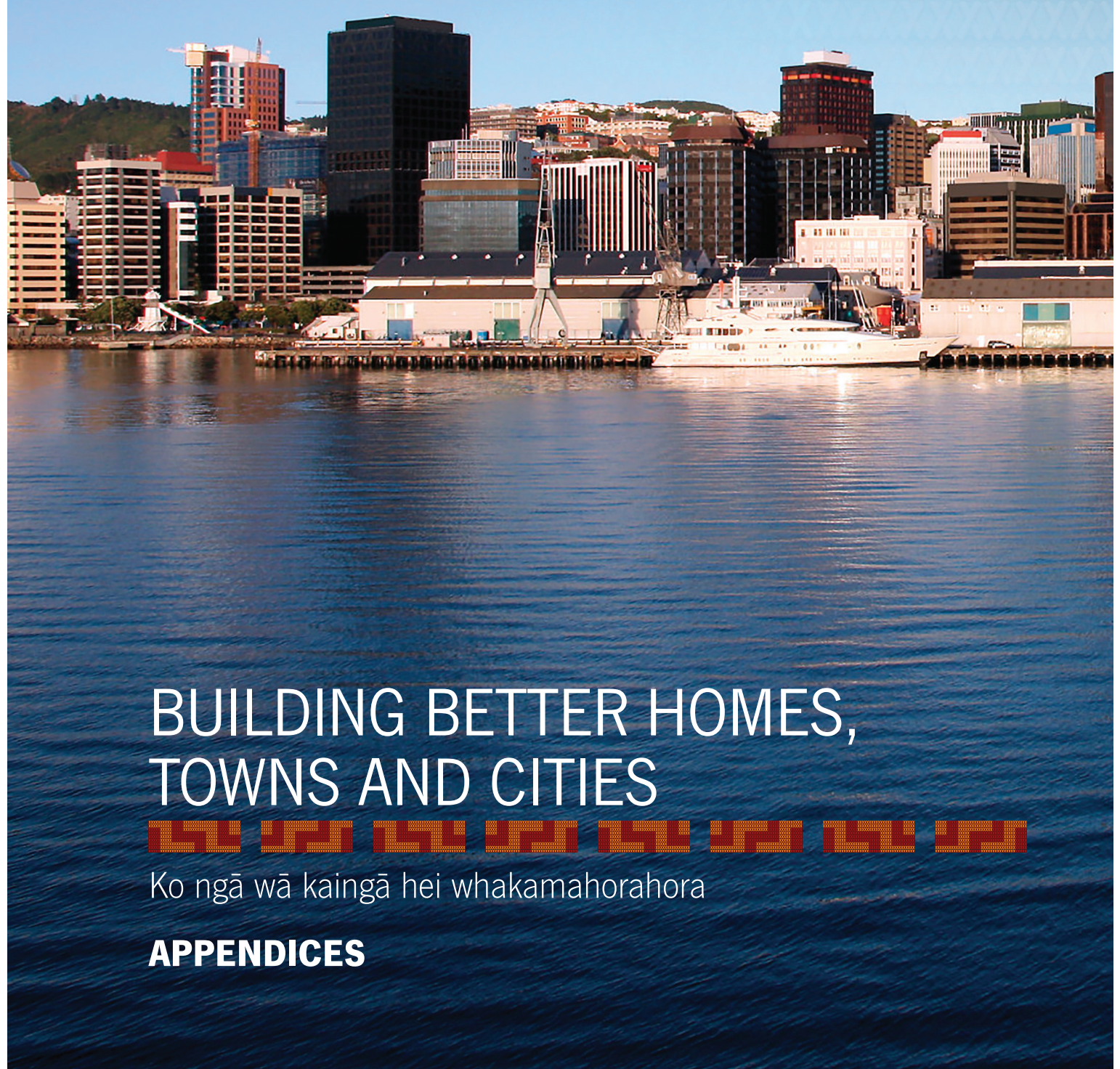
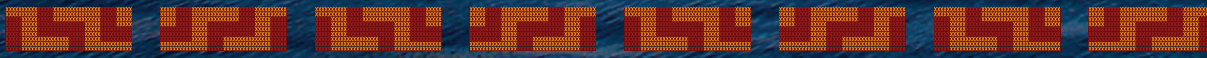




BUILDING BETTER HOMES, TOWNS AND CITIES


Ko ngā wā kaingā hei whakamahorahora

APPENDICES



APPENDIX 1

ALIGNMENT WITH MBIE FEEDBACK

		MBIE Requirements	Section in which addressed
Governance	1	Independent Chair appointed	1.3.1 Governance Board 3.3 Governance Arrangements
	2	Governance Group appointed	1.3.1 Governance Board 3.3 Governance Arrangements
	3	Consideration of conflict of interest if BRANZ member on Governance Group	3.3 Governance Arrangements
Management	4	Director appointed	1.3.2.1 Director Appendix 6 Science Leadership Team Profiles
Stakeholder Engagement	5	Deeper & systematic engagement described in stakeholder engagement plan	1.3.7 Stakeholder Engagement 2. Research Plan – see individual Strategic Research Areas
Collaboration	6	Evidence of how collaboration will be achieved	1.3.8 Building the Team
Vision Mātauranga	7	Putting VM into practice	1.4 Vision Mātauranga
Sector transformation & achieving impact	8	How will transformation be brought about?	Transforming the Sector
	9	Development of a set of detailed research projects	2 Research Plan
	10	Research practice should be informed by literature, particularly in regard to social innovation	2 Research Plan particularly Context sections of each Strategic Research Areas
	11	Ensuring quality including through internal & external resources	2.10 Research Quality
	12	Detailed targets on which the impact of the Challenge can be assessed	1.6 Challenge Outcome Development and Structure 2. Research Plan – see Outputs in individual Strategic Research Areas
Contestable funding	13	Identify minimum amount of contestable funding to be allocated	1.2.5 Prioritisation and Contestable Funding

APPENDIX 2

DRAFT CHALLENGE COLLABORATION AGREEMENT

Note that this Agreement includes the:

- Board Terms of Reference
- Intellectual Property Management Plan
- Conflict of Interest Policy

1 RECITALS

The Government has developed a set of mission-led National Science Challenges that will receive government research investment over the next 10 years to help address key societal issues that New Zealand will face now and into the future. One of these is the Building Better Homes, Towns And Cities: Ko ngā wā kāinga hei whakamāhorahora National Science Challenge (BBHTC Challenge), with the Challenge Vision:

Ka ora kainga rua: Built environments that build communities

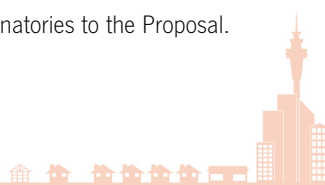
Homes, neighbourhoods, towns and cities throughout New Zealand that enable people to enrich their lives and reach their social, cultural and economic potential throughout their life stages (the Vision).

The Parties have worked together to develop and submit an investment proposal for the BBHTC Challenge to the Ministry of Business, Innovation and Employment (the Ministry) in response to a Request for Proposals. This Proposal was accepted and a contract awarded by the Ministry for the establishment of the BBHTC Challenge and its operation for an initial five year period with provision for a further four years funding.

The Parties have agreed that BRANZ shall contract with the Ministry on behalf of the Challenge as the Challenge Contractor. This Agreement sets out the terms under which the Parties shall work collaboratively to deliver the Mission of the BBHTC Challenge in accordance with the Ministry NSC investment contract.

2 BACKGROUND

- A. The Parties wish to work together collaboratively to deliver the contracted BBHTC Challenge.
- B. The Parties have complementary research expertise and capabilities in the areas of:
- i Economics;
  - ii Architecture and Design;
  - iii Social Sciences;
  - iv Building Sciences;
  - v Engineering;
  - vi Information and communication technologies, data and analysis.
- C. BRANZ submitted a Proposal to the Ministry on behalf of the Parties for BBHTC Challenge.
- D. All Parties to this Agreement are co-signatories to the Proposal.



- E. The Parties have agreed to align resources in addition to the funding provided by the Ministry, and will build the best teams possible based on national expertise to undertake the work programme described in the full Research Plan.
- F. This Agreement sets out the terms under which the Parties shall establish and operate the Challenge and comply with the NSC Investment Contract and any related Challenge Programme Agreements.

3 PRINCIPLES

The Parties agree to operate the BBHTC Challenge according to the following guiding principles, and will:

- (a) focus the Challenge Research and Related Activities on the delivery of the BBHTC Mission (Clause 5), recognising that aligning and integrating interests across multiple organisations will provide a greater national outcome than if the Parties acted independently;
- (b) align resources and collaborate in the pursuit of the agreed BBHTC Mission through the Research Plan, and ensure that BBHTC Challenge activities remain in scope, thereby avoiding duplication of research and enabling access to specialist facilities, resources and expertise of all the Parties;
- (c) pledge to a genuine, enduring collaboration built on mutual trust and a sense of collective responsibility;
- (d) make the best use of skills and expertise of New Zealand, regardless of institution, to build multi-disciplinary, high quality teams;
- (e) embed Vision Mātauranga principles and concepts throughout the BBHTC Challenge, through Māori involvement in the governance, management and research of the BBHTC Challenge, to ensure that the BBHTC Challenge is able to deliver on the needs and aspirations of Māori;
- (f) incorporate Māori, industry, central and local government and communities in the BBHTC activities to ensure research relevance, societal trust in science, outreach and the implementation of the research findings;
- (g) provide clear leadership and accountability within the governance, management and science of the BBHTC Challenge, while avoiding institutional capture;
- (h) as appropriate, use independent, expert scientific advisors and reviewers to ensure that the BBHTC Challenge delivers research that is effective and follows international best practice;
- (i) implement financial arrangements that are sound and enduring, including the use of standard operating/financial models based on the full-cost funding of research;
- (j) allocate the BBHTC Challenge funding through an objective, transparent process, and provide a basis for supporting new researchers, organisations and capability relevant to the Mission; and
- (k) ensure that robust and transparent processes are in place at an early stage to manage conflicts of interest, at both individual and institutional levels, in the direction-setting and funding-allocation processes.

4 DEFINITIONS:

4.1 Definitions applicable to this Agreement

The following terms and expressions shall have the following meanings in this Agreement, including its recitals, schedules and appendices, unless the context requires otherwise:

Administration Funding means the funds allocated to the Challenge Contractor in Board approved annual budgets for administration, management and governance of the BBHTC Challenge under clause 17.2 (a), including any risk management costs, if required, as contemplated under clause 14.4.

Agreement means this Agreement, including any schedules, appendices and annexures, as it may be varied or supplemented from time to time in writing and signed by the Parties.

Aligned Research means a Party's own research that will be used by the Party to support the priorities of the BBHTC Challenge as specified in the Research Plan. Aligned Research includes the current research by the Parties focused on impacts and outcomes relevant to the BBHTC Challenge Mission, and which can be informed and influenced over time as it is integrated into an overall portfolio addressing the BBHTC Challenge Mission. Aligned Research may:

- involve staff, students, infrastructure and operational expenditure;
- include research directly funded by a Party from its own, discretionary resources;
- include research funded by the Ministry and other government departments, and;
- include other funding sources who are potential users of Challenge research, where such research directly supports the Challenge programmes and Mission.

Annual Plan or Report means the annual plan or report the Challenge Contractor is required to provide to the Ministry as specified in the NSC Investment Contract.

Background IP means Intellectual Property that is acquired or developed by a Party independently for use in the Research and/or Related Activities under this Agreement.

Benefit to New Zealand means achievement of or contribution to the Mission and objectives outlined in Clause 5 and the obligations under the NSC Investment Contract.

BBHTC Board or Board means the Board established under Schedule 3 (Schedule 3 - Terms of Reference For Governance Board) with the duties and roles described therein.

Business Day means any day, not including a Saturday or Sunday, a statutory holiday, and does not include the days between Christmas and New Year up to the 4th of January if the 1st and 2nd of Jan fall on a weekend.

Central Funding means the funding allocated centrally to support Challenge activities not covered by Administration Funding or Project Funding as contemplated under clause 16.

Challenge or BBHTC Challenge means the collaboration of the Parties to conduct the activities and or services of the the Building Better Homes, Towns And Cities: Ko ngā wā kāinga hei whakamāhorahora National Science Challenge, established by this Agreement to deliver the BBHTC Mission in accordance with the NSC Investment Contract.



Challenge Contractor means the Party executing the NSC Investment Contract with the Ministry and administering the Challenge on behalf of the Parties. The Parties have agreed the Challenge Contractor shall be BRANZ.

Challenge Funding means all funds paid or payable to the Challenge Contractor by the Ministry in accordance with the NSC Investment Contract.

Challenge Party/Parties means a collaboration Party that is not the Challenge Contractor, but that is party to this Agreement.

Challenge Project means a specific Challenge-related Activity approved by the Challenge Board.

Challenge Programme Agreement means a Challenge Programme Agreement in the form appended to the NSC Investment Contract and entered into between the Ministry and the Challenge Contractor.

Co-funding means funding committed by an Other Party for Research and Related Activities aligned to the Challenge.

Director means the Director of the Challenge appointed under clause 13.4.

Directorate means the internal body established within the Challenge Contractor comprising the Director, [Others to be determined: e.g. a Challenge Manager, Operations Manager] and any other management or administration roles agreed by the Board, with responsibility for assisting the Director in operating and administering the Challenge.

Financial Year means the period 1 July to 30 June, or such other period as may be required by the Ministry.

Independent Chair or Chair means the independent chair of the BBHTC Board appointed in accordance with clause 13 and, where the context permits, includes any subsequent chair of the BBHTC Board.

Intellectual Property means industrial and intellectual property of any kind, whether or not in a material form, including but not limited to:

- (a) copyrights (excluding those in academic articles), trade mark rights, design rights, all rights relating to confidential information, and patents (or equivalent in any jurisdiction), any right to apply for registration of any such intellectual property rights anywhere in the world, any right to claim priority under international convention for any such applications and all rights conferred by such industrial or intellectual property when registered or granted; and
- (b) all rights to and in any processes, formulae, designs, reports, drawings, circuit layouts, specifications, software, blue prints, Know-How, experiences, characteristics, inventions, discoveries, research data.

KPIs means key performance indicators as agreed with the Ministry in the NSC Investment Contract.

Managing Party means a Party who either owns Project IP on creation or is assigned Project IP by a Party or Parties under clause 18 for protection, management and commercialisation purposes.

Ministry means the Ministry of Business, Innovation and Employment (the Ministry) (or any successor that replaces the Ministry as a party to the NSC Investment Contract).

Mission means the Mission of the BBHTC Challenge as agreed by the Ministry in the Proposal.

NSC Investment Contract means the legally binding contract between the Challenge Contractor and the Ministry to support the purposes of the Challenge (including, to avoid doubt, any Challenge Programme Agreement), a copy of which will be provided by the Challenge Contractor to all Parties following execution of the Contract.

Other Party or Other Parties means any legal entity that is not a Party to this Agreement.

Party or Parties means a Party to this Agreement.

Project Funding means Challenge Funding paid to any Challenge Party or Other Party under Subcontracts or, in respect of the Challenge Contractor equivalent internal projects, to perform aspects of the Research Plan.

Project IP means all Intellectual Property and proprietary information pertaining to material brought into existence or required to be brought into existence as part of or for the purposes of implementing the Research Plan, but does not include any Background IP.

Proposal means the proposal by the Parties for the BBHTC Challenge submitted to the Ministry in March 2015 and any subsequent proposals submitted before commencement of the second funding period 1 July 2019.

Research and/or Related Activities means the activities the Parties have agreed to undertake to deliver the NSC Investment Contract and/or those aspects that a Party has agreed to undertake under the terms of a Subcontract.

Research Plan means the full Research Plan agreed to by the Ministry, and (where relevant) as varied in subsequent plans.

Science Board means the board established by the Minister of Science and Innovation under the Research, Science, and Technology Act 2010 to, amongst other things, make decisions in respect of proposals for funding research, science and technology.

Science Leadership Team means the Director plus named researchers or members as approved by the Board as envisaged in Schedule 3.

Subcontract means an agreement between the Challenge Contractor and a Party to this agreement or any Other Party receiving payment from the Challenge Funding to carry out Research or Related Activities funded by the Challenge. For the avoidance of doubt, in the case of the Challenge Contractor any Research or Related Activities will be conducted under a proxy internal contract which follows as far as is practicable the same sub-contracting arrangements that apply to any other party and the principles of the Conflicts of Interest Policy will be applied

Term means the period from March 2015 to 30 June 2024, plus any disengagement period under the NSC Investment Contract, plus any extension of the term agreed under clause 26.

4.2 **In this Agreement unless the context requires otherwise:**

- (a) clause and other headings are for ease of reference only and are not to be deemed to form part of the context, or to affect the interpretation, of the Agreement; and
- (b) words imparting the singular include the plural and vice versa.



5 CHALLENGE MISSION, VISION AND OBJECTIVES (PURPOSE)

5.1 The Parties agree that the Mission of this Challenge is Manaaki Tangata:

a. Mission (Te Tahuhu)

Researchers, engaged with industry and community through innovative research with commitment to co-creation of new knowledge, will transform the systems and organisations that shape the creation and regeneration of our homes, neighbourhoods, towns and cities. The mission of the Building Better Homes, Towns and Cities (BBHTC) National Science Challenge is to help transform dwellings and places where people live into homes and communities that are hospitable, productive, and protective. Critical characteristics are:

- Fit-for-purpose, flexible homes and built communities that can adapt to New Zealand's diverse populations, structural ageing, and the challenges of New Zealand's unique geography and environments, urbanism, and regionality.
- A building, design, planning and regulatory sector that is robust and is consistently able to deliver:
  - Sufficient quantity and quality of new and renovated homes necessary for the health and wellbeing of individuals, families and households.
  - A range of housing solutions that align with the full range of material and physical capacities of households.
  - Neighbourhoods, towns and cities with safe and affordable dwellings that connect people and enable them to take opportunities and participate productively in New Zealand's economic, civic, and cultural life.
- Dwellings, neighbourhoods, towns and cities that promote social and economic wellbeing and New Zealand's international competitiveness through:
  - Vibrant, liveable and affordable cities that reflect New Zealand's diversity.
  - Transitioning to low-carbon towns and cities
  - Expanding demand for our innovative design, materials, and building services to support the revitalisation of housing and settlements.

5.2 The Parties agree that the Challenge Vision is:

Ka ora kainga rua

Built environments that build communities. Homes, neighbourhoods, towns and cities throughout New Zealand that enable people to enrich their lives and reach their social, cultural and economic potential throughout their life stages.

5.3 The Parties agree that the objectives to achieve the BBHTC Mission are to improve the quality and supply of housing and create smart and attractive urban environments by;

- (a) An improved housing stock
- (b) Meeting future demand for affordable housing.
- (c) Taking up innovation and productivity improvement opportunities
- (d) Improving current and future urban environments and residents' well-being
- (e) Better systems for improved land-use decisions.

6 OPERATIVE CLAUSE

- 6.1 The Challenge Contractor will establish the BBHTC Challenge, in accordance with all of its relevant internal policies and procedures, as a separate unit within its organisational structure.
- 6.2 The Parties agree to collaborate to deliver the Mission and objectives of the BBHTC Challenge, as outlined in the Research Plan, through fulfilling the obligations of the NSC Investment Contract and this Agreement.
- 6.3 This Collaboration Agreement is conditional upon (and shall be of no effect) until the NSC Investment Contract is signed between the Ministry and the Challenge Contractor.
- 6.4 Although the Ministry is not a party to this Agreement, promises in it which confer, and are intended to confer, a benefit on the Ministry may be enforced by the Ministry under section 4 of the Contracts (Privity) Act 1982.
- 6.5 Where any plans or duly approved documents (including the NSC Investment Contract and the Research Plan) describe any measures or reporting requirements, the Parties agree to record and to provide such information to the Challenge Contractor as is needed to meet these requirements.
- 6.6 A Party will immediately notify the Challenge Contractor of any issues that may impact on the Party's ability to comply with its obligations under this Agreement or to provide support and contribute to the Research Plan.
- 6.7 All Parties will ensure that conflicts of interest are managed in accordance with the Conflicts of Interest Policy outlined in Schedule 2.

7 PRIOR AND OTHER AGREEMENTS

- 7.1 This Agreement replaces all prior agreements between the Parties in relation to the BBHTC Challenge including the Heads of Agreement dated March 2015.
- 7.2 The Challenge Contractor will provide the Parties with copies of the NSC Investment Contract, any Challenge Programme Agreements and any amendments thereto as soon as reasonably practicable after execution.
- 7.3 The activities of the Challenge are established and governed by the NSC Investment Contract (between the Ministry and the Challenge Contractor) and this Agreement. In addition, the Challenge Contractor intends to enter into Subcontracts with the Challenge Parties and Other Parties to agree the Research and/or Related Activities that will be provided by them and the Project Funding that will be paid to them by the Challenge Contractor as envisaged under clause 17.
- 7.4 If there is any conflict between any of the above, the descending order of priority indicated below will apply:
  - (f) NSC Investment Contract (including any Challenge Programme Agreements).
  - (g) This Agreement.
  - (h) Subcontract.



8 NATURE OF THE COLLABORATION AND INDEPENDENCE OF PARTIES

- 8.1 The relationship between the Parties is that of a research Challenge collaboration with all Parties working to a common purpose supported by a legal arrangement of a head contractor (the Challenge Contractor) and subcontractors (the Challenge Parties and Other Parties), all of whom acknowledge the mutual and specific obligations that flow from the NSC Investment Contract, the Proposal and this Agreement.
- 8.2 Nothing in this Agreement or in the relationship between the Parties shall be deemed or construed as creating a partnership, agency, joint venture or trust between the Parties. No Party has any authority to incur any obligations or liabilities for or on behalf of or otherwise to bind or to act on behalf of another Party, unless such authority is explicitly set out in this Agreement, the NSC Investment Contract, any Subcontract or other agreement.

9 CHALLENGE CONTRACTOR'S OBLIGATIONS

- 9.1 The Parties have agreed that BRANZ shall be the Challenge Contractor. BRANZ shall provide a management office within its offices, establish both the Directorate and the Board business processes, and such other administrative matters as are contemplated by this Agreement, including the following:
- (a) The Challenge Contractor will ensure compliance with the NSC Investment Contract and will apply the Challenge Funding only in accordance with the NSC Investment Contract, the Research Plan, this Agreement and any variations thereto duly approved by the BBHTC Board.
  - (b) The Challenge Contractor will establish separate accounts for the Challenge within its standard financial management system and apply standard financial management practices to the use and monitoring of the Challenge Funding. For the avoidance of doubt the Challenge Contractor is not required to establish a separate bank account for Challenge Funding.
  - (c) Project Funding shall be provided subject to Subcontracts consistent with this Agreement, the NSC Investment Contract and by mutual agreement on the terms and conditions as described in Schedule 4.
  - (d) Challenge Funding allocated to support Administration Funding shall be maintained in a single separate project account while Project Funding allocated to support specific Research and/or Related Activities shall be via separate project accounts, which will include external Subcontracts, through the Challenge Contractor Project Management System.
- 9.2 The Challenge Contractor will take sufficient action as reasonably required to avoid or address any breach of the NSC Investment Contract provided that if there is sufficient time the Challenge Contractor will consult with and seek agreement with the Board, and if necessary the Parties, to any action required to avoid or address any such breach.
- 9.3 The Challenge Contractor will operate the Challenge in a manner consistent with this Agreement but within the constraints of the NSC Investment Contract. Where unable to do so the Challenge Contractor shall consult with and seek agreement with the Parties to any divergence from this Agreement.
- 9.4 The Challenge Contractor will provide the Board (either via the Director or directly if requested) with all information concerning the operation of the Challenge and the Research Plan as is reasonably required by the Board, including with respect to the Research and/or Related Activities of the Challenge Contractor.
- 9.5 The Challenge Contractor will not enter into any subsequent NSC Investment Contract or variations to the NSC Investment Contract without first copying the proposed changes to the Parties and obtaining written approval of the BBHTC Board.

10 OBLIGATIONS OF CHALLENGE PARTIES

- 10.1 The Challenge Parties hereby acknowledge and endorse the terms of the NSC Investment Contract.
- 10.2 The Challenge Parties shall use all reasonable endeavours to support the Challenge Contractor to fulfil its obligations to the Ministry under the NSC Investment Contract and Challenge Programme Agreements and any duly approved variations thereto.
- 10.3 Subcontracts negotiated between the Challenge Contractor, a Challenge Party or Other Party shall include any requirements on the use of Project Funds specified in the NSC Investment Contract. Such requirements may include but are not limited to ethical consents, health and safety, permits, professional standards, record keeping, reports, access to information and audit requirements.
- 10.4 The Challenge Parties agree not to take any action at material variance with the NSC Investment Contract or which would be likely to result in the Challenge Contractor breaching the NSC Investment Contract. Any act or omission of a Collaborating Organisation which causes the Challenge Contractor to materially breach the terms of the NSC Investment Contract may be treated by the other Parties as a material breach of this Agreement.

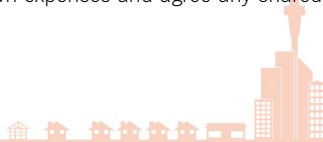
11 ALIGNED SUPPORT

The Parties will provide access to their equipment and facilities, to the extent practicable (subject to internal priorities), at reasonable times and on reasonable notice, for research staff, from the Challenge Contractor, Challenge Parties or Other Parties, working on Challenge funded Research at full cost. A Party accessing equipment and facilities under this clause will comply with the health and safety and other regulatory requirements and policies of the Party providing access (for example bio-safety rules) of the Party providing access. The need for a Party providing access to protect non-Challenge commercial activities is acknowledged.

- 11.1 Each Party will give positive consideration to the equipment and facilities needs of the Challenge in making capital expenditure investments.
- 11.2 Parties providing particular capability to the Challenge will use best endeavours to maintain the skills and expertise required.

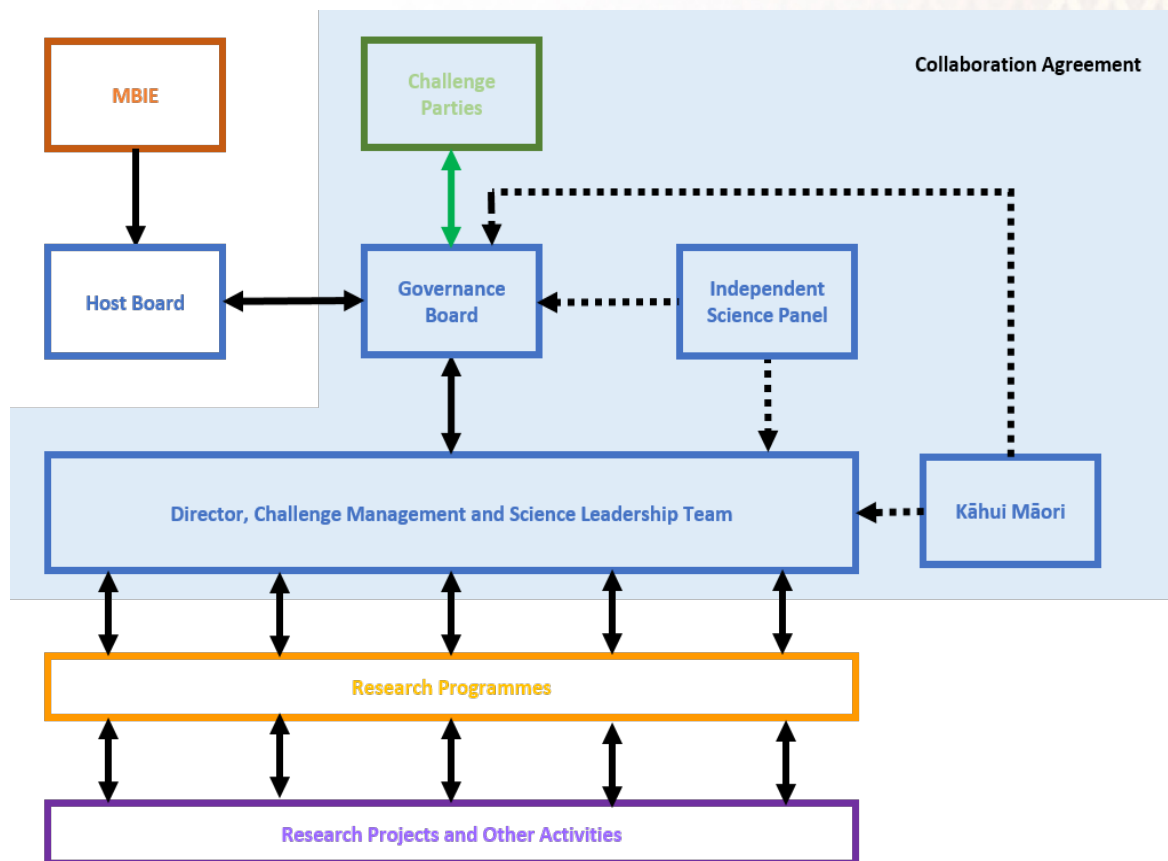
12 WARRANTIES, LIABILITIES AND INDEMNITIES

- 12.1 Each Party warrants that it has the necessary authority to enter into and perform its obligations under this Agreement and that it will maintain what would reasonably be considered to be adequate public liability and professional indemnity insurance and such other reasonable insurances required to cover all research, operations and actions undertaken and all liabilities arising as a result of this Agreement.
- 12.2 Except in the case of liability for death or personal injury no Party will be liable to another Party for any indirect, consequential or incidental loss or damage or loss of profit or loss of opportunity arising out of or in connection with this Agreement.
- 12.3 All Parties hereby agree, subject to their internal policy or governance rules and insurance arrangements, to support the Challenge Contractor in defending any legal actions taken against it under the NSC Investment Contract (including any Challenge Programme Agreement) or this Agreement where the action involves them and conversely, the Challenge Contractor agrees to involve any Party in defending any actions which could result in a financial or other liability against them. Where any Party is unable to fully support the Challenge Contractor in such legal actions it will advise the limits or constraints on its support and provide what support it is free and able to do in good faith. In providing this support, each Party and the Challenge Contractor will meet their own expenses and agree any shared expenses.



13 OPERATION OF THE BBHTC CHALLENGE

- 13.1 The intent of the Parties is to operate the BBHTC Challenge as a mission-led science initiative in keeping with the development of the National Science Challenges. The research priorities and their implementation shall be set by the BBHTC Board. These priorities will be based on recommendations by the Director, established in consultation with the Science Leadership Team. The Director will be supported by professional management and administration provided by the Challenge Contractor. A diagrammatic model of the overall BBHTC Challenge structure is shown below, while the following clauses define the different components of the governance model.



- 13.2 The BBHTC Board will comprise the following members:
- An independent Chair appointed by the Board of the Challenge Contractor, in agreement with the Challenge Parties, and approved in advance of appointment by the Ministry Science Board. The Chair will be independent of any Challenge Parties. The Chair will be chosen for skills in governance, national prominence and stakeholder management. The Chair will be appointed for a term of three years, subject to approval in advance of appointment by the Ministry, which may be renewed for further three year terms, on the mutual agreement of the Parties and Ministry approval should the Chair be replaced.
  - Additional members (not less than 4 nor more than 6, with the option to co-opt where required) appointed by the Challenge Contractor Board in agreement with the Challenge Parties in keeping with Schedule 3 with a mix of skills, capability and strategic knowledge relevant to the BBHTC Mission, including but not

limited to Māori, housing and urban environments, policy and planning, engagement and outreach, research and finance.

- (c) Board meetings can be attended by one or more Ministry observers, as appointed by the Ministry.
- (d) Board meetings can be attended by one or more observer(s) from the Challenge Contractor.
- (e) Board meetings can be attended by one or more observer(s) from Challenge Parties.
- (f) All observer(s) shall not have voting rights but may attend and speak at meetings. The Chair shall have the right to ask any observer to withdraw from the Board meeting if sensitive discussion, or conflicts of interest related to that observer's organisation (Ministry, Challenge Contractor or Challenge Party) are to occur.

13.3 By two thirds agreement, the Parties may request the Board of the Challenge Contractor to remove either the Chair or any Board member, should they be deemed to be failing to meet their obligations and responsibilities as a member of the BBHTC Board, but must notify the Ministry.

13.4 The Director of the Challenge shall be employed by the Challenge Contractor, in accordance with an appointment process determined by the BBHTC Board. The Director shall report to the BBHTC Board on the performance of the Challenge, be assisted by the Science Leadership Team, and have the following responsibilities:

- (a) Coordinate and operate the BBHTC Challenge in accordance with all contracts and agreements, and their associated policies, principles, processes and procedures, to deliver the Challenge mission.
- (b) Prepare, for approval by the BBHTC Board, any Annual Plans and budgets and any annual or other reports required under all contracts and agreements, or any other documents as agreed by the BBHTC Board.
- (c) Recommend to the BBHTC Board, on behalf of the Science Leadership Team, any decisions concerning allocation of Project Funding for Research and Related Activities based on the Research Plan, peer review and a best teams approach.
- (d) Provide leadership to the Science Leadership Team, and recommend to the BBHTC Board for approval the members of the Science Leadership Team.
- (e) Meet all reporting, review and record keeping requirements of the NSC Investment Contract or the BBHTC Board, associated with the management and performance of the BBHTC Challenge.
- (f) Coordinate, support and monitor management of the Subcontracts for Challenge funded projects, including Challenge projects undertaken by the Challenge Contractor. Approve and monitor expenditure against the approved budget within delegated authority.
- (g) Coordinate and monitor projects supported through Aligned Research and Party resources so they are guided by the BBHTC Research Plan and priorities.
- (h) Performance manage the overall programme of work to ensure integration of the Challenge Research and Related Activities, stakeholder engagement and technology transfer, international collaboration, and that the outcomes sought by the Ministry are achieved over the term of the NSC Investment Contract.
- (i) Oversee any Challenge Hui, meetings or workshops, including community engagement and outreach, and address or delegate Challenge media and publicity.
- (j) Ensure that the Challenge is giving effect to Vision Mātauranga.



- (k) Implement a reprioritisation process to enable response to any change event that would affect the ability of the Challenge to meet its objectives and Mission. Such change events could include review results, loss of research capability or logistics, changes in national strategy or Challenge funding levels.
  - (l) Maintain overview of relationships with relevant stakeholders and promote activities that champion its value to external stakeholders.
  - (m) Provide input into performance management of business support and secretariat staff.
- 13.5 The Director shall be funded by Challenge administration funding to manage the Challenge and, subject to the same assessment/due diligence applied to all Challenge-funded projects, may actively lead an aspect of the Challenge Research Plan.
- 13.6 The Director recommends the members of the Science Leadership Team to the Board for approval. The Science Leadership Team will comprise the Leader for each BBHTC programme within the Research Plan and any other members deemed necessary by the Board. They will have a term of three years. Members may be selected for a second term, as approved by the Board
- 13.7 The Director shall Chair the meetings of the Science Leadership Team and seek majority rule consensus decision making on all issues. Where a consensus is not able to be reached, the Director may seek other advice and inform the Science Leadership Team of his/her proposed decision to ensure decisions are made in a timely way. If the decision of the Director is not acceptable to any member of the Science Leadership Team, they may request a review from the Chair, who may confirm the Director's decision or refer the matter to the BBHTC Board
- 13.8 Direct travel and accommodation costs of attending Science Leadership Team meetings called by the Director shall be met from Challenge Funds.
- 13.9 Oversight of the Director will be carried out by the BBHTC Board in respect of delivery of the BBHTC Challenge, and by the Challenge Contractor in respect of any employment or non-BBHTC Challenge activities.

14 ROLE AND RESPONSIBILITIES OF THE BBHTC BOARD

- 14.1 The BBHTC Board will provide oversight of the Challenge, including approval of the Research Plan for the Challenge, overseeing Challenge management, financial control and the ongoing direction and performance of the Challenge. The Board has a fiduciary duty to act in the best interests of the achievement of the BBHTC Mission, rather than the individual interests of any of the Parties or any other parties. In meeting its responsibilities, the Board will be guided by the provisions of the NSC Investment Contract and this Agreement.
- 14.2 The Board will be guided by, and undertake the roles and responsibilities listed in, the Terms of Reference for the BBHTC Board provided in Schedule 3.
- 14.3 The Challenge Contractor, through the Director, shall support the BBHTC Board processes. The BBHTC Board will typically meet four times per year, or more frequently if it deems necessary, especially during the establishment phase.
- 14.4 Where actions of the BBHTC Board breach or pose a serious and immediate risk of causing a material breach of the NSC Investment Contract or any other substantial contract under the Challenge, the CEO of the Challenge Contractor can take all actions necessary to remedy or remove the risk. This may involve replacing BBHTC Board members or assuming the duties of the BBHTC Board until such time as the breach or serious risk is corrected or removed. Any such action will require notification to the Ministry.

15 INDEPENDENT SCIENCE REVIEW

- 15.1 The Director and/or Board may deem it necessary to undertake an independent review of all or some of the science and related activities associated with the Challenge.
- 15.2 Should such a review be required, the review will be undertaken by an independent panel of experts (the Independent Science Advisory Panel). The form of any review is to be agreed by the BBHTC Board.
- 15.3 The Director and the Science Leadership Team shall be responsible for implementing any reviews, providing a report of the findings of the review, and outlining any required adjustments to the Research Plan and/or activities accordingly. Any proposed responses and/or changes in response to any review will be submitted by the Director to the Board for approval.
- 15.4 The Board may consider these recommendations making any decisions in relation to changes in Project Funding or other matters brought to its attention and will approve any changes subject to agreement to any contract variation with the Ministry.

16 PROJECT FUNDING

- 16.1 All research funded by the Challenge will be explicitly approved by the BBHTC Board on the recommendation of the Director subject at all times to the requirements of the NSC Investment Contract.
- 16.2 Access to Challenge Funding shall be open to all research capability in New Zealand with relevant expertise that will contribute to the Mission, goals, objectives and research domain as described in clause 5 of this Agreement. Project Funding will be prioritised to those research projects and activities most aligned to meeting the Mission and objectives of the Challenge, of highest quality, and bringing together national best teams, as determined by the Director and Science Leadership Team and approved by the BBHTC Board.
- 16.3 International research partnerships between New Zealand and overseas researchers are expected as part of the best team approach. Funding from the Challenge can be made available to support these relationships.
- 16.4 The initial research projects and related activities supported by the Challenge shall derive from the Research Plan as agreed to by the Ministry. Subcontracts or internal projects will be established to implement the work programme.
- 16.5 Where the Challenge Contractor is identified as a research provider, it will adhere to the same terms and conditions that are in place for any other Party. In these instances, the Challenge Contractor will use a parallel arrangement to ensure the same contracting parameters are in place - including alignment with the principles in the Conflicts of Interest Policy outlined in Schedule 2.
- 16.6 Should any reviews require changes to the Research Plan, variations to the Research Plan will be notified to the Ministry, prior to implementing any such changes.
- 16.7 The BBHTC Board shall put aside up to 25% of the available Challenge research funding received from the Ministry and make these funds open to contest, by all New Zealand based researchers/research organisations (including the Parties to the Challenge) with capability relevant to the Challenge, for the purpose of providing opportunity for the inclusion of new researchers or capability, or research refresh, within the Challenge. The BBHTC Board shall work with the Director and Science Leadership Team to establish a robust contestable process. The calls may be fully open within the overall constraints of the mission, objectives and domain of the Challenge as described in this Agreement, or may target specific aspects of the Challenge's research priorities at the BBHTC Board's sole discretion.



17 FINANCIAL MANAGEMENT

- 17.1 The Challenge Contractor shall administer all Challenge Funds according to its standard financial practices and policies and disburse them according to an approved annual budget consistent with the NSC Investment Contract. The Challenge Funds will be subject to the standard auditing practices of the Challenge Contractor and any specific audit requirements agreed in the NSC Investment Contract.
- 17.2 Prior to each Financial Year the Director shall prepare, and submit to the BBHTC Board for approval, a budget for that Financial Year for the use of Challenge Funds. The budget shall provide for:
- (a) Administration Funding, and shall include:
    - (i) The Challenge administration and management costs, including salary costs of the Director, any operational management, secretariat or other staff employed specifically to support the Challenge.
    - (ii) Any stipends paid to the BBHTC Board Chair and members, as well as general administration costs, travel, accommodation, event management, promotions and other agreed direct costs (e.g., direct costs associated with the Independent Science Advisory Panel or Kahui Maori).
    - (iii) If included, indirect costs of the Challenge administration and management will be included at the standard overhead rate according to the Challenge Contractor's internal policies and practices.
  - (b) Project Funding, and shall include:
    - (i) Research funding for approved Research or Related Activities by way of internal research projects within the Challenge Contractor.
    - (ii) Research funding for approved Research or Related Activities, administered by way of Subcontracts.
    - (iii) Research co-funding provided by the Challenge Contractor, a Challenge Party or an Other Party for a specific Challenge project.
    - (iv) Salary and indirect costs to support management and leadership of the Challenge by the Science Leadership Team.
    - (v) Uncommitted funds for use in outsourcing specific research, supporting the call for contestable funding or for responding to unplanned opportunities.
    - (vi) For the avoidance of doubt the Challenge will pay the full cost of conducting the research in Subcontracts or Challenge Contractor internal projects (i.e., includes indirect costs at the standard overhead rate of the subcontracted organisation according to its internal policies and practices).
- 17.3 The Challenge Contractor shall provide access to reports on expenditure against budget to the Director who shall report not less than quarterly to the BBHTC Board, including identifying any variances against budget and providing sufficient explanations as the Board requires. Should the BBHTC Board seek further detailed expenditure reports from the Challenge Contractor, the Challenge Contractor will provide such reports.
- 17.4 Allocation of Project Funding shall be via Subcontracts as outlined in Schedule 4. Payments under any Subcontracts shall be made on submission of an invoice according to standard practice in the sector.
- 17.5 The Parties agree that the Challenge Contractor shall not be obliged to make any payments in connection with this Agreement, the NSC Investment Contract and any Subcontracts, unless there are sufficient Challenge Funds. The Challenge Contractor shall immediately advise the Parties of any circumstances that have or might give rise to a shortfall and the Challenge Contractor will take all available steps to rectify the shortfall without delay.

- 17.6 The Parties acknowledge that, in the event of the suspension, termination or partial withdrawal of Challenge Funding by the Ministry (including the termination of the NSC Investment Contract), then the Challenge Contractor shall not be obliged to make any payments to any Parties in relation to that Challenge Funding.
- 17.7 Other funding for the Challenge may include:
- (i) Funding from beyond the direct Ministry allocation will be an essential component of the BBHTC Challenge objective and Mission, and necessary if the Challenge is to achieve its Mission. There are different types of funding that is relevant to this Challenge.
  - (ii) Mapped Ministry Contracts: The Ministry has mapped two of its research contracts with New Zealand research organisations into the BBHTC Challenge Funding. These contracts are unaffected by being mapped and remain in place until their contract end dates unless agreed otherwise by the contracted party, the Ministry and the BBHTC Board. The Challenge Director will engage with the research organisations which hold these mapped contracts and where appropriate seek their agreement to report the activities of the mapped contracts including the end-user relationships as part of the Challenge for the remainder of their terms. The Challenge has no role in directing nor managing these mapped contracts. The research organisations which hold these mapped contracts acknowledge that the research capabilities working on the mapped contracts are relevant to the research activities of the Challenge.
  - (iii) CRI core funding: Core funding will be aligned to the Challenge by Scion as stipulated by the Ministry. In this Challenge the core funding will be treated as 'in kind' support. Research programmes in SCION that contribute to the goals of this Challenge will be identified, and where reasonable (and in line with the Scion's statement of core purpose) will be tailored to deliver Challenge outcomes.
  - (iv) Co-funding: All Parties will use reasonable endeavours to secure funding from Other Parties for work related to the objectives of the Challenge. This may be recognised as Cofunding by the Governance Group but it acknowledges it has no role in directing or
  - (v) managing such funding. Subject to confidentiality obligations, Parties receiving such Co-funding are required to report on it in sufficient detail to allow the Challenge Contractor to fulfil its reporting obligations to the Ministry under the NSC Investment Contract.
- 17.8 Aligned Research

In addition to new sources of funding, the BBHTC Challenge will also benefit from identifying Aligned Research. Aligned Research is essential to the success of the BBHTC Challenge and will provide additional support to the delivery of its Mission.

All Parties agree to identify Aligned Research (and related activities) funded from non-Challenge sources to the Challenge programmes that complements Research and Related Activities funded directly by the Challenge. This thereby expands the scale and/or scope of total activity supporting the Challenge programmes and Mission. The Parties acknowledge that the scale of Aligned Research may change over time.

Aligned Research will remain under the authority of individual Challenge Parties and the obligations they may have to the funding sources that support it. Challenge Parties will report their Aligned Research contributions to the Challenge Director, for the purposes of reporting progress and achievements from the Challenge as a whole. The Challenge Director will oversee an integrated reporting process to enable this. The contribution of Challenge Parties to priorities determined by the BBHTC Board will be included in the regular reporting of Aligned Research contributions to the Challenge.

- i) The Parties may represent the value of such Aligned Research in different ways, depending on their respective financial management systems. The Parties acknowledge that the valuation of Aligned Research may be determined on an annual basis for each financial year in advance or in arrears. Accordingly, Parties' commitments to contribute financial and other resources may vary from year to year. Each Party should provide a 'best estimate' of the total value of the research they are aligning to the Challenge to inform more effective selection of research projects directly funded by the Challenge.
- ii) To avoid doubt, there is no requirement for Parties to align any specific level of research activity or funding, and the amount of Challenge Funding that each Party receives will not be determined by the level of Aligned Research attributed to that Party.



18 INTELLECTUAL PROPERTY AND COMMERCIALISATION

The underlying purpose of the BBHTC Challenge is to create benefit to New Zealand by delivering on its Mission. Emphasis will therefore be given to public dissemination and access to the Intellectual Property (IP) generated by the Challenge.

The policies and procedures for the management, ownership and commercialisation of Intellectual Property (IP) associated with the Challenge are defined in Schedule 7. Should these differ from the IP policies and principles outlined in Appendix 4 of the NSC Investment Contract for the BBHTC then the provisions of that Contract will prevail.

The BBHTC Challenge will be committed to the principles of open access to publicly funded research data and information. Subject to ethical, privacy or cultural reasons, or issues of commercial sensitivity, publicly funded research data from the Challenge will be made open for public access and re-use. BBHTC will do so in accordance with the New Zealand Government Open Access Licensing framework (NZGOAL) and the New Zealand Data and Information Management Principles (NZDIMP). Projects undertaken in the Challenge that generate data and/or information will be required to give effect to the application of open access principles, standardised data and metadata management, and data federation and interoperability techniques.

19 SUBCONTRACTS

- 19.1 Subcontracts shall be issued by the Challenge Contractor to any Party or Other Parties that use Challenge Funding, using the template shown in Schedule 5 - Statement of Work – BBHTC Subcontract. Subcontracts will be based on the principles agreed in this Agreement. Funding beyond the initial Subcontract term will be dependent on performance to date and any changes in priorities for the Challenge, the quality of the proposed Research or Related Activity and its alignment with the Research Plan.
- 19.2 The issuing of Subcontracts shall be via the standard policies and practices of the Challenge Contractor using a template based on the example in Schedule 4 and 5 or as subsequently agreed by the Board and the Challenge Contractor.
- 19.3 In the case of the Challenge Contractor any Research or Related Activities will be conducted under a proxy internal contract which follows as far as is practicable the same sub-contracting arrangements that apply to any other Party.
- 19.4 Any Party or Other Parties are free to decline any Subcontract offered under this Agreement and to seek to renegotiate the details of any Subcontract offered, including but not limited to the fee and the statement of work, with the Challenge Contractor.

20 PUBLICATION AND COMMUNICATION

- 20.1 All Parties agree to promote the sharing of information generated by the Challenge, and to encourage the publication, presentation and dissemination of the BBHTC Challenge results and data, subject to confidentiality requirements of either the Parties or any Other Parties, breaches of privacy, or following protection of any potentially commercialisable Intellectual Property where appropriate.
- 20.2 The Parties are encouraged to publicise the Challenge Research and Related Activities, but will need to acknowledge all relevant collaborators and the Challenge in any public announcements.
- 20.3 No Party or Other Party shall publish or disclose any material derived from Challenge Funded Research or Related Activities undertaken by another Party without the consent of that Party. Such consent will not be unreasonably withheld or delayed if it is in the best interests of the Challenge or necessary to advance the Mission and objectives of the Challenge.

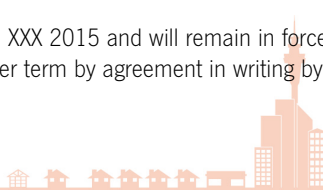
- 20.4 Publications should acknowledge any contribution from Challenge Funding and the Ministry, and be reported to the Director as requested to enable timely reporting to the Challenge Board and the Ministry.
- 20.5 All communications associated with Challenge activities must use the Challenge branding, as approved by the Ministry, and adhere to the communication guidelines outlined in Schedule 6 - Communication .
- 20.6 No Party or Other Parties will claim, in any publications or communications, that their current or proposed Research or Related Activities, not funded through the Challenge, are aligned or relevant to the Challenge, without prior agreement from the Director.

21 DISPUTES

- 21.1 Any disputes, or potential disputes, between the Parties will be notified to the Director and genuine attempts made by the affected Parties to resolve the dispute by mutual agreement. If the Director is unable to resolve the dispute either Party may seek the involvement of the BBHTC Board Chair who will work with the Parties to resolve it
- 21.2 If any Party feels the dispute is not going to be resolved satisfactorily by mutual agreement then they will (if they have not already done so) escalate the dispute to senior management (up to Vice Chancellor (VC)/CEO level) of the affected Parties.
- 21.3 If the Parties are unable to resolve the dispute within 30 days of notifying the Director and having followed the above steps, any Party may refer the dispute to mediation. The mediation procedure must be used by the Parties to resolve a dispute before commencing legal proceedings.
- 21.4 The mediation procedure shall be as follows:
  - (a) The disputing Parties shall appoint a mediator. If they fail to agree a mediator within 10 Business Days from the date of one Party advising the other Parties in the dispute of the referral to mediation, the President of the Wellington branch of the New Zealand Law Society or nominee will appoint a mediator.
  - (b) The disputing Parties shall cooperate with the mediator in an effort to resolve the dispute.
  - (c) If the dispute is settled, the disputing Parties shall sign a copy of the terms of settlement which shall include the awarding of costs of the mediation.
  - (d) If the dispute is not resolved within 15 Business Days after the mediator has been appointed, or within any other mutually agreed time period, the mediation will cease and the Dispute may be referred to arbitration in accordance with New Zealand law. The arbitration will be agreed on by the disputing Parties and, should they fail to agree within 15 Business Days of the mediation ceasing, the arbitrator will be appointed by the Chair of LEADR & IAMA or nominee.
- 21.5 Nothing in this clause will prevent a Party from seeking urgent injunctive relief in respect of a breach or threatened breach of this Agreement.

22 TERM OF AGREEMENT/TERMINATION / DISENGAGEMENT PROVISIONS / SURVIVING CLAUSES

- 22.1 This Agreement will come into force on XXX 2015 and will remain in force for the Term as defined in the Definitions. The Agreement may be renewed for a further term by agreement in writing by all Parties wishing to renew the Agreement.



- 22.2 A Party may withdraw as a Party to this Agreement with six months' notice to all Parties.
- 22.3 The Challenge Contractor may terminate the participation of a Party to this Agreement on 40 Business Days' notice in the event that:
- (a) the Party is in material breach of this Agreement with the Challenge Contractor,
  - (b) an act or omission of the Party causes the Challenge Contractor to materially breach the terms of the NSC Investment Contract (and where the Party has failed to take all reasonable actions to remedy such breaches); or
  - (c) the Party becomes insolvent or is placed in liquidation.
- 22.4 The Challenge Contractor may terminate this Agreement in the event that the NSC Investment Contract is terminated, or the payment of Challenge Funding is suspended by the Ministry for more than two months.
- 22.5 In the event that a Party withdraws or their participation is terminated or this Agreement is terminated under clause 22.3, 22.4, 22.5, or not renewed under clause 22.1:
- (a) The Party shall deliver to the Challenge Contractor a copy of all information in its possession as reasonably requested relating to the Challenge to enable the Challenge Contractor to fulfil any obligations it has to the Ministry under the NSC Investment Contract.
  - (b) The Party and the Challenge Contractor shall comply with any disengagement plan agreed with the Ministry. The Challenge Contractor shall consult with and have due regard for the views of the Parties prior to agreeing any disengagement plan with the Ministry.

23 ACCESS TO RECORDS/KEEPING OF RECORDS

- 23.1 The Parties agree to provide reasonable access and information to the Challenge Contractor, its authorised agents, or any auditors, reviewers or evaluators appointed under the NSC Investment Contract, as is reasonably requested by the Challenge Contractor to enable it to comply with any audit, review or evaluation undertaken by or on behalf of the Ministry under the NSC Investment Contract. Parties will meet their own costs incurred in complying with this clause provided the Challenge Contractor will endeavour to minimise such costs so far as reasonably possible.

24 CONFIDENTIALITY

- 24.1 Each Party will, during the course of this Agreement, learn and have access to confidential information about and of the other Parties and the Challenge Research and/or Related Activities. Such information includes, but is not limited to any information of a confidential nature in respect of the business strategies and arrangements, finances, property, employees, contractors, members, clients and agents of a Party. All Parties agree to keep such information about the others confidential and not disclose or use it any way, unless permission to do so is granted, or until such time as the information enters the public domain through no fault of the disclosing Party or the relevant Party or Parties provide consent.
- 24.2 No Party will use another Party's organisation name or name of any part of that organisation or organisation location, employees, products or services, to promote itself or its products in any manner without the prior written consent of the organisation.
- 24.3 No Party will make a statement on behalf of any of the other Parties, or by any action, statement or omission do anything that may cause the organisation of any of the Parties to be brought into disrepute.

24.4 The obligation of confidentiality shall not however apply to information that:

- (a) is already known to the Party to which it was disclosed or is independently developed;
- (b) is in, or becomes part of the public domain without a breach of this Agreement;
- (c) is obtained from third parties which have no obligation to keep it confidential to the Parties;
- (d) is agreed in writing between the parties not to be confidential; or
- (e) is required to be disclosed by law.

24.5 Each Receiving Party must:

- (a) treat as confidential, and take all action necessary to maintain the confidential nature, of the Confidential Information of the Disclosing Party; and
- (b) not use or disclose such Confidential Information other than:
  - (i) as agreed in writing by the Disclosing Party;
  - (ii) as reasonably required to carry out the Challenge; and
  - (iii) to its professional advisers where such advisers have been requested to keep such information confidential; and
- (c) take full responsibility for use and disclosure by any third party receiving such Confidential Information from the Receiving Party, as if that third party were the Receiving Party.

24.6 This clause 24 shall survive the expiry of this Agreement.

25 NOTICES

25.1 Any notice or other communication under this Agreement will be given by post or by email to the address of the Party to whom the notice is to be given, as denoted in Schedule 1, or as notified by that Party to the others. Notices by email (which will only be deemed to be received if sent on a Business Day, or the following Business Day if sent out of Business Day hours) will be followed by a hard copy sent by post. Notices sent by post will be deemed to have been given three Business Days after dispatch.

26 MODIFICATION, ADDITION OF NEW PARTIES, AND ASSIGNMENT

26.1 Any material modification to this Agreement must be agreed by all Parties, approved by the BBHTC Board, and recorded in writing signed by authorised signatories of all Parties. The Parties acknowledge that, in accordance with the NSC Investment Contract, the Challenge Contractor is required to obtain the approval of the Ministry before agreeing to any material variation to this Agreement and that no purported variation to this Agreement will have effect until such Ministry approval has been obtained.



- 26.2 A new party may be added to this Agreement by mutual agreement of all existing Parties and by agreement with the Ministry and recorded in writing signed by the authorised signatories of all existing Parties. Any new party to this agreement shall agree to the terms of this Agreement.
- 26.3 No Party may assign its rights and obligations under this Agreement without the prior written consent of the other Parties and the approval of the BBHTC Board. In agreeing to any assignment the Challenge Contractor may consult with the Ministry to ensure the assignment does not breach the NSC Investment Contract.
- 26.4 No Party may subcontract its rights and obligations under this Agreement without the prior written consent of the Challenge Contractor.

27 FORCE MAJEURE

- 27.1 No Party will be liable for any delay or default due to natural calamities, acts or demands of government or any government agency, wars, riots, strikes, floods, accidents or any other unforeseen cause beyond its control and not due to that Party's or those Parties' fault or neglect. The affected Party will resume activities as soon as practicable once the force majeure event has taken place, and if not able, then clause 27.2 will apply.
- 27.2 If an event referred to in this clause has the effect of preventing compliance with the obligations of a Party for more than 60 Business Days, the other Parties may terminate the participation of that defaulting Party by giving written notice.

28 ENTIRE AGREEMENT AND COUNTERPARTS

- 28.1 This Agreement together with the Schedules represents the entire Agreement between the Parties for the management of the Challenge, and may be executed in any number of counterparts, each of which shall be deemed an original and all of which together shall constitute a single instrument.

29 SEVERABILITY

- 29.1 If any provision of this Agreement is illegal, invalid or otherwise unenforceable, it shall be severed from this Agreement without affecting the remaining provisions, and the Parties shall negotiate in good faith and reasonably in an endeavour to agree on one or more replacement provisions which achieve, to the extent possible, the intent of the severed provision in a manner which is legal, valid and enforceable.

30 GOVERNING LAW AND JURISDICTION

- 30.1 This Agreement will be governed by and construed in accordance with New Zealand law.

31 NO WAIVER

- 31.1 No Party will be deemed to have waived any right under this Agreement unless such waiver is in writing and signed by such Party. Any such waiver by a Party of a breach of any provision of this Agreement will not constitute a waiver of any subsequent or continuing breach of such provision or of the breach of any other provision of this Agreement by that Party.

32 SURVIVAL OF PROVISIONS

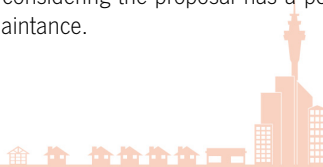
- 30.1 The provisions of this Agreement relating to third party rights, payment, assistance, confidentiality, intellectual property, provision of similar services, limitation of liability and governing law shall not expire when this Agreement ends.

33 SCHEDULE 1 – CONTACT DETAILS OF THE PARTIES

- 33.1 The contact person and contact details for each Party are:

34 SCHEDULE 2 – CONFLICTS OF INTEREST POLICY AND PROCESS FOR THE BBHTC CHALLENGE

1. The Parties to the Collaboration Agreement take the issue of conflict of interest very seriously. All Parties involved in the Challenge including staff and the BBHTC Board must follow a rigorous process to maintain the credibility of the investment and other decisions and to assure all stakeholders that their proposals or other matters are given fair and reasonable consideration.
2. However, a pragmatic approach is necessary in order to make best use of the expertise of all Parties in supporting the Challenge. This may occur at all levels including the BBHTC Board, Director and Science Leadership Team and any other staff member involved in making decisions that may affect any Party, including but not limited to assessing proposals for Project Funding and any funding or investment decisions. For example, when a funding proposal is submitted by one of the Parties, staff from that Party may assist in the assessment of proposals and investment decision where they have no direct interest and limited indirect interest in the proposal and these details are minuted.
3. Conflicts of interest may occur in different ways, as outlined below.
4. Direct Conflicts of Interest:
  - (a) This occurs where a person in a position to influence the funding outcome is directly involved with the proposal (as a participant, manager, mentor, or partner) or has a close personal relationship with the applicants, e.g., family or close friend. It also occurs when this person is a collaborator, or is in some way involved with the applicant's research programme.
  - (b) In these cases, the person must declare the conflict of interest, take no part in the assessment of the proposal or decisions around funding, and leave the room while the discussion takes place.
5. Indirect Conflicts of Interest:
  - (a) This can occur where a person in a position to influence the funding outcome is employed by an organisation involved in the proposal but is not part of the applicant's research programme. An indirect conflict can also occur where a member of a panel considering the proposal has a personal and/or professional relationship with one of the applicants, e.g., an acquaintance.



- (b) For indirect conflicts, the person must declare the conflict of interest and, at the discretion of the other persons who are present, either:
    - i. leave the room;
    - ii. stay but remain silent unless asked to respond to a direct question; or
    - iii. Contribute to the assessment of the proposal.
- 6. Involvement in a competing proposal or business activity:
  - (a) Such conflicts of interest occur where a person has an involvement (direct or indirect) with a proposal that is in direct competition with a proposal being considered by a panel or where the outcomes proposed by a proposal under discussion may compete with a person's personal business interests. In such cases, the panel member must declare the conflict of interest and, at the discretion of the other persons who are present, either
    - i. leave the room;
    - ii. stay but remain silent unless asked to respond to a direct question; or
    - iii. contribute to the assessment of the proposal.
- 7. Involvement in strategy development:
  - (a) Members of the BBHTC Board and Science Leadership Team of the Challenge are likely to be involved in determining the strategic direction and priorities of the Challenge which may be perceived as affecting the future participation of different Parties. It is not intended to exclude these members from these processes and their input is expected to ensure the perspective of all Parties to the Challenge is included in strategy and priority setting. In these situations the conflicts of members representing Parties to the collaboration should be noted. In addition:
    - i. in the case of the Science Leadership Team the Director shall monitor discussions and raise any concerns over the degree of representation occurring and ultimately moderate any perceived bias in developing recommendations to the BBHTC Board;
    - ii. in the case of the BBHTC Board, the Chair shall monitor discussions and raise any concerns over the degree of representation occurring. If the Chair believes the Board is unable to moderate any representation bias, in the interests of the Challenge, he or she may take the matter under discussion into an ad hoc sub-committee of the Board comprised of not less than three independent or uninterested members to make final decisions, and such decisions will be the decisions of the full Board.
  - (b) All conflicts of interest no matter how significant must be declared and recorded. If any individual feels they have a conflict with a proposal, or other decision that they have been asked to consider, they should contact either the BBHTC Board Chair or Director immediately to declare the conflict and seek advice on what action is required.
- 8. When the Chair has any conflict of interest, a Deputy Chair must be appointed to take on the duties of chairing any meeting to consider any matter where this conflict of interest is relevant.
- 9. When the Director or any other person has a direct conflict of interest, such as could occur if his or her own research is being considered for funding by the Challenge, the Director or other person shall be excluded and a process for independent

assessment of any such proposals, broadly equivalent to how other proposals are assessed, shall be determined by the BBHTC Board who shall make any funding decisions on the same basis as for any other proposal.

35 SCHEDULE 3 – TERMS OF REFERENCE FOR GOVERNANCE BOARD

Introduction

The Parties agree that the Mission of this Challenge is Manaaki Tangata:

- (a) The BBHTC Challenge is a meeting house bringing researchers together to use science to re-tool, re-orientate, and revitalise the industries and systems that shape the planning, design, building, renovating and retrofitting of our homes and settlements.
- (b) Its mission is to help transform dwellings into homes and places into hospitable, productive, and protective communities characterised by:
  - (i) Fit-for-purpose, flexible homes and built communities that can adapt to New Zealand's diverse populations, structural ageing, and the challenges of New Zealand's unique geography and environments, urbanism, and regionality.
  - (ii) A building, design, planning and regulatory sector that is robust and is consistently able to deliver:
    - o The quantity and quality of new and renovated homes necessary to the health and wellbeing of individuals, families and households.
    - o A range of housing solutions that align with the full range of material and physical capacities of households.
    - o Neighbourhoods, towns and cities with safe and affordable dwellings that connect people and enable them to take opportunities and participate productively in New Zealand's economic, civic, and cultural life.
  - (iii) Dwellings, neighbourhoods, towns and cities that promote social and economic wellbeing and New Zealand's international competitiveness through:
    - o Vibrant, liveable and affordable cities that reflect New Zealand's diversity.
    - o Transitioning to low-carbon towns and cities
    - o Expanding demand for our innovative design, materials, and building services revitalise housing and settlements.
  - (iv) The Parties agree that the Challenge Vision is:

Ka ora kainga rua

Built environments that build communities. Homes, neighbourhoods, towns and cities providing good foundations for New Zealand's people to enrich their lives and reach their social, cultural and economic potential throughout their life stages.

- (iv) The Parties agree that the objectives to achieve the BBHTC Mission are to improve the quality and supply of housing and create smart and attractive urban environments by:
  - (a) An improved housing stock
  - (b) Meeting future demand for affordable housing.
  - (c) Taking up innovation and productivity improvement opportunities
  - (d) Improving current and future urban environments and residents' well-being
  - (e) Better systems for improved land-use decisions.



It is expected that the BBHTC Challenge, like the other National Science Challenges, will exhibit and adhere to the following principles or values:

- (a) mission led and science facilitated;
- (b) science is more than business as usual;
- (c) collaboration, both within science and with the wider New Zealand society, and
- (d) additionality (i.e. produce significant identifiable incremental outcomes)

The funding and resources received by the Challenge, pursuant to the National Science Challenges Investment Contract between the Ministry of Business, Innovation & Employment (“Ministry”) and Building Research Association of New Zealand (“BRANZ”) will be allocated to those activities best suited to the mission and delivery of the BBHTC Research Plan.

It is noted that, as the contracting party, BRANZ has ultimate accountability, on behalf of the Collaborating Parties, to the Ministry for delivery of the BBHTC Research Plan. BRANZ also has ultimate legal liability and accountability as the primary contractor.

The Board of BRANZ, in conjunction with the Collaborating Parties, will delegate oversight of the Challenge to an appointed board, the BBHTC National Science Challenge Board (Board).

These Terms of Reference set out the general roles and responsibilities of the Board.

Establishment of the BBHTC Board:

The Parties of the BBHTC Science Challenge (the Challenge) have executed an agreement (the Collaboration Agreement) that sets out how they will work together to deliver the NSC Investment Contract (NSC Investment Contract) for the Challenge. The NSC Investment Contract is between the Ministry of Business, Employment and Innovation (the Ministry) and the Building Research Association of New Zealand as the Challenge Contractor for the Challenge. The Collaboration Agreement specifies the establishment of a BBHTC Board to manage the Challenge. The composition, functions and responsibilities of the BBHTC Board are primarily set out in clauses 13.2, 13.3 and clause 14 of the Collaboration Agreement and these clauses and any others of relevance should be read in conjunction with these Terms of Reference (TOR). For the avoidance of doubt if any clause or element or inference in these TOR differs from the Collaboration Agreement then the Collaboration Agreement shall have priority.

Role

The role of the Board is to provide oversight of the Challenge, including approval of the Research Plan for the Challenge, overseeing Challenge management and the ongoing direction and performance (including financial performance) of the Challenge. The Board has a fiduciary duty to act in the best interests of the achievement of the BBHTC Mission, rather than the individual interests of any party or collaborator to the Challenge. In meeting its responsibilities, the Board will be guided by the NSC Investment Contract and the Collaboration Agreement.

Responsibilities of the Board

In carrying out its role the Board’s principal responsibilities are to:

- Provide strategic direction to, and ultimately approve, the Research Plan, budgets and project funding investment recommended by the Director and Science Leadership Team.
- Monitor and review progress against the Research Plan, including delivery of the BBHTC Mission.
- Ensure that the activities of the Challenge stay true to the Mission and values.
- Recommend appointment of the Director (subject to employment by the Challenge Contractor) and annually complete a formal review of his/her performance.

- Approve appointments to the Science Leadership team, on the recommendation of the Director.
- Ensure that the science activities the Challenge undertakes include appropriate engagement, education and communication programmes with relevant stakeholders, to increase public understanding of how science contributes to New Zealand's well-being
- Ensure that the Challenge gives effect to Vision Mātauranga objectives, including governance of the Challenge, and observes kaupapa Māori research principles.
- Adopt and give effect to the Dispute Resolution Policy and Processes as described in the Collaboration Agreement.
- Approval of the Director recommendations about allocation of Challenge Funding and other funding based on merit and alignment with the NSC Investment Contract and Mission.
- Ensure that the intent of the Collaboration Agreement is upheld and no one Party is given an unfair advantage.

Delegation of management to the Director

The Board will delegate management of the day to day affairs of the Challenge to the Director and the execution of the Research Plan and other activities and goals approved by the Board. This delegation includes:

- Ensuring the Challenge operates within parameters set by the Board.
- In conjunction with the Science Leadership Team, developing revised science plans, research plans and funding allocations for approval by the Board.
- Recommend to the Board the composition of the Science Leadership Team.
- In conjunction with the Challenge Contractor, ensuring there are appropriate internal control, financial and reporting systems to securely and accurately account for the Challenge's funds and activities.

Membership

The number of members of the Board (including the Chair) shall be not less than 5 nor more than 7, with the option to co-opt where required.

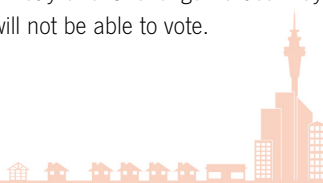
Membership of the Board will have regard to the necessary skills, experience and diversity to provide effective governance to the Challenge and will draw on, but not be limited to, leaders from the following groups:

- Māori
- Industry
- Government
- Finance
- Science
- Society

The membership of the Board will be supported through the use of a skills matrix. This matrix will be approved by the Challenge Parties. Board members will subsequently be appointed by the Board of BRANZ based upon their combination of skills, capability and strategic knowledge relevant to the BBHTC Mission.

All members of the Board will be appointed by the Board of the Challenge Contractor after consultation with the Parties and provided a two-thirds majority of the Parties approve.

Observers from the Challenge Contractor, the Ministry and Challenge Parties may attend the Board as observers. Observers will have speaking rights, be able to attend meetings but will not be able to vote.



Members shall adopt and give effect to the Conflicts of Interest Policy and Process (Schedule 2 of the Agreement)

Members shall be appointed for a term of three years. In the normal course of events it is expected that Members will serve no longer than three terms, i.e. a maximum of nine years.

Chair

The Chair of the Board will be appointed by the Board of the Challenge Contractor, in agreement with the other Challenge Parties, and approved in advance of appointment by the Ministry Science Board. The Chair will be independent of any Challenge Parties. A two-thirds majority of the Parties are required to approve the Chair.

Meetings

The Board shall meet as often as considered necessary, but not less than four times per year.

A member of the Board shall give no less than 5 Business Days' notice of a meeting of the Board, and must be given to every member of the Board. This notice must include the date, time and place of the meeting and the matters to be discussed.

The failure to give notice of a meeting or an irregularity in the notice is waived if all members of the Board (and all observers) entitled to receive notice of the meeting attend the meeting without protest as to the irregularity or if all members of the Board (and all observers) entitled to receive notice of the meeting agree to the waiver.

Notice of a meeting may be given by any means, including by telephone. Notice given by a letter addressed to a member at his or her last known residential address will be deemed to have been given on the day following the day the letter is posted.

Meetings may be held by a number of the members of the Board sufficient to form a quorum. A quorum will constitute of no less than 4 members of the Board.

Meetings may be held by means of audio, audio and visual communication, by which all members of the Board participating (the provisions of the quorum applicable if not all members are present) can be audibly heard by all members present.

A member must acknowledge their presence at each meeting, may not disconnect their audible device or leave a meeting without the prior express content of the Chair.

Voting

Each BBHTC Board member has one vote and any business of the BBHTC Board requiring a decision will be determined by a simple majority of the members present.

The Chair (in his or her capacity as a BBHTC Board member) has one vote and does not have a casting vote. The Chair is tasked with encouraging consensus in voting where possible and may choose not to call a vote if a matter requires further discussion and consideration. In the event of a deadlock in voting, the Chair will approach the VC's and CEOs of the Challenge Parties who will have one vote each which will be added to the BBHTC Board votes to determine a majority. If the additional votes are unable to be obtained during the duration of any meeting where a deadlock occurs, then voting on that matter will be suspended until the VCs and CEO's votes have been obtained and tallied. The Chair will report back to the Board as to the outcome of voting due to the additional votes either at the next meeting or in writing, whichever is the most expedient. If, following this process the vote is still deadlocked the matter will not be resolved and the BBHTC Board members will be asked to review the matter and seek to find an alternative path forward.

Attendance of Non- Board members

It is expected that the Challenge Director shall attend all BBHTC Board meetings and report such matters to the BBHTC Board required by the BBHTC Board to perform its role. In addition, a minute secretary (or equivalent) shall normally attend all meetings of the BBHTC to record the minutes. The BBHTC Board may however, seek to hold a session in committee in which neither the Director nor any other non-BBHTC Board members are present to discuss any matters it wishes.

The meetings of the BBHTC Board may include other attendees by invitation for all or part of any meeting by agreement between the Chair and Director to help facilitate the business of the BBHTC Board. Such attendees will have no voting rights.

Minutes

The BBHTC Board must ensure that full and accurate minutes are kept of all proceedings at BBHTC meetings.

Minutes of proceedings of the BBHTC Board which have been signed correct by the Chair are prima facie evidence of the proceedings.

Breach

Where actions of the BBHTC Board breach or pose a serious and immediate risk of causing a material breach of the NSC Investment Contract or any other substantial contract under the Challenge, CEO of the Challenge Contractor can take all actions necessary to remedy or remove the risk.



36 SCHEDULE 4 – SUBCONTRACT TEMPLATE

36.1 Sub Contract for Challenge Parties

This subcontract sets out how the funding provided by the Ministry of Business, Innovation and Employment (the Ministry) under a contract (NSC Investment Contract) with BRANZ (the Challenge Contractor) shall be used by Challenge Parties to perform the research and related activities envisaged within the NSC Investment Contract. The Collaboration Agreement specifies that funding to deliver on the Challenge mission shall be via subcontracts. This Subcontract outlines the basis under which the funds will be provided for the Research and/or related activities to the Subcontracting Party (the Statement of Work) and the terms conditions of engagement and obligations on both parties.

The Challenge Contractor engages the Subcontracting Party to provide the research and/or services described in the attached Statement of Work ("SOW") and the Subcontracting Party agrees to perform the Research and/or services described in that SOW ("Research"). Both parties agree to the Terms and Conditions of Engagement and any variations noted in the SOW. This Subcontract together with the SOW and any attachments referred to below, will replace all written or oral agreements previously reached between the parties in relation to the research services and related activities described in the SOW. If there is any inconsistency or conflict between any prior descriptions of the SOW and the SOW in this agreement, the terms and/or conditions in this SOW will prevail.

Building Better Homes Towns and Cities National Science Challenge	
Inter-Party Subcontract	
where the Challenge Contractor for the Challenge is engaging a Challenge Party(the "Subcontracting Party") to provide research and/or services with Challenge Funding	
Contract ref: Challenge Contractor	Contract Ref: Subcontracting Party
Challenge Contractor	BRANZ
Description	

Subcontracting Party	
Description	

NSC Investment Contract Title (“NSC Investment Contract”)	Building Better Homes Towns and Cities National Science Challenge (BBHTC Challenge)		
Funding Agency	Ministry of Business Innovation and Employment	Reference	
Start Date		End Date	
BBHTC NSC Director and Challenge Contractor’s Science Leader		Subcontracting Party’s Science Leader	
		Subcontracting Party’s Key Personnel	

Fee	\$	payable in New Zealand Dollars plus GST (as applicable) in accordance with the Payment Schedule in the SOW
Attachments (in addition to the Conditions of Engagement and the Statement of Work)		
N/A		

Authorised Signatory – Challenge Contractor		Authorised Signatory – Subcontracting Party	
Signature		Signature	
Name		Name	
Title		Title	
Date		Date	



Terms and Conditions of Engagement

1 Prior Agreement

- 1.1 The parties to this Subcontract are also parties to the New Zealand Challenge for Building Better Homes, Towns and Cities National Science Challenge agreement (The “Collaboration Agreement”) which sets out delivery of the NSC Investment Contract. The Collaboration Agreement also applies to this subcontract for work under the Challenge and NSC Investment Contract. Any matters included in the Collaboration Agreement shall be considered to be Terms and Conditions of Engagement for this subcontract. If there is any variation between the following clauses and the Collaboration Agreement then the Collaboration Agreement has priority.

2 Fees and Expenses

- 2.1 Subject to the Subcontracting Party providing the Research and reports in accordance with this Agreement, the Challenge Contractor shall pay the Subcontracting Party the Fee providing it has received funds from the Funding Agency.
- 2.2 The Subcontracting Party shall provide invoices to the Challenge Contractor as specified in the Statement of Work (SOW). The Subcontracting Party will only use the Funding for:
- (a) The purposes specified in the SOW;
  - (b) Any reporting undertaken by the Subcontracting Party to allow the Challenge Contractor to meet the Funding Agency’s performance management and reporting obligations;
  - (c) Activities that are reasonably necessary to carry out the SOW;
  - (d) the reasonable costs of auditing of the Challenge Contractor’s performance management and reporting obligations;
  - (e) the reasonable costs of complying with the Subcontracting Party’s obligations to provide access, information, and reports to the Challenge Contractor to allow it to meet the Funding Agency’s obligations; and
  - (f) any other activities directly related to the SOW as agreed between the parties.
- 2.3 Payment shall be made by the Challenge Contractor to the Subcontracting Party within thirty (30) days from the date of receipt by the Challenge Contractor of invoice(s) issued by or on behalf of the Subcontracting Party provided that the milestones associated with payment have been met to the satisfaction of the BBHTC Board or as delegated by it to the Director.
- 2.4 The Challenge Contractor shall be liable only for payment as outlined in the SOW.

3 Reporting

3.1 The Subcontracting Party shall provide to the Challenge Contractor written progress reports as agreed prior and a final report on the Research to allow the Challenge Contractor to meet the Funding Agency's performance management and reporting obligations and to satisfy any other reporting requirements specified by the Challenge Director.

4 Key Personnel

4.1 The parties agree that if the Subcontracting Party's Science Leader or Key Personnel become unavailable for the time specified in the SOW, the Subcontracting Party will notify the Challenge Contractor in a reasonable time and the parties will endeavour to agree on a suitably competent substitute.

4.2 Subject to clause 4.1 in the event that both parties, or the Funding Agency, agree that no suitable substitute is available then this Agreement may be terminated by the Challenge Contractor.

5 Performance and Liability

5.1 The Subcontracting Party agrees to exercise all reasonable skill, care and diligence in the performance of work under this Subcontract and such work shall be performed to standards which are in accordance with the Funding Agency's Code of Professional Standards and Ethics and those generally accepted professionally worldwide. The Subcontracting Party will obtain and/or abide by required ethical approvals and obligations including any notice of government policy or direction that is provided to the Challenge Contractor by the Funding Agency.

5.2 The Subcontracting Party agrees to provide reasonable access and information to the Challenge Contractor or its authorised agents to allow the inspection of the conduct of the Research as outlined in the SOW to satisfy itself that the Subcontracting Party is complying with the terms and conditions of this Subcontract. In addition the Subcontracting Party agrees to keep appropriate accounting records of its use of the Funding and provide those records to the Challenge Contractor when required.

5.3 Any liabilities resulting from the head NSC Investment Contract with the Ministry will be determined as per the Collaboration Agreement clause 12. If any liability issues arise in relation to this subcontract that are not covered by the Collaboration Agreement the Subcontracting Party is only liable to the Challenge Contractor under, or in relation to, this agreement, or the performance of the SOW, for actual loss suffered by the Challenge Contractor as the direct result of the Subcontracting Party's wilful default. In any event, the Subcontracting Party's liability is limited to a sum equivalent in aggregate to five times the total fees that the Challenge Contractor has actually paid to the Subcontracting Party under this agreement.

6 Termination

6.1 This Subcontract may be terminated by either party on notice in writing to the other party if such other party is in breach of any material condition of this Subcontract and does not remedy the breach within thirty (30) days from the date of service of a notice in writing specifying the breach and requiring its remedy. Upon termination of this Subcontract the Subcontracting Party shall cease all work and, in accordance with clause 2, the Challenge Contractor shall pay the Subcontracting Party for all Research undertaken in accordance with this Subcontract prior to the date of termination.



- 6.2 In the event that the Funding Agency terminates its agreement with the Challenge Contractor, then the Challenge Contractor shall also be entitled to terminate its relationship with the Subcontracting Party by giving immediate notice to the Subcontracting Party.

8 Confidentiality

- 8.1 Subject to clause 9.1 and any obligations imposed on the Challenge Contractor by Ministry the parties agree that they will each keep secret and confidential the terms of this Subcontract and all information of a secret, confidential and/or proprietary nature concerning the business or affairs of the other of them and which may come into their knowledge as a result of performance under this Agreement, including the results of the Research ("Confidential Information").
- 8.2 Each party further undertakes that it will restrict access to the terms of this Subcontract or other such information to their employees or agents on a strictly "need to know" basis and will not make use, or seek to make use, of the existence of the terms of this Subcontract, or other such information, except for the purposes of this Subcontract.
- 8.3 The obligation of confidentiality shall not, however, apply to information to the extent that:
- (a) is already known to the party to which it was disclosed or is independently developed with reference to the Confidential Information;
  - (b) is in, or becomes, part of the public domain without a breach of this Subcontract;
  - (c) is obtained from third parties which have no obligation to keep confidential to the Parties;
  - (d) is agreed in writing between the parties not to be confidential; or
  - (e) is required to be disclosed by law.

Provided that where disclosure is required under sub-clause (e) above, the receiving party will promptly notify the disclosing party so as to allow the disclosing party a reasonable time to oppose such process.

9 Amendments

- 9.1 All amendments to this Subcontract must be in writing and signed by duly authorised representatives of each party.

10 No Waiver

- 10.1 No waiver of any provision of this Agreement will serve as a waiver of any other provision, or as a continuing waiver, and the Challenge Contractor will not have waived or be deemed to have waived any provision(s) of this Subcontract unless such waiver is in writing.

11 Assignment

- 11.1 The Subcontractor shall not assign, transfer or sub-contract any of its rights or obligations under this Subcontract without the prior written consent of the Challenge Contractor and, if required, the Funding Agency.

12 Force Majeure

- 12.1 Neither party shall be responsible for any failure or delay in complying with the terms of this Subcontract where such failure or delay results from events beyond its reasonable control. The frustrated party is to resume its obligations under this Subcontract as soon as it reasonably can after the force majeure event ceases. If such force majeure is not remedied within thirty (30) Business Days of its initial occurrence the other party may terminate this Subcontract with immediate effect on written notice to the frustrated party.

13 Notices

- 13.1 Every notice or other written communication ("Notice") for the purposes of this Subcontract shall:

be in writing; and

be delivered in accordance with clause 13.2

- 13.2 A Notice may be given by:

delivery to the physical address of the relevant party; or

posting it by prepaid post to the postal address of the relevant party; or

sending it by facsimile transmission to the facsimile number of the relevant party; so long as Clause 13.5(a) is complied with; or

(a) sending it by email to the email address of the relevant party.



Time of Receipt

13.3 A Notice given in the manner:

- (a) specified in clause 13.2(a) is deemed received at the time of delivery;
- (b) specified in clause 13.2(b) is deemed received three Business Days (but exclusive of) the date of posting;
- (c) specified in clause 13.2(c) or 13.2(d) is deemed (subject to clause 13.5) received:
  - i) if sent between the hours of 9am and 5pm (local time) on a local working day, at the time of transmission; or
  - ii) if subclause 13.3 does not apply, at 9am (local time) on the local working day most immediately after the time of sending.

13.4 For the purposes of clause 13.3 “local time” is the time in the place of receipt of the notice and “local working day” is a Business Day in that place.

Facsimile and Email Notices

13.5 A Notice given by:

- (a) by facsimile, is not deemed received unless (if receipt is disputed) the party giving Notice produces a facsimile transmission report of the device from which the transmission was made which evidences full transmission, free of errors, to the facsimile number of the party given Notice;
- (b) by email, is not deemed received unless (if receipt is disputed) the party giving Notice produces a printed copy of the email which evidences that the email was sent to the email address of the party given Notice.

Addresses

13.6 For the purpose of this clause the address details of each party are the last known details for the relevant party.

14 Survival

14.1 Neither the termination nor expiry of this Subcontract, nor the end of the Programme, will affect the following clauses that will endure: clauses 5, and 8.

15 Severability

15.1 If any provision of this Subcontract is found to be illegal, invalid or unenforceable, that provision shall be read down to the extent necessary and reasonable in the circumstances to give it a valid operation or partial character. If any provision cannot be so read down, that provision will be void and severable and the remaining provisions will not in any way be affected.

16 Variations to Terms and Conditions of Engagement

- 16.1 These Terms and Conditions of Engagement will be read subject to any variations specified in the part of the SOW entitled “Variation to Terms and Conditions of Engagement”. Any variations that would vary the intent and detail of the Collaboration Agreement will only be valid if agreed by all the parties to the Collaboration Agreement.

17 Law and Jurisdiction

- 17.1 The validity, construction and performance of this Subcontract shall be governed by New Zealand law and shall be subject to the non-exclusive jurisdiction of the New Zealand courts to which the parties hereby submit.

18 Term

- 18.1 Despite the date of signing, this Subcontract shall commence on the Start Date and, unless terminated earlier, shall end on the End Date. The term may be extended for such further period(s) as is/are agreed in writing between the Challenge Contractor and the Subcontracting Party.



37 SUB CONTRACT FOR OTHER PARTIES

37.1 This agreement sets out how the funding provided by the Ministry of Business, Innovation and Employment (the Ministry) under a contract with BRANZ Ltd (the NSC Investment Contract) shall be used by the parties to perform the research and related activities envisaged within the NSC Investment Contract. This subcontract outlines the basis under which the funds will be provided for the services and related activities to the Subcontracting Party (the Statement of Work) and the terms conditions of engagement and obligations on both parties.

The Challenge Contractor engages the Subcontracting Party to provide the research and/or services described in the attached Statement of Work ("SOW") and the Subcontracting Party agrees to perform the research and/or services described in that SOW ("Research"). Both parties agree to the Terms Conditions of Engagement and any variations noted in the SOW. This Agreement together with the SOW and any attachments referred to below, will replace all written or oral agreements previously reached between the parties in relation to the research services and related activities described in the SOW. If there is any inconsistency or conflict between any prior descriptions of the SOW and the SOW in this agreement, the terms and/or conditions in this SOW will prevail.

Building Better Homes Towns and Cities National Science Challenge

Inter-Party Subcontract

where the Challenge Contractor for the Challenge is engaging an Other Party (the "Subcontracting Party") to provide research and/or services with Challenge Funding

Contract ref: Challenge Contractor

Contract Ref: Subcontracting Party

Challenge Contractor

BRANZ

Description

Subcontracting Party	
Description	

NSC Investment Contract Title ("NSC Investment Contract")	Building Better Homes Towns and Cities National Science Challenge (BBHTC Challenge)		
Funding Agency	Ministry of Business Innovation and Employment	Reference	

Start Date		End Date	
BBHTC NSC Director and Challenge Contractor's Science Leader		Subcontracting Party's Science Leader	
		Subcontracting Party's Key Personnel	

Fee	\$	payable in New Zealand Dollars plus GST (as applicable) in accordance with the Payment Schedule in the SOW
Attachments (in addition to the Conditions of Engagement and the Statement of Work)		
N/A		

Authorised Signatory – Challenge Contractor		Authorised Signatory – Subcontracting Party	
Signature		Signature	
Name		Name	
Title		Title	
Date		Date	

Terms and Conditions of Engagement

Intentionally Blank

Fees and Expenses



- 2.1 Subject to the Subcontracting Party providing the Research and reports in accordance with this Agreement, the Challenge Contractor shall pay the Subcontracting Party the Fee providing it has received funds from the Funding Agency.
- 2.2 The Subcontracting Party shall provide invoices to the Challenge Contractor as specified in the Statement of Work (SOW). The Subcontracting Party will only use the Funding for:
- (a) The purposes specified in the SOW;
  - (b) Any reporting undertaken by the subcontracting party to allow the contracting party to meet the Funding Agency's performance management and reporting obligations;
  - (c) Activities that are reasonably necessary to carry out the SOW;
  - (d) the reasonable costs of auditing of the Challenge Contractor's performance management and reporting obligations;
  - (e) the reasonable costs of complying with the Subcontracting Party's obligations to provide access, information, and reports to the Challenge Contractor to allow it to meet the Funding Agency's obligations; and
  - (f) any other activities directly related to the SOW as agreed between the parties.
- 2.3 Subject to 2.1 Payment shall be made by the Challenge Contractor to the Subcontracting Party within thirty (30) days from the date of receipt by the Challenge Contractor of invoice(s) issued by or on behalf of the Subcontracting Party provided that the milestones associated with payment have been met to the satisfaction of the BBHTC Board or as delegated by it to a Director.
- 2.4 The Challenge Contractor shall be liable only for payment as outlined in the SOW.

3 **Reporting**

- 3.1 The Subcontracting Party shall provide to the Challenge Contractor written progress reports as agreed prior and a final report on the Research to allow the Challenge Contractor to meet the Funding Agency's performance management and reporting obligations and to satisfy any other reporting requirements specified by a Challenge Director.

4 **Key Personnel**

- 4.1 The parties agree that if the Subcontracting Party's Science Leader or Key Personnel become unavailable for the time specified in the SOW, the Subcontracting Party will notify the Challenge Contractor in a reasonable time and the parties will endeavour to agree on a suitably competent substitute.

- 4.2 Subject to clause 4.1 in the event that both parties, or the Funding Agency, agree that no suitable substitute is available then this Agreement may be terminated by the Challenge Contractor.

5 Performance and Liability

- 5.1 The Subcontracting Party agrees to exercise all reasonable skill, care and diligence in the performance of work under this Agreement and such work shall be performed to standards which are in accordance with the Funding Agency's Code of Professional Standards and Ethics and those generally accepted professionally worldwide. The Subcontracting Party will obtain and/or abide by required ethical approvals and obligations including any notice of government policy or direction that is provided to the Challenge Contractor by the Funding Agency.
- 5.2 The Subcontracting Party agrees to provide reasonable access and information to the Challenge Contractor or its authorised agents to allow the inspection of the conduct of the Research as outlined in the SOW to satisfy itself that the Subcontracting Party is complying with the terms and conditions of this Agreement. In addition the Subcontracting Party agrees to keep appropriate accounting records of its use of the Funding and provide those records to the Challenge Contractor when required.
- 5.3 If any liability issues arise in relation to this subcontract the Subcontracting Party is only liable to the Challenge Contractor under, or in relation to, this agreement, or the performance of the SOW, for actual loss suffered by the Challenge Contractor as the direct result of the Subcontracting Party's wilful default. In any event, the Subcontracting Party's liability is limited to a sum equivalent in aggregate to five times the total fees that the Challenge Contractor has actually paid to the Subcontracting Party under this agreement.

6 Termination

- 6.1 This Agreement may be terminated by either party on notice in writing to the other party, if such other party is in breach of any material condition of this Agreement and does not remedy the breach within thirty (30) days from the date of service of a notice in writing specifying the breach and requiring its remedy."
- 6.2 In the event that the Funding Agency terminates its agreement with the Challenge Contractor, then the Challenge Contractor shall also be entitled to terminate this Agreement by giving immediate notice in writing to the Subcontracting Party.
- 6.3 Where this Agreement is terminated by the Subcontracting Party under clause 6.1 or by the Challenge Contractor under clause 6.2, the Subcontracting Party shall cease all work and, in accordance with clause 2, the Challenge Contractor shall pay the Subcontracting Party for all Research undertaken in accordance with this Agreement prior to the date of termination.

7. Confidentiality

- 7.1 Subject to clause 9.1 and any obligations imposed on the Challenge Contractor by MBIE the parties agree that they will each keep secret and confidential the terms of this Agreement and all information of a secret, confidential and/or proprietary nature concerning the business or affairs of the other of them and which may come into their knowledge as a result of performance under this Agreement, including the results of the Research ("Confidential Information").



7.2 Each party further undertakes that it will restrict access to the terms of this Agreement or other such information to their employees or agents on a strictly "need to know" basis and will not make use, or seek to make use, of the existence of the terms of this Agreement, or other such information, except for the purposes of this Agreement.

7.3 The obligation of confidentiality shall not, however, apply to information to the extent that:

- (f) is already known to the party to which it was disclosed or is independently developed with reference to the Confidential Information;
- (g) is in, or becomes, part of the public domain without a breach of this Agreement;
- (h) is obtained from third parties which have no obligation to keep confidential to the Parties;
- (i) is agreed in writing between the parties not to be confidential; or
- (j) is required to be disclosed by law.

Provided that where disclosure is required under sub-clause (e) above, the receiving party will promptly notify the disclosing party so as to allow the disclosing party a reasonable time to oppose such process.

8 Intellectual Property Rights Management

8.1 The Parties agree that Intellectual Property Rights will be managed in accordance with, and the parties will abide by the Intellectual Property Management Plan set out in Schedule 4 to the Challenge Programme Agreement entered into between the Challenge Contractor and the Ministry of Business, Innovation and Employment.

9 Amendments

9.1 All amendments to this Agreement must be in writing and signed by duly authorised representatives of each party.

10 No Waiver

10.1 No waiver of any provision of this Agreement will serve as a waiver of any other provision, or as a continuing waiver, and the Challenge Contractor will not have waived or be deemed to have waived any provision(s) of this Agreement unless such waiver is in writing.

11 Assignment

11.1 The Subcontractor shall not assign, transfer or sub-contract any of its rights or obligations under this Agreement without the prior written consent of the Challenge Contractor and, if required, the Funding Agency.

12 Force Majeure

- 12.1 Neither party shall be responsible for any failure or delay in complying with the terms of this Agreement where such failure or delay results from events beyond its reasonable control. The frustrated party is to resume its obligations under this Agreement as soon as it reasonably can after the force majeure event ceases. If such force majeure is not remedied within thirty (30) business days of its initial occurrence the other party may terminate this Agreement with immediate effect on written notice to the frustrated party.

13 Notices

- 13.1 Every notice or other written communication ("Notice") for the purposes of this agreement shall:

be in writing; and

be delivered in accordance with clause 13.2

- 13.2 A Notice may be given by:

- delivery to the physical address of the relevant party; or
- posting it by prepaid post to the postal address of the relevant party; or
- sending it by facsimile transmission to the facsimile number of the relevant party; so long as Clause 13.5(a) is complied with; or
- sending it by email to the email address of the relevant party.

Time of Receipt

- 13.3 A Notice given in the manner:

- specified in clause 13.2(a) is deemed received at the time of delivery;
- specified in clause 13.2(b) is deemed received three Business Days (but exclusive of) the date of posting;
- specified in clause 13.2(c) or 13.2(d) is deemed (subject to clause 13.5) received:
- if sent between the hours of 9am and 5pm (local time) on a local working day, at the time of transmission; or
- if subclause 13.3 does not apply, at 9am (local time) on the local working day most immediately after the time of sending.

- 13.4 For the purposes of clause 13.3 "local time" is the time in the place of receipt of the notice and "local working day" is a normal working day in that place.

Facsimile and Email Notices

- 13.5 A Notice given by:

by facsimile, is not deemed received unless (if receipt is disputed) the party giving Notice produces a facsimile transmission report of the device from which the transmission was made which evidences full transmission, free of errors, to the facsimile number of the party given Notice;

by email, is not deemed received unless (if receipt is disputed) the party giving Notice produces a printed copy of the email which evidences that the email was sent to the email address of the party given Notice.



Addresses

- 13.6 For the purpose of this clause the address details of each party are the last known details for the relevant party.

14 Survival

- 14.1 Neither the termination nor expiry of this Agreement, nor the end of the Programme, will affect the following clauses that will endure: clauses 5, 7 and 8.

15 Severability

- 15.1 If any provision of this Agreement is found to be illegal, invalid or unenforceable, that provision shall be read down to the extent necessary and reasonable in the circumstances to give it a valid operation or partial character. If any provision cannot be so read down, that provision will be void and severable and the remaining provisions will not in any way be affected.

16 Variations to Terms and Conditions of Engagement

- 16.1 These Terms and Conditions of Engagement will be read subject to any variations specified in the part of the SOW entitled "Variation to Terms and Conditions of Engagement".

17 Law and Jurisdiction

- 17.1 The validity, construction and performance of this Agreement shall be governed by New Zealand law and shall be subject to the non-exclusive jurisdiction of the New Zealand courts to which the parties hereby submit.

18 Term

- 18.1 Despite the date of signing, this Agreement shall commence on the Start Date and, unless terminated earlier, shall end on the End Date. The term may be extended for such further period(s) as is/are agreed in writing between the Challenge Contractor and the Subcontracting Party.

38 SCHEDULE 5 – STATEMENT OF WORK – BBHTC SUBCONTRACT (CHALLENGE AND OTHER PARTIES)

Scope and Outline of research and any related activities for the period of this subcontract
Research and Related Objectives (Include specifications of their achievement)

Reporting Timetable, Milestones, Stop/Go Gates and Other Deliverables		
Milestone (include specifications of achievement)	End Date	Related objective
Stop/Go Gates (include specifications of achievement)	End Date	Related objective
Report No	Due Date	Description



Deliverable No	Due Date	Description

Payment Schedule

Quarterly in advance or as otherwise agreed:

Note to payments schedule: All payments will be made upon presentation of an invoice for the agreed amount except for the final payment which will be withheld until all final reports, milestones, deliverables and other agreed expectations and obligations under this statement of work have been met to the satisfaction of the BBHTC Board or its delegate.

Payments may also be suspended or terminated at any time if the conditions of a Stop/Go Gate are not met or the subcontract is not progressing to plan to the satisfaction of the BBHTC Board. In such a circumstance the Parties will agree any modification to any aspects of the statement of work including any resumption of the payments in the same or modified form or the winding up of the Subcontract in a way that preserves the value to the Challenge created to that point.

Information, services, resources and/or facilities to be provided by the Challenge Contractor

Any other expectations, conditions or obligations under this Subcontract including performance expectations

(Include any requirements for providing information to support reporting to the Ministry or any reasonable communications and outreach activities of the Challenge as well as a statement of performance expectations)

Model performance expectations statement:

“The Subcontracting Party will provide evidence of progress against all aspects of the statement of work twice yearly, as part of the reporting requirements, sufficient for the Challenge Contractor to assess performance. If the Challenge Contractor has any concerns over performance it may, acting through the BBHTC Director, seek further clarification, negotiate a variation to the statement of work or terminate the subcontract and seek an orderly windup of the project. Any termination and wind up will be subject to approval of the BBHTC Board and the Subcontracting Party may present a case for continuation to the BBHTC Board prior to its final decision

Description of any third party co-funding or Aligned Research required to achieve the Research and Related Activities

(Outline the organisation providing co-funding, the amount and nature of any co-funding including cash or in kind funding amounts (or similar description of any Aligned Research), terms, milestones and deliverables supported and contract status of any direct co-funding of any of the Research and Related Activities. Do not include co-funding or Aligned Research that is related to these objectives but is not essential to their achievement)



Description of any further subcontracting of the work under this Subcontract
(Outline the organisation, lead researcher or investigator, funding amounts, terms, milestones and deliverables that are further subcontracted under this Subcontract)

Variation to the Terms and Conditions of Engagement (Note any variations to the Collaboration Agreement must be agreed by all Parties to the Collaboration Agreement):

Subcontracting Party's Background IP

39 SCHEDULE 6 – COMMUNICATION

The Communication strategy (developed under the Data Management Plan, in the Business Plan) will define the direction of the Challenge communications, including the priorities, the target groups, messages, tools and resources for communication, as well as the organisation of both internal and external communication by the Challenge Parties.

The Challenge Parties will adhere to the following guidelines for all external communications:

- The Challenge Director will coordinate all communications relating to research which is aligned with the Challenge to ensure consistency and effective research linkages.
- All branding and associated templates may only be used by Challenge Parties with the express permission of the Challenge Director.
- The Parties will agree a suitable policy relating to brand usage and publicity related to the Challenge for any Party or Parties wishing to use or make reference to the Challenge brand (or make reference to Challenge in any publicity), consistent with the brand guidelines provided by the Ministry. All publicity or public statements related to the Challenge must be in accordance with the branding and publicity policy or otherwise approved by the Parties.



40 SCHEDULE 7 – INTELLECTUAL PROPERTY MANAGEMENT PLAN

This IP Plan sets out how the Challenge Parties intend to manage the intellectual property arising from Challenge Programmes to maximise the benefit of that Project IP for New Zealand. Unless otherwise specified in a subcontract work schedule between two or more Challenge Parties, Project IP will be managed in accordance with this IP Plan.

Note: Capitalised terms are defined in paragraph 27 of this IP Plan.

Intellectual Property Policies and Principles

1. Challenge Parties involved in carrying out Projects agree to comply with the intellectual property policies and principles set out in Appendix 4 to the NSC Investment Contract.
2. Challenge Parties acknowledge and agree that any Challenge Party that brings Background IP to a Project retains ownership of that Background IP and that the Challenge Parties have no right to the Background IP that any other Challenge Party brings to a Project, other than as expressly set out in this IP Plan.
3. Challenge Parties acknowledge that they have no right to mātauranga Māori (indigenous knowledge) that is kept and treated as proprietary by whanau, hapū and iwi, and agree that, where a Project seeks to make use of any such mātauranga Māori, the Challenge Parties involved in that Project will consult with the relevant whanau, hapū and iwi to reach kotahitanga (consensus) on how that mātauranga Māori is to be used in the Project and as part of any potential Project IP or publication.
4. Challenge Parties agree that where the Creating Parties reasonably believe that any Project IP does not have future commercial application, but is of benefit to New Zealand, they will take all practicable steps to make the Project IP openly accessible to the public.
5. Challenge Parties agree that, subject to any kotahitanga that may have been otherwise reached as contemplated in paragraph 3, or as otherwise expressly agreed by the relevant Creating Parties and recorded in a subcontract work schedule, any Project IP will be owned:
  - (a) by the sole Creating Party, if the Project IP is not Jointly-Developed Project IP;
  - (b) either jointly or by the Managing Party, if the Project IP is Jointly-Developed Project IP.
6. Challenge Parties agree that Project IP will be dealt with in the best interests of New Zealand and that, where appropriate, they will participate in joint initiatives to publish, present and disseminate Challenge research results.
7. Challenge Parties agree that these intellectual property policies and principles will be published on the Challenge website.

Background and Sole Creating Party Intellectual Property

8. Subject to clause 16 below, owners of Background IP and sole Creating Party Project IP will provide other Challenge Parties with a non-exclusive, non-transferable, royalty free licence to use such IP for the purposes of meeting the delivery of Challenge objectives and mission.

Jointly-Developed Intellectual Property

9. The Creating Parties of Jointly-Developed Project IP will regularly review that Jointly-Developed Project IP to determine if it has potential or actual future commercial application. Any Jointly-Developed Project IP which is reasonably believed by all the Creating Parties to have no commercial application will be owned by the Creating Parties jointly, and will be dealt with in accordance with paragraph 4. All Creating Parties will have full rights of disposal and use as if they owned the Jointly-Developed Project IP individually.
10. Paragraphs 10 to 19 only apply to any Jointly-Developed Project IP that all Creating Parties agree may have future commercial application. If the Creating Parties are unable to agree whether Jointly-Developed Project IP has future commercial application, they will refer the issue to be settled in accordance with paragraph 26.
11. The Creating Parties of any Jointly-Developed Project IP will agree which of them is best placed to be the Managing Party for that Jointly-Developed Project IP. The Creating Parties will assign their proprietary rights in and to that Jointly-Developed Project IP to the Managing Party to the extent necessary for the Managing Party to commercialise that Jointly-Developed Project IP.
12. In consideration for the assignment in paragraph 11 above, the Managing Party will agree to pay each other Creating Party such Royalties as are in proportion to that other Creating Party's Inventive Contribution towards the creation of that Jointly-Developed Project IP in accordance with the terms agreed by the Managing Party and other Creating Party.
13. Each Creating Party will agree to do anything that the Managing Party reasonably requests (including signing any documents) in order for the Managing Party to obtain full ownership and, where possible, to become the registered owner of the Jointly-Developed Project IP.
14. If the Creating Parties cannot agree on which of them should be the Managing Party, or on the proportions in which Royalties are to be paid to the other Creating Parties, then any Creating Party will be entitled to refer either of those two issues to be settled in accordance with paragraph 26.
15. Each Creating Party will agree not to transfer, assign, encumber, mortgage, pledge or otherwise alienate, or grant a licence or right in respect of, any or all of its rights in and to Jointly-Developed Project IP that they have developed prior to the identity of the Managing Party being agreed or determined in accordance with this IP Plan.
16. If commercialisation of any Jointly-Developed Project IP by the Managing Party will require access to any other Creating Party's Background IP, then, to the extent that the other Creating Party holds the legal rights to do so, they will negotiate with the Managing Party in good faith with the aim of reaching agreement on a licence to use the Background IP for that purpose on arms-length commercial terms and conditions.
17. If the Managing Party:
  - (a) does not take reasonable steps to commercialise Jointly-Developed Project IP within 2 years of the Creating Parties agreeing on which of them will be the Managing Party (as contemplated under paragraph 11) or as determined under paragraph 26; or
  - (b) after commencement of commercialisation, fails for a continuous period of 1 year to use all reasonable endeavours to exploit the Jointly-Developed Project IP so as to maximise the Net Returns to the Creating Parties,

then, upon request in writing by any other Creating Party, the Managing Party will assign or reassign, as the case may be, ownership of that Jointly-Developed Project IP to the Creating Party that the Creating Parties all agree is next best placed to commercialise that Jointly-Developed Project IP for the benefit of New Zealand and the mutual benefit of the Creating Parties. That other Creating Party may then commercialise the Jointly-Developed Project IP on the same basis as set out in this IP



Plan. The initial Managing Party will be entitled to a share of the Net Returns from any commercialisation of the Jointly-Developed Project IP at 75% of the rate at which the Challenge Parties had agreed, or had had determined under paragraph 26, would go to the initial Managing Party, and the proportion due to the other Creating Parties will increase pro rata. If the other Creating Party to whom the Managing Party role is assigned fails to action commercialisation as described in (a) and (b) of this paragraph 17, then other Creating Parties or, if they decline, other Challenge Parties may take the role of Managing Party.

18. The Managing Party will not transfer, assign, encumber, mortgage, pledge or otherwise alienate any of its rights in and to the Jointly-Developed Project IP, nor enter into any contracts with any third party in relation to the Jointly-Developed Project IP, without the prior written consent of the other Creating Parties, which consent will not be unreasonably withheld or delayed. In any event, any such consent will be subject to those terms and conditions as are necessary to protect the other Creating Parties' rights under this IP Plan, including the granting of a security interest as contemplated under paragraph 20.
19. Paragraphs 10 to 18 will be subject to any agreement to the contrary reached by the Creating Parties or other Challenge Parties for any Jointly-Developed Project IP.

Security Interest

20. If the other Creating Party or Parties require it, the Managing Party will enter into a specific security agreement granting a security interest over the Jointly-Developed Project IP and a right to receive a share of the Net Returns from its commercialisation. The specific security agreement will include the other Creating Party or Parties right to receive the assignment or reassignment of Jointly-Developed Project IP as contemplated in paragraphs 13 and 17 respectively.
21. The Managing Party will undertake to execute any documents and authorisations, and depose to or swear any declaration or oath as may be necessary to effect the registration of the security interest set out in paragraph 20 under the Personal Property Securities Act 1999 in New Zealand and any similar rules or legislation in any other country in which IP rights are sought.

Publication

22. Except in respect of information that is released pursuant to paragraph 4, formal statements to the media, or publications or presentations relating to any Project IP to be released or published in any way, must in all cases be submitted to the Managing Party, and/or any Creating Parties, as the case may be, and cleared in writing by them before release or publication, such permission not to be unreasonably withheld or delayed. In the case of a student thesis, such thesis may be embargoed by the Managing Party and/or Creating Parties for a maximum period of up to two years from the submission date of that thesis. Where such a thesis is to be submitted for examination the Managing Party and/or Creating Party will ensure that all examiners sign a confidentiality agreement prior to said submission.
23. If a Challenge Party produces any media release, publication or presentation relating to any Project IP, then they will acknowledge each other Challenge Party's contribution towards the Project as well as the moral rights in respect of any other Challenge Party's staff who have contributed towards that publication.

Reporting

24. Each Creating Party will report Project IP that it creates within a reasonably practicable timeframe to the Challenge Director, who will keep a log of Project IP for reporting purposes – subject to any such confidentiality restrictions as are reasonably prudent given the nature of the Project IP concerned and any likely avenues for its commercialisation.

Challenge Parties' Access to Project IP

25. Subject to the agreement of the Creating Party or Managing Party, Project IP will be made available under a royalty free, non-exclusive, non-transferable licence to all Challenge Parties for the purposes of the Project and educational or related non-commercial activities. The Creating Party and/or Managing Party may withhold their approval where it is reasonably prudent given the nature of the Project IP concerned and any likely avenues for its commercialisation.

Dispute Resolution

26. If a dispute arises in respect of any matter under this IP Plan, then any affected Challenge Party will be entitled to refer the dispute to be settled in accordance with the disputes resolution provisions of the Collaboration Agreement.

Definitions

27. In this IP Plan:

'Background IP' means any Intellectual Property that a Challenge Party makes available for use in the Programme.

'Challenge' means Building Better Homes, Towns and Cities: Ko Ngā Wā Kāinga Hei Whakamāhorahora

'Challenge Parties' means those research providers and other entities who are parties to the Collaboration Agreement are involved in delivering a Challenge Programme Agreement.

'Challenge Programme' means a work programme of research, science or technology or related activities which is described in a Challenge Programme Agreement.

'Challenge Programme Agreement' means an agreement between BRANZ Limited and the Ministry for Business Innovation and Employment entered into as a result of the NSCIC.

'Collaboration Agreement' means the Agreement signed by the Challenge Parties.

'Creating Party' means each Challenge Party that makes an Inventive Contribution towards the creation of any Project IP.

'Inventive Contribution' means a contribution that would create an entitlement to a joint ownership share of the Intellectual Property concerned.

'IP Plan' means this Intellectual Property Management Plan and any variations to it agreed by the Challenge Parties.



‘IP protection and commercialisation costs’ means fees, costs and expenses (including patent attorney and legal fees, travel expenses and out of pocket expenses) incurred in managing the Project IP or obtaining of grants of patents or other forms of registered Intellectual Property protection and maintaining the same and including without limitation all costs and expenses incurred in making, prosecuting and registering patent applications and dealing with any opposition to any application for such registrations, any challenge to the validity of any such registrations, and any action taken in relation to infringement of Project IP.

‘Jointly-Developed Project IP’ means Project IP that is jointly created and developed by two or more Challenge Parties.

‘Managing Party’ means the Creating Party that all Creating Parties agree is best placed to manage and commercialise Jointly-Developed Project IP for the benefit of New Zealand and the mutual benefit of the Creating Parties.

‘Net Returns’ means the total consideration , in any form, including equity, receivable by the Managing Party from third parties based on exploiting the Project IP minus all IP protection and commercialisation costs incurred by the Managing Party, but excluding research funds received from third parties for further development of the Project IP.

‘NSCIC’ means the investment contract entered into by the Ministry of Business, Innovation and Employment and BRANZ Limited.

‘Project’ means a research project carried out under a Challenge Programme Agreement by any combination of Challenge Parties as contemplated in the Collaboration Agreement.

‘Project IP’ means any Intellectual Property that is created by Challenge Parties, either solely or jointly, during the course of carrying out any Project excluding any Background IP.

‘Royalties’ means a share of the Net Returns from the commercialisation of Jointly-Developed Project IP.

APPENDIX 3

BUDGET & COST BREAKDOWN

Budget for BBHTC (GST exclusive)	Year One	Year Two	Year Three	Year Four	Year Five	TOTAL	Percentage of total funding
	2014/15	2015/16	2016/17	2017/18	2018/19		
Research Leadership							
Director (1FTE)	\$0	\$191,000	\$382,000	\$382,000	\$382,000	\$1,337,000	
SLT (.05)	\$0	\$87,500	\$175,000	\$175,000	\$175,000	\$612,500	
Subtotal	\$0	\$278,500	\$557,000	\$557,000	\$557,000	\$1,949,500	8%
Governance and advisory							
Governance group fees and meeting costs	\$0	\$35,000	\$70,000	\$70,000	\$70,000	\$245,000	
Advisory group (Kahui and International Science Advisory Panel) costs	\$0	\$9,000	\$30,000	\$24,000	\$50,000	\$113,000	
Subtotal	\$0	\$44,000	\$100,000	\$94,000	\$120,000	\$358,000	2%
Management and Administration							
Manager (.6FTE)	\$0	\$42,000	\$165,000	\$165,000	\$165,000	\$537,000	
Administration (.4 FTE)	\$0	\$27,500	\$55,000	\$55,000	\$55,000	\$192,500	
Subtotal	\$0	\$69,500	\$220,000	\$220,000	\$220,000	\$729,500	3%
Communications, engagement, travel							



and Challenge level outreach							
Website, Challenge communication	\$0	\$40,000	\$50,000	\$50,000	\$50,000	\$190,000	
Conferences, events, hui	\$0	\$25,000	\$75,000	\$50,000	\$75,000	\$225,000	
Travel	\$0	\$25,000	\$65,000	\$65,000	\$65,000	\$220,000	
Subtotal	\$0	\$90,000	\$190,000	\$165,000	\$190,000	\$635,000	3%
Contingency budget (operational matters)							
Eg: governance review, consultancy, provision for legal, general contingency	\$0	\$0	\$50,000	\$50,000	\$50,000	\$150,000	
Subtotal	\$0	\$0	\$50,000	\$50,000	\$50,000	\$150,000	1%
Total Challenge operations	\$0	\$482,000	\$1,117,000	\$1,086,000	\$1,137,000	\$3,822,000	16%
Challenge funds available						\$23,235,000	
Balance for research funding						\$19,413,000	84%
Research funding							
Provision for SRA research	\$0	\$2,149,734	\$5,151,365	\$5,294,619	\$5,408,851	\$18,004,569	92%
Provision for contestable funding			\$750,000		\$750,000	\$1,500,000	8%
Total Challenge research		\$2,149,734	\$5,901,365	\$5,294,619	\$6,158,851	\$19,504,569	
TOTAL							

Forecast Establishment Phase Expenditure		\$350,000				\$350,000	
Total first five years (incl Establishment funds)	\$0	\$2,981,734	\$7,018,365	\$6,380,619	\$7,295,851	\$23,676,569	
Total second five years						\$24,325,000	
GRAND TOTAL						\$48,001,569	

Notes

- The timing of the BBHTC Challenge means that it is in effect compressed in to 9 years. Its first year of operations (2015/16) is year two for other Challenges that commenced in the 2014/15 year.
- Overheads have been budgeted at 112%.
- An assumption has been made that research funding will begin in early 2016 (Year Two) and be completed by June 2019 (Year Five)
- Available funding for the first funding period has been budgeted at \$23.235m (\$23.585 minus forecast commencement phase expenditure of \$350k v \$489k budget)
- Available funding for the second funding period is \$24.325m
- Total funding available through to 2024 is \$47.91m
- Available funding cannot be moved between five year periods, and is only available until the end of a five year period.
- The Director job description includes potential for research participation in the Challenge. In this eventuality, a percentage of their FTE would be re-allocated as research funding.
- Provision for contestable funding during the first phase is at c8%. Over the life of the Challenge there is a commitment to significantly increase this funding.



APPENDIX 4

DIRECTOR JOB DESCRIPTION

NATIONAL SCIENCE CHALLENGE DIRECTOR

BUILDING BETTER HOMES, TOWNS AND CITIES: KO NGĀ WĀ KĀINGA HEI WHAKAMĀHORAHORA

POSITION DESCRIPTION

Position title: Challenge Director, *Building Better Homes Towns and Cities* (BBHTC) National Science Challenge

Reports to: Chair, BBHTC Governance Group

BRANZ – for all personnel issues

POSITION OVERVIEW

National Science Challenges are 10 year initiatives aimed at tackling some of New Zealand's most difficult issues. With considerable government funding through MBIE science investment, they are national programmes of research bringing together the best of New Zealand's research community, international experts, end users and stakeholders.

The Building Better Homes, Towns and Cities Challenge is a mission led, c\$49m, 10 year Challenge. It presents a powerful opportunity to transform the way that new homes are provided, existing homes are improved and New Zealand's towns and cities are shaped. As such, the Challenge presents a real chance to make a significant difference to the lives of many New Zealanders.

The position of Challenge Director will be instrumental in delivering this National Science Challenge and realising its potential. The Director will drive forward the Challenge and ensure that its findings and discoveries are communicated to a wide audience. This includes the New Zealand and international research community, with Māori, through government and industry stakeholders, and the New Zealand public. The Director of this Challenge will relish the opportunity to speak with authority and mana to diverse groups about the Challenge and how they can contribute.

To be successful the Director must have a good understanding of the New Zealand Science System and the participants in this system. Given the nature of the Challenge a good understanding of the New Zealand housing, building and construction sector (in its broadest sense) will also be valuable. The Director must also be able to manage complex relationships and work across organizations to bring effective teams together to realize the Challenge's mission.

The BBHTC National Science Challenge has ambitions to be a new type of research collaboration. It aims to bring together inter-disciplinary researchers and end users in new and different ways. The Director will need to work closely with the Parties to the Challenge:

- *BRANZ*
- *University of Auckland*
- *Research Trust of Victoria University of Wellington*
- *Lincoln University*
- *AUT University*
- *PrefabNZ*
- *Opus Research*
- *University of Canterbury*
- *University of Otago*
- *Massey University*
- *CRESA*
- *University of Waikato*
- *Auckland Council research investigation and monitoring unit*
- *The New Zealand Forest Research Institute Ltd (Scion)*
- *Institute of Geological and Nuclear Sciences*

The Director will also need to work with organisations and individuals from the wider research and stakeholder community, ensuring that the Challenge looks widely in the delivery of its mission.

This will also mean working closely with regulators, government (local and central) policy makers, iwi, community organisations, industry and others on pathways for implementation. The Challenge is about change. It's success will be measured by the impact that the research is having, as well as the excellence of the research itself.

The Director will play an important role in continuing to champion and foster the inclusive, collaborative working that has characterised the Challenge during its establishment. Summed up in the expression "Citizens of the Challenge" – this approach has been instrumental in the creation of the research and business plans. It has set the tone for future working methods and relationships.

The Director reports to the Chair of the Challenge Governance Group, the Challenge's independent Board. They will be expected to work closely with the Chair and the Governance Group. They are employed on behalf of the National Science Challenge by the Challenge contractor, BRANZ Ltd.

We note the Director could also be an active researcher within the Challenge. This would need to be negotiated given the primary leadership commitments and responsibilities outlined in this role profile.

BRANZ Ltd is an independent and impartial research, testing, and consulting company focused on inspiring the industry to provide better buildings for New Zealanders. More information on BRANZ can be found at www.branz.co.nz.



PURPOSE OF THE POSITION

The purpose of this position is to drive forward the implementation and delivery of the BBHTC Challenge. This is a national role which is as much about driving forward the research programmes as it is communicating the Challenge to New Zealanders.

KEY RESULT AREAS

The key result areas for this position are:

- Successfully drive forward implementation and operationalisation of the BBHTC Challenge as set out in the Challenge Programme Agreement, Contract and Collaboration Agreement;
- Engage and have credible relationships at senior levels with all Challenge Parties and other contributing organisations to ensure organisational support and to resolve any issues as they arise;
- Engagement with key stakeholders and end users to ensure Challenge research is well understood and has clear pathways for implementation;
- Chair the Science Leadership Team, drive forward and shape its work plan;
- Develop and maintain awareness of the relevant research, regulatory and commercial landscape for BBHTC Challenge in New Zealand and globally with a commitment to consider all relevant New Zealand capabilities and capacity in the implementation of the Challenge;
- Deliver transparency of all business and investment processes consistent with the Collaboration Agreement, Contract and Challenge Programme Agreement;
- Foster and develop sustainable research collaboration that promotes research excellence;
- Work with Māori and non-Māori researchers, industry participants and end users to ensure that Vision Mātauranga, woven throughout the Challenge, is delivered;
- Endeavour to respect and meet reasonable needs and expectations of all contributors to the Challenge, including valuing all contributions on merit;
- Work closely and effectively with the Challenge Parties, recognising the distinct commitments, responsibilities and contributions they have agreed to under the Challenge Collaboration Agreement;
- Work effectively with the Challenge Chair and Governance Group.

You will be active in demonstrating your health and safety commitment

To demonstrate a commitment to the health, safety and wellbeing of yourself, staff, visitors and contractors by:

- understanding the health and safety responsibilities associated with your position including compliance with relevant legislation, regulations, and BRANZ policy and procedures.
- actively engaging with health, safety and wellbeing programmes and seeking to continuously improve systems and processes.
- leading by example.
- working with Challenge Parties and participants to ensure that health and safety responsibilities are adhered to by all contributors to the Challenge.

SKILLS, EXPERIENCE AND QUALIFICATIONS RELEVANT TO THE ROLE

Technical Requirements

- Relevant post-graduate tertiary qualification;
- Outstanding research experience and credentials and significant research mana and gravitas – ability to provide confidence at the highest level;
- Extensive experience in research management, including managing large research budgets;
- Experience in developing and implementing cross disciplinary, multi-organisational research programmes;
- Track record of leadership of senior research relationships;
- Strong understanding of the New Zealand science system;
- Strong understanding of the New Zealand building and construction sector;
- Strong research leadership and ability to drive forward and shape the overarching research framework and vision for others to work within;
- Strong facilitation skills and ability to liaise with industry, stakeholders (including local and central government);
- Ability to work with professional staff to ensure operational efficiency and effectiveness of a collaborative research initiative;
- Commitment to and understanding of the importance of Vision Mātauranga as a fundamental element of the BBHTC Challenge; and
- Experience of working with a senior level, experienced and effective Governance group.



Role Specific Core Competencies

- **Stakeholder Communications** – Carefully crafting external messaging to ensure that key stakeholders have a comprehensive understanding of the information relevant to them. Able to proactively target communications to ensure that potential issues are pre-empted. Adapts and responds to issues that arise, is able to resolve conflicts to a mutually beneficial end. Understanding of how the BBHTC Parties and key stakeholders work and can successfully operate and influence within it to achieve results for BBHTC
- **Vision and Leadership** – Demonstrates support for the vision, principles and strategy of BBHTC Challenge and inspires colleagues to do the same.
- Able to forge **strong relationships with iwi and Māori researchers** to drive forward delivery of the Challenge's Vision Mātauranga commitments.
- **Planning and Organising** – Ensures that BBHTC resources are well utilised and goals are achieved including via working with others and creating high performing teamwork.
- **Delivering** – Ensures that BBHTC projects are completed within time, budget and scope. Constantly adapting to keep projects progressing towards delivering the expected outcomes.
- **Decision Making** – Makes sound and timely decisions and recommendations based on analysis of relevant facts, data, advice, experience or judgment in relation to problems.

Character and Attitude

- **Results Focused** – Being disciplined and focused in pushing self and others to deliver results. Never losing concentration on the desired end state.
- **Articulate** – Can clearly communicate and express themselves well through written and spoken channels. Explains complicated ideas in a clear and concise manner.
- **Transparency** – Demonstrates a fundamental commitment to working in an open and honest manner, carries out stewardship role for the greater good. Makes all decisions in a fair and transparent way to ensure no party is unfairly disadvantaged.

ADDITIONAL INFORMATION

- This role will be a fixed term until June 2019 with likelihood of reappointment to the end of the National Science Challenge in 2024.
- This is a national role, and will be Wellington based.

APPENDIX 5

INTERIM GOVERNANCE GROUP

Richard Capie (Chair)

General Manager, Research Investment, BRANZ

Professor Richard Blaikie

Deputy Vice-Chancellor (Research and Enterprise), Otago

Professor Steve Weaver

Deputy Vice-Chancellor (Research), Canterbury

Professor Mike Wilson

Pro Vice-Chancellor, Faculties of Architecture & Design, Science & Engineering, Victoria

Professor Alexander Gillspie

Pro Vice-Chancellor Research, Waikato

Pamela Bell

Chief Executive, Prefab New Zealand

Regan Solomon

Manager, RIMU, Auckland Council

Kay Saville-Smith

Director, CRESA



Dr Roseanne Ellis

Director – Research Strategy & Management, AUT

Professor David Simmonds

Principal Research Strategist, Lincoln

Elsbeth McRae

General Manager, General Manager Manufacturing and Bioproducts, Scion

Dr John Smart

Challenge Director, High-Value Nutrition National Science Challenge, Auckland University

Professor Brigid Heywood

Assistant Vice-Chancellor (Research, Academic & Enterprise), Massey

Peter Benfell

Research Leader, Opus

Dr Ian Graham

General Manager Research, GNS

APPENDIX 6

SCIENCE LEADERSHIP TEAM PROFILES

Lynda Amitrano

Sustainable Built Environment Manager, BRANZ

Lynda's areas of research interest are resource efficiency in buildings (energy, water and materials), design optimisation and sustainability in residential buildings impacts of climate change and building resilience, and management and leadership of science in the area of sustainable buildings. Lynda's research has included working on and then also managing the 6 year Household Energy End-Use Project (modelling how energy is used in NZ households), development of housing energy efficiency tools and providing a framework for the Australian Government on adaptation of buildings to climate change.

Lynda is a Governance Group member of the Design Out Waste Project. She was a Governance Group Member of Gypsum Recycling for Cement as well as an Expert Advisory Group Member on the Home Energy Rating Scheme (EECA) and Warm Homes and Clean Air Quality (MFE).

Dr Malcolm Campbell

University of Canterbury

Malcolm focuses on Health Geography and is Director of the Geohealth Laboratory. He has a particular interest in social and spatial inequalities which are the differences between people and place with respect to socio-economic and health indicators. He also has expertise in Spatial Microsimulation modelling for 'what-if' policy analysis, examining the potential effects of changing policy on the population at the small area level and quantifying the effects of different scenarios on the population.

Malcolm is interested in aspects of economic geography such as research of income inequality, socio-economic polarisation and the study of poverty and wealth. He has previous experience of economic research with a focus on welfare, deprivation and labour market research and the application of spatial methods to economic research. He has an emerging research theme on smart cities, with a geo-spatial health pilot project on COPD patients in Christchurch in collaboration with multiple partners. Malcolm is working on a series of projects which attempt to examine and understand social and spatial inequalities in different contexts. He also has an interest in developing and applying novel methods to geographical problems for example:

- Analysing the inequalities in health between population groups and geographical areas
- Microsimulation of health and socio-economic variables at small area geographies
- Smart Cities

Professor Errol Haarhoff

School of Architecture & Planning, University of Auckland

Errol's research interests are in urban design, including theory and practice, urban settlement history, architecture in development economies, traditional architecture and settlement in Africa, the history of the modern movement in architecture and urbanism and



medium density housing. His current research is focused on urban design as related to housing, housing typologies, intensification and urban growth strategies. He is Associate Dean Research and also participates in the Australian CRC for Balanced Urban Development. Errol is a member of the NZ Institute of Architects and the International Planning History Society.

At the University of Natal, Durban, South Africa, Errol's research was focused on housing issues related to informal (squatter) settlement. Research outcomes had a major impact on redefining housing policy in South Africa in the period leading up to the end of apartheid and resulted in the South African Institute of Architects '*Distinguished Architectural Research Award*'. In New Zealand definitive work has been completed on the history of the Garden City Movement, and work related to the establishment of the University of Auckland Architectural Archives, the latter resulting in a Commendation from the Council of the New Zealand Institute of Architects. More recent research of Errol's has involved the history of Modern period architecture and urbanism, research related to architecture graduate gender profiles and progression to the practice and profession of architecture.

Dr Simon Lambert

Faculty of Environment, Society & Design, Lincoln University

Ngati Ruapani, Tuhoe

Simon lectures in Māori environmental planning and development. His areas of research expertise are Māori development, cultural economy, indigenous economic development, innovation and disaster geography. Simon is a member of the NZ Association of Impact Assessment, Māori Association of Social Scientists, Native American and Indigenous Studies Association, NZ Geographical Society.

Simon has researched small-scale innovation in the farming, building and energy sectors of New Zealand and is particularly interested in Māori farming as recorded through the history of the Te Ahuwhenua Trophy. Simon is also researching Indigenous economies, particularly how Indigenous Peoples engage with innovation. Another of his current research interests is the effects of the recent Canterbury earthquakes on Māori communities and using this knowledge to inform policy.

Professor Simon Kingham

University of Canterbury

Simon's research is broadly focused on researching the relationships between urban environment and health. There is often a strong geospatial component to his research. Foci include:

- Transport: how we can make transport more sustainable and looks at people's perceptions and attitudes to transport?
- Health geography: social and environmental determinants of health and spatial patterns of illness and air pollution
- Environmental exposure: how do we measure and quantify health-affecting aspects of the environment?
- Earthquake research – geographical variations in health outcomes and earthquake impacts.

Much of Simon's research is carried out in the geohealth laboratory, undertakes applied research in the areas of health geography, spatial epidemiology and Geographical Information Systems. In particular, work in the GeoHealth Laboratory focuses upon how the local and national contexts shape health outcomes and health inequalities. Current projects include 'Greening the Greyfields'- creating a spatial information toolset for sustainable urban planning, Resilient Urban Futures – understanding the types of urban environments in which New Zealanders want to live and which potential futures will result in livable, resilient, competitive cities.

Simon is a Member of the Australasian Epidemiological Association, the International Society of Environmental Epidemiology, the International Society of Exposure Science and the NZ Geographical Association. He is strongly connected with end users, including working regularly with the Ministry of Health, presenting to stakeholders in Christchurch on sustainable rebuilding of the city and being an Expert Advisor for the ECan Regional Transport Committee.

Dr Kepa Morgan

Civil & Environmental Engineering, University of Auckland

Ngāti Pikiao, Ngāi Tahu / Kāi Tahu, Ngati Kahungunu, Te Arawa, Rongomaiwahine

Throughout a 30 association with engineering, Kepa has attempted to improve understanding between the engineering profession and Māori. It is at this challenging interface that Kepa believes significant opportunities exist to advance engineering solutions for indigenous peoples.

Kepa has completed research projects analysing the different solutions best suited to indigenous contexts. This includes the assessment of Council wastewater projects, International Aid Project effectiveness, alternative water catchment management approaches, hydro development, the impacts of fracking, and disaster response strategies. Kepa has also pioneered a new rammed earth construction system called whareuku, a solution now being adopted organically on papakāinga in the North Island. His PhD led to development of 'The Mauri Model' which is significantly affecting the way that Government agencies and Local Government assess the sustainability of projects.

Kepa is a Registered Engineer and, in 2010, was recognised as a Fellow of the Institution of Engineers. He is also a member of Engineers for Social Responsibility and South Pacific Professional Engineers for Excellence.

Emeritus Professor Harvey Perkins

Faculty of Business & Economics, University of Auckland

Harvey has had a varied career in teaching, public service community advisory work and management, consultancy and academia in New Zealand, the US and the UK. His disciplinary background is in human geography but much of his research is informed by theory developed on the margins of human geography and sociology and applied to socio-spatial phenomena that are of interest to geographers, sociologists and planners. Since 1976 he has researched elements of urban, peri-urban and rural social, economic and environmental change under neo-liberal and late-modern conditions. Most recently, he has led, or taken significant roles in research teams that have studied aspects of sustainability and urban change; the meaning and use of house and home; outdoor recreation and tourism; and economic restructuring, emerging consumption patterns and rural change.

Harvey is currently Vice President of the NZ Geographical Society and a member of the Editorial Board of the Journal of Rural Studies and the Australian Housing and Urban Research Institute. As well as his role at the University of Auckland he is Adjunct Professor of Human Geography at Lincoln University and a Research Affiliate at the Centre for Sustainability, University of Otago and a Member of Engaged Social Science.



Dr Matthew Roskrug

National Institute of Demographic & Economic Analysis, University of Waikato

Te Atiawa

Matt is an economist and Research Fellow with the National Institute of Demographic and Economic Analysis (NIDEA) at The University of Waikato. He previously lectured in economics and was a health economist with the Ministry of Health before returning to the University of Waikato.

Matt's expertise is in quantitative research, with a particular focus on econometric analysis of social survey data. He has worked extensively with New Zealand microdata and with central and local government administrative data collections. He has a wide range of interests which include social and cultural capital; labour economics; urban and regional science; population economics, health economics and economic geography.

Kay Saville-Smith

Centre for Research Evaluation & Social Assessment

A sociologist, Kay has built up twenty years of solid expertise in community and social policy research, including extensive experience in quantitative and qualitative research design, evaluation, and policy analysis. Her research focuses on the interface between households, communities, the industries that service them, and public agencies in central and local government.

Kay established CRESA in 1994 along with co-director Julie Warren who retired from the company in 2010. Kay is a trustee for the Marlborough Sustainable Housing Trust and a past council member for the Lifetime Design Foundation Council.

Kay's past research activities have included *Healthy Housing Programme* (Otago University), HEEP (BRANZ), leading the Sustainable Neighbourhoods Stream for the BEACON Consortium, contributing to the NowHome and retrofit evaluations, leading the public good science funded programme *Ageing in Place: repairs and maintenance of older people's housing*. Currently Kay is a member of the *Building Energy End-use Study* team, leads two public good science funded, multi-disciplinary, cross-organisational programmes: *Community Resilience and Good Ageing: Doing Better in Bad Times*; and *Finding the Best Fit: Housing, Downsizing, and Older People in a Changing Society*.

Dr Huhana Smith

Ngati Tukorehe, Ngati Raukawa

Huhana is an academic, researcher, environmentalist/kaitiaki, curator and artist based in Horowhenua district. She is currently Research Leader Māori for a Ministry for Business Innovation and Employment funded project called *Manaaki Taha Moana: Enhancing Coastal Ecosystems for Iwi and hapū (2009-2015)*. Formerly a Senior Curator Māori at the Museum of New Zealand Te Papa Tongarewa, she is currently an Honorary Research Associate at Te Papa. Huhana continues to practice as an artist/painter, with her last exhibition *Tiaki* held at Bartley and Company Art in March this year. Over the years she has spoken at a range of environmental, museums, sociology, science, ecology and indigenous knowledge conferences.

Huhana is Research Leader Māori for the major research project Manaaki Taha Moana: Enhancing Coastal Ecosystems for Iwi (MBIE funded 2010-2015) which includes six action/kaupapa Māori research environmental restoration projects. From this has emerged Kei Uta: Compelling Alternatives, the next action/kaupapa Māori project in development with Victoria University's School of Architecture and Design.

Huhana is on the Board of Tahamata Farming incorporation and an Environmental Legal Aid Panel member for MfE. From 2007-2014 she was Chair of Te Reo o Taiao Ngati Raukawa Environmental Resource Unit 2007-2014.

Professor John Tookey

School of Engineering, AUT

John's research is in the arena of construction management with themes related to housing affordability, materials costs, supply chain management, logistics management in construction. Recent work has increasingly focused on waste reduction and waste minimisation in construction. John research includes mapping Auckland's construction lifelines, simulating the development of Auckland's infrastructure over time, establishing the economic value of a zero waste construction strategy and developing tools and skills to reduce construction waste.

Recently John has developed two new professional engineering programmes to allow students to benefit from current best practice research and design practice. John is a Member of the Chartered Institute of Building and the Institute of Electronic & Electrical Engineers.

Professor Iain White

Geography, Tourism & Environmental Planning, University of Waikato

Iain specialises in subjects related to the environment, geography and town planning. His research focuses upon the interface of the natural and built environments and he has written widely in this field and published in multiple disciplinary areas such as geography, town planning, urban studies and civil engineering. Iain is a Member of the Royal Town Planning Institute (UK).

Iain's work has been supported by a significant number of research grants from sources including research councils, the European Union, government agencies, NGOs, the Asia-Pacific network and the private sector.

His most recent research project is a European FP7 collaborative project for €4.8m entitled '*Smart Resilience Technology, Systems and Tools*' (*SMARTeST*) involving 10 EU partners collaborating to develop, design and test ways to make cities, buildings and people more resilient to flood risk.

Iain has also developed a focus to disseminate beyond academe to the private sector, policy, practice and communities to help generate real world impact. For example, at the local level he has worked directly with flood prone communities, policy makers and stakeholder groups, including designing and launching the '*Six Steps to Flood Resilience*' guide which was formally endorsed by insurance groups, government departments, industry bodies and community advocacy organisations. He has also recently been appointed as Chair of the Sustainability Panel for Hamilton City Council and is a Technical Expert for the development of the Waikato Spatial Plan.



Professor Suzanne Wilkinson

Civil & Environmental Engineering, University of Auckland

Suzanne works on the management of the construction industry in disaster environments. Suzanne's research is interdisciplinary and has two main areas of activity: 1) construction management and 2) post disaster recovery and reconstruction. Her construction management research focuses on how to improve productivity and innovation in the construction industry, client and stakeholder interactions in construction; contract management and delivery mechanisms for the industry. Her disaster management team assesses the ways in which reconstruction after a disaster event can rapidly and effectively be managed and the construction organisational systems required to facilitate reconstruction.

Suzanne has extensive research experience in disaster management, disaster recovery, and disaster reconstruction and is currently working on Government (BRANZ, EQC, MBIE) funded projects on the recovery of Christchurch. She also leads the Bush Fire Recovery project - a longitudinal study of the recovery and reconstruction following the 2009 Australian bush fires. Suzanne is the founder and leader of the Centre for Disaster Resilience, Recovery and Reconstruction, leader of the Construction Management Group and co-director of the Urban Research Network at the University of Auckland and a research leader with Resilient Organisations.

APPENDIX 7

KĀHUI MĀORI TERMS OF REFERENCE

Background

National Science Challenges are 10 year initiatives aimed at tackling some of New Zealand's most difficult issues. With considerable government funding through MBIE science investment, they are national programmes of research bringing together the best of New Zealand's research community, international experts, end users and stakeholders.

The Building Better Homes, Towns and Cities Ko ngā wā kāinga hei whakamāhorahora (BBHTC) Challenge is a mission led, c\$47m, 10 year Challenge. It presents a powerful opportunity to transform the way that new homes are provided, existing homes are improved and New Zealand's towns and cities are shaped. As such, the Challenge presents a real chance to make a significant difference to the lives of many New Zealanders.

Vision: - Ka ora kāinga rua: Built environments that build communities

Homes, neighbourhoods, towns and cities throughout New Zealand that enable people to enrich their lives and reach their social, cultural and economic potential throughout their life stages.

Mission

Researchers, engaged with industry and community through innovative research with commitment to co-creation of new knowledge, will transform the systems and organisations that shape the creation and regeneration of our homes, neighbourhoods, towns and cities. The mission of the Building Better Homes, Towns and Cities (BBHTC) National Science Challenge is to help transform dwellings and places where people live into homes and communities that are hospitable, productive, and protective communities. Critical characteristics are:

- Fit-for-purpose, flexible homes and built communities that can adapt to New Zealand's diverse populations, structural ageing, and the challenges of New Zealand's unique geography and environments, urbanism, and regionality.
- A building, design, planning and regulatory sector that is robust and is consistently able to deliver:
  - Sufficient quantity and quality of new and renovated homes necessary for the health and wellbeing of individuals, families and households.
  - A range of housing solutions that align with the full range of material and physical capacities of households.
  - Neighbourhoods, towns and cities with safe and affordable dwellings that connect people and enable them to take opportunities and participate productively in New Zealand's economic, civic, and cultural life.
- Dwellings, neighbourhoods, towns and cities that promote social and economic wellbeing and New Zealand's international competitiveness through:
  - Vibrant, livable and affordable cities that reflect New Zealand's diversity.
  - Transitioning to low-carbon towns and cities
  - Expanding demand for our innovative design, materials, and building services to support the revitalisation of housing and settlements.



Challenge Objectives

Improve the quality and supply of housing and create smart and attractive urban environments through:

- An improved housing stock;
- Meeting future demand for affordable housing;
- Taking up innovation and productivity improvement opportunities;
- Improving current and future urban environments and residents' well-being; and
- Better systems for improved land-use decisions.

Challenge Parties

The BBHTC National Science Challenge aims to bring together inter-disciplinary researchers and end users in new and different ways.

The Parties to the Challenge are:

- BRANZ (contract holder)
- University of Auckland
- Research Trust of Victoria University of Wellington
- Lincoln University
- AUT University
- PrefabNZ
- Opus Research
- University of Canterbury
- University of Otago
- Massey University
- CRESA
- University of Waikato
- Auckland Council research investigation and monitoring unit
- The New Zealand Forest Research Institute Ltd (Scion)
- Institute of Geological and Nuclear Sciences

The BBHTC Governance Group provides oversight of the governance of the Challenge, its Science Leadership Team. The Challenge Director chairs the Science Leadership Team and reports to the Chair of the Governance Group.

A Kāhui Māori will be established to provide advice to the Challenge. This document provides Terms of Reference for the Kāhui Māori.

Role of the Kāhui Māori

The role of the Kāhui Māori is to provide advice to the Challenge on implementation of Vision Mātauranga and wider cultural matters including intellectual property issues where relevant to Māori as specified in the Intellectual Property Management Plan. It will advise the Director, Governance Group and Science Leadership Team on events in Te Ao Māori that may affect the Challenge. The Kāhui Māori may also facilitate engagement with Māori stakeholders and support consultation between the Challenge and Māori interests.

To avoid doubt, the Kāhui Māori will provide advice to the Challenge, or perform other functions agreed with the Director, it is not a decision-making body.

Vision Mātauranga

A key element of the National Science Challenges is the expectation they will give effect to the government's Vision Mātauranga (VM) policy. The VM policy aims to unlock the science and innovation potential of Māori knowledge, resources, and people for the benefit of New Zealand. It focuses on four themes:

1. **Indigenous innovation** – contributing to economic growth through distinctive science and innovation
2. **Taiao/environment** – achieving environmental sustainability through iwi and hapū relationships with land and sea
3. **Hauora/health** – improving health and social wellbeing
4. **Mātauranga** – exploring indigenous knowledge and science and innovation.

It is expected that Māori researchers/research organisations, end users, and/or stakeholders will play a vital role in the delivery of the Challenge at all levels. In giving effect to the VM policy, the Challenge will demonstrate how the proposed research responds to distinctive issues and needs of Māori and Māori communities and identify how Māori, both individually and collectively, can participate in research initiatives to achieve the outcomes sought.

Principles

In developing the proposal for Building Better Homes, Towns and Cities Ko ngā wā kāinga hei whakamāhorahora we have developed the following principles relevant to the VM aspects of the Challenge and to how we intend to engage and consult with Māori. We will support Vision Mātauranga Policy objectives for the benefit of New Zealand through a commitment to:

- Māori and non-Māori inclusion in the Challenge, consistent with Te Tiriti o Waitangi.
- Employing Māori worldviews, tikanga, knowledge and language where relevant and practicable.
- Meaningful involvement of Māori in decision making in the planning, implementation evaluation and dissemination of the challenge research.
- Building long-term positive relationships and consulting as appropriate with Māori stakeholders.
- Include Māori research methodologies and protect and enhance Māori knowledge of healthy wellbeing.
- Undertaking future-focused interdisciplinary research within the scope of the Challenge that will inform equitable transformation outcomes and well-being for Māori and all New Zealanders.
- Helping to build Māori research capacity, capability and research leadership.

Kāhui Membership

The Kāhui shall be comprised of up to six members. They are expected to have knowledge of both the research sector and strong working relationships with the relevant Māori communities and agencies likely to be involved with the Challenge.

The initial membership of the Kāhui is to be comprised of the representatives from the following organisations. These organisations have been identified as having expertise relevant to the Challenge and that they are all independent of any direct involvement in the research of the Challenges:

- Nga Aho
- Te Matapihi
- SPEEC
- Iwi Chairs Forum Housing Subcommittee

Future Kāhui membership shall be developed in agreement with the Challenge Director.

Roles and Functions of the Kāhui

The role of the Kāhui shall be strategic, facilitatory and consultative. These roles are further defined here to ensure clarity of expectations.

Strategic advisory functions

- The Kāhui shall have the opportunity to provide advice or feedback on the aspects of the Challenge that give effect to Vision Mātauranga, engagement with Māori communities and agencies and equitable transformation of health, education, and well-being for Māori and all New Zealanders. The advice shall be available to the Director (and Science Leadership Team) and the Governance Group. While the advice is not binding it shall be considered in good faith.
- The Kāhui may be asked to provide input on other matters from time to time by mutual agreement with the Director.



Facilitatory functions

- The Kāhui may act as a facilitator between the Challenge and any groups representing Māori interests relevant to the Challenge by mutual agreement with the Director where they are able to add value as an independent group with skills in Māori engagement and facilitation.
- The Kāhui may assist with discussions between the Challenges and MBIE over the approach to Vision Mātauranga and Māori engagement or consultation by mutual agreement with the Director.

Consultative functions

- a. The Kāhui may assist with developing and reviewing processes for engaging with specific Māori stakeholders, communities, groups, entities or agencies in relation to the development, execution and potential uptake of any research.

Other roles

- a. The Kāhui may take on other roles from time to time by specific agreement with the Director.

Kāhui members may decline any request for advice or assistance if they are not able to assist on that occasion.

Conflict of interest

Kāhui members will provide honest, impartial and expert advice at all times. While not a decision making group, advice from the Kāhui will be influential and members will communicate any potential or actual conflicts of interest when giving advice.

Kāhui members must not be playing any other active role in the Challenge such as direct research or governance or management roles or as paid consultants (or similar) in delivery of Challenge services or activities.

Members will also be under a duty to act independently of any grouping and not represent the interests of any particular groups but to support achievement of the objectives of the Challenge and the Vision Mātauranga Policy.

Operation and Resourcing of the Kāhui

It is expected that the Kāhui will meet twice a year with the Science Leadership Team. Kāhui members will be paid an honorarium. If members are asked to travel on BBHTC business, the Challenge may arrange or pay for actual travel and accommodation expenses that have been approved in advance by the Director but not for members' time. Preference will be given to BBHTC making such arrangements but reimbursement of costs may be made on presentation of original receipts.

APPENDIX 8

INDEPENDENT SCIENCE ADVISORY PANEL MEMBERS

Professor William A Clark



UCLA

<http://www.rug.nl/staff/p.mccann/mccanncvgroningen.pdf>

William Clark is a Professor with research interests in urban geography, spatial demography, and statistics. Professor Clark teaches courses in ethnicity, populations, and California.

His research over the past two decades has been concerned with the internal changes in US cities, especially in the changes that occur in response to residential mobility and migration. He has conducted both micro scale and individual studies of tenure choice, and large scale studies of demographic change in the neighbourhoods of large metropolitan areas. The latter studies examine the nature of the population flows between cities and suburbs, white flight and the impact of legal intervention on the urban mosaic. He has also been particularly concerned about the relative roles of residential preferences and housing affordability in the way in which segregation has emerged in metropolitan areas. He is currently investigating the

interaction of class, race and geography in metropolitan areas, as well as continuing his studies of how residential sorting structures the urban landscape.

He has strong links back to New Zealand, having completed his under-graduate studies at the then university of New Zealand and having been awarded a DSc from the University of Auckland in 1994. He is also an Honorary Fellow of the Royal Society of New Zealand, and was awarded the new Zealand Geographical Society's Distinguished Geographer Medal in 2015.



Professor Philip McCann



The University of Groningen

<http://www.rug.nl/staff/p.mccann/mccanncvgroningen.pdf>

The University of Groningen Endowed Chair of Economic Geography.

Philip McCann holds The University of Groningen Endowed Chair of Economic Geography. He is one of the world's most highly cited and widely recognised economic geographers and spatial economists of his generation.

He has strong links back to New Zealand having held the position of Adjunct Professor of Economics at the University of Waikato between 2009-2013. He has also conducted significant research for the New Zealand government. His research interests encompass the development of urban settlement systems.

Dr Tim Williams



The Committee for Sydney

<http://www.sydney.org.au/?team=dr-tim-williams-chief-executive-officer>

Tim Williams is the Chief Executive for the Committee for Sydney and was, before coming to Australia, the senior Special Advisor to a number of UK cabinet ministers in the Department of Communities and Local Government (CLG). In that role, between 2005 and 2007 he was one of the UK's leading policy makers on urban regeneration, housing policy and city development. In London, Tim advised the two main Host Boroughs, the Olympic Delivery Authority, the London Development Agency, the Olympic Legacy Company and was the advisor to the CEO of Lend Lease on the construction of the Olympic Athletes Village. Tim was CEO of the Thames Gateway London Partnership one of the key urban regeneration

areas for London and the UK.

Tim has written and published reports on the design of affordable housing (for the Housing Corporation: published in 2007 as 'The Williams Report') and on urban design: he wrote much of the current London Mayor's Design Guide for London. He has also provided advice to New Zealand institutions and in 2013 was a keynote speaker at the inaugural Building a Better New Zealand research conference.

APPENDIX 9

INDEPENDENT SCIENCE ADVISORY PANEL TERMS OF REFERENCE

Background

National Science Challenges are 10 year initiatives aimed at tackling some of New Zealand's most difficult issues. With considerable government funding through MBIE science investment, they are national programmes of research bringing together the best of New Zealand's research community, international experts, end users and stakeholders.

The Building Better Homes, Towns and Cities (BBHTC) Challenge is a mission led, c\$47m, 10 year Challenge. It presents a powerful opportunity to transform the way that new homes are provided, existing homes are improved and New Zealand's towns and cities are shaped. As such, the Challenge presents a real chance to make a significant difference to the lives of many New Zealanders.

Vision: - *Ka ora kāinga rua: Built environments that build communities*

Homes, neighbourhoods, towns and cities throughout New Zealand providing good foundations for people to enrich their lives and reach their social, cultural and economic potential throughout their life stages.

Mission

Researchers will use science to re-tool, re-orientate, and revitalise the industries, systems and institutions that shape the planning, design, building, development, financing, renovating and retrofitting of our homes, settlements, towns and cities. Its mission is to help transform dwellings into homes and help shape places that are hospitable, productive, and protective communities characterised by:

- Fit-for-purpose, flexible homes and built communities that can adapt to New Zealand's diverse populations, structural ageing, and the challenges of New Zealand's unique geography and environments, urbanism, and regionality.
- A building, design, planning and regulatory sector that is robust and is consistently able to deliver:
  - a. The quantity and quality of new and renovated homes necessary to the health and wellbeing of individuals, families and households.
  - b. A range of housing solutions that align with the full range of material and physical capacities of households.
  - c. Neighbourhoods, towns and cities with safe and affordable dwellings that connect people and enable them to take opportunities and participate productively in New Zealand's economic, civic, and cultural life.
- Dwellings, neighbourhoods, towns and cities that promote social and economic wellbeing and New Zealand's international competitiveness through:
  - a. Vibrant, liveable and affordable cities that reflect New Zealand's diversity.
  - b. Transitioning to low-carbon towns and cities
  - c. Expanding demand for our innovative design, materials, and building services to support the revitalization of housing and settlements.



Challenge Objective

Improve the quality and supply of housing and create smart and attractive urban environments by:

- An improved housing stock;
- Meeting future demand for affordable housing;
- Taking up innovation and productivity improvement opportunities;
- Improving current and future urban environments and residents' well-being; and
- Better systems for improved land-use decisions.

The BBHTC National Science Challenge aims to bring together inter-disciplinary researchers and end users in new and different ways. The Parties to the Challenge are:

- *BRANZ (contract holder)*
- *University of Auckland*
- *Research Trust of Victoria University of Wellington*
- *Lincoln University*
- *AUT University*
- *PrefabNZ*
- *Opus Research*
- *University of Canterbury*
- *University of Otago*
- *Massey University*
- *CRESA*
- *University of Waikato*
- *Auckland Council research investigation and monitoring unit*
- *The New Zealand Forest Research Institute Ltd (Scion)*
- *Institute of Geological and Nuclear Sciences*

The *BBHTC* Governance Group provides oversight of the governance of the Challenge, its Science Leadership Team. The Challenge Director chairs the Science Leadership Team and reports to the Chair of the Governance Group.

An Independent Science Advisory Panel (ISAP) of high international standing has been established to provide advice to the Challenge on matters relating to the quality of scientific research.

This document outlines the roles and expectations of ISAP Members.

Membership

The *BBHTC* ISAP will be comprised of up to six eminent science researchers, serving in an individual capacity. Appointments will be for a term of 5 years, renewable by mutual agreement. Any Member may tender their resignation at any time.

Appointment to the *BBHTC* ISAP will be made by invitation from the Governance Group on the recommendation of the Science Leadership Team. Members will be selected to cover the breadth of science relevant to *BBHTC*.

Roles and Functions

Members of the ISAP are asked to:

- provide independent and robust advice to assist the Challenge to achieve its mission by delivering scientific research of the highest possible quality;
- promote the *BBHTC* Challenge in appropriate domestic and international fora and facilitate relevant domestic and international research collaborations in a collegial way.

The primary point of contact between the ISAP and *BBHTC* will be via the Challenge Director (who may chair meetings of the ISAP). If the *BBHTC* Governance Group requires independent advice, the Chair of the Governance Group may also liaise directly with ISAP Members to coordinate such advice.

Any advice given by the ISAP either to the Director and Science Leadership Group or to the Governance Group will be transparent and available to both governance and management of *BBHTC*.

Members of the ISAP may provide advice on:

- Science strategies underpinning research plans developed for *BBHTC*, including their international positioning or relevance;
- The quality of the science proposed in research plans or proposals developed for *BBHTC*, including benchmarking against internationally comparable research;
- The quality of research performed with *BBHTC*'s funds against the expectations that had been set and international standards of excellence;
- Opportunities for international collaboration that would advance *BBHTC*'s ability to achieve its mission and enhance its international reputation and influence.
- Other matters that may be agreed from time to time of relevance to the quality assurance of science within *BBHTC*

Processes

BBHTC is likely to be funded in three tranches: a commencement phase in which detailed research plans are developed, followed by two investment phases in which research is funded and monitored. The timeframes for these phases are:

Commencement Phase: August – December 2015

First funding period: 2015 to 2019

Second funding Period: 2019 to 2024

ISAP Members may be involved in a range of processes over each of these phases, including:

- review and assessment of research proposals against structured criteria to inform the prioritisation of research and investment decisions;
- annual or biennial review of research that is underway to provide an independent critique of its progress;
- input to a major review of *BBHTC* that may be conducted towards the end of the first funding period;
- site visits to review research, arranged to coincide with a *BBHTC* Science Colloquium to which ISAP Members may be asked to contribute.



There may also be times when ISAP Members are asked to provide input or advice to some aspect of the *BBHTC* science processes on an ad hoc basis. However, these will be kept to a minimum.

ISAP Members may decline any request for advice or assistance if they are not able to assist on that occasion.

Expenses

It is expected that ISAP Members will largely provide their advice to *BBHTC* on a pro bono basis. Some honorarium funding may be available for specific, pre-agreed pieces of ISAP work. If Members are asked to travel on *BBHTC* business, the Challenge may arrange or pay for actual travel and accommodation expenses that have been approved in advance by the Director but not for ISAP Members' time. Preference will be given to *BBHTC* making such arrangements but reimbursement of costs may be made on presentation of original receipts.

Conflict of interest

ISAP Members will provide honest, impartial and expert advice at all times. While not a decision making group, advice from ISAP Members will be influential and Members will communicate any potential or actual conflicts of interest when giving advice.

APPENDIX 10

COMMUNICATIONS PLAN

Ka ora kāinga rua: Built environments that build communities

The *Building Better Homes, Towns and Cities: Ko ngā wā kāinga hei whakamāhorahora* Challenge will unite research expertise, stakeholder interests and end-user engagement to transform the New Zealand built environment. In order to achieve our collective aims we will require genuine productive, two-way communication planning with the flexibility to reassess and adjust as the Challenge progresses through its life.

The Challenge is also notable for the considerable public interest in its subject matter. The cost and quality of housing, the vibrancy of neighbourhoods, local decision making processes and the characteristics and shapes of the towns and cities are all subject to considerable interest and debate.

This means that this Challenge has a particular responsibility to invest in engaging with a broad range of interests. It must do this from inception through its completion - in seeking insight to shape its thinking, in the conducting of its work through co-production, and in sharing its finding and working to make changes.

The Challenge Communication Principles are noted below:

- All Parties recognise the importance of sharing information as a core part of the Challenge. It is understood and agreed that knowledge dissemination and transfer is integral to the success of the Challenge.
- All Parties agree to promote the sharing of information generated by the Challenge, and to encourage the publication, presentation and dissemination of BBHTC Challenge results and data, subject to confidentiality requirements of either the Parties or any Other Parties, breaches of privacy, or following protection of any potentially commercialisable Intellectual Property where appropriate. The Parties are encouraged to publicise the Challenge Research and Related Activities, but will need to acknowledge all relevant collaborators and the Challenge in any public announcements.
- No Party or Other Party shall publish or disclose any material derived from Challenge Funded Research or Related Activities undertaken by another Party without the consent of that Party. Such consent will not be unreasonably withheld or delayed if it is in the best interests of the Challenge or necessary to advance the Mission and Objectives of the Challenge.
- Publications should acknowledge any contribution from Challenge Funding and the Ministry, and be reported to the Director as requested to enable timely reporting to the Challenge Board and the Ministry. All communications associated with Challenge activities must use the Challenge branding, as approved by the Ministry, and adhere to the Challenge communication guidelines.

The Challenge has identified a range of key groups to be considered under its Communications Strategy and Plan, classified by the nature of their involvement with the Challenge (Internal, External or Interested Parties) and their level of engagement. We have defined



our communications objectives for each of these groups. Against the backdrop of the Challenge Communication Principles, the specific techniques and communication vehicles will be tailored for each key group and utilise appropriate methods technologies as the Challenge develops.

Internal Stakeholders – those who have an interest in overall Challenge Contract delivery, Governance and Research Planning:

- Science Leadership Team
- Governance Group
- Kāhui Māori
- Independent Science Advisory Panel
- MBIE (contract provider)
- BRANZ Board (contract holder)
- Challenge Parties, as specified in the Collaboration Agreement
- Science Leadership Team
- Challenge researchers

External Stakeholders – those who are active participants in Challenge activities:

- Researchers currently beyond the Challenge community (this group is likely to alter as cross-disciplinary projects emerge)
- Industry bodies (trade bodies, individual companies and providers)
- Community organizations
- Iwi, hapū and other Māori groups
- Government agencies, especially MBIE and local government (as lead government policy/regulatory agency and local strategic and planning authorities)

Interested Parties – groups who will wish to be informed of Challenge activities and findings, current and/or proposed projects. This includes:

- New Zealand's general public – the Challenge's ultimate end users.
- New Zealand based organisations who are not participants in the Challenge but have an interest (eg: a community organization, industry body, iwi)
- International research community
- International policy makers and industry bodies

Established Communication Relationships

The Challenge Research Plan was developed through a national, multi-institutional collaborative communication process, engaging with science, Māori, industry and central and local government. This phase included workshops, hui and many inter and intra-organizational meetings.

The outcome of this effort is a Challenge community that has been built with respect, and an ongoing commitment to clear and candid communication. This has provided the basis for our initial Challenge Communications objectives and activities which are outlined in Table 1 below.

Communications Strategy and Plan

Recognising the importance of communications to this particular National Science Challenge, we are committing to the development of a comprehensive Communications Strategy and Plan in the first year of the Challenge (by the end of June 2015).

Our intention is to develop a Communications approach that reflects the ambitious nature of our research. It will look to develop relationships through the Science Media Centre, Science and Society initiatives and it will also look at cross-Challenge opportunities (ie: links with other NSCs). As such this Strategy and Plan will expand on the principles and information provided in this Appendix.

The Communications Strategy and Plan will be reviewed at the beginning of each financial year. This will be to ensure the efficacy of the communication vehicles, content and frequency, and to identify emerging key groups and communication channels.

The expenses related to Challenge level Communications (as opposed to communications initiatives specific to SRAs/research) are accounted for the in the Challenge budget.



Key Group	Communications Objective	Frequency of Communications
Internal Stakeholders		
Governance Group (GG)	To provide the GG with an accurate report of Challenge progress against its goals, including the financial management and performance evaluation frameworks; To ensure the GG is sufficiently informed to monitor and redirect Challenge research strategy at the Governance level.	The GG is scheduled to meet at least 4 times per year.
Science Leadership Team (SLT)	To provide the SLT with a clear and timely snapshot of Challenge progress against its research goals; To ensure the SLT is sufficiently informed to monitor and redirect Challenge research strategy; To keep abreast of all matters related to Challenge research, including overall research direction, news, emerging collaboration opportunities and deadlines.	The SLT is scheduled to meet at least 4 times per year.
Kāhui Māori	To provide the GG with advice and support the SLT with its delivery of the Challenge	Kāhui Māori is scheduled to meet twice per year
Independent Science Advisory Panel	To provide advice to the Challenge to help ensure research excellence	Engagement with the SLT and GG as required (for example during assessment of research proposals) Provision for a meeting in NZ in 2019 to support the Challenge Review.
MBIE	To provide the GG with an accurate report of Challenge progress against its goals, including the financial management and performance evaluation frameworks, in addition to any communication requirements detailed in the Challenge Programme Agreement.	As specified by MBIE's reporting requirements.
BRANZ Board	To provide BRANZ, the Contract Holder, with accurate information about the progress of the Challenge to ensure it can monitor fulfillment of its contractual obligations to MBIE.	BRANZ Board meetings.
Challenge Parties	To provide the Challenge Parties with up to date information around the progress and performance of the Challenge.	Information provided to the Challenge Parties after each GG meeting.
Research Teams	Keep all researchers within the Challenge fully engaged through being informed as to the progress and discoveries throughout the Challenge.	Each project that involves human participants will be required to devise a strategy for engagement with their

		participants.
External Stakeholders		
External Stakeholders	To maintain full engagement in the Challenge, including progress and successes Open two-way dialogue. To build and support a clear pathway to implementation and change.	The nature and frequency of communications will be tailored to the stakeholder. For example, engagement with wider researcher community to provide information about potential contestable funding will require communications via a Prospectus/RFP/EOI tool; engagement with a specific industry body on a research finding will be tailored to that particular relationship.
Interested Parties		
Specific Interested Parties	To be kept informed in a less regular, but timely, manner as selected by the Interested Party on an opt-in/opt-out basis. To ensure access to relevant information relating to the Challenge information & findings is readily accessible at all times.	Ongoing via use of Challenge social media, web-based updates/newsletters.
General Public	To ensure the Challenge remains connected with public interests and provide the public with information about Challenge developments.	There will be some overlap with use of tools such as website and social media.

Table 1 Objectives of the Challenge Communications Plan



APPENDIX 11

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APPENDIX 12

GLOSSARY OF TERMS

AUT	Auckland University of Technology
AW	Ageing Well (National Science Challenge)
BBHTC	Building Better Homes Towns and Cities (National Science Challenge 11)
BCITO	Building & Construction Industry Training Authority
BIM	Building Information Modelling
BRANZ	Building Research Association of New Zealand
CHP	Community Housing Providers
CIOB	Chartered Institute of Building
CoRE	Centre of Research Excellence
CPA	Challenge Programme Agreement
CRESA	Centre for Research Evaluation and Social Assessment
CRI	Crown Research Institute
EECA	Energy Efficiency & Conservation Authority
EOI	Expression of Interest
EQC	Earthquake Commission
GNS	Institute of Geological & Nuclear Sciences (CRI)
HPO	Hei Papakāinga Ora - Strategic Research Area
IGG	Interim Governance Group
IPENZ	Institute of Professional Engineers, NZ
IRS	Industry Research Strategy
ISAP	Independent Science Advisory Panel
LINZ	Land Information NZ
MBIE	Ministry of Business Innovation & Employment

ME	Master of Engineering
MSLT	Maori Science Leadership Team
NGI	Next Generation Information for Better Outcomes – Strategic Research Area
NGO	Non-Government Organisation
NIP	National Infrastructure Plan
NSC	National Science Challenge
NZIA	NZ Institute of Architects
NZIOB	NZ Institute of Building
NZIQS	NZ Institute of Quantity Surveyors
PMI	Project Management Institute
QA	Quality Assurance
RFP	Request for Proposal
RICS	Royal Institute of Chartered Surveyors
RMA	Resource Management Act (NZ)
RNC	Resilience of Natures Challenges (National Science Challenge)
RUF	Resilient Urban Futures
SDI	Spatial Data Infrastructure
SLT	Science leadership Team
SME	Small and Medium sized Enterprise
SP	Shaping Places: Future Neighbourhoods - Strategic Research Area
SRA	Strategic Research Area
SSRS	Supporting Success in Regional Settlements – Strategic Research Area
TBI	Transforming the Building Industry - Strategic Research Area
TDM	Transforming Decision Making (for homes, towns & cities) – Strategic Research Area
TLA	Territorial Local Authority
WAVE	Weather-tightness, Air quality and Ventilation Engineering
WoBWOL	Whole of Building, Whole of Life









