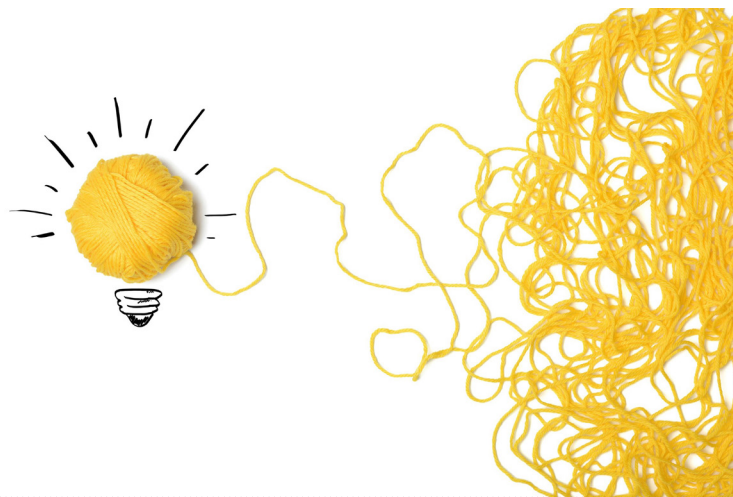


# RAISING THE BAA

## Developing Innovative Applications for Coarse Wool



### BACKGROUND

New Zealand is home to around 30 million sheep, the vast majority of which produce medium-coarse wool fibre that cannot be used for next-to-skin clothing due to its prickliness. As a result, most of our wool is exported in its raw state to countries that convert the fibre into rugs, carpets, blankets and insulation products, leaving New Zealand farmers with very low returns. Coarse wool has in many farmers' eyes become a commodity by-product of the significantly more lucrative meat market.

However, wool comprises many valuable properties: it is inherently flame retardant, it is sustainable, it has excellent thermal insulation, it absorbs moisture vapour, it is anti-static, and it has excellent resilience.....the list goes on. Sheep farming has less environmental impact on waterways than dairy farming. One reason why wool's numerous benefits are often overlooked by the consumer is the massive marketing budgets that global producers of synthetic fibres spend on promoting the merits of unsustainable petro-chemical materials such as nylon and polyester.

The Wool Research Organisation of New Zealand has generously funded this project, which will result in two applicants each receiving \$5,000 to further develop their ideas to an advanced prototype stage with a view to seeking potential commercial partners. The Textile and Design Lab will support the applicants with access to its expertise and textile technologies, and assist in identifying external support where necessary.



*Jyoti Kalyanji PhD Textile Design – knitted furnishings*

### HOW AUT STUDENTS CAN MAKE A DIFFERENCE

AUT Students from all disciplines are invited and encouraged to submit proposals if they think they have an idea that could potentially develop into an innovative application for coarse wool. The application can be in any area: for example, geo and agri-textiles, industrial applications, housing etc. The wool can be processed in any way: for example, blended with other fibres, braided, felted, knitted, woven, dyed, printed etc. or using non-textile techniques such as casting, composites etc. Assistance in converting your ideas will be available from both the Textile and Design Lab and its research and industry partners. Applications can be made by individual students or small teams.

### WHAT IS MEANT BY COARSE WOOL?

Coarse Wool, sometimes referred to as Strong Wool, is wool fibre that is deemed unsuitable for next-to-skin apparel such as Icebreaker's base layer garments. The reason it is unsuitable is that the stiffness of the fibres creates prickle when in contact with the skin resulting in discomfort to the wearer. Much of the next-to-skin woollen apparel on the market is made from merino fibre, which is finer and therefore less inclined to cause discomfort. For the purpose of this project, any wool fibre with a micron value of 25 or greater will be considered to be coarse wool. However, proposals that can utilise wool with higher micron values will be more attractive to the judging panel as coarser fibres tend to limit the range of applications. Any questions that you might have relating to fibre micron values or other technical queries can be directed to [tdl@aut.ac.nz](mailto:tdl@aut.ac.nz).

### DOES THE ENTIRE PRODUCT NEED TO BE COARSE WOOL?

No, however there is a minimum coarse wool content requirement of 50% by weight.

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## WHAT NEXT?

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### Round One

Once you have formulated your idea and satisfied yourself that there isn't an existing identical product already on the market, simply download and complete the proposal form from <https://tdl.aut.ac.nz/research/projects/> and email it to [tdl@aut.ac.nz](mailto:tdl@aut.ac.nz).

Proposals must be submitted via email no later than 4:30pm on Friday 21 July 2017.

A judging panel comprising of Wool Research Organisation of NZ personnel, AUT staff and industry partners will select the proposals that they feel most strongly about to form a short list. Those short listed will compete for the two \$5,000 awards.

Applicants will be notified whether their proposals have been short listed or rejected by Friday 4 August 2017. Short listed applicants will present their work to the judging panel during week commencing 27 November 2017. Date and venue to be advised.

Some funding towards material costs and prototyping will be available for all applicants whose proposals have been short listed.

### Round Two

From the short listed prototype submissions, the judging panel will select the two most promising projects, each of which will receive a \$5,000 award to further develop their idea, cover material costs, produce refined prototypes and seek out potential commercial partnerships.

Winners of the two \$5,000 awards will be notified by Friday 15 December 2017.

Support in identifying potential commercial partners will be available from AUT's Commercialisation Department and the Wool Research Organisation. Advice on the protection of any intellectual property generated will also be available.

Recipients of the two \$5,000 awards will be expected to present their work and progress to date before the end of Semester 1 2018.

We look forward to receiving your proposal.

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## GET IN TOUCH

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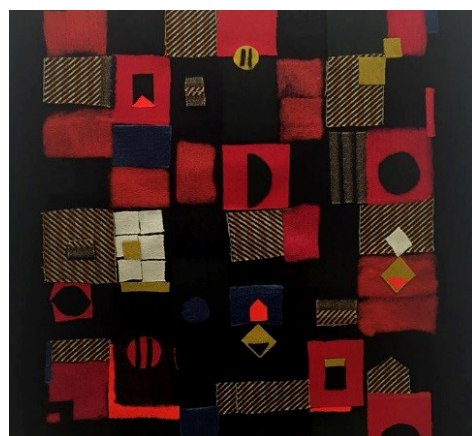
Peter Heslop – Textile and Design Lab Manager  
[tdl@aut.ac.nz](mailto:tdl@aut.ac.nz)



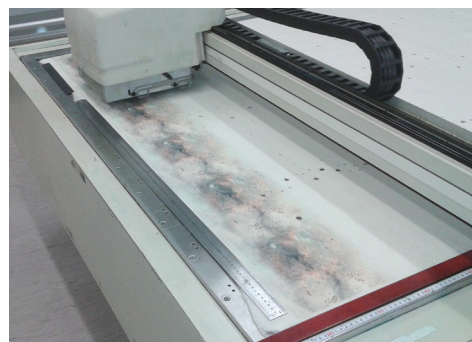
*Electronic Textiles and Soft Circuit Design Workshop*



*Textile and Design Lab – turning ideas into reality*



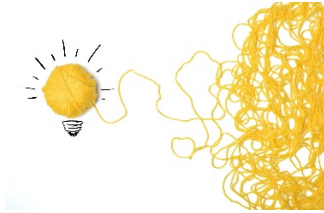
*Julia Holderness PhD Visual Arts – felted artwork*



*Nikki Walker Bachelor of Design (Textile Design)  
– digitally printed wool felt*

TEXTILE + DESIGN LAB





## **RAISING THE BAA: PROJECT PROPOSAL FORM**

**APPLICANTS NAME/S, YEAR AND QUALIFICATION THAT YOU ARE STUDYING FOR:**

- 1.
- 2.
- 3.
- 4.

**CONTACT DETAILS FOR PROJECT LEADER:**

EMAIL:

MOBILE:

**YOUR PROJECT TITLE:**

**BRIEF SYNOPSIS OF YOUR PROJECT (MAX 150 WORDS):**

**WHAT DO YOU SEE AS BEING THE UNIQUE FEATURES AND BENEFITS OF YOUR PROJECT?**

*Please email your completed form to [tdl@aut.ac.nz](mailto:tdl@aut.ac.nz)*

**TEXTILE+DESIGN LAB**

**AUT**

 **Wool Research Organisation  
of New Zealand Inc**