



Waste Research Development and Innovation Roadmap

Research, Development and Innovation (RDI) to advance the South African waste sector

2021 CALL FOR PROPOSALS

The Department of Science and Innovation (DSI) is pleased to announce an **Open Call for Proposals** for waste research, development and innovation projects commencing in January 2022.

Applicants are requested to familiarise themselves with the information provided in this Call as well as the Waste Research, Development and Innovation (RDI) Roadmap for South Africa (2015-2025), before preparing an application.

The Waste RDI Roadmap is available online at <https://wasteroadmap.co.za/waste-rdi-roadmap/>

1 Background

The Waste RDI Roadmap is an initiative of the DSI, managed by the CSIR, aimed at strengthening –

- human capital development (HCD)
- research and development (R&D), and
- innovation in the field of solid waste management

Through the strategic investment in science, technology and innovation, the Department aims to support the prevention of waste and the optimised extraction of value from waste reuse, recycling and recovery, in order to create significant social, economic, and environmental benefit for the country. The objective of the Waste RDI Roadmap Call for Proposals is to directly support –

- More effective decision-making
- Faster insertion of context-appropriate technology
- Export of know-how and technology
- Strengthened RDI capability and capacity

2 Research themes

Research proposals must be aligned with one of the following thematic areas of the Waste RDI Roadmap –

i. Technology Solutions

Design, development, evaluation, demonstration, localisation and deployment of technologies (both local and inbound) for customer-driven performance improvement

ii. Modelling and analytics

Develop and use methods, tools, techniques, platforms, systems and frameworks for the analysis, monitoring and evaluation of technical, economic, social and environmental opportunities and impacts associated with secondary resources

iii. Waste logistics performance

Optimisation of strategic, tactical and operational decision-making in respect of logistics objectives, assets and resources

iv. Strategic planning

Build and strengthen the basis and application of strategic analysis and advice for the purposes of evidence-based decision-making to inform strategy formulation, planning and its execution and management

v. Waste and environment

Strengthen the ability to identify, monitor, evaluate and report on environmental impacts of waste and its management, in order to inform better targeted and more effective responses

vi. Waste and society

Deepen understanding of waste-related opportunities and threats, to increase the success of influencing perception and practice positively

Proposals must address one of the following priority waste streams of the Waste RDI Roadmap (*listed alphabetically and not in any order or priority*) –

- Electronic waste
- Municipal waste
- Organic waste
- Plastic waste
- Waste tyres

3 Grant award amount and duration

Grant projects previously funded under the Waste RDI Roadmap can be viewed on the website (www.wasteroadmap.co.za). Proposals in excess of R1,500,000 or longer than 2 years should contain sufficient details as to justify the need for the higher than average amount requested and longer project duration. The total grant funding available for 2022 is limited and since the call is open to all research topics, the process is expected to be highly competitive.

4 Eligibility criteria

4.1 Eligible institutions

Only researchers from South African Universities, Science Councils and other public research institutions, working in relevant disciplines, are invited to submit proposals for a Waste RDI Roadmap research grant.

4.2 Experience

Principal investigators (PI) must be qualified to do the proposed research and should be experts in the subject matter referenced in the proposal. Typically this would include full-time faculty at academic and research institutions.

4.3 Capacity development

The following requirements in terms of human capital development apply –

- Proposals that include capacity development through the training of post-graduate students will be favourably considered.
- Students may be supported on the grant project through either Full Cost of Study (FCS) or Partial Cost of Study (PCS) depending on the needs, and academic performance, of the student (See *DSI/NRF Post-graduate Funding Policy*). The grant holder will need to reflect whether the student(s) is supported on FCS or PCS in the quarterly reporting to the DSI.
- Students supported on the grant projects must be South African citizens or permanent residents.
- Students should be placed on the grant project on the basis of academic merit, and may not hold salaried employment that exceeds 12 hours of work per week, while pursuing the degree.

5 Evaluation criteria

All applications will undergo evaluation by an independent review panel, to assess the suitability of the proposal in terms of the Waste RDI Roadmap's objectives. All proposals will be evaluated against the following criteria:

- Alignment:** the research proposal must address the priorities and research themes of the Waste RDI Roadmap (Section 2 above)
- Relevance:** the research must have the potential to **directly, and positively, influence** the management of solid waste **in South Africa**, by moving waste up the hierarchy away from landfilling towards waste prevention, reuse, recycling or recovery, in a manner that will provide maximum environmental, social and economic benefit for the country. Preference will be given to proposals which are impact driven and solution orientated.
- Scientific/technical soundness and credibility:** the research proposal has a sound scientific and/or technical base, reflects a sound grasp of the issues requiring investigation, the proposed methodologies are appropriate for achieving the objectives; and the deliverables and associated time frames for delivery are realistic.
- Innovation:** the project is original and contributes to the body of knowledge or develops practical solutions to move waste away from landfilling towards waste prevention, reuse, recycling or recovery
- Research Outputs/Deliverables:** the project must result in a significant research output, such as research reports, post-graduate dissertations, technologies, journal papers, etc.
- Capacity development:** Preference will be given to proposals that include capacity development through the development of post-graduate students, interns or junior staff
- Institutional capacity:** the applicant must demonstrate sufficient institutional capacity to implement the project
- Value for money:** the benefits of the proposed research are measurable and the value of the benefits exceed the value of the investment

6 Equity and redress

In line with the national imperative of equity and redress, the research call prioritises support for designated groups viz. black, female and persons with disabilities.

7 Submission of proposals

Only proposals submitted on the Waste RDI Roadmap grant **proposal template**, issued together with this Call, will be considered. Proposals should be submitted in MSWord or PDF format.

Research proposals (PART III: DETAILED DESCRIPTION OF THE PROJECT) **must not exceed 10 pages** (at font Arial 10, line spacing 1.15). **Proposals may be rejected prior to evaluation if they exceed the set length and if they do not make use of the template provided.**

A concise 1-2 page (max) curriculum vitae (CV) of the Lead Researcher must be submitted together with the proposal.

8 Reservations

The DSI expressly reserves the following rights:

- To reject all or any proposals
- To waive any or all irregularities in the proposals submitted
- To retain the right not to select any application/s even if meeting all the requirements

9 Contract negotiations

The successful applicant/s will be required to enter into a written Agreement with the CSIR, who manages the Roadmap on behalf of the DSI.

10 Closing date

Proposals must be submitted electronically via email to LGodfrey@csir.co.za on the Waste RDI Roadmap grant proposal template (issued with this call).

The deadline for the submission of proposals is **Friday, 16 July 2021 at 17:00**.

All applicants will be notified about the outcome of their applications before the end of September 2021 to allow sufficient time for post-graduate students to be recruited for the 2022 academic year.

11 Confirmation of receipt

All applicants will receive a confirmation of 'receipt of proposal' email. If you do not receive such a confirmation within one week of application, please follow up with the Waste RDI Roadmap office to ensure that your proposal has been received. Proof of submission before the closing date will be required.

12 Validity

All applications will be regarded as valid for 120 days from the 16 July 2021 whereafter the CSIR may request an updated application, should this become necessary.

For any queries relating to the call for proposals, contact:

Prof Linda Godfrey

Manager: Waste RDI Roadmap Implementation Unit

Telephone: 012 841 4801

E-mail: LGodfrey@csir.co.za