a number of initiatives have been developed to support self-repair initiatives. At the community level, the repair café movement began as an approach to help consumers repair their possessions (Charter & Keiller, 2016; Meißner, 2021). Madon (2022) suggests that by making repair more visible, repair cafés help transform the social norms around this practice, making it more acceptable and accessible.

Objectives

The main objectives of this report are to:

1) Understand people's views on and support for Right to Repair legislation;
2) Understand people's experiences of repair; and
3) Understand the factors that facilitate and impede repair behaviour in Aotearoa New Zealand.

Methodology

The survey was implemented online in October 2024. The market research firm Dynata was contracted to survey a sample of 1,500 consumers over 18 years old in Aotearoa New Zealand. A convenience sample was drawn, implementing quotas to reflect the characteristics of the country in terms of gender and regional population. The questions related to right to repair were based on a similar survey implemented in Ireland in 2022 (EPA, 2022). In addition, the other questions in the survey were drawn from the literature on repair and based on the Capabilities, Opportunity and Motivation to Behaviour Model, or COM-B model (EPA, 2022; McLeod et al., 2015; Michie et al., 2011; Ozanne, 2024). Questions were asked on either a Likert agreement/disagreement scale (from 1 strongly disagree, 3 = neither agree nor disagree, 5 = strongly agree), or in terms of how often people perform repair (from 1 = never to 5 = always).

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Results

The demographic profile of the sample is presented in detail in Table 1. As stated, the sample reflects the population of Aotearoa New Zealand in terms of gender and region. Females (53.9%) make up more than half of the sample compared to males (45.9%). Respondents from the North Island (75.9%) make up a large majority of the sample, with 33.2% coming from Auckland. Individuals 36 to 55 years old (34.4%) are the largest age group with the rest of the sample being fairly evenly spread across the other three age groups. The vast majority of respondents (69.5%) are of New Zealand European ethnicity, followed by Asian (13.4%) and Māori (11.4%). A large number of respondents are married (43.3%). The respondents are generally well educated with 47.2% holding a university degree or higher, and 20.3% holding a trade or technical degree. The majority of the sample are working full-time (44.4%) or part-time (15.1%). The respondents are financially affluent with 33.5% making over $100,000, but the other three income categories are also well represented.

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▼ *Table 1. Demographics of the Sample*

Demographic Characteristic	Frequency	%
Age		
18-25	175	11.6
26-35	287	19.0
36-55	520	34.4
56-65	238	15.7
66 plus	292	19.3
Gender		
Female	815	53.9
Male	694	45.9
Non-binary	3	0.2
Place of Residence		
North Island	1147	75.9
South Island	365	24.1
Region		
Northland	44	2.9
Auckland	502	33.2
Waikato	150	9.9
Bay of Plenty	97	6.4
Gisborne	10	0.7
Hawkes Bay	54	3.6
Taranaki	37	2.4
Manawatu-Wanganui	79	5.2
Wellington	174	11.5
Tasman	10	0.7
Nelson	17	1.1
Marlborough	12	0.8
West Coast	10	0.7
Canterbury	212	14.0
Otago	79	5.2
Southland	25	1.7
Income		
Less than $29,999	153	10.1
$30,000 to $59,999	342	22.6
$60,000 to $99,999	357	23.6
Over $100,000	507	33.5

Demographic Characteristic	Frequency	%
Ethnicity		
New Zealand European	1051	69.5
Māori	173	11.4
Pacific Island	62	4.1
Asian	202	13.4
Other	158	10.4
Relationship Status		
Single	388	25.7
In a relationship	176	11.6
Legally married	654	43.3
In a de facto relationship	112	7.4
Widowed or divorced	136	9.0
Other	46	3.1
Education		
Primary school	9	0.6
Some secondary school	173	11.4
Secondary school	305	20.2
Trade or technical	307	20.3
Undergraduate, masters or doctorate degree	714	47.2
Other	4	0.3
Work Status		
Working full time (30+ hours/ week)	671	44.4
Working part-time (< 30 hours/ week)	228	15.1
Full-time or part-time student	58	3.8
Looking after home/family	87	5.8
Unemployed	157	10.4
Retired	283	18.7
Other	28	1.9

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Key Findings

Objective 1: Support for Right to Repair Legislation

The first objective of the study examined respondents' views on and support for potential right to repair legislation in Aotearoa New Zealand. These questions were based on a similar survey implemented in Ireland in 2022 (EPA, 2022). Table 2 below provides the means and standard deviations for each question along with the total percentage agreement with the statement. Figure 1 graphically depicts the percentage agreement with these statements. Overall, respondents agreed that manufacturers should provide information on product durability and repairability (88.4%), that products should have labels that inform consumers about how repairable they are (87.1%), manufacturers should provide software updates (76.7%) and spare parts (71.8%) beyond the warranty period, and repair manuals (75.3%). Respondents also support training and apprenticeships to increase repair skills (77.8%) and support right to repair legislation in New Zealand overall (77.4%).

▼ *Table 2: Support for Right to Repair Legislation*

| Right to Repair	Mean	Standard Deviation	Total % Agreement
Manufacturers should provide citizens with information on product durability and repairability for free of charge	4.22	0.71	88.4
Products should have labels that inform consumers about how repairable they are	4.18	0.71	87.1
Manufacturers should provide software updates for existing products beyond the warranty period	4.03	0.82	76.7
Manufacturers should be required to provide spare parts beyond the warranty period	3.91	0.94	71.8
Manufacturers should provide citizens with repair manuals for free of charge	4.01	0.85	75.3
Manufacturers should be required to provide repair services beyond the warranty period	3.73	0.97	64.1
Manufacturers should be required to make durable and repairable products, even if this results in an increased cost to the consumer	3.85	0.88	69.2
Manufacturers should bear the cost to make products more repairable	3.75	0.91	62.4
It should be easy to disassemble and repair products	3.89	0.87	70.8
Manufacturers are entitled to charge a reasonable fee to consumers for repair services and spare parts	3.79	0.77	74.3
Repair by an independent repair service should not invalidate product warranties	3.76	0.92	66.0
Manufacturers should provide consumers, community groups (such as Repair Cafés) and independent repair shops with access to repair information, parts and tools	3.89	0.86	72.7
I support the government introducing Right to Repair legislation in New Zealand.	4.05	0.80	77.4
I would support funding for training and apprenticeships to increase repair skills in New Zealand.	4.03	0.82	77.8

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Percentage Agreement

Statement	Strongly Agree	Agree
I would support funding for training and apprenticeships to increase repair skills in New Zealand.	30	47.8
I support the government introducing Right to Repair legislation in New Zealand.	30.4	47
Manufacturers should provide consumers, community groups (such as Repair Cafes) and independent repair shops with access to repair...	23.9	48.8
Repair by an independent repair service should not invalidate product warranties	21.4	44.6
Manufacturers are entitled to charge a reasonable fee to consumers for repair services and spare parts	12.6	61.7
It should be easy to disassemble and repair products	25.4	45.1
Manufacturers should bear the cost to make products more repairable	22	40.4
Manufacturers should be required to make durable and repairable products, even if this results in an increased cost to the consumer	23.8	45.4
Manufacturers should be required to provide repair services beyond the warranty period	22.6	41.5
Manufacturers should provide citizens with repair manuals for free of charge	30.7	44.6
Manufacturers should be required to provide spare parts beyond the warranty period	29.3	42.5
Manufacturers should provide software updates for existing products beyond the warranty period	29.9	46.8
Products should have labels that inform consumers about how repairable they are	32.9	54.2
Manufacturers should provide citizens with information on product durability and repairability for free of charge	35.6	52.8

100%   50%   0%

■ Strongly Agree   ■ Agree

▲ *Figure 1: Percentage Agreement for Right to Repair Legislation*

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OBJECTIVE 2: People's experience of repair in Aotearoa New Zealand

In terms of experiences of repair, a large percentage of respondents in the study (46.9%) indicate they get broken or damaged items repaired sometimes, often or always (46.9%) (See Table 3 and Figure 2). However, a larger group either rarely or never repair (53.2%) their possessions. In terms of how respondents get items repaired, most try to repair themselves (59%), ask family or friends to help (57.9%), pay to have the item repaired (53%), or take it back to the retailer for repair (52.9%). Few have used a repair café (8.9%). (See Table 4 and Figure 3).

▼ *Table 3: Repair Behaviours*

In the last year, how often do you get broken or damaged items repaired?	Frequency	Percentage
Never	236	15.6
Rarely	568	37.6
Sometimes	559	37.0
Often	125	8.3
Always	24	1.6
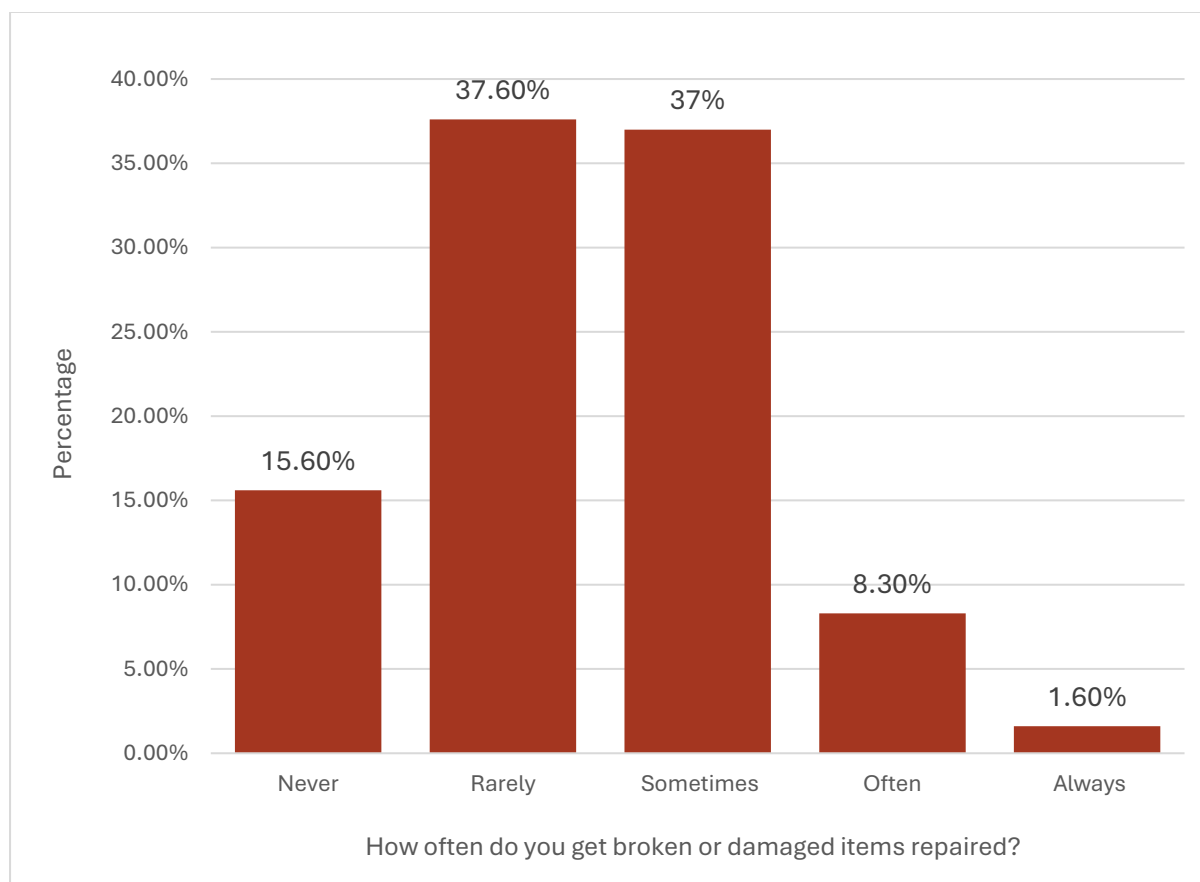
▲ *Figure 2: Repair Behaviours*

▼ *Table 4: How People Get Items Repaired*

When you repair broken or damaged items, do you?	Never	Rarely	Sometimes	Often	Always
			Percentage		
Repair the item yourself?	7.5	17.9	36.4	17.7	4.9
Pay someone to repair the item?	5.0	26.5	38.0	12.3	2.7
Take it back to the retailer you purchased it from for repair?	8.0	23.5	37.2	13.1	2.6
Get help from family member or friend?	9.1	17.4	34.7	17.6	5.6
Take it to a repair café?	66.3	9.2	5.7	2.2	1.0
Go to a MenzShed?	70.7	7.1	4.4	1.6	.5
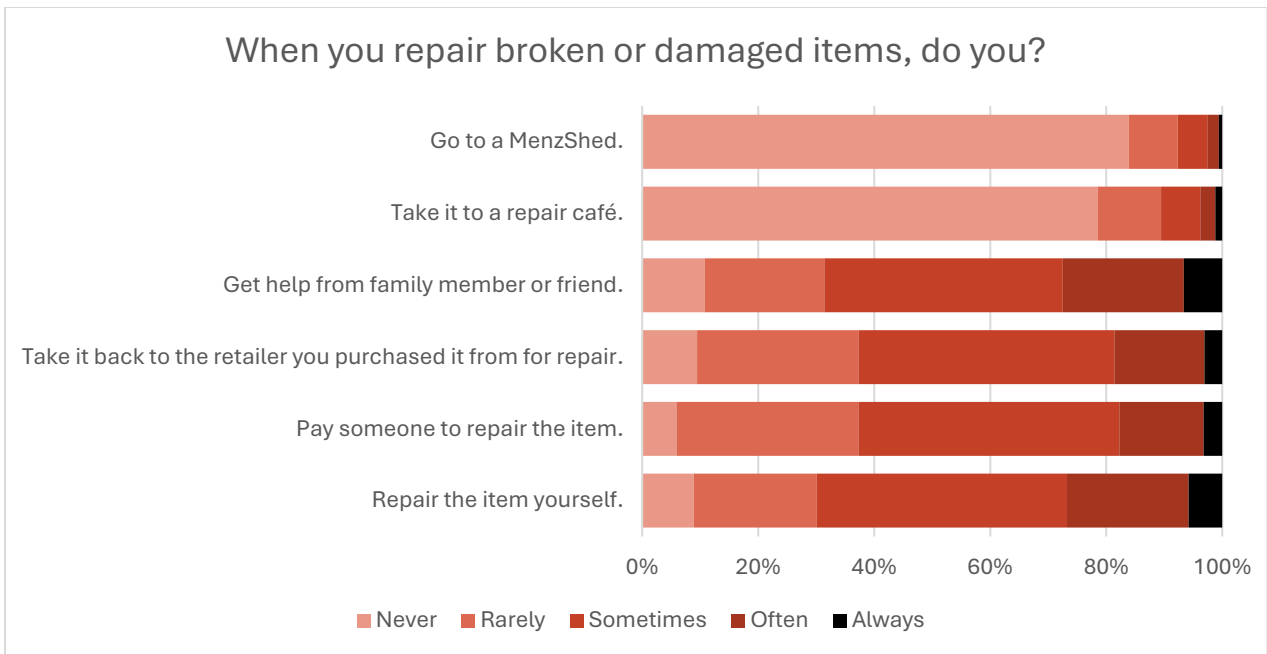
▲ *Figure 3: How People Get Items Repaired*

In terms of a recent experience of dealing with a broken electronic item, the most common options selected by respondents were to purchase a replacement item (35.8%), have the item professionally repaired (22.8%), replace the item under warranty (18.4%), store it away (15.9%), or try to fix it themselves (14.9%). In addition, some indicate that they successfully repaired the item themselves (13.6%) or had it repaired under warranty (11.8%). (See Table 5 and Figure 4)

▼ *Table 5: Dealing with a Broken Electronic Device*

| Thinking about the most recent time that you had a broken electronic device (e.g. phone, tablet, laptop, vacuum cleaner, etc), which of the following best describes your experience? *(Please note, multiple answers could be selected for this question)*	Frequency	Percentage who use this method
I purchased a replacement item	542	35.8
A replacement item was covered by a warranty	279	18.4
I had it repaired by a professional	345	22.8
I discarded it or replaced it without trying to have it repaired	187	12.4
I took the device to be repaired, but it was too expensive	190	12.6
I took the device to be repaired, but was told it was not possible to repair it	188	12.4
I tried to repair it myself but could not do it	226	14.9
I have stored it away for now	241	15.9
I successfully repaired it	205	13.6
It was repaired under warranty	179	11.8
I got the product/device repaired by family/friends	99	6.5
I took it to be recycled (e.g., by the manufacturer or e-waste recycling)	141	9.3
Other	43	2.8
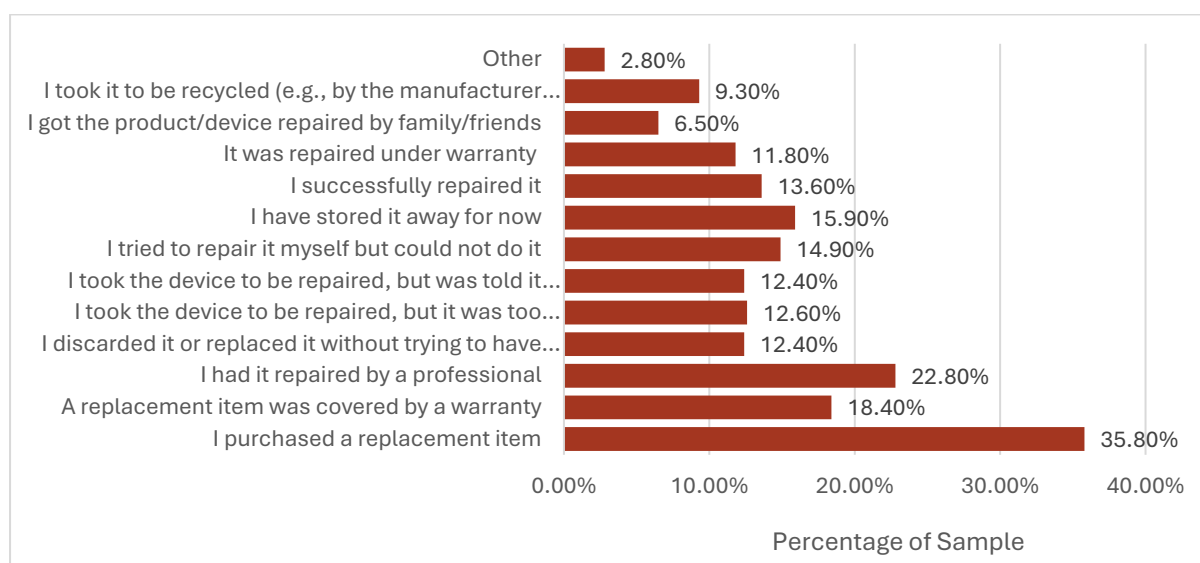
▲ *Figure 4: Dealing with a Broken Electronic Device*

As stated previously, only a small number of consumers indicated they have taken an item to be repaired at a repair café (5.3%) or worked as a volunteer (1.2%). However, a large number say they would go if there was a repair café in their area (21.3%), and many indicated that they have heard of them (21.9%). (See Table 6)

▼ *Table 6: Participation in Repair Cafés*

Have you ever been to a Repair Café? (Check all that apply)	Frequency	Percentage
Yes, I took something to be repaired	82	5.3
Yes, I worked as a volunteer	19	1.2
Yes, out of curiosity	50	3.3
No, but I would go to one if there was one in my area	328	21.3
No, but I've heard of them	337	21.9
No	721	46.9
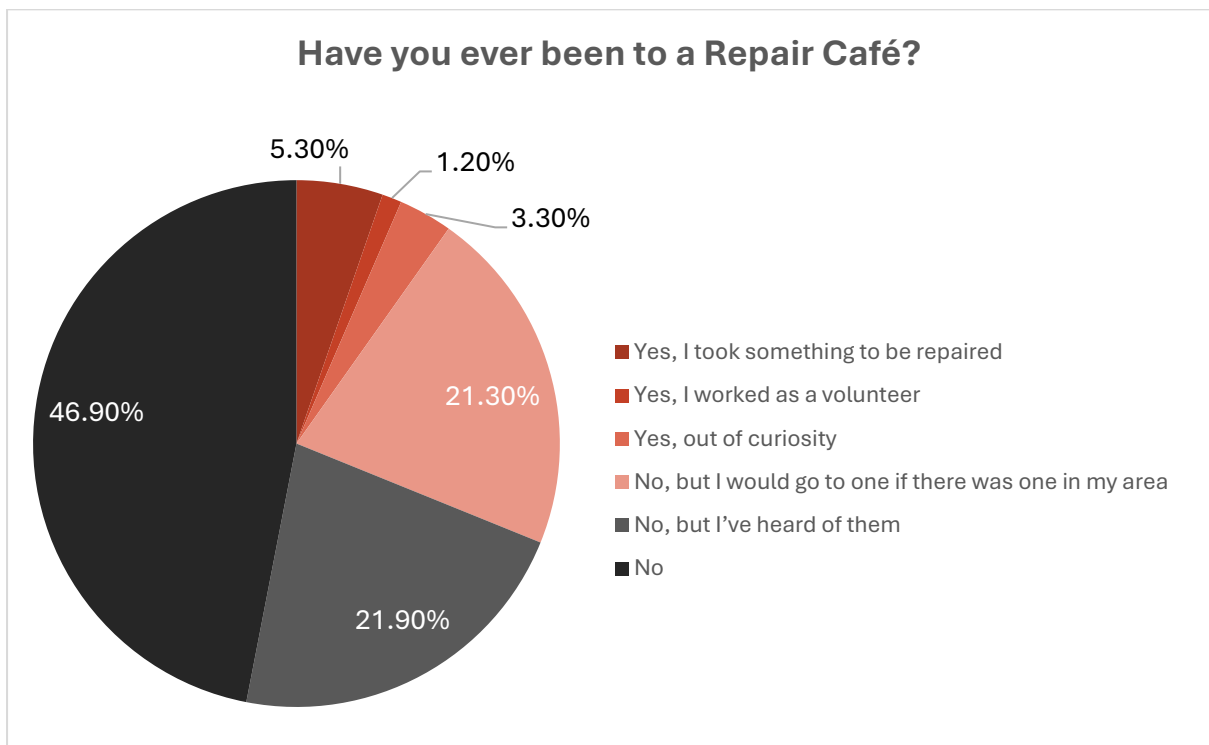
▲ *Figure 5: Participation in Repair Cafés*

Objective 3: Factors that Enable or Impede Repair Behaviour

Next, respondents were asked about the factors that enable or impede their repair behaviour. In terms of knowledge, respondents generally have very limited or little knowledge about repair. Few know where to get information about repair (38.1%), whether their items are repairable (39.5%), or where to get items repaired (46%). This is consistent with many being uncertain about repairing certain items (69.4%). However, many agree that there are environmental benefits of repair (76.9%). (See Table 7).

In terms of their skills and capabilities to repair items themselves, most respondents did not think they had the physical skills (28.2%), training (22.3%), or confidence to repair (31%), but agreed they were interested in gaining repair skills (60.1%).

Although respondents generally were not confident in their repair knowledge or skills, they feel positive about repair and the benefits of repair. They agreed that repair has positive environmental benefits (74.2%), creates less waste (83.1%), extends the life of items (87.1%), and saves money (83.1%). (See Table 7).

▼ *Table 7: Knowledge, Skills and Beliefs about Repair*

Knowledge about repair	Mean	Standard deviation	Total % Agreement
I know where to get information about repair.	3.07	0.95	38.1
I know if my possessions are repairable.	3.11	0.94	39.5
I am aware of the environmental benefits of repairing my possessions.	3.93	0.92	76.9
I know where to get my possessions repaired by professional services.	3.26	0.95	46.0
I am uncertain about repairing certain items.	3.70	0.84	69.4
Skills & Capabilities			
I have the physical skills to repair my possessions.	2.75	1.12	28.2
I have the mental skills to repair my possessions.	3.08	1.07	41.0
I have training in some repair skills.	2.45	1.12	22.3
I am confident in my abilities to repair my possessions.	2.80	1.12	31.0
I am optimistic that repairing my possessions will be successful.	3.10	1.01	38.9
I have or can see myself teaching others to repair	2.49	1.12	21.3
I'd like to learn new skills to repair my possessions.	3.55	.99	60.1
I can maintain my attention and focus when I repair my possessions.	3.38	0.99	51.5
I often forget to repair my possessions that are repairable.	2.74	0.98	26.4
I often put off repairing my possessions.	3.26	1.00	48.9
Beliefs about Consequences of Repair			
I believe that repairing my possessions has positive environmental impacts.	3.93	0.89	74.2
I believe that repairing my possessions creates less waste.	4.12	0.80	83.1
I believe that repairing extends the life of my possessions.	4.12	0.70	87.1
I believe that repairing my possessions saves money.	4.10	0.74	83.1
I am fearful of repairing as it can invalidate product warranties.	3.40	0.95	50.0
I am fearful of repairing my possessions as I can damage them.	3.50	0.93	56.3

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Next, respondents were asked about their goals and emotions around repair. Many agreed that they wanted to reduce waste by repairing (75.4%), and almost half agreed that they intend to repair their possessions (48.6%). In terms of their emotions around repair, there was strong agreement that repair makes people feel good (74.8%), shows they care for the environment (67.5%), provides a feeling of accomplishment (74.8%), and they would feel guilt (62.9%) and frustration (62.9%) if they did not or could not repair their possessions (See Table 8).

In terms of resources to enable repair, there were low levels of agreement by respondents that they have the necessary tools (41%) or parts to undertake repair (23.8%). There was strong agreement that professional repair service is too expensive (76.7%). In addition, a large number agreed that there is limited repair service near them (45.4%). Finally, many respondents agreed that they were less likely to repair items that were of low quality or not durable (69.2%), and that low prices of new products makes it less likely that they will repair items (55.2%) (See Table 8).

▼ *Table 8: Goals, Emotions, and Resources for Repair*

Goals & Intentions	Mean	SD	Total Percentage Agreement
I intend to repair my possessions.	3.41	.90	48.6
I routinely dispose of my possessions instead of repairing them.	2.91	1.02	30.8
I'd like to reduce waste through repairing my possessions.	3.92	0.82	75.4
I routinely buy new things instead of repairing my possessions.	2.96	1.02	33.3
Emotions about Repair			
Repairing my possessions makes me feel good about myself.	3.85	0.76	74.8
Repairing my possessions shows my care for the environment.	3.76	0.84	67.5
I repair my possessions as I am emotionally attached to them.	3.22	0.99	42.4
I do not repair my possessions because I am bored with them.	2.41	0.91	12.7
To me, repairing my possessions is fun.	3.23	0.98	44
I feel a sense of accomplishment from repairing my possessions.	3.83	0.86	74.8
I would feel guilty about not repairing my possessions that are repairable.	3.60	0.94	62.9
I feel sad when I can't repair something.	3.49	0.96	55.1
I feel frustrated when I can't repair my possessions.	3.60	0.92	62.9
Resources for Repair			
I can access the necessary tools to repair my possessions.	3.12	1.04	41.0
I can access the necessary parts to repair my possessions.	2.82	0.95	23.8
There is limited access to professional repair services near me.	3.30	0.99	45.4
Professional repair services are too expensive.	3.99	0.82	76.7
Low prices of new products make it less likely that I will repair my possessions.	3.48	0.92	55.2
I am not likely to repair possessions that are low quality or not durable.	3.76	0.88	69.2
I do not have the time to repair my possessions.	2.91	0.99	28.3
If my community held repair events (e.g., repair cafés), I would attend.	3.25	1.03	42.9

Respondents were also asked about the social influences that motivate repair (See Table 9). Most of these factors were not important to respondents. However, there was agreement that repair is an important social norm that individuals follow, in other words they agreed that repair is the correct thing to do (48.8%).

In addition, respondents were asked about a number of buying behaviours. Many respondents agreed that they try to buy things on sale (78.3%). However, half of the respondents agreed that they would pay more for products that are repairable (50.1%) (See Table 9).

▼ *Table 9: Social Influences and Buyer Behaviour*

Social Influences on Repair	Mean	SD	Total Percentage Agreement
Repairing is common in the area I live in.	2.90	0.86	22.7
I repair because it is the correct thing to do.	3.41	0.88	48.8
I feel social pressure to constantly buy new products.	2.49	1.06	19.6
I do not repair my possessions because other people view repair negatively.	2.13	0.91	7.9
People that are important to me, think I should repair my possessions.	2.99	0.88	24.8
Buying Behaviour			
I would pay more for products that are repairable.	3.42	0.87	50.1
I usually buy the product that is the cheapest.	3.02	1.03	33.4
I usually look for products that are on sale.	3.93	0.78	78.3
I feel immediate gratification from buying new things.	3.25	0.94	44.8
With the cost-of-living crisis, I am struggling to make ends meet.	3.34	1.10	47.8

The final items in the survey asked respondents about whether they participate in circular consumption behavioural practices. There was a high level of agreement that respondents buy durable items (83.2%), try to keep items working rather than buying new (83.1%), repair items (68.6%), and try to make do with less (67.6%). (See Table 10)

▼ *Table 10: Circular Consumption Behavioural Practices*

Whenever possible, I try to….	Mean	SD	Total Percentage Agreement
Make do with less or do without	3.71	0.84	67.6
Borrow or rent items rather than buy new	2.64	1.03	23.0
Buy second-hand items	3.50	1.04	59.4
Keep items working rather than buying new	3.96	0.65	83.1
Repair items	3.71	0.81	68.6
Take items back for recycling or remanufacturing	3.49	0.94	56.7
Buy items that are durable	4.02	0.65	83.2

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Limitations

The study is not without limitations. In particular, a convenience sample was used, which does not accurately reflect the population of New Zealand. Future research with a representative sample, specifically regarding ethnicity, education and income is necessary for a more inclusive approach and to be able to draw comprehensive conclusions about consumer views toward Right to Repair and experiences of repair in Aotearoa New Zealand.

Conclusions

Repair is an important practice that can extend product lifespans and reduce waste. Encouraging repair can also help to meet New Zealand's goal to be a low-emission, low-waste society built upon a circular economy (Ministry for the Environment, 2023). In order to understand repair practices, this study explored consumer attitudes toward Right to Repair legislation and attitudes and motivations toward repair in Aotearoa New Zealand. In addition, the findings delineate the factors that facilitate and impede repair practices.

The survey findings show that overall there is a strong level of support for Right to Repair legislation. In particular, survey respondents agreed that manufacturers should provide information on product durability and repairability, that products should have repairability labels, and repair manuals should be provided free of charge and software updates provided beyond the warranty period.

Although a large number of participants rarely or never repair their possessions, almost half repair sometimes, often or always. Most participants try to repair items themselves, ask family or friends to assist, pay to have items repaired, or take them back to retailers for repair. Few participants have participated in repair cafés, although many indicated that they would be willing to attend if they were aware of repair cafés in their area.

In terms of impediments that constrain repair behaviour, participants indicated they have poor knowledge about where to get information about repair, whether their items are repairable, or where to get items repaired. In addition, participants agreed they do not have the skills, training or confidence to undertake repair, but many are interested in gaining repair skills. In addition, participants agreed that they did not have the necessary tools or parts for repair. They also felt there is minimal repair service available in the marketplace and that repair service is too expensive. The low price of new products also makes it less likely that participants will repair their possessions.

In terms of factors that may enable repair, participants were aware of the environmental benefits of repair, that repair creates less waste, extends product lifespans, and saves money. Participants wanted to reduce waste through repair and felt positive emotions

toward repair. They also agreed that repair is an important social norm that individuals should follow.

The sample is predominantly representative of middle-class Pākehā New Zealanders. Due to the sample's composition, the findings are primarily applicable to this group. In light of these demographic characteristics of the survey respondents, future research should prioritise representative samples or alternative methods to ensure the inclusion of underrepresented communities.

Next, recommendations by the authors, drawn from the results of the study, are provided for those interested in facilitating repair behaviour including repair cafés, policy makers, and product manufacturers and marketers. Table 11 provides a framework of interventions based on the COM-B model and the Behavioural Change Wheel (BCW) (Michie et al., 2011), and the results of this study.

Capability is defined as the ability of a person to engage in an activity on a psychological and physical level (Mitchie et al., 2011). As participants do not have the confidence to undertake repair, physical capability should be encouraged. To encourage physical capability, training should be a key intervention (Michie et al., 2011).

Repair cafés could offer training and product maintenance workshops at events (e.g., mending clothing, sharpening knifes), or allow consumers to fix their own possessions with skilled volunteers assisting. Marketers could offer online training videos to facilitate self-repair. Policy makers might support training at schools or marae and financially support repair apprenticeships. Enablement, which is the process of increasing means or reducing barriers, is another key intervention. Policy makers should consider supporting repair hubs in multiple locations and spaces (such as at marae, schools), and supporting Right to Repair Laws to ensure information is provided for safe handling and disassembly of products during repair (Sims & O'Sullivan, 2023; Zaw, 2022).

As survey respondents indicate they have poor knowledge and skills to undertake repair, psychological capability should be encouraged. To encourage psychological capability, education and enablement are recommended interventions (Michie et al., 2011). Education could occur through repair demonstrations during repair events (e.g., repairing a bike tire), and the inclusion of design for repairability in new product design courses. Public policy makers might require repair manuals, schematics, and diagnostics be available from manufacturers, in language and media that is suitable for diverse communities, as part of Right to Repair legislation. Marketers might provide a Repairability Index on product labels or on in-store signage to facilitate consumer choice regarding repair (Sims & O'Sullivan, 2023). Manufacturers can enable repair by producing products that are more repairable.

Opportunity are things that externally affect the ability to perform a behaviour (Michie et al., 2011). As participants indicate they do not have the tools, parts, and access to affordable repair service, physical opportunity should be encouraged. To encourage the physical opportunity for repair, restrictions, environmental restructuring, and

enablement are recommended (Michie et al., 2011). Restrictions use rules to increase the target behaviour. Thus, policy makers should support Right to Repair Laws ensuring products are designed for longevity and repairability. Environmental restructuring changes the physical context around repair. Therefore, manufacturers and retailers should undertake repair rather than replacing goods or refunding consumers when items fail under warranty. Manufacturers should also allow third-party repair without invalidating the product warranty (Ozanne et al., 2021). Policy makers should require that parts, supplies, and tools are available to consumers and third-party repairers through Right to Repair Laws (Zaw, 2022). Policy makers can enable the physical opportunity for repair by requiring that products be designed so they are able to be repaired (i.e., opened and disassembled). Manufacturers can design their products to be more repairable and durable.

As respondents agree that repair is an important social norm that individuals should follow, the social opportunity for repair should be encouraged. To encourage the social opportunity for repair, environmental restructuring is recommended or changing the social context for repair (Michie et al., 2011). Repair cafés should raise the awareness of the benefits of repair to facilitate a culture of repair, that suits the needs of diverse communities (Madon, 2022), and policy makers should support repair hubs and repair cafés in multiple and accessible locations including mobile options. Also, local councils should provide lists of repair service providers in order to create a social environment that enables repair.

Motivation is the conscious and unconscious intellectual processes that guide and motivate actions (Michie et al., 2011). As survey respondents view repair as environmentally beneficial and a means to save money, the reflective motivations for repair should be encouraged. To encourage reflective motivations for repair, education and persuasion interventions are recommended (Michie et al., 2011). Repair cafés should educate the public that their service provides a mechanism for affordable repair. They should also attempt to induce positive feelings through persuasive communication of the environmental benefits of repair. Policy makers could provide information about descriptive norms, for instance that repair is common (Hine et al., 2017).

As respondents expressed positive emotions toward repair, automatic motivations should be encouraged. To encourage automatic motivations for repair, persuasion, incentivisation, and modelling are recommended (Michie et al., 2011). To induce positive feelings toward repair, repair cafés should communicate the enjoyment of repair to potential consumers using diverse profiles and stories. Policy makers can raise the profile of repair cafés and repair hubs through mass and targeted media communication. To create expectations of reward provided by repair, repair cafés could communicate the sense of satisfaction from completing repairs. Finally, repair cafés can model repair behaviour by providing peer-to-peer online (e.g., repair videos) or live demonstrations of repair.

▼ *Table 11: Marketing and Policy Recommendations*

COM-B Dimension	Intervention Function[1]	Definition[1]	Marketing and Policy Recommendations
Physical Capability	Training	Imparting skills	Repair cafés: add repair training and/or facilitating consumers to fix their possession with the assistance of volunteers. Policy makers: facilitate repair training in schools and repair apprenticeships to enable DIY repair and independent repair service. Marketers: provide online videos on product repairability to support DIY repair.
	Enablement	Increasing means or reducing barriers to increase physical capability	Policy makers: support non-profit repair hubs (e.g., repair cafés, maker spaces) in multiple locations and spaces (such as at marae, schools etc). Policy makers: Provide multiple opportunities for imparting skills and knowledge in the community. Policy makers: support Right to Repair Laws ensuring provision of information that relates to safe handling and disassembly of products to be repaired.
Psychological Capability	Education	Increasing knowledge or understanding	Repair cafés: provide repair demonstrations during repair events. Marketers: provide written factsheets, technical manuals and videos about product repair. Universities/Polytechnics provide design for repairability as part of all industrial and product design courses.
	Enablement	Increasing means/reducing barriers to increase psychological capability	Policy makers: support Right to Repair Laws to ensure information (e.g., manuals, schematics, diagnostics) for repairing products is widely available for repairers and consumers in language and media that is suitable for diverse communities. Manufacturers: to make their products more repairable. Marketers: provide information on product repairability on product labels (e.g., Repairability Index) and online. Retailers: provide information on product repair in store.
Physical Opportunity	Restriction	Using rules to increase the target behaviour by reducing the opportunity to engage in competing behaviours	Policy makers: support Right to Repair Laws ensuring products are designed for longevity and repairability to keep them out of the waste stream.
	Environmental/ Restructuring	Changing the physical context	Policy makers: support Right to Repair Laws ensuring parts, supplies and tools are available to consumers and third parties. Manufacturers: design their products more repairable and durable. Marketers: provide parts, supplies and tools to facilitate product repair. Retailers: undertake repair rather than replacing or refunding consumers when items fail when under warranty. Marketers: allow third-party repair without invalidating product warranty.
	Enablement	Increasing means/reducing barriers to increase physical opportunity	Policy makers: support Right to Repair Laws to ensure products can be fixed (i.e., opened and disassembled for repair).
Social Opportunity	Environmental/ Restructuring	Changing the social context	Repair cafés: promote repair awareness to facilitate a culture of repair that suits the needs of diverse communities. Policy makers: support non-profit repair hubs (e.g., repair café) in multiple and accessible locations including mobile options.
	Enablement	Increasing means/reducing barriers to increase social opportunity	Local Councils: provide list of local repairers. Repair cafés: expand to multiple opportunities for imparting skills and knowledge in the community.
Reflective Motivation	Education	Increasing knowledge or understanding	Repair cafés: communicate that their service provides an affordable method to repair possessions.
	Persuasion	Using communication to induce positive or negative feelings or stimulate action	Repair cafés: communicate the environmental benefits of repair. Policy makers: provide information about descriptive norms (what people are doing) and injunctive norms (what people should be doing) in terms of repair. Policy makers: communicate the environmental consequences of disposing of products rather than repairing them.
Automatic Motivation	Persuasion	Using communication to induce positive or negative feelings or stimulate action	Repair cafés: communicate the enjoyment of repair and participation in repair cafés through diverse profiles and stories. Policy makers: raise the profile of repair and repair hubs through mass and targeted media communication.
	Incentivisation	Creating expectation of reward	Repair cafés: communicate the sense of satisfaction from completing repairs or having possessions repaired.
	Modelling	Providing an example for people to aspire to or imitate	Repair cafés: provide peer-to-peer online (e.g., repair videos) or live demonstrations of repair.

[1] Source: Adapted from Michie et al., 2011

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References

Charter, M., & Keiller, S. (2016). *The repair café WIKI*. http://repaircafé.shoutwiki.com/wiki/Main_Page

Cooper, T., 2010. The significance of product longevity. In: Cooper, T. (Ed.), Longer Lasting Products: Alternatives to the Throwaway Society. Routledge, New York.

EPA (2022), Repair: Attitudes and Behaviour National Survey 2022, Consumer Rights; Part 1 of 5 Series, Circular Economy Program, Government of Ireland.

Godfrey, D. M., & Price, L. L. (2023). How an ethos of repair shapes material sustainability in services. *Journal of the Academy of Marketing Science*, 1-24.

Godfrey, M. D., L. Price, & Robert F. Lusch (2022). Repair, Consumption, and Sustainability: Fixing Fragile Objects and Maintaining Consumer Practices, *Journal of Consumer Research*, *49*(2), 229–251.

Hine, D. W., McLeod, L., & Driver, A. B. (2017). Waterworks: Developing behaviourally effective policies to manage household water use. *Water Policy, Imagination and Innovation*, 193-210.

Jaeger-Erben, M., Frick, V., & Hipp, T. (2021). Why do users (not) repair their devices? A study of the predictors of repair practices. *Journal of Cleaner Production*, 286, 125382.

Laitala, K., Klepp, I. G., Haugrønning, V., Throne-Holst, H., & Strandbakken, P. (2021). Increasing repair of household appliances, mobile phones and clothing: Experiences from consumers and the repair industry. *Journal of Cleaner Production*, *282*, 125349.

Madon, J. (2022). Free repair against the consumer society: How repair cafés socialize people to a new relationship to objects. *Journal of Consumer Culture*, *22*(2), 534–550.

McLeod, L. J., Hine, D. W., Please, P. M., & Driver, A. B. (2015). Applying behavioral theories to invasive animal management: towards an integrated framework. *Journal of Environmental Management*, 161, 63-71.

McQueen, R.H., McNeill, L.S., Huang, Q., & Potdar, B. (2022). Unpicking the Gender Gap: Examining Socio-Demographic Factors and Repair Resources in Clothing Repair Practice. *Recycling*, 7(53).

Meißner, M. (2021). Repair is care? - Dimensions of care within collaborative practices in repair cafés, *Journal of Cleaner Production, 299*, 126913.

Michie, S., Van Stralen, M. M., and West, R. (2011). The behaviour change wheel: a new method for characterising and designing behaviour change interventions. *Implementation science*, 6, 1-12.

Ministry for the Environment. 2023. Te rautaki para | Waste strategy. Wellington: Ministry for the Environment.

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NETWORK
AOTEAROA

OECD (2024), Municipal waste (indicator), https://doi.org/10.1787/89d5679a-en (accessed on 23 November 2024).

Ozanne, L. K. (2024), Capabilities, Opportunities, and Motivations to Repair: A Study of Participants in Repair Cafés in Aotearoa New Zealand, University of Canterbury.

Ozanne, L. K., Stornelli, J., Luchs, M. G., Mick, D. G., Bayuk, J., Birau, M., ... & Zuniga, M. (2021). Enabling and cultivating wiser consumption: The roles of marketing and public policy. Journal of Public Policy & Marketing, 40(2), 226-244.

Parajuly, K., Green, J., Richter, J., Johnson, M., Rückschloss, J., Peeters, J., ... & Fitzpatrick, C. (2023). Product repair in a circular economy: Exploring public repair behavior from a systems perspective. *Journal of Industrial Ecology*.

Repair Café Aotearoa NZ (RCANZ) (2023), Repair Survey Report, https://www.repaircaféaotearoa.co.nz/_files/ugd/a5ef56_4060094b10f04039943d3ff4ea97d2f4.pdf (accessed on 23 November 2024).

Rogers, H. A., Deutz, P., & Ramos, T. B. (2021). Repairing the circular economy: Public perception and participant profile of the repair economy in Hull, UK. *Resources, Conservation and Recycling*, *168*, 105447.

Sims, A. & O'Sullivan, T. (2023), A Right to Repair in New Zealand? (October 16). *Competition and Consumer Law Journal*.

Sonego, M., Echeveste, M. E. S., & Debarba, H. G. (2022). Repair of electronic products: Consumer practices and institutional initiatives. *Sustainable Production and Consumption*, *30*, 556-565.

Svensson-Hoglund, S., Russell, J. D., & Richter, J. L. (2023). A process approach to product repair from the perspective of the individual. *Circular Economy and Sustainability*, *3*(3), 1327-1359.

Van Der Velden, M. (2021). 'Fixing the World One Thing at a Time': Community repair and a sustainable circular economy. *Journal of Cleaner Production*, *304*, 127151.

Woidasky, J., & Cetinkaya, E. (2021). Use pattern relevance for laptop repair and product lifetime. *Journal of Cleaner Production*, *288*, 125425.

Zaw, W. (2022), The Right to Repair: How to Design New Laws, *New Zealand Law Journal*, July.

Zhang, L., & Hale, J. (2022). Extending the lifetime of clothing through repair and repurpose: An investigation of barriers and enablers in UK citizens. *Sustainability*, *14*(17), 10821.