# Shared Data Platform Project
# Muka Tangata on behalf of Ohu Ahumahi

## Supplementary Report to the TEC

## 31 March 2023

# Executive Summary

## Introduction

This is the supplementary report to the Tertiary Education Commission (TEC) as outlined in the TITO WDC Covid Funding Agreement. It provides detail about deliverables for the Shared Data Platform (SDP) for the Horizon 2C extension period from 9 January to 31 March 2023.

The funding agreement requests this report contains:

1. Report on transition of platform from Horizon 2 to Horizon 3.
2. Documentation on scope, functionality, and design of the public website, and plan for launch by June 2023.
3. Summary of costs across of project (with total budgetary spend to 31 March to be provided on 14 April).
4. Update on strategy for Horizon 3.

### 1. Report on transition of platform from Horizon 2 to Horizon 3

The initial technical build of the SDP was completed in 2022 and there has been technical development during the Horizon 2C extension period. This development includes the incorporation of new datasets, as well as ongoing development of visualisations with views that are research oriented, in response to feedback from the GM Governance group. The SDP data and technical rōpū has further focused on creating substantial documentation to seamlessly enable management of the SDP to transfer to new kaimahi when recruited, or internal WDC functions as appropriate.

There are 441 SDP users currently. The majority of users access the SDP via the Power BI web view, which is sufficient for most activities. Some kaimahi with greater analytical duties have been given access to Azure Synapse, and training has been provided on how to enter and navigate the back end.

BAU onboarding of new users has been handed over to Hāpaitia.

### 2. Documentation on scope, functionality, and design of public website, and plan for launch by June 2023.

The SDP website will be a data, analytics, and engagement tool that supports workforce development planning. Its primary audience will be from within the WDCs and RSLGs and external partners such as CoVEs, training providers and industry. The purpose of the SDP will to be provide access to consistent and current data to underpin kōrero between these rōpū.

The SDP has worked with external vendor, Pikselin to prepare a scope and Statement of Work (SoW) for the SDP website. Pikselin is currently working with Muka Tangata to develop

a platform to digitise its workforce development plans – given there is significant alignment across the two website projects, it was deemed appropriate to utilise the same vendor and treat the SDP website as an extension of the Muka Tangata site. The Pikselin SoW outlines scope, activity, functionality, timeframe, and costs to deliver the public-facing website by 26 June 2023.

## 3. Summary of costs across project

Of the $2,500,000 million budget, $2,050,083 has been spent to 28 February 2023. There is committed spend for the website build, resources and infrastructure through to the end of the FY which is forecast to use the full budgeted amount. The WDC finance team has confirmed that the total budgetary spend for the January – March quarter will be made available in mid-April. It has been agreed with TEC that once this confirmed total spend is available we will provide a complete to-date SDP budgetary breakdown on April 14.

## 4. Update on strategy for Horizon 3

From 1 April 2023, the SDP transitions from its project phases into a BAU state. Funding from the six WDCs has been secured and kōrero with other RoVE organisations are ongoing. WDC funding will provide $600,000 per annum, which will cover core platform infrastructure, analytical tools and licenses, and a small rōpū.

A governance structure has been outlined utilising the skills and experience of a range of kaimahi from across WDCs, RSLGs, CoVEs, funding partners, and other organisations across the RoVE ecosystem as required.

At time of writing, recruitment for permanent SDP resources was still underway.

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# Transition of platform from Horizon 2 to Horizon 3

## Project focus

The project focus during the transitional period (9 January – 31 March 2023) has been on incorporation of new datasets from IBISWorld and the IDI (at ANZSIC level 4) and the development of new, research-based visualisations and the scoping and initial stage design of the SDP website which will be delivered by the end of the financial year. The team have also been working on handover to Hāpaitia and preparing full handover, training guides and documentation for the kaimahi who will manage the SDP moving forward.

## Project documentation, training, and handover

The SDP rōpū has prepared documentation in addition to documentation prepared by Datacom at the end of last year. The is an all-encompassing documentation that covers the logical environment design, and operation and management of all the components from Ingestion, Orchestration and Presentation of data, through the various Azure technologies of DevOps pipelines, Databrick loads, Synapse data structures and PowerBI visuals, This documentation will support the kaimahi recruited to manage the SDP moving forward.

## Users

At time of writing, the SDP had 441 users comprised of 371 WDC, 55 RSLG, and 15 ‘other’ (CoVE, TEC, Te Pūkenga etc). Business as usual (BAU) onboarding of kaimahi is now undertaken by Hāpaitia.

The SDP rōpū has provided orientation and training for new users into the front-end visualisations in Power BI as well as to answer general queries on the SDP.

Non-WDC kaimahi (from the RSLGs and CoVEs) are accessing the SDP predominantly via the Power BI web view. They can access the SDP back end via Azure B2B if necessary, however it is noted that most kaimahi achieve what they need using the Power BI web view.

## Data

New data added this year is from IBIS World, which is economic and business-based data that addresses a previous gap in the SDP’s available data and includes forecasting by industry sector with risk and revenue components. Also added is IDI Level 4 ANZSIC industry data by WDC. The IDI data is split into different components:

1. Annual workforce composition
2. Maori owned business
3. Monthly workforce
4. Destination
5. New entrant retention
6. Mobility

Following an internal process, TEC resupplied its first tranche of data with new grouping by 5 suppression. As the revised TEC data was ingested, it was noted there was a significant

increase in qualifications, from 915 to 1872. This was due to the addition of micro credentials. Subsequently, the existing NZQA, Stats NZ, and TEC data has been restructured to align with the revised TEC data.

### Data visualisations

A new research-based approach to visualisations in Power BI has been developed arising from a request from WDC GMs, for example economic and workforce views (see Figures 1, 2 and 3). The SDP rōpū focused dashboard development on what research questions can be answered using current data, and what can be answered using future incoming data. These views were circulated to the GM group for feedback, which has informed the next round of dashboard development.

Regional views have been developed using Stats NZ Census data down to SA2 unit area. These views were developed for the benefit of RSLG users, who are interested in sub-regional views. The data will be updated this year, which will improve these views. There are, however, some suppression issues with regional views at SA2 levels.

The SDP rōpū has also responded to bespoke requests from RSLGs in instances where there was not sufficient analytical capacity in-house.

### Quality Assurance

A Quality Assurance rōpū has been established for the SDP, which is comprised of analysts and researchers from across the WDCs who have extensive experience in research, data analysis, data visualisation and the IDI. The group provides testing, advice and perspective on future products and outputs (e.g., visualisations). Representation from the RSLGs is still to be confirmed. The group currently meets fortnightly, and current membership includes the following kaimahi:

| **Name** | **Organisation** |
|---|---|
| Bobby Brooks | SDP/Muka Tangata |
| Nichola Shackleton | Muka Tangata |
| Peter Shi | Hanga-Aro-Rau |
| Clayton D’Ath | Ringa Hora |
| Stephen Lai | Toi Mai |
| Nihal Sohanpal | Toi Mai |
| Mana Leasi | Toitū te Waiora |
| Corrina Davis | Toitū te Waiora |

Figure 1: Example of visualisations focused on WDC research topics

Figure 2: Example of visualisations focused on WDC research topics

Figure 3: Example of visualisations focused on WDC research topics

# Public website

## Audience

The primary users of the SDP are kaimahi from WDCs, RSLGs, and CoVES, and the SDP website will continue to support their ongoing mahi. Industry and training providers are the partners audiences of the WDCs, RSLGs, and CoVEs, and data from the SDP will be used to underpin kōrero between these rōpū. Ensuring all kaimahi are working from the same information will help shift kōrero from what the data is to what the data means, thereby facilitating more purposeful hui. Consequently, industry and training providers are also an audience of the SDP website.

## SDP website purpose

The SDP website will be a data, analytics, and engagement tool that supports workforce development analysis and planning:

- For WDC, RSLG, and CoVE kaimahi to use during kōrero with industry and providers
- Providing access to industry and regionally segmented data for industry and providers to support their mahi and workforce development goals
- As a front door for industry, providers, and other organisations external to WDC, RSLG, and CoVE to communicate their data needs and inform future SDP development.

## Approach

Muka Tangata is in the process of developing a website to digitise its workforce development plans, using external vendor, Pikselin. The approach for the Muka Tangata website aligns closely with the needs of the SDP website, therefore it was agreed by the SDP GM Governance Group that the SDP website project could utilise aspects of the Muka Tangata site, for example page templates.

Figure 4: SDP website information architecture

Drilling into the industry sections, if the WDC has a digital trends and analysis offering such as Muka Tangata, or Waihanga Ara Rau's WIP, the SDP will link there directly, with return links in place to direct users back to the SDP site. Where WDCs do not have an online data offering, the SDP will present this information on behalf of a WDC. Information will be displayed using embedded Power BI charts and some commentary, and will cover the following areas:

- Data and research focused on industry trends and changes
- Trends in business and economic stats
- Trends in worker composition and skill level
- Trends in VET provision linked to industry

The SDP rōpū will work with WDC kaimahi to develop the content to ensure it meets their requirements.

The regional data section will surface topic-focused regional dashboards. Some national dashboards may also be included.

All data presented on the SDP website will be public.

### Scope

Website scope includes the following:

- Public facing website sitting on a separate domain
- Search function
- Eight page templates as per information architecture in Figure 4
- Built in Silverstripe CMS
- Contact form
- Web security certificates (SSL)
- Accessibility standards
- Google Analytics
- Search Engine Optimisation (SEO)

### Cost and timeframe

The SoW from Pikselin has an estimated amount of $55,240 for delivery of the SDP website, with estimated launch date as 14 June 2023.

Delivery timeframe:

| | |
|---|---|
| Stakeholder discovery workshops and functions requirements | 26 March |
| Template plan and wireframes | 29 April |
| Detailed design approved | 21 May |
| Front and back-end development | 25 May |
| UAT | 29 May |
| Website go live | 14 June |

# Horizon 3 Strategy

## Overview

The project phase consisting of Horizons 1 and 2 have successfully delivered against planned objectives, resulting in a functioning analytical environment and ingestion of initial datasets. Horizon 3 moves the SDP into a BAU state, with a focus on meeting the ongoing needs and priorities of Ohu Ahumahi, RSLGs, and the wider RoVE ecosystem.

## Funding

WDC CEs agree the SDP will provide significant value to Ohu Ahumahi, the wider RoVE ecosystem, and industries, and consequently will provide funding for the SDP at $100,000 per WDC per annum. Further funding from MBIE/RSLGs, CoVEs, and other government partners is still under discussion.

Funding will be utilised as follows:

- Core platform infrastructure and associated support costs
- Analytical tools and licenses
- Small team to maintain the platform and ensure it continues to meet business requirements

## Governance

The WDC CEs agreed that the joint WDC/RSLG Strategy & Insights GM group was best placed to provide leadership and direction for the SDP during and post transition from project phases to BAU.

Membership of the GM Governance Group mirrors the WDC Strategy and Insights GM group plus RSLG counterpart from the RSLG central secretariat. Members are noted below, and includes some kaimahi who were on the project Steering Group:

| Name | Organisation |
|---|---|
| Steven Youngblood (interim) | Toi Mai |
| Jenny Connor | Ringa Hora |
| Justine Stephen | Muka Tangata |
| Kylie McKee | Toitū te Waiora |
| Laura Mansfield | Hanga-Aro-Rau |
| Leo Shen | Ringa Hora |
| Mark Williams | Waihanga Ara Rau |
| Shaun Twaddle | RSLGs |

The GM Governance Group role is as the primary decision-making and leadership body for the SDP. It is part of a broader system of support and governance as follows:

Figure 5: SDP governance and leadership model

The **SDP Steering Group** will be comprised of key funders, WDC CE and RSLG representatives, a GM representative, a Manukura/Poumatua representative, and an independent chair. This group is responsible for sign off of the strategic remit, approval of major changes, and as an escalation and assurance point. This Steering Group will be stood up once the new funding model kicks off in FY 23/24, however preparation activities to stand the group up are scheduled for Q4 FY 22/23.

The **SDP team** is a small core rōpū responsible for operational delivery and direction.

The SDP may also draw on a group of **Subject Matter Experts** (SME) with relevant and specific expertise from across Ohu Ahumahi and RoVE as appropriate.

## Function

Figure 6 on the following page sets out the functional model for the SDP's remit as well as those that sit outside the SDP's core function but that are necessary for the SDP to function effectively.

Figure 6: SDP functional model

## Data

The SDP is designed to be scalable and enable new datasets to be added and aligned. The initial focus will be to ingest new data in the following areas:

- Learners
- Workforces
- Industries/economic
- Qualifications/programmes

## Resourcing

In its BAU state, the SDP rōpū needs the following expertise:

- Data ingestion, transformation, and management
- Data brokerage and stakeholder management
- Capture of business requirements and translation into technical next steps
- Contract management of vendors
- Data visualisation

At the time of writing, the following roles are being recruited either externally or from within Ohu Ahumahi existing capability:

- Data Engineer/Administrator
- Data Visualisation Analyst: May be sourced in house as analysts upskill
- Business Analyst/Data Broker: May be shared with other projects
- Project Manager/Coordinator: May be shared with other projects
- Technical Oversight/Vendor Manager: Expected to be incorporated as part of Hāpaitia's existing management of Datacom supplier contracts

For more information please contact:


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