

Research, Development and Demonstration Grants

Guidelines



1 Funding Overview

Sustainability Victoria (SV) is looking to support research, development and demonstration projects that can increase the quantity of recycled products being sold in Victoria. There are often barriers that restrict the uptake of products made from recycled materials, such as a lack of appropriate specifications and standards or the need for specific testing and approvals or product demonstration trials. This funding seeks to support organisations in overcoming these barriers.

Research, development and demonstration (RD&D) grants of between \$50,000 and \$200,000 each (1:1 funding) are available to support projects that:

- › research product development and demonstrate performance of targeted materials
- › test the feasibility of innovative technology and infrastructure that support the use of targeted materials
- › develop new or existing products using recovered targeted materials
- › improve product standards and specifications to include recycled content
- › improve market confidence and demand for using recycled materials and products
- › consume significant and reliable volumes of targeted materials
- › contribute to Victoria's transition to a circular economy.

2 What are targeted materials?

SV is seeking projects that investigate one or more targeted materials. These are materials with specific supply side or demand side barriers that could be overcome with the support of government.

For RD&D grants, targeted materials include:

- › plastics (flexible and rigid)
- › paper and cardboard
- › electronic waste (e-waste)
- › glass

For more on targeted materials, see Section 5: Definitions.

3 Why is the Victorian Government providing this funding?

Strong markets for the materials we recover are critical for a safe and resilient resource recovery industry. When the supply of recycled materials outmatches demand, it can lead to unsafe storage or landfilling of recyclable materials.

Common barriers to markets using recovered materials include:

- › inconsistent quality and quantity of materials
- › high transport and processing costs
- › low value materials competing with conventional materials
- › fluctuations in the market price
- › limited information on the performance of products using recycled content.

The grants are part of SV's \$4.5 million **Market Development for Recovered Resources Program** and supports the Victorian Government's response to current issues in the recycling sector outlined in the **Recycling Industry Strategic Plan (RISP)**. The RISP sets out the pathway to a safe, resilient and efficient recycling system in Victoria. It highlights the need for government to invest in RD&D to build confidence and demand for products made with recovered materials.

The Victorian Government is also developing a circular economy policy by 2020. Strong markets for recycled products will help underpin the transition to a more circular economy in Victoria.

The grants program supports the aims of SV's **Victorian Market Development Strategy for Recovered Resources** to stimulate markets for the use of recovered resources, increase jobs, develop quality products for end markets, and increase investment and procurement of products made from targeted materials.

The **Statewide Waste and Resource Recovery Infrastructure Plan** provides the context and long-term vision for improving Victoria's waste and resource recovery infrastructure system; stimulating and supporting markets for products made from recovered resources is critical to achieving this vision.

RD&D projects in 2018

In 2018, SV gave \$1.9 million in grants to thirteen organisations to explore new uses for recycled materials and work with businesses or government to maximise their use. These projects are investigating innovative uses and exploring new processing technologies for glass, plastics, organics, concrete, brick and rubber. The grants program works with the University of Melbourne, RMIT University, Swinburne University and the Australian Roads Research Board, in collaboration with several major Victorian businesses including Downer, Boral and Repurpose It, to increase the use of recovered materials in the commercial market.

See a snapshot of a funded research project below.

SNAPSHOT

ORGANISATION

Lead applicant:

The University of Melbourne

Industry partners:

PrefabAUS

VicRoads

North West Program Alliance

Hanson

OBJECTIVES

- 1 Reduce the use of virgin quarried materials such as river sand in lightweight concrete foam and traditional concrete.
- 2 Demonstrate the developed concrete mix design at a Level Crossing Removal Authority (LXRA) project site.
- 3 Influence the review of VicRoads specifications – Section 703 (General Concrete Paving) and Section 610 (Structural concrete).

PROJECT BACKGROUND

SV gave Melbourne University a \$100,000 RD&D grant (2016 R&D grants) to research the inclusion of glass fines in lightweight concrete foam. The research investigated the benefits of using glass fines as a sustainable and low cost alternative to quarried sand. Their research results led to SV giving Melbourne University an additional \$115,000 to extend this project to demonstration phase through the construction of a field trial, to understand real-world application.

OUTCOMES

Stage 1: Research results show that recycled glass fines can be used to replace virgin sand in concrete.

Stage 2: Extend Stage 1 to include mechanical and durability testing of the glass fines concrete mix and build a demonstration site at an LXRA site.

For more information on funded RD&D projects, visit sustainability.vic.gov.au/research-development-grants

4 About the RD&D funding

The RD&D grants provide funding of between \$50,000 to \$200,000 (1:1 matched funding, excluding GST) to projects that investigate one or more targeted materials.

Funding is available through two streams:

Stream 1: Research and Development (R&D)	Projects undertaking research and development on targeted materials.
Stream 2: Demonstration (D)	Projects undertaking field trials (demonstration projects) to progress commercialisation of R&D, i.e. increasing end market demand and uptake of targeted materials.

Please note:

- › Stream 1 applicants can include a demonstration component if feasible within project timelines and budget.
- › Grant submissions for R&D projects need a Victorian research institute to be the lead applicant (see Section 5: Definitions) and support from an industry partner/s.
- › Demonstration projects need a lead applicant to implement field trials that support the path to commercialisation and/or development of specifications using targeted materials.
- › Research findings will be shared to inform industry of opportunities to use recovered materials in manufacturing and support procurement of products using recycled content.
- › The grant program involves a competitive, merit-based application process.
- › Approved projects must be completed by 31 May 2021.

4.1 What will be funded?

To be eligible for funding, projects must:

- › investigate at least one of the following targeted material/s:
 - plastics (flexible and rigid)
 - paper and cardboard
 - electronic waste (e-waste)
 - glass
- › show potential to significantly increase market uptake of targeted materials (e.g. designing new products or applications that could consume reliable volumes (tonnes) of targeted materials, pre-engineering of processing technology/infrastructure to produce products using targeted materials)
- › be aligned with circular economy principles
- › partner with one or more industry partner/s (Stream 1)
- › use existing R&D and/or credible evidence such as published, peer-reviewed or otherwise validated work for demonstration projects (Stream 2)
- › source recovered materials from Victoria
- › have project activities take place in Victoria
- › meet the minimum 1:1 financial contribution requirement of the fund
- › be completed by 31 May 2021.

4.2 What will not be considered for funding?

Funding will not be provided for:

- › projects that do not meet the eligibility criteria of the fund (see Section 4.3 below)
- › demonstration projects (Stream 2) that use R&D carried out in this funding round
- › privately owned research facilities that cannot provide evidence of accreditation
- › projects addressing separation, collection or sorting of waste for recycling
- › projects focused on reprocessing or recycling to produce recovered materials
- › opportunity identification, concept screening, marketing concept development and feasibility studies
- › projects using native forestry materials and wastes as a feedstock
- › purchasing infrastructure for separation, collection, sorting and/or testing equipment
- › travel, conferences and other educational activities
- › salaries that are not directly related to the project (see Section 5: Definitions)
- › demonstration projects not located in Victoria
- › projects being undertaken to comply with regulation
- › applicants (including related entities, project partners and subcontractors) that have failed to adequately address an environmental or safety breach or cannot show they are working effectively to resolve the breach
- › applicants unable to show financial capability to carry out the project
- › requests for retrospective funding, where projects are completed or started prior to signing a funding agreement with SV (Note: a defined component or next stage of a current, longer term project would be eligible for funding)
- › projects that require funds to purchase land
- › ongoing operational costs such as, but not limited to, electricity, water and other utilities
- › organisations that have failed to satisfactorily complete any other previous projects funded by SV without sufficient reason
- › projects that have received funding from any other funding body for the project (Note: a defined component or next stage of a current, longer term project would be eligible for funding)
- › project outcomes that are not directly attributable to the SV grant funding
- › pre-construction activities such as site clearing, earthworks or site accessibility works
- › capital works project costs not directly related to the use of recovered resources
- › projects that cannot be completed by 31 May 2021
- › applications submitted after the closing date and time (3pm, Friday 31 May 2019).

4.3 Who can apply?

To be eligible for Stream 1: R&D funding, applicants must:

- › be a Victorian-based research institute (see Section 5: Definitions). Note that privately owned research facilities must provide evidence of accreditation (e.g. National Association of Testing Authorities, Australia or similar standard)
- › have a current Australian Business Number (ABN)
- › have an industry partner
- › have been operating for at least 12 months (both industry partner/s and research institute)
- › have satisfactory environmental, safety and financial performance (see Section 6, Assessment Criteria)
- › meet the minimum 1:1 matched funding
- › agree to comply with SV's Terms and Conditions
- › agree to comply with SV's Terms of Participation in Grant Programs

To be eligible for Stream 2: Demonstration (D) funding, applicants must:

- › have a current Australian Business Number (ABN)
- › have been operating for at least 12 months (including all industry partner/s)
- › have operations in Victoria (including all industry partners)
- › have satisfactory environmental, safety and financial performance (see Section 6, Assessment Criteria)
- › meet the minimum 1:1 matched funding (see Section 5: Definitions)
- › agree to comply with SV's Terms and Conditions
- › agree to comply with SV's Terms of Participation in Grant Programs

Collaborative applications for demonstration project funding are encouraged, for example projects between local government and an industry partner. Collaborative applications need a lead applicant who will be accountable for implementing the SV funding agreement.

Note: an organisation may submit more than one application, but only one funding stream can be applied for per application.

4.4 What is required of successful applicants?

Successful applicants must:

- › submit a detailed project plan for approval by SV as a milestone under the funding agreement
- › deliver the project as outlined in the application and agreed project plan
- › facilitate quarterly update meetings with SV and project partner/s
- › complete the project by 31 May 2021
- › meet the minimum 1:1 matched funding (excluding GST)
- › participate in activities with SV to distribute the findings to broader stakeholders (e.g. universities, government and industry) during and after the SV funding agreement period
- › provide evidence of the partnership between the lead applicant and industry partner
- › acknowledge the project has been funded by SV
- › provide SV with high-level reports, case studies and data, excluding commercial-in-confidence research findings (Non-Confidential Project Intellectual Property) for general publication
- › make efforts to commercialise the research findings developed as a result of the project (Confidential Project Intellectual Property) over a three-year period after completing the final milestone; commercialisation activities will be reviewed annually for up to three years by SV and if the Project Intellectual Property is not satisfactorily commercialised, the applicant will make the Project Intellectual Property available to SV for broader publication.

4.5 Local Jobs First Policy (LJF)

The Victorian Government has recently reformed the **Local Jobs First Policy (LJF)**. Please read this section carefully to understand how it applies to your grant application.

LJF seeks to maximise opportunities for Australian, New Zealand and Victorian suppliers to compete for government business on the basis of best value for money over the life of the goods or services. The LJF is implemented by Victorian Government agencies to help drive local industry development.

Applying LJF to grant recipients ensures local firms can access opportunities within the procurement activity once it starts.

LJF does not apply to your application under this grants program. However, successful grant recipients whose total project cost meets the LJF monetary thresholds* need to comply with LJF requirements. This means that your project will be registered by SV with the Industry Capability Network (ICN) for you to obtain an Interaction Reference Number (IRN). The IRN and any other agreements reached regarding the LJF will be included in the SV grant funding agreement for monitoring and reporting purposes.

*LJF applies if the total cost of the grant recipient's project meets or exceeds either:

- › \$3 million in metropolitan Melbourne/Statewide or
- › \$1 million in regional Victoria.

For further information on LJF, contact ICN at 03 9864 6700 or go to icn.org.au/content/victoria/LJF

5 Definitions

Here we define some of the terms used in this form.

5.1 Targeted materials

Materials with specific supply side or demand side barriers that could be overcome with the support of government. For RD&D grants, targeted materials are listed in the table below:

Targeted material	Definition
Plastics (flexible and rigid)	<p>Plastic products can be broadly grouped as either flexible or rigid. The major plastic polymer types are identified by a Plastics Identification Code number from 1 to 7.</p> <p>Flexible plastic products can be used for both packaging and non-packaging items (such as bags, pouches, sachets, wraps) and flexible polymer wraps used in logistics (such as pallet wrap, silage wrap or wheat storage bags). Rigid plastics are found in products such as bottles, containers, toys and building products like pipes.</p>
Paper and cardboard	<p>Post-consumer kerbside and/or commercial mix of fibre-based packaging and non-packaging papers made from wood. Includes materials such as magazine, newspaper, printing and writing paper, corrugated cardboard and other fibre-based formats. Materials from recovered paper and cardboard are typically reused to manufacture recycled paper, packaging material and boxes.</p>
Electrical waste (e-waste)	<p>Electrical or electronic equipment (e-waste) with a power cord or battery and its parts that have been discarded by the owner as waste without the intention of re-use. E-waste includes but is not limited to computers, televisions, whitegoods and power tools.</p>
Glass	<p>Glass includes the following categories:</p> <p>Post-consumer glass: Predominately packaging waste (containers) and to a much lesser degree flat glass (windows) and other sources.</p> <p>Glass cullet: Glass recovered, sorted and crushed and suitable for recycling through glass manufacturing.</p> <p>Glass fines: Glass recovered from the waste stream but unsuitable for use in glass manufacture due to the particles being too small and/or mixed with other material streams.</p>

5.2 Other definitions

Circular economy: A circular economy is where waste is designed out, products and materials are kept circulating at their greatest value for as long as possible, and the natural environment is restored and protected. Four outcomes of a circular economy are:

- 1 reducing the use of virgin or non-renewable resources
- 2 maintaining the highest value of materials and products
- 3 shifting from consumption to use
- 4 regenerating natural environments.

The RD&D grants support outcomes (1) and (2).

Commercialisation: The process through which R&D is transformed into marketable products, capital gains, income from licences and/or revenue from the sale of new product or processing approaches.

Demonstration project: A practical exhibition and explanation of how something works or performs in a real-world application. Demonstration projects must use existing R&D and/or credible evidence for experimentation outside of the laboratory environment; this will support the processing approach or product pathway to commercialisation. Demonstration projects will provide information on product performance, practicality, constructability, cost-effectiveness, environmental impacts, occupational health and safety and technical specifications.

Environmental or safety breach: Any past or current prosecution, reportable incident, investigation, notice, penalty, warning, regulatory intervention or enforcement action from the Environment Protection Authority (EPA) or Victorian WorkCover Authority (WorkSafe) or failure to comply with any environmental and safety laws.

Environmental and safety laws: The *Occupational Health and Safety Act 2004*, *Environment Protection Act 1970* or any other legislation, regulation order, statute, by-law, ordinance or any other legislative or regulatory measure, code, standard or requirement relating to the protection and safety of persons or property or which regulate the environment including laws relating to land use planning, pollution of air or water, soil or groundwater contamination, chemicals, waste, the use, handling, storage or transport of dangerous goods or substances, greenhouse gas emissions, carbon trading or any other aspect of protection of the environment.

Industry: Any business entity and/or peak association operating in or representing manufacturers using or seeking to use recovered resources in a product. The business must have operations in Victoria and have been in operation for at least 12 months.

Industry partner: For Stream 1: R&D projects, the lead applicant must have an industry partner. See definition of Industry above.

The industry partner may be subject to compliance checks (see Section 6: Assessment criteria), must comply with the insurance requirements in Section 6 of the application form and complete Part B of Section 7 of the application.

Lead applicant – R&D: Must be a research institute as defined below.

Lead applicant – Demonstration: Can be any of the following:

- › tertiary education institution
- › government agency established for research
- › Cooperative Research Centre, Institute or Centre for Research
- › government
- › incorporated association
- › industry association
- › industry peak body
- › commercial/for-profit business
- › not-for-profit or a social enterprise.

Matched funding

Matched funding contributions can include:

- › cash and salaries paid by the lead applicant, industry partner and other project participants for employee's time allocated or directly related to delivering the project
- › voluntary labour such as unpaid research time
- › donated goods or services such as recovered resources for laboratory testing or a demonstration site
- › additional funding from a project partner, for example private entities, associations, government, and product stewardship organisations.

Ineligible matched funding contributions include:

- › operating expenses not directly associated with delivering the project
- › opportunity costs such as staff 'downtime' during implementation of activities
- › capital works project costs not directly related to using recovered resources.

Note: The matched funding contribution can be from the lead applicant and/or industry partner. There is no minimum percentage requirement for project participants to contribute the required matched funding.

Operations in Victoria: To be eligible to apply for funding the industry partner (Stream 1: R&D) or lead applicant (Stream 2: Demonstration) must have an office or sales staff permanently based in Victoria and have been operating for at least 12 months.

Processing approaches: Includes a series of operations or steps to change a recovered resource or reprocessing system such as melting, extruding or crushing. It does not include collecting, sorting or processing equipment or infrastructure.

Related entities: Entities related to the organisation, including:

- › holding companies of the organisation
- › subsidiaries of the organisation
- › subsidiaries of holding companies of the organisation
- › companies with common directors or shareholders as the organisation
- › companies that are a beneficiary under a trust of which the organisation is a trustee
- › trustees of a trust under which the organisation is a beneficiary
- › companies that carry on business at the same address as the organisation, or the same address as the location of the activity for which funding is sought.

Research and Development (R&D): Includes the following activities related to targeted materials (listed above):

- › product design and development
- › laboratory testing, in situ testing and altering existing processing approaches.

R&D activity is generally considered to be characterised by originality. The primary objective is investigation with the outcome being new knowledge with a specific practical application, or new or improved materials, products or devices. R&D ends when work is no longer primarily investigative.

Research institute: An organisation that can carry out R&D activities as defined in the R&D definition above. A research institute can be a tertiary education institution, a government agency established for the purpose of research, a Cooperative Research Centre, an Institute or Centre for Research or a privately owned and accredited research facility and must be based in Victoria. Consultancies are not considered to be research institutes for the purposes of this grants program.

6 Assessment criteria

6.1 How will applications be assessed?

Applications will be assessed on their ability to:

- › research product development and demonstrate performance of targeted materials
- › test the feasibility of innovative technology and infrastructure that support the use of targeted materials
- › develop new or existing products using recovered targeted materials
- › improve product standards and specifications to include recycled content
- › improve market confidence and demand for using recycled materials and products
- › consume significant and reliable volumes of targeted materials
- › contribute to Victoria's transition to a circular economy.

6.2 Weighted merit criteria

The weighted merit criteria are:

Criteria	Weighting	Description
WHAT	30%	Describe the project objective, what you are going to do and how the project aligns with the circular economy (see Section 5: Definitions).
WHO	20%	Show the capacity, capability and experience of the organisation (lead applicant) to deliver this project.
WHY	30%	Describe what benefits the project will have for applicants and partners, the broader market and the environment.
HOW	20%	Describe how you will carry out the project and monitor the results during and after project completion.

6.3 Environmental, safety and financial performance

A risk-based approach will be used to assess the lead applicant's compliance with environmental or safety laws (see Section 5: Definitions) and financial performance. This assessment will include related entities and may include the industry partner and other project participants.

Applicants must:

- › have no environmental or safety breaches in the last five years, or:
 - the breach was not serious
 - the breach has been satisfactorily resolved, or the applicant can show they are working effectively to resolve the breach
 - the applicant has made appropriate efforts, including implementing management systems, to ensure the breach is not repeated
 - since the breach, the applicant has had a satisfactory level of compliance with environmental and safety laws
- › demonstrate financial capability to carry out the project.

6.4 Other criteria which may be considered

Diversity of projects investigating targeted materials.

7 How to apply

Follow these steps:

- 1 Make sure your organisation is eligible to apply (see Section 4.3: Who can apply?)
- 2 Identify which funding stream you are applying for:
 - Stream 1: R&D (research institute must be the lead applicant)
 - Stream 2: Demonstration
- 3 Check the eligibility of your project (see Section 4.1: What will be funded)
- 4 Read the terms and conditions of SV's funding agreement and ensure you can meet them. Acceptance of these terms is required for grant funding to be provided. View terms and conditions at sustainability.vic.gov.au/research-development-grants
- 5 Read and understand the Terms of Participation in Grant Programs at sustainability.vic.gov.au/research-development-grants
- 6 Complete the application form attached to these guidelines. The application is an interactive PDF document, which allows you to enter text in the relevant fields.
- 7 Complete all sections of the application form in full and submit with all supporting documents attached.
- 8 Attach a scanned, signed copy of the Declaration Form, signed by a person with delegated authority to apply.
- 9 Email your application to SV 3pm, Friday 31 May 2019.

When filling out your application, remember to:

- › save the form on your computer before entering any information
- › check you can add and save information into the PDF document
- › save frequently to avoid losing any data.

7.1 Submission dates

Activity	Date
Applications open	March 2019
Information session	8 April 2019
Applications close	31 May 2019
Notification of outcome*	July 2019
Project completed	31 May 2021

* Please note, these timelines are indicative only and may change.

SV will update applicants on the progress of their applications as much as possible, but cannot give a definite approval/announcement date.

We thank you for your cooperation and understanding on this and will endeavour to advise you if we experience any unforeseen delays.

7.2 Sending your application

- › Applications can only be submitted by email unless previously discussed with SV.
- › Email your application form and supporting attachments to grants.applications@sustainability.vic.gov.au
- › The application form is in PDF format, but other supporting documents can be submitted in Word, PDF or Excel. Attach the signed Declaration Form as a separate PDF document.
- › Emails must be smaller than 25 MB in size or they will be rejected by our email server.
- › We will acknowledge receipt of all applications by return email within 48 hours.

If you have trouble emailing your application, please call us on 1300 363 744 and ask to speak to a grants support representative.

8 More information

Email grants.enquiries@sustainability.vic.gov.au or call 1300 363 744 and ask to speak to a grants support representative.

Alternatively, read our FAQs at sustainability.vic.gov.au/research-development-grants