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| **An engagement framework for phenotyping native trees in Aotearoa New Zealand, for Māori cultural purposes** |
| The use of remote sensing technologies for high-throughput characterisation of tree traits will unlock phenotyping opportunities in New Zealand forestry. Could these methods also be applied to benefit the distinctive values that Māori people place on their forests? A key research challenge here is to address the lack of universal understanding of how Māori select and value native trees for cultural purposes. Further to this though, we need an appropriate method to combine local knowledge, different expertise, and cultural views with often disconnected trends in digital innovation and socioeconomic development.  To this purpose the Rōpū Mahi framework (RMF) was conceptualised. Two years ago, this framework was operationalised via the Rōpū Mahi (RM), a working group that is made up of members of Māori forestry leaders, including Māori practitioners and Māori scientists, from a range of regions across New Zealand. A key task of the members has been to maintain a level of knowledge within a New Zealand government funded research programme entitled ‘Transforming Tree Phenotyping’ that spans species, scales, and leading technology applications set within paradigm contexts of genetic gains, climate change and Māori culture. Having a dynamic term of reference established inside the programme objectives and with a focus on the priorities of the members, as well as underlying mechanisms such as clear ways to value Māori knowledge, have been useful. Early indications are that this model of engaging with Māori is effective for introducing techno-cultural innovation in managing their forests. The next steps are to dive into the uses of leading-edge technologies to codesign methods and tools that can perceive tree characteristics that are important for their distinctive purposes, and to identify pathways that will enable Māori to leverage this knowledge. |

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