Commercial Application Form

Proposals must be submitted by a BPA-affiliated research provider.
Contact us if you would like introductions to any of these parties.
We recommend that applicants avoid overuse of artificial intelligence (AI) in completion of the application form and we reserve the right to reject applications if their quality is compromised by an apparent overreliance on AI. Please sense-check your application to ensure that there are no AI glitches!

General information	
Project Title:	
Date:	
Project Description: *In 50 characters max. describe the project proposal e.g. Mussel soup for Japan: proof of concept.*	

Research providers are not liable in any way for any direct or indirect damage, loss or cost incurred by any party in this proposal or any other person in respect of the proposal process.

Organisation	Name	Declaration	Signature
		I have read this proposal, consent to its submission and understand and accept the conditions below.	
		I have read this proposal, consent to its submission and understand and accept the conditions below.	
		I have read this proposal, consent to its submission and understand and accept the conditions below.	

Ensure sign-off from all organisations involved in the proposal, or, as appropriate, parts of an organisation, prior to submission. The signatory confirms that all named researchers have seen the final version of the application and approved its submission by e-mail, which may be requested by the BPA.

Conditions of this funding application

- *Hazards and health and safety risks will be identified to potentially impacted parties.*
- *The BPA may make public the non-confidential executive summary that will be provided at the conclusion of the project.*
- *The BPA may publish details of approved project funding.*
- *The applicants confirm that they have reviewed the BPA's IP principles, and the proposed IP strategy is aligned with them.*
- *The applicant has determined an IP model for their project.*
- *Applicants give permission to be contacted by the BPA from time to time for case studies and news stories and agree to acknowledge the BPA in any media coverage of the project.*
- *The Industry Partner commits to providing the BPA with information on the impact of the project on their business at the conclusion of the project and one year after the project's conclusion.*
- *If contracting between the parties cannot be completed within 6 months of the approval of funding, the BPA reserves the right to withdraw the offer of funding.*

Please note that the more specific you can be about deliverables, milestones, funding and IP arrangements between the parties, the more quickly we can execute a contract for an approved proposal. Refer to Section 6 for BPA definitions and IP principles.

Receive our newsletter! Be the first to know about our latest funding rounds and be inspired by the groundbreaking projects that successful applicants are working on. **https://mailchi.mp/bioresourceprocessing/newsletter-signup-page**

Proposal Structure

To help you work your way through the proposal, here is the structure.

Applications will be assessed according to the criteria in Section 7, accepting that not all projects will fit all criteria.

1 Executive Summary

1.1 Parties to the Proposal

Project lead organisation:.....

Project leader's name:.....

Project leader's email and phone number:.....

Project contributors' names and organisations:

Other research providers (organisation, researcher names and contact details):

.....

Industry partners: *(copy and paste if more than 1 partner)*

Company/Organisation name:.....

Contact person, phone and email address:.....

Brief description of the organisation and what it does:.....

.....

Is the industry partner a Māori entity, defined as being either a Māori authority as classified by IRD or having a minimum of 50% Māori ownership, including sole traders.

Yes/No

1.2 Conflict of Interest

Please declare and describe any conflict of interest, including actual, potential and perceived conflicts.

Conflicted Person	Nature of Conflict	Proposed Management or Mitigation

1.3 BPA Alignment

BPA Alignment: *(tick all relevant boxes)*

Industry partner: ☐ produces bioresource stream, ☐ stabilises the bioresource,

☐ makes products from the bioresource, ☐ markets, distributes and sells the product(s).

Technology Utilised: *(tick all relevant boxes and if 'Other' please describe)*

☐ Extraction ☐ Dehydration/drying ☐ Fermentation ☐ Anaerobic digestion ☐ Pasteurisation ☐ Hydrothermal liquefaction

☐ Enzymatic processing ☐ Separation/fractionation ☐ Size reduction ☐ Chemical modification ☐ Pyrolysis ☐ Polymer Processing

☐ Formulation ☐ Other (please describe)

Analytical Capability Utilised: (*tick all relevant boxes and if 'Other' please describe)*

☐ Physical characterisation ☐ Compositional analysis ☐ Techno-economic analysis ☐ Shelf-life testing ☐ Functional testing

☐ Sensory testing ☐ Bioassays ☐ Environmental/life-cycle analysis ☐ Metabolomics ☐ Clinical trials ☐ Field trials ☐ Other (please describe)

1.4 Resubmission

If this application is a resubmission, please note which funding round the original application was submitted to and summarise the key updates/changes from the original submission. You can highlight updated parts of the original application, if that is easiest.

1.5 Brief Project Context and Project Summary

Summary of the overall initiative that this project relates to:

In a paragraph, describe the big picture opportunity you are working on and how the project for which you are seeking funding here fits in. Using bullet points, describe the expected outcomes for each organisation involved in this application.

Summary of this specific project – why do you want to do it and what do you hope to achieve (200 words max.)

In a paragraph, describe what products or services you are creating (or are you working towards in the overall initiative), what gain they create and/or what pain they are alleviating.

Technology Readiness Levels (TRL) - what TRL do you expect to achieve via this project?

☐ TRL 0 **Idea**. Unproven concept, no testing has been performed

☐ TRL 1 **Basic research**. Principles postulated and observed but no experimental proof available

☐ TRL 2 **Technology formulation**. Concept and application have been formulated

☐ TRL 3 **Applied research**. First laboratory tests completed; proof of concept

☐ TRL 4 **Small scale prototype** built in laboratory environment ('ugly' prototype)

☐ TRL 5 **Large scale prototype** tested in intended environment

☐ TRL 6 **Prototype system**. Tested in intended environment close to expected performance

☐ TRL 7 **Demonstration system** operating in operational environment at pre-commercial scale

☐ TRL 8 **First of a kind commercial system**. Manufacturing issues solved

☐ TRL 9 **Full commercial application**. Technology available for consumers

Please explain why this TRL has been chosen, and if this application is part of a larger initiative, which TRL you hope to achieve eventually. What TRL level is the project currently at?

Funding (excluding GST)

BPA funding requested:	
Co-funding: Cash	Provider 1: Provider 2:
Co-funding: In-kind	Provider 1: Provider 2:
Total value (BPA$+cash+in-kind)	

Cash co-funding is:

☐ Secure

☐ Subject to external approval (e.g. capital raising or another funding application). If so, please provide details.

BPA funding received to date for the overall initiative (if applicable): *Include BPA project numbers*

Other government funding received, or currently being applied for, for the overall initiative (if applicable): *Include source, amount, date and brief details of any relevant report, publication or other reference.*

Duration of work under this funding application (months):.....

List the product(s) the project will develop and/or other project deliverables: .....

Anticipated year of commercialisation:.....

Please make this realistic – the application will lose credibility if there is a clear underestimation of the path to commercialisation.

Sector: ☐ Forestry ☐ Marine ☐ Agriculture ☐ Horticulture ☐ Land-based animal ☐ Microbiological ☐ Other

Estimated Value of the Opportunity

Please complete the tables below, even for very early TRL work – we understand that there is a lot of uncertainty – that's fine.

Outline the volume of the bioresource(s) utilized, the estimated cost of the bioresource including processing cost, and the potential value of the opportunity **to the commercial partner**.

We are keen to understand the rationale for your calculations, so providing some background information here is helpful.

Value figures should reflect the revenue to the industry partner – that is $/kg (or $/t) that the business will receive, not the value of retail sales, for example.

Please include notes on sources of information, assumptions made, and any details that help us understand how you have calculated the value of the opportunity.

Provide references to any sources of information.

If helpful, you can copy the table and provide estimates for more than one possible scenario.

Volume Calculation

A	B	C	D
Total volume of bioresource in NZ	**Volume of bioresource in NZ realistically available for use in this context**	**Volume of bioresource used in this opportunity at maturity by industry partner**	**Annual volume of product/s from this opportunity at maturity**
(t/annum)	(t/annum)	(t/annum)	(kg/annum)

Value Calculation

E	F	G	H
Value to industry partner at time of export or NZ sale	**Cost to industry partner of the bioresource, including processing**	**Net revenue per kg**	**Value of opportunity**
($/kg)	($/kg)	E – F = G ($/kg)	G x D = H ($/annum)

2 Project Context

Tell us about the overall initiative and its context, including IP considerations and the market opportunity.

Bioresource stream:

Provide information on the target bioresource stream, including origins; locations; volume; characteristics; compositions; current uses; costs/earnings; environmental impact; challenges or uncertainties regarding the bioresource supply. Will there be further leftover waste after processing?

Product/Process/Technology:

What will the product/process/technology do? What is the problem it solves or opportunity it presents? Has feasibility been proven at lab scale? What benefits and value does it present to customers?

Examination of prior knowledge/literature search:

Outline your examination of existing knowledge of relevance, including any literature search. Explain why you are confident that this piece of work needs to be done.

Freedom to Operate:

Have you determined that you are not infringing IP rights of other parties? Have you done any IP clearance searches? What restrictions have you identified?

IP Protection and Ownership:

Please outline your IP protection and utilisation strategy, and explain what the collaborators, including the industry partner, have agreed, with reference to the BPA IP Principles in Section F of this document. As a minimum you are expected to cover (a) who will own the IP (b) who will commercialise the IP (c) the proposed timeframes for commercialisation to occur (d) what the revenue sharing arrangements will be (e) what you anticipate doing with the IP if it isn't commercialized within the proposed timeframe. If you are unable to do so, then your application may be declined.

Benefit of IP to New Zealand:

Describe how the IP model above will result in a benefit to New Zealand. Explain what you will do to maximise value of the IP created if commercialization isn't successful (for example, offer back to the BPA, publication of the outcomes in journals).

Industrial harvesting/processing/manufacturing capability:

What industrial harvesting/processing/manufacturing capability is currently available to make the product and/or implement the process/technology? What capability is missing and how will these deficiencies be overcome?

Market(s):

Why is this worth doing? Describe the target market for the product/process/technology. What is the total market size and trends? What are the current pricing levels and trends? What are the competing products/processes/technologies (if any)? What are your strengths and weaknesses compared to the alternatives/competitors? Who are your customers?

Marketing capability:

What marketing capability and distribution channels are available now? Within the wider project team (i.e. including current industry partner/s), what is the nature of your experience, or your relationships in the target market? What capability is missing and how will these deficiencies be overcome?

Work completed already on the overall initiative – if applicable:

Provide a brief outline, including any BPA funded work

3 Project Details

Now, tell us about this specific project. If appropriate, include a process-flow diagram or similar.

Objective of the work that will be completed using this funding:

What outcomes will this work achieve?

Scope:

Briefly outline the work that will be done.

Exclusions:

Briefly outline what won't be done.

Deliverables: (refer to definitions section F):

List the deliverables, e.g. concept samples, report, etc, provided to whom.

Milestones and Go No-Go Decisions (Refer to Section 6 of this document for definitions): Note that all $ amounts must be GST exclusive.

List the key milestones for the project, who will undertake the work associated with each milestone and the expected timeframes and costs. Insert any Go/No Go decisions in the milestone table and provide more detail on them in the table below. Add rows as needed.

If multiple partners (or other providers) are contributing to a single milestone, please add extra rows as required to split out funding allocation per partner/provider.

Milestones:

No.	Milestone	Associated Deliverable(s)	Date Due	Who is Responsible (name & organisation)	Budget	BPA Contribution	Cash Co-funding	In-kind Co-funding
0	Sign contracts and mobilise	Signed contracts			N/A	N/A	N/A	N/A
1					$	$	$	$
2					$	$	$	$
3					$	$	$	$
4					$	$	$	$
5					$	$	$	$
#*	Final reporting	Final report, non-confidential executive summary, brief list of IP generated			$	$	$	$
All named parties (supervisors and students, where identified) to complete					**$**	**$**	**$**	**$**

**Final milestone – number to be added by applicant*

No.	Description of Go/No Go Point	Criteria for Go/No Go Decision	How will the BPA be Involved
1			
2			
3			
4			

A Go/No-Go decision will usually be made the BPA General Manager, and occasionally the BPA Board, in consultation with the project team and the industry partner as appropriate.

In-kind co-funding description:

For each provider, provide a description of the materials, services and expertise being provided as in-kind co-funding, and the associated value.

Gantt Chart:

Please provide a Gantt chart or similar, that illustrates the timing of key tasks and how they relate to the milestones described above.

4 Supporting information

On the first page, you selected the TRLs of development your application relates to. Please provide the following information:

☐ For applications for funding for TRLs 0, 1 or 2, no supporting information is required.

☐ For applications for funding for TRLs 3 and 4, see below.

☐ For applications for funding for TRLs 5, 6, 7, 8 or 9 see below and attach a copy of your most recent business case, including your project risk register. If you don't have a business case or a risk register please contact the BPA GM to discuss.

Supporting information for applications for funding for TRLs 3 to 9

Financial robustness:

What financial investments are likely to be needed to develop, establish industrial and marketing capabilities and launch this product/process/technology? When do you expect a revenue stream? What is the likely margin? For whom? What is the anticipated rate of return for this investment?

Environmental Performance:

Considering energy, water and materials consumption, and generation of wastes, effluents and emissions, how will your product/process/technology deliver environmental benefits compared to alternatives and to the status quo use of the bioresource stream?

Risks: Health and Safety, Regulatory Compliance, Environmental:

Considering workplace health & safety, regulatory and environmental risks, outline any risks associated with this opportunity and the potential for any new hazards.

Broader benefits:

If this total development is commercialised successfully, outline the likely outcomes and benefits/impacts (economic, cultural, societal, environmental) to Aotearoa New Zealand and/or the rest of the world.

Risks to project success (skip if you have selected TRL 5-9 and are therefore providing a risk register):

Outline the major risks to the overall project's success and the steps you're taking to treat (avoid, reduce/mitigate, share or accept) these risks.

Critical success factors and ability to deliver:

List the critical success factors (CSF), i.e. those few key things that must go well for this project to succeed, how will they be managed? Are any of the CSFs potential showstoppers - why? Provide a summary of the project team's track record in relevant initiatives.
Considering the skills, equipment and other resources required to successfully deliver this project, identify any gaps and outline how they will be overcome.

5 References (if applicable)

6 BPA Definitions and IP Principles

Project: The piece of work to which this proposal/application pertains

Initiative: An overall business initiative or programme of work within which this project sits

Deliverable: The tangible output of a defined commitment of resource (time, effort, money), for example, reports, business cases, samples, new or modified equipment, etc.

Milestone: A key point in the project, which can be tangible or intangible. These are the points that the project manager wants to tick-off on the journey.

A useful analogy is the difference between building a road (project) and preparing the ground, putting down asphalt, painting the centreline (milestones). The milestone defines a point in the road building project where you might check in that the work you have done so far (deliverable) is fit for purpose, but the milestone is not the finished road itself – in this example, the finished road is the project deliverable.

Go/No-Go point
A point in the project where the team will stop, review progress and outputs or outcomes to-date against pre-agreed criteria, and formally decide whether to proceed with the project or not, based on those criteria. A decision made at a go/no-go point should be formally recorded, along with the reasons why the decision was made. Someone external to the project team should be involved in the decision-making (usually the BPA GM and a representative of the commercial partner). The criteria must be clear to the team at the time the go/no-go point is defined.

Intellectual Property Principles
In each BPA project, the entity leading the project has responsibility to manage intellectual property (IP) arising from the R&D in a way that meets the BPA's objective to maximise benefits to New Zealand.

In some cases, this means making research results available to others, so that relevant groups can understand opportunities and build on the learning. In other cases, this may mean providing a company (or companies) interested in commercialisation with the first opportunity to commercialise IP that arises from a project.

In each case, the approach is tailored to the stage of commercialisation, the company contribution and aspirations, and the BPA's goal to incentivise commercialisation and ensure that research outcomes will be leveraged to create value for New Zealand.

The commercialisation strategy and IP management approach for each BPA project will be tailored to:

- Recognise the BPA's objective to maximise benefits to New Zealand from IP arising from projects.
- Efficiently de-risk new opportunities and build confidence in market, technical and economic feasibility to enable promising technology to go forward.
- Recognise the interests of organisations contributing to a BPA project. This may be an interest to better understand options to add value to a by-product of processing; or may relate to the company's interest to build its competitive position through the development of IP.
- Make IP available to companies committed to the scale-up and commercialisation of new technology, alongside providing mechanisms for IP from BPA projects to be used if a company's commercialisation activity ceases.
- Consider te Tiriti o Waitangi and reflect Māori values if appropriate.
- Where appropriate, promote knowledge from BPA projects to be shared through publications and presentations in alignment with commercialisation objectives.

Final reporting to the BPA General Manager must include a brief catalogue of the intellectual property generated by the project, a non-confidential executive summary that can be shared publicly, and a full project report.

Please contact the General Manager **nicky.solomon@bioresourceprocessing.co.nz** for further information about IP.

7 BPA Scoring Criteria

	Criteria	Low	Med	High
1.	Fit with BPA Strategy[1]	Limited value creation and/or large amount of risk re commercialisation Limited alignment with BPA goals	Reasonable expectation that commercial value will be created Well-aligned with at least one BPA goal	Reasonable expectation that high level of commercial value will be created Well-aligned with more than one BPA goal
2.	Right team assembled	Minimal effort made to ensure the right team across aligned R&D providers has been assembled	Genuine consultation has occurred across group/organisation boundaries Reasonable efforts made to ensure right team across aligned R&D providers has been assembled	Strong team assembled that clearly involves all the relevant people/providers Clear evidence that the team assembled is the best team to deliver the project
3.	Commercial Potential	Few details provided regarding assumptions made in value calculations Little evidence for value calculations Limited market analysis provided Unrealistic estimation of likely date of commercialisation No export opportunities Commercialisation risk is high because: • Small or declining market • Profitability low or uncertain • No clear USP or competitive advantage • No clear route to market • Challenging logistics/distribution	Clear articulation of assumptions made in value calculations Reasonable evidence to support value calculations Reasonable market analysis provided Reasonable estimation of likely date of commercialisation Possible export market but not quantified Commercialisation risk is moderate because: • Market modest, mature or limited • Clear USP with likely competitive advantage • Route to market identified but not thoroughly researched • Distribution has been considered but is challenging and/or needs more work	Clear and credible evidence for value calculations Assumptions well-articulated and thoroughly investigated Thorough market analysis provided Clear evidence of a realistic path to commercialisation Major export opportunities Commercialisation risk mitigated because: • Market large and/or rapidly growing • Highly profitable • Unique and superior product/process with clear USP • First or early to market • Market opportunity clear and well-quantified • Distribution challenges identified and addressed

[1]**From BPA Strategy**

Purpose We collaborate to develop technologies and intellectual property that create value from biological resources to benefit Aotearoa/New Zealand

Goal 1 Create new technologies and intellectual property

Goal 2 Stimulate commercialisation of new technologies & IP

Goal 3 Develop research capability and capacity

Goal 4 Support the development of the Māori economy

Criteria	Low	Med	High
4. Technical Feasibility of Overall Initiative	New or unproven technology Large technical challenges evident No clear path to commercial scale	Technology proven at small scale but not commercial Likely to be feasible but not proven yet	Technology proven either in NZ or overseas Clear path to commercial scale Limited technical challenge
5. Technical Feasibility of Specific Project	Unknown technology, or known technology applied in entirely new context R&D team and/or industry partner have no experience with technology Preliminary research, including literature research either incomplete or shows no evidence of feasibility	Well-known technology but new application of it Cutting-edge technology but R&D team and/or industry partner are experts Preliminary research, including literature research, indicates likelihood of feasibility	Known technology applied in proven context R&D team and/or industry partner have experience with the technology and/or the application Preliminary research, including literature research, indicates likelihood of feasibility
6. Bioresource security & validity	Access to bioresource uncertain Quantities of bioresource limited	Access to bioresource insecure but quantity in NZ is large Access to bioresource secure, but quantity is small	Secure access to significant quantities of bioresource
7. Environmental Benefits	No environmental benefit compared to alternatives or status quo Improving environmental performance has not been considered	Potential environmental benefits identified, but require quantification or are only moderate	Major environmental benefit quantified and compared to alternatives or status quo Current disposal options or bioresource use unsustainable
8. Intellectual Property	Freedom to operate hasn't been considered or is challenging No meaningful consideration given to IP ownership among the parties IP considered but no potential to create value from it	Reasonable expectation of FTO IP ownership/sharing arrangements described and commercialization and revenue sharing processes are clearly explained	FTO established within reason Thorough consideration of IP ownership including commercialization pathway & revenue sharing processes as well as potential markets, buyers and longer-term strategy to maximise value for NZ Strong likelihood of creating value from IP
9. VM Benefits	No participation from Māori business No benefit to Māori business or Māori communities	Limited or possible benefit to Māori business or communities	Led/driven by a Māori business Clear benefit to Māori business and/or Māori communities Utilises mātauranga Māori
10. Broader Benefits[3]	No benefits expected to accrue outside the commercial partner	Some expectation of benefit to multiple businesses, communities or wider NZ, but minimal, not clear or not well-quantified	Clear, quantifiable and significant benefits to multiple businesses, communities and/or Aotearoa Inc

[2]Defined as either a Māori authority as classified by IRD or a minimum of 50% Māori ownership, including sole traders

[3]Examples include creation of employment in areas of high unemployment, creation or development of a new industry for NZ, creation of opportunities from which multiple businesses could benefit, and other societal benefit