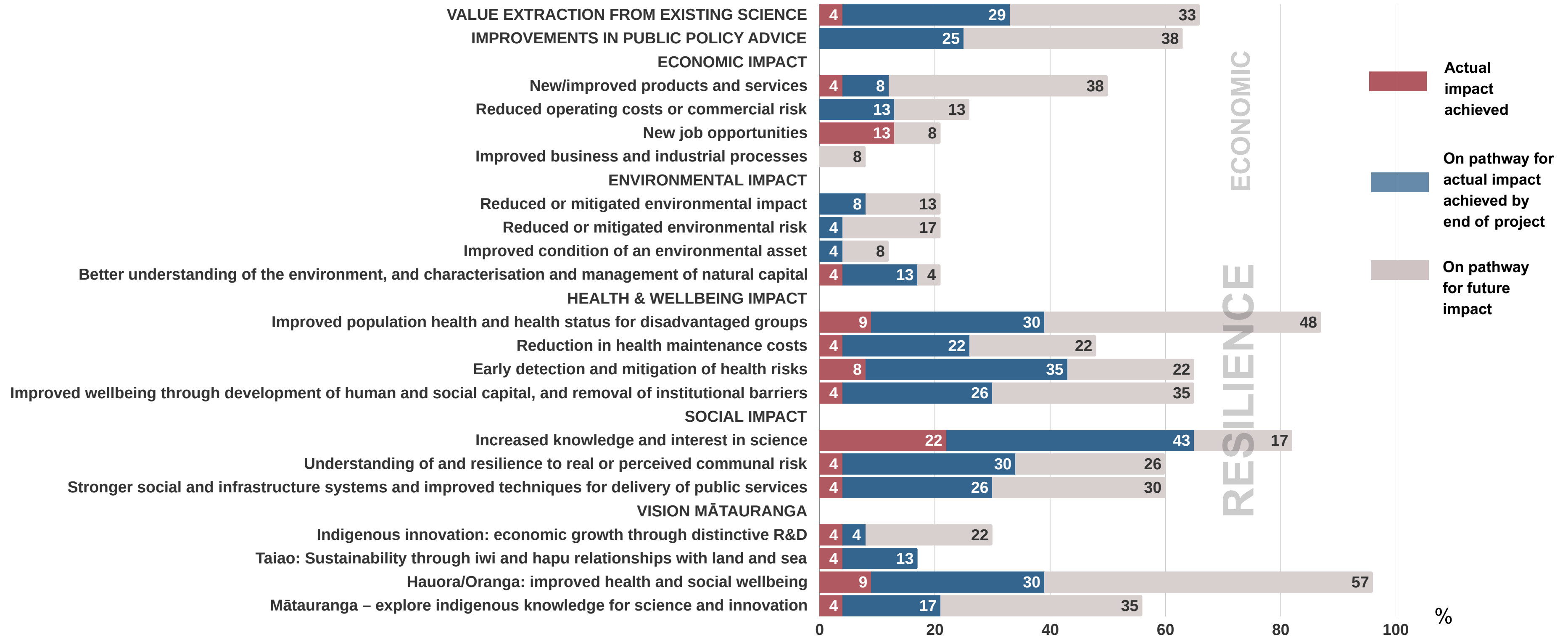
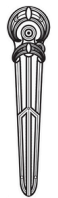


Impact Case Study

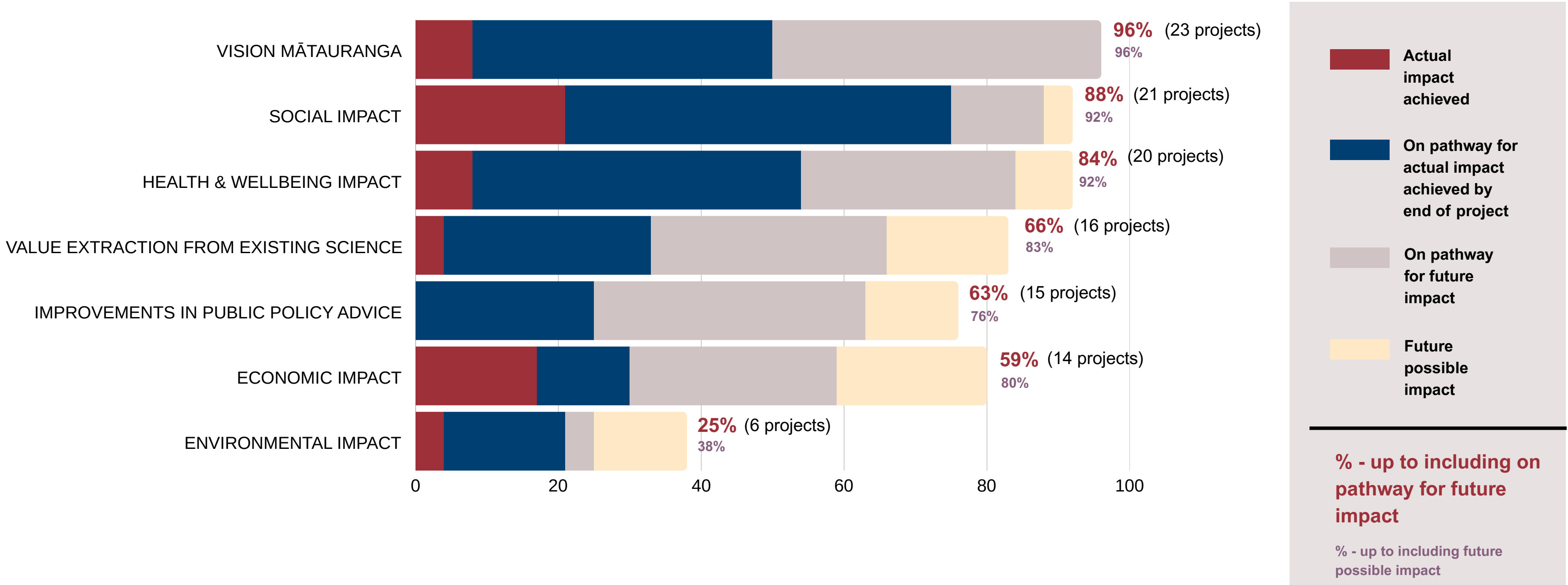
% of Te Niwha research projects achieving each impact objective

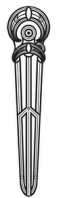




Impact Case Study

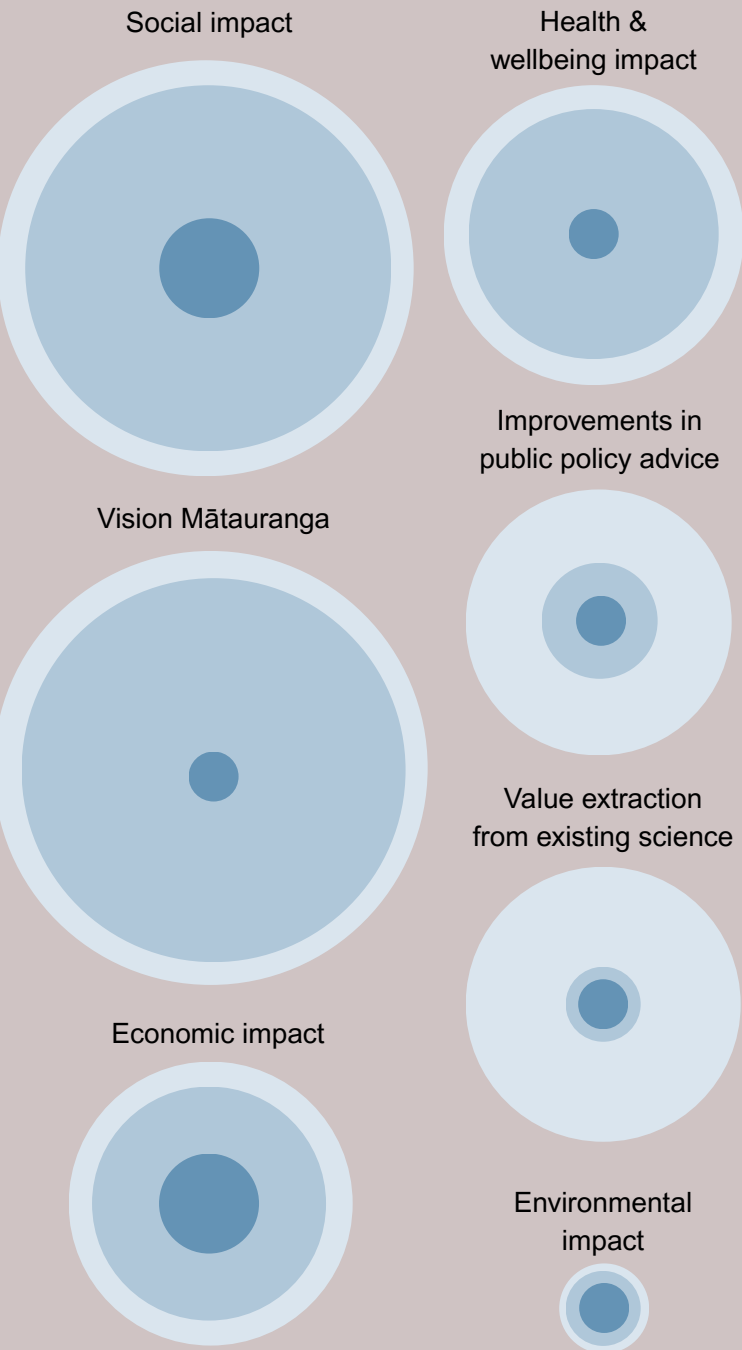
% of Te Niwha research projects
on pathway to achieving each impact category





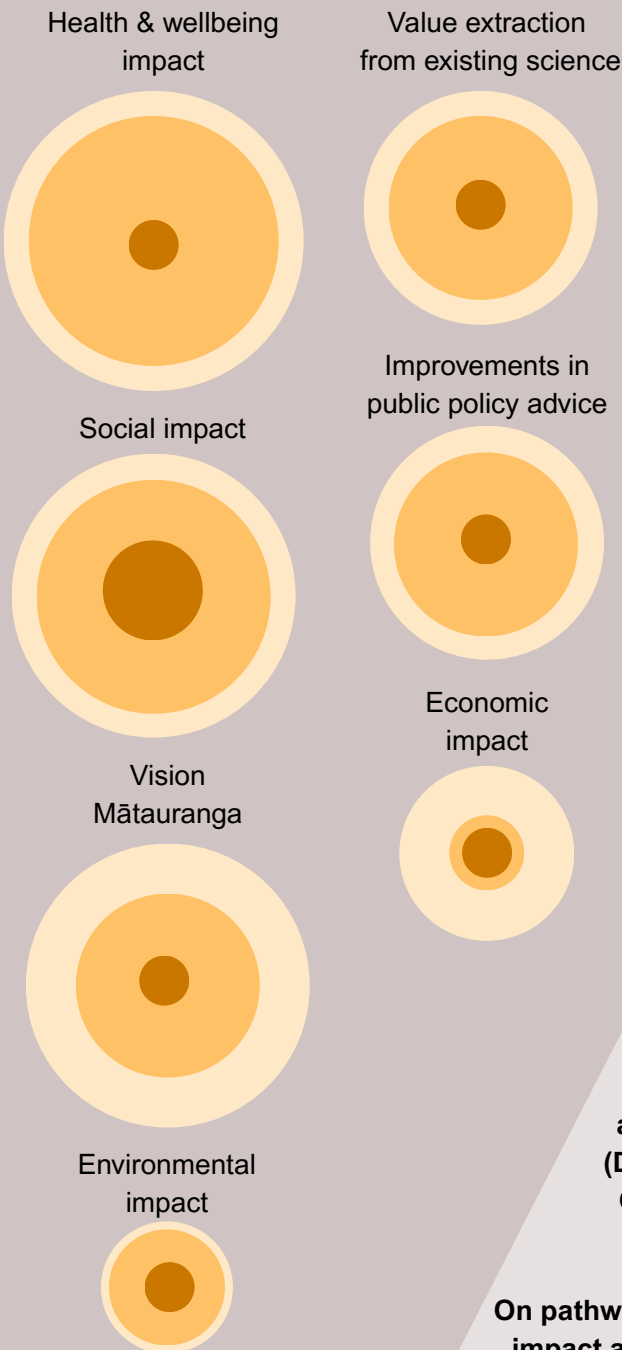
SURVEILLANCE

7 projects



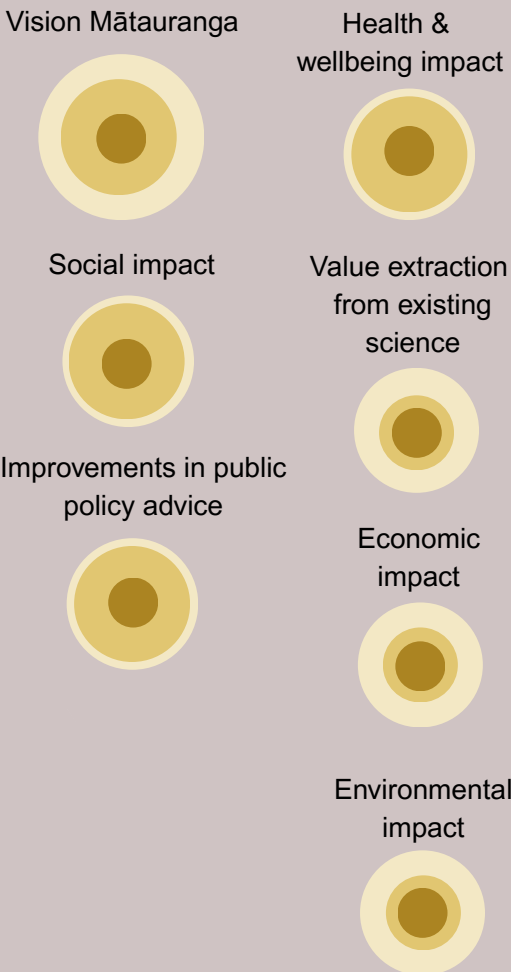
DIAGNOSTICS

4 projects



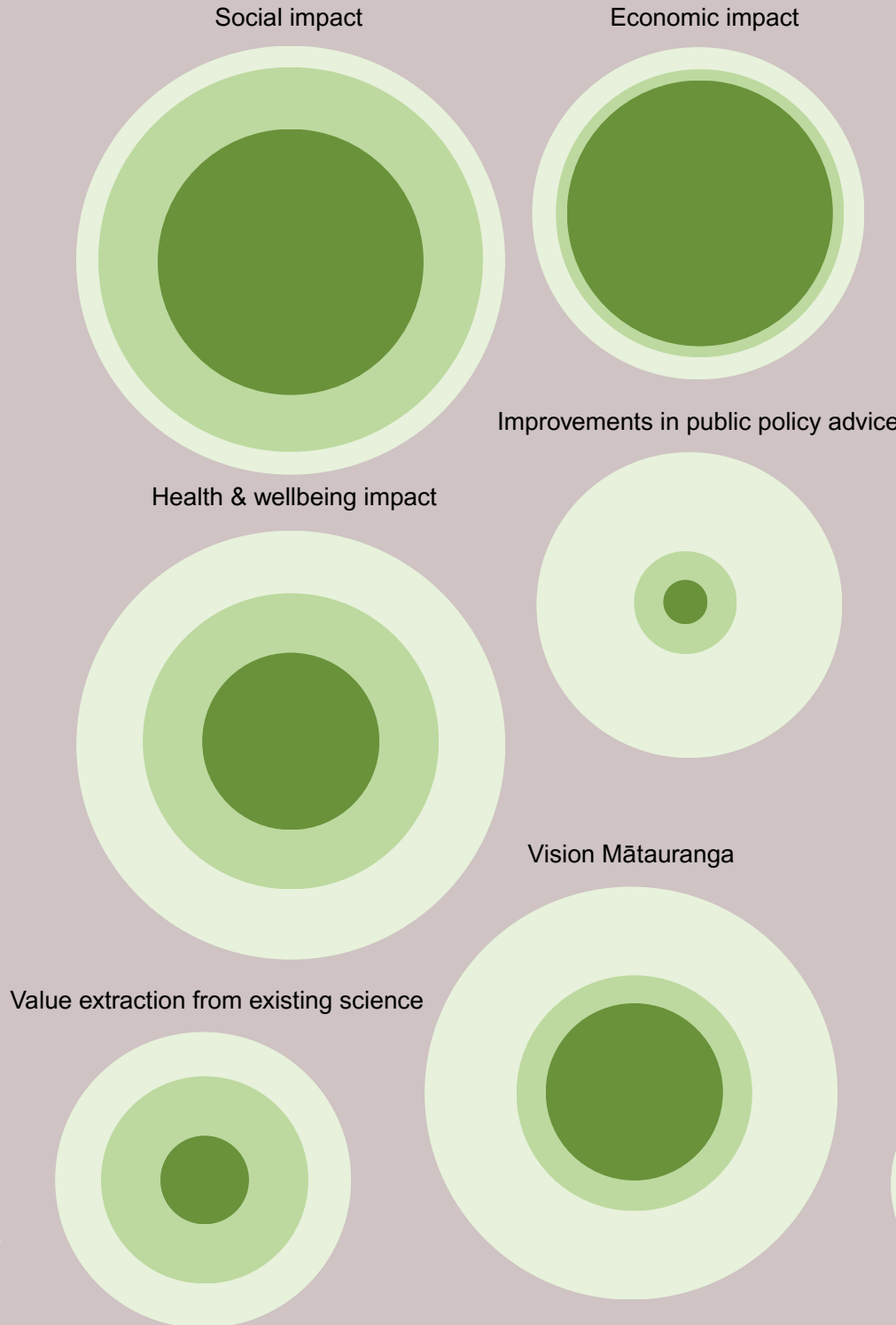
TE AO MĀORI

2 projects



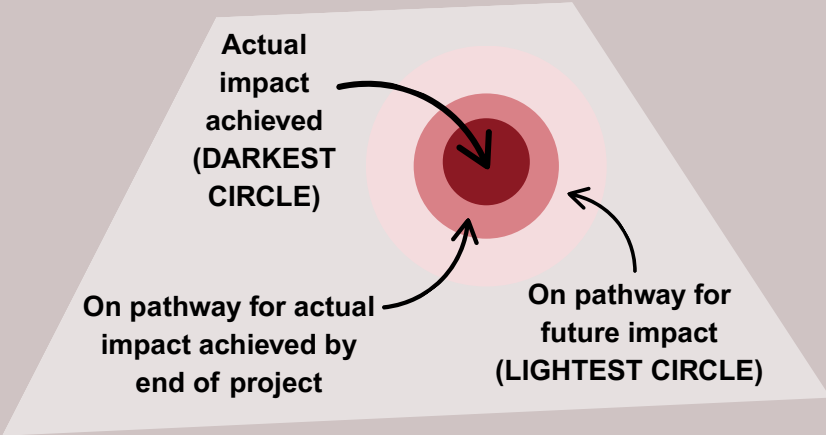
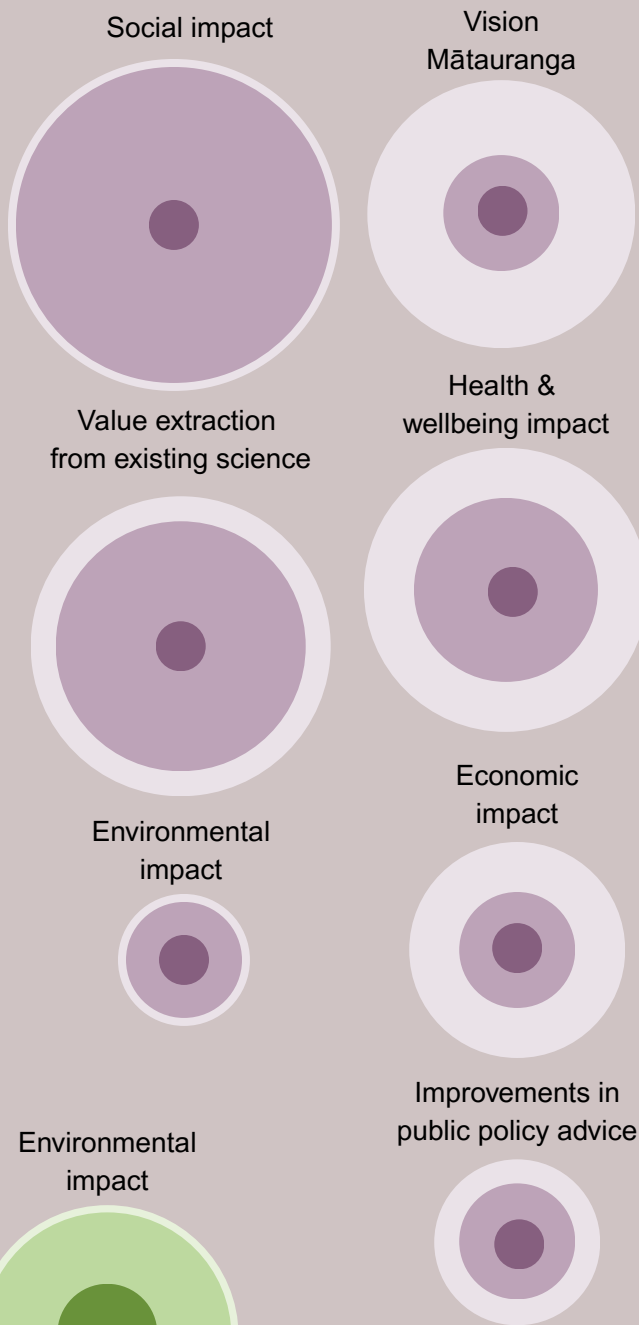
PREVENTION

6 projects



THERAPEUTICS

4 projects





Impact Case Study

Summary of most significant impacts
(as described by research leads)

HEALTH COST BENEFIT

Prevent repeated hospital admissions for preschool-aged children, leading to significant healthcare cost savings

Improve treatment of severe influenza and provide widely available and typically cheap treatments

Significantly reduce healthcare costs

Reduce treatment burden, support system-wide uptake and potential healthcare savings

RESEARCH INTEGRATION

Affirm existing knowledge of rongoā rākau as well as uncover new knowledge that can inform future access to rongoā rākau for whānau, hapu and broader communities

Build sustainable capacity within the wider Pacific region while linking these skills and research to disease impacts in NZ

Provide knowledge foundation to assess vaccine responses against infectious diseases of importance to New Zealand, such as TB

Serve as a global model for integrating indigenous knowledge into public health systems

Enhance NZ public health data and response

Enable the development shared approaches for exploring indigenous knowledge through science and innovation

Increase knowledge and interest in science from our partners and their networks

Serve as a resource for any intended national review of notifiable diseases

ENVIRONMENTAL BENEFIT

Detect a wide range of bacteria, protozoa, viruses and fungi of potential health concern through wastewater

Likely to have a significantly decreased environmental impact in terms of plastic waste saved from using partial oral treatment

Reduce the use of asthma inhalers, helping to alleviate the harmful environmental impact of these propellants on the atmosphere

GREATER HEALTH COMMUNICATION

Lead to the development of culturally appropriate health communication strategies that resonate with Pacific youth

Enhance communication & co-operation with other research collaborators

Strengthen relationships & help foster greater trust and cooperation between iwi, hapū, whānau and government health agencies (ensuring pandemic strategies are inclusive, responsive and co-designed for long term success)

Provide direct advice to patients for symptom management and infection control measures through pharmacy-based consultation

Allow clinicians and patients to have more nuanced, informed discussions about route of administration for IV and oral antibiotics

Enable providers to have informed strategic conversations with Te Whatu Ora and other like-minded providers, especially Māori providers, about immunisation and strengthening the immunisation ecosystem

SUSTAINABILITY

Improve adherence, providing stronger trust between patients, families, and healthcare providers

Improve public health service delivery and policy efficiency through Māori led solutions

Enable regular contamination surveillance by monitoring Marae-based water (including access for the wider community)

Enhance public health infrastructure and policy informed by nationwide wānanga methodologies



RESILIENCE

Provide a set of quantitative scenarios for potential future pandemic threats to support pandemic preparedness, planning and real-time decision making

Improve treatment outcomes for communities that are disproportionately affected by tuberculosis, both globally and in Aotearoa

Improve the delivery of public healthcare by creating a learning health system that breaks down barriers between clinical practice and clinical research

Support activities proposed within the public health agency and surveillance strategy, by identifying gaps within current surveillance system

Establish a framework for broader avian influenza surveillance using advanced genomic techniques

Address a key shortcoming of models that were used to inform government decision making during the Covid-19 pandemic

Help to identify one lead antiviral as a scaffold for further development to improve potency and selectivity profiles

Respond more quickly to future serious health outbreaks, including pandemics, by enabling rapid on-site monitoring of disease transmission

HEALTH EQUITY

Enhance public health outcomes and reduce disparities in infectious disease prevalence within Pacific communities

Build Māori-led governance structures and culturally grounded pandemic strategies

Support nuanced public health policy response, and improve our ability to mitigate inequities in infectious disease impact

Provide a basis to analyse equity in antibiotic prescriptions for Māori and Pacific peoples

HEALTH SYSTEM IMPROVEMENT

Provide robust evidence on the prevalence of drug resistance in i-Kiribati M leprae isolates, directly guiding national policy on empiric first-line M leprae isolates as well as individual patient treatment decisions

Reduce harms related to adverse drug reactions and will help to limit the development of antimicrobial resistance in Aotearoa

Ensure vaccines are delivered in a method that is safe and effective for all body types

Continue to supplement national surveillance data, obtaining samples from symptomatic individuals that would otherwise not be present to GPs

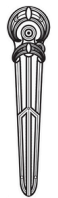
Examine the appropriate use of antibiotics (use that is consistent with antibiotic guidelines) in primary care and hospital settings, improving clinical outcomes

Ensure earlier diagnosis & treatment of infections

ECONOMIC CONTRIBUTION

Outputs will be well-informed agenda for systems change to give NZ the surveillance systems it needs to protect its people and economy from current and emerging ID threats

Deliver significant economic benefits what is a costly public health problems (and by identifying commonly used but ineffective treatments)



IMPACTS REACHING FAR AND WIDE

Signatures of vaccine-induced protection against Tuberculosis (TB)

Have the skills, tools, international networks and expertise built through this project that could be applied and translated to other infectious diseases

COVID-19 Needle Length Study

Help shape vaccination guidelines in Aotearoa and internationally for better health outcomes

Wastewater Testing at the Border & Building

New Zealand and Pacific Nations become integral members of global wastewater efforts focussed on the border (aircraft and airports)

A Kaupapa Māori Infectious Diseases Surveillance Framework

Enhance Aotearoa New Zealand's overall infectious disease preparedness

Reducing barriers, improving lives: A new approach to rheumatic fever treatment

- Strong potential to influence national and international policy
- Will guide delivery of other infectious disease treatments in underserved populations

ARROW: Aiming for a healthier tomorrow for our children and environment

Improve connections between primary, secondary, and tertiary healthcare, building stronger social and infrastructure systems

Druggable vulnerabilities are widespread in drug-resistant strains of M. tuberculosis

Identify highly vulnerable drug targets to initiate drug-discovery programmes with both national and international collaborators

Broad-spectrum antiviral potential within anti-cancer drugs

Elevate awareness and ignite interest in rangatahi to study infectious diseases

FUTURE POSSIBLE IMPACTS for Economic Growth

