Mahere Whakamahinga Workforce Activation Strategy

Electricity Supply Industry and Water Services Industry

Version 2.0 August 2022

WAIHANGA ARA RAU
Construction and Infrastructure
Workforce Development Council

assurity

ESI

www.reenergise.nz

www.wearewater.nz

+3W

This work follows on from the workforce strategy reports Re-energise / Ngā Mahi a Māui and We Are Water / Ko Wai Tātau.

Executive summary
Whakarāpopototanga

I meinga tētahi rautaki ariā-whakahoahoa e waihangatia tahitia ai, e aromātaihia ai hoki ngā tauira whakahohenga i te umanga, ki te minenga he ākonga ā-kura, ā-whare wānanga hoki, me ngā kanohi hōu (te hunga kua whai mahi kē engari e hiahia ana kia panoni), me te whakawehe o te mahi.

This document details a combined workforce activation strategy for New Zealand's Electricity Supply Industry (ESI) and Water Services Industry (WSI, also known as the 'three waters' or '3W': drinking water, wastewater and stormwater).

A design-thinking methodology was applied to co-create and evaluate workforce activation prototypes directly with the target audience of school children, tertiary students and fresh-starters (people already in work looking to change careers), with work being divided into five core workstreams.

Executive summary

Workstreams

A

Industry pathways
Ngā ara umanga

Challenge
How might we cut through the noise of career information to create awareness and assurance of your next best step to encourage participation in the ESI and WSI?

At a glance: lessons learnt
- Context is critical for engagement
- More choices, more engagement
- Connect the dots
- Show people what they can do now
- Keep it real

Read more p. 20

B

Profiles & case studies
Ngā rahangau me ngā kōtaha

Challenge
How might we allow young people to 'see themselves' in industry roles that match their aspirations and values? How might we learn from other industry workforce initiatives?

At a glance: lessons learnt
- Show the bad with the good
- Show the value in roles
- Variety is king
- Complete the picture
- Make it relatable
- Plan fast vs plan right
- Challenges to filming can be nuanced
- Keep it simple; keep it relevant

Read more p. 29

C

Industry experiences
Ngā wheako ā-ahumahi

Challenge
How might we allow young people to understand first-hand the day-to-day experience of working in industry roles?

At a glance: lessons learnt
- Make it engaging
- Spark curiosity
- Feasibility needs further exploration
- Timing is key
- High value perception
- Augment existing services
- Stay focused

Read more p. 37

D

Competency mapping
Te whakamahere matataunga

Challenge
How might we build an adaptable workforce that enables credentials to transfer across roles and industries?

At a glance: lessons learnt
- Join the dots in the existing framework
- A new common language
- Increase learner agency

Read more p. 46

E

Iwi workforce development
Whanaketanga ope ā-iwi

Challenge
How might we evolve from a slash culture and truly see industry workforces through the lens of mātauranga Māori?

At a glance: future actions
- Prepare for cultural change
- Identify and celebrate case studies
- Identify future roles
- Develop Māori provider ecosystem map
- Integrate and connect Māori organisations
- Design a Māori business model

Read more p. 50

Introduction
Whakatakinga

Co-designing solutions to attract the workforce of tomorrow.

This workforce activation initiative responds to selected strategic goals outlined in previously completed workforce development strategies for the Electricity Supply Industry (ESI) and Water Services Industry (WSI, also known as the 'three waters' or '3W': drinking water, wastewater and stormwater). It takes a combined approach to co-designing and testing solutions that will activate a desired future-state workforce for both industries. This work supports a wider strategy to attract, train and retain the workforce needed to build and maintain New Zealand's future infrastructure.

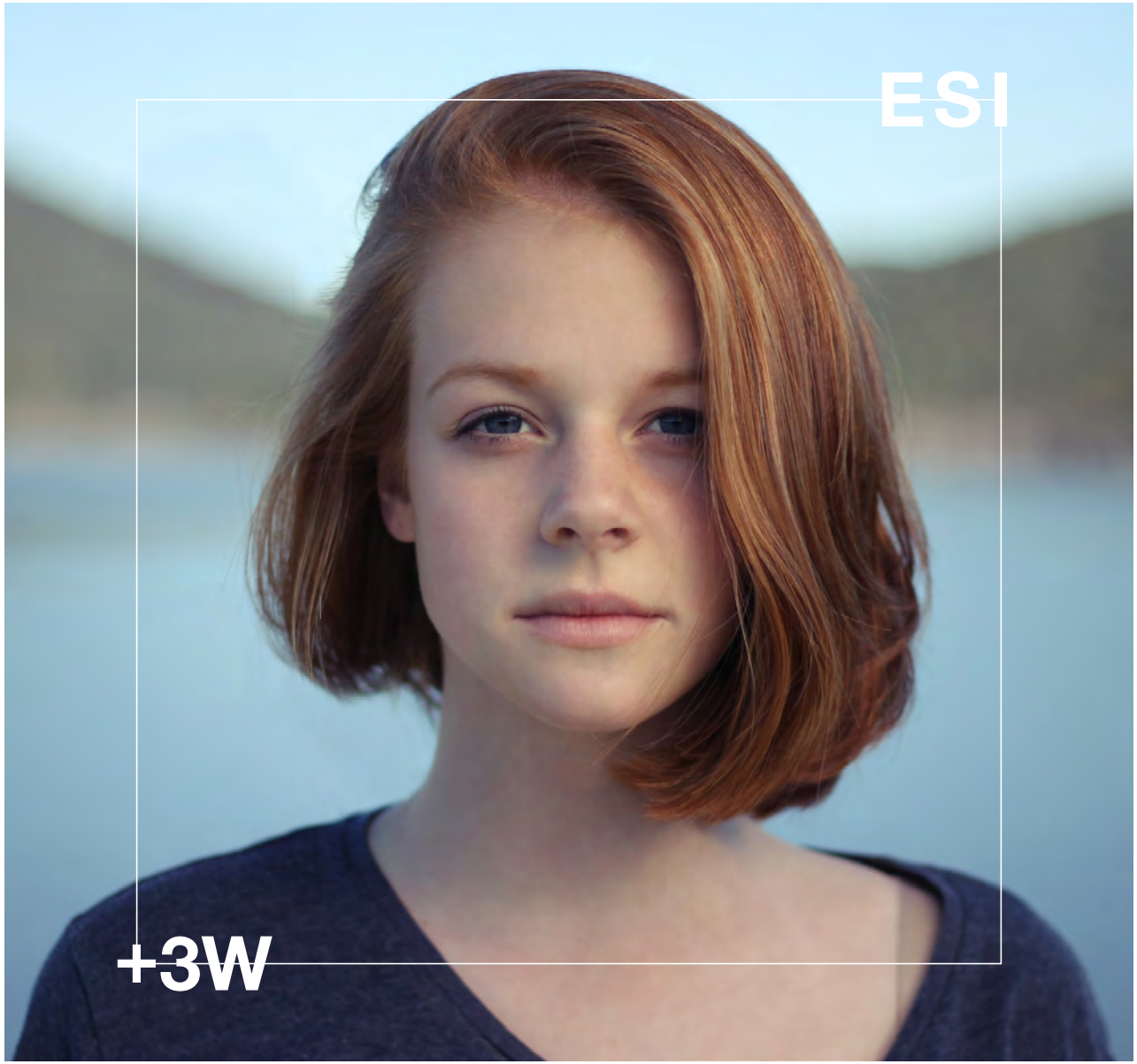
While the significant differences between the two industries are acknowledged, a combined approach is deemed appropriate for the activation strategy as both the ESI and WSI are facing similar workforce challenges and are seeking to attract similar demographics. There is future potential to expand workforce activation initiatives to include other infrastructure sectors such as civil and telecommunications.

Introduction

A burning platform
He taumata tahu

E haere tahi ana ngā rāngai ESI me WSI i te ara o te tupuranga, ka mutu, he panonitanga motuhake ā-tōrangapū, ā-oranga hoki ki mua tonu i te aroaro. Ko tā ngā pūrongo rautaki umanga he miramira i ngā taumahatanga o te tapitapi, me te whakamahere i te āpōpō. E whakaatu ana i te matenga kia whakahoahoa, kia tuku hoki i ngā rautaki e whakapoapoa ai, e whanake ai hoki ngā uri heke mai ki ngā umanga.

Both the ESI and WSI are on paths to substantial growth, and each are facing significant political and functional change. The workforce strategy reports mentioned above highlight the difficulties each industry is facing with maintaining the current state as well as planning for the future. They outline an urgency to design and deploy strategies to attract and skill the next-generation workforce.



Introduction

Electricity supply

The ESI is facing increasing pressure to perform, with public awareness and government policy on energy decarbonisation driving a need for transformational change, innovation and increased generation capacity.

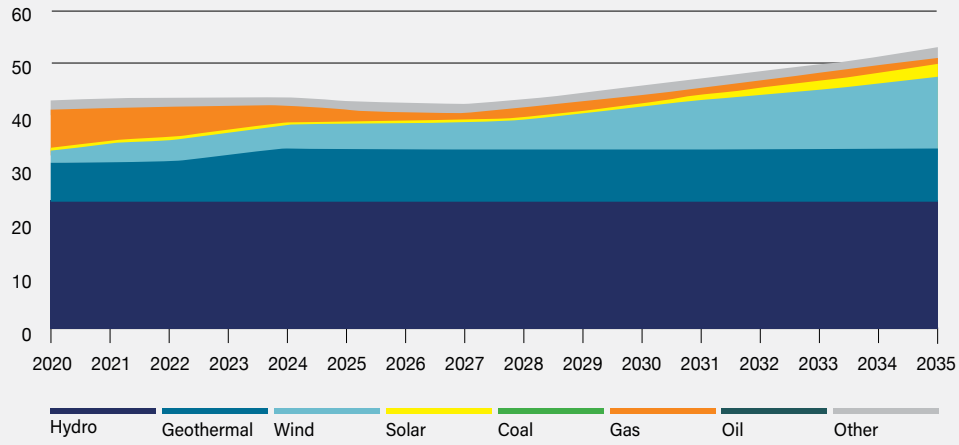
To meet future energy demands and decarbonisation targets, as much generation capacity will need to be built in the next 15 years as was built in the past 40 years.
(Source: Transpower)

The number of people in the current ESI workforce pipeline will not cover the number likely to retire: a quarter of the ESI workforce will reach retirement age over the next 10 years.
(Source: Infometrics)

To grow the sector, and replace workers who leave, may require the ESI sector to attract 150 engineers, technicians and tradespeople a year.
(Source: Infometrics)

Taking a broader definition of people who work for the sector to include engineers, technical and trade staff working within the sector – as well as engineers, technical and trade staff providing services to the ESI sector (but working for contractors and consultancies outside the sector) – Infometrics estimate that around 700 additional engineers, technicians and trade workers will be required per year.

CCC proposed electricity generation by type (TWh), 2020 — 2035
Source: Climate Change Commission

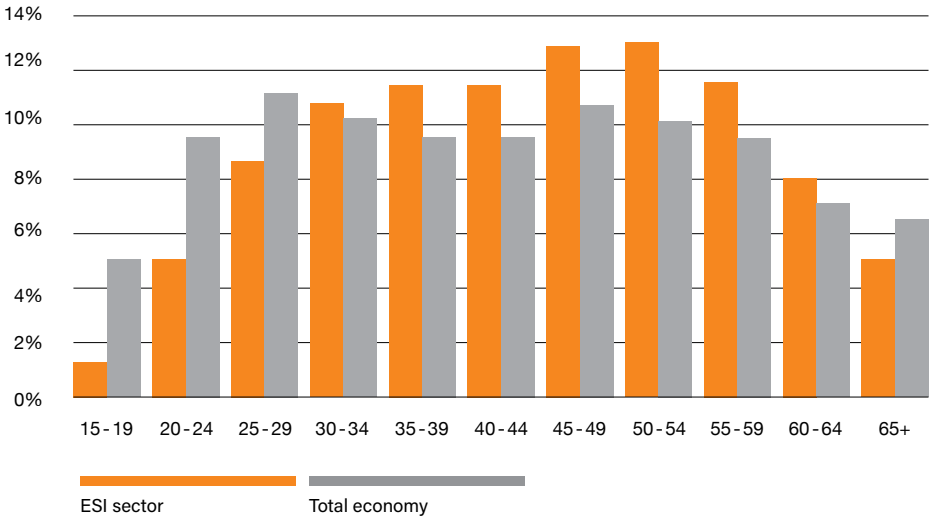


"As much generation will need to be built in the next 15 years as was built in the past 40 years."

Transpower

Introduction: Electricity supply

ESI employment by age, 2018
Source: Infometrics



A quarter of the ESI workforce is aged 55+, which is estimated to be 2200 people. That's a huge number of people, relative to the rest of the New Zealand economy. This means that the number of people in the current pipeline will not cover the amount of people likely to retire in the next 10 years, even if all things stay equal.

55+

A quarter of the ESI workforce is aged 55+, which is estimated to be 2200 people.

"No one has really gone and showcased our industry. We know about each other within the close-knit [relationships]. We all know about each other once you are in. But there are people on the outside who still have no idea of what we do."

Line Mechanic (Live Lines)

$10b

Over $10b of ESI capital improvements and new large-scale projects are already planned for the next decade.

43%

In the December 2020 quarter a net 43% of businesses reported that finding skilled workers had become harder, which marked a return to pre-COVID 19 levels.

Introduction

Water services

The WSI is embarking on a journey that will improve drinking water, wastewater and stormwater systems throughout New Zealand. To facilitate this the industry will be required to undergo significant organisational reform and infrastructural transformation, and will need to meet Te Tiriti o Waitangi commitments by giving effect to Te Mana o Te Wai.

Parts of New Zealand do not have access to safe drinking water or compliant wastewater services: one in five New Zealanders do not have easy access to clean drinking water.
(Source: Department of Internal Affairs)

Water services in New Zealand face a significant infrastructure deficit due to decades of underinvestment. At present, 25% of wastewater plants are not consented.
(Source: Water NZ)

As water services' regulatory pressures build, a skills deficit will grow in the gap between workforce capacity and sector compliance. Currently 59% of water sector employees have no qualifications listed with their employer.
(Source: Department of Internal Affairs)

Easy access to clean drinking water is a fundamental human right. This right is not adequately met for one in five New Zealanders.

Data source: Transforming the system for delivering three waters services, DIA, 2021

Introduction: Water Services

27%

27% of water supply workers are women.

7%

7% of water operators are women.

"Across the board we need more treatment plant operators, general maintenance staff, project managers, asset managers, compliance staff – everywhere we need more people.'"

Small council water asset manager

"Gender diversity is a challenge. Particularly in the treatment plants, it's definitely more male orientated. My boss is a guy – everyone in our team are guys."

New-entrant wastewater services engineer

25%

25% of wastewater plants are not consented.
(Source: Water NZ)

59%

59% of water sector employees have no qualifications listed with their employer.
(Source: Department of Internal Affairs)

Wider issues

Both industries' challenges are set against a backdrop of high workforce competition due to general infrastructure deficit, a skills deficit and record labour shortages. In May 2022 the unemployment rate in New Zealand maintained its record all-time low of 2.3% (Stats NZ), and sources of overseas labour traditionally utilised by the ESI and WSI all but dried up with COVID-19 travel restrictions. This depletion of overseas resourcing looks set to continue with the Government's current sector-specific, high-skills immigration policy.

The need to build the ESI and WSI workforces is urgent, and the challenges are significant. Social pressures, increasing regulation and underfunding, together with labour and skills deficits and industry fragmentation (particularly in the WSI), are combining to form a 'perfect storm' of overextension and underdelivery.

To secure energy supply and water services for future generations, the ESI and WSI come together in this initiative to re-imagine combined approaches to attracting, training and retaining the next-generation workforce.

Introduction

What we set out to achieve
Tā mātou e whai nei

Ka oti ana ngā rautaki whanaketanga ā-umanga, i tū ai ētahi awheawhe me te hunga whaipānga o ngā hinonga me ngā ahumahi. Nā ēnei mahinga i hua mai ai ko te rautaki umanga mahi tahi a ESI me WSI, he mea e whanake nei i ngā whāinga tautuhi, me ngā marohitanga i ngā pūrongo e rua.

Following completion of the two workforce development strategies, a series of workshops was held with project and industry stakeholders. These activities led to a shared ESI and WSI workforce activation strategy brief intended to build on specific goals and recommendations from the reports.

Four (out of a combined total of eight) strategic goals were selected for this activation phase:

Activation goal 01:
Increase visibility to attract the right people.

Activation goal 02:
Design for intuitive career pathways.

Activation goal 03:
Build a resilient workforce and design for career progression.

Activation goal 04:
Partner with Māori.

Five core workstreams were then initiated to address these goals:

A

Industry pathways
Ngā ara umanga

Work with leaders of the ESI and WSI to understand, organise, collate and map critical career pathways data. Re-present the data in a way that is accessible and understandable by people outside of the industries.

C

Industry experiences
Ngā wheako ā-ahumahi

Engage with student audiences to co-design initiatives that activate young people towards industry-focused career discovery.

E

Iwi workforce development
Whanaketanga ope ā-iwi

Establish a parallel 'by Māori for Māori' working group that explores career pathways and workforce development from a mātauranga Māori perspective.

B

Profiles & case studies
Ngā rahangau me ngā kōtaha

Profile young people in ESI and WSI jobs so that others may 'see themselves' in industry roles. Identify and review case studies (both inside and outside of these industries) that profile successful workforce initiatives.

D

Competency mapping
Te whakamahere matataunga

Explore a potential future where workers could take on learning and development pathways that would accelerate career development, increase visibility of achievements and allow for a more mobilised workforce across industries that require similar capabilities.

Communications
Mahere kōrerorero

A communications stream was introduced to document work taking place in other workstreams, keep stakeholders informed and to provide recommendations on how the findings of this work might be communicated to industry.

Our approach
Tā mātou aronga

Te tukunga. Ki ngā peka A ki te C i whakamahia tētahi tukunga whakahoahoa ā-tāngata. Ko Arohaina, Tautuhia, Whakaarohia, Whakatauirahia, Whakamātauhia (e kīia nei ko EDIPT) tētahi rautaki whakaaro me te mahi, waihoki he kohinga rautaki ā-ringa e noho mātāmua ai te kaiwhakamahi (te minenga i whakahoahoatia ai) ahakoa te mahi.

Methodology

For Workstreams A to C, a human-centred design-thinking methodology was employed. 'Empathise, Define, Ideate, Prototype, Test' (EDIPT) is a way of thinking and working that ensures users (the target audience being designed for) remain the primary influencers regarding the desirability of the final prototype, and that prototypes are tested in the real world to prove their ability to deliver on strategic industry initiatives. Feasibility and viability are also considered to promote final tactical pathway activities that are realistic and affordable; however, these aspects will need further consideration for any large-scale roll-out of these activation strategies.

Graduate: Central Interceptor, Watercare

Our approach

Design methodology
Rautaki whakahoahoa

Applying the design-thinking methodology to each project workstream has in effect stress-tested initial overarching industry goals and recommendations with the perceptions and needs of the end-user. This allowed for workstreams to address and resolve the complexity of real-world interactions to build a more resilient workforce approach. Similarly, this assisted with identifying moments-of-truth to initiate pathways and address current breakdowns for entrants to both industries.

Empathise
Discover and understand the users' latent needs and opportunities for career pathways activation.

Define
Reframe project workstreams to reflect the point of view of the target audience.

Ideate
Develop initial ideas, concepts and frameworks with users to co-create potentially desirable solutions.

Prototype
Implement rapid prototyping and development of ideas so they might be tested directly with intended audiences to assess desirability and utility for them.

Test
Identify and measure responses to prototypes, to 'fail-fast', pivot or expand concepts based on the direct responses and interactions of the intended users.

FROM

An overwhelming amount of information and broken links

TO

A holistic, cohesive cross-industry approach leveraging existing initiatives and filling the gaps

Our approach

Insights & lessons from prototyping

Ngā hua me ngā akoranga o te tauira

Tōpū katoa he tūāpapa ēnei tirohanga o te matenga kia whai ara ahumahi hōu, me ngā ngohe hoki e tutuki pai ai ngā hiahia o te ahumahi hei te tau tītoki. Me huri ngā ara ahumahi o nāianei, mai i ngā taipitopito tohetohe, ki tētahi kete kōrero whānui, e whakanui ana i te mahinga tahitanga a ngā ahumahi rerekē, e tuituia ai te marea.

Despite each workstream being explored separately, persistent themes and patterns of user behaviour emerged.

Collectively these insights inform the need for current career pathways and activities to significantly evolve if they are to genuinely meet tomorrow's anticipated workforce demands. Career pathways need to shift from the current state of offering an overwhelming amount of competing or conflicting information towards a holistic, cross-industry approach that leverages and connects existing platforms.

1

Connect the dots

There's already an overwhelming amount of information and initiatives in the workforce market and the sheer volume of careers information available may in fact be masking career opportunities. However, there is very little awareness of these initiatives among prospective employees. There is a job to be done to connect available information with people, rather than simply inventing something new. It's critical to be aware of the touchpoints along each career path to design a comprehensive solution and create most utility.

2

Influential experiences

Experiencing an industry is a key part of the decision-making process for prospective employees. A direct piece of feedback received was that 'if kids experience it, they'll have the confidence to do it'. Experiences provide an opportunity to connect interested students with the industry. There is a need to surface industry experiences and information through school or tertiary channels as this gives the sector credibility in the eyes of students.

3

Selling vs informing

While research has shown the need to 'sell a job, rather than inform' and that we need a 'hook' (e.g. 'earn while you learn' or 'two most solvable areas for humanity'), there is a tension to navigate here, between advisors and candidates. Careers advisors highlight the need to sell a career vision; however, students uniformly advise that they do not wish to be sold to.

4

The right fit

Prospective employees want to know if they can see themselves in roles, and how they can add value. They want to hear the good and the bad of what it's like, and to connect with people of a similar age who have recently entered the workforce.

5

Next best step

Industry employees recently interviewed had no idea how to grow or move in their career. 'Cutting through the noise' by providing the next best step is seen as important to addressing this knowledge gap. Careers sites today work within the constraints of what prospective employees know is available to them and what they're looking for. This creates a narrow view of the opportunities available, and may not connect prospective employees with 'best fit' roles outside their immediate awareness.

6

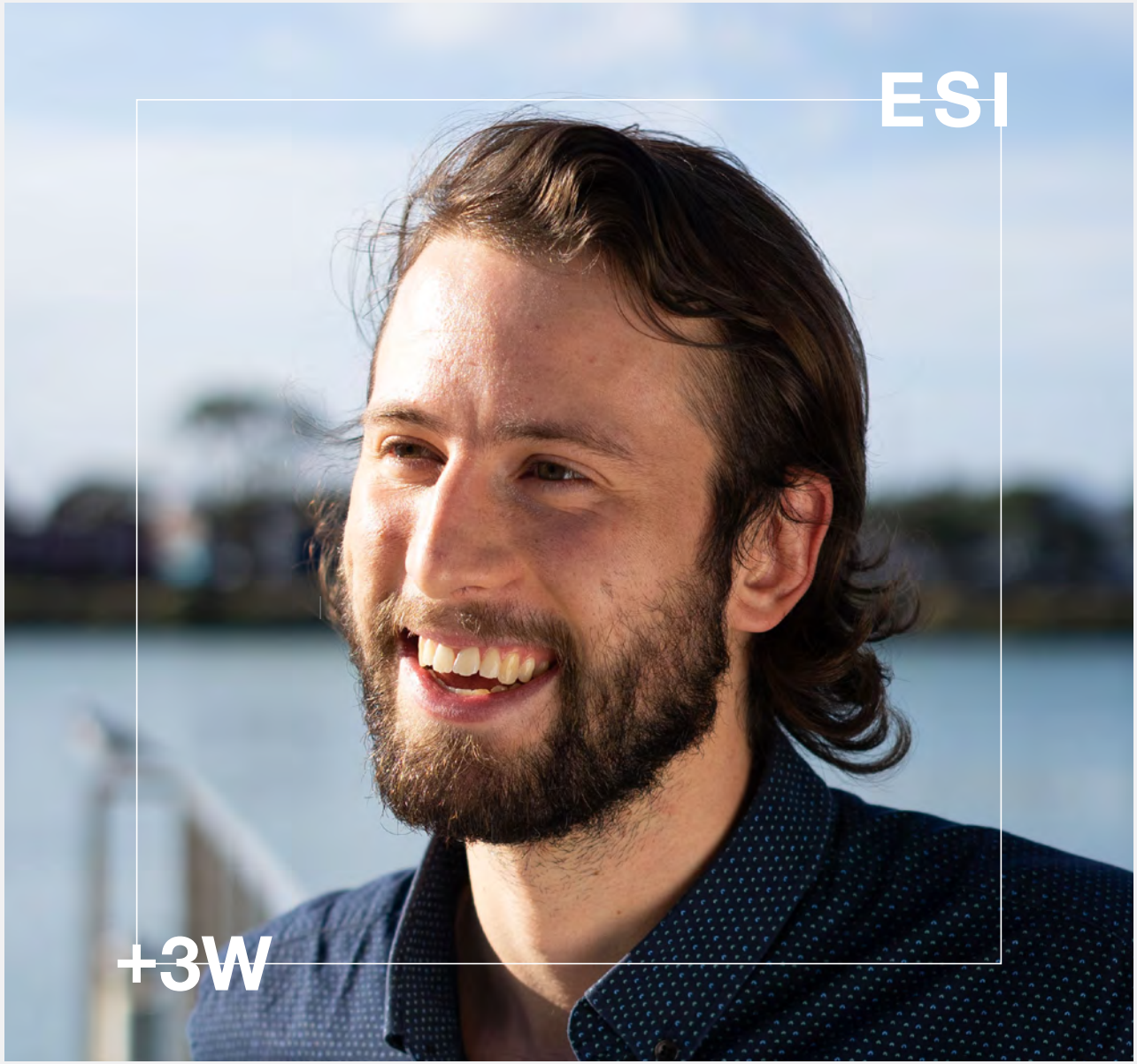
Partnership is key

There are some great initiatives already taking place within iwi that are designed to support rangatahi and other iwi members into long-term and sustainable mahi. There is potential for industry and Waihanga Ara Rau to communicate and partner with iwi around the long-term career opportunities that are open to rangatahi, so that iwi can pivot and support their own people into long-lasting, meaningful career pathways.

Our approach

Workstreams

The workstream sections provide an overview of the specific activities that were conducted under each workstream. Each section includes summaries of lessons learnt through prototyping and testing, and highlights shifts in conceptual thinking and knowledge based on end-user insight and direction. We designed a 'future user journey blueprint' that pairs the workstream concepts with experiences which are currently available to industry applicants.



Graduate Water Engineer

Our approach

Future user journey blueprint
Tātauira ara kaiwhakamahi

A user journey blueprint is a map that visualises the entire ecosystem relationships between different service components – people, props (physical or digital evidence) and processes – that are directly tied to touchpoints in a specific customer journey. This map has been set in a future state; this means we are describing the journey from a user's perspective after new and existing evidence has been actioned to help optimise the current experience.

The benefit of user blueprints is that they give organisations a comprehensive understanding of their services and the underlying resources and processes – seen and unseen to the user – that make it possible. The map also helps discover weaknesses and duplication, and uncovers opportunities for optimisation.

The future user journey blueprint contains interactive links in the 'Backstage activity' section, which when clicked, will take you to the relevant asset located in the report. The blueprint shows the workforce recruitment process working in its entirety, whereas the report goes into further detail of each activity's key information required to action the new piece of blueprint evidence.

Key elements of this future user journey blueprint

Stage goal
A one-line description of what the user is trying to achieve at each stage of their journey.

Physical and digital evidence
These are different service components – people, props, and processes – that are directly tied to touchpoints in a specific customer journey. We have divided the 'existing' components available for a user today and included 'new' evidence that we recommend implementing to achieve a more streamlined user journey.

User action
Steps, choices, activities and interactions that a target user performs while interacting with a service to reach a particular goal. User actions are derived from the research and prototype testing.

Visibility line
The visibility line separates all service activities that are visible to the customer from those that are not. Everything frontstage (visible) appears above this line, while everything backstage (not visible) appears below.

Backstage action
Steps and activities that occur behind the scenes to support onstage happenings. These actions could be performed by a backstage employee (e.g. the infrastructure website owner) or by a frontstage employee who does something not visible to the customer (e.g. an industry entry mentor).

RACI
A RACI (Responsible, Accountable, Consulted, Informed) chart is a way to identify project teams' roles and responsibilities for any task, milestone or project deliverable.

UNAWARE

EMPLOYED

	INSPIRATION	EVALUATION	INVESTIGATION	ACTIVATION	RE-EVALUATION
STAGE DETAILS	**8 - 14** When I grow up I could be...?	**15 - 16** What's possible for me?	**17 - 18** What opportunities are available as I work towards my best-fit career?	**19 - 22** What is the best-fit career for my aspirations and values?	**23+** Is this my career for life?
STAGE GOAL	I am curious to learn more about electricity and water	I am optimistic about my opportunities beyond school	My skills are valued and in demand in these industries	It's time to move forward with one of these organisations who have helped me	My previous life experience will quick-start me in these industries
PHYSICAL & DIGITAL EVIDENCE EXISTING	Wonder Project Classes Parent-Teacher Events Careers Evenings	School Career Advisors Gateway	Internships Gateway Trades Academies Girls with Hi-Vis	Tap On Tap Off Internships Uncoordinated Industry Events Seek.co.nz & Careers.govt.nz Tuputoa	Organisational Career Platforms Inconsistent Competency Frameworks Seek.co.nz & Careers.govt.nz
FROM	I have a narrow perception of what I can be	I'm struggling to see the relevance of what I am being taught at school	Trades are a dead-end job and I'll be doing the same thing for the next 20 years	I hear there is a job shortage, but I can't find anyone to offer me an internship	You want me to start again? I've been working for 10 years!
NEW	Wonder Project Water Classes Year 10 Expanded Trade Class	Infrastructure Website - Secondary School Infrastructure Website Pathway Tool Infrastructure Entry Mentor Experience One-day High School Experience Case Study Videos Instagram Advertising Careers.govt.nz Api	Infrastructure Website - Secondary School Infrastructure Website Pathway Tool Infrastructure Entry Mentor Experience Career Starting Jobs With Purposeful Part-time Work Instagram Advertising	Dedicated Year 2 Guest Lecture Infrastructure Website - Tertiary Infrastructure Entry Mentor Experience One-day Tertiary/Fresh-starter Experience Consistent Tap-On Internships Instagram Advertising Tertiary EDM Infrastructure Website Pathway Tool	Infrastructure Website Pathway Tool Infrastructure Website - Fresh-starters Infrastructure Entry Mentor Experience Instagram Advertising One-day Tertiary/Fresh-starter Experience
	 *"I just want to understand how things work and why it's important."* Year 10 - Primary School Student	 *"I want you to encourage me to think for myself and to start taking risks."* Year 12 - Secondary School Student	 *"I thought about an apprentice-ship but that's 20 years of doing the same thing every day. You don't see yourself moving up as you do in other industries."* Final-year Secondary School Student	 *"I can't graduate without doing an internship of 800 hours but I haven't been able to find one. I'm constantly looking through Seek and job search websites."* Third-year University Student	 *"I was in civil and construction for 10 years but there were no qualifications to prove my worth. I had to start from the bottom and work my way through it again."* Live Glove & Barrier Line Mechanic
TO	I have formed a positive stereotype about my long-tern capabilities	I am prepared to try a few things out to expand my career opportunities	These careers seem flexible and exciting to me	I can see several clear industry pathways in front of me	It's effortless to switch to these industries and really open up my career opportunities
USER ACTION	Participates in school programmes designed to highlight the importance of water and energy. Understands that these programmes can extend into work careers	I am pushing myself to take subjects I might not normally do, to keep my options open with trades or study	I'm trying to learn what I can to make informed decisions. I talk with friends and family, but I still don't know what I am looking for	I'm starting to juggle casual work, study and live my life	I'm trying to firm up career security and evaluate these industries against a couple of offers
VISIBILITY LINE					
BACKSTAGE ACTIVITY	• Coordinate and capture data with Wonder Projects • Coordinate Year 10 expanded trade class	• Monitor website analytics • Health and safety release forms • Secondary school student release forms • One-day experience runsheet secondary school • Communication messaging strategy targeted at secondary school students • Log one-day experience attendee data • Log mentor/student interactions • Sign SAPS/RAMS Risk Management forms	• Log mentor/student interactions • Communication messaging strategy targeted at secondary school leavers • Monitor website analytics • Provide purposeful part-time starter pack	• Coordinate Year 2 guest lecture • Communication messaging strategy targeted at tertiary students • Monitor website analytics • Log mentor/student interactions • One-day experience runsheet tertiary/fresh-starter • Log one-day experience attendee data • Health and safety release forms	• Monitor website analytics • One-day experience runsheet tertiary/fresh-starter • Communication messaging strategy targeted at fresh-starters • Log one-day experience attendee data • Log mentor/fresh-starter interactions • Health and safety release forms
RACI	Responsible: To be determined Accountable: To be determined Consulted: To be determined Informed: To be determined	Responsible: To be determined Accountable: To be determined Consulted: To be determined Informed: To be determined	Responsible: To be determined Accountable: To be determined Consulted: To be determined Informed: To be determined	Responsible: To be determined Accountable: To be determined Consulted: To be determined Informed: To be determined	Responsible: To be determined Accountable: To be determined Consulted: To be determined Informed: To be determined

Workstream A

Industry pathways
Ngā ara umanga

Te whaiwāhi atu ki ngā ara ahumahi ESI me WSI.

Making the ESI and WSI career pathways accessible and intuitive.

A

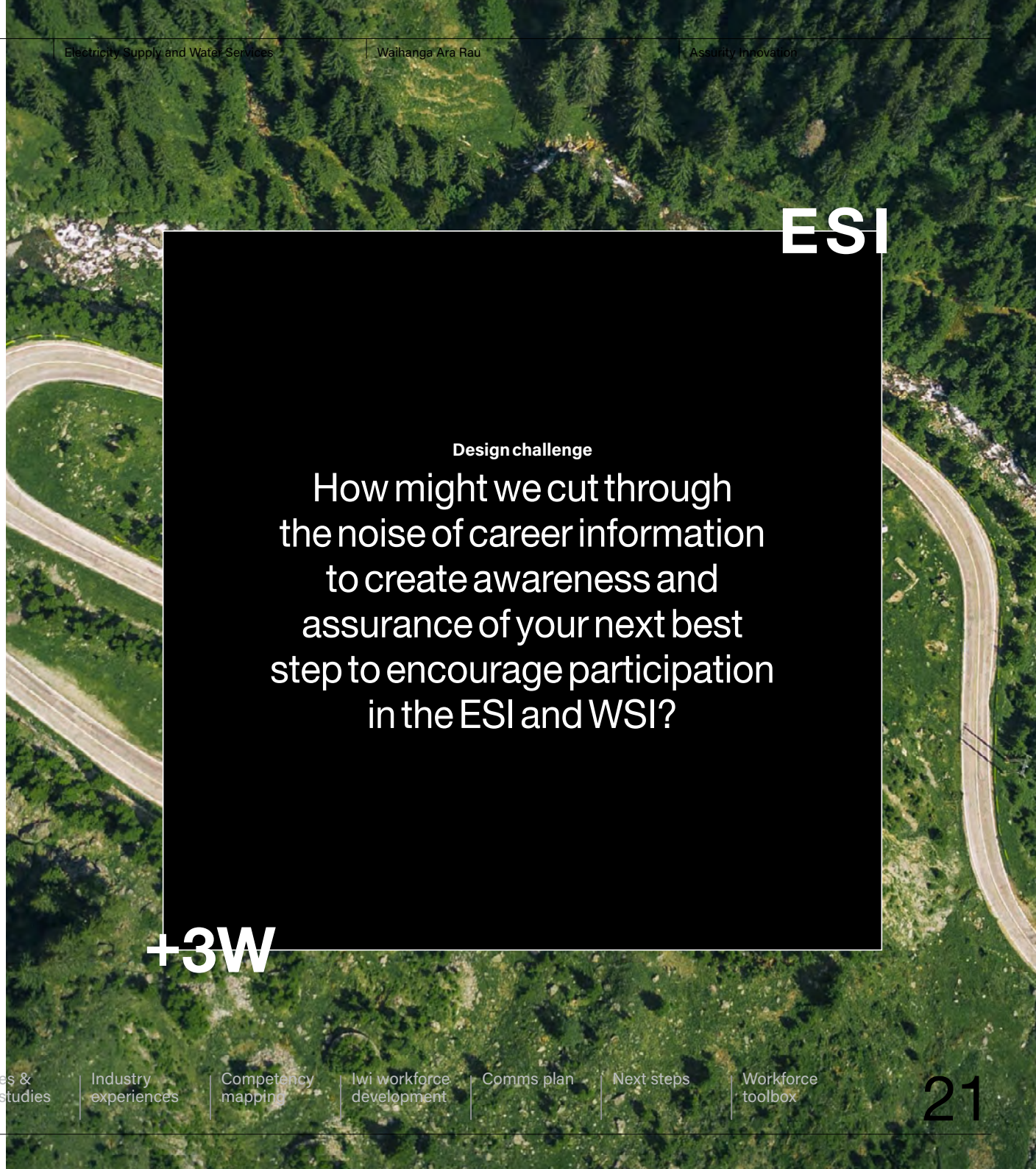
Third-year Engineering Student, University of Auckland

Workstream A

Industry pathways
Ngā ara umanga

Te whakarite anō i te whaiwāhitanga e hāngai ana ki ngā raruraru me ngā whaiwāhitanga o te minenga.

Reframing the opportunity to reflect the problems and opportunities of the target audiences.



Workstream A

Workstream goal & background

Ngā whāinga me ngā kōrero mō te peka

Ka pēhea tātou e whakangū i te hoihoi o ngā mōhiohio ahumahi e mārama ai, e tau ai hoki tāu koke whakamua, e ākina ai hoki te nōhanga ki ESI me WSI?

How might we cut through the noise of career information to create awareness and assurance of your next best step to encourage participation in the ESI and WSI?

Challenge

Pathways into the ESI and WSI are currently hidden. Employees in the ESI are often attracted through whānau networks and personal relationships, and WSI employees commonly discover the industry by chance. Both industries offer careers with value and positive work experiences which are well understood by employees (and their whānau), but invisible to those outside of industry. Career progression pathways within the ESI and WSI are similarly hidden, with advancement often viewed as being at the expense of an industry peer.

The combination of ageing workforces, changing immigration policies and large predicted sector growth means a more intuitive pathways model that attracts a wider pool of potential is required. Career pathways (and pathways tools) that are intuitive and accessible to people both inside and outside of the industries will help reach more people and share the potential of industry careers.

> "A lack of clear journeys to competence makes pathways into and across sectors riskier, more nebulous and less attractive to potential employees."
>
> ESI Workforce Strategy Report

Opportunity

There is an opportunity to make it easy for school careers advisors, job seekers, employees and trainers to understand the range of ESI and WSI career pathways via an accessible and intuitive sector-wide representation of all pathways available.

Initial hypothesis

A human-centred approach to visualising and articulating career pathways will help people to understand the value and potential of ESI and WSI careers.

Target audience

Secondary/tertiary students and mature workers with an ability to switch careers and join either industry.

Workstream A

Prototypes tested
Ngā tauira i whakamātauhia

The Electricity Engineers' Association (EEA), Transpower, Connexis, Water New Zealand and other influential organisations were engaged to complete mapping exercises designed to capture fundamental pathway information. This information was balanced with the perceived psychological barriers, motivators and observed traits of people navigating their entry into both industries. Maps from both industries were overlaid to identify similar pathways, competency and training needs, and necessary activities required to successfully enter the workforce. This work explored trades-based as well as traditional tertiary pathways.

Read more about the prototypes from Workstream A on p. 67

Workstream A

Prototypes tested
Ngā tauira i whakamātauhia

Concurrent to industry mapping, work began in parallel – testing designs, concepts and value propositions directly with secondary and tertiary students. These designs focused more on the user experience, tools, platforms and advisors that people try to engage with to progress into industry. Work was done to distil pertinent information into desirable formats for these audiences.

The goal here is to balance what is useful and accessible for a user to move along a career pathway, without removing important information that might influence their ultimate career decision.

Read more about the prototypes from Workstream A on p. 70

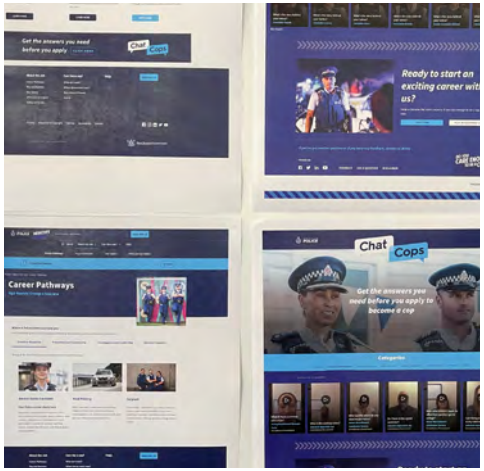
Workstream A

Prototype development
Te whanaketanga tauira

Work started by talking to students (both secondary and tertiary) and fresh-starters, and through site visits to traditional careers and recruitment services including WINZ, Te Pūkenga (New Zealand Institute of Skills and Technology), universities, schools and careers advisors at schools. This engagement aimed to find physical evidence of available careers tools and platforms, and to build an understanding of the types of advice and services available for each project audience. A number of issues were immediately observed. Databases exist of people actively seeking employment in infrastructure-type roles, alongside registers of industry jobs currently available.

However, an introductory 'handshake' between prospective employers and employees is often missing. The dots between industry opportunity and aspirant job seekers need to be connected.

In addition, the sheer volume of careers information being presented is overwhelming for aspirant workers. Much careers content is campaign-driven, and is trying to cut through in what is a noisy space. From the user's perspective, this creates an advertorial-style environment.



"I'd 100% use this. That would be very useful because you're saving me having to collate 15 different Google searches. It's just clicking on your website and going, 'I want to be this instead of this' and it's giving me a six month plan to get there."

Graduate, Water Infrastructure

The jargonistic language and propositions used lack integrity and authenticity, and are met with scepticism by aspirant workers evaluating career pathways. It became apparent that authentic personal experiences offer the potential to diffuse complex career pathways and offer a more intuitive pathway.

As prototype concepts evolved it became clear that showing the 'next best steps' towards a career path offered the potential to reduce complexity and encourage people to consider either the ESI or WSI within their own journey.

Workstream A

Prototype development
Te whanaketanga tauira

The project team began exploring ideas promoted from the industry discovery workshops held in April 2022. This phase involved rapid concept creation where thoughts were translated into early concepts that could be shared with workforce candidates to gauge the desirability of ideas and their potential to address each identified workstream recommendation. Concept designs were created to test ideas based on user feedback and to continue evolving each concept based on the usefulness of each idea for aspirant workers.

Further constraints were identified to help design more involved prototypes. The need to truncate complex information and offer the next best step forwards was emphasised by users. There were caveats to this, however, where users don't want to feel trapped into a pathway, ensuring career progression and flexibility options are kept open for them.

Subject-matter experts from the ESI and WSI were consulted to map the pathways to enter the workforce from an industry perspective.

A number of concepts and 'hooks' were tested with project target audiences to understand what resonates most for each to progress forwards into industry. Part of this tested whether ESI and WSI pathways should be presented separately, or be brought together under an overarching 'infrastructure' umbrella brand. Feedback was sought from high school and engineering students, graduates, industry apprentices and industry experts. The response across these diverse audiences was uniform; a wider pool of infrastructure-specific roles created a more desirable user experience.

Final assessment and testing of a pathways tool for potential industry entrants is currently being designed. A prototype website (targeted at industry entrants) is in development for both the ESI and WSI pathways. Thought has also been given to how, over time, this platform might be extended to include other infrastructure sectors as a way of scaling and engaging with a greater diversity of potential trade workers.

Workstream A

Lessons learnt
Ngā akoranga

Context is critical for engagement
Initial prototypes sought to understand the right medium and context to present careers information in ways that build engagement. Career information presented on social media, such as Instagram 'feeds', was either skipped, ignored or classified as 'invasive' and cutting into personal time. Careers content displayed on social media drew a cynical response, with participants perceiving the content as advertising and lacking in integrity. The same content presented in secondary school classrooms and before or after tertiary lectures changed perceptions markedly towards the content, particularly when presented with institutional branding. The content and message absorb the imprimatur (ethos and endorsement) of the school, validating its message and authenticity for the user.

"I'd be most responsive to the information if it came through the University: I take it more seriously when it comes from there. You could introduce it at the start of a lecture."

Engineering student

More choices, more engagement
There is a tension to navigate with careers. The volume of competing careers pages and messages seems to stall meaningful career design for many interviewees. However, narrow pathways that focus on a singular industry are often too confined for people to find the best role for themselves. Focusing on infrastructure as a platform has the potential to balance role diversity with a more cohesive, connected experience. This seemed to work for both trade and tertiary pathways. People can see themselves working in infrastructure first before understanding the specific industry best suited to their needs and ambition.

"My initial reaction is to have all of the industries together, so you don't have to go looking for it – especially if you're a school leaver and you don't really know where to go next."

Apprentice

Connect the dots
There is a plethora of careers and vocational pathways information available, creating a noisy, disconnected and complex environment for users to evaluate. There is an opportunity to add value and 'connect the dots' by connecting disparate careers experiences, mentoring and industry 'gateway' activities into a coordinated, visible activity. Similarly there is an opportunity to connect with other careers platforms to create a more accessible and singular user experience. This might include the use of Application Programming Interface (API) calls to integrate and link into existing ubiquitous platforms such as careers.govt.nz.

"I think an external website might be the best solution and then good comms with us to make sure that we're linking to it quite clearly. So that if school students are looking at the new website, they can identify a link from this new careers website to us to boost it [to endorse it] and get more people visiting [drive traffic from careers.govt.nz to the new website]."

Content Developer, Careers Channel
Tertiary Education Commission

Show people what they can do now
Showing the next best step available to prospective and current employees is enough to build confidence in a career pathway. It gives the user an option to more fully consider the opportunity at hand without the additional complexity of considering long-term career prospects.

"Personalise the UI [User Interface. Don't just lead them to piles of information. Give the information as you want to access it. Water – where you could be in 5 years, where you could be in 10 years etc. Information rich but not too much to read at once. Show what you can earn now, in 5 years, 10 years and what are the doors that will open as you go."

Engineering graduate

Keep it real
Tell authentic personal stories where people can see themselves within the industry pathway; it creates assurance and confidence to progress forwards.

Workstream A

Outputs and next steps
Haere ake nei

Workstream A outputs

See the Workforce Toolbox for these tools

- Industry pathways (macro view), p. 67
- ESI pathways (micro view), p. 68
- WSI pathways (micro view), p. 69
- Build your own pathway prototype, p. 70

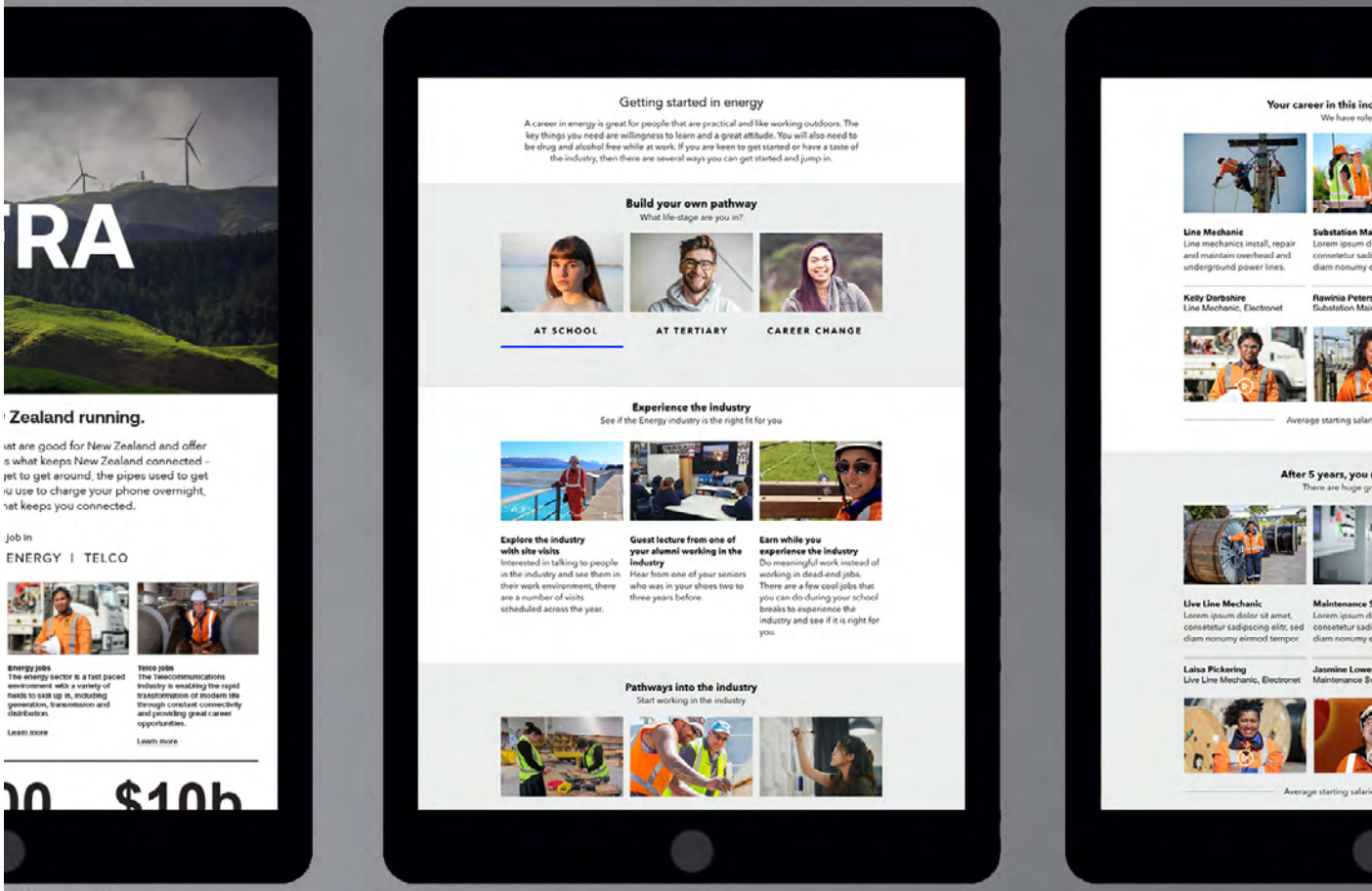
Further questions to answer

- How might both industries coordinate around shared platforms and experiences to implement and drive a cohesive industry message and pathway experience?
- Who owns what parts of a shared career pathway future state, and how might this be sustainably funded?
- Is this able to 'cut through the noise' and offer an intuitive pathway?

Further actions

- Publish an initial visual concept that positions pathways for both industries to intended audiences.
- Expose content and knowledge and assess the ability to promote career pathways.
- Establish the foundations for a platform that in time will be used to promote a wider pool of trade-driven opportunities and connects career data opportunities through API integration.

Read more about the prototypes from Workstream A on pages 66–77



Workstream B

Profiles & case studies
Ngā rahangau me ngā kōtaha

Te tuari i te whaihua o ngā mahinga ratonga wai, me te ratonga hiko.

Sharing the value of electricity supply and water services industries and careers.

B

Power Systems Technician

Workstream B

Profiles & case studies

Ngā rahangau me ngā kōtaha

Te whakarite anō i te whaiwāhitanga e hāngai ana ki ngā raruraru me ngā whaiwāhitanga o te minenga.

Reframing the opportunity to reflect the problems and opportunities of the target audiences.

Workstream B

Workstream goal & background

Ngā whāinga me ngā kōrero mō te peka

Ka pēhea pea tātou e whaiwāhi atu ki ngā rangatahi e 'kite ai i a rātou anō' ki ngā tūranga ahumahi, e hāngai ai hoki ki ā rātou uara me ngā wawata?

How might we allow young people to 'see themselves' in industry roles that match their values and aspirations?

Challenge: Industry profiles
The nature of the ESI and WSI sectors and the value of industry careers remain largely invisible to those on the outside. In particular, they may not be as appealing (or as well understood) for younger workers.

"We've never heard about Three Waters. We're looking for jobs that we know exist, but we don't know what we don't know. You should tell us about this early in life – we're making career decisions early at high school."

School leaver (WSI Workforce Strategy Report)

Previous ESI and WSI workforce development research has shown that young people want to understand the lived experience of industry roles, and how these might align with their aspirations, interests and values. In other words, they want to be able to 'see themselves' in industry roles before committing.

Having access to role models who are similar in age is seen by young people as key to gain this understanding, for example by meeting industry workers in person, or potentially through online video content; however, there is scarce online video content of young people talking candidly about their experiences in the ESI and WSI.

Challenge: Case studies
In addition to prototyping industry profile videos, this workstream seeks to understand existing workforce and visibility initiatives that may provide examples of how to do things differently. Interviews were conducted with a number of organisations, and written case studies were completed.
See Industry Toolbox on pages 83–92

Opportunity
Attract and engage informed, values-aligned candidates by providing young people with authentic messaging. Allow young people to understand the potential of ESI and WSI careers by harnessing industry roles' value, vision and sustainable purpose.

Prototype new initiatives around visibility and values alignment, while understanding and championing existing initiatives that address wider workforce challenges.

"Purpose is one of the most important things for any water company in the world. Then you can tap talent or raise opportunities with the younger generation."

Scottish Water executive

Our initial hypothesis
'Warts and all' video content of young people talking about their experiences entering, training and working in the industries will assist potential entrants to make career decisions and promote high-quality, values-aligned engagements for industry.

Target audience
Secondary school students, tertiary students, fresh-starters.

Workstream B: Industry profiles

Prototypes tested
Ngā tauira i whakamātauhia

A selection of industry employees who had been involved with empathy interviews for the workforce development strategies was approached to gauge interest in participating in the prototype videos. Four workers in the Auckland region were selected for the initial prototype (two from each sector) with the intent to scale to other roles and regions and bring forward the learnings from this initial process and testing.

Profile 01
Danielle
Power Systems Technician
YouTube link: here

Profile 02
Liasa
Live Glove & Barrier Line Mechanic
YouTube link: here

Profile 03
Derek
Graduate Water Infrastructure
YouTube link: here

Profile 04
Thomas
Graduate Civil Engineer
YouTube link: here

01

02


03


04

Workstream B: Industry profiles

Prototype development
Te whanaketanga tauira

The four industry participants were filmed at their workplaces over a two-day intensive shoot. They delivered unscripted interviews directly to camera, with tailored subject prompts (statements in their own words from previous empathy interviews) used by the interviewer where necessary. This was a useful tool to help the interviewees feel relaxed and confident while remaining genuine in their responses. Cutaway footage was collected also, to show the wider work environment, and as a tool to assist in dialogue editing.

Prototype testing

Final prototype videos were evaluated with sixteen students (ten female, six male, Years 11 to 13) from a decile-four secondary school. A range of students with various academic, creative and practical tendencies was selected. Students were shown a selection of four videos (one from each interviewee). Pre-designed worksheets allowed the students to quantitatively and qualitatively capture relational, emotional and critical responses to each. The session concluded with a group discussion.

"I've seen a lot of videos explaining what jobs are like and what they do, but never personal opinions. Videos like this could help me to choose my career direction."

Joserry, 15 years

"Videos like this would help people to choose their career direction because they tell you beforehand what you're getting into and the environment you'd be in."

Divesh, 17 years

Workstream B: Industry profiles

Lessons learnt
Ngā akoranga

Show the bad with the good
Showing the challenges faced in the role first-hand is a great way to gain trust and viewer empathy. Students applauded Derek and Danielle's honesty about some of the more mundane aspects of the job, and were relieved to view content that was not 'selling' to them and was less 'sugar-coated'. This aspect must be genuine however.

"I like how (Derek) explains the good and bad things about the job and doesn't sugar-coat it. Also it was good seeing him interact with other people."

Taylah, 15 years

"I like that (Danielle) is honest about what she does in a day. It's also cool to see a female in a male-dominated industry."

Arabella, 16 years

Show the value in roles
Interviewees who show they are valued by their employers and by their communities garnered the most positive response from students.

Variety is key
The students were hyper-aware of the undesirable prospect of being 'stuck' in repetitive work without day-to-day variation. Young people want to see a variety of work in each role so they can understand specific scenarios and challenges, and how they are solving real-world problems.

Complete the picture
Students were quick to point out that the short clips (30 to 90 seconds long) do not work well in isolation, as they lack the depth of information they require. Discovery of all aspects of roles was seen as important, with many students feeling the videos were too narrow in scope. Students were more favourable about the length, however, during a group discussion on the context of a wider discovery platform (even so, some students still felt the videos should all be over 90 seconds long).

Make it relatable
Seeing workers share personal opinions about their roles was viewed as unique and favourable, particularly when interviewees are off-guard and humour is interjected. There is an opportunity to explore production methods that reduce interview nerves to garner more genuine, personal and conversational responses.

Plan fast vs plan right
Filming employees on site requires careful planning and management; however, it can be challenging to plan at pace while engaging with everyone who would ordinarily be required to sign off on video shoots at workplaces. Communicating directly with employees allowed us to set things up quickly, but we met some resistance from companies for not engaging with senior management first.

Filming challenges can be nuanced
For the shoot itself, we found there is a need to balance requirements of workforce initiatives against individual workplace requirements.

It is important to establish whether compliance, branding or health and safety perspectives will create problems later on with gaining company approval, and to ensure that restrictions on what the interviewee can say (real or imagined by the interviewee) are well understood and do not affect authenticity. In this regard it is important to be upfront with interviewees, employees and marketing departments that the primary focus must remain on the wider workforce (rather than company recruitment or other messaging).

Keep it simple; keep it relevant
Precise guidelines should be provided to video production companies around video style – keeping it straightforward is key to legibility and scalability. Students told us that cutaway footage is great for showing different aspects of the role and workplace, but should remain purposeful and on-topic.

To see some of the insights that led to these lessons, go to p. 81

Workstream B: Case studies

Industry exemplars

A selection of five industry exemplar case studies was created.

01. Wonder Project
Creating positive stereotypes at primary school level.
View case study on p. 83

02. Scottish Water
Matching industry purpose with individual purpose.
View case study on p. 85

03. Watercare Training Campus
Experiential and continuous learning development.
View case study on p. 87

04. Build a Bridge
Experience journeys from school to civil construction careers.
View case study on p. 89

05. Girls With Hi-Vis
Inspiring young women through hands-on experiences in infrastructure.
View case study on p. 91

Workstream B

Outputs and next steps
Haere ake nei

Workstream B outputs
- Profile videos, p. 80
- Video profiles recipe, p. 82
- Industry case studies, p. 83

Further questions to answer
- What is required from future videos to represent the breadth of industry roles, along with different regions and cultures?
- Who will own this initiative?
- How will we measure success?

Further actions
- Complete detailed guidelines for a large-scale roll-out.
- Make functional recommendations towards scaling to all roles and multiple locations.
- Test videos within wider pathways discovery experience.

Read more about the prototypes from Workstream B on pages 78–92

Workstream C

Industry experiences
Ngā wheako ā-ahumahi

Te whaiwāhi atu ki ngā rangatahi e mārama ai, e whai wheako ai hoki ki ngā mahinga ESI me ngā ratonga wai.

Allowing young people to understand and experience jobs in the ESI and WSI first-hand.

C

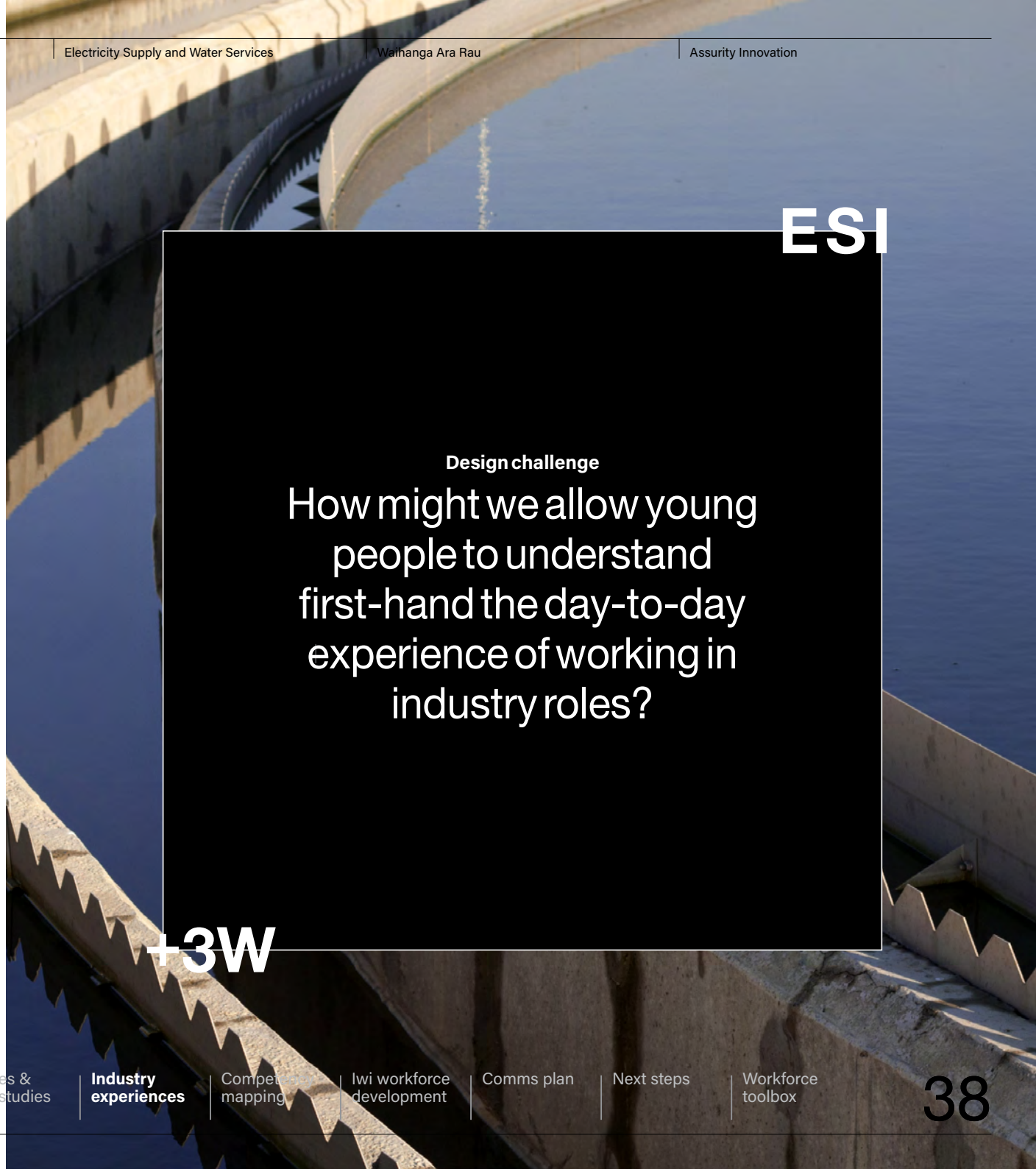
Final-year Secondary School Student

Workstream C

Industry experiences
Ngā wheako ā-ahumahi

Te whakarite anō i te whaiwāhitanga e hāngai ana ki ngā raruraru me ngā whaiwāhitanga o te minenga.

Reframing the opportunity to reflect the problems and opportunities of the target audiences.



Workstream C

Workstream goal & background

Ngā whāinga me ngā kōrero mō te Peka

Ka pēhea pea tātou e whaiwāhi atu ai ki ngā rangatahi e mārama pū ai ki ngā mahi o ia rā, me ngā wheako ki ngā tūranga ahumahi?

How might we allow young people to understand first-hand the day-to-day experience of working in industry roles?

Challenge
School students, tertiary students and fresh-starters are generally not aware of the opportunities in the ESI and WSI, and have no clear understanding of what is involved in working in industry roles day-to-day.

Young people want to be able to experience roles first-hand before making career decisions. Experiential engagement with industry, and those working within it, is critical to building awareness and motivating practically minded rangatahi who are weary of traditional vocational marketing activity.

"I need to learn by doing – not end up on a list from a tradeshow."

School leaver (Three Waters Workforce Development Strategy Report)

Opportunity
There is an opportunity for industry to provide secondary school and tertiary students with role models and practical experiences that allow them to evaluate whether careers in the ESI and WSI match their aspirations, interests, values and culture.

Our initial hypothesis
Creating a one-day experiences that are carefully designed to captivate, excite and challenge each target audience will activate high-quality industry engagement.

Target audience
Secondary school and tertiary students, fresh-starters.

"I think the water industry helps keep the water clean, but I'm not sure."

Secondary school student

"I want to see the impact the job has on the environment."

Potential fresh starter

"It would be good to work alongside people in the industry to see if it's for me."

Tertiary student

Workstream C: One-day experience

Prototypes tested
Ngā tauira i whakamātauhia

One-day experience prototype

Step-by-step one-day industry experiences were co-designed with secondary school and tertiary students. Here we uncovered what types of information and activities they want to understand during the experience. We then spoke to students and education professionals to identify key moments in the calendar year to promote and run one-day experiences. The outputs of these co-design activities were then processed and visually articulated for further evaluation.

Read more about how to create a one-day experience using our runsheets on pages 97–98

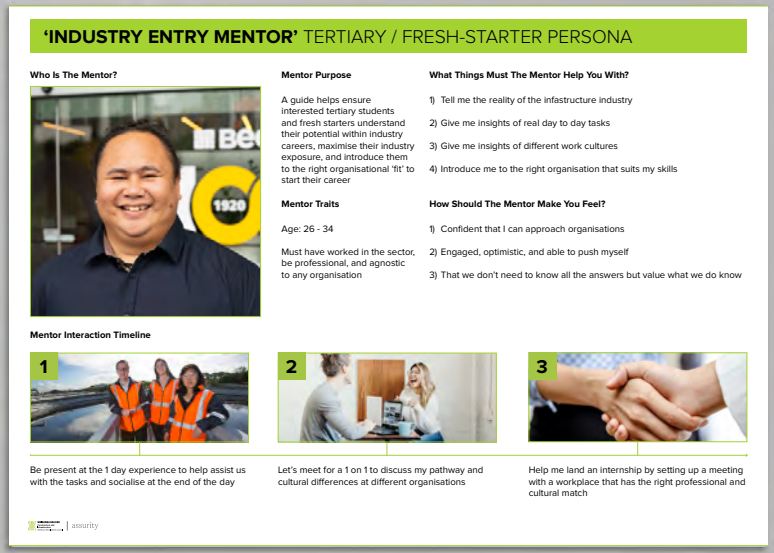
Workstream C: Guide experience

Prototypes tested
Ngā tauira i whakamātauhia

Guide experience prototype

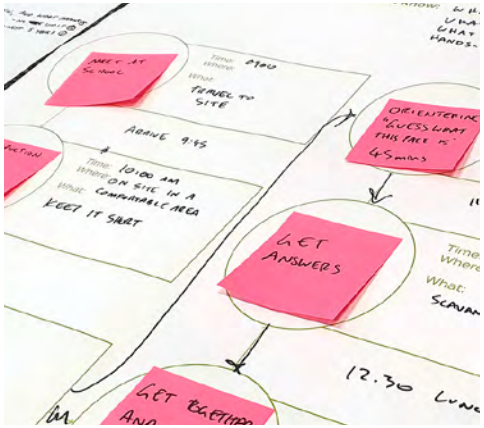
Guide experience prototypes were co-designed in dedicated workshops with Year 12 secondary school students, and second-year students at the University of Canterbury. We took previous empathy research and online surveys to help direct and encourage students to create the perfect guide experience and identify where it would be most useful. Prototype guide persona posters were presented to the industry working group and career advisors in both Christchurch and Auckland.

The blank workshop templates can be located in our toolbox on p. 95 and p. 96



Workstream C

Prototype development
Te whanaketanga tauira



Initial prototype development work for industry experiences began with reflection on empathy interviews completed as a part of phases one and two of the ESI and WSI workforce strategies. Insights were synthesised and validated with an online survey, engagement methods explored and co-design activities planned and prepared.

We found that experiences should have a company-agnostic view and should focus on providing realistic industry immersion that can enable people to make future decisions. Young people want to be supported in their discovery by people from inside the industry who they can relate to.

> "All of these days end the same with… join our company, we are great."
>
> Third-year university student

Inclusion of industry guides experience
When this project started the industry guide experience was not included; however, as we started the define phase a recurring problem was observed: "We don't want to be sold to". The need for a company-agnostic guide experience for the target audience to 'join the dots' and achieve their learning goals became crucial to tie career pathways and industry discovery together. The idea of the industry guides initiative was extremely desirable with our target audiences, with 96% of all surveyed during empathy work in favour.

96%

96% of all surveyed were in favour of industry guides.

Papanui High School, Christchurch

Additional industry guides hypothesis
Deploying industry (company-agnostic) representative guides to enable career advisors and our target audiences to interact, will help young people to find and navigate a 'right fit' career, and allow the ESI and WSI to capture strong talent leads.

Prototype activities
We created co-design template activities that allowed secondary school and tertiary students to imagine the 'perfect one-day experience' and to build industry guide personas.

These activities explored key moments where guides and one-day experiences would be useful throughout the process of discovering joining the industries, how they should make them feel, information the guides/one-day experiences should provide and ultimately the goal they should help them achieve. They also aimed to identify the best messaging to suit the target audiences.

Final persona and one-day experience posters were presented and discussed with the project working group and university careers services professionals.

Workstream C: One-day experience

Lessons learnt
Ngā akoranga

"The best experience we've had like this is the 48-hour start-up, where we had to create a real business in a weekend – it was really fun and we got prizes for the end pitch presentations."

Second-year university student

"Mentor – 100% yes. There is so much to ask them about."

28-year-old male (fresh-starter)

"The day needs to be a mix of the best parts and worst parts of the jobs."

Freda, 16 years (secondary school student)

One-day experience lessons

Industry experiences need to be a highly engaging, two-way interaction

Tertiary students were interested in high-impact gamified challenges where attendees can 'sink or swim' within a simulated real-life environment, while learning the larger positive impact of what the industries achieve. Tours of worksites, interaction with real workers and social engagement time with guides were also seen as desirable. Secondary school students were interested in gamification as well, with a focus on discovery and prizes they can take home.

"Don't tell us everything – let us find out things for ourselves."

Secondary school student

"Make it like an orienteering game throughout the whole day."

Secondary school student

The purpose of guides and one-day experiences is easily defined

We confirmed that secondary school and tertiary students want to be engaged and challenged so they can make informed decisions on whether to explore an industry further, enrol in training, or gain an internship. The experience should spark curiosity in the minds of our target audiences and allow them to understand what it is like to work in ESI and WSI roles.

"This should be more about sowing the seed for them – letting them experience it early."

Careers advisor, University of Auckland

Feasibility of one-day experiences needs further refinement

Taking a single-day experience approach was useful to simplify the design process, despite much of what was designed potentially being better suited to run over multiple days. We were informed in testing, however, that if there was a refined and clear purpose, then a one-day experience could logistically be very achievable.

A 'next best step' (alongside or creating new, independent one-day experiences) is to explore how industry mentors might link student pathways to existing industry experiences. There is a risk, however, that this approach is at odds with the desirability of keeping the experience totally agnostic.

Timing is key

There is a need to find timings that balance student calendar commitments with industry availability. From our research, we discovered that secondary school industry experiences are best placed in June and tertiary experiences in April (in and around the Easter break). Fresh-starters may be able to coexist with tertiary initiatives for scalability purposes.

Workstream C: Guide experience

Lessons learnt
Ngā akoranga

Industry entry mentors (revised from industry guides)

There is merit in industry mentor experiences
On reviewing the industry entry mentor prototypes, careers professional interviewees were the first to admit that they lack the in-depth knowledge students require to gain a real understanding of what it is like to work in industry roles. For this reason they were enthusiastic about the opportunity to bring in industry-specific knowledge and experience, and to provide a more complete service to students.

While there is still some debate, 'Industry Entry Mentors' seems more fitting than industry 'guides' as it is more descriptive and differentiates from the careers advisors who 'guide' them on general careers advice. University students who we spoke to preferred the term 'mentor' also. Keeping the name descriptive also helps to clarify the exact purpose the mentors serve as well.

Industry mentor experiences will fit alongside what is already offered by careers services
Careers service professionals we spoke to cautioned about 'doubling up' on services already offered. How to write a CV, how to enrol in courses and how to approach employers, for example, are already covered. As a way of streamlining the roll-out of this initiative, careers staff suggested they may be able to upskill the industry mentors on how to engage with students effectively.

The mentors should offer complementary skills to existing career advisors in secondary schools and tertiary institutions and partner with career advisors where necessary. Existing career advisors would welcome industry mentors with open arms as they can fill capability gaps.

"We all have central careers teams; resources to help the decision making process – understanding themselves."

Careers professional, University of Auckland

Industry mentors should advise on...
Sharing the day-to-day reality of working in the industry; linking students with industry experiences; culture fits between organisations.

"I want the mentor to help bring a transparent view on company cultures so we can choose an internship that fits our cultural values."

Second-year university student

Mentors should stay focused on industry knowledge
Industry mentors should bring deep industry expertise and inside knowledge of different work cultures and day-to-day tasks.

"Something like this would complement our support ideally; we realise we are not subject-matter experts."

Careers professional, University of Canterbury

Read more about the prototypes from Workstream C on pages 93–101

Workstream C

Outputs and next steps
Haere ake nei

Workstream C outputs
- Mentor personas on pages 99–100
- One-day experience runsheets on pages 97–98

Further questions to answer
- Where do industry entry mentors 'live' (who is responsible for them and what is the governance model)?
- What are the KPIs of 'industry entry mentors'?
- In what regions should one-day experiences be held?
- Who takes ownership of the independent one-day experiences?
- How much will these independent one-day experiences cost to run?

Further actions
- Introduce an 'industry entry mentor' concept and start interacting with target audiences and career advisors.
- Test the attractiveness of 'industry entry mentor' roles (including careers engagement upskilling) to industry and industry workers.
- Define who takes ownership of the 'industry entry mentor' concept.
- Create one-day experience runsheets to understand costs, ownership and logistic realities.
- Define who takes ownership of the one-day experience in each region.

Read more about the prototypes from Workstream C on pages 93–101

Workstream D

Competency mapping
Te whakamahere matataunga

Ko tā Energy Academy whakatakinga he tōmene i te āpōpō e aru ai ngā kaimahi i ngā ara akoranga me te whanaketanga, e koke ai te whanaketanga umanga, e tārake ai te kitenga i ngā tutukitanga, e whaiwāhi atu ai hoki ki ngā ahumahi nekeneke puta noa i ngā ahumahi e āhua ōrite ana ngā pūkenga.

Energy Academy's brief was to explore a potential future where workers could take on learning and development pathways that would accelerate career development, increase visibility of achievements and allow for a more mobilised workforce across industries that require similar capabilities.

D

Contributor
Energy Academy

ENERGY ACADEMY

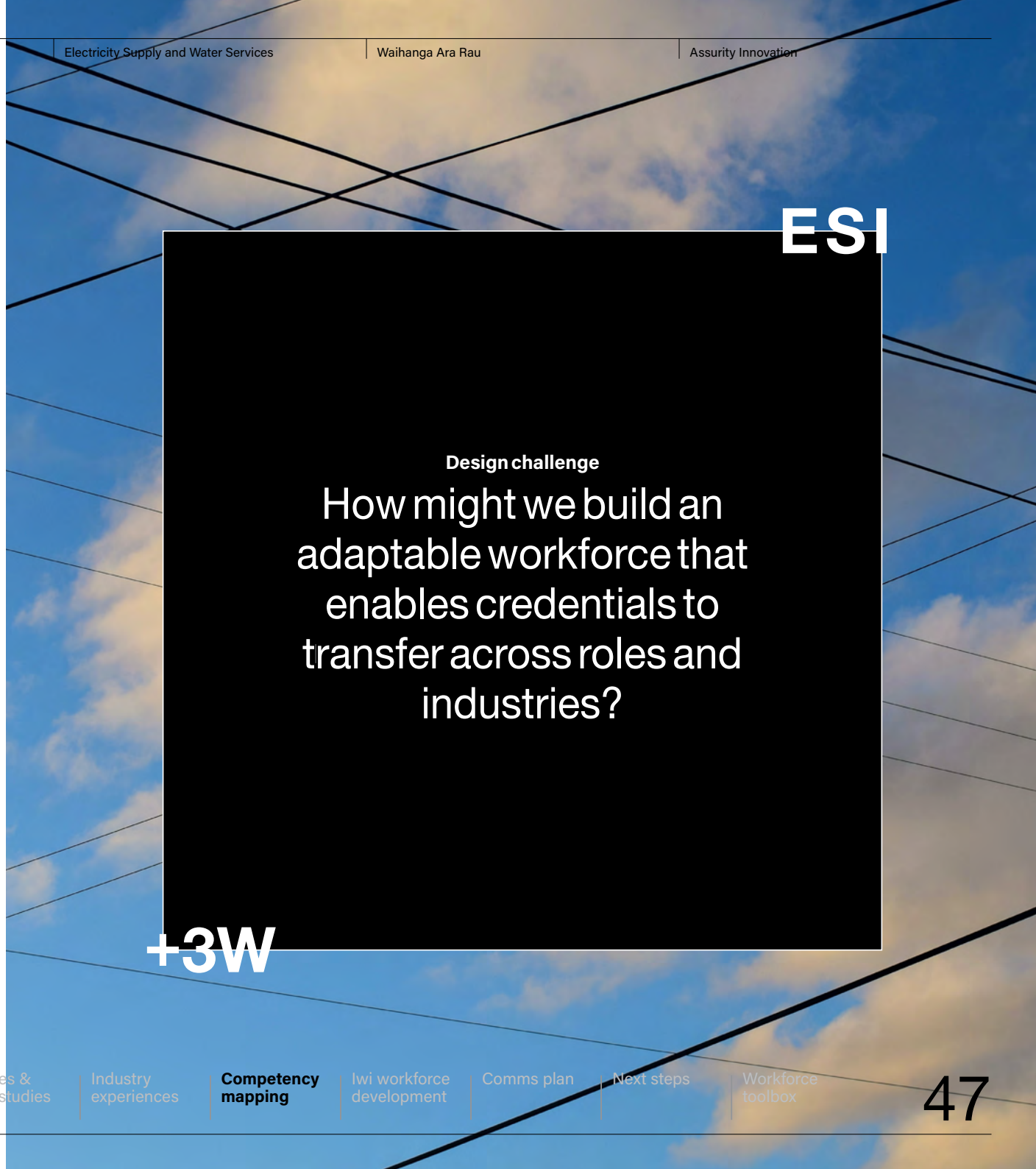
Career Change Interviewee

Workstream D

Competency mapping
Te whakamahere matataunga

Te whakarite anō i te whaiwāhitanga e hāngai ana ki ngā raruraru me ngā whaiwāhitanga o te minenga.

Reframing the opportunity to reflect the problems and opportunities of the target audiences.



Workstream D

Workstream goal & background

Ka pēhea pea tātou e waihanga i tētahi ahumahi hurihuri e whakamana ana i ngā tohu kia whakawhiti i tērā ahumahi, i tērā ahumahi?

How might we build an adaptable workforce that enables credentials to transfer across roles and industries?

Challenge
While interventions such as the Reform of Vocational Education have the aspiration of a more unified vocational education system that will bring together industry, most electricity and water organisations large enough have meanwhile developed their own internal training systems. These have already begun to move beyond qualifications with bespoke skills pathways and learning mechanisms to suit their own needs.

Portability for workers will be key to filling the shortages, both today and in the future.

These individual systems are effective; however, the disparate and fragmented nature of this patchwork only makes it harder for workers to mobilise outside of these defined roles, often sending them back to the start of a new training pathway, which is an inefficient use of time for the worker, their employer and the industry at large. Repositioning the way the sector shares knowledge and data would require a shift in the way we collaborate.

We mapped out learning pathways across two industries to find commonalities between them. This experiment showed that there could be new approaches to recognise ways to share learning for the benefit of everyone.

We have explored new ways to increase productivity and find efficiencies for workers transitioning jobs, organisations and also industries. It would require using data points based on skills rather than qualifications or jobs alone.

Opportunity
To augment the current skills framework to enable employees to efficiently move across organisations, roles and sectors while providing employers with confidence in recognising prior skills development.

Our initial hypothesis
Identifying skills clusters across two technical roles in separate industries will help to outline what barriers and opportunities there may be for full interoperability and worker mobility across roles, careers and industries.

Process
Two roles across two industries were mapped out using unit standards as stepping stones along learning and experience pathways. Common skills clusters were identified across the unit standards. The process outlined the complexities, opportunities for further exploration and the problems to be solved.

Workstream D

Competency mapping report

To view Workstream D: Competency Mapping in more detail, please refer to the separate report produced by the Energy Academy.

Download the Energy Academy report
www.energyacademy.co.nz/competency-mapping

Workstream E

Iwi workforce development
Whanaketanga ope ā-iwi

Ko ngā tirohanga waiwai o ā Waihanga Ara Rau pūrongo 'Re-energise Ngā Mahi a Māui' me 'Ko Wai Tātau' e tautuhi ana i te matenga a te Māori ki te whanaketanga o ngā ara ahumahi me ngā rautahi whanake ahumahi mā te iwi Māori ake.

A critical insight from Waihanga Ara Rau's 'Re-energise Ngā Mahi a Māui' and 'Ko Wai Tātau' reports identified the need for Māori to develop career pathways and workforce development strategies for Māori.

Contributor
Hustle Education

Hui Contributor

Workstream E

Iwi workforce development

Whanaketanga ope ā-iwi

Te whakarite anō i te whaiwāhitanga e hāngai ana ki ngā raruraru me ngā whaiwāhitanga o te minenga.

Reframing the opportunity to reflect the problems and opportunities of the target audiences.

Workstream E

Workstream goal & background

Ngā whāinga me ngā kōrero mō te Peka

Ka pēhea pea tātou e whakarere i te ao whakapākehā, e mārama kehokeho ai ki ngā mātauranga Māori anake?

How might we evolve from a slash culture and truly see industry workforces through the lens of mātauranga Māori?

Challenge
A critical insight from the 'Re-energise Ngā Mahi a Māui' and 'Ko Wai Tātau' reports, commissioned by Waihanga Ara Rau, identified the need for Māori to develop career pathways and workforce development strategies for Māori.

Māori are currently under-represented in both the ESI and WSI workforces. Growing Māori into these industries requires the establishment of safe and effective workforce development strategies and pathways that encompass te ao Māori.

Today, the experience for Māori in industry is not always positive. There is a need for existing organisations to strengthen their cultures through embracing diversity. Incorporating te reo and kaupapa Māori into organisational culture can enable emotionally safe and supported pathways for Māori to move into skilled roles and to unfold their careers. With unprecedented sector growth and labour shortages, how might rangatahi be welcomed into industry to help meet anticipated workforce growth?

Opportunity
Our industries and organisations need to create opportunities to enable Māori to succeed. Te ao Māori includes a sophisticated understanding of the holistic need to take care of our water and resources, and this is inherently linked to the wellbeing of people and culture. Mātauranga Māori practices provide a valuable lens through which to guide our management of electricity and water, providing opportunities for Māori-specific roles.

How might we create opportunities for mātauranga and tikanga Māori to be recognised as an area of specialisation?

There are iwi initiatives in place today that are designed to support Māori and rangatahi into long-term and sustainable vocational pathways.

How might we celebrate and amplify these successful initiatives so that they might be replicated and scaled across industry?

Our initial hypothesis
Exposing case studies and exemplars of Māori workforce engagement and development can enable industry to replicate these initiatives and create greater safety and support for rangatahi transitioning into industry.

Target audience
Iwi, hapū and rangatahi Māori with a curiosity to explore how their knowledge of Te Mana o te Wai and te ao Māori might be expanded into a valued professional career within the ESI and WSI.

Workstream E

Tūhuratanga Tirohanga

The iwi workstream launched formally with a hui held in June 2022. This provided a forum for Māori leaders and industry experts to present their own perspectives and workforce experiences. The intention was to guide and inform the development of safe and effective workforce development strategies for Māori and their rangitahi.

The subsequent whakaaro defined what success looks like for iwi and hapū, industries, communities and ultimately Aotearoa. It also identified clear challenges and opportunities to transition towards a more complete and representative workforce experience for Māori.

The desired outcome was to create the brief for the future project and to then engage a chosen Māori consultant/practitioner/company to develop the initiatives.

There was a clear point emphasised, however, that this group does not represent all iwi, hapū or rangatahi Māori. What was shared was rather their own whakaaro and ideas based on personal experience. The intention of these whakaaro is to make a positive start towards empowering the Māori workforce.

1

Mana motuhake

There is a strong desire for Māori to maintain mana motuhake in the electricity supply and water services spaces. From training, through to the industry itself, Māori know what's best for Māori. Today, many pathways fail to cater for the needs of rangatahi, tempering promotion of pathway options to Māori.

It was also noted that Māori feel safe and valued at Te Wānanga o Aotearoa and the question was asked: what role (if any) can they play in creating safe spaces for Māori to train and prepare to enter the water industry? Can their current structures be re-engineered in order to become more relevant in the water industry training space?

"Our rangatahi are not a careers experiment. We are getting broken down all of the time by these experiments. Don't break my tamariki by pushing them into an industry that is not ready for them. We put them in with good intentions and the opposite always happens."

Hui participant

Workstream E
Tūhuratanga Tirohanga

2

Mātauranga Māori
Industry must be prepared to allow for mātauranga Māori to be a central part of engagement with Māori. Is the industry able to make requisite changes in time to enable Māori to prosper and grow in industry to help meet anticipated workforce shortages? Is the industry ready to accept mātauranga Māori? Matariki is an example today of the celebration of mātauranga Māori within Western culture and shows a key to how these industries might embrace mātauranga Māori today.

How can we ensure the protection of intellectual property – in particular, our pakiwaitara and kōrero about wai?

Māori are not stakeholders who engage with the Crown; Māori (iwi) are partners with the Crown. That means shared decision-making and co-design, not just consultation. We need to protect and promote Māori intellectual property with this too. Mātauranga must be used to engage with Māori, but not used as a vehicle to commercialise Māori intellectual property without iwi.

Our kōrero tuku iho and mātauranga Māori are tapu, and are not there to be appropriated by non-Māori.

How can we create opportunities for tikanga and mātauranga Māori to be recognised as an area of specialisation?

We need to create potential for Māori to succeed using mātauranga Māori and, better yet, for that mātauranga to be shared on our marae around Aotearoa. We have an opportunity to re-engage our rangatahi with their marae, pā and papa kāinga.

"The message here is: trust Māori. We know what we are doing. Get out of the way and let us do it now. We have to do it now anyway because the cost of not doing it has become too great for us."

Hui participant

3

Pūrākau
Recognise that Māori are not homogenous and that iwi have different pūrākau, whakapapa and mātauranga around wai. One size will not fit all. Recognise that mātauranga Māori has the same mana as Western science.

Until industry is prepared to understand how mātauranga Māori can be embraced we won't make forward progress.

4

Kaitiaki
Recognition of Te Mana o te Wai. It has whakapapa and those narratives must be told in the right way, in the right place and by the right people (mātanga). We need to ensure every iwi has their own mana motuhake and is empowered to share their own resources and intellectual property as they see fit.

Workstream E
Tūhuratanga Tirohanga

5

Tikanga Māori
If a system for Māori by Māori is to exist, it may need to sit outside of the Western system and not necessarily within it. This is particularly so if Western organisational systems cannot hold tikanga Māori and guarantee protection of taonga such as pūrākau in their entirety. How much tikanga can industry absorb so that it is both acceptable for Māori and Pākehā? Is it possible to create a system that is equitable for both Māori and Pākehā and what tactical steps will make meaningful progress towards this?

"We need to be open to sitting with our hapū and understanding their respective needs. Everything we do is seen through the lens of manaakitanga and aroha. We need to be able to create our own economy and system that builds jobs around the marae. The koha economy has killed us."

Hui participant

6

Partnership with iwi

"Māori consultants do not speak on behalf of iwi, however that's a good place to begin. More consultation will be required to properly engage iwi. This kōrero is a starting point. Kaitiakitanga lies with iwi and hapū. It is theirs and theirs alone. You will need to take this to iwi and that journey is yet to come."

Hui participant

There were some great initiatives highlighted that are already taking place within iwi, designed to support rangatahi and other iwi members into long-term and sustainable mahi. There is an opportunity here for industry and workforce development councils (WDCs) to partner and communicate with iwi around the long-term career opportunities that are open to rangatahi, so that iwi can pivot and support their own people into long-lasting, meaningful pathways of mahi.

Any consultation with Māori must also allow reasonable time and resource to take kōrero back to their people for further feedback and wānanga in order to truly capture the voice of iwi and hapū.

7

Connected workforce
The current sector-based division of workforces is not intuitive to Māori, who view all things as interconnected and as parts of one complete system.

"For us, everything overlaps. We don't have 'sectors'. There is a lot of confusion, for example, around the complexity of what Three Waters is and which agencies are involved. The whole interconnectedness of our system is greater than what is currently understood. All of the other WDCs need to be in this kōrero; we are all stronger together. Today all of these divided government panels lock out Māori providers, hindering our growth."

Hui participant

"Our rangatahi are getting confused with what is best for them; we (the industry) are tripping over ourselves. We need to be starting early at childhood and influence them early. Engaging tamariki is a long-term game."

Hui participant

Workstream E
Tūhuratanga Tirohanga

8

Kaitiakitanga
Some thinking needs to be done around how the water industry changes will affect marae. How can we resource marae to cope with the changes that are coming?

"Te Mana o te Wai will be in a new workforce with whānau working in this space. Who is going to inform them and write these statements? Who will activate pathways for them? Who will monitor their progress for improvements? Who will engineer and design new systems from the top of the mountains to the sea below? There is a role here for iwi, hapū or marae to guard intellectual property for ourselves; we need to grow our own people while protecting our unique IP."

Hui participant

While there is legislation that ensures at least five per cent of procurement is awarded to Māori-owned businesses, there is still a barrier to entry for many of our whānau businesses. It is vital that Māori-owned enterprises play a leading role in the ESI and WSI sectors – from training, to infrastructure, to consultation.

9

Slash culture
Slash culture refers to narrow and overly literal interpretations of Māori terminology, which limits the true meaning to flourish. Māori concepts such as kaitiakitanga, manaakitanga, whānaungatanga and aroha must be embedded as they are. Industry needs to understand that kaitiaki and other Māori concepts have a much deeper and richer tapestry and meaning than their slash equivalents such as 'kaitiaki/guardian.'

Given that there is a desire to imbed mātauranga Māori and tikanga Māori into the industry, and leave slash culture as a relic of the past, it goes without saying that there is also a need to invest into education and training around te reo Māori and its usage. We need to think about the development of a te reo Māori strategy and how that might be rolled out across the industry.

Workstream E
Tūhuratanga Tirohanga

10

Aroha and manaakitanga
Many rangatahi inherit generational expectations around career pathways. "My koro was a road-worker, and my dad's a road-worker, so I'm going to be a road-worker too." So how might aroha and manaakitanga concepts feature in the water sector moving forward? Rangatahi have their own raru. When industry comes and says "I want to tell you about the water industry" their natural response is "I don't care". We need to make rangatahi feel like we are putting them first. Before we ask them for anything we must start by taking an aroha- and manaakitanga-led approach to build trust with them. Our job is to serve and protect our rangatahi coming up. They are not there to serve us.

"Is industry ready and prepared to accept this change? In reality, no we are not. We need our own system as other systems have failed us. And this change needs to happen at the most senior levels... This will be a critical step towards building emotionally safe work environments for Māori. We need to have real change at the top; it can't just look different on the outside."
Hui participant

There is a concern that any industry pathway that is 'half-baked' will inevitably fail Māori. Therefore, there is a reluctance to send a whole generation of Māori into an industry that is not yet ready to accept them for who they are and appreciate all that they might bring to the table.

Better pastoral support is required at secondary school to prepare our rangatahi for life after kura. In many cases they may be the first in their whānau to enter a new industry, so we need to ensure that we are supporting them to prepare for and navigate that transition into tertiary study and eventually entering the workforce.

We need to ensure that industry is a safe place for our people before we feel comfortable sending them there. There needs to be stronger support within the industry around te reo Māori and kaupapa Māori. This includes Māori mentors to work with senior experienced workers, but especially to take care of and guide junior workers entering the workforce as well. We cannot allow, for example, our brilliant rangatahi to become the go-to people for all things Māori or to become the company te reo Māori translator, by virtue of their whakapapa, when they have trained or specialised elsewhere within the industry.

Workstream E

Concept design
Te whakawhanake ariā

To date, the project team has generated a series of ideas to progress into prototyping and testing. These early ideas are captured below and will be developed to test for potential beyond the end of this phase.

"We need to be able to elevate the cultural aspects of Māori that make us 'us'. What are universities doing to prepare for te ao Māori? We don't want our rangitahi to be all things Māori for these businesses. We don't want them to come into the wrong culture. We need to meet them halfway – both top-down and bottom-up. Our true value is realised under Te Mana o te Wai; it's now about building a critical mass of skilled Māori."

Hui participant

1

Prepare industry for cultural change
For effective real change, there needs to be a top-down and bottom-up approach where people experience kura kaupapa Māori, kura-ā-iwi and te ao Māori and gain real empathy for Māori. These ideas are intended to assist industry leaders and other employees to create a safe working environment to enable Māori and other ethnicities to feel confident and thrive.

Ideas include:
- Te reo Māori courses
- Experiential visits to kura kaupapa, marae, pā, papa kāinga
- Māori in workplaces
- Organisational grounding in mātauranga Māori translations

There is a need for top-down and bottom-up approaches for Māori workforce development. This will require industry to recognise the unique ability and skills that our kura kaupapa graduates bring, and see them as valuable and desirable for technically skilled roles. How will industry connect with kura kaupapa and let them know that their unique skill sets are appreciated and in demand?

2

WDC Kaitiaki Board
The purpose of the WDC Kaitiaki Board is to be the partner for the workforce development councils (including Waihanga Ara Rau) to understand and connect with different iwi and weave tikanga Māori and pūrākau into the industry narrative. This will create a more intuitive career pathway for Māori, linking manaakitanga to traditional corporate job roles and descriptions, integrate mātauranga Māori, guide talent development and protect intellectual property.

3

Case studies
There are many great examples of how organisations and society as a whole have prospered by integrating mātauranga and tikanga Māori. Some case study opportunities that could be highlighted include Downer's Māori leadership course, Watercare's partnership with Tainui, and Matariki affording mātauranga wider recognition by now being recognised as a public holiday.

Case studies can be used as a 'how-to' guide to inspire industry organisations to celebrate and embrace diversity. Seeing the need for diversity as a business cost is naive: it's true that creating safe environments to enable diversity to flourish does require new resourcing and initial investment for many; however, the benefit of long-term cultural diversity is improved commercial profitability and performance. Case studies need to highlight both cultural and business outcomes available through mātauranga Māori.

"Organisational diversity improves culture and business performance. We need to help industry understand it can really unlock its culture through embracing te ao Māori."

Hui participant

Workstream E
Prototype development
Te whanaketanga tauira

4

Identify future roles
To maximise the impact of iwi in the industry, we must understand what roles will be key in the future for Māori to start preparing for. There are short-term skills shortages which have historically been filled by immigration. In the long term, we need to fill skills shortages with rangatahi who are coming through instead of continuing to look overseas for ready solutions. The challenge is ensuring that rangatahi and Māori are able to grow into skilled roles and leadership positions that culturally reflect a new model of co-governance.

"Te Mana o te Wai underpins the development of a light rail crossing to the North Shore for example. We have to progress the workforce regardless. What are the new roles? We need to understand this and be prepared. What does this look like for Māori? We don't want Māori filling up the labour market; are we protecting roles in leadership for Māori?"

Hui participant

5

Māori provider ecosystem map
How might we develop a plan where everyone wins together? How might iwi, industry and Māori businesses work in collaboration so that everyone prospers? Consider developing a map that breaks down the water industry's anticipated growth and employment needs at a regional level, so that businesses can start planning now for the next five to ten years.

"We need to be mindful of how we bring all of this together, and be aware that the water industry needs moving forward. We need a Māori ecosystem that brings our world together; we need more participation in these industries going forward. We need a map that shows water infrastructure investment over the next ten years, and how, for example, Waikato, Tainui and Watercare are investing and collaborating to ensure everyone does well."

Hui participant

"We still need to get past the white noise that is out there. We need better messaging. The narrative is not great at the moment. Te Mana o te Wai counts, regardless of reforms."

Hui participant

Workstream E
Prototype development
Te whanaketanga tauira

6

Integrate & connect Māori organisations
Create opportunities to connect with TupuToa and look to integrate more purposefully with organisations already helping rangatahi into industry. Consider developing a similar programme to TupuToa with the water industry in mind.

"There are organisations starting to address Māori pathways such as the TupuToa university programme that help Māori graduates into professional placements. They offer kaupapa into the professional sectors and roles into organisations such as ASB Bank and Air New Zealand and they are growing throughout New Zealand. We should sponsor these organisations so they can do even more."

Hui participant

7

Design a Māori business model
The Water Services Act means that industry must give effort to Te Mana o te Wai. Therefore, Te Mana o te Wai will feature, regardless of what happens with the Three Waters Reform. It is here now. Without having a good understanding of this space, businesses will not succeed beyond the tender process.

"What does the Māori side of this transformation look like? How will they support marae with the changes? What is happening internally? Some of our organisations only have one Māori working for them presently. It's a massive opportunity to own part of this space. We need to move on from being advisors and become architects of this opportunity. With $280 billion tabled investment coming in, how much of it will be for Māori? How do we set this up for each business and ensure procurement practices are improved? We need it to be 'by Māori, for Māori' in business itself. What does a Māori entity look like that can respond and deliver to these opportunities?"

Hui participant

Outputs (next steps)
More work needs to be done, including continued facilitation of iwi and hapū partnership through appropriately planned and timed co-design activities.

Given that the intention and desire is to develop initiatives for Māori by Māori, a suitable Māori consultant/consultancy/partner is being sought to further investigate and action the recommendations from the discovery phase. Assurity is providing support to progress this workstream and liaising with a core team of Māori advisors to direct this project.

Communications plan
Mahere kōrerorero

Kua whakatakotohia motuhaketia nei ngā rautaki whanaketanga ahumahi mō ESI me WSI – mātāmua mai a Re-energise – Ngā Mahi a Māui, mātāmuri nā a Ko Wai Tātau – We Are Water.

The workforce development strategies for the ESI and WSI have been presented as independent strategies – respectively, Re-energise – Ngā Mahi a Māui and Ko Wai Tātau – We Are Water.

Challenge
The workforce development strategies for the ESI and WSI have been presented as independent strategies – respectively, *Re-energise – Ngā Mahi a Māui* and *Ko Wai Tātau – We Are Water*.

Many of the challenges identified in each strategy, however, are not unique to the electricity supply and water services industries. These two industries are leading the way and creating solutions that may also benefit other sectors.

To fully realise the potential that has been unlocked by this project, it is important that the recommendations and possible next steps are well understood across both industries. Clear communication will be key to this.

Opportunity
The ESI and WSI both face similar challenges in workforce development. To communicate these challenges, and what actions are being taken to address them, a multifaceted communications approach will be required to industry in the short term, and to potential employees in the medium to long term.

There is a powerful story to tell about the ESI and WSI collaborating to realise some of the recommendations outlined in this report.

Both industries share a unique sustainable cause, with decarbonisation in the electricity supply industry, and clean waterways and access to clean drinking water in the water services industry.

They are aligned in this regard from the point of view of someone outside of both industries who is looking to work in an area of society that delivers to a cause. Work to date has shown that this is an area of importance for the next generation of employees.

Process
To highlight the opportunities in both sectors, there are two different audience groups that need to be engaged:

- Short term: The ESI and WSI, which need to understand the importance of ensuring a pipeline of talent is created to fill future roles, and take the recommendations forward and implement them as funding allows; and
- Medium to long term: Potential employees who may be seeking employment, who need to understand the opportunities available to them and how they can realise these.

A 'discovery' workshop held in June 2022 with communications professionals from Waihanga Ara Rau, Connexis, and representatives from the ESI and WSI – Water New Zealand, Electricity Engineers' Association (EEA) and Counties Energy – helped to define a brief for future communications activity.

An industry-focused communications plan has been developed in consultation with this group, outlining how this project will be communicated within organisations that have played a part in the development of each strategy and across the entirety of each industry.

Once recommendations are implemented by the industries, a multifaceted communications plan will need to be developed to engage with potential employees.

Communications plan outputs
A communications plan has been developed to be shared with industry partners and implemented beyond the timing of this report.

Next steps
Haere ake nei

It is important that the mahi does not end with the completion of this project and Waihanga Ara Rau will continue to work with each industry to continue the discussion and implement the frameworks that have been developed as part of this project.

1

Iwi workforce development

Continue the mahi with the Māori workstream and further develop the recommendations from this report. This is an important workstream and it will take time to get the formula right.

2

Communications

Continue to spread the word across the two industries in regard to the valuable mahi that has been undertaken over the three projects to date. This will align with the communications plan that has been developed.

3

Industry assets and frameworks

Work with the ESI and WSI sectors to utilise the frameworks and assets that have been developed. This will take additional investment by industry and a willingness to collaborate across each sector. Waihanga Ara Rau will continue to work with these sectors through the Strategic Reference Groups that have been established.

Acknowledgments

Project team
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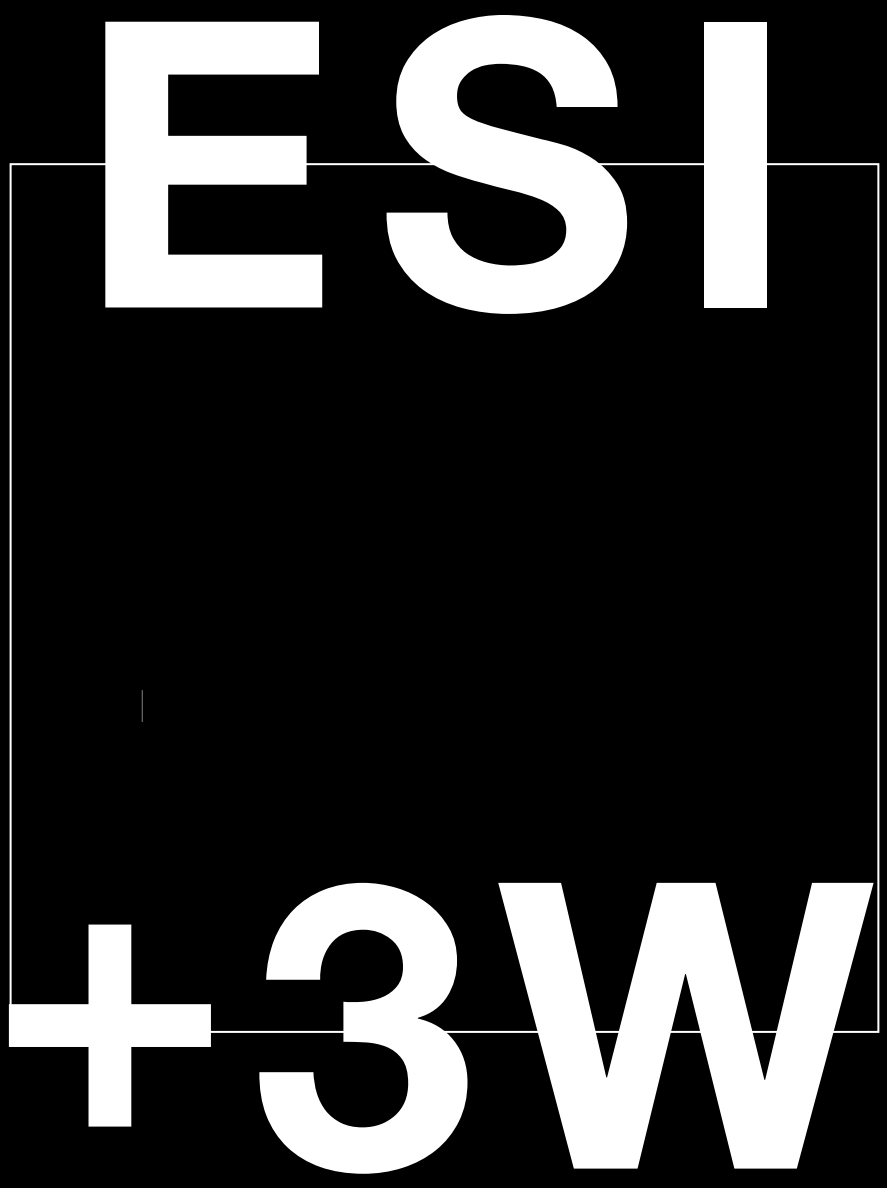
Workforce toolbox

Detail on the prototypes tested with users, together with tools for the ESI and WSI industries to use.

Contents



Future user journey blueprint

Tātauira ara kaiwhakamahi

UNAWARE — EMPLOYED

	INSPIRATION	EVALUATION	INVESTIGATION	ACTIVATION	RE-EVALUATION
STAGE DETAILS	**8 - 14** When I grow up I could be...?	**15 - 16** What's possible for me?	**17 - 18** What opportunities are available as I work towards my best-fit career?	**19 - 22** What is the best-fit career for my aspirations and values?	**23+** Is this my career for life?
STAGE GOAL	I am curious to learn more about electricity and water	I am optimistic about my opportunities beyond school	My skills are valued and in demand in these industries	It's time to move forward with one of these organisations who have helped me	My previous life experience will quick-start me in these industries
PHYSICAL & DIGITAL EVIDENCE EXISTING	Wonder Project Classes Parent-Teacher Events Careers Evenings	School Career Advisors Gateway	Internships Gateway Trades Academies Girls with Hi-Vis	Tap On Tap Off Internships Uncoordinated Industry Events Seek.co.nz & Careers.govt.nz Tuputoa	Organisational Career Platforms Inconsistent Competency Frameworks Seek.co.nz & Careers.govt.nz
FROM	I have a narrow perception of what I can be	I'm struggling to see the relevance of what I am being taught at school	Trades are a dead-end job and I'll be doing the same thing for the next 20 years	I hear there is a job shortage, but I can't find anyone to offer me an internship	You want me to start again? I've been working for 10 years!
NEW	Wonder Project Water Classes Year 10 Expanded Trade Class	Infrastructure Website - Secondary School Infrastructure Website Pathway Tool Infrastructure Entry Mentor Experience One-day High School Experience Case Study Videos Instagram Advertising Careers.govt.nz Api	Infrastructure Website - Secondary School Infrastructure Website Pathway Tool Infrastructure Entry Mentor Experience Career Starting Jobs With Purposeful Part-time Work Instagram Advertising	Dedicated Year 2 Guest Lecture Infrastructure Website - Tertiary Infrastructure Entry Mentor Experience One-day Tertiary/Fresh-starter Experience Consistent Tap-On Internships Instagram Advertising Tertiary EDM Infrastructure Website Pathway Tool	Infrastructure Website Pathway Tool Infrastructure Website - Fresh-starters Infrastructure Entry Mentor Experience Instagram Advertising One-day Tertiary/Fresh-starter Experience
	 *"I just want to understand how things work and why it's important."* Year 10 - Primary School Student	 *"I want you to encourage me to think for myself and to start taking risks."* Year 12 - Secondary School Student	 *"I thought about an apprentice-ship but that's 20 years of doing the same thing every day. You don't see yourself moving up as you do in other industries."* Final-year Secondary School Student	 *"I can't graduate without doing an internship of 800 hours but I haven't been able to find one. I'm constantly looking through Seek and job search websites."* Third-year University Student	 *"I was in civil and construction for 10 years but there were no qualifications to prove my worth. I had to start from the bottom and work my way through it again."* Live Glove & Barrier Line Mechanic
TO	I have formed a positive stereotype about my long-tern capabilities	I am prepared to try a few things out to expand my career opportunities	These careers seem flexible and exciting to me	I can see several clear industry pathways in front of me	It's effortless to switch to these industries and really open up my career opportunities
USER ACTION	Participates in school programmes designed to highlight the importance of water and energy. Understands that these programmes can extend into work careers	I am pushing myself to take subjects I might not normally do, to keep my options open with trades or study	I'm trying to learn what I can to make informed decisions. I talk with friends and family, but I still don't know what I am looking for	I'm starting to juggle casual work, study and live my life	I'm trying to firm up career security and evaluate these industries against a couple of offers
VISIBILITY LINE					
BACKSTAGE ACTIVITY	• Coordinate and capture data with Wonder Projects • Coordinate Year 10 expanded trade class	• Monitor website analytics • Health and safety release forms • Secondary school student release forms • One-day experience runsheet secondary school • Communication messaging strategy targeted at secondary school students • Log one-day experience attendee data • Log mentor/student interactions • Sign SAPS/RAMS Risk Management forms	• Log mentor/student interactions • Communication messaging strategy targeted at secondary school leavers • Monitor website analytics • Provide purposeful part-time starter pack	• Coordinate Year 2 guest lecture • Communication messaging strategy targeted at tertiary students • Monitor website analytics • Log mentor/student interactions • One-day experience runsheet tertiary/fresh-starter • Log one-day experience attendee data • Health and safety release forms	• Monitor website analytics • One-day experience runsheet tertiary/fresh-starter • Communication messaging strategy targeted at fresh-starters • Log one-day experience attendee data • Log mentor/fresh-starter interactions • Health and safety release forms
RACI	Responsible: To be determined Accountable: To be determined Consulted: To be determined Informed: To be determined	Responsible: To be determined Accountable: To be determined Consulted: To be determined Informed: To be determined	Responsible: To be determined Accountable: To be determined Consulted: To be determined Informed: To be determined	Responsible: To be determined Accountable: To be determined Consulted: To be determined Informed: To be determined	Responsible: To be determined Accountable: To be determined Consulted: To be determined Informed: To be determined

Workstream A

Industry pathways
Ngā ara umanga

Te whaiwāhi atu ki ngā ara ahumahi ESI me WSI.

Making the ESI and WSI career pathways accessible and intuitive.

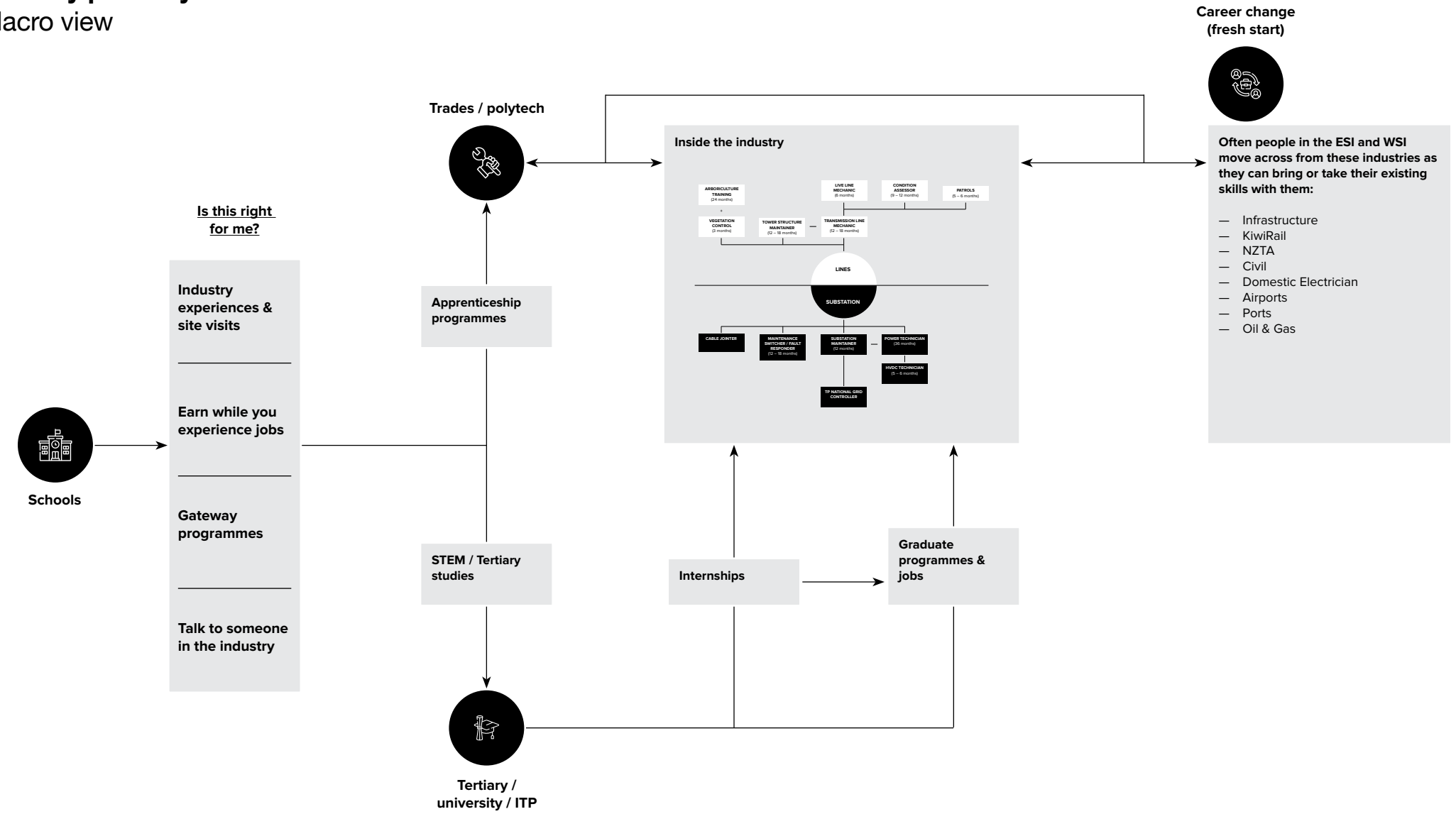
A

Third-year engineering student, University of Auckland

Workstream A

Industry pathways

Macro view



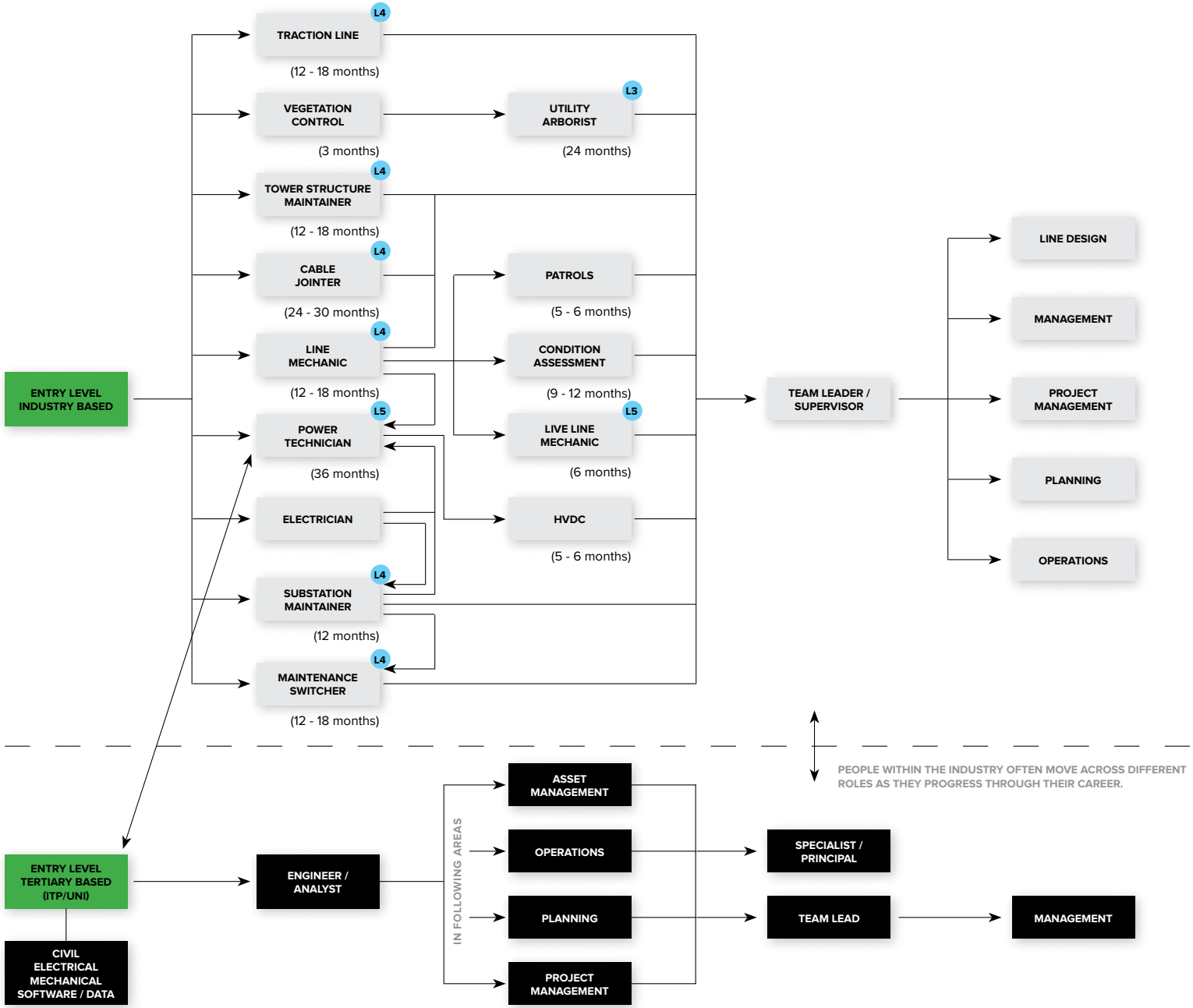
Workstream A

ESI pathways
Micro view

Every pathway is different and unique to the individual. Here, we have tried to depict visually the typical pathway into the industry with the entry roles and how you could progress in each. Often employees jump from one career path to another as they progress through their career in the industry, giving them an opportunity to explore other areas of the business.

LEGEND

- Potential entry points into the industry
- L2 NZ Certificate in Electricity Supply (Introductory)
- L3 NZ Certificate in Utility Arboriculture (Electricity Supply)
- L4 NZ Certificate in Electricity Supply (Cable Jointing High Voltage)
- NZ Certificate in Electricity Supply (Line Mechanic Distribution)
- NZ Certificate in Electricity Supply (Transmission Line Mechanic)
- NZ Certificate n Electricity Supply (Network Control)
- NZ Certificate in Electricity Supply (Fault Response and Switching)
- NZ Certificate in Electricity Supply (Operation)
- L5 NZ Certificate in Electricity Supply (Distribution Live Line Glove and Barrier)
- NZ Certificate in Electricity (Transmission Live Line)
- NZ Certificate in Electricity Supply (Power Technician)



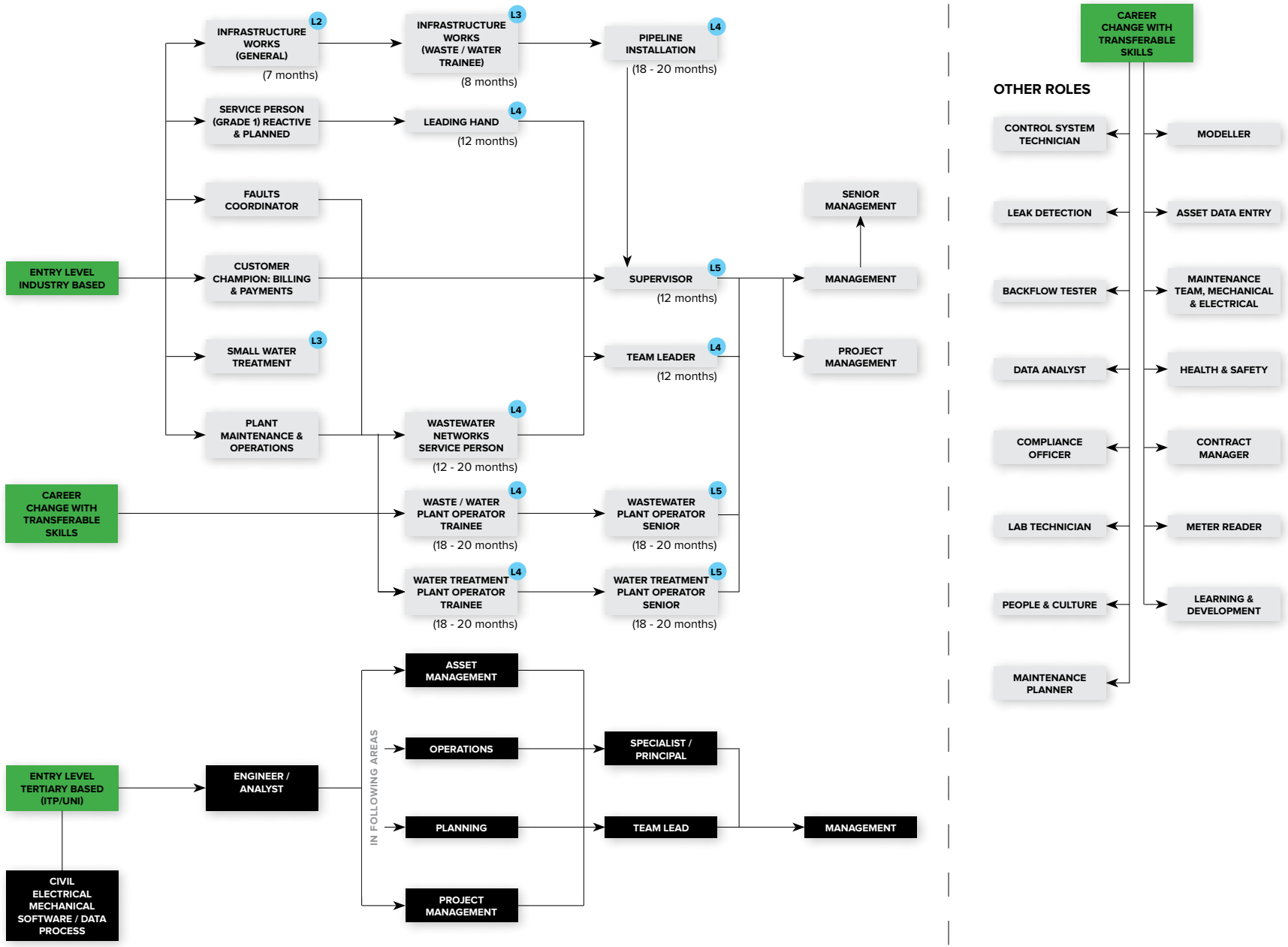
Workstream A

WSI pathways

Micro view

LEGEND

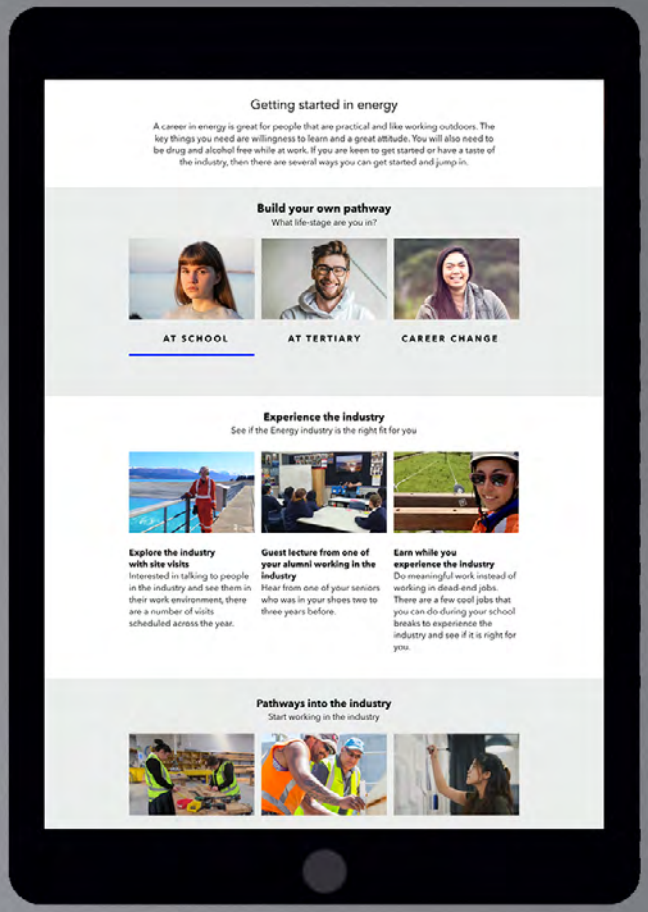
- Potential entry points into the industry
- L2 New Zealand Certificate in Infrastructure Works
- L3 New Zealand Certificate in Infrastructure Works
  - NZ Certificate in Water Treatment (Small-scale Systems)
- L4 NZ Certificate in Infrastructure Works (Pipeline Construction and Maintenance)
  - NZ Certificate in Infrastructure Works (Pipeline Installation)
  - NZ Certificate in Infrastructure Works (Single Site Supervisor)
  - NZ Certificate in Drinking-water Treatment
  - NZ Certificate in Wastewater Treatment
  - NZ Certificate in On-site Wastewater Management Systems Design
- L5 NZ Certificate in Infrastructure Works Contract Management
  - NZ Certificate in Infrastructure Works Projects
  - NZ Certificate in Drinking-water Supply (Assessment)
  - NZ Diploma in Drinking-water Treatment
  - NZ Diploma in Wastewater Treatment
- L6 NZ Diploma in Engineering
  - NZ Diploma in Engineering Practice
- L7 Graduate Diploma in Engineering

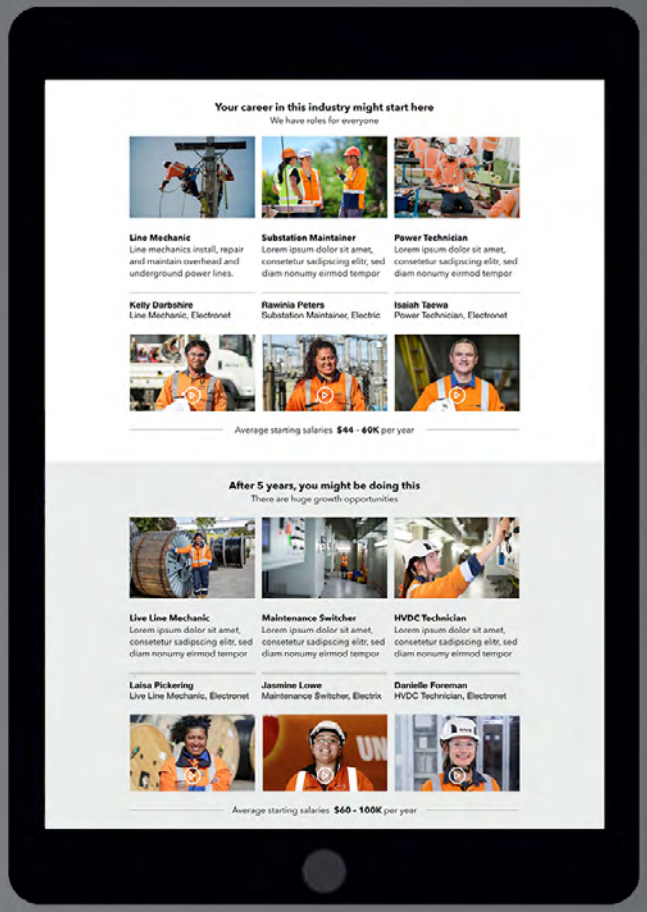


Workstream A

Build your own pathway prototype

What life-stage are you in?





Workstream A

Industry pathways
Customer validation

We co-designed the pathway concepts with customers and industry stakeholders. These evolved through these interactions, and some key insights and feedback are captured here.

What they loved

"I go through this visual, and that's pretty much where people are focused in terms of starting a career within the industry. As you grow, you morph into different roles, but I think this is a really good start. We could add more and complicate this as much as we'd like, but we want to keep it simple."
Industry stakeholder

"It's quite simple but specific and specific to what my experience would be. And this is more immediate and I don't want to go through many different things. Like if I'm just a graduate about to graduate, I can immediately see the Graduate Programme. So it seems most useful and the one I'm most probably likely to interact with."
Fresh-starter

"Obviously, the salary range is a big one. I think that's probably for most people. People don't go to work for love normally; maybe some do. But at the end of the day, people go to work to be remunerated. The more remuneration they get, the more choices in life they get."
Fresh-starter

What could have been better?

"My initial reaction is to have all the industries together, so you don't have to go looking for it – especially if you're a school leaver who did little technological stuff or mechanical engineering in school and don't know where to go next. I don't have to pick, and I'd like to see what the options are."
Apprentice

"Overall impression I get is there's an intellectual pathway, and I've got a physical pathway, and that disturbs me. The real historical pathway was people who worked in field roles were welcomed into non-field roles – not only in their own organisation but other organisations as well because that level of experience and intimate knowledge you bring into a non-field role is incredibly valuable."
Industry stakeholder

"It will be nice to see the different sorts of roles that are available in the different industries. It'd be nice to see water, wastewater, electricity, all that sort of thing. Also, what do you need to do to start, like prerequisites? What sort of education do I need? Should I be going to trade class or that sort of thing?
Apprentice

What ideas did they have?

"I think it's a good idea if we're able to talk to someone in the industry before joining because they get a bit more clarity on what that role actually is and what the job is about. It's gonna help."
Recent employee in water industry

"We had some guys come through as work experience on a six-week programme. I wasn't making them jump on a shovel for eight hours a day and treating them like actually on my payroll. These guys literally just came in, and it was more of a fun day for them. Probably more of a pain in the arse for me because I've had someone on site that I was getting no productivity out of. At the same time, these guys were actually really good. I think all three of them are somewhere in the industry as they all ended up getting the job."
Team leader in ESI

"And it would be cool to have a point of contact in the school to go back from there. Like I looked at this website and I was interested in this; go talk to that person about it. I know, my school had like a careers advisor. I don't know how good she was, but someone like that."
Apprentice

Workstream A

ESI: Build your own pathway

What life-stage are you in?

AT SCHOOL | AT TERTIARY EDUCATION | LOOKING FOR CAREER CHANGE

Experience the industry

01 **Explore the industry with site visits**
Interested in talking to people in the industry and see them in their work environment. There are a number of visits scheduled across the year.

02 **Guest lecture from one of your alumni working in the industry**
Hear from one of your seniors who was in your shoes two to three years before.

03 **Earn while you experience jobs**
Do meaningful work instead of working in dead-end jobs. There are a few cool jobs that you can do during your school breaks to experience the industry and see if it is right for you.

04 **Find a buddy/guide in the industry**
We have many industry members willing to offer support and clarify any questions you might have. You can have a remote meeting or grab them for a coffee!

Start working in the industry

01 **Earn NCEA credits with Gateway programmes**
Gateway lets you trial the industry, meet lots of really cool people and check out how things work, and you get to earn NCEA credits while you are at it!

02 **Earn while you learn with Apprenticeship programmes**
Apprentices earn significantly more in the early stages of their careers. They purchase a home earlier and for the majority of their careers have a higher net financial position than holders of a bachelor's degree and above.

03 **Pursue STEM subjects or tertiary education**
Mechanical, Civil and Electrical engineers are the ones who mostly join the industry after their graduation.

Your career in this industry might start here:

VEGETATION CONTROL | LINE MECHANIC | TOWER STRUCTURE MAINTAINER | CABLE JOINTER | MAINTENANCE SWITCHER | SUBSTATION MAINTAINER | POWER TECHNICIAN

Average starting salaries **$44K – $60K** per year

After 5 years, you might be doing this:

ARBORICULTURE TRAINING | LIVE LINE MECHANIC | PATROLS | CONDITION ASSESSMENT | HVDC | TEAM LEADER / SUPERVISOR

Average salaries **$60K – $100K** per year

Workstream A

ESI: Build your own pathway

What life-stage are you in?

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Start working in the industry

01 **Learn and work in the industry through an internship programme**

02 **Start in the industry with graduate programmes and jobs**

Your career in this industry might start here:

ENGINEER / ANALYST

Start as an engineer or analyst in any of these areas:

ASSET MANAGEMENT | OPERATIONS | PLANNING | PROJECT MANAGEMENT

After 5 years, you might be doing this:

SPECIALIST / PRINCIPAL | TEAM LEAD

Workstream A

ESI: Build your own pathway

What life-stage are you in?

AT SCHOOL | AT TERTIARY EDUCATION | **LOOKING FOR CAREER CHANGE**

Experience the industry

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02 **Industry meet-ups**

03 **Find a buddy/guide in the industry**
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Start working in the industry

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Apprentices earn significantly more in the early stages of their careers. They purchase a home earlier and for the majority of their careers have a higher net financial position than holders of a bachelor's degree and above.

02 **Bring your existing skills and qualifications into the jobs**

Your career in this industry can start anywhere, based on your background

ENGINEER / ANALYST | VEGETATION CONTROL | LINE MECHANIC | TOWER STRUCTURE MAINTAINER | CABLE JOINTER | MAINTENANCE SWITCHER | SUBSTATION MAINTAINER

ARBORICULTURE TRAINING | LIVE LINE MECHANIC | PATROLS | CONDITION ASSESSMENT | HVDC

SPECIALIST / PRINCIPAL | TEAM LEADER / SUPERVISOR

Workstream A

WSI: Build your own pathway

What life-stage are you in?

AT SCHOOL | AT TERTIARY EDUCATION | LOOKING FOR CAREER CHANGE

Experience the industry

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Mechanical, Civil and Electrical engineers are the ones who mostly join the industry after their graduation.

Your career in this industry might start here:

SERVICE PERSON (GRADE 1) REACTIVE & PLANNED | FAULTS COORDINATOR | CUSTOMER CHAMPION: BILLING & PAYMENTS | WASTEWATER NETWORKS TRAINEE | WASTEWATER PLANT OPERATOR TRAINEE | WATER TREATMENT PLANT OPERATOR TRAINEE

After 5 years, you might be doing this:

SENIOR | TEAM LEADER / SUPERVISOR | LEADING HAND

Workstream A

WSI: Build your own pathway

What life-stage are you in?

AT SCHOOL | **AT TERTIARY EDUCATION** | LOOKING FOR CAREER CHANGE

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Start as an engineer or analyst in any of these areas:

ASSET MANAGEMENT | OPERATIONS | PLANNING | PROJECT MANAGEMENT

After 5 years, you might be doing this:

SPECIALIST / PRINCIPAL | TEAM LEAD

Workstream A

WSI: Build your own pathway

What life-stage are you in?

AT SCHOOL | AT TERTIARY EDUCATION | **LOOKING FOR CAREER CHANGE**

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SENIOR | TEAM LEADER / SUPERVISOR | SPECIALIST / PRINCIPAL | LEADING HAND

Workstream B

Profiles & case studies

Ngā rahangau me ngā kōtaha

Te tuari i te whaihua o ngā mahinga ratonga wai, me te ratonga hiko.

Sharing the value of electricity supply and water services industries and careers.

B

Power Systems Technician

Workstream B

Case studies & profiles

Assets for the industry

Profile video creation

Below is an image of an industry profile video shoot in progress.

Workstream B industry toolbox assets

The following pages contain toolbox assets designed to help guide and direct industry on creating profile videos. In addition, this workstream presents case studies of existing workforce and visibility initiatives that may provide examples of how to do things differently.

01

Video prototypes
These prototype videos of recent entrants to the ESI and WSI are designed to be relatable to young people considering their career options. The aim is to provide authentic messaging about the value of ESI and WSI careers with a view to attracting and engaging informed, values-aligned candidates.

02

Industry profile video recipe
This A4 one-page asset is designed to help guide the industry to produce future profile videos to sit alongside the project videos produced. The 'recipe' considers the profile persona, shot requirements and key aspects to gain the desired content to be consistent and tell a cohesive story together. This asset will be most useful when locating new profile talent and directing videographers.

03

Industry interviews with initiative leaders
Five two-page A4 case studies based on interviews co-developed with industry to showcase examples of great industry practice in motion. These are to be distributed where appropriate to reinforce new and successful ways of working.

Workstream B

Case studies & profiles

Assets for the industry: video prototypes

Liasa

How are you making a difference?

YouTube link: here

What is the day-to-day work like?

YouTube link: here

What are your future plans?

YouTube link: here

Danielle

What is the day to day work like?

YouTube link: here

What made you change to a trades career?

YouTube link: here

Thomas

What made you change to a water career?

YouTube link: here

What are your future plans?

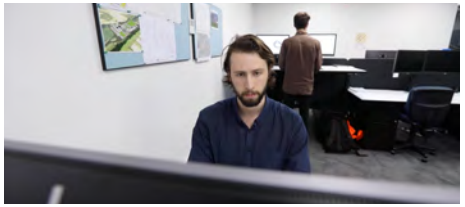
YouTube link: here

Derek

What inspired your chosen career path?

YouTube link: here

What are the best and worst parts of your job?



YouTube link: here

Industry profile videos

Insights & lessons from prototyping

Ngā hua me ngā akoranga o te tauira

Final profile video prototypes were evaluated with sixteen students (ten female, six male, Years 11 to 13) from a decile-four secondary school. A range of students with various academic, creative and practical tendencies was selected.

A number of themes emerged across the wider student group (names have been anonymised).

1. Giving details about the bad as well as the good was universally applauded.
"I like that (Derek) goes into examples of what actually happens in the job that sucks."
Elijah, 16 years

"I like that (Danielle) is honest about what she does in a day. It's also cool to see a female in a male-dominated industry."
Aisha, 16 years

One respondent was unconvinced however, making the suggestion that Derek's challenges were not genuine:

"The 'worst' parts of the job were pathetic – most people face that in their job. Are tight deadlines an issue? Think broader."
Emma, 16 years

2. Showing the variation in day-to-day work was attractive to many students.
"I like how (Danielle) shows how it is different every day and that she explains the variety that comes with the career."
Ari, 16 years

"I like how it shows where (Danielle) works. I also like the different angles and the way it is showing how she works."
Hannah, 15 years

3. Liasa was a clear favourite when it came to relatability and understanding the value of her work.
"I like how (Liasa) said how her job makes a difference to people and gave a real-life example."
Caitlyn, 15 years

"It sounds like (Liasa) really loves her job and that could make other people want to get into that career."
Aisha, 16 years

4. Community engagement struck a chord with many students.
"I like how (Thomas) explains his job with lots of enthusiasm, and how he gives back to the community."
Ari, 16 years

5. Most students were positive about the way videos of this type could assist with career direction.
"The videos give an intro into the job and it is just the tip of the iceberg, so it will make you interested to find out more."
Maya, 15 years

"I've seen a lot of videos explaining what jobs are like and what they do, but never personal opinions. Videos like this could help me to choose my career direction."
Connor, 15 years

6. Students had mixed views on the use of cutaways.
"At one point it shows him walking and I don't see why that is necessary."
Hannah, 15 years

"When they were showing the shots of power lines I thought the video had stopped for no reason."
Charlotte, 15 years

"I like the engaging camera work on Danielle's video."
Kaia, 16 years

7. Students felt the videos were too short when shown in isolation from a wider pathways platform.
"Videos are too short. You are hooking the audience in at the same time as the video is ending, at least 1.30min."
Emma, 16 years

"They need more info as they left me with questions. You need to find a balance between enough info and too much info that they don't want to dig more."
Ari, 16 years

"It actually tells us very little about the industry. Give more details about the actual job, not just one person's perspective. Add in a story or specific problem that they have encountered."
Natalie, 16 years

INDUSTRY PROFILE VIDEO RECIPE

Recipe purpose

To provide industry and production professionals with guidance on the necessary ingredients and methods to produce industry profile videos that are meaningful and inspirational to job seekers.

Overarching goal of industry profile videos

Allow young people to relate to industry workers, and to 'see themselves' in industry roles via 'bite-size' videos that reflect their own aspirations and values, and can be integrated within a wider interactive pathways experience.

INGREDIENTS

Profile persona

- Similar age to target audience
- A depth of understanding of the featured role
- Relatable, smiles easily
- Dressed in workplace attire

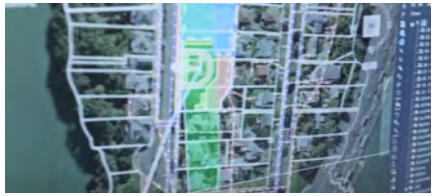
Tip: Check that PPE is worn correctly!

Video shoot requirements

1. **Profile to camera**
   Use a relatively quiet location within an engaging setting. This does not have to be the workplace, but would ideally bear some relationship to the subject or role. Example below:

2. **'B-roll' footage**
   2a. Profile the subject working with machinery, tools and equipment to achieve their job. Where possible, include social aspects of the job by showing your subject interacting with others. Example below:

2b. Setting of the wider impact their role plays in Aotearoa, e.g. community streets or large-scale infrastructure. Example below:



METHOD

Keep it casual

- Keep the tone conversational and unscripted.
- Be sure to capture personal (rather than company) perspectives.
- Don't 'sugar-coat' it – try to show the bad with the good. Express to interviewees that they can be honest and deliver a 'warts-and-all' account of their job.
- Show as much variety as possible, capturing a range of activities the interviewee does at work.
- Shoot interviewee delivering directly to camera.

Tip: Don't forget to capture decent photography along with the video. This can be used elsewhere on the discovery platform.

Don't ask questions

Frame topics to begin a conversation based on prior knowledge about the interviewee, e.g.

- Tell us a bit about what you do day-to-day at (...)
- Tell us about how you (...) and started your role at (...)
- Tell us about the best things about working as a (...)
- Tell us about the worst things about working as a (...)
- Tell us a bit about your future plans
- Tell us why you think (...) is a great industry to work for
- Tell us how you make an impact in your day-to-day work

Keep it simple

To provide videos that are consistent across the platform, ensure that the video production company is aware of the following guidelines:

- Keep interview and B-roll footage steady, and avoid stylistic camera techniques (focus pulls, pan-ins etc)
- Capture sufficient B-roll to cover dialogue edits, but remain on topic.
- Avoid cutaway dialogue shots showing people's bodies (i.e. without showing their face).
- In the edit, focus primarily on the interviewee. (B-roll footage is intended to support the conversation, not the other way around.)

Each video should be edited to between 30 and 90 seconds for the purposes of augmenting a wider industry discovery experience. (The clips can later be edited together into a longer video to suit other purposes.) Keep B-roll relevant and on-topic.

Tip: Record audio with the B-roll footage.

Before you start

- Gain approval from the company and employee to proceed with the shoot.
- Ensure company representatives are aware of the purpose of the videos, and provide them with a video and photography release form.
- Meet with each interviewee prior to the shoot date to get to know them and gain an understanding of their roles.
- Prepare conversation starters for each interviewee, and a detailed run-sheet showing times, locations, activities and people involved.

Wonder Project

Creating positive stereotypes at primary school level

Wonder Project is an initiative set up by not-for-profit membership organisation Engineering NZ. The project aims to reduce future workforce skills shortfalls by introducing the value of STEM (Science, Technology, Engineering and Maths) subjects from an early age. In 2021, 19,000 students were reached in over 600 classes across New Zealand.

Wonder Project works with teachers and students at levels 5-8 (primary school) to introduce fun and engaging STEM-based learning 'challenges' over a period of 6-8 weeks. The learning content can be integrated within the New Zealand school curriculum and teachers are provided with lesson plans, teaching materials and kits containing everything needed to support their students to complete the challenge.

"We want to secure interest and wonder in these subjects so there is the right foundation – we want to create the right stereotypes."

Justin Brownlie, GM, Engineering NZ

The flagship challenge for the Wonder Project is the Rocket Challenge, which was introduced at the project's initial roll-out in 2019. In this challenge students learn about Newton's laws, the engineering process and teamwork while designing, building and launching their own water rockets.

Guiding principles

Engineering NZ General Manager Justin Brownlie believes the Wonder Project sits apart from other initiatives due to its adherence to five fundamental principles:

1. Curricular aligned – supports teachers to meet curriculum requirements
2. Fun and engaging – stimulates excitement and imagination
3. Challenging and fulfilling – provides a sense of ownership and reward
4. Guided by role models – reinforces positive stereotypes and allows young people to 'see themselves' in STEM roles
5. Engaging at late primary – young people are engaged before they start to form decisions about their individual capability

"If it doesn't help the teacher, it's going in the bin. It needs to be curricula aligned and must make their life easier."

Justin Brownlie, GM, Engineering NZ

Providing positive role models

Where possible, young industry 'ambassadors' in STEM roles are brought in to assist teachers and mentor students through the process. The project provides full ambassador vetting, along with training that prepares industry professionals to support a teacher in the classroom for the final stages of a challenge, and to act as a STEM role model to students.

"We set students up to be able to engage with role models – a person in front of them they can relate to – but it has to be ongoing, not just a one-off thing."

Justin Brownlie, GM, Engineering NZ

Figures at a glance:

97% of ambassadors, and 100% of teachers, said they would recommend the Rocket Challenge to colleagues.

58% of students said they were more interested in STEM jobs (on top of the 17% already interested) after completing the Rocket Challenge.

Challenges faced

In terms of scalability, one of the biggest challenges faced by the Wonder Project is sourcing industry ambassadors:

> "We have a limited capability to source ambassadors – it is a challenge to find young engineers who are able to take the time out of their day-to-day work, then we need to make sure they are the right fit to work with teachers and primary kids."
>
> Justin Brownlie, GM, Engineering NZ

Getting teachers on board can also be a hurdle, and for some setting up and running STEM challenges can be daunting. Other challenges include slow uptake in lower-decile schools, partly due to financial constraints, since while entry into the project is free, additional kits need to be purchased by schools.

Future plans

Engaging content that stimulates the imagination of young learners is seen as crucial for the project's success. One of the biggest tasks for the ongoing success of the project is the development of new challenges that reflect different aspects of STEM-related careers, and the Wonder Project team is "always on the lookout" for new ideas.

The project already has a 'Power Challenge' offered in partnership with Transpower, where students build a wind turbine and light up their own mini town. So far there are no plans to roll out a water-based challenge, but the project is open to collaboration.

"We would be delighted to work with industry to develop a water-related challenge."

Justin Brownlie, GM, Engineering NZ

Scottish Water
Matching industry purpose with individual purpose

In 2002 the Scottish water industry began a transformation similar in scale to what is required for New Zealand. The focus for Scotland's water reform was to improve efficiency and increase service levels. Core to activating this transformation were initiatives to lift the perception of the water industry and careers, and to develop a sustainable workforce whose individual values and purpose align with those of the industry.

"Ultimately, it's the overall experience that we're selling more than anything. There is quite good alignment between the kind of character Scottish Water is with society in general."

Scottish Water Executive

Activation strategy
Reform amalgamated three separate entities into one organisation with a mandate to "achieve transformational change and drive exceptional customer service". Building an engaged and motivated workforce was central to achieving this mandate – workforce strategy therefore focused on values alignment, creating "great places to train and work" and ensuring people get enjoyment out of their careers. To this end the industry rolled out new development and apprenticeship programmes and a purpose-built training facility. In addition, Scottish Water maintains an 'Academy Team', which works in the field to upskill existing operators and welcome new apprentices.

Finding purpose
While pre-reform Scotland had already attained a degree of clarity on skills, career pathways and progression for the water sector, substantial investment was made to understand how to attract and skill the right people to underpin change, and to secure the industry's future.

"We started by working on what workforce demographics we were looking at in the future, and did a lot of collaborative work across the UK to understand how we can attract people into the industry."

Scottish Water Executive

It became clear that alignment of personal values with industry values is key to maintaining an engaged, purposeful and "proud" workforce. As such, the basis of Scottish Water's workforce strategy is to ensure an 'emotional contract' is established with employees. At its core, the contract asks two questions of Scottish Water employees:

— Do I feel it's a great place to work?
— Do I want to be a part of an organisation that has an impact on the environment?

As Scottish Water matured, so did its core values. As they celebrated 20 years since reform, four items were added to the organisation's character: Bold, Responsible, Caring and Inspiring.

"These four elements underpin everything we do as individuals and organisationally."

Scottish Water Corporate Affairs Representative

"Purpose is one of the most important things for any water company in the world. Then you can tap talent or raise opportunities with young generations. A lot of people work for Scottish Water because they want to do public good."

Scottish Water Executive

Looking ahead

Increased analytical skills to oversee operational and other support roles effectively is a future skills focus for Scottish Water's workforce, along with the development of specialised digital skills to drive technological change and further improve services. At a governance level, strong leadership that is adaptable to change and embodies the organisational character ("leading with character") is seen as essential to effective communication, and ongoing sustainable transformation.

"You want to create an environment which will allow change and transformation to happen – creating an adaptive capacity for change."

Scottish Water Executive

Watercare Training Campus
Experiential and continuous learning development

New Zealand's largest water and wastewater provider Watercare is in the process of designing and delivering a skills-based, single-site training facility for people working in the operation, maintenance or construction of water and wastewater utilities.

Purpose
Due to open in 2023, the Watercare Training Campus will form part of a wider Watercare initiative to pilot and scale new standards in development, training and competency. From a practical perspective, the campus will provide the ability to simulate water maintenance scenarios identical to those encountered in the field, with a focus on both health and safety and community building.

"The project vision is to create an experiential facility for water learning with a hands-on approach. The core objective is to develop skills-based training in operations, construction and maintenance."

Watercare Training Campus Programme Manager

Facilities will include a large-scale pipe-jacking 'rig' that "brings everything encountered underground to the surface". Challenging conditions encountered in the field are replicated, for example by incorporating fog machines to simulate poor visibility. The facility allows new entrants to encounter the reality of work in a safe and supported environment.

"Water work is all based outdoors, and it's highly hazardous – with underground power cables and traffic around us at just about every job. It's really important that they come home safe every day."

Maintenance Services Network Manager

Building a diverse, competent and transferable workforce
The facility aims to attract new demographics into the industry by ensuring a diversity of communities is represented. Watercare's Māori liaison team, Te Rua Whetū, is working together with local iwi to build relationships with tangata whenua, and to implement a welcoming environment for Māori within the campus. A diversity of learning challenges will be catered for, for example by the provision of verbal assessment processes that can allow learners with literacy challenges to progress in their careers.

The facility is geared to careers at Watercare, but is also aimed towards general competency; promoting construction skills alignment, along with the intent to allow transferability via standardised critical training pathways and micro-credentials.

Challenges
In terms of funding and scaling the campus, a key challenge is in how Watercare and its partners decide where and when to invest. This is against a complex backdrop of varied and non-standard specialist competencies, and the proposed Three Waters Reform. As such, a key goal is to 'unravel' the current state of learning and competency within water, and work together with partners towards a consistent approach which can eventually be universally applied.

"We have to find a balance between what our people need to know now and thinking about the bigger picture with reform."

Watercare Training Campus Facility Lead

Future plans

A key goal of the initiative is to build consistency within the wider infrastructure and water training space. To this end an 'enterprise model' network is being explored with partner organisations, where initiatives around shared competencies are being mapped and piloted before operating at scale.

"We are having conversations (with partner organisations) about what the future of training might look like – collaboration will be key to staying relevant and effecting positive change post-reform."

Watercare Training Campus Facility Lead

"We are keen to get people on board, and to stay with Watercare along their journeys... If we have a big pool of people it doesn't mean they all have to stay – we will qualify them to also work with our partner firms."

Head of Learning and Organisational Development

Build a Bridge

Experience journeys from school to civil construction careers

Build a Bridge is a Trades Academy initiative that allows secondary school students to experience work in civil and construction trades by working as a team to build local pedestrian bridges. It aims to provide young people with basic career skills and give them an introduction into civil industry pathways while earning Level 2 NCEA credits.

The fees-free programme is funded by the New Plymouth District Council in partnership with local civil and infrastructure industry, and facilitation is provided by the Western Institute of Technology (WITT) as a part of their Trades Academy programme.

"We wanted to create a progressive journey that follows students through school. Build a Bridge works with NZQA and summer work experiences."

David Langford – Group Manager Planning & Infrastructure, New Plymouth District Council

Programme trajectory
Students are first exposed to different parts of the civil industry through site visits and guest speakers, before beginning practical work at WITT. The bridge is constructed off-site, before being moved to the location, where it is positioned and finished by the students under the guidance of trade professionals. Participants spend one day a week over a period of 30 weeks.

"What sets Build a Bridge apart is that the final product is going into a public domain – people are going to walk across it. The students end up with a little plaque on it, and it'll be there for another hundred years."

Kyle Hall – School Director, Engineering Energy & Innovation, WITT

Engaging students with the programme
WITT's Secondary-Tertiary Pathways team works to engage schools with Trades Academy projects. A representative spends time in the local community meeting with school principals and careers advisors to present projects including Build a Bridge, and a specialist team engages directly to enrol students and to ensure they are well supported throughout their journey.

"Students mostly hear about us through their careers advisors and their schools, but we also go along and promote. They either hear about us from being in front of the schools initially, or the schools promoting thereafter. And then this year there has been a lot of word of mouth – like the cousin or the brother or the mate or whoever has come this year."

Kyle Hall – School Director, Engineering Energy & Innovation, WITT

Outcomes
The programme's key to success is that it works in "two directions": both allowing young people to test potential career paths and enabling industry partners to get to know potential new employees. The result has been near-complete uptake of new positions within the industry:

> "Build a Bridge really allowed the employer to get to know the trainee. At the end of the programme everybody has been taken up into commercial roles."

David Langford – Group Manager Planning & Infrastructure, New Plymouth District Council

Future plans
New Plymouth District Council has recently awarded $1 million for the development of a training facility for young civil engineers and infrastructure workers. To begin with, the facility will cater for Level 2 programmes and infrastructure works. Ultimately Build a Bridge will be based within this new environment, where students can be exposed to different civil career options and training pathways.

> "Build a Bridge has been really confidence building for the students. At the beginning of the programme they were all hiding behind their mum at the careers evening. At the completion of the programme all you could see were confident young men who have come together to create a cohort group. Most of the students came from Māori and Pacific backgrounds. We had iwi and a hapū at the bridge for the launch, and it brought the whole community together. The programme has created a real shift in their sense of self-worth."

David Langford – Group Manager Planning & Infrastructure, New Plymouth District Council

> "Build a Bridge was a great way to find something you might be interested in while still completing school. As the course progressed I saw the opportunity to get an apprenticeship if I could prove I had the ability and the work ethic to do it."

William Faoagali – Fulton Hogan apprentice and former Build a Bridge participant

Girls With Hi-Vis

Inspiring young women through hands-on experiences in infrastructure

Girls With Hi-Vis introduces Years 12 and 13 secondary school girls to infrastructure trades careers through site visits and experiential learning. The programme began in 2015 as a part of Connexis' Women in Infrastructure ('Ultimit') initiative, and has been rolled out across New Zealand with over 30 events taking place over the month of June.

Girls With Hi-Vis began in the ESI sector, but over time has come to include experiences in the civil and water space. The initiative works to dispel stereotypes around the kinds of work women can do – both from an industry perspective and from a young age.

"There are generations of inbuilt bias that we don't necessarily think about – it seems natural for women to think something else versus our industry. We open a world of infrastructure careers that would normally be totally invisible to women."

Taniya Scott – Girls With Hi-Vis Team Leader, Connexis

Partnering with schools and industry
Girls With Hi-Vis is run by a team at Connexis who organises and promotes the initiative at a national level. They work in partnership with employers to run events and promote them at schools and within local communities.

Events are run during school hours, and employers have flexibility to decide how events are run within a prescribed 'formula'; encouraging standard elements such as site visits and hands-on work activities, with talks and presentations kept to a minimum. Events are staffed by the employers and attended by school teachers and Girls With Hi-Vis 'field team' members.

"On the day (the employers) essentially are there to coordinate and showcase what they offer. We are there to fill in the gaps around the opportunities and the training elements."

Taniya Scott – Girls With Hi-Vis Team Leader, Connexis

Girls With Hi-Vis has been a change-leader in advancing the perceived value of hiring women in industry roles:

"Ten years ago we heard comments like 'If I need to hire women I'd rather not hire anyone at all'. Now the industries are looking to include team members that are females. There's been a big perception shift that we needed to do to attract females. Initiatives like Ultimit and Girls With Hi-Vis have been instrumental in this change."

Taniya Scott – Girls With Hi-Vis Team Leader, Connexis

WAIHANGA ARA RAU Construction and Infrastructure Workforce Development Council | assurity

"You can't give a job to every student that's excited – the industry wants new recruits but they're not always feeling prepared to accept them into their organisations."

Taniya Scott – Girls With Hi-Vis Team Leader, Connexis

Challenges faced

The initiative has gained substantial success getting young people involved, but this is not without its challenges. When interfacing with schools, it can be difficult to find time for students to get out of the classroom, especially if there are multiple events happening in one region. Students and schools are already encumbered with busy schedules and a full calendar:

> "We make sure we have a calendar for the year for the schools and we let them know well in advance. In the school space, there's a lot of noise – there's so much happening."
>
> Taniya Scott – Girls With Hi-Vis Team Leader, Connexis

At an industry level, despite efforts to follow up with schools and students towards next steps into the industry, the opportunities and willingness to employ school graduates in entry-level roles is not always there. There is enthusiasm among students for infrastructure careers, but links to jobs are broken:

> "We try to link students with opportunities fairly quickly because they are finishing school, but it might be six months or a year before opportunities come up."
>
> Taniya Scott – Girls With Hi-Vis Team Leader, Connexis

Future plans

One of the goals for Girls With Hi-Vis is to become more connected with schools to proactively facilitate continued engagement with industry following events, with the intent to create longer-lasting relationships between schools and employers:

> "We want to encourage that next layer of engagement so that it's not just the event."
>
> Taniya Scott – Girls With Hi-Vis Team Leader, Connexis

Another initiative is to become more targeted in choosing the locations where events are run, with a shift towards bringing events to regions with the highest workforce demand, and the greatest opportunities for employment.

> "We are looking at making it less led by the companies and more towards focusing on areas with the best opportunities."
>
> Taniya Scott – Girls With Hi-Vis Team Leader, Connexis

Figures at a glance:

55% Before attending Girls With Hi-Vis, 55% of students said 'no' to knowing about a career in the trades.

95% After attending Girls With Hi-Vis, 95% of students said 'yes' to feeling more confident about a career in trades.

Workstream C

Industry experiences
Ngā wheako ā-ahumahi

Te whaiwāhi atu ki ngā rangatahi e mārama ai, e whai wheako ai hoki ki ngā mahinga ESI me ngā ratonga wai.

Allowing young people to understand and experience jobs in the ESI and WSI first-hand.

C

Final- year Secondary School Student

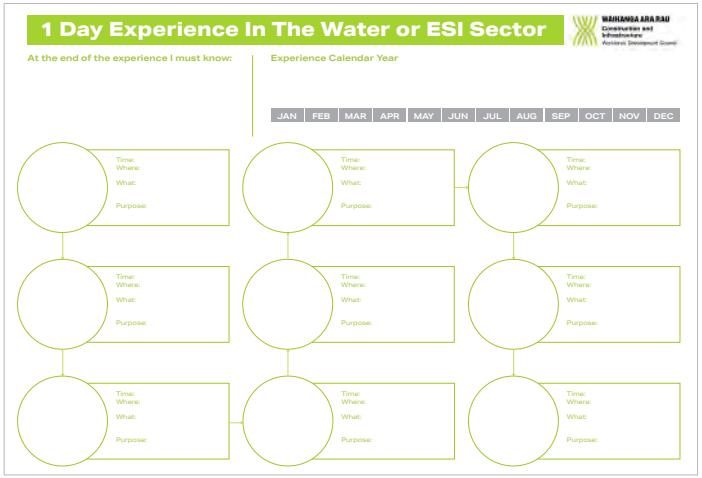
Workstream C

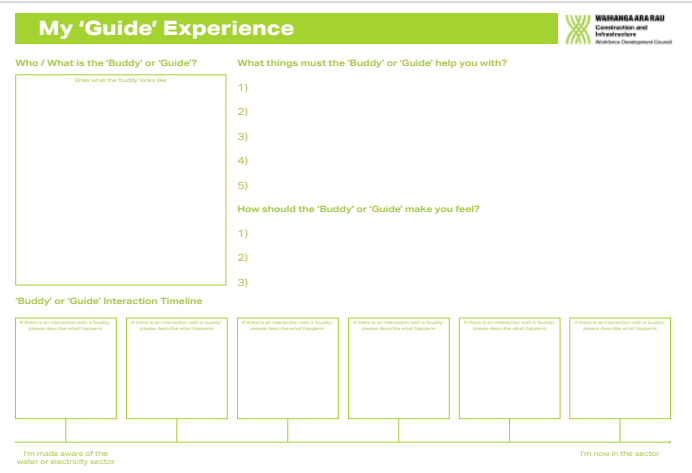
Co-designing the industry experiences

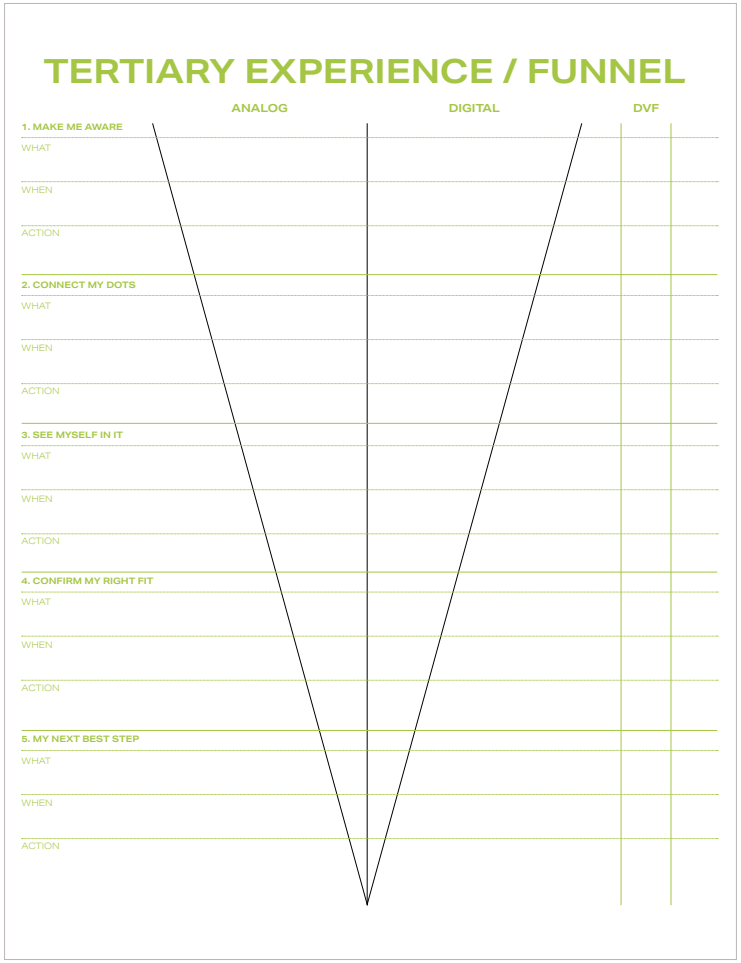
Assets for the industry

Co-design workshop assets

Below are the blank templates used to create the industry experiences with secondary school and tertiary students.







Workstream C industry toolbox assets

The following pages contain toolbox assets designed to help guide and direct industry on industry experiences. The Future User Journey Blueprint pinpoints where each toolbox asset should be implemented.

01

One-day experience runsheets

These A4 one-page assets are designed to help either an independent or existing industry organisation prepare for hosting and delivering a desirable one-day experience per audience. Sections outline the purpose the overall day serves, as well as each runsheet item. Owners and timings have also been allocated to help make sure the day covers all aspects needed to fulfil the day's overall purpose.

02

Industry entry mentor personas

These A4 one-page assets are designed to help industry identify who a perfect industry entry mentor should be, and key moments a mentor is required with different target audiences. This asset will be most useful in recruitment and job descriptions.

03

Communications strategy audience considerations

This A4 one-page asset is designed from all the lessons learnt in our research with the target audiences and distilled into a one-page communications strategy framework. This asset will be most useful when crafting advertising copy.

1 Day Experience In The Water or ESI Sector

WAIHANGA ARA RAU
Construction and Infrastructure
Workforce Development Council

At the end of the experience I must know:

Experience Calendar Year

JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC

Time:
Where:
What:
Purpose:

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My 'Guide' Experience

WAIHANGA ARA RAU
Construction and Infrastructure
Workforce Development Council

Who / What is the 'Buddy' or 'Guide'?

Draw what the 'buddy' looks like

What things must the 'Buddy' or 'Guide' help you with?

1)

2)

3)

4)

5)

How should the 'Buddy' or 'Guide' make you feel?

1)

2)

3)

'Buddy' or 'Guide' Interaction Timeline

If there is an interaction with a 'buddy', please describe what happens

If there is an interaction with a 'buddy', please describe what happens

If there is an interaction with a 'buddy', please describe what happens

If there is an interaction with a 'buddy', please describe what happens

If there is an interaction with a 'buddy', please describe what happens

If there is an interaction with a 'buddy', please describe what happens

I'm made aware of the water or electricity sector

I'm now in the sector

ONE-DAY EXPERIENCE RUNSHEET

YEAR 11 SECONDARY SCHOOL STUDENTS

The purpose of this one-day experience is to inspire curiosity in the minds of secondary school students and allow them to understand what the industry actually does. It is about planting the seed that this industry offers a great career possibility for them. The day should also be informative, outlining the types of roles available and the positive impact the industry has in Aotearoa, while challenging students so they can make informed decisions on whether to explore the industry further.

TIME OF YEAR
Experience Day: June
Advertising Start: April

WHAT	PURPOSE	SETTING	TIME	OWNER
Bus transportation to the dedicated one-day experience venue Take roll of all registered attendees	Getting attendees to the experience safely and on time	From a central location known to all secondary school students attending	0900 1000	Industry Entry Mentor(s)
Welcome to the one-day experience by lead facilitator. Lead facilitator must be charismatic and a great communicator to make all attendees feel at ease. Logistics of the day will be communicated and required health and safety forms signed.	To make the attendees feel welcome, communicate how the day will run, and establish a safe environment for attendees to explore	Large room capable of holding 40+ people Refreshments and snacks on offer	1000 1030	Lead day facilitator
A transition from the welcome to focusing on the big impact the industry has on Aotearoa. Video content taking the audience on a journey around different environments and communities the industry has a positive impact on. The content must tell engaging stories and leave the audience wondering how they can get involved.	Show the audience the bigger picture of why the industry exists and imagining a world without it – and, more importantly, the potential of how it can be better	Using the same room. Large-screen projector for big impact content	1030 1100	Lead day facilitator
Split the wider group into smaller groups to 'speed date' with different SMEs that have different roles in the sector. Students can fill in gamified 'worksheets' to keep them engaged and potentially win prizes in the closing discussion.	To understand the industry's core roles and pathways to the role and broader potential of each role	A separate large workshop room with standing stations set up with a role SME, ready to present informally one-to-one and in small groups	1100 1200	Lead day facilitator 10 x Role SMEs (subject-matter experts)
Full group discussion to share role learnings and engage the audience with interactive live polls on the big screen. This will help identify areas where further clarification is needed, and understand what the group is most excited about (as well as answer any 'anonymous' questions).	Bring the group back together to share learnings and make sure everyone is aligned	Back in original welcome room	1200 1230	Lead day facilitator
Lunch and social time	Fuel the group for the afternoon activities, and allow attendees to socialise and build connections	Full group with set lunches in separate catering room with natural light and great views of sector assets – i.e. water plant	1230 1330	Lead day facilitator
Try out the role(s) machinery and activities required to complete an important task	Let the attendees experience what it's really like to work in role(s)	Health and safety dependent, attendees are taken to either the direct role machinery, or simulated experience if unsafe	1330 1430	Lead day facilitator 10 x Role SMEs
Full group discussion to present personal 'worksheet' task prizes, set up expectations of next steps required if attendees want to learn more and close out the formal part of the experience	Reward engaged attendees and clearly define the next steps if they are interested in pursuing a role in the industry or simply keeping in touch	Back in original welcome room	1430 1500	Lead day facilitator
Catered social time with SMEs, mentors and lead facilitator	Enable the attendees to celebrate what they have learnt in the day, connect more with people they met and ask further questions with SMEs, mentors and lead facilitator	In catering room with pizza and refreshments	1500 1600	Industry Entry Mentor(s)
Bus transportation back to the central location and wait for sign-off from guardian required	Getting attendees back from the experience safely and on time	On bus back to central location known to all secondary school students	1600 1630	Industry Entry Mentor(s)

ONE-DAY EXPERIENCE RUNSHEET

YEAR 2 TERTIARY / FRESH-STARTERS

The purpose of this one-day experience is to inspire curiosity in the minds of tertiary students and fresh-starters regarding the industry on display, and assist them to actively plan out their next steps to enter the workforce. The day should be informative, outlining the different roles available in the sector(s) and the positive impact the industry has on Aotearoa. Attendees should be 'thrown into the deep end' with a challenge that stress-tests both attendees and industry representatives to identify high-quality leads.

TIME OF YEAR
Experience Day: April
Advertising Start: February

WHAT	PURPOSE	SETTING	TIME	OWNER
Meet and greet at the one-day experience location Take roll of all registered attendees	To make the attendees feel welcome, and confirm they're in the right place	Large room capable of holding 40+ people Refreshments and snacks on offer	0900 0930	Industry Entry Mentor(s)
Welcome to the one-day experience by lead facilitator. Logistics of the day communicated, and required health and safety forms signed. Introduction to the industry and letting all attendees know about the key things they need to do to make the most out of the day	To reintroduce the industry's purpose, communicate how the day will run, and establish a safe environment for attendees to explore	Large room capable of holding 40+ people Refreshments and snacks on offer Large-screen projector for high-impact content	0930 1015	Lead day facilitator
Different special assignments given to pre-assigned groups. Individual group members assigned their industry role for the day – linked to their website pathway tool pre-day result. They will carry out role assignments that will contribute to their group success throughout the day. Each team is assigned an industry entry mentor.	Allow the teams to get to know one another, and to introduce themselves and learn about the role they have been assigned. The special assignments are 'real-life crisis' events (i.e. major flood, black-outs) that span all roles in the industry, showing the role the industry plays to fix the problem	Using the same room Large-screen projector for big-impact content Break-out tables with pre-assigned team lists	1015 1045	Lead day facilitator Industry Entry Mentor(s)
Create a clear assignment strategy with groups and industry entry mentor. This also means learning about each other's role and the importance these all play in the special assignment	To create a clear strategy for the team to achieve success in the special assignment. Each attendee can visit their role station to get further clarity on tasks	Using the same room and a separate large workshop room with standing stations set up with role details. SME ready to present informally 1:1 and in small groups	1045 1200	Industry Entry Mentor(s) 10 x Role SMEs (subject-matter experts)
Full group milestone check-in; a chance to ask any further questions	Bring the group back together to share learnings and make sure everyone is aligned	Back in original welcome room	1200 1230	Lead day facilitator
Lunch and social time	Fuel the group for the afternoon activities, and allow attendees to socialise and build connections	Full group with set lunches in separate catering room with natural light and great views of sector assets – i.e. water plant	1230 1330	Lead day facilitator
Time to action the group plans and complete the tasks with real workers on site. The teams are taken to where they should complete role tasks to help fix the 'real-life crisis' assignment.	Let the attendees experience what it's really like to work in role(s)	Health and safety dependent, attendees are taken to either the direct role machinery, or simulated experience if unsafe	1330 1530	Lead day facilitator 10 x Role SMEs Industry Entry Mentor(s)
End presentations, prize-giving, and show the big impact of what has been achieved in the different groups' 'real-life crisis' assignments	Reward group achievements and clearly define the next steps if they are interested in pursuing a role in the sector(s) or simply keeping in touch	Back in original welcome room	1530 1630	Lead day facilitator
Catered social time with SMEs, mentors and lead facilitator	Enable the attendees to celebrate what they have learnt in the day, connect more with people they met and ask further questions with SMEs, mentors and lead facilitator	In catering room with pizza and refreshments	1630 1730	Industry Entry Mentor(s)

'INDUSTRY ENTRY MENTOR' SECONDARY SCHOOL-FOCUSED PERSONA

WHO IS THE MENTOR?

MENTOR PURPOSE

A mentor helps ensure interested secondary school students can gain an understanding of their potential within infrastructure careers

MENTOR TRAITS

Age group: 24 – 30

Must have worked in the sector, be professional, and agnostic to any organisation

WHAT THINGS MUST THE MENTOR HELP YOU WITH?

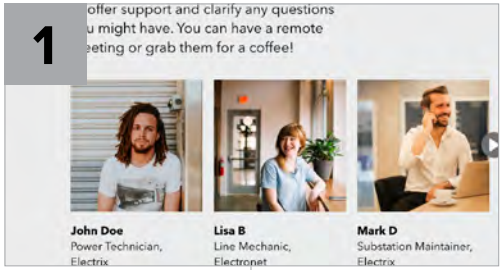
1) Support my learning journey, from discovery to signing up
2) Make the information simple for me to understand
3) Take the stress out of the 'one-day experience'
4) Tell me how much each role can earn
5) Make me confident my decision is 'future proof'

HOW SHOULD THE MENTOR MAKE YOU FEEL?

1) Comfortable, excited and confident
2) Not 'sold' to
3) Encourage me to think for myself and take risks

MENTOR INTERACTION TIMELINE

1



Show me who you are with a photograph and a profile of who you are, and communicate a good time for us to meet

2

Introduce yourself, confirm my survey pathway result, provide me with more information and if I'm still interested, sign me up on the one-day experience

3

Meet me at the start and end of the one-day experience to put me at ease and see how the day went

4

Set me up with a meeting with the right training option(s) and include my parent/guardian

'INDUSTRY ENTRY MENTOR' TERTIARY / FRESH-STARTER-FOCUSED PERSONA

WHO IS THE MENTOR?

MENTOR PURPOSE

A mentor helps ensure interested tertiary students and fresh-starters understand their potential within industry careers maximises their industry exposure, and introduces them to the right organisational 'fit' to start their career.

MENTOR TRAITS

Age group: 26 – 34

Must have worked in the sector, be professional, and agnostic to any organisation

WHAT THINGS MUST THE MENTOR HELP YOU WITH?

1) Tell me the reality of the infrastructure industry
2) Give me insights of real day-to-day tasks
3) Give me insights of different work cultures
4) Introduce me to the right organisation that suits my skills

HOW SHOULD THE MENTOR MAKE YOU FEEL?

1) Confident that I can approach organisations
2) Engaged, optimistic and able to push myself
3) That we don't need to know all the answers but value what we do know

MENTOR INTERACTION TIMELINE

1

Be present at the one day experience to help assist us with the tasks and socialise at the end of the day

2

Let's meet for a one-to-one session to discuss my pathway and cultural differences at different organisations

3

Help me land an internship by setting up a meeting with a workplace that has the right professional and cultural match

COMMUNICATIONS STRATEGY AUDIENCE CONSIDERATIONS

Communicating the many reasons to consider a career in the ESI and/or WSI is vital. Once recommendations are implemented by industry, it is important that communications are targeted directly at the 'end-users' – namely, prospective employees. Key considerations for three audience groups which may look to work in each sector – secondary students; tertiary students; and fresh-starters (someone who might be looking for a role in a new industry) – are outlined below.

Each audience has specific considerations to what is important for them in terms of seeking employment in either sector. Similarly, each audience also has barriers to entry to working in either sector. It is important that any future communications to attract employees to either industry highlight the opportunities and, where possible, address any barriers to entry.

SECONDARY SCHOOL STUDENTS

The most appealing parts of roles in both sectors for secondary students, ranked in order of importance are:

1. Ability to earn a good income
2. Opportunity to have a positive, sustainable impact
3. Ability to work all over New Zealand
4. Opportunity to 'keep New Zealand's lights on' through providing critical infrastructure services.

The current barriers for secondary students to enter the sectors, ranked in order of importance are:

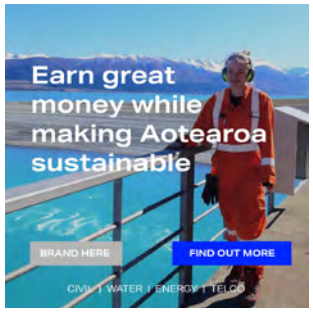
1. Knowing the sectors exist and understanding basic information
2. Experiencing the industry first-hand
3. Ability to talk to someone who works in either sector to get a first-hand account of what it's like to work in them
4. Where to study to unlock opportunities in each sector.

Targeting communications activity at students in Year 11 is recommended as they are actively starting to choose subjects that set them up for career success. Prospective employees in this group want to know if they can see themselves in the role, and how they can add value. They want to connect with people who have recently entered the workforce and are similar in age to hear the good and the bad of what it's like.

Communicating to this group through school channels gives information credibility and is an appropriate trusted channel.

An example of a potential online advertisement for secondary students

Advertising platforms:
- Instagram
- TikTok
- School intranet



TERTIARY STUDENTS

The most appealing parts of roles in both sectors for tertiary students, ranked in order of importance are:

1. Opportunity to have a positive, sustainable impact
2. Ability to earn a good income
3. Ability to work all over New Zealand
4. Good job security.

The current barriers for tertiary students to enter the sectors, ranked in order of importance are:

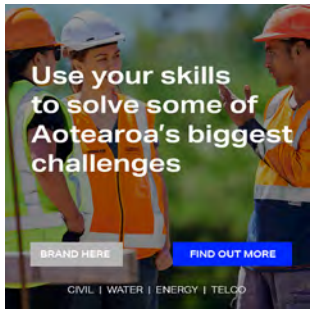
1. Ensuring there is the right cultural fit between the potential employee and employer
2. Getting the basic information needed to help them inform their decision-making
3. Experiencing the industry first-hand
4. Clarity on the range of opportunities within each industry.

Targeting communications at students in the second year of tertiary study is recommended as they are firming their final specialty majors. Similar to secondary students, tertiary students want to know if they can see themselves in the role, and how they can add value. Communicating to this group through university channels also gives information credibility and is an appropriate trusted channel.

Having a 'hook' that sells opportunities in each sector, rather than informing this group of the opportunities available, is also an important consideration.

An example of a potential online advertisement for tertiary students

Advertising platforms:
- Instagram
- Tertiary intranet
- LinkedIn
- Seek.co.nz
- Careers.govt.nz



FRESH-STARTERS

The most appealing parts of roles in the sectors for fresh-starters, ranked in order of importance are:

1. Ability to earn a good income
2. Opportunity to have a positive, sustainable impact
3. Ability to have a positive impact on their community through their work
4. Good job security.

The current barriers for secondary students to enter the sectors, ranked in order of importance are:

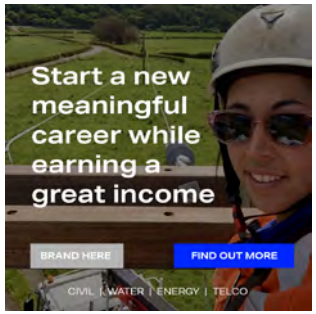
1. Financial burden of changing careers
2. Clarity of career pathway opportunities
3. Experiencing the industry first-hand
4. Ability to talk to someone who works in either sector to get a first-hand account of what it's like to work in them.

Targeting communications at individuals who are aged 24 – 30 and in twilight industries such as oil and gas that may have transferable skills is recommended.

Messaging should highlight the employment security that each industry provides, and the potential for growth within each industry.

An example of a potential online advertisement for fresh-starters

Advertising platforms:
- Instagram
- LinkedIn
- Seek.co.nz
- Careers.govt.nz



Be part of the conversation

Mahere Whakamahinga Workforce Activation Strategy

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