

Innovation Connections Project Contract

A completed and signed version of this document (which includes the terms stated in the **Standard Terms** section), together with each set of Project Details, forms an Agreement between the Research Provider and the Research Recipient.

PROJECT DETAILS

Item	Name	Description
1	Parties	The Research Provider and the Research Recipient
2	Research Provider	<p>The University of Queensland</p> <p>ABN: 63 942 912 684</p> <p>Address for notices:</p> <p>Director, Research Partnerships</p> <p>The University of Queensland, Brisbane QLD 4072</p> <p>director.partnerships@research.uq.edu.au</p>
3	Research Recipient	<p>Phibion Pty Ltd</p> <p>ABN: 61 093 883 991</p> <p>Address for notices:</p> <p>1/7 Clunies Ross Ct, Eight Mile Plains QLD 4113</p> <p>david.frazer@phibion.com</p>
4	Funding Recipient	Research Provider
5	Project Title	Refinement of a Dielectric Sensor System on Intelligent Amphirols for Mud Farming Tailings Facilities
6	Project Activities	<p>The focus of this project is to further develop the established concept of a non-invasive measuring system to an operational prototype. Any necessary modifications and further developments of the antenna design and the analysis procedure will be the subject of a separately funded project between the parties.</p> <p>The following research and development activities will be carried out in this project:</p> <p>WP 1: Merging of antenna and VNA, and assembly of the system on the MudMaster (Brisbane)</p> <p>Key Activities (with dates and location(s) for implementation):</p> <ol style="list-style-type: none">1. Kick-off meeting of this project with clarification on how the assembled antenna system will be installed on the MudMaster. Special attention needs to be given to minimizing soiling of the antenna and risk of damaging it.

Item	Name	Description
		<p>Furthermore, the antenna system needs to be movable to allow calibration at different distances to the absorber. A possible solution for implementing this step is already available at Phibion (at the Commencement Date, Phibion).</p> <ol style="list-style-type: none"> 2. Development of a concept to merge antenna and vectorial network analyser (VNA) and manufacturing of a housing to hold both items in a vibration proof way. The specialised housing can be produced at the workshop at UQ by 3D printing (by 2 months after the Commencement Date, UQ). 3. Performance test of the antenna system under controlled laboratory environment conditions and development of a continuing measuring mode for the VNA using a Python code controlled by a conventional PC (by 3 months after the Commencement Date, UQ). 4. Mounting of the antenna system on the MudMaster including wiring and integration of the antenna system into the measuring system existing for the MudMaster (by 4 months after the Commencement Date, Phibion) <p>Expected Outcomes:</p> <ul style="list-style-type: none"> • Design of a mounting system for the antenna system on the MudMaster. • Housing for the assembly of antenna and VNA to create an antenna system. • Control software based on Python for continuous measurements using the antenna system. • Antenna system integrated on the MudMaster in a ready to operate condition. <p>Start date: Commencement Date</p> <p>End date: 4 months after the Commencement Date</p> <p>WP 2: On-site calibration procedure for antenna and material (Brisbane)</p> <p>Key Activities (with dates and location(s) for implementation):</p> <ol style="list-style-type: none"> 1. Design, purchase and preparation of absorbers that can be easily transported and laid out for calibration measurements in the field (by 4 months after the Commencement Date, UQ). 2. Development of a calibration procedure for lay operators accommodating different distances between antenna system and absorber. The measuring system needs to allow for the implementation of a single measurement to be marked as calibration measurement (by 5 months after the Commencement Date, Phibion). 3. Development of an on-site measuring procedure for lay operators for quantifying water content and density. Both data are then used to quantify the expected permittivity based on calibration functions measured in the laboratory (by 5 months after the Commencement Date, UQ).

Item	Name	Description
		<p>4. Test of calibration procedures for antenna and material at the Port of Brisbane or at the premises of Phibion including operation of the MudMaster with operating antenna system (by 6 months after the Commencement Date, Port of Brisbane/Phibion)</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • Transportable absorbers for conducting on site calibration of the antenna system while mounted on the MudMaster. • Simplified on site material calibration procedure. • Full-scale test of the antenna system and calibration procedures at the Port of Brisbane/Phibion. <p>Start date: Commencement Date</p> <p>End date: 6 months after the Commencement Date</p> <p>WP 3: Library of calibration functions for tailings materials (Brisbane)</p> <p>Key Activities:</p> <ol style="list-style-type: none"> 1. Decision within a meeting with Phibion what locations at the mine site need to be characterised and how and in which form measuring data will be stored (by 4 months after the Commencement Date, Phibion). 2. Development of a testing procedure to effectively measure dielectric spectra of tailings materials over a broad frequency range with quantification of water content, density, mineralogy and grading (by 4 months after the Commencement Date, UQ). 3. Implementation of tests with selected tailings samples from the mine site and further mines (number of materials to be decided on by 5 months after the Commencement Date) provided by Phibion with integration of measurement results in a data system (until end of project, UQ/Phibion). <p>Outcomes:</p> <ul style="list-style-type: none"> • Procedure for effective measurement of dielectric data for tailings. • Database of the electromagnetic parameters of tailings and basic soil parameters. • IP protected, and a next-stage development and commercialization plan is proposed. <p>Start date: Commencement Date</p> <p>End date: 12 months after the Commencement Date</p> <p>WP 4: Field test with data analysis</p> <p>Key Activities:</p> <ol style="list-style-type: none"> 1. Key milestone meeting to prepare field application of the antenna system at a selected mine site in Queensland (by 6 months after the Commencement Date, Phibion).

Item	Name	Description
		<ol style="list-style-type: none"> 2. Development of a protocol to be implemented regularly by operators of the MudMaster including quality and functionality check, and calibration procedures (by 7 months after the Commencement Date, UQ/Phibion). 3. Training of the operators of the MudMaster into operation of the measuring system including checking protocol and calibration procedures for antenna system and material (by 9 months after the Commencement Date, Phibion/Port of Brisbane/Mine Site). 4. Visit of mine site (ca. one week) at the beginning of operation to ensure correct and smooth operation of the antenna system. If required, the mounting system needs to be delivered to mine site, and the antenna system needs to be mounted to the MudMaster on site (by 8 months after the Commencement Date, mine site). 5. Operation of the antenna system with ongoing analysis of the incoming measurements (until end of project, UQ/Phibion/mine site). 6. Analysis of the learnings from the mine site operation to identify shortcomings and needs for further development with closure meeting (at the end of the project/Phibion). <p>Outcomes:</p> <ul style="list-style-type: none"> • Training procedure for lay operators for handling of the antenna system and implementation of calibration. • Identification of shortcomings and preparation of improvement suggestions. <p>Start date: Commencement Date End date: 12 months after the Commencement Date</p>
7	Deliverables	Prototype antenna system integrated on the MudMaster Report outlining on site material calibration procedure Report outlining procedure for effective measurement of dielectric data for tailings and database of the electromagnetic parameters of tailings and basic soil parameters Report outlining training procedure for lay operators for handling of the antenna system and implementation of calibration Final report summarising results and suggesting improvements
8	Commencement Date	Date that is specified in the Commonwealth Funding Agreement
9	End Date	Date that is specified in the Commonwealth Funding Agreement
10	Project Term	The Project will be for a term of 12 months, commencing on the Commencement Date and ending on the earlier of: (a) the End Date; and

Item	Name	Description		
		(b) the effective date of termination, if the Agreement is terminated earlier in accordance with clause 7 of the Standard Terms .		
11	Project Supervisor	Dr Thierry Bore Dr Konstanty Bialkowski Professor Alexander Scheuermann		
12	Researcher(s)	Mr Scott Thomason If the Researcher(s) becomes unavailable, the Research Provider must immediately notify the Research Recipient, and, subject to approval from the Research Recipient, replace with personnel with similar expertise and ability to those of the Researcher(s).		
13	Project Location(s)	The Research Project will be undertaken at The University of Queensland.		
14	Research Provider Contribution	Time for supervision from Project Supervisor valued at: Dr Thierry Bore at 0.1FTE Dr Konstanty Bialkowski at 0.1FTE Professor Alexander Scheuermann at 0.1FTE provided to this Project as in-kind contribution.		
15	Research Recipient Contribution	N/A		
16	Project Fees	Research Recipient cash contribution: \$52,454 Research Provider contribution: N/A Commonwealth funding: \$50,000 Total Project Value: \$102,454 The Parties acknowledge that the Commonwealth funding will be provided directly to the Research Provider. Project Fees are exclusive of GST.		
17	Payment Method	The Research Recipient will pay the Project Fees (exc GST) to the Research Provider in accordance with the following schedule: <table><tr><td>Invoicing date</td><td>Payment amount (AUD ex GST)</td></tr></table>	Invoicing date	Payment amount (AUD ex GST)
Invoicing date	Payment amount (AUD ex GST)			

Item	Name	Description
		Upon the execution of this agreement
		10,000
		3 months after the execution of this agreement
		15,000
		6 months after the execution of this agreement
		15,000
		End Date
		12,454

18 Intellectual Property Background Material

The Research Provider has the following Background Material:

- i. NA

The Research Recipient has the following Background Material:

- i. Detailed information on MudMaster® operation in a range of commodities that provides fundamental information on how AMC can be optimised for any tailings/soft-soil. Data extracted the Research Recipient's MudMasters® while operating on client operations is subject to confidentiality between the Research Recipient and the Client. It is a pre-condition of access that the data is de-identified by the Research Provider to ensure the client remains anonymous. Data is to be identified by commodity only.

Access of any Background Material and Confidential Information provided by the Research Recipient is limited to the Project Supervisor (Item 11) and Researchers (Item 12), unless approved in writing by the Research Recipient.

Use of any Background Material, stated above, by the Research Recipient from the Research Provider for purposes other than the project will be subject to separate commercial arrangements between the Research Recipient and the Research Provider.

Developed Material

- i. Intellectual Property in the Deliverables

Item	Name	Description
		<p>Ownership of, and all Intellectual Property Rights in, the Developed Material will vest in the Research Provider and the Research Recipient as tenants in common in equal shares.</p> <p>Subject to the Research Recipient not being in breach of any provision of this agreement, the Research Provider, to the extent of its ownership in the Developed Material, grants the Research Recipient an exclusive, perpetual, sub-licensable, royalty-free worldwide licence to use and commercialise the Developed Material in the fields of tailings management, dredge spoil management and soft soil recovery (“Phibion Exclusive Fields”).</p> <p>The Research Recipient, to the extent of its ownership in the developed Material, grants the Research Provider:</p> <ul style="list-style-type: none"> (a) a non-exclusive, perpetual, sub-licensable, royalty-free worldwide licence to use the Developed Material in any field for research and education purposes; and (b) an exclusive, perpetual, sub-licensable, royalty-free worldwide licence outside of Phibion Exclusive Fields.
19	Publication	<p>Any subsequent intentions to publish are subject to clause 6.3.</p> <p>The Research Recipient acknowledges that the Research Provider may publish and otherwise disclose the results of the Project. The Research Recipient will have 30 days upon receipt from the Research Provider to review the manuscript and request removal of any Confidential Information from the manuscript.</p>
20	Insurance	<p>Public Liability: \$10,000,000 to be maintained for the Project Term.</p> <p>Professional Indemnity: \$10,000,000 to be maintained for the Project Term and a period of 1 years afterwards.</p> <p>The parties may agree to accept alternative forms of insurance which, whilst not precisely making reference to categories described in this clause, offer equivalent insurance cover.</p> <p>Each party acknowledges and agrees that due to the speculative nature of the Project as research, the outcome of the Project is uncertain, and the Research Provider will not be liable for any loss or damage however cause (including due to the negligence of the</p>

Item	Name	Description
		Research Provider) suffered or incurred by any parties in connection with use of any results of the Project.
21	Reports	<p>Reports will provided on a regular basis by the Research Provider at regular intervals agreed between the Research Provider and Research Recipient.</p> <p>The Research Recipient shall submit to the Commonwealth:</p> <p>(a) a Progress Report at 6 months from the Commencement Date;</p> <p>and</p> <p>(b) a Final Report within 4 weeks of the End Date.</p>

SIGNATURES

Executed as an agreement:

EXECUTED by PHIBION PTY LTD by its duly authorised representative:

.....
Signature of authorised representative	Signature of witness	Date

.....
Name of authorised representative (block letters)	Name of witness (block letters)

SIGNED for THE UNIVERSITY OF QUEENSLAND by its duly authorised representative:

.....
Signature of authorised representative	Signature of witness	Date

.....
Name of authorised representative (block letters)	Name of witness (block letters)

STANDARD TERMS

1. Performance of the Project

1.1 Project commencement

The parties agree to commence the Project promptly upon the Commonwealth's execution of the Funding Agreement and, in any event, no later than 14 days after the Commencement Date specified in the Funding Agreement (or other period of time approved by the Commonwealth in writing).

1.2 Research Provider's obligations

During the Project Term, the Research Provider agrees to:

- a) provide the Researcher, and access to Research Infrastructure, to the Research Recipient to perform the Innovation Connections Project at the Project Location, in accordance with Item 13 of the Project Details;
- b) ensure that the Researcher performs the Innovation Connections Project:
 - i. in accordance with this Agreement and the Funding Agreement;
 - ii. diligently and with reasonable care and skill; and
 - iii. cooperatively with the Research Recipient;
- c) continue to pay the Researcher's salary and any other benefits the Researcher is entitled to under his or her terms of employment and maintain appropriate workers compensation insurance in respect of the Researcher; and
- d) provide the Research Provider Contribution (if any) described in Item 14 of the Project Details to the Researcher and/or the Research Recipient (as applicable).

1.3 Research Recipient's obligations

During the Project Term, the Research Recipient agrees to provide:

- a) the Research Recipient Contribution (if any) described in Item 15 of the Project Details to the Researcher; and
- b) reasonable access and assistance to the Researcher to permit the Researcher to perform the Innovation Connections Project in accordance with this Agreement and the Funding Agreement.

2. Project Fees

2.1 Research Recipient contribution

- a) The Research Recipient must pay the Project Fees to the Research Provider in accordance with Items 16 and 17 of the Project Details.
- b) Where the Research Recipient is the party receiving the Commonwealth Funding from the Commonwealth, the Research Recipient will be able to use the Commonwealth Funding as part of the payment of the Project Fees.
- c) Where the Research Provider is the party receiving the Commonwealth Funding from the Commonwealth, the Research Provider will accept the Commonwealth Funding as part payment for the Project Fees.

2.2 Tax Invoices

- a) The Research Provider must provide the Research Recipient with a Tax Invoice for any supply made by the Research Provider under this Agreement.
- b) All Tax Invoices issued by the Research Provider must be paid by the Research Recipient within 30 days of the invoice date.
- c) If the Research Recipient fails to pay an invoice within 30 days of the invoice date as required under clause 2.2(b), the Research Recipient must pay interest on the outstanding amount (excluding any amount that the Research Provider has received from the Commonwealth), calculated daily at 10% per annum from the due date until the date the outstanding amount is paid.

3. Commonwealth Funding Agreement

3.1 Acknowledgment of Commonwealth funding

The parties acknowledge and agree that:

- a) subject to the terms of the Funding Agreement, the Commonwealth will provide the Commonwealth Funding in order to fund up to 50% of the Project payable to the Researcher Provider for the Research Project, up to a maximum of \$50,000 (excluding GST), by paying that amount to the Funding Recipient; and
- b) the Commonwealth may vary, withhold, cease or require repayment of the Commonwealth Funding under clause 8 of the Funding Agreement.

3.2 Effect of breach of the Agreement on Funding Agreement

The parties acknowledge that if either party breaches this Agreement or the Researcher acts in a manner inconsistent with this Agreement or the Funding Agreement:

- a) the Funding Recipient must notify the Commonwealth immediately; and
- b) the Commonwealth may decide to terminate the Funding Agreement.

3.3 Assistance to enable Funding Recipient to comply with the Funding Agreement

The Research Recipient or Research Provider (as applicable) agrees to provide the Funding Recipient with all reasonable assistance to enable the Funding Recipient to comply with its obligations under the Funding Agreement.

4. Intellectual property

4.1 Intellectual Property Rights

- a) Each party agrees that:
 - i. any Background Material of a party, and all Intellectual Property Rights in any such material, will remain the property of that party;
 - ii. each party grants to the other party a non-exclusive, worldwide and royalty-free licence to use, modify, exploit that party's Background Material for the purposes of performing the Innovation Connections Project during the Project Term described in Item 10 of the Project Details; and
 - iii. all Intellectual Property Rights in the Developed Material will vest in the party described in Item 18 of the Project Details on creation and will be subject to any licence arrangements described in Item 18 of the Project Details in favour of the other party.

- b) The parties must do all things necessary to ensure that the ownership of the Developed Material, and all Intellectual Property Rights in that Developed Material, vests in accordance with clause 4.1 a (iii).
- c) Each party warrants that it is entitled to provide the licences contemplated by this clause.

5. Audit and access

5.1 Access to Commonwealth auditors

The parties must give the Commonwealth, the Auditor-General and persons authorised by the Commonwealth (collectively, “**those permitted**”) access to premises at which records are stored or work in connection with the Project is undertaken at all reasonable times and allow those permitted to inspect and copy records in their possession or control for purposes associated with this Agreement or the Funding Agreement or any review of performance under this Agreement or the Funding Agreement, including without limitation, to audit the performance of the Innovation Connections Project.

5.2 Reasonable assistance

The parties must provide all reasonable assistance to those permitted for the purposes of performing the audits contemplated in clause 5.1

6. Publicity and promotion

6.1 Acknowledgements

The parties agree that:

- a) each party and the Researcher must make the details and outcome of the Project available to the Commonwealth for use as an Innovation Connections Project case study and for other purposes relating to the Commonwealth’s evaluation of the Programme;
- b) each party must ensure that the Commonwealth Funding is acknowledged when carrying out any publicity or promotional activities regarding the Innovation Connections Project.

6.2 Publicity

Each party must not publicly use the other’s name or trademarks without its written permission.

6.3 Publicity

Each party will request and receive written approval from the other prior to publishing any paper(s) relating to the Project. A reply to request to publish must occur within 30 days. Each party will not withhold approval from the other, except where the publication may prejudice rights to IP or Confidential Information.

7. Termination

7.1 Termination

Either party has the right to terminate this Agreement by notice in writing to the other party if:

- (a) the Commonwealth notifies the party to whom it made the offer of Commonwealth Funding that it will not proceed with executing the Funding Agreement; or
- (b) the Funding Agreement is terminated.

7.2 Parties’ obligations on termination

On termination of this Agreement, each party will:

- (a) stop participation in the Project as specified in the notice of termination;

- (b) take all available steps to minimise loss resulting from that termination; and
- (c) protect Agreement Material and the Developed Material and Background Material of the other party (if any) and:
 - i. deal with Agreement Material as reasonably directed by that party; and
 - ii. deal with the Developed Material, Background Material and Confidential Information of the other party (if any), as reasonably directed by that party.

8. Insurance

- a) Each party must maintain the insurance policies specified in the Project Details.
- b) Each party must provide evidence of insurance promptly on request by the other party.

9. Records and reporting

Without limiting clause 3.3, the Research Recipient or Research Provider (as applicable) agrees to provide the Funding Recipient with all reasonable assistance required by the Funding Recipient in order to satisfy the Funding Recipient's record keeping and reporting obligations under the Funding Agreement, including by providing any Reports specified in Item 21 of the Project Details.

10. General

- a) Clauses 5, 6, 7 and 9 survive the expiry or termination of this Agreement.
- b) A party may only assign its rights or novate its rights and obligations under this Agreement with the prior written consent of the other party.
- c) This Agreement is governed by the law of the Australian Capital Territory.

11. Definitions and interpretation

11.1 Definitions

In this Agreement, except where the contrary intention is expressed, the following definitions are used in addition to the terms defined in the Project Details:

Agreement Material	all reports and other information which are required by the Commonwealth under this Agreement. For the avoidance of doubt, the Agreement Material does not include the results of the research undertaken by the Researcher(s).
Background Material	means material which existed prior to the Commencement Date or any material which is, or has been, created independently of the Innovation Connections Project and includes any modification, enhancement or improvement made to that material as a result of the Innovation Connections Project.
Commencement Date	means the date on which this Agreement commences, as specified in the Project Details.
Commonwealth	means the Commonwealth of Australia as represented by the Department of Industry, Innovation and Science ABN 74 599 608 295.
Commonwealth Funding	means the funding provided by the Commonwealth to the Funding Recipient under the Funding Agreement.
Confidential Information	means information that is by its nature confidential and: a) is designated by a party as confidential; or b) a party knows or ought to know is confidential, but does not include: c) information that is or becomes public knowledge otherwise than by breach of this Agreement or any other confidentiality obligation.
Customer Information Guide	the guidelines for the programme provided to you by the Commonwealth, as amended by the Commonwealth from time to time.
Developed Material	means all intellectual property which: a) is created by one or both parties in the course of carrying out the Activities; b) is described and/or subsists in the Deliverable(s), and c) excludes general skills and capability.
Programme	means the Commonwealth's Entrepreneurs' Programme.
Funding Agreement	means the agreement between the Funding Recipient and the Commonwealth under which the Commonwealth provides the Funding Recipient funding for the Research Project.
Infrastructure	means the assets, facilities and services which support research across the innovation system and which maintain the capacity of

researchers to undertake research and deliver innovation outcomes.

Innovation Connections Project

means the placement of the Researcher(s) with the Research Recipient for the purpose of performing the Innovation Connections Project as detailed in the Activity Schedule in Item B.2 of the Funding Agreement and on the term and conditions set out in this Agreement.

Intellectual Property Rights

means all intellectual property rights including current and future registered and unregistered rights in respect of copyright, designs, circuit layouts, trademarks, trade secrets, know-how, confidential information, patents, invention and discoveries and all other intellectual property as defined in Article 2 of the convention establishing the World Intellectual Property Organisation 1967.

11.2 Interpretation

In this Agreement, except where the contrary intention is expressed:

- a) the singular includes the plural and vice versa, and a gender includes other genders;
- b) a reference to a party is to a party to this Agreement, and a reference to a party to a document includes the party's executors, administrators, successors and permitted assignees and substitutes;
- c) a reference to a person includes a natural person, partnership, body corporate, association, governmental or local authority or agency or other entity;
- d) a reference to a statute, ordinance, code or other law includes regulations and other instruments under it and consolidations, amendments, re-enactments or replacements of any of them;
- e) the meaning of general words is not limited by specific examples introduced by including, for example or similar expressions;
- f) a reference to month is a reference to a period commencing at the beginning of a day of one of the 12 months of the year and ending immediately before the beginning of the corresponding day of the next month (for example, one month starting 19 June ends 18 July) or, if there is no such corresponding day, ending at the expiration of the next month; and
- g) headings are for ease of reference only and do not affect interpretation.

11.3 Priority of Agreement documents

If there is inconsistency between any of the documents forming part of this Agreement, those documents will be interpreted in the following order of priority to the extent of any inconsistency:

- a) Standard Terms;
- b) the Activity Schedule;
- c) the Project Details; and
- d) the Innovation Connections Customer Information Guide.