



Insider tips on

*running a bicycle
repair and recyclers
program*

How to be circular without re-inventing the wheel

In the journey to a climate resilient circular economy, you can never underestimate the power of community action.

Community efforts to tackle climate change and create a sustainable future are on the rise, and if you are inspired to be part of this movement, this guide is for you.

In this guide you will find practical information and key learnings for groups and organisations that want to establish a community-based repair initiative, including how to approach the critical planning, implementation and evaluation phases. There are also useful resources and networks to support your planning, knowledge building, and communications.

The knowledge in this guide comes directly from the experiences of local community groups, social enterprises and other not-for-profits who were supported by Sustainability Victoria's [Circular Economy Communities Fund](#) – we will refer to them as our “CE insiders” throughout this guide. The communities fund, delivered on behalf of the state government, challenged local communities to explore creative solutions for waste management with activities that built local skills, encouraged social connections and created new social enterprise opportunities.

There is no single solution to any challenge or opportunity. Your initiative should take into account your stakeholders and communities, sector, resources, capacity, and overarching goals.

About Sustainability Victoria

Sustainability Victoria shapes Victoria's circular economy on behalf of the state government. We partner across industry and the community as a transition broker for the circular economy. Our goal is to reduce or stop waste before it starts, in every part of the system.

Sustainability Victoria leverages community and industry action to reduce emissions. Whether we are creating education campaigns to deliver better recycling, investing in repair cafes, embedding sustainability across Victorian schools, or providing solutions for the safe disposal of e-waste and chemicals, we empower Victorians to design their own circular future.

You can also download guides for other types of community-based circular economy initiatives:

- Bicycle repair/recyclers
- Repair hubs and cafes
- Food rescue and distribution
- Food waste organics/composting
- Hard waste recovery
- Textile waste
- Special waste streams

Bicycle repair and recycling

Australia has a huge problem with unwanted bikes: as many as 500,000 end up in landfill each year. Bicycle repair and recycle programs understand that bicycles are useful for cutting emissions and keeping people fit. They are also increasing in popularity with the cost of living crisis. Bicycle repair and recycling initiatives complement bike shops' services by extending the life of bikes, and selling and/or distributing quality restored bicycles.

It's important to consider all of the following steps on your path to success. For bicycle repair and recycling initiatives, we have highlighted in green boxes specific key learnings that CE insiders believe are worth further consideration because they may present more challenges and opportunities along the way.

Phase 1: scope and plan

Establish baseline community need and ability

CE insiders recommend learning about the volunteers, customers and repairers in your target area. Find out about their knowledge of bicycle products, buy-in of circular economy ideals, and the attitudes and behaviours regarding purchase and repair.

You will be in a better position to design well-attended events with suitable repairers if you understand where your bike riders are coming from, their ability to make their own repairs, and your volunteer repairers' skills to make repairs and teach repairing methods. You will need at least one qualified mechanic to test bikes for safety before reuse.

Plan your program

Good planning sets your initiative up for success because it determines the systems, structure and approach of your program.

Build around your core goals

Articulating what drives you will also help connect others to your vision. Then you can think about the activities that will help you achieve it.

Most programs aim to promote re-using and repairing to extend the life of bikes, before disposing of or recycling them.

To demonstrate the importance of the circular economy and waste avoidance, it's important to communicate the benefits of resource efficiency and cost savings through your different activities, including:

- storing parts, and repairing and rebuilding bikes
- selling and second-hand giving
- diverting scrap materials and unfixable bikes to metal and rubber recycling.

Set your boundaries

To plan your program, you must clarify your business model. Do you restore, sell and distribute the bikes? Do you just repair? Do you also teach bike maintenance skills?

A bicycle program is more complex than a bicycle shop's activities, so you need to understand your potential challenges and have a plan to deal with them. For example, CE insiders say it is likely you'll get more parts than expected in varying conditions. It may be hard to access new parts. Without a plan, you may be overwhelmed with poor quality bikes that can't be restored.

Depending on your activities, you also need to understand how much space you require for:

- Selling bikes.
- Storing new, good and poor condition donations, including low-quality bikes for recycling.
- Receiving bikes and triaging them. If you accept donated bikes, there will be a huge amount of triaging.
- Storing parts including tyres, tubes, frames, wheels and other smaller parts.
- Storing tools.
- Repair stations.
- Storing scrap metal and rubber.

Also consider your cost structure including rent, staffing, parts and collection costs. Overheads may also include bike stands, tools and storage tubs for parts. Depending on your starting budget, you may need to limit your parameters.



Decide what to do with low-end bikes

To set your program up for success, it is important to understand your organisation's systems and resources to manage low-end bicycles. Do you have the tools, capacity and knowledge to restore/repair e-bikes and low-end bicycles?

Many bicycle recyclers refer to low-end, poor quality donated bikes as 'contamination'. Low-end bicycles could be very old and rusted with obsolete parts. They could be mass-produced lower-quality bikes, often sold by department stores and bulk sporting stores, with heavy frames and cheap components that would not pass safety standards even if fixed.

Low-end bikes are mostly only good for being recycled because they are difficult to repair and maintain, potentially becoming dangerous very quickly. You may only be able to break them down for metal recycling.

Many bike repair programs do not recommend accepting low-end bicycles because they are not sustainable. Some bicycle repairers have estimated low-end bicycles to cost them \$25 per bike to break down for recycling.

However, if you do have the capacity and resources to repair or restore low-end bikes, they can be good first-time bikes, especially for children and young teens who grow quickly. They are also good for people who can't afford a higher-end bike.

Manage risk and maintain memorandums of understanding (MOUs)

Assess your risks

Understand the risk profile of your intended activities and take steps to mitigate risk through appropriate insurance, disclaimers and management processes, such as volunteer induction and repairer registration.

You will need insurance to cover your liability and risk of death or injury from selling or giving away faulty refurbished bikes. Understand your responsibilities for workplace safety. Create a risk register that you review at every team meeting to improve your systems and practices that help you minimise your risk and respond well to incidents.

Understand your agreements

MOUs are the agreements you have with your key partners, such as venues and volunteers. They are useful in establishing clarity around everyone's roles and responsibilities to help you minimise risk and build productive partnerships.

Brainwave Bikes has an MOU to define its partnership with waste contractor Cleanaway, which collects bicycles left out in council hard waste. The MOU specifies how to collect and store the bicycles to minimise damage and increase the chance the bikes will be reused.



Design activities to change behaviours

Try to design your engagement activities, programs and initiatives in a way that you can evaluate their usefulness and effectiveness in impacting behaviour change. This will also help you demonstrate your value to key stakeholders, including funders.

CE insiders recommend programs include a variety of behaviour change approaches, both formal and informal:

Tick those that apply to your program

Teaching people to repair and maintain their existing bikes. While this requires space and tools, education is vital in preventing bikes from being disposed of as 'waste'.

Imparting bike repair and maintenance skills for students, volunteers and people engaged in community service.

Encouraging individuals and corporations to donate bikes.

Encouraging appropriate disposal of items the program can't repair or accept.

Changing purchasing behaviour, i.e. buy second-hand – not new and with a limited life.

Using education resources to promote the above, e.g. workshops and posters.

Attending community events to increase awareness about your services.



Phase 2: implement your program

Run an efficient program

It's important to build relationships with local donors, transfer stations, and councils – as well as with their waste contractors, like Cleanaway. Good partnerships can ensure abandoned bicycles are collected properly and diverted from landfill. Apartment buildings' body corporates can also be a source of abandoned bikes. But be cautious – you are not a junk removal service. If your organisation has limited space, you could quickly become overrun with unusable bikes.

Different organisations have different processes for breaking down bikes. Some use student volunteers to strip down all bikes. Some strip bikes before recycling them. Some strip the bikes to salvage useful parts or educate students.

A high volume of goods often means you need enough resources to strip and clean the bikes. Some schemes derive an income from selling parts and recycling. Some organisations separate the bikes into streams such as potential for upcycling, parts only, or straight to waste.

Build and engage diverse communities

Consider the most appropriate platforms for promoting your programs and whether or not you plan to target certain groups – different demographics use different media types, such as email, websites, noticeboards, Instagram, and Facebook.

If you understand your local community's demographic profile you can tailor information about events and bicycle use to make it accessible to groups like migrants and refugees.

Help to build a community that will support your business and help you achieve your circular economy goals. Be patient – it might take 2 or 3 years to build momentum and develop a strong organisational culture. To build a community you can:

- Provide catering for your volunteers to help retain and support your workforce.
- Organise pop-up events to build relationships between local council, the community and your team.

CE insider recommendations:

Tick those that apply to your program

Make sure that the people who run your repair sessions have the appropriate training, manual or resources to do their job well.

Have clear position descriptions for your volunteers that outline their roles, responsibilities and required skills.

Focus on how you can keep your volunteers engaged and enthusiastic.

You might engage volunteers and students in the processes of dismantling and assessing and have a mechanic with Cert III in Bicycle Workshop Operations to sign off on the final result. While this is not essential, it may be required by your insurance and could form part of your risk management plan.

Bicycle repair and recycle programs require knowledge of, and access to, available education materials. Be clear about who can use these resources to maintain insurance coverage.



Circular collaboration

Bicycle repair and recycling initiatives are more effective when they work together. Consider other bicycle repair/recycling initiatives as a supportive and informative network that can help you achieve your shared circular goals. Join the network through BicycleRecyclers.org.au

Promote collaboration with other bicycle programs

Tick those that apply to your program

Share and use second-hand parts rather than buying new from suppliers.

Help each other with consistent messaging.

Share knowledge of bicycle recovery opportunities.

Provide local support to broader education campaigns.

Co-ordinate advocacy for better bike design and import regulations on poor quality bikes.



Phase 3: evaluation and improvements

Demonstrate your value

Record your bikes sales and weigh the recycled metal and tyres to record the carbon emissions you are saving from landfill. This will help you communicate your value to funders and partners.

By collecting data on waste avoidance you can show the value of your work to key stakeholders such as the venue, community and funding bodies. This measuring and storytelling activity can help you build your community and secure funding and resources for your program.

While it may be challenging to define what you have saved from landfill, you can contribute your data to global measures and help to build a stronger story around collective impact through [RepairMonitor](#).

CE insider tips:

Tick those that apply to your program

Share knowledge from repair sessions to improve the program's future practice.

Seek feedback from your team.

Consider developing case studies for best practice.

Monitor your outcomes so that successes can be repeated and built upon. If you're selling bicycles, document your sales through your point of sale (POS) software.

Measure your progress by weighing the metal and tyres you have recycled.

Document what you do. You can use the data you collect to promote your services. Instructions for documenting can be made available for your workforce online or with video. This way volunteers and staff know how to document projects, and it helps them buy into the idea of sharing knowledge with other staff to improve the future practice of the organisation. There are free document management systems that you can use, such as Google Drive and OneDrive.



Understand your finance and business obligations

A key tip from the CE insiders we spoke to is having people on your team who understand finance and the obligations of running a business. Complement strong business and finance knowledge with good financial systems that help you understand quickly how your organisation is performing so that you can respond appropriately.

All programs rely on fundraising, grants and donations, so this will become an important part of your activities.

You can build diverse forms of income by:

Tick those that apply to your program

Encouraging donations from visitors. For example, provide the option for cash donations/bank transfer/card payment at events. Make T-shirts for your staff with a QR code that leads visitors to your website's donation page.

Seeking out business donations and sponsorship.

Applying for local council grants and other local organisation grants, for example Lions Clubs.

Keep an eye out for funding opportunities from philanthropic organisations and different levels of government.

Teaching your volunteers to write successful grant applications.



Useful resources

- [Fixable online forum](https://fixable.co/share/t8lz9lqMfHoW8mMu?utm_source=manual) – fixable.co/share/t8lz9lqMfHoW8mMu?utm_source=manual
- BicycleRecyclers.org.au
- [Brainwave Bikes](https://brainwavebikes.org.au) – brainwavebikes.org.au – source of second-hand parts
- [Bicycle Industries Australia](https://bikeoz.org) – bikeoz.org – industry peak body

Brainwave Bikes



The Brainwave Bikes team sources bikes by inviting themselves to repair cafes, building relationships with charities like Rotary, and receiving bikes through their partners: Mercedes-Benz dealers and 99 Bikes stores. But they haven't stopped there. Brainwave Bikes Manager, Kieran McMahon, says, "We conducted a survey to find out what each council does with bicycle waste. We found that most LGAs [local government authorities] now have used bicycles in their recycling guide and accept them both as hard waste and at the transfer centres." Read more www.sustainability.vic.gov.au/news/news-articles/recycling-and-repairing-old-bikes-to-keep-them-out-of-landfill