

Cabinet Paper material Proactive release

Minister & portfolio Hon Erica Stanford Minister of Education
Name of package Establishing a New Standardised Tool for Assessment and Aromatawai
Date considered 17 Feb 2025
Date of release 23 March 2026

These documents have been proactively released:

Establishing a New Standardised Tool for Assessment and Aromatawai

Date considered: 17 Feb 2025

Author: Office of the Minister of Education

Social Outcomes Cabinet Committee Minute SOU-25-MIN-0002

Date considered: 12 Feb 2025

Author: Committee Secretary

Cabinet Minute CAB-25-MIN-0031

Date considered: 17 Feb 2025

Author: Secretary for the Cabinet

Material redacted

Some deletions have been made from the documents in line with withholding grounds under the Official Information Act 1982. Where information has been withheld, no public interest has been identified that would outweigh the reasons for withholding it.

The applicable withholding grounds under the Act are as follows:

Section 9(2)(f)(iv) to protect the confidentiality of advice tendered by Ministers of the Crown and officials

Section 9(2)(g)(i) to maintain the effective conduct of public affairs through the free and frank expression of opinion

Some deletions have been made from the documents as the information withheld does not fall within scope of the Minister's portfolio responsibilities, and is not relevant to the proactive release of this material.

You can read the Official Information Act 1982 here:

<http://legislation.govt.nz/act/public/1982/0156/latest/DLM64785.html>

Budget Sensitive

Office of the Minister of Education

Cabinet Social Outcomes Committee

Establishing a new Standardised Tool for Assessment and Aromatawai

Proposal

- 1 This paper seeks approval of the Project Business Case to implement a new 'Standardised Tool for Assessment and Aromatawai' that is aligned to Years 3 to 10 of the new national curricula (*The New Zealand Curriculum* and *Te Marautanga o Aotearoa*) and will support schools and kura to effectively enact twice-yearly student assessments.
- 2 It also seeks Cabinet agreement to charge associated funding as a pre-commitment against the Budget 2025 operating and capital allowance, noting that the Minister of Finance has granted pre-approval of this step (subject to Cabinet's final decision). A pre-commitment is sought to enable this work to be fast-tracked such that the new tool is available to schools and kura in early 2026.

Relation to government priorities

- 3 One of my priority actions is the implementation of consistent modes of monitoring student progression and achievement [SOU-24-MIN-0026 refers]. This includes my intent to mandate the use of standardised tools for twice-yearly assessment of students in Years 3 to 8 from 2026.
- 4 Standardised data will enable all students' progress and achievement in every school and kura to be monitored over time. It will deliver information earlier about their educational journey and provide targeted, equitable access to intervention or extension support, as needed. It will also improve the consistency of information available to parents about their child's progress.
- 5 Approval of the Project Business Case (Appendix 1) is an important first step in developing and implementing a new 'Standardised Tool for Assessment and Aromatawai' which underpins our Teaching the Basics Brilliantly policy and is critical to the delivery plan for achieving the Government's target of 80 percent of Year 8 students at, or above, the expected curriculum level for their age in reading, writing and maths by December 2030.

Executive Summary

- 6 I am committed to introducing a strategically driven, coherent, whole-of-pathway approach to assessment, aromatawai, reporting and monitoring across our schooling system. Getting this right will mean that good quality data about students' learning is available to inform teaching and learning, provide timely information to parents, whānau and caregivers, and inform decisions at every level of the education system.

- 7 It is critical that we support principals and teachers to effectively monitor, and respond to, student progress and achievement information in reliable, consistent ways. An important foundational aspect of this is the need for a standardised tool to support schools and kura with assessment of students.
- 8 Standardised data will enable students' progress to be monitored over time. It will deliver information earlier about their educational journey and provide targeted, equitable access to intervention or extension support, as needed. It will also improve consistency of information available to parents about their child's progress. Quality data will give Government, the Ministry of Education and other central agencies (for example, ERO, NZQA and SIA) better understandings of student progress and achievement, the impacts of teaching, and investments that support this at a system level.
- 9 Unlike many comparable jurisdictions, New Zealand currently has no standardised assessment tool that provides a clear view of how individual students are progressing until NCEA Level 1 (Year 11). A recent report prepared by the Office of the Auditor-General (October 2024), highlighted this gap in the Ministry's information about student achievement and progress ("Part 3: The Ministry of Education needs better information").¹ This builds on, and reinforces, earlier insights from the Evaluation Review Office.²
- 10 I am therefore seeking Cabinet approval of the Business Case for a new Standardised Tool for Assessment and Aromatawai (the 'tool'), which will replace the Ministry of Education's current 'e-asTTle' tool which is no longer fit-for-purpose (see below).
- 11 This tool will also enable more consistent, meaningful progress and achievement information to be reported to parents, whānau and caregivers and ensure that students who are not progressing with their reading, writing, maths, pānui, tuhituhi and pāngarau get the support they need, both at home and in the classroom.
- 12 The Ministry of Education's existing assessment tool, 'e-asTTle', is over 20 years old, technically unstable, and is at its end-of-life. Recent reviews have also revealed that the e-asTTle system has insufficient capacity to handle student load at the scale required and is not fully aligned to the new national curricula. Further, because many components of the existing e-asTTle tool will shortly become out of date and will be unable to be technologically supported or maintained, a further, major upgrade would inevitably be required before 2030. These reviews make clear that further investment in e-asTTle is not viable and that a new tool is required to meet our needs in assessing student progress against the national curricula on a national scale.
- 13 After exploring various options, it is my intention to procure a new, internationally comparable, 'off-the shelf' tool, rather than perform a 'ground-up' build of a new, bespoke tool. I prefer this option due to its affordability, feasibility and that the vendor is responsible for the ongoing maintenance of the tool and technology. Further detail about the current state tool and my

¹ <https://oag.parliament.nz/2024/educational-outcomes/docs/educational-outcomes.pdf>

² <https://ero.govt.nz/sites/default/files/2021-05/Evaluation-at-a-glance-assessment-practice-and-trends-2020.pdf>

decision to procure an 'off-the-shelf' product is available in the Business Case, including the increased agility and responsiveness this model offers our education system (allowing us to more easily align with best practice).

- 14 The tool will have the capacity to have its use expanded in the future 9(2) However, these are not currently (f) in scope of the attached Business Case and may require additional funding. (i)
- 15 Because it is my intention that all schools and kura will be required to carry-out twice-yearly assessments for students in Years 3-8 from 2026, I am committed to delivering the new tool to the sector in Term 1 of 2026, with early implementation activities available to teachers and kaiako in Term 4, 2025³. To ensure effective implementation in 2025, with targeted professional learning and development, I am seeking Cabinet agreement to charge associated funding as a pre-commitment against Budget 2025 operating and capital allowance. The Minister of Finance has granted pre-approval of this step (subject to Cabinet's final decision).
- 16 Through Budget 2025, I have also identified opportunities to target investment into learning support services through focusing on early intervention and evidence-based practice. This provides, deliberate alignment of learning supports with curriculum and assessment and provides better resourcing for schools to identify and support the needs of learners (this Learning Support package is due to come to Cabinet in the coming weeks). The new assessment and aromatawai tool will assist and complement this broader learning support investment by enhancing the ability of teachers and kaiako to notice, understand and respond to student needs (including the tailoring of support).
- 17 While it is possible for the Ministry to progress procurement activities without confirmed funding (and instead progress this proposal through business-as-usual Budget decision-making processes), this carries an acute risk that we will be unable to attract a strong procurement response due to funding uncertainty. Failure to secure the right supplier is likely to compromise the delivery timeline and quality of the final product.

Background

Problem Definition

- 18 The Business Case for the new tool seeks to explain, and describe a solution to, the problems and shortcomings of the status quo. This includes:
- 1.1 Inconsistent approaches to student assessment limits the information available to support teaching, learning, and additional support decisions in schools and kura. This limitation also compromises the ability of schools and kura to provide reliable, meaningful reporting to parents, whānau and caregivers about how students are progressing.

³ Initially this will only house the necessary volume of assessment 'items' written in English and te reo Māori, but these will be sufficient to enable teachers and kaiako to get underway with assessments immediately. Additional assessment 'items' will be developed and added to the assessment item banks over the following 21 months.

BUDGET SENSITIVE

The above is exacerbated by our current inability to have progress and achievement data 'follow' individual students (i.e., as they move between schools and settings).

- 1.2 A lack of trusted information on student progress and achievement constrains the Government's ability to target, and understand the impacts of, investment and support, at a system-level.
- 19 Limitations of existing tools to accommodate changes to the curriculum including assessment items and anticipated usage puts students at risk of being unable to undertake assessments when they need to.
- 20 The Business Case for the new tool is appended as Appendix 1. The Business Case underwent a formal Treasury Gateway review (Gate 0 / 2: Strategic Assessment) in December 2024 – as part of the larger Curriculum and Assessment Change Programme. Gateway outcomes relevant to the Business Case are in Appendix 3.
- 21 I ultimately seek to enable the creation of trusted, reliable data about student progress and achievement in Years 0 to 10 which can be shared and used by the right people, at the right time (through a digitally connected education data ecosystem). While the principal benefit of the tool will be for teachers and kaiako to be better equipped to respond to student progress in their day-to-day teaching practise, this tool will also fill a critical data gap for understanding impacts of our investments in the education system.
- 22 Unlike many comparable jurisdictions, New Zealand currently has no standardised assessment tool that provides a clear view of how individual students are progressing until NCEA Level 1 (Year 11). A recent report prepared by the Office of the Auditor-General (October 2024), highlighted this gap in the Ministry's information about student achievement and progress ("Part 3: The Ministry of Education needs better information"). This builds on, and reinforces, earlier insights from the Evaluation Review Office.
- 23 Confirming Cabinet approval of the Project Business Case and securing agreement to funding this work through a Budget 2025 pre-commitment will enable me to direct the Ministry to begin work immediately, rather than wait for Budget 2025 announcements.

Analysis

Options analysis and preferred way forward

- 24 A long list of options for the new tool were developed and then assessed against an agreed set of investment objectives, benefits, risks, and critical success factors. More detail can be found in the Economic Case of Appendix 1.
- 25 My preferred way forward for the new tool is the "Off-the-shelf Foundational twice-yearly testing in both NZC and TMoA" option. This option is preferred due to its affordability and feasibility. This option addresses limitations inherent in the current standardised assessment and aromatawai tools and

delivers a new cloud-based Software as a Service (SaaS) technology tool configured for New Zealand education system requirements.

- 26 This option effectively contributes to student educational outcomes and aligns with the Ministry's strategic preference of "buy before build" and the Government's 'Cloud First' policy, for information systems. This option also supports the intended benefits well and carries a medium level of delivery risk.
- 27 The tool will have the ability to support assessment and aromatawai in both English and te reo Māori, for use across all state and state-integrated schools as well as Māori-medium and immersion settings. The tool will also hold the capacity to have its use expanded in the future to incorporate other year levels, other subject learning areas, and other assessment and aromatawai priority areas (however, these are not currently in scope of the attached Business Case and may require additional funding).

Implementation

- 28 I am conscious that we are asking schools and kura to work in new ways, including encouraging them to carry-out twice-yearly assessment in 2025, and mandating this practice in 2026. It is, therefore, important we prioritise this work such that the new tool is made available to the sector by early 2026, to support this work, as well as bolster support for teaching, learning, assessment and aromatawai in the following areas:
- 1.3 new structured literacy, rangaranga reo ā-tā, pāngarau and mathematics approaches;
 - 1.4 the new curriculum learning areas and wāhanga ako (English, mathematics, pāngarau and Te Reo Rangatira) which are being progressively mandated for use over 2025-26.
- 29 It is also my intention to make early implementation (training) opportunities available to teachers and kaiako in Term 4, 2025 so that they have sufficient time to explore, and acclimatise themselves with, the tool.
- 30 A Request for Information was sent to the market (November 2024) and concluded with respondents indicating that six to nine months is the likely initial procurement and implementation timeframe. For this reason, I am committed to delivering the new tool to the sector in early 2026 and am seeking Cabinet agreement to charge the associated capital and operating funding as a pre-commitment against Budget 2025 operating and capital allowance. The Minister of Finance has granted pre-approval to charge this work against Budget 2025, as a pre-commitment, subject to Cabinet's final decisions (see Appendix 2).
- 31 While it is possible for the Ministry to progress procurement activities without confirmed funding (and instead progress this proposal through business-as-usual Budget decision-making processes), this carries an unavoidable risk that we are unlikely to attract a strong procurement response due to funding

uncertainty. This is likely to compromise the quality of the final product and could leave insufficient time for sector introduction and training during Term 4.

- 32 If Cabinet approve the Business Case and agree to charge associated funding as a pre-commitment against Budget 2025, I will instruct the Ministry to issue an open market Request for Proposal (RFP) for the new tool in February 2025.
- 33 Following the RFP, the project will deliver the new standardised assessment and aromatawai tool to the sector with sufficient assessment items in English and te reo Māori in early 2026. These item banks will be increased over the following twenty-one months with all content being reviewed and maintained on a regular review basis.
- 34 The new tool will be the only tool funded by the Ministry. The existing New Zealand Council for Educational Research's (NZCER) Progress and Achievement Tool (PAT) will remain an option for schools, if they so choose, however costs associated with its use will be managed by them, as is currently the case.
- 35 I have already engaged with NZCER to understanding how an "equating process" will be put in place to ensure a measure of comparability between PAT and the new tool and still create a single data set for achievement.

Risks

- 36 The Business Case provides detailed information about risks, 9(2)(f)(iv) [REDACTED]. Managing these risks will require clear, unambiguous communications to the principals and teachers, (as well as parents, whānau and caregivers), especially with regard to the security and usage of student assessment data (see Annex 3 for more information).

Cost-of-living Implications

- 37 There are no cost-of-living implications associated with the Business Case for the new Standardised Tool for Assessment and Aromatawai project.

Financial Implications

- 38 The Ministry is unable to meet the full cost of the project from its baseline without significant reprioritisation of funding away from other projects and compliance programmes.
- 39 The estimated total cost to deliver the project over its ten-year lifespan is \$176.952 million (\$23.077 million capital \$153.875 million operating).
- 40 The portion of this total incurred cost over the five-year budget forecast period (financial years 2024/25 to 2028/29) is estimated at \$107.987 million (\$23.077 million capital, \$85.873 million operating).

BUDGET SENSITIVE

- 41 The Ministry has reprioritised and made available existing baseline and capital funding to partially fund the project. This includes funding for teacher professional development to support implementation of the new tool, and ongoing savings in outyears generated from decommissioning e-asTTle. The total existing funding available over the lifespan of the project is \$27.026 million (\$14.537 million capital, \$12.489 million operating). Of this, \$22.391 million (\$14.537 million capital, \$7.854 million) is available over the budget forecast period.
- 42 As a result, the Ministry requires additional capital funding of \$9.788 million and additional operating funding of \$75.808 million over the budget forecast period to cover the balance of costs. The \$12.866 million required in financial year 2028/29 is an ongoing figure, bringing the total required funding over ten years to \$149.926 million.

(\$m)	2024/25	2025/26	2026/27	2027/28	2028/29 & Outyears	Total
Project Capital Expenditure	1.289	13.168	7.018	1.602	-	23.077
Project Operating Expenditure	1.248	20.133	15.439	1.066	-	37.886
Ongoing Operating Expenditure	-	7.642	12.474	13.115	13.793	47.987
Total Expenditure	2.537	40.943	34.931	15.783	13.793	107.987
Less existing funding from budget bids	(2.537)	(12.000)	-	-	-	(14.537)
Less existing funding from baseline	-	-	-	(0.927)	(0.927)	(1.854)
Less existing funding for teacher professional development in Assessment and Aromatawai	-	(3.000)	(3.000)			(6.000)
Total existing funding	(2.537)	(15.000)	(3.000)	(0.927)	(0.927)	(22.391)
Total funding required	-	25.943	31.931	14.856	12.866	85.596
<i>Total Capital required</i>	<i>-</i>	<i>1.168</i>	<i>7.018</i>	<i>1.602</i>	<i>-</i>	<i>9.788</i>
<i>Total Operating required</i>	<i>-</i>	<i>24.775</i>	<i>24.913</i>	<i>13.254</i>	<i>12.866</i>	<i>75.808</i>

- 43 Note that the Business Case shows \$81.808 million operating funding required over the budget forecast period. This is because the Ministry identified \$6 million from its PLD baseline funding for teacher professional development to support implementation of the new tool after the Business Case was written.
- 44 I have discussed, with the Minister of Finance, the possibility of funding this work through a Budget 2025 pre-commitment. I took this step because a commitment to funding sends a clear signal of intent to the market, which will attract the strongest possible market response. Securing funding immediately will also provide the Ministry and developers sufficient time to configure and implement the tool to meet the target of having a new standardised assessment and aromatawai tool available for use by schools and kura in early 2026.

- 45 The Minister of Finance has granted pre-approval to charge this work against Budget 2025, as a pre-commitment, subject to Cabinet's final decisions (see Appendix 2).

Legislative Implications

- 46 There are no legislative implications associated with the proposal in this paper.

Population Implications

- 47 The new Standardised Tool for Assessment and Aromatawai will be bicultural and inclusive, with specific requirements for supporting disabled learners. More detail is available in the Business Case.

Use of external Resources

- 48 The Business Case for the new Standardised Tool for Assessment and Aromatawai was drafted with no contribution from external resources.

Consultation

- 49 The Ministry has consulted on this paper with the Treasury and the Department of Prime Minister and Cabinet. Feedback has been incorporated wherever possible, however, the following substantive aspects of Treasury's feedback have been addressed in the Business Case:
- a. Further detail about the anticipated impact which improved access to individual and system-level data will bring to bear;
 - b. Further detail about the planned change and implementation approach across both English and Māori-medium settings (both initial and ongoing), including a timeline of anticipated uptake levels across the sector; and
 - c. Clearer information about how the Ministry plans on engaging with schools and kura in relation to data privacy.

- 50 During the development of the Business Case, the Ministry has also engaged across a range of other agencies, including the Department of Internal Affairs and the Office of the Chief Government Digital Officer (who did not have sufficient resources to engage in full consultative processes).

Communications

- 51 Given the commercial sensitivity of planned RFP processes, it is not my intention to make any significant announcements about this decision. There will be opportunities to communicate this on conclusion of procurement processes.

Proactive Release

52 It is not my intention to proactively release this paper at this time due to Budget and commercially sensitive information which may prejudice the Ministry’s ability to negotiate commercially with RFP respondents.

Recommendations

The Minister for Education recommends that the Committee:

- 1 **approve** the Business Case for the new Standardised Tool for Assessment and Aromatawai project;
- 2 **note** my intention to mandate twice a year assessment and aromatawai from the start of 2026. Schools will retain a choice of tool for this purpose of the new tool or the use of the existing New Zealand Council for Educational Research’s Progress and Achievement Tool (NZCER PAT)
- 3 **note** the estimated cost to deliver the project is \$176.952 million over 10 years (\$23.077 million capital, \$153.875 million operating);
- 4 **note** over the budget forecast period, the Ministry has reprioritised and made available \$22.391 million of operating and capital funding from its existing baseline and capital funding (including ongoing savings in outyears generated from decommissioning the e-asTTle tool);
- 5 **note**, therefore, that the Standardised Tool for Assessment and Aromatawai project requires further new investment (\$9.788 million of capital funding and \$75.808 million operating funding) through Budget 2025, to cover the remaining funding required to deliver the project;
- 6 **note** that the Minister of Finance has granted pre-approval, subject to Cabinet decisions, for the remaining funding to be charged as a pre-commitment against Budget 2025 operating and capital allowance so that the tool can be procured and available for schools and kura to use in early 2026 (see Appendix 2);
- 7 **agree**, therefore, that the remaining funding (\$9.788 million of capital funding and \$75.808 million operating funding) over the budget forecast period, be charged as a pre-commitment against Budget 2025 operating and capital allowance;
- 8 **approve** the following changes to appropriations and departmental capital injections to give effect to the policy decision in the recommendations above, with a corresponding impact on the operating balance and/or net core Crown debt:

Vote Education Minister of Education	\$m – increase/(decrease)			
	2025/26	2026/27	2027/28	2028/29 & Outyears
Multi-Category Expenses and Capital Expenditure:				
Improved Quality Teaching and Learning MCA				

BUDGET SENSITIVE

<i>Departmental Output Expense:</i>				
Support and Resources for Teachers (funded by revenue Crown)	24.775	24.913	13.254	12.866
Ministry of Education - Capital Injection	1.168	7.018	1.602	-
Total Operating	24.775	24.913	13.254	12.866
Total Capital	1.168	7.018	1.602	-

Authorised for lodgement.

Hon Erica Stanford

Minister for Education

Proactively Released

Appendices

Appendix 1 (attached separately) – Standardised tool for assessment and aromatawai: Single-stage Business Case

Appendix 2 (attached separately) – Minister of Finance pre-approval (including Budget Bid template)

Appendix 3 – Treasury Gateway Review outcome

Proactively Released

Appendix 3 – Treasury Gateway Review outcome

- 1 The Business Case for the project underwent a formal Treasury Gateway review (Gate 0 / 2: Strategic Assessment) in December 2024 – as part of the larger Curriculum and Assessment Change Programme, which received an overall rating of ‘Amber-Red’⁴.
- 2 The Gateway review for the Curriculum and Assessment Change Programme had two recommendations relevant to the Business Case. The recommendations were:
 - 1.5 Recommendation R3: Rewrite the Strategic, Economic, and Management Cases, and roll through consequential changes to the rest of the Assessment Tool Business Case.
 - 1.6 Recommendation R2: Develop a data strategy for the programme before undertaking procurement, which should include protocols around data access and usage to ensure stakeholder buy-in.
- 3 Both recommendations have been resolved and are reflected in the Business Case (Appendix 1).
- 4 Recommendation R3 was resolved through:
 - 1.7 A thorough rewrite of the executive summary and strategic case, outlining how the project is a key deliverable enabling the Government’s target of 80 percent of Year 8 students at, or above, the expected curriculum level for their age in reading, writing and maths by December 2030.
 - 1.8 Clearly outlining how the tool will enable more consistent, meaningful progress and achievement information to be reported to parents, whānau and caregivers and ensure that students who are not progressing with their reading, writing, maths, pānui, tuhituhi and pāngarau get the support they need, both at home and in the classroom.
 - 1.9 Flowing through these changes, as appropriate, to the rest of the business case – primarily to economic and management cases and related appendices, with a specific focus on updates to the problem definition, investment logic, and project benefits.
- 5 Recommendation R2 was resolved through updating of the business case to confirm that:
 - 1.10 Data management practices would align to government standards and existing Ministry data policies. One of the Government’s six key education priorities is the “better use of data, assessment, and evidence to identify and invest in supports and services that work,”

⁴ <https://www.treasury.govt.nz/sites/default/files/2023-11/gateway-factsheet-nov23.pdf>

which will help to inform our data access, usage and security requirements (see below).

- 6 Any information gathered which relates to individual student progress would not be directly accessed or utilised by the Ministry other than at an aggregated level for the purposes of understanding system-level challenges and opportunities, including:
 - 1.11 Data at system level will be used to help guide teacher professional learning and development and system-level interventions to help address and improve student progress through the schooling system.
 - 1.12 Data will be used to inform data-driven decision making.
- 7 Because recommendation R2 seeks to address risks around the trust and confidence of stakeholders about how the data will be accessed/used, an important part of resolving this risk will be a careful communications approach, reassuring stakeholders about data security, and access rights et cetera.
- 8 Resolving the two Gateway recommendations through changes to the business case did not impact the preferred option, outcomes, costs, or the quantitative risk analysis (QRA) of contingency.

Single Stage Business Case

Standardised tool for assessment and aromatawai

Version 1.2

EPMO Programme ID	MOE: 3825	EPMO Work Classification Outcome	Major
Programme Director	9(2)(a) ■■■	Programme Name	Curriculum & Assessment Change Programme
		Project Name	Standardised tool for Assessment and Aromatawai
Senior Responsible Owner (Deputy Secretary)	Pauline Cleaver Deputy Secretary, Te Poutāhū The Curriculum Centre (Acting)	Business Owner (Group Manager)	Tara Taylor-Jorgensen General Manager Strategy & Integration, Te Poutāhū The Curriculum Centre (Acting)

Template Properties

These are the details of the PIA template used to create this document. This section cannot be edited.

Template Name	Project / Programme Business Case Full
Template Owner	PIA Director
Template Date	29.05.2017
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Document Properties

This table describes the properties of the document.

Author	9(2)(a)
Project Manager	9(2)(a)
Location	

Document History

This table provides a history of changes made when completing this document.

Version No.	Date	Summary of Changes
Version 0.1	12 August 2024	Initial draft
Version 0.2	20 August 2024	Strategic Case updated with feedback from stakeholders
Version 0.3	12 September 2024	Draft SSBC updated with feedback from project team
Version 0.4	16 September 2024	Updated with initial feedback from Derek Lyons
Version 0.5	10 October 2024	Updated with feedback from PGB including addition of a new option into the Economic Case and a section on the 'Impact of doing nothing' into the Exec Summary. Commercial Case updated with feedback from Procurement.
Version 0.6	7 November 2024	Updated with feedback from Ministry endorsers and modified for a fast-track approach to deliver a tool earlier to the sector.
Version 0.7	11 November 2024	Updated with final feedback from Programme Director.
Version 1.0	21 November 2024	Updated with final feedback from Ministry endorsers and updated financials based on some changed financial assumptions for Budget 25.
Version 1.1	18 December 2024	Updated for strategic case for feedback from the Treasury Gateway Review Team and Minister
Version 1.2	14 January 2024	Updated executive summary case after feedback from key business stakeholders

Related Documents

This table lists the documents that support the Business Case

Document	Name and Link
Cabinet/Minister Paper(s)	Education Report: Approach to twice-yearly standardised testing and common reporting, 13 May 2024 (Metis 1327456) Briefing Note: Draft Cabinet paper on assessment and reporting, 4 Jun 2024 (Metis 1329970) Report: Twice-yearly assessment of Year 3 to 8 students (Phase 1), 14 October 2024 (Metis 1335088) Information Update: Twice-yearly assessment decisions and next steps, 24 October 2024 (METIS 1338352)
Research papers	

Document	Name and Link
Other	Indicative Business Case for electronic assessment Tool for Teaching and learning (e-asTTle) Phase 1 v1.0, 16 Nov 2023 Curriculum and Assessment Change Programme Management Plan 0.3, July 2024 Curriculum and Assessment Change Programme Implementation Change Framework Business Requirements Document Assessment & Aromatawai Tool v1.0, October 2024

Chief Executive Ministry of Education / Secretary for Education Approval

The Secretary for Education is asked to approve:

Role	Approval	Signed
Chief Executive Ellen MacGregor-Reid Secretary for Education (Acting), Te Tāhuhu o te Mātauranga Ministry of Education	I confirm that: – I agree with the recommended option.	Date Approved / Declined

Senior Responsible Owner Approval

The Senior Responsible Owner is asked to approve:

Role	Approval	Signed
Senior Responsible Owner Pauline Cleaver Deputy Secretary (Acting), Te Poutāhū The Curriculum Centre	I confirm that: – the full initial and ongoing business costs, business resource requirements, and process changes necessary to achieve the benefits have been identified – the key business-related project/programme dependencies, risks and mitigations have been identified and where appropriate included in the estimated costs – the costs include developing the necessary processes to determine and report on actual benefits realised – confirm that the additional funding is required to complete the programme – the delivery timeframes based on the scale of work and business resources requirement are achievable – there is a high level of confidence that the proposed benefits will be able to be achieved as set out in the business case – the range of delivery options assessed and evaluated was considered appropriate to lead to an optimal decision from a business perspective – need for ongoing independent quality assurance (IQA) is identified and where necessary is included in costing – I agree with the recommended option.	Date

Business Owner Approval

Role	Approval	Signed
Business Owner Tara Taylor-Jorgensen General Manager Curriculum Integration Services (Acting), Te Poutāhū The Curriculum Centre	I confirm that: – I have reviewed the document and agreed to the proposed investment as described in this document.	Date

Endorsements

Role	Approval	Signed
Enterprise Portfolio Management Office Shelley Robertson GM Strategy and Performance	I confirm that: - The problem has been adequately identified. - The project classification has been determined and is clearly stated - The appropriate project/programme construct with appropriate governance has been identified - The appropriate areas of the business have been engaged and/or consulted - There is evidence of robust options scoped and analysed - Problem statement(s) are articulated clearly and in measurable terms - A Benefit Profile has been completed and is annexed with the document - A Benefits Realisation Plan exists to realise benefits post project including advice as to when reporting will occur. - The right strategic links have been made. - It is clear how resources will be secured. - At least three options have been considered to address the problem statement, including 'do nothing'.	Date 14/11/2024
9(2)(a)		
Strategic Finance James Shilling Chief Financial Officer	I confirm that: - Project costs are robust and procurement advice has been considered - Proposed sources of funding for operating and capital, departmental and nondepartmental are clear - Availability of funding has been confirmed - Costings have been produced using standard Ministry templates and validated by finance (Finance Manager) - The initiative is included on the current investment plan (where relevant) - Financial benefits have been identified and quantified - Whole-of-Life costs are robust and use net present values.	Date 20/11/2024
9(2)(a)		
ICT Stuart Wakefield Chief Digital Officer	I confirm that: - The technology and design direction is consistent with Education System Digital Strategy and direction - Likely systems and technology impacts have been identified - The ICT component of the project's scope is appropriate - The assessment of the ICT costs and resource requirements, for both release and ongoing operation over the life of the asset, is appropriate and includes any necessary or likely required upgrades / refreshes as well as Certification and Accreditation assessment - The assessment of the ongoing ICT operational costs and FTE is appropriate - The key related ICT risks and mitigations have been identified and costed - The ICT assumptions are appropriate - The ICT dependencies have been identified - Link to ICT roadmap is identified - The writer has engaged with the Digital Identity team to complete the IAM Impact Assessment - IAM requirements have been considered and are appropriate.	Date 25/11/2024
9(2)(a)		
Internal Audit and Assurance 9(2)(a) Assurance Director	I confirm that: - Planning and budget for independent assurance are commensurate with project and product risks - Business process risks and mitigations have been appropriately considered	Date 12/11/2024
Communications, Engagement and Ministerials Amanda Broatch GM Communications, Engagement and Ministerials	I confirm that: - Key stakeholder audiences have been considered - The needs of Māori and Pacific learners and their parents/whānau have been considered, along with those with learning support needs - High level potential communication risks and mitigations have been identified - The Communications team has been consulted on a high-level communications approach and resourcing - Sufficient budget has been allocated to ensure the project communicates effectively - The right strategic links have been made.	Date 18/11/2024

Role	Approval	Signed
Legal and Privacy Jan Breakwell Chief Legal Advisor	I confirm that: <ul style="list-style-type: none"> - The Legal Services team has been consulted regarding this project/ programme - The proposed legal approach is appropriate for the outcomes sought - Appropriate costs and timeframes for legal advice have been factored into the project/ programme budget and milestones. - Privacy requirements have been taken into account - The alignment of the project with Data Protection and Use Policy principles has been considered - Any material impacts on privacy resulting from the project/programme have been identified. 	Date 15/11/2024
9(2)(a)		
Procurement Aditi Cook Chief Procurement Officer	I confirm that: <ul style="list-style-type: none"> - Procurement strategy and plans are robust - The preferred option optimises public value - Commercial risks have been considered and appropriate mitigations have been provided - Contractual arrangement, including payment mechanisms, have been considered and are appropriate - Meets government procurement rules (including Broader Outcomes) and Ministry Procurement Policy. 	Date 18/11/2024
People Sustainability and Place (including Health, Safety, and Security) Anne Marie Taggart Chief People Officer	I confirm that: <ul style="list-style-type: none"> - The People and Organisation Change Strategy is consistent with the Education People Strategy and direction - A robust Organisation change impact analysis has been undertaken and a range of delivery options assessed and evaluated - The assessment of the ongoing People and Organisation Change operational costs and FTE are appropriate - The key related People and Organisation Change risks and strategies to mitigate these have been identified and costed - The assessment of the People and Organisation Change costs and resource requirements, for both implementation and ongoing operation, is appropriate - Organisation change impact strategies are considered appropriate - People and Organisation Change dependencies have been identified - Options are analysed from a People and Organisation Change impact perspective (do ability). 	Date
Lynley Sinclair Chief Security Officer	I confirm that: <ul style="list-style-type: none"> - The need for proposed systems used by the Ministry to go through the C&A process has been identified. - The Business Case includes provision for the costs of the certification and accreditation (C&A) process - Overall risks to the Ministry through its use of information systems have been identified (not just privacy risks) - Risks to Ministry operating systems, the controls required to manage the risks within risk appetite have been identified - The effectiveness of the controls that have been implemented and the resultant residual risk is adequate. 	

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1. Glossary and Business Definitions

1.1. Glossary

Acronym	Meaning
ADKAR	Awareness, Desire, Knowledge, Ability, and Reinforcement.
AI	Artificial Intelligence
BAU	Business As Usual
CACP	Curriculum and Assessment Change Programme
CAPEX	Capital Expenditure
CAST	Computer Adaptive Sequential Testing
CAT	Computer Adaptive Testing
COTS	Commercial Off The Shelf
CSF	Critical Success Factor
CSO	Consulting Services Order
DI4OL	Digital Identity for Online Learning
DPSB	Digital Public Service Branch
e-asTTle	electronic assessment Tool for Teaching and learning
EDW	Education Data Warehouse
ESL	Education Sector Logon
FIRST	Funding Information Regulatory System Technology
GCDO	Government Chief Digital Officer
GST	Goods and Services Tax
ICT	Information and Communications Technology
ILM	Investment Logic Mapping
IQA	Independent Quality Assurance
IT	Information Technology
MDF	Ministry Delivery Framework
MOE	Ministry of Education
NPC	Net Present Cost
NZC	New Zealand Curriculum taught in English medium schools
NZQA	New Zealand Qualifications Authority
OPEX	Operating Expenditure
OTJ	Overall Teacher Judgement
PaCT	Progress and Consistency tool
PAT	Progressive Achievement Test
PGB	Programme Governance Board
PIA	Privacy Impact Assessment
PLD	Professional Learning and Development
PMO	Programme Management Office
RFP	Request for Proposal
RFX	Request for Quote, Request of Information and/or Request for Proposal
ROI	Registration of Interest
RPA	Risk Profile Assessment
SaaS	Software as a Service
SMS	Student Management System
SOW	Statement of Work
SRO	Senior Responsible Owner
SSBC	Single Stage Business Case

Acronym	Meaning
STAR	Supplementary Test of Achievement in Reading
TQA	Technical Quality Assurance
TWA	Te Waharoa Ararau
WoLC	Whole of Life Costing

Table 1. Glossary

1.2. Business definitions

Term	Explanation
Adaptive testing	Series of ‘mini tests’ designed to adjust level of difficulty based on the responses provided to match the knowledge and ability of a test taker.
Aromatawai	Aromatawai focusses on the ākonga, what they can do, their learning journey and experiences, the relationship between kaiako and ākonga, and how that information can support learning, instantly, and over time. This investment proposal is an opportunity to support aromatawai as defined in Te Puāwaitanga Harakeke, tīrewa ako and the redesigned Te Marautanga o Aotearoa. Assessment informs portion of aromatawai.
Artificial Intelligence	A wide-ranging branch of computer science concerned with building smart machines capable of performing tasks that typically require human intelligence.
Assessment for Learning	The process of collecting and interpreting evidence for use by teachers and students to decide where they are in their learning, where they need to go, and how best to get there.
Assessment item bank	A repository of all test questions (Items) and any information pertaining to those items.
Assessment item	Individual test questions – Items and any information (metadata) pertaining to those items – stored in an assessment item bank.
Assessment of Learning	Typically administered at the end of a unit or grading period and evaluate a student’s understanding by comparing his/her achievement against a class, region, or nationwide benchmark or standard.
Automated Item Generation (AIG)	AIG is a process based on cognitive theory whereby complex templates (including cognitive and item) are leveraged by specialised computer algorithms to quickly create large volumes of candidate assessment items, which must then be reviewed before being added to an assessment item bank. The variety of assessment items produced is based on the stimuli and templates provided.
Bicultural (in relation to Te Mātaiaho)	When Māori language, knowledge, and culture is protected and enhanced as a part of our mutual obligations to and through Te Tiriti o Waitangi. The enactment of this obligation ensures that Māori will achieve success as Māori and that the identities, languages, and cultures of all those that call Aotearoa New Zealand their home, are embraced through a collective sense of nationhood.
Bi-cultural framework	Frameworks for bicultural education.
Charter school	Another type of state-funded school, providing educators and parents with more choice.
Computer Adaptive Testing (CAT)	A type of assessment where the questions are specifically tailored to each individual who takes the test. The questions adapt to the ability level of the test-taker.
Computer Adaptive Sequential Testing (CAST)	Computer adaptive sequential testing (CAST) is a type of computer-adaptive test that uses pre-defined groups of items called testlets, rather than operating at the level of individual items as in CAT (tests).
Configured software	To use pre-existing, built-in, tools and configuration options in the application to meet specific requirements without modifying the codebase of an existing software application to meet the needs of the business or user. Generally, this is simpler and less costly as it relies on using the software’s pre-existing features and settings.
Content	Collectively used to refer to the items in the assessment item banks as well as the prompts, rubrics, and exemplars associated with writing and tuhituhi assessment.
Continuous assessment	Continuous assessment will often include some form of formative assessment covering the range of informal diagnostic tests a teacher can use to assist the process of learning by their students. Could be on a weekly basis.
Customised software	To modify the codebase (programs, class files, scripts) of an existing software application so that it meets specific requirements (i.e., new features, change to its current behaviour, integrate with other applications, etc.) of the business. Customisation typically requires specialised development and understanding of the software’s architecture, is typically complex, and not only is costly to implement, often increases the ongoing cost and complexity of maintenance during the life of the software.
Domain	That portion of the total universe of subject matter that is being tested, and for which inferences can therefore be made. In this SSBC we include reading, writing, maths, pānui, pāngarau and tuhituhi as domains.

Term	Explanation
e-asTTle	Free online tool provided by the Ministry for teachers kaiako to measure progress and achievement in reading, writing and mathematics; pānui, tuhituhi and pāngarau.
Education Sector Logon (ESL)	User IDs/accounts used in schools for access to Education sector applications.
ENROL	A central electronic register that authorised users in all schools and kura update via the web as students enrol, change schools, or leave the school system
Formative assessment	A range of formal and informal assessment procedures conducted by teachers kaiako during the learning process to inform and allow modification of teaching and learning activities to improve student attainment.
High stakes testing	A high-stakes test is a test with important consequences for the test taker. It usually involves credentialling /certification.
Identity and Access Management (IAM)	A security and business discipline that enables the right individuals to access the right resources at the right times and for the right reasons.
Inclusive (in relation to Te Mātaiaho)	Having each student ākonga in mind and their right to belong and thrive through high quality learning experiences.
Item Response Theory (IRT)	IRT is a psychometric theory used to analyse responses to tests with the goal of improving measurement accuracy and reliability of test scores. IRT models the response of each test-taker of a given ability to each item in the test, considering the number of questions answered correctly and the difficulty of the question.
Iterative delivery	Iterative development techniques plan, develop, and implement project functionality in small chunks (or iterations).
Low stakes testing	A crucial form of assessment that supports the student’s learning journey and informs tailored teaching interventions, can also be called ‘formative’ assessment. It is to inform the teacher, parent, student, and other key stakeholders on how to best support the student to unlock their full potential and tackle any learning gaps. This is not to be considered an exam which is summative / high stakes testing e.g., Australia’s NAPLAN and NCEA exams.
National Curriculum	Term to describe Te Whāriki and Te Whāriki a te Kōhanga Re (for early learning) plus New Zealand Curriculum and Te Marautanga o Aotearoa. (for schooling). This business case uses the term to refer to the school portion of the National Curriculum only.
NCEA Co-requisite	All learners need to achieve a one-off 20-credit co-requisite specific to te reo matatini or literacy and pāngarau or numeracy skills to be awarded any level of NCEA
Pāngarau	A Wāhanga Ako within Te Marautanga o Aotearoa that focuses on the delivery of maths.
Pānui	A Wāhanga Ako within Te Marautanga o Aotearoa that focuses on the delivery of reading.
PRINCE2	A structured project management method and practitioner certification programme.
Progressions	Learning area progress outcomes which show progress steps for the phases of learning.
Progressive Achievement Tests (PAT)	A suite of standardised tools that were developed by NZCER, specifically for students in Years 3 to 10. These assessments have been developed for use in Aotearoa New Zealand English-medium contexts and are available in online, paper-based and computer adaptive formats.
Psychometric measurement	A field of study that involves the objective measurement of latent constructs that cannot be directly observed such as educational achievement. Psychometric measurement is concerned with how accurately knowledge, abilities, attitudes, and beliefs can be measured.
Realm schools	Schools in Cook Islands, Niue, Tokelau.
Rubric	An explicit set of criteria used for assessing a particular type of work or performance.
Selection effects	Bias introduced by the selection of individuals, groups, or data for analysis in such a way that proper randomization is not achieved, thereby ensuring that the sample obtained is not representative of the population intended to be analysed.
Standardised assessment	An assessment that has been designed so that the questions, conditions for administering, scoring procedures, and interpretations are consistent and are administered and scored in a predetermined, standard manner i.e., the assessment can be used by anyone, anywhere, at any time, and the results will be comparable.
Summative assessment	A range of formal ‘standardised’ assessment procedures conducted to gain information of student at a room, school, region, and national level. This not only measures student progress, with the results informing and allowing for modification of teaching and learning activities to improve student ākonga attainment, it also measures national level achievement levels.
Tāhūrangi	Digital home for curriculum content, teaching resources, and news.
Te Puāwaitanga Harakeke	The Ministry’s refreshed position paper and strategy on Aromatawai, dated 2023.

Term	Explanation
Te Marautanga o Aotearoa	Curriculum used to design teaching and learning programmes in and through te reo Māori and reflects a te ao Māori view.
Te Reo Matatini	Māori medium education setting te reo Māori.
Te Reo Māori	A Wāhanga Ako within Te Marautanga o Aotearoa that focuses on the delivery of the te reo Māori language and its domains (including pānui and tuhituhi, reading and writing domains).
Te Rito	The Ministry's student data repository which is being rolled out to the sector.
Te Waharoa Ararau (TWA)	An online tool to capture student progress and achievement through the recording of Overall Teacher Judgements (OTJ) with aromatawai gathered from a range of sources.
The New Zealand Curriculum	Curriculum that is taught in all English medium settings.
Tuhituhi	Writing domain within Te Marautanga o Aotearoa.

Table 2. Business Definitions

2. Executive Summary

2.1. Introduction

The purpose of this Single Stage Business Case (SSBC) is to seek funding to deliver a long-term standardised tool for twice yearly assessment and aromatawai practices which:

- closely aligns with the National Curriculum (includes The New Zealand Curriculum and Te Marautanga o Aotearoa)
- measures student progress and achievement
- helps to inform decisions on targeted support for individual students who require it
- is based on up-to-date technology providing a long-term lifespan
- provides highly useful analysis and reporting of results, including:
 - support for teachers and kaiako with reporting to parents, whānau and caregivers on student progress and achievement; as well as
 - monitoring and insights at the education system level.

This project is part of the assessment workstream of the wider Curriculum and Assessment Change Programme (CACP). The CACP is a multi-year work programme (spanning 2021-2027) being delivered by Te Tāhuhu o te Mātauranga | The Ministry of Education (the Ministry). The CACP is making significant changes to the National Curriculum ecosystem, including associated curricula, teaching, and learning resources.

The ultimate goal of the CACP is to deliver a knowledge rich, internationally comparable curriculum and assessment system that is based on the science of learning and future focussed. The curriculum and assessment system will strive to be responsive to the needs of each student, future proofs New Zealand, and creates literate, numerate and knowledgeable citizens that can contribute to and create a thriving economy and participate positively across all aspects of society.

A crucial part of this broader change is introducing a strategically driven, coherent, whole-of-pathway approach to assessment, aromatawai, reporting and monitoring such that good quality data about students' learning is available to inform teaching and learning, provide timely information to parents, whānau and caregivers, and inform decisions at every level of the education system. This links directly to the Government's target of more students at expected curriculum levels¹.

To this end, this Business Case seeks funding to progress a crucial pillar of this broader assessment and aromatawai work: delivering a fit-for-purpose and up to date assessment and aromatawai tool aligned to the updated New Zealand Curriculum (NZC) and Te Marautanga o Aotearoa that assists teachers and kaiako to support students and ākonga on their learning journey.

An initial Indicative Business Case (IBC) that focused on upgrades and costs for the existing electronic assessment tool for teaching and learning (e-asTTle) was completed in November 2023, but not submitted for the 2024 Budget cycle.

This SSBC is an update to the IBC. It has the same purpose as the previous one (i.e., to have a fit-for-purpose assessment tool), however it represents a revised approach that caters for new directives from Government related to assessment.

This SSBC proposes an investment of new funding of \$78.7 million between 2025/26 and 2027/28. In total, the project requires funding of \$155.9 million (\$147.4m opex and \$8.5m capex) to cover the ten-year whole of life cost. The balance of \$18.8 million is being funded by the Ministry through savings in year one and capital expenditure elsewhere in the CACP.

¹ <https://www.dpmc.govt.nz/our-programmes/government-targets>

Purpose

The purpose of this project SSBC is to identify and recommend a preferred option that will:

- seek approval of funding for estimated CapEx and OpEx whole of life costs across a 10-year term;
- seek approval to finalise the arrangements for implementation of the project.

This SSBC follows the Treasury Better Business Cases guidance² and is organised around the five-case model designed to systematically ascertain that the investment proposal:

- is supported by a compelling case for change – the ‘Strategic Case’;
- optimises value for money – the ‘Economic Case’;
- is commercially viable – the ‘Commercial Case’;
- is financially affordable – the ‘Financial Case’; and,
- is achievable – the ‘Management Case’.

2.2. The need for investment

Better assessment and aromatawai tools enhance system performance

This Business Case seeks new investment to deliver an up-to-date assessment and aromatawai tool aligned to the updated New Zealand Curriculum (NZC) and Te Marautanga o Aotearoa that assists teachers and kaiako to support students and ākonga on their learning journey.

Unlike many comparable jurisdictions, New Zealand currently has no standardised tool that provides a clear view of how individual students are progressing until NCEA Level 1 (Year 11). Investing in the new tool is one of the most important and powerful levers available to us to improve the quality of information available to lift educational outcomes for all students – by enhancing teaching, learning, assessment and aromatawai practice, aligned with our new National Curriculum. Standardised data will enable all students’ progress in every school and kura to be monitored over time, provide information earlier in the journey and get targeted, equitable access to intervention or extension support as needed.

While the chief benefit of the tool will be for teachers and kaiako, supporting them to assess and respond to individual student needs, it will also deliver meaningful benefits to all levels of the education system, including:

- parents, whānau and caregivers: improving the information schools and kura make available to them through regular reporting processes, and empowering them to support continuous learning outside of the classroom;
- students and ākonga: enhancing student agency over their own learning outcomes;
- Government, Ministry of Education and other central agencies (for example, ERO, NZQA and SIA): enabling evaluation, monitoring and insights into system-level investments and performance.

Problem statement

The potential impact of effective assessment practices on learning outcomes is well-established in the evidence, but it is not yet well-embedded in practice in New Zealand.³ In the context of a workforce with variable capability, standardised assessment tools have an important role as they provide a valid and reliable measure for student progress based on a consistent set of tests.

Assessment and aromatawai needs to be strengthened along the pathway and across the National Curriculum, and the Government has prioritised providing a fit-for-purpose standardised tool for assessing Year 3-10

² <https://www.treasury.govt.nz/information-and-services/state-sector-leadership/investment-management/better-business-cases>

³ <https://ero.govt.nz/sites/default/files/2021-05/Evaluation-at-a-glance-assessment-practice-and-trends-2020.pdf>

students in reading, writing, maths, pānui, tuhituhi and pāngarau (the scope of this Business Case). These are fundamental skills and knowledge that all children need.

Currently, not enough schools are assessing students using robust tools that consistently measure progress against the National Curriculum. In addition, the level of change being made to the National Curriculum means that existing tools need updating. The inconsistent use of standardised tools is contributing to three key problems

1. Inconsistent approaches to assessments, and results not following the student, limits available information for teaching, learning, reporting to parents and whānau and additional support decisions in schools and kura (40%)
2. A lack of trusted individual level information on student progress and achievement constrains the Ministry's ability to target, and understand the impacts of, investment and support (10%)
3. Limitations of existing tools to accommodate change and anticipated usage puts students at risk of being unable to undertake assessments (50%) (Appendix 4 details the limitations of e-asTTle)

There is currently no single fit-for-purpose assessment or aromatawai tool that can be reliably used by all schools and kura and provide comparable results. To address the first two problems, the Government intends to mandate twice-yearly use of standardised tool(s) to assess the learning of Year 3-8 students in reading, writing and maths or pānui, tuhituhi and pāngarau in 2026. This Business Case covers the period through to Year 10, which will help provide an assessment tool to support understanding of student progress and achievement in relation to curriculum expectations.

Accurate and standardised measurement of progress and achievement will also provide a reliable judgment of student readiness to undertake the new Literacy and Numeracy | Te Reo Matatini me te pāngarau standards, which have been introduced as a co-requisite to the NCEA qualification, and to support their progress through to NCEA Level 1 subjects that keep their future pathways open.

Strategic context

The Government and Ministry of Education are introducing a strategically driven, coherent, whole-of-pathway approach to assessment, aromatawai, reporting and monitoring across our schooling system.

This shift underpins the intention of the Government's 'Teaching the Basics Brilliantly' policy and represents a crucial lever for achieving the Government's target of 80 percent of Year 8 students at, or above, the expected curriculum level for their age in reading, writing and maths by December 2030 (Target 7).

One of the priority actions contributing to the realisation of this target and the broader 'Teaching the Basics Brilliantly' policy is the implementation of consistent modes of monitoring student progression and achievement [SOU-24-MIN-0026 refers]. This includes an intent to mandate twice-yearly assessment of students in Years 3 to 8 from 2026.

Approval of this Business Case is an important first step for this work and will see the Ministry of Education implementing a new 'Standardised Tool for Assessment and Aromatawai' that will support education professionals to effectively monitor, and respond to, student progress and achievement information in reliable, consistent ways.

Getting this right will mean that good quality data about students' learning is available to inform teaching and learning, provide timely information to parents, whānau and caregivers, and inform decisions at every level of the education system.

What are we proposing?

This investment will deliver a new assessment and aromatawai tool that is freely available to schools and kura, replacing the current e-asTTle tool, which is old technology (that has been assessed as at its end of life), technically unstable and does not align with the changes to the National Curriculum. The key drivers for this investment are to:

- Provide schools and kura with a fit-for-purpose tool for consistent and reliable understanding of student progress and achievement in reading, writing, maths, pānui, tuhituhi and pāngarau aligned to

Years 3 to 10 of the updated National Curriculum (Te Marautanga o Aotearoa and The New Zealand Curriculum). This will support teachers and school leaders to:

- deliver teaching and learning programmes that meet their students' needs, including identifying when additional support is needed
- maximise the opportunity of new technologies that strengthen teacher capability and effectiveness to monitor and report on student progress and achievement as they travel through the schooling as part of meeting their obligations the Education and Training Act 2020 to monitor and report on student performance.
- Enable delivery on key actions under the Minister of Education's 'smarter assessment and reporting' priority, which are part of delivery plan activities contributing to achievement of Government Target 7: More students at expected curriculum levels. This includes an intent to mandate the use of standardised tools for twice-yearly testing of Year 3 to 8 students.
- Enable the creation of trusted data about student progress and achievement in Years 1 to 10 which can be shared and used through a digitally connected education data ecosystem (noting that far more work – outside the scope of this Business Case - needs to take place across the education system to realise our aspiration for a truly seamless data eco-system). This will fill a critical data gap and be a valued input to the eventual overarching data system, as well as provide immediate data that allows us to understand student progress, the impacts of teaching, and investments that support this.
- This also supports the Minister of Education's 'greater use of data' priority through better use of data, assessment, and evidence to identify and invest in supports and services.

This investment will also deliver the supports teachers, kaiako and leaders need to use the new tool to assess student learning and to make use of the data to improve student outcomes, including professional learning. The new tool will have the flexibility to respond to future needs (e.g. to cover other areas of the curricula that are not part of this Business Case) and able to be updated in response to any content changes in the curricula through their regular review and maintenance cycles.

In the absence of a decision to mandate the use of a particular tool and frequency of assessments, then problems 1 and 2 require a tool to be available that:

- Schools and kura choose to use because it has value to them and helps them meet their existing legal obligations in relation to delivery of the national curriculum and monitoring of student performance. In the context of changes to the national curricula, this includes tools which align with the updated curricula.
- The Ministry of Education has access to the data for system-level secondary analysis purposes, within data and protection policies. In order to target support to schools and kura that need it, this will require different use policies from what are in place for current Ministry-provided tools.

Existing assessment and aromatawai tools

e-asTTle is a bespoke existing Ministry provided standardised assessment and aromatawai tool. In addition to not fully aligning with the updated national curricula, limitations with e-asTTle include:

- Large ongoing investment to maintain and upgrade technology platform and bespoke technology
- weaker reliability of writing and tuhituhi assessments
- writing and tuhituhi assessments are time consuming for teachers
- reports are not considered inclusive, clear, and easy to use for teachers and kaiako, families and whānau, students and ākonga
- assessment items are no longer relevant nor culturally appropriate
- writing and tuhituhi assessments are time consuming for teachers
- lack of dependability in adaptive testing
- functionality is dated and opportunities to enhance it are limited, with an overall limited life left in the tool even if it was upgraded
- support and maintenance are limited to one company
- lack of capability to manage content

- low utilisation in kura delivering teaching and learning through te reo Māori
- assessment items are no longer relevant nor culturally appropriate
- assessment item quality issues
- performance, reliability, and security constraints and issues.
- Large ongoing investment to maintain and upgrade technology platform and bespoke technology

Other Ministry provided tools for assessment and aromatawai are the Progress and Consistency Tool (PaCT) and Te Waharoa Ararau (TWA). These are not, however, standardised tools. The other main standardised tool in New Zealand is the Progressive Achievement Tests (PAT) which was developed and is owned by the New Zealand Centre for Educational Research (NZCER), specifically for students in Years 3 to 10 using the New Zealand Curriculum. PAT is not suitable for use with Te Marautanga o Aotearoa. As with e-asTTle, work is needed for PAT to fully align with the updated national curricula.

Further, the fact that PAT is owned by NZCER means we are reliant on them (a relatively small organisation) as our partner to deliver the data and insights we require to inform system-level decision-making.

Investment Logic Map

The above problems underpin the Investment Logic Map (ILM) which was done as part of the development of this business case. A summarised version of the ILM is below.

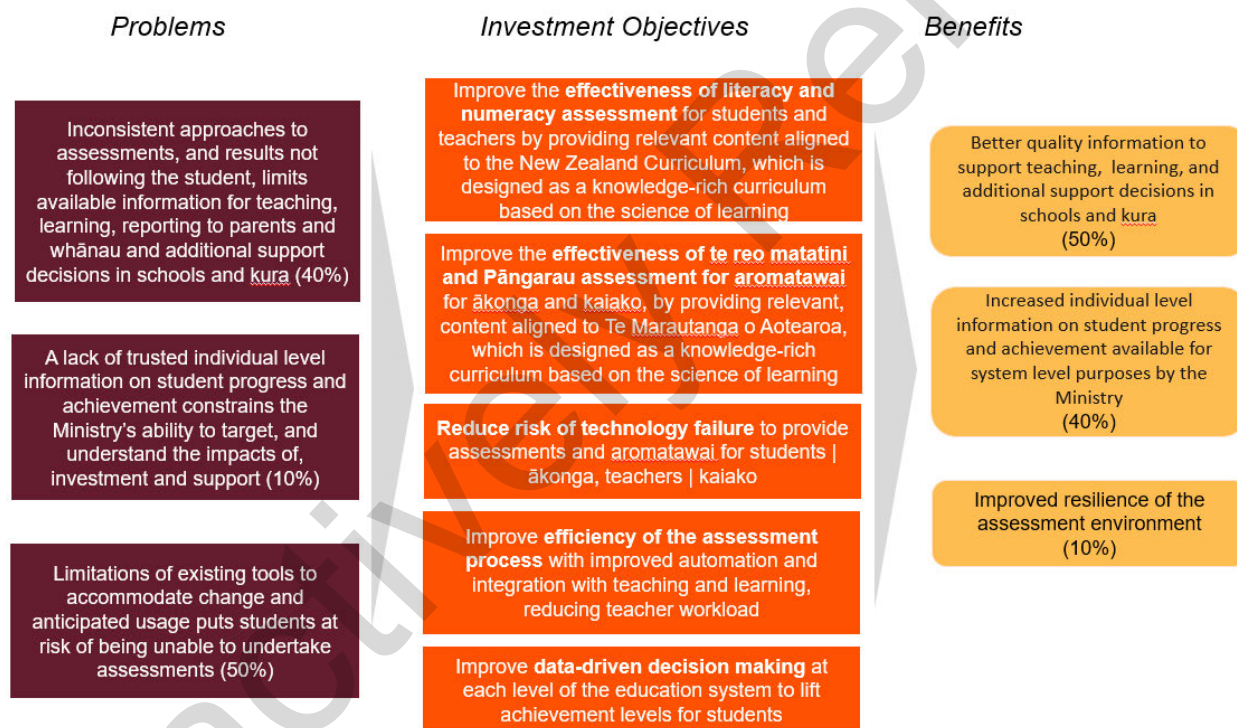


Figure 1. Summary Investment Logic Map

2.3. What options were considered

Overview of the options

A robust process of identifying project options was undertaken following which four short-listed project options were selected in addition to the 'Do nothing' option. The shortlist options are summarised in the following table.

Option	Description
Option A – Do nothing	- The 'Do nothing' option involves continuing with the status quo and using the existing assessment tools (i.e., e-asTTle and PATs with their inherent limitations) for standardised assessment. This option is not recommended

Option	Description
Option B1 – Off-the-shelf Foundational 2x Yearly (PREFERRED)	<p>This option is for a new off-the-shelf Software as a Service (SaaS) tool configured for New Zealand education requirements. The key distinguishing features of this option are:</p> <ul style="list-style-type: none"> • Assessment items developed/updated to volume levels that cater for: <ul style="list-style-type: none"> ○ Year groups 3-10 ○ assessments for each domain of up to 2 times a year • Improved functionality to efficiently: <ul style="list-style-type: none"> ○ report individual student progress and achievement at and between timepoints for students, teachers and parents. ○ produce cohort reporting for school leaders to inform in school evaluation. ○ produce system level reporting to inform investment decisions and impact insights. • Integrations to other systems for authentication, next steps, efficiencies, and reporting/insights. • Established training resources on effective tool use and data analysis. • The tool will have demonstrated its utility across other (comparable) international jurisdictions.
Option B2 - Off-the-shelf Foundational 4x Yearly	<p>This option builds on Option B1 Off-the-shelf Foundational 2x Yearly. The key distinguishing features of this option are:</p> <ul style="list-style-type: none"> • Assessment items developed/updated to volume levels that cater for assessments for each domain of up to 4 times a year.
Option B3 - Off-the-shelf Advanced 4x Yearly	<p>This option builds on Option B2 Off-the-shelf Foundational 4x Yearly. The key distinguishing features of this option are:</p> <ul style="list-style-type: none"> • Advanced functionality to what is currently available in e-asTTle⁴ including greater levels of AI powered feedback and next steps • Additional integrations to other systems for next steps, efficiencies, and reporting/insights • Targeted extra support for specific schools and kura as part of rollout out the new tool.
Option C – Bespoke Foundational 2x Yearly	<p>This option seeks to maximise the satisfaction of business need by developing a bespoke solution specifically for the New Zealand assessment and aromatawai context. The assessment item volume, functionality and integrations are the same as Option B1.</p>

Table 3. Shortlist options summary

⁴ A new off-the-shelf system will not replicate all e-asTTle functions as it will be an existing system.

Shortlist options comparison summary

The table below summarises the shortlist option comparison.

Option	A Do Nothing	B1 Off-the-shelf Foundational 2x Yearly	B2 Off-the-shelf Foundational 4x Yearly	B3 Off-the-shelf Advanced 4x Yearly	C Bespoke Foundational 2x Yearly
Costs (\$million)	9(2)(b)(ii)				
Weighted measurable benefits rating	1.0/10 Does not support the benefits	8.4/10 Mostly supports the benefits	9.2/10 Mostly supports the benefits	9.7/10 Mostly supports the benefits	8.3/10 Mostly supports the benefits
Risk rating	10/10	5/10	6/10	7/10	10/10
Critical Success Factors					
Contribution to learner educational outcomes and Strategic Fit					
Potential Value for Money					
Supplier Capacity & Capability					
Potential Affordability					
Potential Achievability					
Final Option Score	N/A	69.6/100	62.4/100	51.5/100	7.5/100
Options Ranking		1	2	3	4

Table 4. Shortlist options comparison

The ‘Do nothing’ option results in a significant reputational risk for the Ministry as none of the existing digital tools can cope with the requirement for twice yearly testing for Years 3-8 and there is a lack of appetite for committing further funding to tools that have a limited remaining lifespan.

Option B1 – Off-the-shelf Foundational 2x Yearly is preferred as it is the most affordable and achievable. It contributes well to student educational outcomes and aligns with Ministry strategic direction of buy before build (this approach has been endorsed specifically for this project by the Ministry Design Authority in September 2024). It will also provide an efficient tool for schools to meet the Government’s assessment requirements for twice yearly testing. This option supports the benefits well and has a medium level of delivery risk. The main risk associated with this option is that the Ministry may be constrained by the capability of solutions in the market which may not fully satisfy the business requirements, depending on the final, selected solution (this cannot be confirmed without engaging with prospective suppliers through the RFP process).

Option B2 - Off-the-shelf Foundational 4x Yearly is similar to Option B1, however it is more expensive, but could still be considered affordable. It is also achievable however with a higher level of risk due to requiring higher volumes of assessment content. This option has been considered as it would facilitate more frequent (or ad hoc) assessment to take place, noting that this is above and beyond our immediate requirements.

Option B3 - Off-the-shelf Advanced 4x Yearly is similar to Option B2, however it is more expensive. It is also achievable although with a higher level of risk due to requiring higher volumes of assessment content and having additional complexity.

Option C – Bespoke Foundational 2x Yearly is significantly more expensive and is a high-risk delivery option. It contributes well to student educational outcomes and achieving the stated benefits. This option will however take an additional year to deliver due to the complexities of a bespoke build and e-asTTle would need to be

maintained for a longer period of time resulting in additional investment into a legacy tool. This option would also carry additional responsibilities for the Ministry in regard to ongoing maintenance and platform management.

2.4. What our preferred option delivers

The Off-the-shelf Foundational option addresses the limitations of the current standardised assessment and aromatawai tools and delivers the following:

Dimension	Option description
Scope	<ul style="list-style-type: none"> • Users of the new tool are students (Years 3-10), teachers, educators, leaders, and Ministry administrators • Assessment of the following domains. <ul style="list-style-type: none"> ○ English medium: reading, writing, maths ○ Māori medium: pānui, tuhituhi, pāngarau • 19,200 assessment items developed/updated to volume levels that cater for: <ul style="list-style-type: none"> ○ Year groups 3-10⁵ ○ assessments for each domain of up to 2 times a year⁶ • Improved functionality including: <ul style="list-style-type: none"> ○ modern accessibility approaches⁷ ○ item (content) and data management ○ automated marking of open-ended questions ○ personalisation for students ○ feedback and next steps for teachers and students ○ core report set (up to 5 reports) ○ interactive reporting for teachers, educators, leaders ○ system level reporting • Digital assessment with automated marking for writing and tuhituhi.
Service solution	<ul style="list-style-type: none"> • New off-the-shelf tool configured for New Zealand curriculum and assessment requirements • Includes the following integrations to the tool: <ul style="list-style-type: none"> ○ Education Sector Logon (ESL) - for secure access for teachers and other relevant sector staff ○ Digital Identity for Online Learning (DI4OL) - for secure access for students (if the required use cases can be achieved using DI4OL⁸) ○ Tāhūrangi - to link to next steps for teaching and learning resources ○ manual Student Management Systems (SMS) file import/export – to obtain student and class/group information and provide student assessment results for student reports ○ Operational Data Hub (linked to FIRST, ENROL) – to source school, student, and enrolment information ○ Education Data Warehouse (EDW) - for reporting/insights • Training will include passive resources, combined with workshops and roadshows delivered through business-as-usual Takiwā (regional) operating model. • Ongoing maintenance and support.
Service delivery	<ul style="list-style-type: none"> • The tool will be configured and delivered by the tool supplier who will be managed by the Ministry. The Ministry team will also coordinate the various integrations that are required with Ministry systems. Ongoing maintenance will be funded with operating expenditure (OpEx).

⁵ The tool could be expanded to support other year levels in future, but this is not part of this SSBC.

⁶ Increased frequency of testing requires more items increasing the cost of assessment item development and increases the usage cost where licencing is per test based. A current limit of twice yearly does not prevent increasing the frequency of testing in future with more funding.

⁷ We are required to adhere to NZ Government standards including Web Accessibility Standard 1.1.

⁸ Existing DI4OL lite does not cater for Date of Birth and National Student Number (NSN) which an assessment tool is likely to require.

Dimension	Option description
	<ul style="list-style-type: none"> Outsourced content (assessment item) development.
Implementation	<ul style="list-style-type: none"> A phased technology release. The new tool to be launched with both curricula ready with all domains for Year 3-10 with an initially sufficient level of items followed by the remainder of the items. It is expected that more time will be required to develop Māori medium assessment items due to very low existing volumes of assessment items and the limited number of skilled item developers in the market for Māori medium. This approach will not hold up the launch of the new tool until all assessment content is ready. Additional assessment 'items' will be developed and added to the assessment item banks over the following 21 months.
Funding	The Ministry has identified as much funding as possible to deliver this work. This includes pre-existing operational and capital funding and ongoing savings in outyears generated from decommissioning the e-asTTle tool. These sources will only partially fund the development and ongoing maintenance of the new tool, and delivery will be dependent on additional funding from Budget 2025.

Table 5. Preferred option description

The new tool will provide consistency for monitoring and reporting students' progression in relation to curriculum expectations, year by year. The tool will show progression between each assessment time, providing an accurate information of what students have achieved in relation to curriculum expectations. The tool will also support teachers identify student strengths and areas to focus next teaching on.

As described above, the tool will support teachers and kaiako with both summative and formative assessment and aromatawai. It will not prevent them from carrying out ad hoc summative assessment activities outside of the tool (i.e., in their day-to-day teaching practice) to monitor student progress more regularly.

2.5. What we need to procure

The new tool is intended to be available to the sector in early 2026. Early opportunities to test the tool will be made available to teachers and kaiako from Term 4, 2025.

There are multiple procurements required for the new assessment and aromatawai tool, including both technology, assessment item development and other components.

The procurement will comprise three parts:

1. **Dual language standardised assessment and aromatawai tool** consisting of:
 - a. a standardised assessment and aromatawai cloud-based Software as a Service (SaaS) technology tool which caters for both English and te reo Māori languages.
 - b. an English medium assessment item bank (9,600 items covering reading and maths) that can be localised to the New Zealand context and aligned to the updated New Zealand Curriculum (if available from the supplier)
 - c. services to review/update existing e-asTTle English medium assessment items for the new tool and, if necessary, develop new English medium assessment items for reading and mathematics, and writing prompts and components.

Subject to procurement plan approval, a one-step open market Request for Proposal (RFP) is proposed for this procurement which aligns with Ministry and Government Procurement Rules.

2. **Standardised Māori medium assessment item bank** consisting of services to review/update existing Māori medium assessment items and develop new Māori medium assessment items for pānui and pāngarau (9,600 items covering both domains), and tuhituhi prompts and components potentially using an Automated Item Generation (AIG) tool⁹.

⁹ Automated Item Generation (AIG) is a process that leverages test item templates and computer algorithms to quickly create a large variety of item permutations, or test items.

The rationale for separating this procurement out from the first procurement is that it is not expected that a Māori medium item bank can be procured off the shelf as with the majority of English medium items.

Subject to approval, and in line with the Ministry's procurement policy, the proposed approach will be to undertake a secondary procurement process using the Ministry's Te Reo Māori panel, Kete 3.2 for Māori medium assessment item development.

3. **Other supporting procurements** – services required to deliver and rollout the new tool to the sector including:
- Ministry system integrations including those for digital identity
 - certification and accreditation
 - performance testing
 - e-asTTle item review tool
 - Te Reo Māori writing services
 - Training for teachers
 - support for engagement and communications
 - branding
 - project team tools
 - any project resource and consultancy services that may be required.

Appropriate procurement plans will be developed and approved to cover the tool procurement, and other procurement requirements covering remaining services required.

2.6. What the project costs

The table below summarises the total expenditure and funding required for the preferred Off-the-shelf Foundational option covering twice yearly assessment for Years 3-10 over the next three years and includes ongoing whole of life costs for a 10-year period.

<i>Inclusive of Inflation Summarised</i>							
Financial Case for preferred option							
Smillions	Year 1 2024/25	Year 2 2025/26	Year 3 2026/27	Year 4 2027/28	Years 1- 4 Total	Year 5 & outyears	10 Year Total
Project Capital Expenditure	1.289	13.168	7.018	1.602	23.077	-	23.077
Project Operating Expenditure	1.248	20.133	15.439	1.066	37.887	-	37.887
Total Project Expenditure	2.537	33.301	22.457	2.669	60.964	-	60.964
Ongoing Operating Expenditure	-	7.642	12.474	13.115	33.231	13.793	115.988
Total Expenditure	2.537	40.943	34.931	15.783	94.195	13.793	176.951
Funding from Budget bids							
Departmental funds	2.537	12.000	-	-	14.537	-	14.537
Non-Departmental funds	-	-	-	-	-	-	-
Funding from existing baselines							
Departmental funds	-	-	-	0.927	0.927	0.927	6.488
Non-Departmental funds	-	-	-	-	-	-	-
Total internal funding	2.537	12.000	-	0.927	15.464	0.927	21.026
Funding Shortfall	-	(28.943)	(34.931)	(14.856)	(78.730)	(12.866)	(155.926)

Table 6. Preferred option financial summary

The table shows the total funding required of \$78.7 million during the procurement and implementation period (years 1-4), as well as ongoing operating expenditure from year 5 onwards of \$12.9 million per annum.

Contingency of 25.5%, has been included in the overall expenditure amounting to a value of \$35.0 million.

The ongoing operating cost covers the cost of tool licensing, support and maintenance, item bank review/updates and psychometric assessments. From Year 4 onwards, the ongoing operating cost is offset by cost savings of \$0.927 million per year following the decommissioning of the existing e-asTTle once the replacement tool has been rolled out.

Affordability and funding

The costs for FY 2024/25 (Year 1) will be funded from existing departmental funds. \$12 million of capital expenditure for FY 2025/26 (Year 2) will also be funded from existing departmental funds.

The Ministry does not have capacity within its capital or operating funding for the delivery and ongoing support of the new tool, and will seek additional funding from Budget 2025. The total funding sought to fund project and ongoing cost over the ten-year lifespan is \$155.926 million (\$9.788 million capital and \$146.1 million operating). Over the five-year budget forecast period the total sought is \$91.596 million (\$9.8 million capital and \$81.808 million operating).

The funding sought includes a permanent annual uplift to the Ministry's ongoing appropriation of \$12.866 million (opex only) per annum from year 5 onwards. If the tool only catered for Years 3-8, there would be a reduction in cost of \$5.4 million for the assessment items for Years 9 and 10 plus associated ongoing maintenance, depreciation, capital charge and inflation costs.

It should be noted that we will be purchasing a tool that has the functionality to increase future scope if required. Possible future increases to scope are not factored into this business case and would require additional funding (including to meet the cost of increased ongoing licensing and use cost and impact the whole of life cost). Increases in scope in the future will need to be funded separately, 9(2)(f)(iv)

9(2)(f)(iv)

The tool will leverage and integrate with existing Ministry systems for data and security thereby avoiding additional costs.

2.7. How we will deliver the project

We will put processes in place to ensure successful implementation and rollout of the new assessment and aromatawai tool to the sector.

Methodologies

The project will be managed using the Ministry Delivery Framework. The project will adhere to the CACP Management Framework guidance, including standards, processes, templates, and tools.

The project individual workstream delivery will use the Scaled Scrum based Framework which organises work into iterative cycles called sprints, with roles like the Product Owner, Scrum Master, and Development Team, and emphasises transparency, inspection, and adaptation through events like sprint planning, daily stand-ups, sprint reviews, and retrospectives.

The project will align to the Implementation Change Framework (Plan) of the broader CACP which is based on Prosci's 3 Phase Process® including the ADKAR model to support successful change.

Governance and structure

As this project is part of the CACP, it comes under the umbrella of the governance structure for CACP. The governance and management arrangements are set out in detail below (section 7: Management Case) and will be expanded in the Project Implementation Plan (PID) and other relevant documentation once the Business Case has been approved.

The project team will work closely with the CACP Programme Director, SRO and Programme Governance Board (PGB) throughout the lifecycle of the project to ensure the business and technology solution delivers the expected outcomes, within time and cost, to the agreed level of quality.

Delivery

The following is the high-level delivery plan for delivering the new tool.

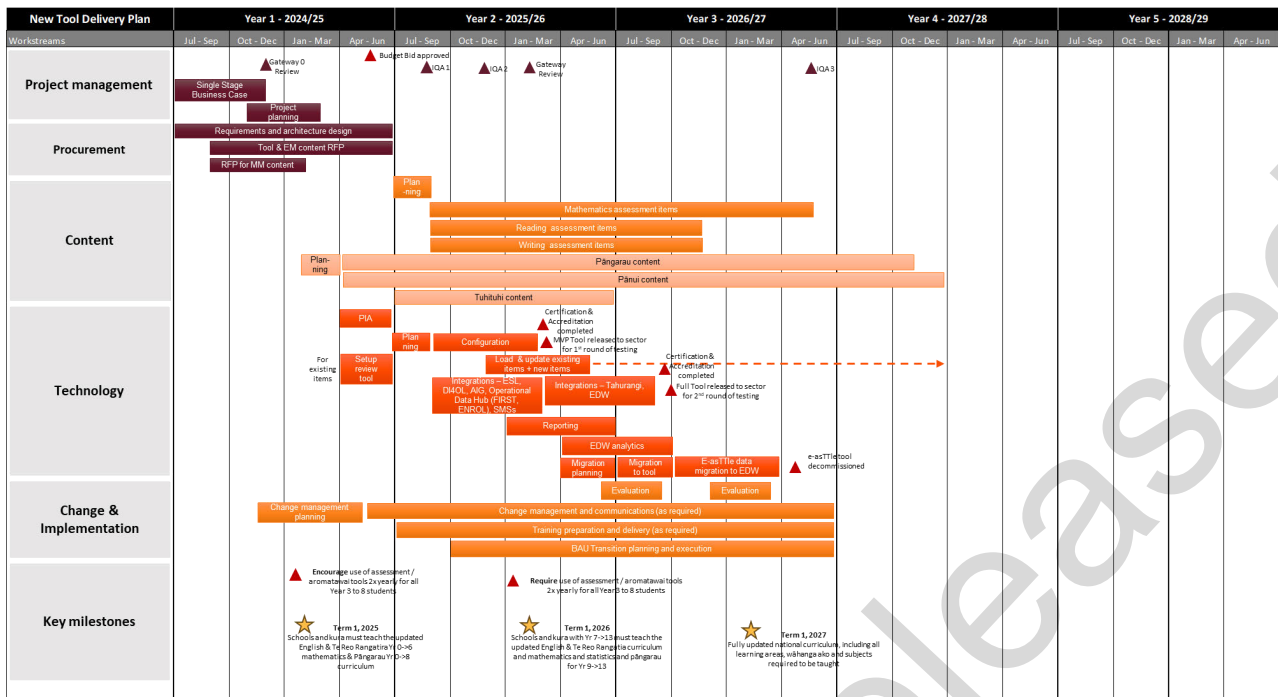


Figure 2. High-level delivery plan (a larger view is available in Appendix 14)

The Minister of Education has indicated an intention to require all schools and kura to carry-out twice-yearly assessments for students in Years 3-8 from 2026, as part of the Government’s priority action to implement consistent modes of monitoring student progression and achievement. An important foundational aspect of this is the need for a standardised tool to support schools and kura with assessment of students.

The new tool is intended to be available to the sector in early 2026, with an initial set of assessment item banks (in both English and te reo Māori), which will be added to over the following twenty-one months.¹⁰ This will enable assessment of all in scope students to be undertaken from early 2026¹¹.

Early opportunities to test the tool will be made available to teachers and kaiako from Term 4, 2025.

The final version of the assessment item banks, which will include item banks in both English and te reo Māori, is intended to be available in late 2026. Based on availability of items, and options for use of items, across both mediums, this timeline is expected to reduce. e-asTTle will be decommissioned following migration of historical data to the new tool and an appropriate education data warehouse.

The fast-track approach to deliver a tool to the sector in 2026 to enable the requirement to use an assessment and aromatawai tool for twice yearly testing¹² carries a number of risks. Risk mitigations will be incorporated into detailed implementation project planning.

An extended timeframe to deliver Māori medium assessment items is required. We currently have a very small numbers of assessment items written in te reo Māori that can be used in Māori medium. It is also unlikely that suppliers will have assessment item banks available in te reo Māori, therefore a considerably larger number of Māori medium items need to be developed. There is also a limited capacity of te reo Māori assessment item developers, which contributes to the longer timeframe.

The existing business teams in Te Pōtahū and product team in Te Pou Hanganga, Matihiko | Infrastructure and Delivery will transition from supporting e-asTTle to the new tool from January 2026 onwards for ongoing support and service delivery.

Managing change, engagement, and communications

¹⁰ The initial release of the tool will only contain minimal assessment items (as these are being produced over time). This means that, to facilitate student assessment and aromatawai in early 2026, the tool may use some static tests as content whilst the auto generated tests are created.

¹¹ An initial version of the new tool is intended to be available to the sector in early 2026, with early implementation opportunities made available to teachers and kaiako from Term 4, 2025.

¹² Information Update: Twice-yearly assessment decisions and next steps, 24 October 2024 (METIS 1338352)

The assessment and aromatawai tool will have a range of change impacts for schools and kura, teachers and kaiako, students and ākonga as well as the Ministry and other education agencies. In particular, there will be a difference between the impacts for English medium schools and kura delivering teaching and learning through te reo Māori. This is due to differences in the current state of assessment and aromatawai practices, processes and tools. An appropriate approach for kura delivering teaching and learning through te reo Māori will need to be designed within the overall framework to ensure successful adoption of the tool.

The Ministry's change approach will need to carefully address the risk of change resistance across the education sector, including with peak bodies and associations. This is particularly acute given historical resistance to national standardised assessment.

Benefits management

The benefits and KPIs will be tracked using agreed metrics and will be documented in the CACP Programme's Benefits Realisation Plan (BRP).

Project assurance

The Treasury Risk Profile Assessment for this project is 'high' which necessitates monitoring by Treasury, noting that the CACP as a whole is being monitored by Treasury.

We have allocated funding for assurance activities across the project. The CACP Assurance Plan, which is currently being updated, will be used by the project. This is being updated in conjunction with the Ministry's Internal Audit and Assurance team.

A CACP Programme Gateway 0 review took place in December 2024, which included this Business Case. Feedback from Treasury has been addressed.

2.8. Recommendations and next steps

This Business Case seeks:

- Approval to continue with the new Standardised tool for Assessment and Aromatawai project
- Approval to implement the preferred investment option (Option B1 – Off-the-shelf Foundational 2x Yearly)
- Approval of funding for estimated CapEx and OpEx whole of life costs across a 10-year term.

3. Strategic Case

3.1. Introduction

The Strategic Case summarises the strategic context for the investment proposal and makes the robust case for change. It demonstrates alignment of the proposed investment with wider national or sectoral priorities and goals, policy decisions, other multi-agency projects (if relevant) and with the Ministry’s strategic intentions.

3.2. Organisational Overview

The Ministry plays a critical role in shaping the education system to deliver equitable and excellent outcomes for all children and young people. The education system touches every person, whānau and community in New Zealand and is a major contributor to improving our society and economy.

Within the Ministry, Te Mahau (including the business groups Te Poutāhū, Te Pae Aronui and the takiwā/regional teams), all play crucial roles in supporting schools and kura to design and implement teaching and learning programmes¹³ that deliver the national curricula and provide access to a nationally and internationally recognised qualification¹⁴, so that every student is able to attain their highest possible standard in educational achievement¹⁵. This includes supporting schools and kura to monitor and report on student performance¹⁶ using good quality assessment and aromatawai information. We work together to deliver and implement meaningful system changes so that students and ākonga have equitable access to high-quality teaching, learning and assessment opportunities.

The ecosystem diagram below provides an overview of Te Poutāhū, in collaboration with the wider Te Mahau, services that contribute to lifting the quality of teaching and learning. These sit alongside wider system initiatives (e.g. those strengthening attendance, workforce and learning support) that all play a part in strengthening student progress and achievement.

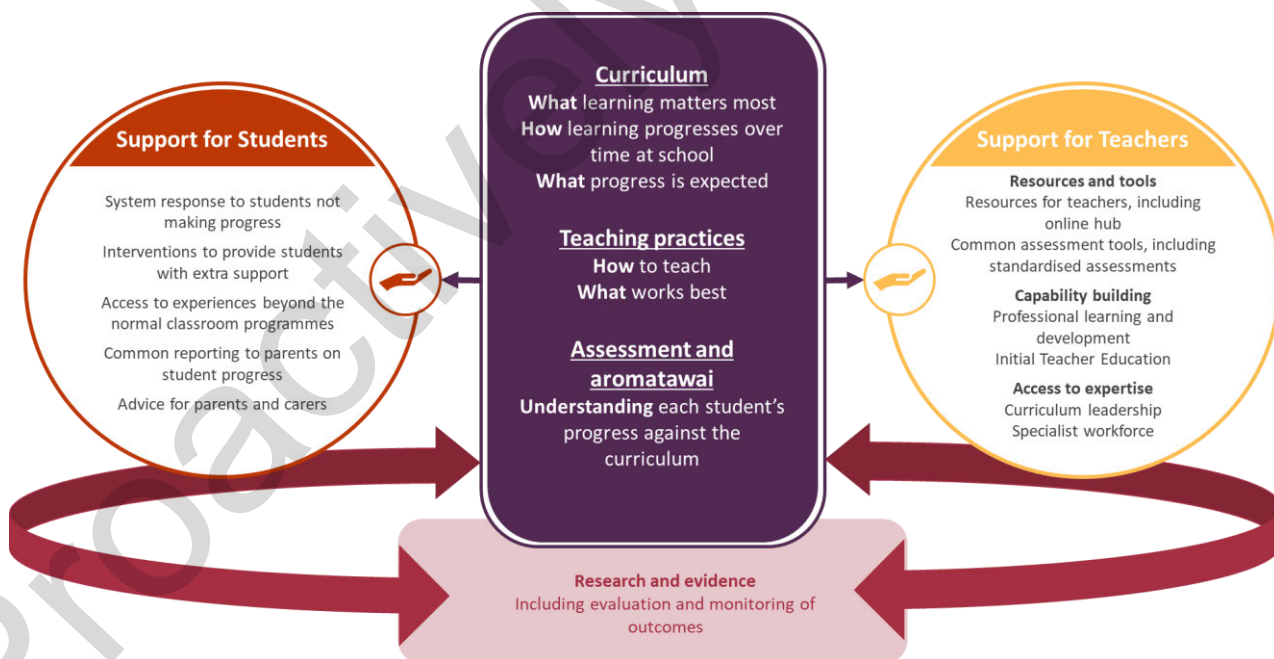


Figure 3. Curriculum, assessment and aromatawai ecosystem.

¹³ Section 164 of the Education and Training Act 2020.

¹⁴ Issued by the Minister of Education under section 90 of the Education and Training Act 2020.

¹⁵ Section 127 of the Education and Training Act 2020.

¹⁶ Section 165 of the Education and Training Act 2020.

The National Curriculum with assessment and aromatawai are critical for driving improvement in student outcomes, both at the individual level and in relation to overall system performance. By setting out what needs to be taught and the learning progress expected, the national curricula define the core outcomes the education system needs to deliver for students: Te Marautanga o Aotearoa provides these for those learning through te reo Māori and The New Zealand Curriculum provides these for other settings. Assessment and aromatawai enables people to understand whether those outcomes have been achieved in relation to the relevant curriculum, and then trigger a response to be acted upon, where they are not being achieved.

3.3. Alignment to strategic intentions

Summary

In line with Government priorities, we are introducing a strategically driven, coherent, whole-of-pathway approach to assessment, aromatawai, reporting and monitoring such that good quality data about students' learning is available to inform teaching and learning, provide timely information to parents, whānau and caregivers, and inform decisions at every level of the education system.

This Business Case seeks new investment to deliver an up-to-date assessment and aromatawai tool aligned to the updated New Zealand Curriculum (NZC) and Te Marautanga o Aotearoa that assists teachers and kaiako to support students and ākonga on their learning journey as part of this process.

The Business Case, while a key part of the delivery of the assessment and aromatawai strategy and Government Target 7, is not a business case for the full assessment and aromatawai strategy.

Investing in the new tool is one of the most important and powerful levers available to us to improve the quality of information available to lift educational outcomes for all students – by enhancing teaching, learning, assessment and aromatawai practise, aligned with our new National Curriculum.

While the chief benefit of the tool will be for teachers and kaiako, supporting them to assess and respond to individual student needs, it will also deliver meaningful benefits to all levels of the education system, including:

- parents, whānau and caregivers: improving the information schools and kura make available to them through regular reporting processes, and empowering them to support continuous learning outside of the classroom;
- students and ākonga: enhancing student agency over their own learning outcomes;
- Government, Ministry of Education and other central agencies: enabling evaluation, monitoring and insights into system-level investments and performance.

This investment will deliver a new assessment and aromatawai tool that is freely available to schools and kura, replacing the current e-asTTle tool which is old technology, technically unstable and does not fully align with the new curricula. The key drivers for this investment are to:

- Provide schools and kura with a fit-for-purpose tool for consistent and reliable understanding of student progress and achievement in reading, writing, maths, pānui, tuhituhi and pāngarau aligned to Years 3 to 10 of the updated national curricula (Te Marautanga o Aotearoa and The New Zealand Curriculum). This will support schools and kura to:
 - deliver teaching and learning programmes that meet their students' needs, including identifying when additional support is needed
 - maximise the opportunity of new technologies that strengthen teacher capability and effectiveness to monitor and report on student progress and achievement as they travel through the schooling as part of meeting their obligations the Education and Training Act 2020 to monitor and report on student performance.
- Enable delivery on key actions under the Minister of Education's 'smarter assessment and reporting' priority, which are part of delivery plan activities contributing to achievement of Government Target 7: More students at expected curriculum levels. This includes an intent to mandate the use of standardised tools for twice-yearly testing of Year 3 to 8 students.

- Enable the creation of trusted data about student progress and achievement in Years 1 to 10 which can be shared and used through a digitally connected education data ecosystem. This will fill a critical data gap for understanding impacts of investments. This supports the Minister of Education’s ‘greater use of data’ priority.

This investment will also deliver the supports teachers, kaiako and leaders need to use the new tool to assess student learning and to make use of the data to improve student outcomes, including professional learning. The new tool will have the flexibility to respond to future needs (e.g. to cover other areas of the curricula that are not part of this Business Case) and able to be updated in response to any content changes in the curricula through their regular review and maintenance cycles.

Context

The Ministry has a well-established programme of work that is strengthening all elements of the ecosystem. Central to this programme is work being undertaken to update the national curricula for schooling (comprising the New Zealand Curriculum and Te Marautanga o Aotearoa) to be knowledge rich, provide clarity about what students need to understand, know and do in each year, and based on the science of learning. As the curricula is updated, this flows through to the rest of the ecosystem so that teacher training and all tools, resources, supports are aligned with what schools and kura are required to deliver in their teaching and learning programmes.

This wider Ministry work programme has been adjusted to reflect the current Government’s priorities and is reflected in the delivery plan for Government Target 7: More students at expected curriculum levels (the Achievement Target).¹⁷ These adjustments have heightened the focus on national consistency and prioritised action on lifting reading, writing and maths (pānui, tuhituhi and pāngarau).

The work programme is putting in place equivalent settings and support for both schooling curricula pathways – Te Marautanga o Aotearoa for those learning through te reo Māori and The New Zealand Curriculum for other settings. This contributes to *Maihi Karauna*,¹⁸ which outlines what the Crown will do to support a strong, healthy, thriving Māori language in Aotearoa New Zealand, and *Tau Mai Te Reo*,¹⁹ the Māori Language in Education Strategy.

While this work programme has its origins in the need for transformative change in our national curricula system, including substantive shifts in the approach to curriculum content, the intention is to establish systems and processes that avoid such ‘big bang’ change in the future. In particular, the intention is to move to a regular cycle of planned maintenance and review of the curricula content. This means that all supports for the curricula, including assessment and aromatawai tools, will need to be able to be easily reviewed and updated so that alignment with the relevant curricula is maintained as expectations for teaching and learning are updated.

Contribution to the Government’s Achievement Target

The intervention logic for the Achievement Target (Appendix 12) includes progression monitoring implemented coherently across the whole schooling pathway so that quality information is available to inform decisions and monitor improvement. This requires assessment and aromatawai to be strengthened in relation to four key purposes:

1. Assessment and aromatawai for **teaching and learning** – informed by quality information that supports effective practice and identifies next steps in learning for teachers and kaiako, including whether additional support is needed.

¹⁷ Refer <https://www.dPMC.govt.nz/our-programmes/government-targets> for details of the target and quarterly reporting on progress. The full wording of the target is “80% of Year 8 students at or above the expected curriculum level for their age in reading, writing and maths by December 2030.”

¹⁸ [Maihi Karauna: the Crown’s Strategy for Māori Language Revitalisation 2019 – 2023](#)

¹⁹ [The Māori Language in Education Strategy](#)

2. Assessment and aromatawai for **reporting** – learning outcomes and progress is shared and understood with all stakeholders (students, parents/whānau, the school and the community).
3. Assessment and aromatawai for **credentialling** – accurate, summative, internationally-recognised assessment information supporting ākonga into next steps of academic or vocational pathways.
4. Assessment and aromatawai for **system monitoring** – student learning achievement and progress is understood and shared across the system (at a Ministry level) to guide actions to improve student learning at a system level.

As well as updating assessment and aromatawai for each of those four purposes to align with the updated national curricula, there is a well-established need to strengthen assessment and aromatawai practice across the system, including filling gaps in the available toolkit. To address this, Te Poutāhū has a strategic framework to guide work it is progressing to update and create assessment and aromatawai tools and approaches. This requires consideration of: evidence-informed approaches; equity, inclusion and accessibility; outcomes and impacts; enabling infrastructure; building capability; tools and resources to support practice. This framework is more fully described in Appendix 11.

Contribution to the Minister of Education’s priorities

As above, the Government’s Target 7 seeks to realise more students at expected curriculum levels (the Achievement Target). To achieve this, the Minister of Education has set six priority areas for action all of which are relevant to this Business Case as set out in the table below. Note that in all cases this Business Case is constrained to assessment and aromatawai against the Year 3-10 content in the new English and Mathematics and Statistics learning areas and Te Reo Rangatira and Pāngarau wāhanga ako. In relation to the English learning area, the focus is on the teaching and learning of literacy (reading and writing). In relation to Te Reo Rangatira wāhanga ako, the focus is on the teaching and learning of te reo matatini (pānui and tuhituhi).

1. Clearer curriculum: Establishing a knowledge-rich curriculum grounded in the science of learning.	This Business Case is for the delivery of a fit-for-purpose tool aligned to the content and progression expectations of the new curricula.
2. Better approach to literacy and numeracy: Implementing evidence-based instruction in early literacy and mathematics.	This Business Case is for the delivery of a fit-for-purpose tool for monitoring student progress, which is an integral part of providing evidence-based instruction.
3. Smarter assessment and reporting: Implementing consistent modes of monitoring student progress and achievement.	This Business Case is to progress the delivery of Government commitments under this priority, as described further below.
4. Improved teacher training: Developing the workforce of the future, including leadership development pathways	This Business Case includes implementation activities which will train teachers, kaiako and leaders in the use of the tool (integrated with wider activities to build assessment and aromatawai capability).
5. Stronger learning support: Targeting effective learning support interventions for students with additional needs.	Monitoring of student learning progress and achievement using a fit-for-purpose tool will enable identification of students who need additional support.
6. Greater use of data: Using data and evidence to drive consistent improvement in achievement.	Sharing and use of data (with appropriate protections) held in a fit-for-purpose tool will address key data gaps constraining targeting of investment and analysis of impacts at a system level, as described further below.

Table 7. Contribution of this business case to Minister of Education priorities (in relation Year 3-10 literacy, te reo matatini, maths and pāngarau

Smarter assessment and reporting

The Government’s intentions for progression monitoring are set out in *Implementing Regular and Consistent Assessment and Reporting of Student Progress and Achievement* [SOU-24-MIN-0060], which describes the Minister of Education’s work programme for delivering on her ‘Smarter assessment and reporting’ priority.

The following diagram shows planned assessment and monitoring coverage for the schooling pathway (Years 0 to 13). This business case relates to the standardised tools for Years 3-8 and Years 9-10.

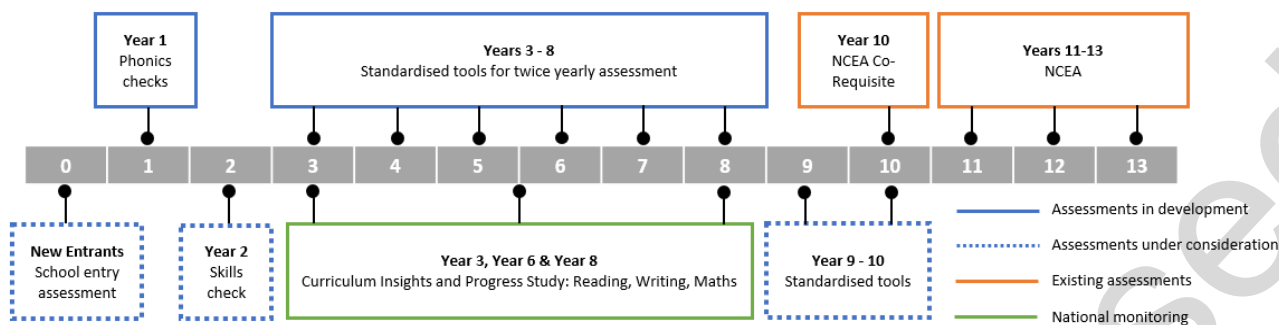


Figure 4. Proposed assessments along the schooling pathway

The Government has signalled its intent to mandate twice-yearly use of standardised tools to assess the learning of Year 3-8 students in reading, writing and maths or pānui, tuhituhi and pāngarau [SOU-24-MIN-0060 and *Make It Count – a maths action plan*]. Consideration is still being given to whether to require one tool (the one which is the subject of this business case) or multiple tools – one Ministry provided tool available (the one which is the subject of this business case) and potentially others from private providers that meet required standards which schools and kura would pay for out of their operating grants. Mandated requirements are currently planned to come in from 2026, but the timing is subject to further advice on system readiness as there are currently no fully fit-for-purpose tools available. Regardless of the potential for schools and kura to be provided with a choice of tool, the Ministry provided tool which is the subject of this business case needs to be able to withstand 100% uptake by all schools and kura across initially for all Year 3-10 students and scalable for all Year 0-10 for future-proofing.

All students, including students with disabilities, have a right to education on an equal basis as other students.²⁰ This means that all students need to have their learning assessed and responded, and that reasonable accommodations need to be provided. Inclusion and accessibility is part of the framework for assessment and aromatawai in Appendix 11, reflecting the New Zealand Disability Strategy.²¹ In the context of introducing mandatory requirements to assess students using (a) specific tool(s), the identified tools need to be inclusive and accessible with clearly identified, justifiable and constrained grounds for exempting students. Where accessibility needs to be enabled via equipment, environment or engagement (rather than being built into the tool itself), teachers and kaiako need the guidance and support to identify and address these barriers.

Greater use of data

The Minister of Education is still finalising her work programme for delivering on her ‘Greater use of data’ priority and has not yet made proposals to Cabinet. It is expected to include: a core education outcomes and indicators measurement framework; minimum contract performance reporting; clear standards of evidence and evaluation; more efficient and effective inter-agency data and information sharing; and a connected and integrated digital ecosystem.

Better student progress and achievement data ahead of NCEA has long been identified as a critical gap in the education data ecosystem, and has been reiterated in a recent report²² from the Controller and Auditor-General. A 2019 report from the Curriculum, Progress and Achievement Ministerial Advisory Group²³ (CPA MAG) on how to address that gap included advice that the national curriculum did not have sufficient clarity about what needed to be learnt and what progress looked like. Creating this clarity was identified as a critical and foundational step towards improving both the quality of teaching and learning (because teachers will be clearer about what needs to be taught and what progress looks like) and the quality of information about

²⁰ Article 24 – Education of the United Nations Convention on the Rights of Persons with Disabilities.

²¹ [pdf-nz-disability-strategy-2016.pdf](https://www.mde.govt.nz/assets/Uploads/pdf-nz-disability-strategy-2016.pdf)

²² Ministry of Education: Promoting equitable educational outcomes, October 2024, The Controller and Auditor-General

²³ [Strengthening curriculum, progress, and achievement in a system that learns](#)

student outcomes (because we will be measuring what we expect students to be taught and judging progress against a common set of expectations).

This advice ultimately led to the decision to update the national curricula, which is now well progressed with the new Year 0-6 English and Te Reo Rangatira and Year 0-8 Mathematics and Statistics and Pāngarau content coming into effect in 2025. Updated content for these learning areas and wāhanga ako through to Year 13 will come into effect in 2026. Updated content for the remaining learning areas and wāhanga ako and the overarching frameworks for each curriculum will come into effect in 2027, after which a planned cycle for review and maintenance will begin.

The CPA MAG also identified that there was a need for high quality, efficient, and fit-for-purpose assessment tools and approaches that inform teaching and learning and support reciprocal information-sharing. The information from these tools was to be incorporated in a 'record of learning' for each child that would travel with them and provide access to meaningful information for a range of purposes and audiences (not in scope of this business case). Alongside this, there was also a need to increase trust in the collection, sharing and use of data across the education system, including use of individual-level student outcome data by the Ministry. Work on assessment and aromatawai tools aligned to the new curricula is being in the context of *Connected Ako: Digital and Data for Learning: A strategy for education agencies 2023 – 2033*²⁴ and the all-of-government *Strategy for a Digital Public Service*²⁵. While Te Poutāhū takes a 'digital first' approach to service design, digital inequities need to be considered (e.g. recognising equipment may not be available for all students to access an assessment digitally in a short space of time or that printed copies may be needed).

Student progress and achievement data along the learning pathway has been identified as a priority for adding to the Integrated Data Infrastructure. This reflects the interaction between education outcomes and wider social and economic outcomes. Poor social and economic conditions are associated with lower educational outcomes. Poor educational outcomes are associated with lower social and economic outcomes and higher costs to other government agencies, including in the justice, health and social welfare sectors.

In addition, the Ministry has identified that there are gaps in its ability to understanding educational outcomes for disabled students. As noted above, assessment and aromatawai tools need to be inclusive and accessible for as many students as possible. This will improve population coverage in the datasets, enable progress and achievement data to be disaggregated by disability or learning support need where this information is available.

At the system level, there are a range of questions that the Ministry needs to answer using valid and reliable data. Some of these can be answered via sample-based studies (e.g. Curriculum Insights and Progress Study and the new Tīrewa Matai study which is being developed). Others require individual level data as indicated in the table below.

Note that Data management practices will align to government standards and existing Ministry data policies. Any information gathered which relates to individual student progress will not be directly accessed or utilised by the Ministry other than at an aggregated level for the purposes of understanding system-level challenges and opportunities, including:

- Data at system level will be used to help guide teacher professional learning and development and system-level interventions to help address and improve student progress through the schooling system.
- Data will be used to inform data-driven decision making.

These are the purposes for which information in the standardised tool would be used.

Indicative questions

²⁴ [Connected Ako: Digital and Data for Learning](#)

²⁵ [Strategy for a Digital Public Service | NZ Digital government](#)

<p>Understanding, investing in, and reporting on child wellbeing (through progress and achievement)</p> <ol style="list-style-type: none"> 1. How does the New Zealand system compare internationally? 2. Does the New Zealand education system have the same distribution of achievement as other jurisdictions? 3. On average, is there achievement for each subject area? 4. What does the distribution of achievement look like? 	<ol style="list-style-type: none"> 1. Sample data 2. Sample data 3. Sample data 4. Sample data
<p>Understanding what additional support is needed for students to progress</p> <ol style="list-style-type: none"> 1. What are the characteristics of students are not progressing, when? 2. Which groups of students need more support than we are giving? 3. What supports work for different types of student need? Do we need new kinds of supports? 4. What is the likely need for different types of support in following years (better forecasting of demand) 5. What diversity and range of ability and need is there? 	<ol style="list-style-type: none"> 1. Individual data²⁶ 2. Individual data 3. Individual data 4. Individual data 5. Sample data
<p>Understanding what additional support is needed for teachers, kaiako, leaders, schools and kura (and supporting reporting to parents and whānau)</p> <ol style="list-style-type: none"> 1. How are teachers, kaiako, leaders, schools and kura going at delivering the curriculum? 2. What areas are teachers, kaiako, leaders, schools and kura struggling with? 3. What supports work to improve teacher, kaiako, school and kura impact on student outcomes? 4. What is the likely need for different types of support in following years (better forecasting of demand) 	<ol style="list-style-type: none"> 1. Sample data 2. Sample data 3. Individual data 4. Individual data
<p>Monitoring the effectiveness of Ministry investments to ensure resources are going to where they are needed</p>	Individual data
<p>Enabling schools and kura to use system level information to compare their own outcomes and inform their practice</p>	Individual data
<p>Identifying and sharing areas of best practice to inform research, guidance, and decisions, including an increase in the sharing of knowledge between Māori- and English-medium</p>	Individual data
<p>Understanding what changes are needed in order to deliver excellence and equitable outcomes and meet our Treaty obligation</p> <ol style="list-style-type: none"> 1. Is the education system effective in overcoming disadvantage and inequity? 2. How many children are achieving at expected curriculum levels? 3. Are all children progressing in their learning over time? 4. Are there points in time when children need more support, or does the system itself need changing? 5. How long is the tail of underachievement? Is it changing over time? 6. Which children are in that tail and what supports work for these children? 7. What would a locally-responsive and child centric service look like to meet this diversity? What kind of policy could we be designing? 	<ol style="list-style-type: none"> 1. Individual data 2. Sample data 3. Individual data 4. Individual data 5. Sample data 6. Individual data 7. Individual data
<p>Complying with and reporting on Government's national and international obligations</p>	Sample data

Figure 5. Purposes for using individual level progress and achievement data

For clarity the information in the tool will not be used by the Ministry (at either regional or national level) to identify or understand the needs of named students, teachers, kaiako, leaders, schools or kura. This type of use will also not be permitted by external parties who may request access to data, including the Education Review Office. Where there is a valid need for the Ministry or Education Review Office to see the data of a specific school or kura, then this will be requested from that school or kura. Similarly, where there is a valid need for the Ministry to see the data of a specific student (e.g. in the context of providing learning support), then this will be requested from the relevant school or kura subject to permissions from the student's parent or caregiver.

3.4. The Case for Change

²⁶ As above, any information gathered which relates to individual student progress will not be directly accessed or utilised by the Ministry other than at an aggregated level for the purposes of understanding system-level challenges and opportunities.

Achievement in education matters. Education lifts individual life outcomes, and it provides the people and conditions to lift productivity and advance our society. It is a truly universal service, and all 6-16 year olds must attend school. The costs associated with students not realising their full educational potential are significant. Analysis says welfare costs are higher for those with no or low qualifications. And those with no qualifications are 5 times more likely to get a corrections-managed sentence by age 22 than those with NCEA level 2 and 30 times more likely than those with NCEA Level 3-4. Analysis also indicates that people with no qualifications are less likely to report good general health.

Reading, writing, maths (pānui, tuhituhi and pāngarau) are fundamental skills and knowledge that all children need to unlock the wider curriculum and progress and achieve in all learning areas and wāhanga ako. They also have long-term implications beyond schooling: adults with baseline literacy and maths skills are more likely to gain higher qualifications, be employed, and have higher incomes. Too many of students are not receiving the teaching and support they need to succeed in their literacy and maths learning. This is a persistent pattern in our system, and work is needed to address the decline in student achievement.²⁷ Large numbers of students are also at risk of not obtaining the new NCEA co-requisites in literacy and numeracy, or te reo matatini and pāngarau. This reflects inequities that arise early in the teaching and learning pathway and disproportionately affect particular groups of students.²⁸

We also know that the rate of progress in reading, writing and maths declines on average as students move up the years of schooling.²⁹ Between Years 4 and 8 there is an overall reduction in the proportion of students achieving at or above curriculum expectations. In addition, the transition from Year 8 to Year 9 is associated with the lowest mean annual progress for all three areas of learning. When assessing learning, it is important that teachers and kaiako are paying attention to the pace of progress as well as where a student is at against curriculum expectations. If progress is slowing, this can indicate a need for additional support. If action has been taken in response to lower-than-expected achievement, then teachers and kaiako need to check that progress is happening and accelerating (i.e. that in time the trajectory of progress indicates that the student will meet expectations for their Year level).

There is widespread recognition that evaluation and assessment arrangements are key to both improvement and accountability in school systems.³⁰ John Hattie's 2008 review³¹ of the effect size of different teaching strategies found that the key to making a difference to students is to make teaching and learning visible. This includes purposeful use of assessment to reveal the impact teaching has had on students, and which students it has impacted. To create learning gains, assessment information needs to be used formatively by teachers in the classroom to modify teaching and learning activities and provide feedback to students about their learning.³²

²⁷ New Zealand has attained relatively good median scores in international literacy surveys for school learners in English medium settings, but these have significantly declined in recent years. The Progress in International Reading Study (PIRLS, 2015) showed a marked slide in New Zealand's average achievement levels and ranking. The National Monitoring Study of Student Achievement (NMSSA, 2019) found that fewer learners in Year 8 achieved at or above curriculum expectations set by the NZC compared with Year 4 in all five modes of literacy learning. Meanwhile in maths the NMSSA found 45% of Year 8 learners achieved at or above curriculum expectations, and the Trends in International Mathematics and Science Study (TIMSS, 2019) shows a significant decrease in the achievement of Year 9 students – 11 points lower than in 2014, and 19 lower than 1994.

²⁸ Analysis of the OECD's Programme for International Assessment (PISA) literacy and maths achievement data shows inequities start early and persist. Similarly, TIMSS (2019) notes 'a powerful positive relationship between students' socioeconomic environment and their educational achievement', and that New Zealand has a wide (and widening) range of achievement compared with other countries. There is also an intersection between socioeconomic circumstances and ethnicity, with socioeconomic disadvantages disproportionately impacting Māori and Pacific learners. The Royal Society Te Apārangi report on maths (2021) states NMSSA and TIMSS data shows 'our current system perpetuates, indeed exacerbates, inequity of outcomes'.

²⁹ Ministry of Education. May 2018. Achievement and progress in mathematics, reading and writing in primary schooling. [Achievement and progress in mathematics, reading and writing in primary schooling | Education Counts](#)

³⁰ OECD Reviews of Evaluation and Assessment in Education. 2013. Synergies for Better Learning: an international perspective On evaluation and assessment. [Synergies for Better Learning | OECD](#)

³¹ Hattie, John. 2008. Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement. <https://visible-learning.org/>

³² Black, Paul and William, Dylan (1998) 'Assessment and Classroom Learning', Assessment in Education: Principles, Policy & Practice, 5:1, 7 – 74. <http://dx.doi.org/10.1080/0969595980050102>

While the potential impact of effective assessment practices on learning is well-established in the evidence, it is not yet well embedded in practice in New Zealand.³³ In the context of a workforce with variable capability, standardised assessment tools³⁴ have an important role as they provide a valid and reliable measure based on a consistent set of tests. Looking at standardised assessment information alongside other forms of assessment and aromatawai information also helps grow the reliability of the judgments teachers and kaiako make day-to-day about student learning.

Assessment and aromatawai needs to be strengthened along the pathway and across the curricula. The Government has prioritised providing a fit-for-purpose standardised tool for assessing Year 3-10 students in reading, writing, maths, pānui, tuhituhi and pāngarau (the scope of this business case) given the importance of this learning and evidence that progress slows during these years.

The primary purpose of this tool is to ensure that all students benefit from high quality assessment of their learning progress using a standardised tool, with teachers and kaiako using the data formatively to inform teaching and learning and to identify where additional support might be needed. The information in the tool is also intended to be used for system level purposes via secondary analysis of the data, but this is not intended to substantively undermine or overweigh the primary purpose. The tool is also not intended to be the sole way that teachers and kaiako assess learning progress against the national curricula, and other assessment approaches and professional judgements will remain important in line with regulatory expectations.³⁵

The table below provides an overview of school and kura Term 1 2024 usage of standardised tools for assessment provided by the Ministry of Education (the Ministry) and the New Zealand Council for Educational Research (NZCER). It shows that only 19% of schools use a consistent tool for assessing writing tuhituhi, and around 60% for reading and pānui and mathematics and pāngarau³⁶.

Curriculum area	Schools and kura using tools in Term 1 2024
mathematics and pāngarau	61%
reading and pānui	60%
writing and tuhituhi	19%

Table 8. Schools and kura using tools in Term 1 2024

The figures above are not however reflective of the number of students that are assessed. Ministry analysis indicates that within-school usage varies, and not all students in a school may be tested regularly.

³³ A 2018 [Trends in assessment: An overview of themes in the literature](#) review by the New Zealand Council for Educational Research (NZCER) located limited substantive evidence that assessment capability has improved since a 2007 Education Review Office (ERO) report found that just over half of New Zealand primary schools and fewer secondary schools were demonstrating effective assessment practices.

³⁴ For example, the Ministry of Education's e-asTTle and the NZCER's Progressive Achievement Tests (PAT).

³⁵ In the Education (School Planning and Reporting) Regulations 2023 and Education (School Boards) Regulations 2020 state that "good quality, in relation to assessment or aromatawai information, means that the information draws on a range of evidence to evaluate the progress and achievement of each student and build a comprehensive picture of that student's learning."

³⁶ Analysis looked at the Ministry's e-asTTle tool (maths, pāngarau, reading, pānui, writing and tuhituhi) and NZCER's Progressive Achievement Tests (maths and reading comprehension) and STAR tool (reading).

The inconsistent use of standardised tools is contributing to three key problems. These problem statements were informed by a facilitated Investment Logic Mapping (ILM) workshop with key stakeholders in July 2024 and have been refined through further work on the strategic case and problem definition.

1. **Inconsistent approaches to assessments, and results not following the student, limits available information for teaching, learning, reporting to parents and whānau and additional support decisions in schools and kura (40%)**
2. **A lack of trusted individual level information on student progress and achievement constrains the Ministry's ability to target, and understand the impacts of, investment and support (10%)**
3. **Limitations of existing tools to accommodate change and anticipated usage puts students at risk of being unable to undertake assessments (50%)**

To address the first two problems, the Government intends to mandate twice-yearly use of standardised tool(s) to assess the learning of Year 3-8 students in reading, writing and maths or pānui, tuhituhi and pāngarau. This business case covers tools through to Year 10 which will help provide an assessment tool to support understanding of student progress and achievement, providing a reliable judgment of student readiness to undertake the new Literacy and Numeracy | Te Reo Matatini me te pāngarau standards have been introduced as a co-requisite to the NCEA qualification and to support their progress through to NCEA Level 1 subjects that keep their future pathways open.

In the absence of a decision to mandate the use of a particular tool and frequency of assessments, then problems 1 and 2 require a tool to be available that:

- Schools and kura choose to use because it has value to them and helps them meet their existing legal obligations in relation to delivery of the national curriculum and monitoring of student performance. In the context of changes to the national curricula, this includes tools which align with the update curricula.
- The Ministry of Education has access to the data for system-level secondary analysis purposes, within data and protection policies. In order to target support to schools and kura that need it, this will require different use policies from what are in place for current Ministry-provided tools.

Assessment for learning is integrated into the code and professional standards for the teaching profession³⁷ and there is a general acceptance that the Ministry needs some progress and achievement information for some purposes (as recognised in the advice of the CPA MAG). There is however also caution about the use of standardised tools, in particular if the Ministry has access to the data in them, due to concerns that the information could be used to create harmful league tables or to unfairly judge teacher performance. The introduction of a new tool provides an opportunity to apply the Government's Data Protection and Use Policy³⁸ (which did not exist when e-asTTle was developed), so that there is trust and confidence in its use.

Limitations of existing tools

e-asTTle is a bespoke existing Ministry provided standardised assessment and aromatawai tool. In addition to not fully aligning with the updated national curricula, limitations with e-asTTle (further detail is provided in Appendix 4 include:

- Large ongoing investment to maintain and upgrade technology platform and bespoke technology
- weaker reliability of writing and tuhituhi assessments
- writing and tuhituhi assessments are time consuming for teachers
- reports are not considered inclusive, clear, and easy to use for teachers | kaiako, families | whānau, students | ākongā
- assessment items are no longer relevant nor culturally appropriate

³⁷ Teaching Council of Aotearoa New Zealand. Our Code, Our Standards: Code of Professional Responsibility and Standards for the Teaching Profession. [Our-Code-Our-Standards-Nga-Tikanga-Matatika-Nga-Paerewa.pdf](#)

³⁸ [Data Protection and Use Policy \(DPUP\) | NZ Digital government](#)

- writing and tuhituhi assessments are time consuming for teachers
- lack of dependability in adaptive testing
- functionality is dated and opportunities to enhance it are limited, with an overall limited life left in the tool even if it was upgraded
- support and maintenance are limited to one company
- lack of capability to manage content
- low utilisation in kura delivering teaching and learning through te reo Māori
- assessment items are no longer relevant nor culturally appropriate
- assessment item quality issues
- performance, reliability, and security constraints and issues.

Other Ministry provided tools for assessment and aromatawai are the Progress and Consistency Tool (PaCT) and Te Waharoa Ararau (TWA). These are not, however, standardised tools. Rather they are online judgment tools to support the collation and reporting of progress and achievement at an individual, class, and school-wide level. They support teachers to understand how ākonga are progressing based on a range of evidence they have gathered (including from standardised tools) in order to form an overall teacher judgement of progress against the relevant curricula. As with e-asTTle, work is needed for them to fully align with the updated national curricula.

The other main standardised tool in New Zealand is the Progressive Achievement Tests (PAT) which were developed by the New Zealand Centre for Educational Research (NZCER), specifically for students in Years 3 to 10 using the New Zealand Curriculum. PAT is not suitable for use with Te Marautanga o Aotearoa. And as with e-asTTle, work is needed for PAT to fully align with the updated national curricula.

3.5. Investment objectives

The investment objectives were retested and updated with key stakeholders in July 2024. Stakeholders identified the following key investment objectives:

1. Improve effectiveness of literacy (reading and writing) and maths assessments
[Benefit 1: Better quality information to support teaching, learning, and additional support decisions in schools and kura]
[Benefit 2: Increased individual level information on student progress and achievement available for system level purposes by the Ministry]
2. Improve the effectiveness of te reo matatini (pānui and tuhituhi) and pāngarau aromatawai
[Benefit 1: Better quality information to support teaching, learning, and additional support decisions in schools and kura]
[Benefit 2: Increased individual level information on student progress and achievement available for system level purposes by the Ministry]
3. Reduce risk of technology failure to provide assessments and aromatawai
[Benefit 3: Improved resilience of the assessment and aromatawai environment]
4. Improve efficiency of the assessment process
[Benefit 1: Better quality information to support teaching, learning, and additional support decisions in schools and kura]
[Benefit 3: Improved resilience of the assessment and aromatawai environment]
5. Improve assessment data-driven decision making.
[Benefit 1: Better quality information to support teaching, learning, and additional support decisions in schools and kura]
[Benefit 2: Increased individual level information on student progress and achievement available for system level purposes by the Ministry]

The case for change is summarised in tables below.

Investment Objective One	Improve effectiveness of literacy and maths assessments
Statement	Improve the effectiveness of literacy (reading and writing) and numeracy (maths) assessment for students and teachers by providing relevant content aligned to the New Zealand Curriculum, which is designed as a knowledge-rich curriculum based on the science of learning.
Existing arrangements	<ul style="list-style-type: none"> • Only approximately 57% of English medium schools use e-asTTle (for at least one student) to conduct assessments for literacy and maths • Some existing items in assessment item banks are significantly outdated and do not fully align to the current or updated NZC • Some items in assessment item banks are culturally inappropriate, outdated and are not inclusive of our society's growing inclusivity and diversity • The current measurement aspects of e-asTTle may not be presenting accurate information of student and ākonga performance, due to inaccurate item information, as well as out of date population information • The volumes in assessment item banks for English medium settings do not meet the minimum assessment practice requirements to provide valid and reliable progression information across the learning pathway (Year 3-10). Current volumes are: <ul style="list-style-type: none"> ○ writing: 20 writing prompts ○ reading: 5319 assessment item items ○ maths: 3654 assessment item items • Computer Adaptive Sequential Testing (CAST) capability for reading and maths is functioning but currently reporting issues which could be indicative of a deeper programmatic issue. Changes made to the system in the last 20 years could have had unintended consequences.
Business needs	<ul style="list-style-type: none"> • Provide items in assessment item banks for literacy and maths that are aligned to NZC for the English, and maths & Statistics learning areas covering phases 1 to 4 of learning (Years 3-10). This could involve creating new and updating relevant items currently used in e-asTTle for the new tool • Provide the number of items in assessment content banks to meet at least the planned 'required' assessment practice of twice-yearly testing. Required practice for twice-yearly testing meaning: <ul style="list-style-type: none"> ○ writing: 35 writing prompts ○ reading: approximately 4,800 assessment items ○ maths: approximately 4,800 assessment items • Provide an agreed form of Digital Adaptive Testing (could be Computer Adaptive Sequential Testing (CAST) as currently in e-asTTle) capability for reading and maths • Retain the ability to provide standardised and normed test capability for the sector • Provide guidance to help teachers and kaiako understand student and ākonga progress year-on-year towards meeting the curricula outcomes and communicate this to students and ākonga, families and whānau.

Table 9. Investment objective one

Investment Objective Two	Improve the effectiveness of te reo matatini and pāngarau assessment for aromatawai
Statement	Improve the effectiveness of te reo matatini (pānui and tuhituhi) and pāngarau assessment for aromatawai for students and ākonga, teachers and kaiako, by providing relevant, content aligned to Te Marautanga o Aotearoa, which is designed as a knowledge-rich curriculum based on the science of learning.

Existing arrangements	<ul style="list-style-type: none"> • Only approximately 13% of Kaupapa Māori education schools, and 13% of Kura Kaupapa Māori use the e-asTTle tool for te reo Matatini me te pāngarau, as part of broader aromatawai • Some existing items in te reo Māori assessment item banks are outdated and do not reflect the current or updated Te Marautanga o Aotearoa • Some items in assessment item banks are culturally or linguistically inappropriate, outdated and are not inclusive of our society’s growing inclusivity and diversity • Some items in the te reo Māori assessment item banks have grammatical and marking schedule errors • The volumes of assessment items for those learning in te reo Māori are significantly less than would be required for a tool to aid aromatawai providing valid and reliable progression information across the learning pathway (Year 3-10). Current volumes are: <ul style="list-style-type: none"> ○ tuhituhi: 31 writing prompts ○ pānui: 522 assessment items ○ pāngarau: 523 assessment items • There is no Computer Adaptive Sequential Testing (CAST) capability for pānui or pāngarau as there is insufficient assessment items to support this feature.
Business needs	<ul style="list-style-type: none"> • To improve focus on supporting ākonga learning in te reo Māori via Te Marautanga o Aotearoa • Provide assessment item banks for aromatawai that are aligned to the updated covering phases Tūārere 1 to 4 of learning (Years 3-10) Te Marautanga o Aotearoa for Te Reo Matatini and pāngarau. This could involve creating new and updating relevant items currently used in e-asTTle for the new tool • Provide the number of assessment item banks for aromatawai that meets at least the planned ‘required’ assessment practice of twice yearly testing as part of broader aromatawai. Required practice for twice-yearly testing means: <ul style="list-style-type: none"> ○ tuhituhi: 60 writing prompts ○ pāngarau: approximately 4,800 assessment items ○ pānui: approximately 4,800 assessment items • Provide Digital Adaptive Testing (may be Computer Adaptive Sequential Testing (CAST) as currently in e-asTTle) capability for pānui and pāngarau • Retain the ability to provide standardised and normed test capability for the sector • Provide guidance to help teachers and kaiako understand student and ākonga progress towards meeting the curricula outcomes and communicate this to students and ākonga, families and whānau.

Table 10. Investment objective two

Investment Objective Three	Reduce risk of technology failure to provide assessments and aromatawai
Statement	Reduce risk of technology failure to provide literacy and maths assessments, and te reo matatini and pāngarau aromatawai for students and ākonga, teachers and kaiako.
Existing arrangements	<ul style="list-style-type: none"> • Current Ministry provided tool (e-asTTle) is a legacy tool which has been in use since 2007. The technical design of the e-asTTle is inflexible and does not lend itself to enhancements and integration with other systems. The tool: <ul style="list-style-type: none"> ○ can only provide for 5,000 simultaneous users (teachers and students) ○ has limited documentation and very few people or organisations that understand how it technically works making it difficult and risky to maintain ○ is missing all information management capabilities that should be available on the tool. Ineffective, high risk, manually intensive processes and tools are required to deploy new and updated assessment items to e-asTTle

- cannot be relied on to provide students with uninterrupted use when they sit an on-screen test so that their progress and achievement can be reliably assessed
- has no facility to restrict usage to its working capacity or for the system to elegantly fail should user demands be too high
- does not meet current New Zealand government web standards for accessibility
- can only receive and send data to school SMSs via flat file imports/exports
- has a very basic user-id and password capability that does not comply with modern identity and access management standards.
- The e-asTTle solution architecture review, has been completed, and limited work has commenced on preparing a 2024-2025 workplan in an attempt to address what can be addressed in the area of technology failure under load, for the period 2023-2026. This will extend the life of the existing e-asTTle to 2026
- Due to e-asTTle’s limited lifespan, the e-asTTle Support and Maintenance Agreement will only be called upon to address critical technical issues, not secondary issues, or new business requirements.

Business needs	<ul style="list-style-type: none"> • A tool that allows every eligible school in New Zealand with students having access to a standardised tool for assessing literacy (reading and writing), maths, te reo matatini (pānui and tuhituhi) and pāngarau and numeracy assessment tool aligned to Years 3-10 of the curricula and to carry out standardised assessment at least twice-yearly • Implement a single new fit-for-purpose standardised assessment and aromatawai tool, which: <ul style="list-style-type: none"> ○ is stable and secure ○ doesn’t require the Ministry to own and maintain a bespoke technology (as this is not our core business) ○ enables continual improvement and deployment of new and updated assessment items ○ provides the ability to review, retire, add, and update assessment items, at least annually to ensure they remain relevant and aligned to the curriculum as it changes over time ○ can be extended to other domains if required in the future (e.g., Science) ○ can be extended to included assessment items for other year levels of either curriculum if required in the future ○ can be extended to enable more frequent testing if required in the future ○ provides clear and consistent bi-lingual reporting (English and te reo Māori) ○ is suitable for modern learning environments, including the digital literacy and devices of teachers and students ○ integrates with other Ministry systems as necessary to deliver the required functionality, comply with relevant standards, and avoid duplication of data where this is feasible ○ is aligned to international approaches ○ provides a tool that meets the needs of disabled and neurodivergent students where possible (including with adaptations to equipment, environment and engagement by teachers) and identify where specialised tools are required for some disabled or neurodivergent students.
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Table 11. Investment objective three

Investment Objective Four	Improve efficiency of the assessment process
Statement	Improve efficiency of the assessment process with improved automation and integration with teaching and learning, thus reducing teacher workload related to assessment.
Existing arrangements	<ul style="list-style-type: none"> • The e-asTTle assessment process can be time consuming for teachers and kaiako. This particularly applies to writing assessments which require the teacher to conduct the

	<p>assessment, mark the results, moderate the marking with other teachers, and then enter the results.</p> <ul style="list-style-type: none"> • Time is taken reviewing assessments with students and providing them with the appropriate guidance and resources for students to improve • The time required to administer writing assessments is likely leading to observed reliability issues and selection effects • Upskilling in use of the tool takes significant time, both from the new user and the existing user(s) who must provide training and support.
Business needs	<ul style="list-style-type: none"> • Easy to use tool minimising time required for upskilling and administering assessments • Minimise the need for data entry, making it easy to do where it is necessary • Improved capability for writing assessments, marking with moderation, and recording the results • Link assessment results to next steps in learning and recommended teaching and learning resources • Provide teachers with easy access to relevant guidance and resources to help upskill in the tool and help students to increase their levels of progress and achievement.

Table 12. Investment objective four

Investment Objective Five	Improve assessment data-driven decision making
Statement	Improve assessment data-driven decision making at each level of the education system to lift achievement levels for students.
Existing arrangements	<ul style="list-style-type: none"> • There is a lack of reliable, valid assessment data along the education pathway, restricting the ability to provide timely and trustworthy insights about student progression • Students who would benefit from additional support are not being consistently identified, and evidence-based interventions to accelerate and extend their progress are not being routinely triggered • Families and whānau are often unsure about the progress their child is making. because the information provided is not timely, clear, and detailed • There is a lack of volume and quality of data that is required to support continuous improvement and guide good decisions at all layers of the education system • The Ministry holds very limited information about student progression for lower primary, intermediate, and lower secondary students • Data that the Ministry does hold is not easily available for analysis for both on-demand queries and regular reporting.
Business needs	<ul style="list-style-type: none"> • Data needs to be captured at regular points to understand students’ progress against the national curriculum and to enable reporting/insights at the following levels: <ul style="list-style-type: none"> ○ <i>Student-level data</i> - to support teachers to communicate with families and whānau, providing crucial information about their child’s education progress ○ <i>Classroom-level data</i> – to inform teachers about student progress and achievement and next steps in learning. This data will support teachers to reflect on and modify their teaching practice and planning to meet student needs ○ <i>School-level data</i> – to support school planning, assessment capability and reflective practice, professional development decisions, and the allocation of resources and interventions to meet student need ○ <i>System-level data</i> – to inform national priorities, direct investment, and resource decisions, demonstrate the impact of policy settings, and guide system improvements • Student assessment and aromatawai data needs to follow the student along their education pathway • Support the implementation of consistent modes of monitoring student progression and achievement. • Confidence in the security and protection of data in the tool aligned to Government rules,

Table 13. Investment objective five

3.6. Potential scope and services

The table below summarises the high-level scope of the project.

Area	In scope
Audience / users	<ul style="list-style-type: none"> Students and ākonga in Year levels 3 to 10³⁹ Teachers and kaiako, educators, school administrators, school leaders (and supporting reporting to parents and whānau). Ministry – maintaining information/ assessment items/ progressions within the tool <u>School types</u>: All compulsory schooling in New Zealand that is required to follow the national curriculum (choosing either The New Zealand Curriculum or Te Marautanga o Aotearoa).
Assessment approach	<ul style="list-style-type: none"> Supports: <ul style="list-style-type: none"> Standardised, low stakes testing digital (online) testing adaptive testing national monitoring option for paper-based tests (non-adaptive) where students don't have reliable devices or internet access. Assessment of disabled learns using modern accessibility approaches
Assessment Content – English medium	<ul style="list-style-type: none"> Update existing (retire where necessary) and create new assessment item banks for reading, writing and mathematics to reflect updated NZC; also catering for diversity of all students in Aotearoa. This will also include the use of AI tools to reduce the creation and maintenance workload but not automating final signoff. Improved guidance and supports for writing assessments Meet the required volume of assessment items for a tool to provide valid and reliable progression information across the learning pathway (Year 3-10).
Aromatawai Content – Kaupapa Māori and Māori medium	<ul style="list-style-type: none"> Update existing and create new item for te reo assessment item banks for te reo matatini me te pāngarau (pānui, tuhituhi and pāngarau) to reflect the updated Te Marautanga o Aotearoa. This will also include the use of AI tools to reduce the creation and maintenance workload but not automating final signoff. Improved guidance and supports for tuhituhi assessments Meet required volume of assessment items for a tool to provide valid and reliable progression information across the learning pathway (Year 3-10), to support aromatawai.
Privacy Impact Assessment and Data Protection and Use Policy	<ul style="list-style-type: none"> Privacy Impact Assessments and Data Protection and Use Policies required to ensure: <ul style="list-style-type: none"> privacy of data clarity about what data will be used by the Ministry, schools, families, and any others, and for what purposes, consistent with the Government Data Protection and Use Policy ensure that data isn't used for unintended purposes.
Functionality	<ul style="list-style-type: none"> The current e-asTTle tool functionality will be used to guide the functionality requirements for the new tool, however it is likely that not all current e-asTTle functionality will be provided by a new Tool. All existing e-asTTle functionality identified as 'Must' will be provided. Until a new tool is selected, we will not know what of the lower priority current functionality will not be known, (refer Appendix 6 for a list of the high-level requirements) Capability to configure new progressions (recognising year on year progress) in the tool to meet updated national curricula as it moves into ongoing review and maintenance

³⁹ Although the Government's focus is on twice yearly testing for Years 3-8, standardised assessment is also important for Years 9 and 10 before reaching the NCEA years. e-asTTle is currently used for assessing Years 9 and 10 students and a new tool would need to do the same.

Area	In scope
	<ul style="list-style-type: none"> • Capability for at least twice-yearly testing (recognising progress within a year) • Capability to for all Year 3-8 students to undertake assessments in a predetermined test window • Flexibility to be extended over time, 9(2)(f)(iv) however this is not costed as part of this business case.
Assessment and aromatawai data	<ul style="list-style-type: none"> • Storage and reporting of assessment information to inform effective decision-making at each level of the education system: <ul style="list-style-type: none"> ○ Education system level ○ School level ○ Classroom level ○ Student level • Provision of information from new tool to enable teachers and kaiako to report on and facilitate discussions of student progress with families and whānau.
Integrations	<ul style="list-style-type: none"> • Integration with other Ministry systems as necessary to deliver the required functionality, comply with relevant standards, and avoid duplication of data where feasible, so the same level of e-asTTle integration.
Technology	<ul style="list-style-type: none"> • A new stable, secure, and fit for purpose assessment technology tool that meets the needs of users and stakeholders • Certification and Accreditation to ensure the tool is safe and secure • Adherence to government and security standards for identity access management for the tool, recognising the age of the students and low-stakes nature of the testing • Any decommissioning required of the current tool with historical data being made available for longitudinal reporting.
Rollout	<ul style="list-style-type: none"> • Rollout of the new assessment tool to kura and schools.
Transition	<ul style="list-style-type: none"> • Ongoing BAU support and development model and teams including business and digital. Given the target is a SAAS solution with no customisation ongoing support will be focused on item bank maintenance.
Change & communications	<ul style="list-style-type: none"> • Change management, engagement, and communications internally and externally to sector audiences. Needs to link into the requirement for mandated testing • A range of engagement and support mechanisms (online resources, face-to-face engagement, training and professional learning sessions) to help teachers and kaiako understand how to use the new tool and the reporting that is available. This will be integrated with wider supports for strengthening the use of assessment and aromatawai information to inform teaching and learning, and the identification of additional support needs. • Alignment with change management, engagement, and communications for the update of the NZC and Te Marautanga o Aotearoa and the (planned) introduction of requirements to undertake twice-yearly testing of Year 3-8 students using (a) standardised tool(s).

Table 14. project scope

Out of scope

The following areas are excluded from the proposed project scope:

Area	Out of scope
Changes to existing e-asTTle tool	<ul style="list-style-type: none"> • Updating the functionality and content • Updating the tool to align with the updated national curriculum (NZC or TMoA) • Technology – ongoing maintenance of the tool for future supportability and any increased performance requirements

Area	Out of scope
	<ul style="list-style-type: none"> Resolution of technical issues associated with the tool. Priority 1 issues will continue to be triaged through the existing provider's support and maintenance agreement
Audience / users	<ul style="list-style-type: none"> Families and whānau – access to student progress and achievement information is via teachers and school reports. Students whose learning progress is not appropriate to assess through the tool (e.g. students with high and complex needs)
School types	<ul style="list-style-type: none"> Private, Charter and Realm schools – these schools can opt to use the new tool but will not be mandated to use it. Home schooling
Strategy	<ul style="list-style-type: none"> Assessment and Aromatawai Strategy and evidence-based position papers
Assessment & Aromatawai	<ul style="list-style-type: none"> Assessments beyond reading, writing and mathematics; and assessments beyond pānui, tuhituhi and pāngarau to aid Aromatawai. The tool could be required to support other domains/subject areas in time, but these are not part of this SSBC. Oral language assessments Non standardised assessments which are not valid, reliable, or equitable Assessments for students whose learning progress is not appropriate to assess through the tool (e.g. Year 3-10 students with high and complex needs whose reading, writing, maths, pānui, tuhituhi and/or pāngarau learning needs are within or below Phase 1 of the national curricula). Increased frequency or regularity of Assessments and Aromatawai (e.g., responsive, or continuous assessments throughout the year) because this would require considerably more targeted assessment items and could increase usage costs Assessments for the purpose for the credentialing learning. The tool could be required to support this in the future, but this is not part of this SSBC. Portfolio based assessment – assessment of students and ākonga, selected samples of work experiences and documents related to outcomes being assessed. Incorporating future state (and alternative ways) of performing assessment and aromatawai, that are being defined through the new Assessment and Aromatawai Strategies and Action Plans Resolution of issues or problems experienced by the Sector, relating to the existing assessment and aromatawai practice.
Other components	<ul style="list-style-type: none"> Year 2 foundational skills check Phonics checks New entrants school entry assessment (including School Entry Kete) Number check.
Tools	<ul style="list-style-type: none"> Replace, update, or incorporate other existing tools e.g., PaCT, Literacy and Numeracy for Adults Assessment tool (LNAAT), Te Waharoa Ararau (TWA), and sector tools e.g., Progress Assessment Tests (PATs) Customisation of any supplier's COTS assessment tool for non-mandatory requirements. Tutoring tool – provides adaptive and personalised tutoring for students (can be AI based) A common assessment platform which goes across the pathway and enables access to multiple tools (e.g., phonics, Year 2 skills check, assessment and aromatawai tool) with data from all tools feeding into a common data store such as EDW to enable consistent reporting Learning Management Systems - these are chosen by schools and can also have modules supporting classroom planning and assessment.
Change & communications	<ul style="list-style-type: none"> Implementation of expectations for the use of standardised testing tools in Years 3-10, including any supporting regulatory changes Targeted and tailored PLD to grow teachers' assessment and aromatawai capabilities

Table 15. project out of scope

3.7. Main benefits

The benefit areas and weightings of importance have been informed by a facilitated workshop with key stakeholders in July 2024 and adjusted through further work on the strategic case and problem definition.

1. Better quality information to support teaching, learning, and additional support decisions in schools and kura (50%)
2. Increased individual level information on student progress and achievement available for system level purposes by the Ministry (40%)
3. Improved resilience of the assessment environment (10%)

The following table details the high-level benefits and associated KPIs (informed by the project team). This information is supported by the Investment Benefit Profile in Appendix 5 which contains measures and targets for each KPI.

Benefit	Key Performance Indicators (KPIs)	Measures
1. Better quality information to support teaching, learning, and additional support decisions in schools and kura (50%)	Increased teacher, kaiako and leader use of Ministry provided standardised assessment tool	1. % of schools and kura actively using the tool
		2. # of individual progress reports (showing level and pace) exported for school and kura internal use and/or reporting to parents
		3. # of class and school level reports exported for school and kura internal use and/or reporting to school or kura community
		4. # of transferring students whose records are moved to their new school or kura
		5. % of teachers, kaiako and leaders who 'agree' or 'strongly agree' that the tool is clear and easy to use for assessments and for reporting
		6. % of teachers and kaiako who 'agree' or 'strongly agree' that they have used the results with their students for formative purposes
		7. % of ITE courses and PLD providers that have integrated the tools into their training
	Increased usability of Ministry provided standardised assessment tool	1. # of training related service desk calls
		2. # of usability or training-related issues raised via e-asTTle email boxes
	Increased consistency of assessments with and between curricula	1. Reliability and validity of assessments Rating – reading and maths; pānui, and pāngarau
2. Reliability and validity of assessments Rating – writing and tuhituhi		
3. % of teachers, kaiako and leaders who 'agree' or 'strongly agree' that the tool helps them understand student progress against the curriculum they are teaching		
2. Increased individual level information on student progress and achievement available for system level purposes by the Ministry (40%)	Increased availability of quality data at a system level	1. % of enrolled students in each Year level assessed for each domain
		2. # of assessments for each student
		3. % of enrolled students in schools and kura actively using (or required to use) the tool who are eligible to undertake the assessments but have not
		4. % of records which are available for system-level purposes (i.e. data sharing with Ministry not opted out of)
		5. # and type of reports and analysis produced for system level purposes
		6. Ease of generation of insights by Data & Insights teams
3. Improved resilience of the assessment environment (10%)	Increased technical availability of assessment tools	1. Average % availability of the assessment tool per quarter to geographically dispersed user base
		2. # of concurrent users (teachers and students) that the tool has capacity to support during peak periods

Benefit	Key Performance Indicators (KPIs)	Measures
	Increased maintainability	<ol style="list-style-type: none"> <li data-bbox="861 250 1430 309">1. Unit cost for maintaining assessment and aromatawai items by Ministry admins <li data-bbox="861 318 1430 347">2. Currency of software version

Table 16. Benefits and KPIs

The following Investment Logic Map (ILM) maps the problems, benefits and investment objectives presented in this case.

Proactively Released

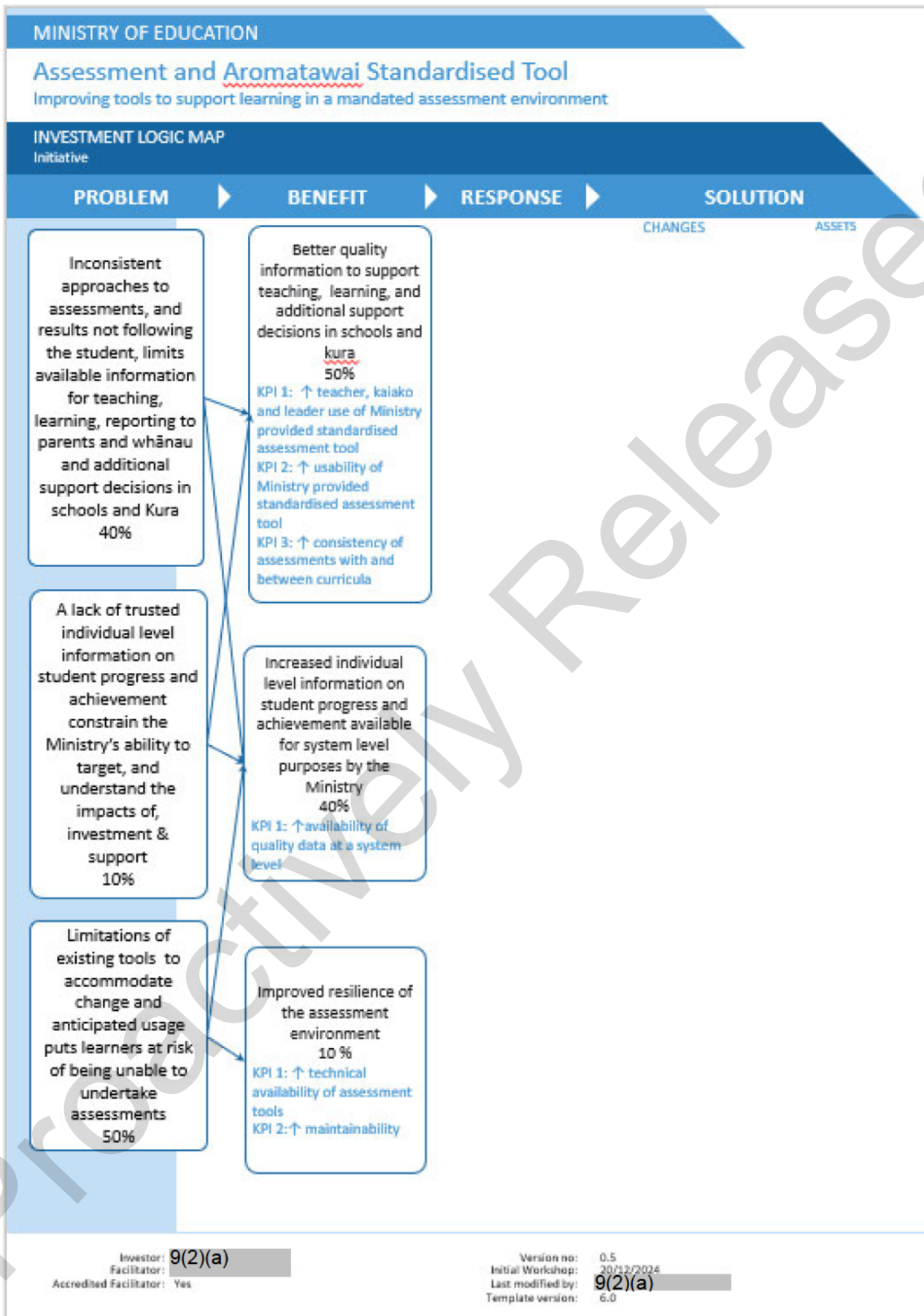


Figure 6. Investment Logic Map

3.8. Main risks

Risks result from uncertain events that undermine the achievement of benefits. The main strategic risks that might prevent, degrade, or delay the achievement of benefits and investment objectives are detailed below.

Main Risks	Description	Mitigations
Market capability and capacity – content development and review	IF there is limited market capability and capacity for the specialised area of item bank development (and underlying requirements), especially with Māori medium assessment content, THEN this project will not be able to deliver on time.	<ul style="list-style-type: none"> - Extend RFX process to a wider open market for additional capacity and specialist capability - RFX process for Automated Item Generation technology, market capacity and capability including an assessment of te reo Māori capability and maturity - We build capability as it will be required over time, either internally or support market development - Identify what can be re-used from e-asTTle and where the gaps in assessment items are and prioritise gaps in years and strands to bring to required level via phased releases.

9(2)(g)(i)

Te Poutāhū capability and capacity	IF the Business does not have the capability and capacity to provide specialist expertise due to multiple, competing priorities THEN this project will not be able to meet time, cost, and quality expectations.	<ul style="list-style-type: none"> - Prioritisation of initiatives across the Te Poutāhū work programme is considerate of Business capacity and capability - Contract for key roles such as subject matter experts with required context and knowledge.
Procurement timing	IF the procurement of the new tool is undertaken before funding confirmation THEN there is a likelihood that some suppliers may self-select out of the RFP process and so reduce responses and commercial leverage of the Ministry.	<ul style="list-style-type: none"> - Early funding approval to ensure no self selection - Changes in timing of procurement of tool and go live - Phasing of procurement which may impact go live timing..
Scope creep	IF the scope of the new tool is not clearly defined and agreed in the Business Case THEN there is a likelihood of scope creep into other areas of assessment resulting in the project going over time and budget risking reputational damage.	<ul style="list-style-type: none"> - Clear, agreed scope definition for the tool - Use of change control processes to manage scope - Use an MVP approach, prioritise changes to scope in context of all other scope items to agree impact of changes etc.

9(2)(f)(iv)

Table 17. Main risks

A full set of risks is available in the project risk register.

3.9. Key constraints, dependencies and assumptions

The ability to deliver this project is subject to the following high-level constraints and external dependencies. These dependencies will be carefully monitored during the implementation.

Constraints

Constraints	Descriptions
Funding availability	- The ability to secure sufficient funds through the 2025 Budget bid process, in order to commence this project in early 2025.
NZC Update TMOA Update	- Schools and kura must teach the updated English and Te Reo Rangatira curriculum for Years 0 to 6, and maths and pāngarau for Years 0 to 8 from Term 1, 2025 - Schools and kura with Years 7 to 13 must teach the updated English and Te Reo Rangatira curriculum and mathematics and statistics and pāngarau for Years 9 to 13 from Term 1, 2026
Market capacity and capability	- The current market capacity and capability for technology suppliers and assessment items developers/writers/reviewers for assessment and aromatawai tools is limited. The NZC Update project and TMOA Update project, may be utilising common suppliers from the Curriculum Support Services panel and Te Reo Māori panel at the same time as this project.
Information security standards	- The new tool must adhere to government and information security standards including identity access management for both teachers and students.
New Zealand Digital Standards	- The new tool should align to the New Zealand Digital Standards ⁴⁰ to ensure alignment and common goals.

Table 18. Constraints

Dependencies

The following table lists the dependencies which are external to the project.

Dependencies	Descriptions
The NZC (delivered by the NZC Update project)	- The updated English, maths & Statistics learning areas were finalised in May 2023 and are mandated for use from 2026. - This project is dependent on the NZC (English, maths & Statistics learning areas) and the new Progressions Model to guide and inform the assessment item development. This is done.
Te Marautanga o Aotearoa (delivered by the TMOA Update project)	- Te Marautanga o Aotearoa, including the Structured approach for Te Reo Matatini and Pāngarau Strategy is planned for finalisation in June 2024 and will be mandated for use from 2025. - This project is dependent on Te Marautanga o Aotearoa (the Structured approach for Te Reo Matatini and Pāngarau Strategy) and the new progressions to guide and inform the assessment item development. This is done.
Mandated use of the assessment/aromatawai tool	- Maximising the benefits of this project is in part dependent on all schools (Years 3-8) being mandated to use the tool from when a new tool is available.

⁴⁰ [Standards & guidance | NZ Digital government](#)

Dependencies	Descriptions
Tāhūrangi Online Curriculum Hub	<ul style="list-style-type: none"> - Tāhūrangi Online Curriculum Hub houses teaching and learning resources. The 'What Next' report previously available in e-asTTle provided dynamic links to resources on Te Kete Ipurangi (TKI) for teachers and kaiako - This project is dependent on the new tool being able to link to suitable resources (support materials) available to teachers and kaiako on Tāhūrangi.
Education digital data infrastructure	- The project is dependent on the digital data infrastructure for the education system enabling integration with Ministry systems such as ENROL and FIRST.
Reporting to parents	- The project will need to align with this work to ensure consistency of year-on-year progress and terminology

Table 19. Dependencies

Proactively Released

4. Economic Case

4.1. Introduction

The Economic Case identifies and analyses a wide range of investment options to identify the option that optimises value for government and New Zealand. Based on the strategic context for the investment proposal and a robust case for change, it:

- identifies a range of options available for delivering the required services
- assesses these to short-list options that have the potential to deliver the proposal's investment objectives and meet the identified critical success factors
- evaluates the short-list options by assessing the costs, benefits, and risks of each option
- recommends a preferred option.

Workshops were conducted with the project team and key stakeholders in the development of the Economic case.

4.2. Dimensions framework

The dimensions used to create the options were developed in collaboration with project team members and key stakeholders. A workshop was held during August 2024 to ensure the dimensions of the options reflected the business needs.

The dimensions and options are illustrated overleaf.

	Dimension	Status quo	Do minimum	----->	----->	----->	Do maximum
SCOPE	Audience/users	Learners and teachers, educators, leaders	Learners and teachers, educators, leaders + Ministry administrators	Learners and teachers, educators, leaders + Ministry administrators + parents and whānau			
	Assessment domains	Existing domains English medium: Reading, Writing, Maths Māori medium: Pānui, Tuhituhi, Pāngarau	Existing six domains + another domain e.g., Science + Year 2 foundational skills check				
	Assessment Year groups	Years 3-10 for reading & maths Year 1-10 for writing	Years 3-8	Years 3-10	Years 1-10		
	Assessment frequency	On demand	2x yearly	Up to 4x yearly	Unlimited (on demand up to 8x yearly on average)		
	Functionality	Existing functionality within e-asTTle	Improved functionality	Advanced functionality			
	Functionality – Writing assessment	Done manually by teachers using rubrics and exemplars followed by moderation	Updated/improved set of rubrics and exemplars	Updated/improved rubrics & exemplars + Digital assessment with basic automated marking (i.e. spelling and grammar)	Updated/improved rubrics & exemplars + Digital assessment + Automated marking	Updated/improved rubrics & exemplars + Digital assessment + Automated marking + Workflow for moderation	
SERVICE SOLUTION	Service solution	e-asTTle including Technical Debt Reduction Project and the 'Keep The Lights On' work (component, security, and performance upgrades)	Upgrade/extend e-asTTle	Re-use/extend a suitable existing Government or sector solution (e.g., Te Rito, PaCT, TWA, NZCER PAT, TEC LNAAT)	New off-the-shelf tool configured for NZ education requirements (includes solutions used overseas e.g., ACER PAT)	New off-the-shelf tool customised for NZ education requirements	New be-spoke tool based on e-asTTle using modern technologies and practices
	Integrations	None – only flat file manual import/export from SMSs	Tahurangi + manual SMS file import/export	Add Operational Data Hub (First, Enrol) + EDW	Add Te Rito Learner Data Hub		
	Business change	BAU PLD for e-asTTle	Create passive resources, combined with workshops and roadshows delivered by Regional offices	Add targeted extra support for specific schools and kura			
SERVICE DELIV	Tool	e-asTTle is supported by the Ministry together with an outsourced partner	Fully delivered by the Ministry in-house	Delivered by the Ministry together with outsourced partners	Fully outsourced (joint responsibility for integrations)		
	Content	e-asTTle content is not maintained?	Fully delivered by Ministry in-house (Manual)	Fully delivered by Ministry in-house with Automated Item Generation	Delivered by the Ministry together with partners (Manual)	Delivered by the Ministry together with partners with Automated Item Generation	Fully outsourced
IMPLEMENTATION	Assessment content phasing	n/a	By Domain as they are ready (coexists with e-asTTle & PAT)	Both Curricula all Domains (all Years) with a minimum level of content initially followed by remainder	Both Curricula all Domains for Years 3-8 initially followed by remaining Years (coexists with e-asTTle & PAT)	Both Curricula all Domains (all Years) with a full level of content	
	Technology	n/a	Big bang , single technology release	Phased technology releases			
	Funding	Baseline funding for e-asTTle support and maintenance	Funded from baseline with no new funding.	Partial funding from baseline and remainder funded from new 2025 Budget Bid.	Fully funded from new 2025 Budget Bid.		

Figure 7. project dimensions and options

The design of the options includes different levels of implementation for each dimension. Each dimension is described in the following table.

Dimensions	Description
<i>Scope</i>	
Audience / users	This dimension describes the audience (users) for the tool. The options are cumulative and are defined at a user group level for compulsory schooling.
Assessment domains	This dimension indicates the options around assessment domains (subjects) and the assessment content and structure required for the domain.
Assessment Year groups	This dimension indicates the options related to the year groups that assessment content could be provided for which in turn determines the volume of assessment items required.
Assessment frequency	This dimension indicates the options related to the average frequency of assessments that teachers might set annually, which in turn determines the volume of assessment items required.
Functionality	This dimension indicates the level of functionality that will be delivered. The options are cumulative Options range from minimum to advanced and are detailed in the table below.
Functionality – writing assessment	This dimension indicates the level of functionality that will be delivered in relation to writing assessment. writing assessment has been challenging with the existing tool and there are a range of options to improve this area.
<i>Service solution</i>	
Service solution	This dimension describes <u>how</u> the services/technology can be provided and offers a range of options including procuring or building a tool.
Integrations	This dimension details the integrations that can be added onto the tool. The options are cumulative with increasing value being provided.
Business change	This dimension describes how business change will be delivered. The options are cumulative.
<i>Service delivery</i>	
Tool delivery	This dimension describes <u>who</u> can deliver the services during the project as well as ongoing. The options identify the roles and responsibilities of the market and the Ministry in delivery of services.
Content delivery	This dimension indicates <u>who</u> will provide the assessment item banks. The options identify the roles and responsibilities of the market and the Ministry in delivery of services.
<i>Implementation</i>	
Assessment content phasing	This dimension describes <u>when</u> assessment content can be delivered by using different rollout approaches.
Technology	This dimension describes <u>when</u> services can be delivered by using different rollout approaches.
<i>Funding</i>	
Funding	This dimension describes how the investment can be funded.

Table 20. Dimensions

Functionality scope options

The table below describes the scope of functionality that could be delivered. Options range from minimum to advanced.

Functionality area	Improved	Advanced
General	<ul style="list-style-type: none"> Utilises Item Response Theory (IRT) and computer adaptive testing Compliant with Government Web Accessibility Standard (v1.1) and Web Usability Standard (v1.3) compliance Assessment items, progression, and school information management 	<ul style="list-style-type: none"> Utilises Item Response Theory (IRT) and computer adaptive testing Compliant with Government Web Accessibility Standard (v1.1) and Web Usability Standard (v1.3) compliance Assessment items, progression, and school information management
Automated marking	<ul style="list-style-type: none"> Automated marking of closed-ended and open-ended questions 	<ul style="list-style-type: none"> Automated marking of closed-ended and open-ended questions
Target setting	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Individualised target setting for student progress against the curriculum
Personalisation	<ul style="list-style-type: none"> Student user profiles with saved preferences (incl. accessibility preferences) 	<ul style="list-style-type: none"> Student user profiles with saved preferences (incl. accessibility preferences)
Next steps assistance	<ul style="list-style-type: none"> Clear feedback and next steps (at student level) for teachers, including links to relevant teaching and learning resources on Tāhūrangi Clear feedback and next steps for students, including links to relevant learning resources on Tāhūrangi 	<ul style="list-style-type: none"> AI-powered personalized feedback and next steps for students, including links to relevant learning resources on Tāhūrangi and other resource repositories. AI-powered feedback and next steps (at student and class level) for teachers, including links to relevant teaching and learning resources on Tāhūrangi and other resource repositories
Reporting	<ul style="list-style-type: none"> Core report set based on business requirements (up to 5 reports), with interactive reporting 	<ul style="list-style-type: none"> Core report set based on business requirements, with interactive reporting

Table 21. Functionality scope options

4.3. Critical success factors

The critical success factors (CSFs) assist in defining the short list options and inform the decision-making criteria used for options development.

Stakeholder agreement on the CSFs was obtained during a workshop. The table below outlines the five agreed CSFs.

Critical Success Factor	Broad description
Contribution to student educational outcomes and strategic fit	<p>How well the option:</p> <ul style="list-style-type: none"> meets the agreed investment objectives, contributes to student educational outcomes, and fits with other strategies, programmes, and projects.
Potential value for money	How well the option optimises value for money and minimises risk.
Supplier capacity and capability	<p>How well the option:</p> <ul style="list-style-type: none"> matches the ability of potential suppliers to deliver the required services, and is likely to result in a sustainable arrangement that optimises value for money over the term of the contract.
Potential affordability	<p>How well the option the option:</p> <ul style="list-style-type: none"> can be met from likely available funding, and matches other funding constraints.

Critical Success Factor	Broad description
Achievability	<p>How well the option:</p> <ul style="list-style-type: none"> is likely to be delivered given the Ministry and sector's ability to respond to the changes required matches the level of available skills required for successful delivery.

Table 22. Critical Success Factors

4.4. Options assessment

Workshops were held during August 2024 to filter the long list of options against their ability to deliver on the Investment Objectives and Critical Success Factors.

The outcome of this exercise is documented in Appendix 7.1 Options assessment – the long and short list.

Appendix 7.2 - Options identification and assessment, details the reason for each dimension option outcome i.e., whether it was classified as preferred, possible, or discounted.

The dimension options highlighted in the diagram below summarise the dimension options taken forward into the shortlist:

	Dimension	Status quo	Do minimum	----->	----->	----->	Do maximum	Key
SCOPE	Audience/users	Learners and teachers, educators, leaders	Learners and teachers, educators, leaders + Ministry administrators	Learners and teachers, educators, leaders + Ministry administrators + parents and whānau				Preferred
	Assessment domains	Existing domains English medium: Reading, Writing, Maths Māori medium: Pānui, Tuhituhi, Pāngarau	Existing six domains + another domain e.g., Science + Year 2 foundational skills check					Possible
	Assessment Year groups	Years 3-10 for reading & maths Year 1-10 for writing	Years 3-8	Years 3-10	Years 1-10			
	Assessment frequency	On demand	2x yearly	Up to 4x yearly	Unlimited (on demand up to 8x yearly on average)			
	Functionality	Existing functionality within e-asTTle	Improved functionality	Advanced functionality				
	Functionality – Writing assessment	Done manually by teachers using rubrics and exemplars followed by moderation	Updated/improved set of rubrics and exemplars	Updated/improved rubrics & exemplars + Digital assessment with basic automated marking (i.e. spelling and grammar)	Updated/improved rubrics & exemplars + Digital assessment + Automated marking	Updated/improved rubrics & exemplars + Digital assessment + Automated marking + Workflow for moderation		
SERVICE SOLUTION	Service solution	e-asTTle including Technical Debt Reduction Project and the 'Keep The Lights On' work (component, security, and performance upgrades)	Upgrade/extend e-asTTle	Re-use/extend a suitable existing Government or sector solution (e.g., Te Rito, PaCT, TWA, NZCER PAT, TEC LNAAT)	New off-the-shelf tool configured for NZ education requirements (includes solutions used overseas e.g., ACER PAT)	New off-the-shelf tool customised for NZ education requirements	New be-spoke tool based on e-asTTle using modern technologies and practices	
	Integrations	None – only flat file manual import/export from SMSs	Tahurangi + manual SMS file import/export	Add Operational Data Hub (First, Enrol) + EDW	Add Te Rito Learner Data Hub			
	Business change	BAU PLD for e-asTTle	Create passive resources, combined with workshops and roadshows delivered by Regional offices	Add targeted extra support for specific schools and kura				
SERVICE DELIV	Tool	e-asTTle is supported by the Ministry together with an outsourced partner	Fully delivered by the Ministry in-house	Delivered by the Ministry together with outsourced partners	Fully outsourced (joint responsibility for integrations)			
	Content	e-asTTle content is not maintained?	Fully delivered by Ministry in-house (Manual)	Fully delivered by Ministry in-house with Automated Item Generation	Delivered by the Ministry together with partners (Manual)	Delivered by the Ministry together with partners with Automated Item Generation	Fully outsourced	
IMPLEMENTATION	Assessment content phasing	n/a	By Domain as they are ready (coexists with e-asTTle & PAT)	Both Curricula all Domains (all Years) with a minimum level of content initially followed by remainder	Both Curricula all Domains for Years 3-8 initially followed by remaining Years (coexists with e-asTTle & PAT)	Both Curricula all Domains (all Years) with a full level of content		
	Technology	n/a	Big bang , single technology release	Phased technology releases				
	Funding	Baseline funding for e-asTTle support and maintenance	Funded from baseline with no new funding.	Partial funding from baseline and remainder funded from new 2025 Budget Bid.	Fully funded from new 2025 Budget Bid.			

Figure 8. project options taken forward for shortlist

4.5. Short list options

The selected dimensions options were combined to produce the following shortlist:

1. Option A – Do nothing (continue with e-asTTle and PATs)
2. Option B1 – Off-the-shelf Foundational 2x yearly
3. Option B2 – Off-the-shelf Foundational 4x yearly
4. Option B3 – Off-the-shelf Advanced 4x yearly
5. Option C- Bespoke Foundational 2x yearly

The components of each option are described in the following diagram.

Options taken forward to shortlist. Shading represents each option.

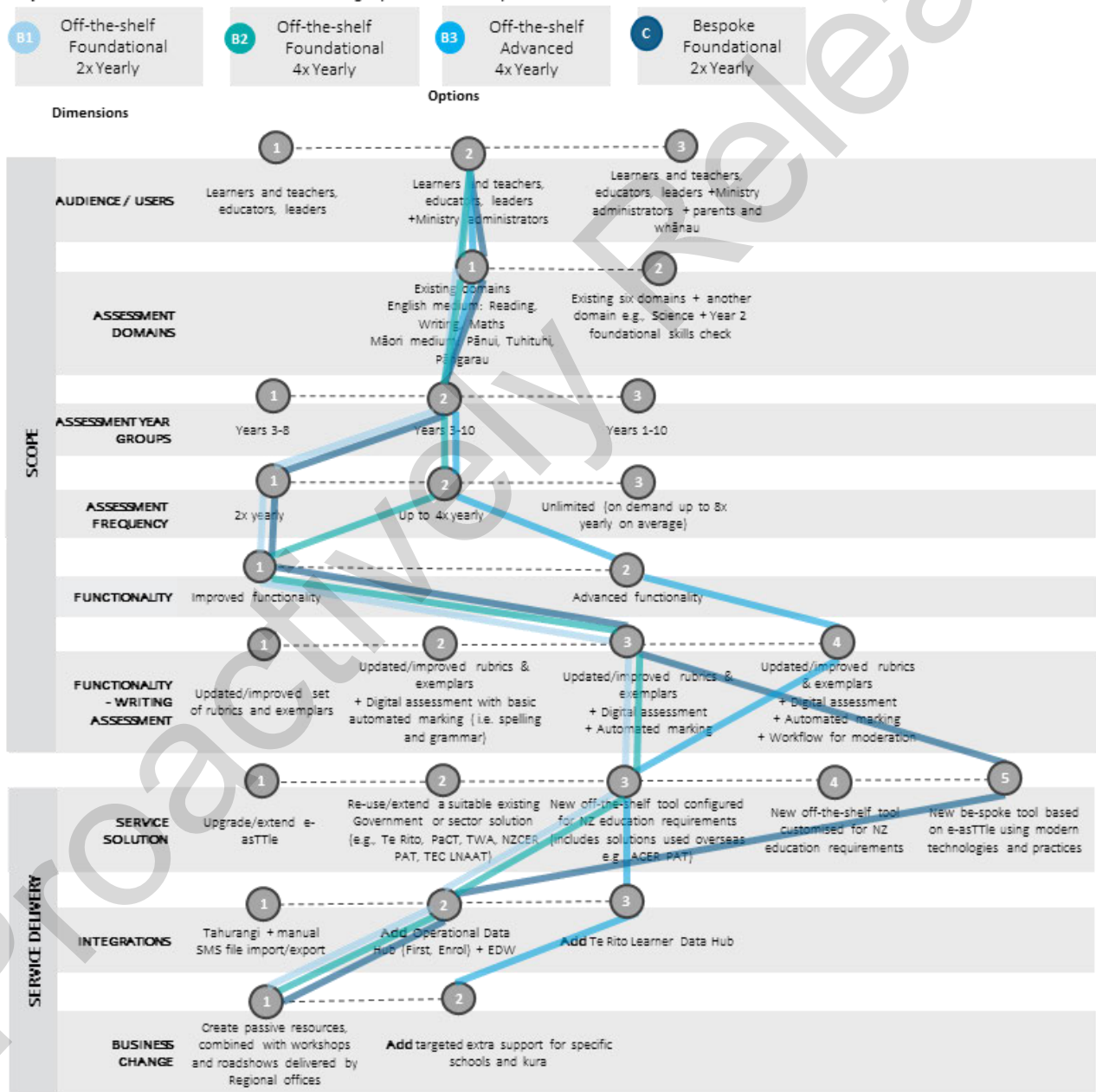


Figure 9. Combined scope and service delivery options taken forward to shortlist

Option A – Do nothing

Option A involves continuing with the status quo and using the existing assessment tools (i.e., e-asTTle and PATs with their inherent limitations) for standardised assessment as they are with their limited life left.

Option B1 – Off-the-shelf Foundational 2x yearly

The Off-the-shelf Foundational option is described below.

Dimension	Option description
Scope	<ul style="list-style-type: none"> • Users of the new tool are students (Years 3-10), teachers, educators, leaders, and Ministry administrators • The existing domains will be available in the new tool <ul style="list-style-type: none"> ○ English medium: reading, writing, maths ○ Māori medium: pānui, tuhituhi, pāngarau • Assessment items developed/updated to volume levels that cater for: <ul style="list-style-type: none"> ○ Year groups 3-10 ○ assessments for each domain of up to 2 times a year⁴¹ • Improved functionality including: <ul style="list-style-type: none"> ○ modern accessibility ○ item (content) and data management ○ automated marking of open-ended questions ○ personalisation for students ○ feedback and next steps for teachers and students ○ core report set (up to 5 reports) ○ interactive reporting for teachers, educators, leaders • Updated/improved rubrics & exemplars provided for writing and tuhituhi • Digital assessment with automated marking for writing and tuhituhi.
Service solution	<ul style="list-style-type: none"> • New off-the-shelf SaaS tool configured for New Zealand education requirements (includes solutions used overseas) • Includes the following integrations to the tool: <ul style="list-style-type: none"> ○ ESL - for secure access for teachers and other relevant sector staff ○ DI4OL -for secure access for students (if the required use cases can be achieved using DI4OL⁴²) ○ Tāhūrangi - to link to next steps for teaching and learning resources ○ manual SMS file import/export – to obtain student and class/group information and provide student assessment results for student reports ○ Operational Data Hub (linked to FIRST, ENROL) – to source school, student, and enrolment information ○ Education Data Warehouse (EDW) - for reporting/insights • Training will include passive resources, combined with workshops and roadshows delivered by regional offices.

Table 23. Off-the-Shelf Foundational 2x yearly option description

Integrations

The following diagram illustrates the proposed integrations for the new tool for Option B1.

⁴¹ Increased frequency of testing requires more items increasing the cost of assessment item development and increases the usage cost where licencing is per test based. A current limit of twice yearly does not prevent increasing the frequency of testing in future with more funding.

⁴² Existing DI4OL lite does not cater for Date of Birth and National Student Number (NSN) which an assessment tool is likely to require.

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Figure 10. Integrations required for the Assessment and Aromatawai tool

Automated SMS integration from the new tool to the SMSs (via Te Rito) will be able to be achieved in future when there is two-way data integration between Te Rito and the main SMS systems, however it is not within the current scope as there is no specified timeframe for when this future state would be achieved. It has also not been costed as part of this business case, what is included in this business case is the duplication of the current limited integrations to SMSs that e-asTTle has.

Option B2 – Off-the-shelf Foundational 4x yearly

The Off-the-shelf Foundational option is as per Option B1 with the additions described below.

Dimension	Option description
Scope	As per Option B1 plus: <ul style="list-style-type: none"> Assessment items developed/updated to volume levels that cater for assessments for each domain of up to 4 times a year⁴³
Service solution	As per Option B1

Table 24. Off-the-Shelf Foundational 4x yearly option description

Option B3 – Off-the-shelf Advanced 4x yearly

The Off-the-shelf Advanced option is as per Option B2 with the additions described below.

Dimension	Option description
Scope	As per Option B2 plus: <ul style="list-style-type: none"> Advanced functionality including: <ul style="list-style-type: none"> student target setting AI powered feedback and next steps Workflow functionality for moderating the scoring of writing and tuhituhi.
Service solution	As per Option B2 plus: <ul style="list-style-type: none"> Te Rito Student Data Hub integration to the tool to send assessment information from the tool to Te Rito Targeted extra support for specific schools and kura as part of rollout out the new tool.

⁴³ Increased frequency of testing requires more items increasing the cost of assessment item development and increases the usage cost where licencing is per test based. A current limit of twice yearly does not prevent increasing the frequency of testing in future with more funding.

Table 25. Off-the-Shelf Advanced 4x yearly option description

Option C – Bespoke Foundational 2x yearly

The Bespoke Foundational option, described below, has all the component of option B1 with the exception that it is a bespoke tool.

Dimension	Option description
Scope	<ul style="list-style-type: none"> As per Option B1
Service solution	<ul style="list-style-type: none"> New be-spoke tool based on e-asTTle using modern technologies and practices Integrations and training as per Option B1

Table 26. Bespoke Foundational 2x yearly option description

The following dimensions described below have the same option for all the shortlisted options.

Service delivery – all options**Tool**

The tool will be configured and delivered by the tool supplier. The Ministry's role will be to manage the tool supplier and coordinate with the internal parties and external suppliers involved in the various integrations that are required with Ministry systems i.e., ESL, DI4OL, Tāhūrangi, manual SMS file import/export, the Operational Data Hub and EDW.

Assessment items

The preferred option is to fully outsource assessment item development. If for some reason the RFP results with a supplier who for example will only do English medium assessment items, the Ministry may need to contract Māori medium assessment item development out to local suppliers for item writing. If the Ministry cannot identify suitable suppliers for the development of Māori medium assessment items during the planned procurement activities, the Ministry may need to consider contracting local experts to develop assessment items in-house. The use of Automated Item Generation may also be considered to speed up the process.

Implementation – all options**Assessment content phasing**

The preferred option is to launch the new tool with both curricula ready with all domains for Year 3-10 with an initially sufficient level of items followed by the remainder of the items. This will enable a clean cutover from e-asTTle without the inherent complexity and issues of operating two tools concurrently and keeping data for reporting consistent. It is expected that more time will be required to develop Māori medium assessment items due to very low existing volumes of assessment items and the limited number of skilled item developers in the market for Māori medium. This option will not hold up the launch of the new tool until all content is ready.

Technology

The preferred option is to have a phased technology release.

Funding – all options

All the options will need to be funded from the 2025 Budget, with the exception of funding for FY 2024/25, as there is no further baseline funding available to contribute to this investment.

4.6. Risk assessment

Delivery risk has been scored as follows for the four options in the table below:

- 0 – low risk
- 10 – high risk

Option	Risk areas	Risk rating
Option A – Do nothing	<ul style="list-style-type: none"> Significant reputational risk for the Ministry as none of the existing digital tools can cope with the twice-yearly testing requirement for years 3-8 (reasons covered in the 3.4 The Case for Change). 	10
Option B1 – Off-the-shelf Foundational 2x yearly	<ul style="list-style-type: none"> Limited co-design opportunities with the sector for an off-the-shelf tool During the procurement process the Ministry might not be able to verify that all the requirements' suppliers claim can be met, can actually be met. This could result in downstream issues Some compromises on requirements will be necessary to avoid customisation High level of change to be managed with the release of a new tool which has to be used Aligning to the NZC and localising assessment items may be more difficult than expected. 	5
Option B2 – Off-the-shelf Foundational 4x yearly	<p>As per Option B1 plus:</p> <ul style="list-style-type: none"> Ability to deliver a larger volume of content within the same implementation timeframe, particularly for Māori medium with limited supplier capacity and capability. 	6
Option B3 – Off-the-shelf Advanced 4x yearly	<p>As per Option B1 and B2 plus:</p> <ul style="list-style-type: none"> AI powered next steps increases complexity and needs the appropriate skillset to implement AI solutions. 	7
Option C – Bespoke Foundational 2x yearly	<ul style="list-style-type: none"> Ability to find a suitable implementation partner Ministry's capability to adequately articulate requirements to a sufficient level of detail Software development is commercially challenging New user interface which hasn't used by other customers therefore will require extensive usability testing Lower level of change management required as e-asTTle, which some of the sector is familiar with, will be used as a blueprint More assessment expertise (limited skillset) required to build a tool All items may need to be developed if suitable English item banks can't be procured Scope may end up being reduced to meet fiscal envelope with software development. 	10

Table 27. Risk assessment

4.7. Benefits assessment

Benefit criteria have been scored as follows:

- 10 if fully met,
- 0 if not met

The scoring of each benefit was workshopped with key stakeholders in August 2024. The benefit weightings from the ILM were used and the group agreed on sub-weightings within these.

Benefits	Key Performance Indicators	% Weighting	Option A	Option B1		Option B2		Option C		
			Do Nothing	Off-the-shelf Foundational	Off-the-shelf Foundational	Off-the-shelf Advanced	Bespoke Foundational			
			Raw score	Weighted score	Raw score	Weighted score	Raw score	Weighted score	Raw score	Weighted score
Better quality information to support teaching, learning, and additional support decisions in schools and kura (50%)	Increased teacher use of evidence-based assessment data	30	2	0.6	9	2.7	10	3	9	2.7
	Increased availability of learner progress data	20	2	0.4	9	1.8	10	2	9	1.8
Increased individual level information on student progress and achievement available for system level purposes by the Ministry (40%)	Increased quality data at a system level	30	0	0	10	3	10	3	10	3
	Increased consistency of assessments between curricula	10	0	0	7	0.7	7	0.7	7	0.7
Improved resilience of the assessment environment (10%)	Increased availability of assessment tools	5	0	0	10	0.5	10	0.5	10	0.5
	Increased maintainability	5	0	0	9	0.45	9	0.45	8	0.4
			100	1	9.15		9.65		9.1	

Table 28. Benefits (KPIs) assessment

There is no significant difference in benefit achievement with the four options. Options B2 and B3 have increased scores due to enabling an increased frequency of testing and for B3 with the provision of advanced functionality. Based on the assumption that the majority of the requirements can be met with an off-the shelf-tool and developed to meet the requirements with a bespoke tool, the benefits will be able to be achieved over time.

4.8. Cost summary

The non-inflated cost of each option (non-discounted and discounted) is outlined in the table below.

Cost comparison of shortlist options	Unit	Option A Do nothing	Option B1 Off-the-shelf Foundational 2x Yearly	Option B2 Off-the-shelf Foundational 4x Yearly	Option B3 Off-the-shelf Advanced 4x Yearly	Option D Bespoke Foundational 2x Yearly
Analysis period	Years		10	10	10	10
Project capital expenditure	\$m	-	22,742,566	30,296,240	30,296,240	109,052,083
Project operating expenditure	\$m	-	37,365,202	37,365,202	50,238,059	33,580,724
Ongoing operating expenditure	\$m	-	114,599,014	124,159,048	140,687,215	231,580,395
Total expenditure	\$m	-	174,706,782	191,820,489	221,221,514	374,213,202
Total expenditure (Discounted)	\$m	-	124,601,454	133,310,313	157,139,393	211,509,965
Ongoing operating expenditure start year	Year		4	4	4	5
Ongoing operating expenditure per annum	\$m	-	13,630,750	15,032,371	16,921,305	41,633,244

Table 29. Cost comparison of the short list options

Note that the cost increases with the increasing complexity and scope of the options. The Bespoke option is significantly more expensive.

4.9. Shortlist options comparison summary

The table below summarises the shortlist option comparison by presenting the following:

- Costs
- Weighted measurable benefits score
- Risk
- Assessment of the options against the critical success factors.

The scoring and weightings used to arrive at the final option scores are in Appendix 7.3




































Option	A Do Nothing	B1 Preferred option Off-the-shelf Foundational 2x Yearly	B2 Off-the-shelf Foundational 4x Yearly	B3 Off-the-shelf Advanced 4x Yearly	C Bespoke Foundational 2x Yearly
Costs (\$million)	N/A	174.71	191.82	221.22	374.21
Weighted measurable benefits rating	 1.0/10 Does not support the benefits	 8.4/10 Mostly supports the benefits	 9.2/10 Mostly supports the benefits	 9.7/10 Mostly supports the benefits	 8.3/10 Mostly supports the benefits
Risk rating	 10/10	 5/10	 6/10	 7/10	 10/10
Critical Success Factors					
Contribution to learner educational outcomes and Strategic Fit					
Potential Value for Money					
Supplier Capacity & Capability					
Potential Affordability					
Potential Achievability					
Final Option Score	N/A	69.6/100	62.4/100	51.5/100	7.5/100
Options Ranking		1	2	3	4

Table 30. Shortlist assessment summary

Option B1 – Off-the-shelf Foundational 2x Yearly is the preferred option.

4.10. Options analysis and preferred way forward

Option A – Do Nothing

Option A Do nothing results in a significant reputational risk for the Ministry as none of the existing digital tools can cope with the requirement for twice yearly testing for years 3-8.

NZCER Progressive Achievement Tests (PAT) only cover English medium. Te Waharoa Ararau (TWA) is an online judgment tool to support kaiako with the collation and reporting of progress and achievement and is not a standardised assessment tool. e-asTTle covers both mediums but has particularly low utilisation in kura delivering teaching and learning through te reo Māori. e-asTTle has numerous limitations see Appendix 4 for further information:

- some assessment items are no longer relevant nor culturally appropriate
- low volume of assessment items for those learning through te reo Māori
- requirement for manual marking/moderation of writing and tuhituhi assessments which is time consuming for teachers resulting in low utilisation of assessments in these domains.

The Government has signalled its intent to mandate twice-yearly use of standardised tools to assess the learning of Year 3-8 students in reading, writing and maths or pānui, tuhituhi and pāngarau [SOU-24-MIN-0060 and *Make It Count – a maths action plan*]. Mandated requirements are currently planned to come in from 2026, but the timing is subject to further advice on system readiness as there are currently no fully fit-for-purpose tools available. e-asTTle has the following limitations for use in this scenario:

- no capability within e-asTTle to curate assessment items and progressions. This makes it very difficult to upload new items, manage existing items, and update the progressions to reflect changes to the updated curricula

- known constraints and issues regarding performance (limitation on the number of concurrent users on the tool), reliability, and security.

There is also a lack of appetite for committing further funding to tools that have a limited remaining lifespan.

Option B1 – Off-the-shelf Foundational 2x Yearly (PREFERRED)

This option is for a new off-the-shelf tool SaaS configured for New Zealand education requirements. This approach aligns with Ministry strategic direction of buy before build, and this approach has been endorsed specifically for the project by the Ministry Design Authority in September 2024⁴⁴, with readiness for procurement endorsed in December 2024. The key distinguishing features of this option are:

- Assessment items developed/updated to volume levels that cater for:
 - Year groups 3-10 initially with proven scalability to cater for all Year 0-10 students
 - assessments for each domain of up to 2 times a year
- Improved functionality to what is currently available in e-asTTle
- Integrations to other systems for next steps, efficiencies, and reporting/insights.

Benefits

Benefits should be able to be achieved with this option.

Risk

This option medium level of delivery risk as it involves procuring an off-the shelf tool, however obtaining/localising/aligning/developing assessment item banks is a complex part of the solution.

The principal risk associated with this option is that the Ministry may be constrained by the capability of solutions in the market and that these solutions may not satisfy business need as well as a bespoke option even after configuration. It has been made clear by senior stakeholders that customisation of an existing off-the-shelf solution is to be avoided, if at all possible, because this approach has previously proved challenging and expensive for the Ministry. Therefore, any modification to an existing market solution (beyond necessary integrations) will keep customisation to a minimum, instead preferring configuration.

Cost

This option has a cost of \$174.7m over 10 years.

The estimated upfront costs for the configuration and integration of a new tool are comparatively low, however market research to date has shown there are significant ongoing annual licence costs (\$4m+ a year).

Option B2 – Off-the-shelf Foundational 4x Yearly

This option builds on the Off-the-shelf Foundational 2x Yearly option. The key distinguishing features of this option are:

- Assessment items developed/updated to volume levels that cater for:
 - Year groups 3-10 initially with proven scalability to cater for all Year 0-10 students
 - assessments for each domain of up to 4 times a year

Benefits

Benefits should be able to be slightly better achieved with this option enabling an increased frequency of testing.

Risk

As per option B1. This option does have additional delivery risk with the requirement to deliver a larger volume of assessment content within the same implementation timeframe, particularly for Māori medium which has limited supplier capacity and capability.

Cost

This option has a cost of \$191.8m over 10 years.

⁴⁴ MDA endorsement was conditional on the basis of SaaS rather than COTS, extension rather than customisation and allowance for a modular approach using open standards-based interoperability. Readiness for procurement has not been endorsed was endorsed in Dec 24.

Option B3 – Off-the-shelf Advanced 4x Yearly

This option builds on the Off-the-shelf Foundational 4x Yearly option. The key distinguishing features of this option are:

- Assessment items developed/updated to volume levels that cater for:
 - Year groups 3-10 initially with proven scalability to cater for all Year 0-10 students
 - assessments for each domain of up to 4 times a year
- Improved functionality to what is currently available in e-asTTle including AI powered feedback and next steps
- Integrations to other systems for next steps, efficiencies, and reporting/insights.

Benefits

Benefits should be able to be best achieved with this option enabling an increased frequency of testing and additional functionality.

Risk

As per option B1 and B2. This option does have additional delivery risk with the implementation of AI powered feedback and next steps.

Cost

This option has a cost of \$221.2m over 10 years.

Option C – Bespoke Foundational 2x Yearly

This option seeks to maximise the satisfaction of business need by developing a bespoke solution specifically for the New Zealand assessment and aromatawai context. The key distinguishing features of this option are:

- Assessment items developed/updated to volume levels that cater for:
 - Year groups 3-10 initially with proven scalability to cater for all Year 0-10 students
 - assessments for each domain of up to 2 times a year
- Improved functionality to what is currently available in e-asTTle
- Integrations to other systems for next steps, efficiencies, and reporting/insights.

Due to the complexities of a bespoke build this option is estimated to take 4 years as opposed to the other two options which are estimated to take 3 years.

Benefits

Benefits should be able to be achieved with this option.

Risk

A complex bespoke build is a very high-risk option. Not only does the Ministry have to find a suitable development partner and manage them, but the Ministry also needs to be able to accurately describe detailed requirements. There is always the risk of scope reduction to meet a fiscal envelope as agile software development progresses, resulting in unsatisfied business needs.

Cost

This option has a significantly higher cost of \$374.2m over 10 years. e-asTTle would also need to be maintained for a longer period of time resulting in additional investment into a legacy tool.

Summary

The 'Do nothing' option results in a significant reputational risk for the Ministry as none of the existing digital tools can cope with the requirement for twice yearly testing for years 3-8 and there is a lack of appetite for committing further funding to tools that have a limited remaining lifespan.

Option B1 – Off-the-shelf Foundational 2x Yearly is preferred as it is the most affordable and achievable. It contributes well to student educational outcomes and aligns with Ministry strategic direction of buy before build (this approach has been endorsed specifically for this project by the Ministry Design Authority in September 2024). It also meets the Minister's requirement for twice yearly testing. This option supports the benefits well and has a medium level of delivery risk. The main risk associated with this option is that the Ministry may be constrained by the capability of solutions in the market which may not fully satisfy the business requirements.

Option B2 - Off-the-shelf Foundational 4x Yearly is similar to Option B1, however it is more expensive, but could still be considered affordable. It is also achievable however with a higher level of risk due to requiring higher volumes of assessment content.

Option B3 - Off-the-shelf Advanced 4x Yearly is similar to Option B2, however it is more expensive. It is also achievable although with a higher level of risk due to requiring higher volumes of assessment content and having additional complexity.

Option C – Bespoke Foundational 2x Yearly is significantly more expensive and is a high-risk delivery option. It contributes well to student educational outcomes and achieving the stated benefits. This option will however take an additional year to deliver due to the complexities of a bespoke build and e-asTTle would need to be maintained for a longer period of time resulting in additional investment into a legacy tool.

Proactively Released

5. Commercial Case

5.1. Introduction

The Commercial Case outlines the commercial considerations and framework for engaging with suppliers in the market for the preferred option.

5.2. Business requirements

The high-level business requirements for the new assessment and aromatawai tool are listed in Appendix 6. These requirements will be used to inform the procurement process with detailed business requirements completed prior to release of the agreed go to market approach.

5.3. Procurement strategy

Background

Procurement approaches will align with the Ministry's procurement policies, the Government Procurement Rules, and the Government principles of procurement, and will be determined in consultation with the Ministry's Procurement team.

The Ministry will leverage panel partners where possible and look for outcome-based products and service suppliers that are fit-for-purpose and deliver value for money.

There are multiple procurements required for the new assessment and aromatawai tool, including both technology, assessment item development and other components.

Appropriate procurement plans will be developed and approved to cover the tool procurement, and other procurement requirements covering remaining services required.

It is not anticipated that any special support or dispensation needs to be sought from not adhering to the Government Procurement Rules or the Ministries Procurement Policy for any of the procurements related to this project.

Procurement components

The procurement will comprise three parts:

1. **Dual language standardised assessment and aromatawai tool** consisting of:
 - a. a standardised assessment and aromatawai, cloud-based SaaS technology tool which caters for both English and te reo Māori languages
 - b. an English medium assessment item bank (9,600 items covering reading and maths) that can be localised to the New Zealand context and aligned to the updated NZC (if available from the supplier)
 - c. services to review/update existing e-asTTle English medium assessment items for the new tool and if necessary, develop new English medium assessment items for reading and mathematics, and writing prompts and components.
2. **Standardised Māori medium assessment item bank** consisting of services to review/update existing Māori medium assessment items and develop new Māori medium assessment items for pānui and pāngarau (9,600 items covering both domains), and tuhituhi prompts and components potentially using an Automated Item Generation (AIG) tool.
3. **Other supporting procurements** – services required to deliver and rollout the new tool to the sector.

Rationale for separating procurement for standardised Māori medium assessment item development

A potential supplier offering an integrated solution is likely to have a technology tool and:

- a) have an existing English assessment item bank that can be aligned/adapted for the NZC, or
- b) use AIG to generate items, or alternatively have a team of experienced English medium item developers to create an item bank.

However, it is not possible for any supplier to have a te reo Māori assessment item bank. The only known Māori medium assessment item bank is in e-asTTle. In order to be truly genuine and culturally responsive, all te reo Māori assessment items should be developed in te reo Māori, with English translation but not as direct translation of English items.

Having a COTS solution with easy access to existing English assessment items would reduce the time and cost for having English medium assessment content ready for use by New Zealand schools. Tool suppliers will already have established controls and processes for the creation, review and updating of English medium assessment items.

This will necessitate an additional procurement for Māori medium assessment item development. AIG may need to be used to expedite the process given the larger volumes of items to be developed, but the capability and suitability of AIG for te reo Māori is yet to be confirmed.

The market

Technology solution

A market sounding was undertaken in August/September 2023⁴⁵ to gauge some of the available COTS assessment technology solutions that could potentially replace e-asTTle. Six suppliers were directly approached from which four responses were received (i.e., Dugga, Janison, TAO and NWEA). Each of these suppliers had existing COTS solutions for an English medium solution with dual language capability that fully or partially met most of the requirements. They were all modern enterprise products which could scale to support many concurrent users.

Janison has an off-the-shelf tool currently used in Australia with English medium content aligned to the NSW curriculum. The tool is used for Check-in assessments and Australian National Assessment Program – Literacy and Numeracy (NAPLAN) which is an annual assessment for all Australian students in Years 3, 5, 7 and 9.

A separate enquiry with the Australian Council for Educational Research (ACER) provided information about their off-the-shelf assessment tool currently used in Australia. It comes with English medium content. Parts of the tool are used in 70+ countries. ACER has their own assessment item writers who develop content manually (i.e., without AIG). ACER further advised that they would be willing to allow the Ministry to re-use existing items in their tool, adapting these and adding new items as necessary.

As the 2023 technology solution market sounding had different objectives to this project, a further market sounding will be undertaken before release of an agreed go to market approach. The project will approach the same six suppliers from the 2023 market sounding, as well as an additional nine suppliers that were identified through internet searches. Information collected from this November 2024 market sounding will be used to inform on the market's capability to meet project requirements. This market sounding resulted in more than 15 separate responses.

Assessment items

A market sounding was undertaken in August 2023⁴⁶ to gauge some the capability of organisations on the Ministry's Curriculum Support Services (CSS) Panel and Kete 3.2 of the Ministry's Te Reo Māori Panel to develop assessment items in English medium (reading and maths), as well as content for those learning through te reo Māori. Only two responses were received for English medium assessment item development, with both responses demonstrating neither was fully compliant with the process requirements at that time. One response was deemed to have provided unrealistic views of item development. The other respondent appeared to demonstrate they had experience of English medium assessment item development and psychometrics. However, there was no organisation able to develop assessment items in te reo Māori based on the responses received.

There will be organisations overseas as well, however their outputs would need to be modified to suit the Aotearoa New Zealand context.

⁴⁵ [2023 07 Technology Market Sounding](#)

⁴⁶ [2023 07 Assessment Content Market Sounding](#)

There are suppliers on the Ministry's Curriculum Support Services (CSS) panel, and the Ministry's Te Reo Māori (TRM) panel and All of Government (AoG) panels that may have the capability to provide Assessment Item bank development services. However, given there are several strategic initiatives concurrently underway across Te Poutāhū, there is a high risk of capacity constraints across Ministry panel providers, as we draw heavily on the same panels. The Ministry is considering engagement of potential suppliers, who also offer an assessment tool, via an open market procurement process, and this will be verified through appropriate procurement plans.

Automated Item Generation (AIG)

A market sounding was undertaken in September 2023⁴⁷ gauge the capability of the international and local market to provide Automated Item Generation (AIG) for assessment items in English medium settings (for reading and maths domains), and aromatawai assessment items for kura delivering teaching and learning through te reo Māori (for pānui and pāngarau domains). A range of suppliers were directly approached from which three responses were received from suppliers indicating the availability of suppliers to provide this technology.

The market sounding demonstrated that AIG solutions do not fully negate the need for people to be involved in the end-to-end item content development process. However, the total number of people required is approximately 60% lower than the number required to perform the work manually. The time required to produce the required volume of item content is also significantly less.

Broader outcomes

Considerations will be made with regards to Government Procurement Rule 16⁴⁸ and the Ministry Broader Outcomes Strategy. These considerations will be reviewed and confirmed as and when the procurement plans are approved.

Assessment and aromatawai tool and English medium assessment content

Commercial arrangements

The following table describes the commercial arrangements for the technology tool and English medium assessment items.

Commercial arrangement	Purpose of arrangement
System implementation	<p>The supplier needs to provide the following services:</p> <ul style="list-style-type: none"> - upfront planning - configuration and testing (includes reporting) - loading of assessment items - migration of data from e-asTTle to new tool - training for Ministry staff and PLD providers <p>An RFX process will be used process will be used to identify the best solution to meet the Ministry's business requirements.</p>
Supplier tool SaaS licences	<p>SaaS software licenses for the new tool including:</p> <ul style="list-style-type: none"> - Cloud hosting - Ongoing operational support and maintenance of the tool by the supplier post implementation. <p>Will be covered as part of the main RFX process.</p>
Assessment item bank development – English medium	<p>Provision of English medium assessment item banks / development services including psychometric validation. Upfront activities such as guiding frameworks and processes will also be required. Will be covered as part of the main RFX process.</p>
System integrations	<p>The Ministry will engage with its existing suppliers who provide implementation services for the Ministry's Operational Data Hub, ESL, DI4OL and Tāhūrangi respectively to integrate to the new tool. Statements of work covered under existing contracts with these suppliers will be used to engage this them as required. The suppliers will be covered as part of the main RFX process as nominated suppliers.</p>

⁴⁷ [2023 09 Automated Item Generation Market Sounding](#)

⁴⁸ [Broader outcomes | New Zealand Government Procurement](#)

Commercial arrangement	Purpose of arrangement
Changes to Student Management Systems (SMS)	The Ministry will engage with existing SMS suppliers (6 main suppliers) who provide systems to schools to make the necessary changes to their systems to accept and report on student assessment results from the new tool. A low value services agreement/Government model contract will be used (if required) to engage these suppliers.
Certification and accreditation	A secondary procurement will be undertaken to engage a supplier of professional security services from the mandated Security Related Services (SRS) panel to plan and undertake certification and accreditation processes. Statements of work will be used to engage these service suppliers.
Performance testing	A secondary procurement will be undertaken to engage a supplier of professional testing services from a DIA Marketplace provider who can plan and undertake performance testing. Statements of work will be used to engage these service providers.

Table 31. tool related commercial arrangements

Procurement options

The following options will be considered:

1. Open market RFP (one-step)
2. Open market ROI followed by a closed RFP (two-step)

An Open market Request For process aligns with Ministry and Government Procurement Rules. Confirmation of the preferred option will be subject to procurement plan approval.

Proposed option

Whilst a two-step procurement process can have advantages over that of a one-step process, undertaking a two-step process will come at a cost of an additional three or more months’ delay in identifying a preferred supplier. As the project objectives require identification of preferred supplier earlier than a two-step process could allow for, a one-step open market RFP procurement process is proposed for the assessment and aromatawai tool and English medium assessment items, subject to procurement plan approval.

Procurement process

The diagram below presents an indicative timeline for the one-step process.

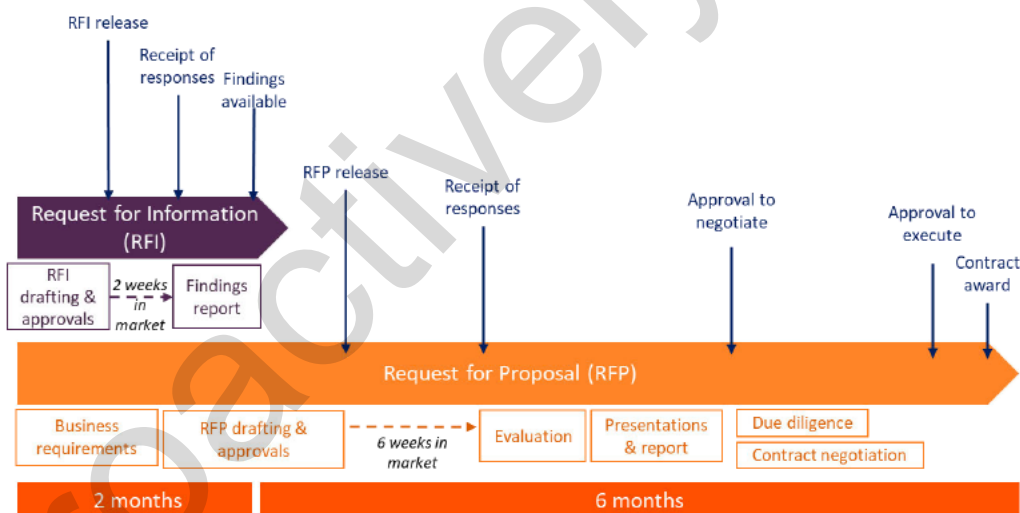


Figure 11. Procurement process – tool and English medium assessment content

Risk allocations

The table below shows the risk allocation for various likely elements of the proposed contract.

Risk Category	Risk Allocation		
	Ministry	Supplier	Shared
Configuration risk (technology)		✓	
Capacity and performance risk		✓	
Financial Risk	✓		

Operational Risk		✓	
Availability and performance risk (technology)		✓	
Security risk (technology)			✓
Intellectual property			✓
Data and privacy	✓		

Table 32. Risk allocation

The supplier will be responsible for the configuration of the tool to meet the specifications outlined in the contract. The supplier will also be responsible for meeting availability and performance service levels as agreed with the Ministry.

Management of, and the risk related to, the transition and implementation of the new system will be shared between the Ministry and the supplier.

As the capability is likely to be provided as a service, the technology advancement risk will be shared. The supplier will be expected to identify if new technology is appropriate, and the Ministry would provide approval of the change (or not). Wider security and privacy risks will be covered in detail in the Privacy and Security Impact Assessments.

Payment mechanisms

Suppliers will be requested to provide pricing for all the individual services they are offering. This will likely be:

1. a monthly service fee if a cloud 'as a service' is offered
2. annual licencing fees
3. separate costs for each of the twice-yearly assessments (event based and/or per student fee).

This will inform the Ministry and will show the whole of life pricing. Volume based discounting will also be discussed with the supplier.

Due to the supplier fully understanding the requirements and the nature of the Ministry they should be able to provide fixed development and implementation costs.

Contract type

As the project progresses it will confirm the types of contracts to be used. Possible contract types for consideration include Ministry services agreements, Master Services Agreements, and Statements of Works. In addition, due to sourcing a COTS cloud-based SaaS hosted solution, the Ministry may need to contract with the preferred supplier contract(s).

Contract term

The proposed contract term is five years with options to extend for two further periods of 3 and 2 years each. (i.e., 5+3+2). A 10-year contract term was chosen for the following reasons:

- The Ministry is looking for a long-term relationship with the service provider.
- This will be long enough to allow for service upgrades and to take advantage of the more major releases that may happen.
- Significant initial setup and investment will need to be funded by the Ministry.
- There are significant costs to repeat this procurement process. This investment from the Ministry would not be viable for a shorter-term contract duration.
- A five-year period will be the right length to consider future state Ministry requirements, as well as the benefits, or not, of revisiting the market. Extending the initial contract period may mean the Ministry is not getting maximum value for money.
- An early termination provision will be provided in the contract should this be necessary but would only be used as a very last resort. Early termination would be in writing and signed by the appropriate Ministry Senior Executive.

Māori medium assessment content

Commercial arrangements

The following table describes the commercial arrangements required for Māori medium assessment item development.

Commercial arrangement	Purpose of arrangement
Assessment item bank development – Māori medium	The Ministry will engage suppliers from the CSS/TRM/AoG Consultancy Services panels, and where necessary from the open market, to provide assessment item bank development services including psychometric validation. Upfront activities such as item standards and guiding frameworks and processes will also be required. Statements of Work/ Service Agreements/ Consultancy Service Orders (CSO)/ other suitable contract for non-panel suppliers will be used to engage these suppliers.
Automated Item Generation (AIG)	The Ministry may engage suppliers from the open market via an RFX process to provide Automated Item Generation (AIG) products and services if the preferred tool supplier does not have this capability. AIG is a process that leverages manually created test item templates and computer algorithms to quickly create a large variety of test items. This technology is being explored to mitigate the risk associated with the time and cost to manually develop Māori medium content items.

Table 33. Commercial arrangements for Māori medium assessment content

Procurement options

Based on the August 23 market soundings it has been assessed that there is limited capacity in the market. There have been no substantial developments in this space and therefore the assumption is that the Ministry would need to create the opportunity for Māori medium experts to create new Items.

There are several options for Māori medium assessment item development:

- In-house
- Outsourced to a third-party.

In-house options

There are two potential in-house options:

1. Hire resource FTC/FTE
2. Bring in resource under contract through the Te reo Māori panel
3. Hybrid of the options 1 and 2.

Options for outsourcing to a third party

There are two potential third party options:

1. Utilise the Ministry's panels i.e., Kete 3.2 Te reo Māori panel where appropriate
2. Open market RFX.

Proposed option

Subject to approval, and in line with the Ministry's procurement policy, the proposed approach will be to undertake a secondary procurement process using the Ministry's Te Reo Māori panel, Kete 3.2 for Māori medium assessment item development.

Other supporting commercial arrangements

The following table describes the other supporting commercial arrangements.

Commercial arrangement	Purpose of arrangement
Review tool	The Ministry will engage with Codec to provide a review tool to enable review of exiting items in e-asTTle. A Statement of Work will be used to engage this supplier as there is an existing MSA with Codec for e-asTTle.
Te reo Māori writing services	The Ministry will engage suppliers of translation services from Ministry's Te Reo Māori panel for translation work required for the system, te reo Māori content and communications. A secondary procurement process will be undertaken with appropriate services agreements used to engage these service suppliers.

Commercial arrangement	Purpose of arrangement
Training	The Ministry will engage supplier(s) from the Ministry CSS, TRM panels and AoG Consultancy Services panels to develop training materials (passive online resources) and conduct training (online and face-to-face) for teachers and kaiako, in relation to the new tool. Statements of Work/Service Agreement/CSO will be used to engage these suppliers. Ongoing training and PLD relating to the new tool is subject to a separate, Services Agreement managed by Te Poutāhū.
Support for engagement and communications	The Ministry will engage suppliers for marketing, promotion and communications collateral from the Ministry's Marketing, media, and related services panel, All of Government panels, and the Ministry Te Reo Māori panel as appropriate. Statements of Work/ Service Agreement/ CSO will be used to engage these suppliers.
Branding	The project will explore further with Te Pou Rangatōpū Corporate the requirement to have a new sub-brand aligned to the Ministry's sub-identity framework and may engage a supplier of professional design and branding services from the AOG Design Services panel to do the branding work if required. Design Services Order will be used to engage these service providers.
Consultancy services	The Ministry will engage suppliers from the AoG Consultancy/ External Legal Services panels for the following: <ul style="list-style-type: none"> - Independent project and Technical Quality Assurance - Legal services (if there is lack of capacity to do this internally) - Privacy impact assessment (if there is lack of capacity to do this internally) - Monitoring and evaluation CSOs / Legal Services Orders will be used to engage these suppliers.
Project team tools	Any agile or software testing tools will be procured as appropriate i.e., Azure Devops workflow tool, Apache JMeter testing tool. Where there is an existing government or Ministry arrangement in place it will be utilised, otherwise these tools will be procured from an AoG panel supplier. There are various license agreements in place.
Project personnel	The Ministry will engage additional project resources as required, to supplement/backfill internal project team resources, from: <ol style="list-style-type: none"> a) the Ministry's preferred recruitment provider panel b) employing fixed term personnel Option b) is preferred wherever possible. This will help with the transition to ongoing support both in the business and IT.

Table 34. Other supporting commercial arrangements

Potential payment mechanisms

This section identifies, at a high level, how the project intends to make payment for its key procurements over the lifespan of any contracts.

During the project:

- payments for the proposed procurements will be based on defined per month billing or milestones being achieved
- payments will be made in arrears, on acceptance by the Ministry
- no payments will be made in advance of work performed, unless approved by a delegated financial authority and agreed by contract variation or other formal written process.

All payments will be made by invoice referencing the given purchase order and directed to the Accounts Payable team. The invoice will be registered and paid through the Ministry's Fusion system.

Key contractual terms

Standard government model or Ministry developed contracts are preferred wherever possible. Standard terms and conditions, per the All of Government, Marketplace or Ministry contracting panels, will be used.

Short to medium term arrangements will follow the terms and conditions stipulated in their respective overarching agreements (if suppliers have these).

An appropriate due diligence process will be undertaken with a bespoke contract agreed for new suppliers to the Ministry.

5.4. Contract management

The Senior Responsible Owner (SRO) has overall accountability for the business outcome. The Programme Director is responsible for managing delivery against the supplier contracts. A Contract and Relationship Management Plan will be developed in consultation with Procurement and each of the successful suppliers.

On project completion, the ongoing technology contracts will be managed by the Ministry's Digital group in conjunction with the Te Poutāhū | Curriculum Centre Business Owner. Ongoing business contracts (e.g., item bank development and PLD) will be managed by the Te Poutāhū | Curriculum Centre, Business Owner.

The suppliers will follow an agreed governance and reporting routine that is agreed during the negotiation phase.

Proactively Released

6. Financial Case

6.1. Introduction

The purpose of the Financial Case is to determine the costs and summarise the overall affordability of the recommended short list option over the life of the investment and identify capital and operating funding requirements.

6.2. Approach to financial analysis

The financial modelling and analysis, including the cost model, was developed for the project as part of this business case process. The model includes cash flow analysis covering a ten-year period from financial year FY 2024/25 for the project delivery costs, and identifies the ongoing expenditure required.

Only direct financial and accounting impacts are included. There are some identified cash releasing financial benefits which are described in section 6.4.

As the technology is Software as a Service (SaaS), there is no major asset produced. However, all assessment content related costs including project team resources working in this area are classified as a capex cost. The reason being that assessment item banks that will be developed will be assets owned by the Ministry and should be able to be ported to another assessment tool in future if necessary. All other costs are opex.

Key costs underpinning the financial analysis of the projects include:

- Capital expenditure, and the resulting depreciation and capital charge.
- Project implementation costs paid out of operating appropriations.
- Ongoing operating costs after the implementation has been completed to maintain the system and services at agreed service levels going forward.

To determine the cost of the preferred option we have:

- Sought specialist accounting expertise from the Ministry's Finance team to ensure all assumptions and financial treatments adhere to Ministry and Treasury requirements
- Identified the major cost elements
- Utilised internal knowledge and expertise gained from experience on previous projects and business cases
- Engaged the knowledge of IT specialists.

The cost model focuses on the following areas:

- People costs – this covers the project team i.e., project management and support, business, technology, and change and implementation workstream resources.
- Technology costs – this covers upfront implementation (e.g., configuration, reporting) of the tool, migration of data from e-asTTle to the new tool and the EDW, the required system integrations to the tool and other costs (e.g., Privacy Impact Assessments, Certification and Accreditation, performance testing, EDW analytics, decommission of e-asTTle).
- Assessment item costs - this covers item development initiation activities, review of existing items, item bank development, writing group, content pilots, sector consultation.
- Change management costs - this is the cost to support schools as they pilot the new tool, and the wider school sector as the new tool is released. It includes engagement and communications, training, Service Desk uplift and monitoring and evaluation following implementation.
- Other costs – this includes costs such as assurance, legal, branding, translation, and team tool licences.
- Ongoing opex - this covers the cost of tool licensing, support and maintenance, item bank review/updates and psychometric assessments.

6.3. Key assumptions for financial analysis

Key assumptions for the project include:

Assessment period

- The project comprises a combination of implementation costs (incurred over the first four years) and ongoing expenditure from year 5 onwards and therefore the period for Whole of Life Cost (WoLC) analysis is 10 years.

Inflation

- Inflation of 2% per annum has been applied to Year 2 (FY 2025/26) and flatlined for subsequent years as per Treasury guidelines.
- All costs in the Financial Case are expressed in future dollar terms and include inflation.

Discount rate

- The discount rate for net present value (NPV) & whole-of-life cost of 6% per annum has been used as per Treasury Guidelines (for Telecommunications, media and technology, IT and equipment, Knowledge economy (R&D)).

Depreciation and capital charge

- The economic life of proposed assets (assessment item banks) to be created is assumed to be ten years and this is the depreciation period over which the costs are amortised.
- The capital charge rate of 5% per annum has been used as per Treasury Guidelines.

Taxation

- All dollar figures are expressed in GST-exclusive terms. No other taxes impact the cost estimates.

Personnel and contractor costs

- Contractor costs are based on current market rates.
- Ministry employees have been included in the project budget using step 8 of the salary bands converted to daily rates. These costs have been included to enable backfilling of these roles as required.
- 12% has been added to the Ministry employee costs for ACC and Kiwisaver.
- Provision for leave has been made in the resource cost calculation i.e., net working days x 85%.
- It is assumed that the team size will be at full complement (i.e., not impacted by hiring freezes) to deliver the project from FY 2025/26 onwards and this is reflected in the costs.

BAU support teams

- There are no BAU resource costs as the two existing teams in Te Poutāhū and Product team in Te Pou Hanganga Matihiko will transition from supporting e-asTTle to supporting the new tool.

Technology costs

- Estimated technology implementation costs and estimated licensing costs have been based on 2023 market soundings (more detail is available in the cost model).

Benefit KPI measurement costs

- The measures in the Investment Benefit Profile in Appendix 5 are either existing, catered for in other Ministry BAU teams, or will be developed as part of the project implementation. Therefore, there is no additional cost for measures, with the exception of the annual Psychometrician report, that has been budgeted for as part of ongoing operational expenditure.

New assessment item development

- A cost of 9(2)(j) has been used in the costing of item development assuming AIG is used as part of the content development process. This cost does not include any trialling or reviews.
- 600⁴⁹ items are required per Year level/domain (guidance from psychometrician) for twice yearly testing (does not apply to writing and tuhituhi).
- Pricing for reading, maths, pānui and pāngarau is based on twice yearly testing for Years 3-10 (as per scope).

Reuse of existing e-asTTle items

- Existing items: reading 5319, maths 3654, pānui 522, pāngarau 523
- Existing prompts: writing 20, and tuhituhi 31
- The estimated % of existing items that would be retired is 15%⁵⁰.
- The estimated % of remaining existing items that will require updating are reading 30%, maths 10%, pānui 10%, pāngarau 10%
- Not all solutions resulting from the RFP will require re-use of existing English medium items i.e., if a sufficiently large assessment item bank can be provided, therefore costs may be overstated in this scenario.

Overheads

- Overheads for accommodation, office costs and corporate services are calculated at 45k per annum for all FTE required for the project.
- There is also a one-off 16k capex overhead for each new FTE for roles greater than 1 year in duration.

Contingency

- Contingency of 25.5% has been applied to project capital and operating expenditure and independently verified through a QRA.

Previously incurred costs

- This business case does not account for costs incurred prior to January 2025.

Foreign exchange risk

- Some of the purchases contemplated will be in NZ dollars. However, supplier system licensing and associated implementation costs, and potentially item development costs could be in foreign currency and may be subject to exchange rate fluctuations and inflationary pressures.

6.4. Preferred option financial summary

The table below summarises the financial analysis of the preferred Off-the-shelf Foundational option covering twice yearly assessment for Years 3-10. It shows the total funding required of 9(2)(b)(ii) during the implementation period, as well as ongoing expenditure from year 5 onwards of 9(2)(b)(ii) per annum.

⁴⁹ Current working assumption agreed with psychometrician but will need to be confirmed during the implementation stage.

⁵⁰ Guidance from the psychometrician is if more than 30% of an item needs to be rewritten then it is best to retire the item.

<i>Inclusive of Inflation</i>							
Financial Case for preferred option							
		0	1	2			
\$millions	Year 1	Year 2	Year 3	Year 4	Years 1- 4	Year 5	10 Year
	2024/25	2025/26	2026/27	2027/28	Total	& outyears	Total
Project Capital Expenditure							
Resources	9(2)(j)						
Overheads							
Content							
Contingency							
Total Project Capital Expenditure	1.289	13.168	7.018	1.602	23.077	-	23.077
Project Operating Expenditure							Total
Resources	1.048	6.111	4.707	0.623	12.489	-	12.489
Overheads	-	1.337	1.116	0.230	2.682	-	2.682
Change management	-	6.171	5.151	-	11.322	-	11.322
Technology	0.110	1.876	0.935	-	2.920	-	2.920
Other project operating costs	0.090	0.607	0.439	-	1.136	-	1.136
Contingency	-	4.032	3.092	0.214	7.338	-	7.338
Total Project Operating Expenditure	1.248	20.133	15.439	1.066	37.887	-	37.887
Ongoing Operating Expenditure							
Resources	-	-	-	-	-	-	-
Overheads	-	-	-	-	-	-	-
Licensing and support & maintenance	-	5.757	7.676	7.676	21.109	7.676	67.166
Other costs	-	-	-	0.110	0.110	0.590	3.648
Contingency	-	1.530	2.504	2.634	6.667	2.770	23.285
Depreciation	-	0.291	1.713	1.838	3.842	1.838	14.872
Capital Charge	-	0.064	0.581	0.856	1.502	0.919	7.017
Total Ongoing Operating Expenditure	-	7.642	12.474	13.115	33.231	13.793	115.988
Total Operating Expenditure	1.248	27.775	27.913	14.181	71.118	13.793	153.875
Total Expenditure	2.537	40.943	34.931	15.783	94.195	13.793	176.951
Less funding from Budget bids							
Departmental funds	2.537	12.000	-	-	14.537	-	14.537
Non-Departmental funds	-	-	-	-	-	-	-
Less funding from existing baselines							
Departmental funds	-	-	-	0.927	0.927	0.927	6.488
Non-Departmental funds	-	-	-	-	-	-	-
Total funding available	2.537	12.000	-	0.927	15.464	0.927	21.026
Funding Shortfall	-	(28.943)	(34.931)	(14.856)	(78.730)	(12.866)	(155.926)

Table 35. Preferred option financial table

The full 10-year financials are in Appendix 8.

The ongoing operating cost from year 4 onwards is partly offset by cost savings of \$0.927 million following the decommissioning of the existing e-asTtle once the replacement tool has been rolled out.

6.5. Affordability and funding

The table below summarises the funding required for this investment.

Funding Required Summary							
	Year 1	Year 2	Year 3	Year 4	Years 1- 4	Year 5	10 Year
\$millions	2024/25	2025/26	2026/27	2027/28	Total	& outyears	Total
Capital Funding Required	-	1.168	7.018	1.602	9.788	-	9.788
Operating Funding required	-	27.775	27.913	13.254	68.942	12.866	146.138
Total Funding Required	-	28.943	34.931	14.856	78.730	12.866	155.926

Table 36. Funding required summary

The costs for FY 2024/25 (Year 1) will be funded from existing departmental funds. \$12 million of capital expenditure for FY 2025/26 (Year 2) will also be funded from existing departmental funds.

The Ministry does not have capacity within its capital or operating funding for this project cost in its entirety and will be seeking funding of \$78.7 million (\$9.8 million capital funding and \$69.0 million operational funding) from this business case via Budget 25.

We are also seeking a permanent annual uplift to the Ministry's ongoing appropriation of \$12.866 million per annum from year 5 onwards.

Funding could be released in annual stage-gates if required. This would be managed within the project governance process and any report back requirements that may be set by Treasury or the Minister.

Cost savings from reducing scope to Years 3-8

If the tool only catered for Years 3-8, there would be a reduction in cost of \$5.4 million for the assessment items for Years 9 and 10 plus associated ongoing maintenance, depreciation, capital charge and inflation costs.

Additional scope

Future increases in scope will increase ongoing licensing and use cost and impact the whole of life cost. Increases in scope in the future will need to be funded separately, and could include:

- addition of new domains e.g., science, oral language
- additional Year groups e.g. Years 11 and 12
- increased frequency of testing beyond twice yearly.

6.6. Risks and uncertainties

The uncertainties affecting the major elements in the cost estimates were identified by project team members and the CACP Programme Director at a workshop held on 4 October 2024. The assessment was facilitated by Mike Wood of Broadleaf Capital International.

The uncertainties identified and assessed for their possible impact on cost elements in the estimate were as follows:

- number of labour resources required
- contractor resource rates
- duration of the project
- number of items and the cost per item for the item bank development work
- cost of the vendor initiation for the new content items
- cost of redesign by the writing groups
- cost of sector consultation
- costs of change management and communications
- cost of training resources development and delivery
- cost of the technology implementation and data migration
- cost of the technology integrations
- cost of the licensing and support costs
- cost of any additional product support required
- cost of temporary service desk uplift after the releases.

The uncertainty in the cost estimate elements was explored by first considering what would constitute the absolute best- and worst-case element values (to establish the extremities of the probability distribution function). The optimistic, pessimistic, and most likely risk scenarios on the element values were then evaluated in discussion amongst the workshop participants, and figures for each case were recorded.

Subsequently some updates were made to the uncertainties in some of the cost elements following cost model updates which were made to accommodate a fast-track approach to deliver the new tool to the sector in 2026.

6.7. Quantitative Risk Analysis

A Quantitative Risk Analysis (QRA) assessment⁵¹ was carried out to determine the range of cost estimates for the programme, taking uncertainty into account, and to analyse the sensitivity of the estimated cost to the uncertainties modelled.

The analysis utilised three-point estimates of the possible variation in each element under consideration by considering optimistic, pessimistic, and most likely scenarios for each one. These scenarios and the range of values each element could take on were developed at workshops in October 2024 with further updates made in November 2024. The outcome of the quantitative analysis was used in a Monte Carlo simulation model to evaluate the overall uncertainty in the total funding required for 3-year project implementation and over 10 years.

The table below shows the estimated probability distribution profile of each of the key cost components. These probability distributions were estimated based on the judgement of the project team. A value of 0% represents no change to the base case value, while a negative value represents a reduction from the base case value and a positive value represents an increase from the base case value.

Uncertainty	Optimistic	Most Likely	Pessimistic	
Resources quantities	0%	15%	33%	(relative)
Contractor resources rates	-15%	-5%	15%	(relative)
Project duration	-50%	-25%	0%	(change in duration - % of a year)
Vendor item bank development - number of items	-20%	-10%	0%	(relative)
Vendor item bank development - cost per item	-10%	-5%	33%	(relative)
Writing group redesign	-5%	-2.5%	0%	(relative)
Review of existing items	-5%	-2.5%	0%	(relative)
New content item vendor initiation activities	-20%	0%	33%	(relative)
Pilots	-5%	10%	33%	(relative)
Sector consultation	-5%	10%	33%	(relative)
Technology implementation & data migration	10%	30%	50%	(relative)
Technology integrations	-20%	-10%	25%	(relative)
Change management & comms	-33%	-20%	-10%	(relative)
Training tools & materials	-50%	-20%	0%	(relative)
Training delivery	0%	15%	33%	(relative)
Service desk uplift	-10%	0%	25%	(relative)
Licensing & support costs	-33%	-25%	67%	(relative)
Remaining smaller costs	-10%	15%	25%	(relative)
Additional product team	285,714.29 per annum, 7 years		(discrete risk, 25%)	

Table 37. QRA inputs

The graph below shows the probabilistic range of assessed values from the QRA analysis, representing the 10-year funding required for the project and may be summarised as follows:

- The average (mean) outcome of the modelling is for a requirement of \$145.6 million to complete. This suggests that there is a 50% chance that the project can be delivered for that amount, and a 50% chance that more will be required.
- The fully costed preferred option put forward in this business case sits approximately at the 85th percentile, i.e., there is a 15% possibility that funding will not be sufficient.
- Increased levels of confidence are marked at \$175.1 million (85th percentile).

⁵¹ Assessment and Aromatawai Standardised Tool Project Cost QRA, Broadleaf Capital International, October 2024

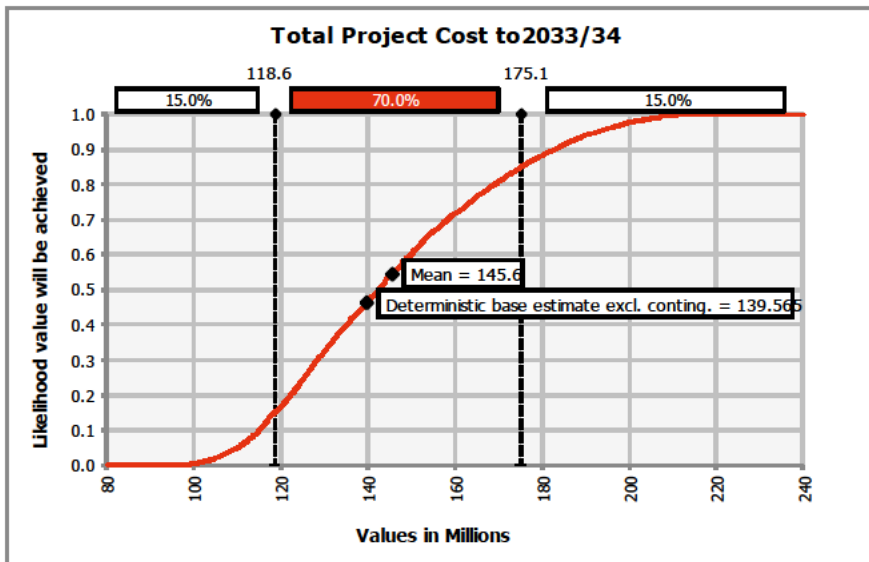


Figure 12. QRA total costs compared to Ministry estimates

6.8. Recommended contingency

The QRA results show that recommended contingency is 25.5% at the 85th percentile. The implementation simulation results indicate that the 25% contingency used in the base estimate was a reasonable estimation.

The total 10-year funding required for the project applying the recommended contingency percentage at the 85th percentile is \$175.1 million. Therefore, we recommend an allowance for a contingency amount of \$35.0 million (representing \$30.62 million operating contingency and \$4.36 million capital contingency) over the ten-year whole of life duration of the programme. The contingency amount is included in the overall total.

The PGB holds contingency for the CACP programme that it governs and its projects, and releases upon approval of a funding request being put forward outlining the need and circumstances.

6.9. Sensitivity analysis

Sensitivity analysis demonstrates the relative significance of the 10-year project funding uncertainties and is represented graphically in the following figure. The dominant uncertainty influencing the simulation results is the uncertainty in the licensing and support costs. Other areas of uncertainty are uncertainties in the contractor resource rates and quantities, vendor item bank development costs and volumes, and project duration. However, these are not material to the simulation results.

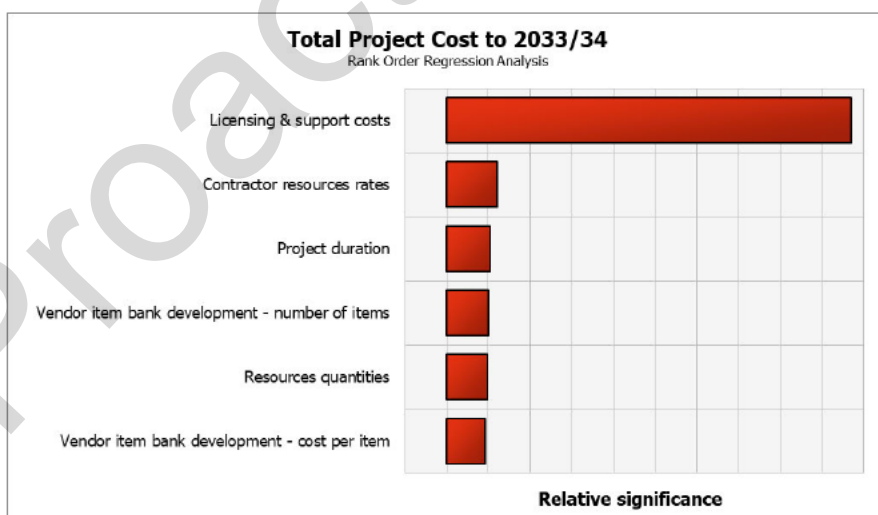


Figure 13. Sensitivity analysis

6.10. Project Whole of Life Cost (WoLC)

The following table presents the undiscounted WoLC for the project.

10 Year Whole of Life Cost (Undiscounted)				
(Note excludes depreciation and capital charge)				
Current cost estimates	\$m	Capex	Opex	Total
Estimate to complete this project (all phases):		18.383	30.027	48.410
Project contingency:		4.359	7.338	11.698
Other whole-of-life operating costs:			92.710	92.710
Total whole-of-life cost		22.743	130.076	152.818

Table 38. Project Whole of Life (Undiscounted)

The following table presents the discounted WoLC for the project.

10 Year Whole of Life Cost (Discounted)				
(Note excludes depreciation and capital charge)				
Current cost estimates	\$m	Capex	Opex	Total
Estimate to complete this project (all phases):		16.992	27.663	44.655
Project contingency:		4.004	6.736	10.740
Other whole-of-life operating costs:			69.207	69.207
Total whole-of-life cost		20.996	103.606	124.601

Table 39. Project Whole of Life (Discounted)

The project WoLC (NPV) for the 10-year period is \$124.601 million.

7. Management Case

7.1. Introduction

The Management Case confirms that the proposal is achievable and details the arrangements proposed to both ensure successful delivery and to manage project risks, while maintaining a focus on delivery of benefits.

As this project is part of the wider CAC Programme, the CACP Programme Management Plan (PMP) methodologies, processes and governance apply to this project. Further detail can be found in the CACP PMP.

7.2. Project management arrangements

Methodology

The project will be managed using the Ministry Delivery Framework.

The Ministry’s Enterprise Portfolio Management Office has designed the Ministry Delivery Framework (MDF), to support a holistic approach to delivering the Ministry’s strategic priorities. The framework outlines the pathway all new initiatives should take, from developing a strategy to realising benefits. The workstreams will be delivered in accordance with this framework, which is outlined in the figure below:

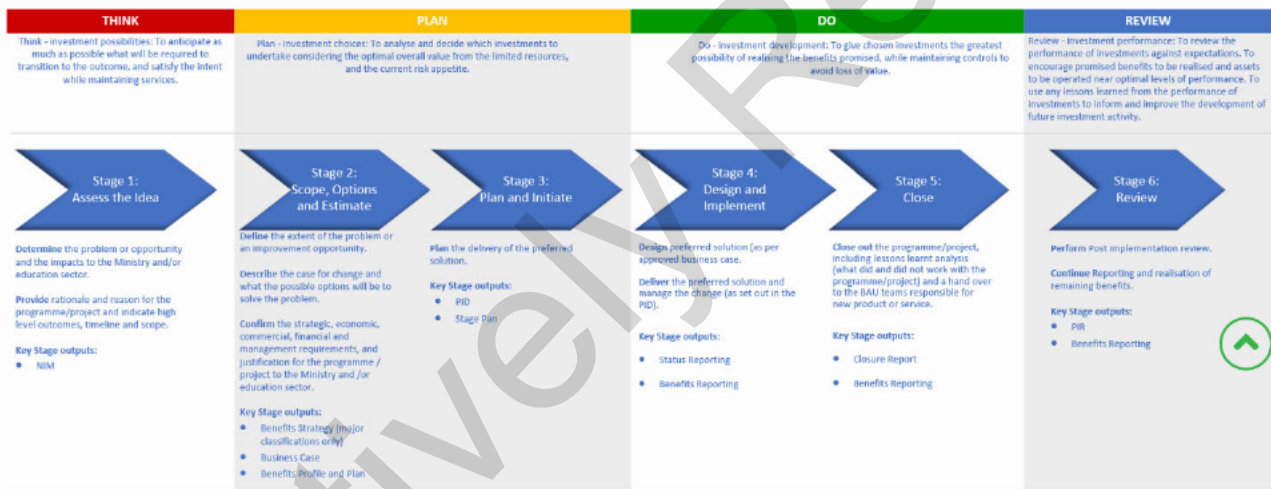


Figure 14. The Ministry Delivery Framework

Scaled scrum-based framework – delivery methodology

The project workstream delivery will use the Scaled Scrum based Framework is based on Scrum, a popular Agile framework, which organises work into iterative cycles called sprints, with roles like the Product Owner, Scrum Master, and Development Team, and emphasises transparency, inspection, and adaptation through events like sprint planning, daily stand-ups, sprint reviews, and retrospectives.

The framework focuses on effective backlog management, continuous improvement, and the scaling of both product owner and scrum master roles, aiming to ensure alignment, collaboration, and agility at all levels of the organisation.

Methods and processes

The following table references the CACP Management Framework guidance, including standards, processes, templates, and tools that the project will adhere to.

Management component	Link to guidance information
All guidelines and templates	Guidelines and Templates
Delegations and tolerances	Programme Delegations and Tolerances.pdf
Roles and responsibilities	Roles and Responsibilities Template.pptx

Scope management	Scope Framework.pdf
Change control management	Change Control Management Framework.pdf
Assumptions and constraints management	Assumptions and Constraints Framework.pdf
Benefits management	Benefits Framework.pdf
Risk management	Risk Management Framework.pdf
Issues management	Issue Management Framework .pdf
Dependency management	Dependency Framework and Guidelines.pdf
Stakeholder	Stakeholders Framework.pdf
Scheduling	Scheduling and Dependencies Framework.pdf
Project status report	project Status Report - Template.docx
Project status report RAG criteria	project Status Reporting RAG Criteria Guidance.pdf

Table 40. Programme management framework and guidelines

A Project Initiation Document will be developed prior to commencing project implementation.

7.3. Project governance and structure

Project governance

As this project is part of the CAC Programme the high-level governance structure for CACP is shown overleaf:

As this project involves a digital technology tool, the Digital Transformation Board (DTB) also needs awareness of this project. The DTB's role is to ensure common ownership of interim implications and long-term outcomes of digital transformation enabling work.

Monthly project reporting is summarised into the CACP programme reporting and is provided monthly to the PGB with summary level reporting monthly to the Digital Transformation Board.

Once the business case is approved the programme governance structure diagram will be updated to reflect the new project that needs to be delivered by the programme. The Project Initiation Document will also describe the governance structure for the project in more detail.

Project team structure

The core project team structure for FY 2025/26 onwards is shown below. There are several vacancies to be filled commencing January 2025 and ramping up till July 2025 at the latest to deliver the project successfully. Exact role numbers may fluctuate during the remainder of the project.

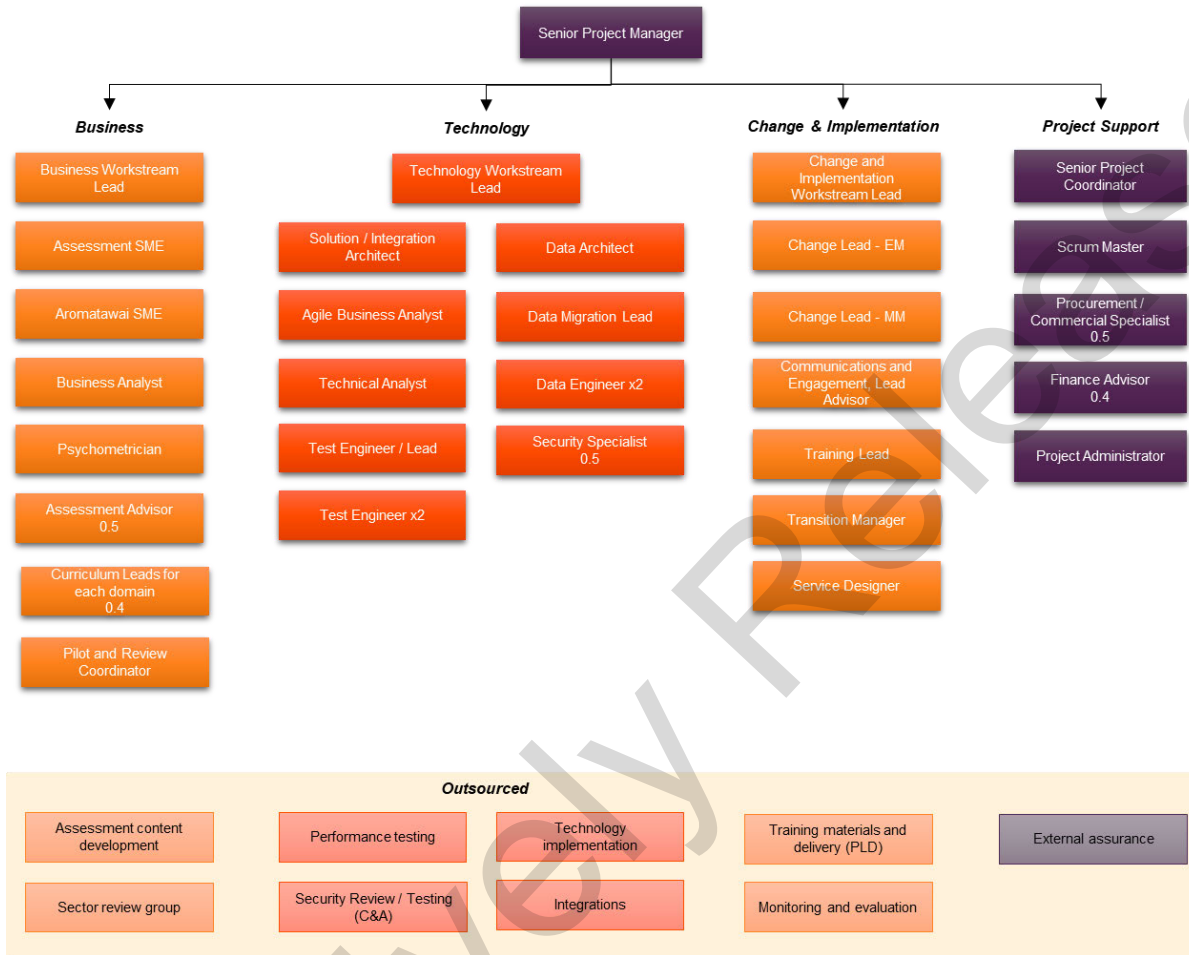


Figure 15. Project team structure

The project team will work report to the CACP Programme Director, SRO and PGB throughout the lifecycle of the project to ensure the business and technology solution delivers the expected outcomes, within time and cost, to the agreed level of quality.

Workstreams

The project has the following workstreams:

1. **Business** – comprises a team of subject matter experts responsible for engaging suppliers to develop assessment items banks, reviewing items and engaging sector reviewers to further review the new assessment items. They will work closely with the Technology workstream to provide business and reporting requirements and provide the curricula progressions detail.
2. **Technology** – responsible for the delivery of the new, configured tool with the necessary integration required between Ministry and other systems. It is envisaged that a supplier team will be closely involved in the tool delivery.
3. **Change & Implementation** – responsible for change management, communications, training, and service transition will operate across both technology and content delivery.
4. **Project Support** – responsible for the day to day operating of the project and its reporting needs.

Other groups

Sector users will also be engaged at various stages of the delivery workstreams. Ministry groups including Communications and Stakeholder Engagement, Procurement, People Capability and Finance will be involved and consulted as appropriate.

Sourcing

Where capability does not exist within the Ministry, roles may be filled by external contractors sourced from All of Government panels and supplemented by suppliers from appropriate panels as required. The project will work with Ministry line managers to check availability of suitable permanent/fixed term resourcing in the market first before hiring contractors. Contract resource can be proactively replaced by permanent/fixed term resource in future years as contracts come up for expiry, as contractors leave, or when new capabilities are required. The ability to hire permanent/fixed term resource would require commitment of ongoing funding provision. This is a lower cost approach enabling retention of skills in-house.

Operational teams for ongoing support and service delivery

The ongoing support team structure is shown below. The existing business teams and product team will transition from supporting e-asTTle to the new tool therefore no additional resources are required to be funded.

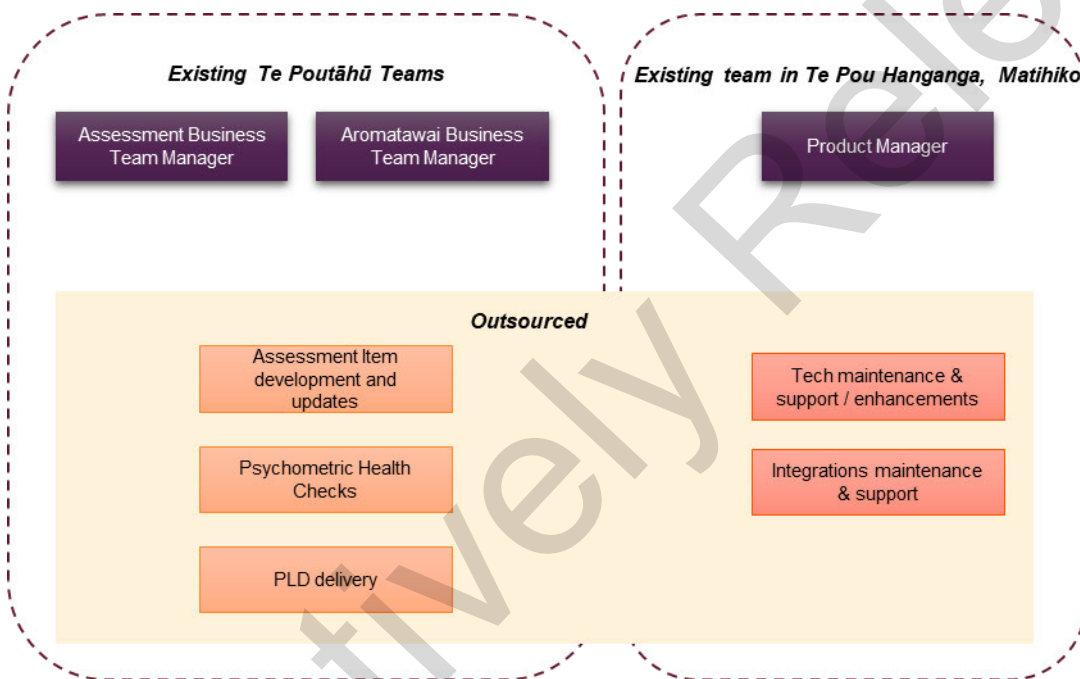


Figure 16. Operational teams

With the new tool, a basic internal technical support team is required to support the solution with suppliers providing additional support as required. Having the internal support resources involved in the technical project will ensure they are upskilled to support the new system ongoing. This approach is both cost-effective and will help ensure a smooth and successful transition from the project to business as usual.

The business teams will be responsible for maintaining the new assessment tool item banks ongoing and suppliers will be commissioned from the panel as required. These teams will liaise with the team within Te Poutāhū for managing ongoing PLD contracts. Procurement assistance will be required with managing the BAU contracts associated with the new tool.

The resourcing for the team will transition from the project team to the BAU teams and in some cases will also be involved in the project delivery until this completes.

7.4. Project delivery

The high-level delivery plan for delivering the new tool to the sector is overleaf.

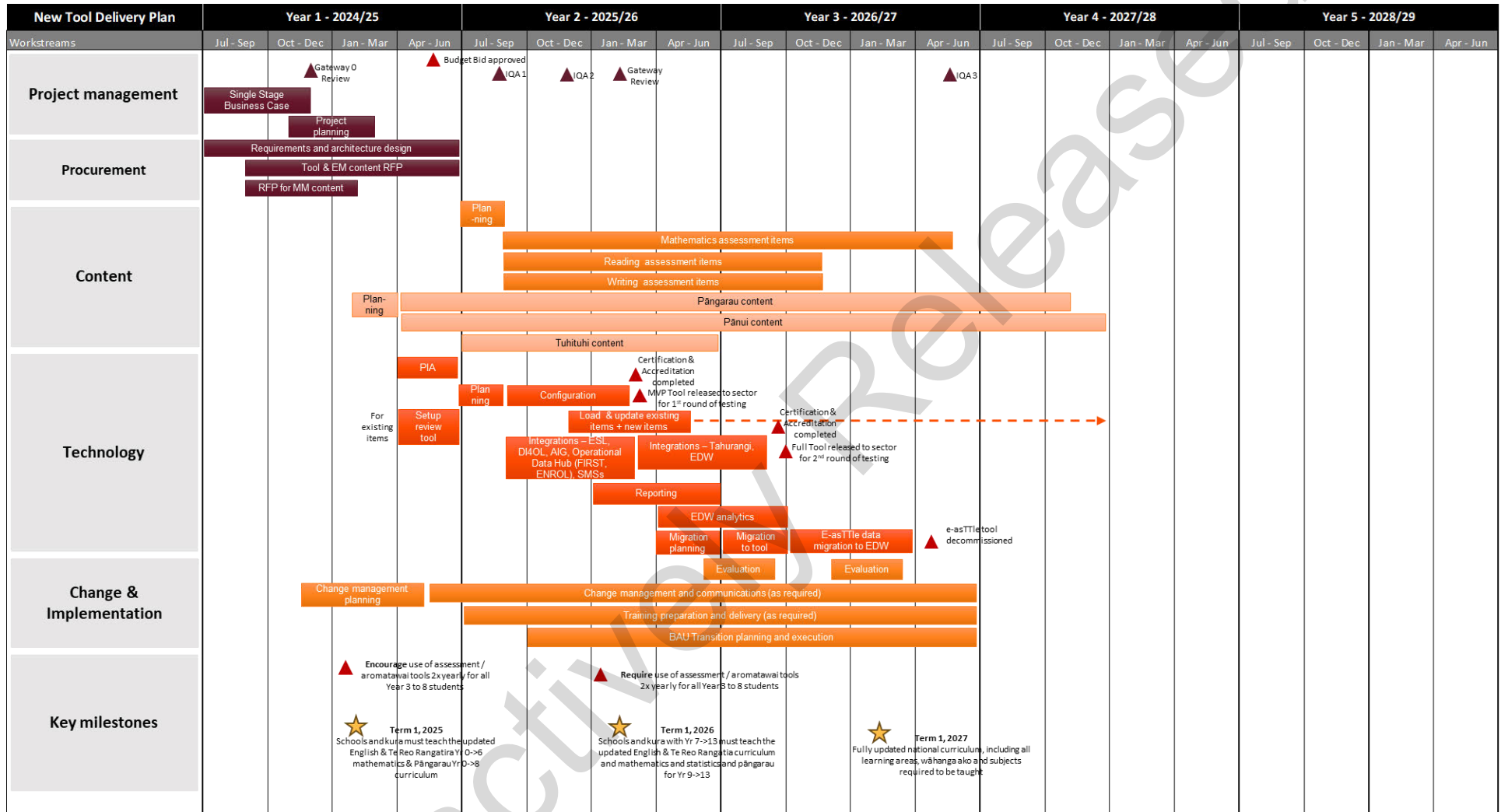


Figure 17. High-level delivery plan

The Minimum Viable Product (MVP) version of the new assessment and aromatawai tool is intended to be released to the sector in early 2026⁵² with minimal English medium and Māori medium assessment item banks which will be added to over the following twenty-one months. The full version of the tool is intended to be released in September 2026. e-asTTle will be decommissioned following migration of historical data to the new tool.

⁵² An initial version of the new tool is intended to be available to the sector in early 2026, with early implementation opportunities made available to teachers and kaiako from Term 4, 2025.

Some tasks can commence in FY 2024/25 under interim contracts, notably Māori medium assessment item development which has a shorter procurement process.

Phased tool release

The deliverables from the two phased tool release are described below.

	MVP tool release	Full tool release
Assessment items	Minimal assessment items in English and te reo Māori – sufficient for first round of testing	More assessment items in English and te reo Māori – sufficient for second round of testing
Integrations	ESL, DI4OL, Operational Data Hub (FIRST, ENROL), manual file import/export from SMSs	EDW, Tāhūrangi
Reporting	MVP student, class, and school level reporting	Full student, class, and school level reporting
Analytics	Basic system-level reporting capability – extracting data from tool	EDW system-level analytics capability
e-asTTle data migration		Two years of e-asTTle student (current) progress data migrated to new tool
Test preparation	Set up in March/April 2026 for first round of testing in May	Set up in October 2026 for second round of testing in November

Table 41. Phased tool release

Risk mitigations

The fast-track approach to deliver a tool to the sector in 2026 to enable the requirement to use an assessment and aromatawai tool for twice yearly testing⁵³ carries a number of risks. To minimise risk the following mitigations will be applied:

- Use out-of-the-box features wherever possible for the MVP e.g. initial set of reporting
- Retain e-asTTle for continued use if ‘go live’ criteria are not adequately met
- Upfront planning of teacher training utilising teacher only days planned for January/February 2026
- Contingency planning for direct integrations to FIRST and ENROL if the Operation Data Hub is not established in time
- Upfront planning and design of student authentication given existing limitations of DI4OL lite
- Approach SMS suppliers as early as possible leveraging existing Ministry relationships with these suppliers to get the SMS system changes made in time.

Detailed implementation risks and mitigations will be added to the project risk register.

Approach for assessment content (items)

The business workstream is responsible for a review of existing e-asTTle items with a view to updating and reusing where possible as well as creating new assessment items to meet with the required volumes for assessment at the different year levels. The table below shows the number of existing items and the items that would be required for each domain to support testing for up to 2 times per year.

Medium	Domain	Existing items that could be reused	Total required items
English	reading	5,319	4,800
English	mathematics	3,654	4,800

⁵³ Information Update: Twice-yearly assessment decisions and next steps, 24 October 2024 (METIS 1338352)

Māori	pānui	522	4,800
Māori	pāngarau	523	4,800
Total		10,018	19,200

Table 42. Number of items required

Appendix 9 describes some potential processes for reviewing e-asTTle assessment items and developing new assessment items. The actual process will depend on the outcome of the procurement process and whether the supplier has ready-made assessment items or if they will be developing new items, and if the latter, whether they use Automated Item Generation (AIG) or create items manually. The Ministry team will be actively involved in the review of all items prior to upload into the tool.

Reason for extended timeframes to deliver Māori medium assessment items

There are multiple reasons for the extended timeframe to delivery Māori medium assessment items. The table above shows we currently have a very small numbers of assessment items in Māori medium. It is unlikely that suppliers will have assessment item banks in te reo Māori therefore a considerably larger number of items need to be developed for Māori medium. There is also a limited capacity of te reo Māori assessment item developers which contributes to the longer timeframe.

Assumptions made in estimating timeframes for assessment item development

- A trained team of a minimum of five will be required to develop items for each of the domains.
- Each domain team can produce 2,200 items per annum, with the assistance of AIG. Estimates based on market soundings and guidance from a psychometrician and an assessment expert.
- Trials and reviews will run concurrently with item development i.e., trialling and reviews of the first batch of items will be done while the second batch of items are being developed.

Agile delivery

Appendix 10 describes the agile delivery approach that will be used to manage the delivery of the workstreams.

7.5. Change management arrangements

The project will align to the Implementation Change Framework (Plan) of the broader CACP. An integrated Curriculum and Assessment Change Management Plan will sit across both the CACP and Te Poutāhū. Change management for the new tool will be embedded within this plan.

The Curriculum and Assessment Change Management Plan takes a deliberate and focused approach to understanding project and total changes for stakeholders, including:

- What is the scope and impact of the change and who is being impacted?
- Are people being impacted the same or are they experiencing the change differently?
- What is being changed (e.g., processes, systems, roles)?
- What is the time frame for the change?
- How stakeholders will be supported through change
- The implementation supports, training and development required to ensure the changes are well introduced and embedded
- Identified sponsors for the overall change, and individual components within it
- Feedback loops
- Measuring the success of change.

Change management methodology

The CACP Implementation Management Framework follow a formal and well-defined change management process and approach based on Prosci's 3 Phase Process® including the ADKAR model to support successful change.

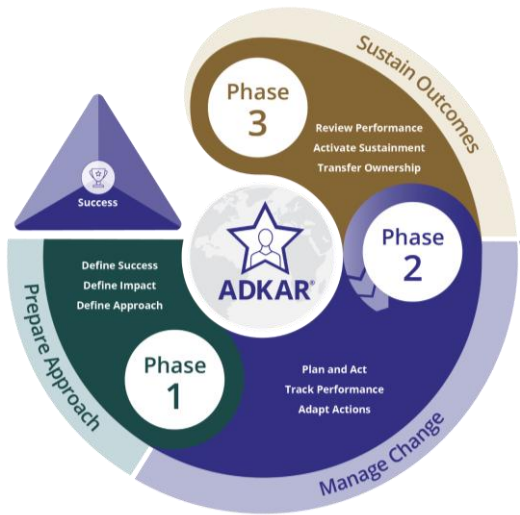


Figure 18. Prosci 3-phase process®

The Prosci change management approach ensures that both the technical and people sides of change are managed, effectively building awareness and readiness for change, developing commitment, ability, and knowledge to implement the outputs to realise the business case outcomes and benefits.

This approach will also be data-led to support regular reporting on progress and milestones, taking any corrective action early and achieving overall project success.

CACP approach for enacting change

The following diagram provides a summary of the Framework components and how they deliver change and implementation.

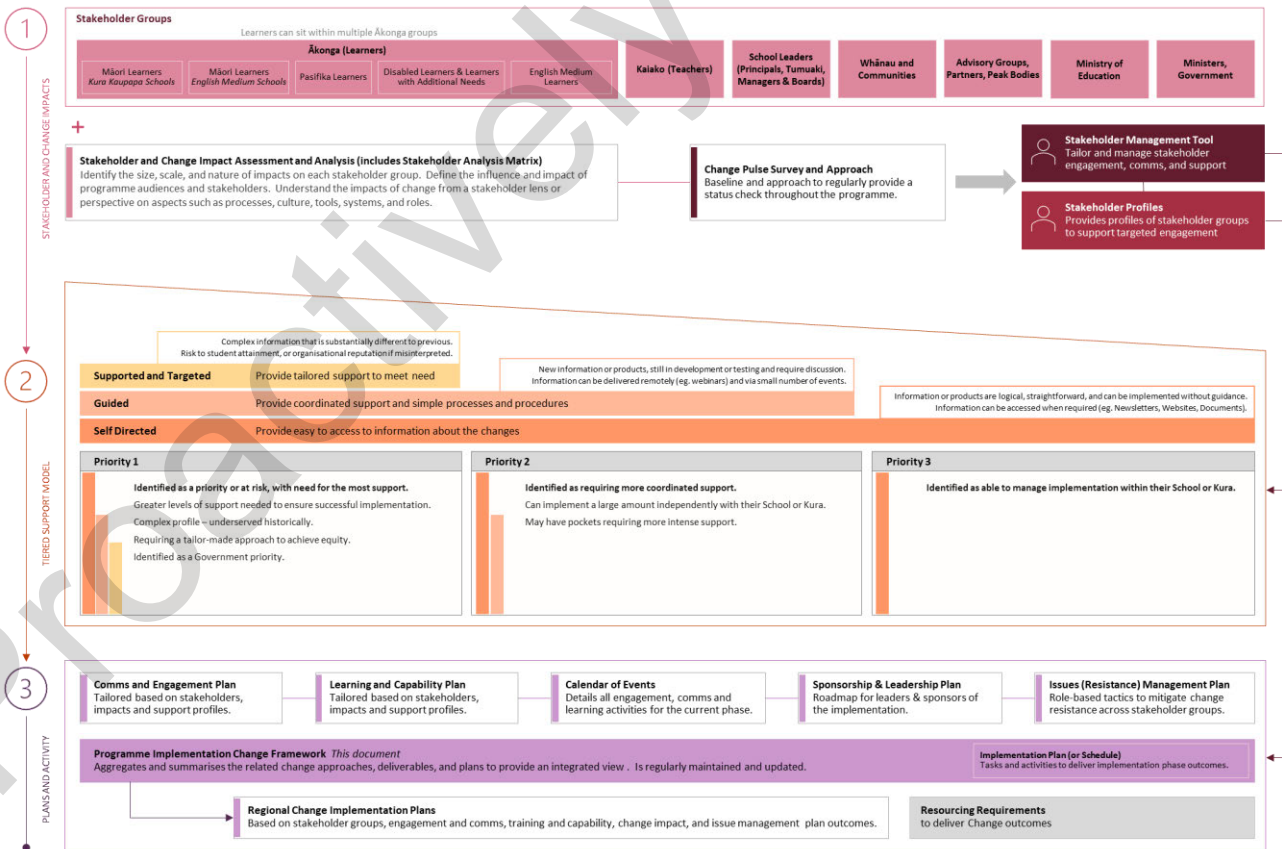


Figure 19. CACP approach for enacting change

The following documents are part of the CACP Framework and will be used to plan and deliver the change:

- Change Implementation Plan
- Stakeholder Management Plan
- Communication and Engagement Plan
- Learning and Capability Plan
- Sponsorship and Leadership Plan
- Resistance Management Plan
- project Calendar of Events
- Regional Change Implementation Plan.

Engagement and Implementation Model

The project will support delivery across three stages of engagement, implementation, and transition to business as usual, as described below:

Stage	High-level change approach
Engagement	Consultation with the business, sector, and other key stakeholders regarding initiatives, products and materials being developed. Feedback is obtained and incorporated as appropriate.
Implementation	Support to enable stakeholders to be ready, willing, and able to take new materials and outcomes and use them across the sector for the benefit of students and ākonga.
Business as Usual	Change and implementation outcomes are transitioned to business-as-usual teams who provide ongoing support to stakeholders, and continued maintenance of products and materials.

Table 43. Change approach by stage

There are three tiers or layers within the resulting and supporting CACP Engagement and Implementation Model which this project will follow.

These are – (1) Ministry, (2) Region, and (3) Schools and Kura, and can be seen in the below diagram. The project works closely with regions, and they in turn with Schools and Kura to implement the required change initiatives and outcomes.

This model includes an implementation pipeline process to effectively present, share, and iterate implementation resources and products across and between the tiers.

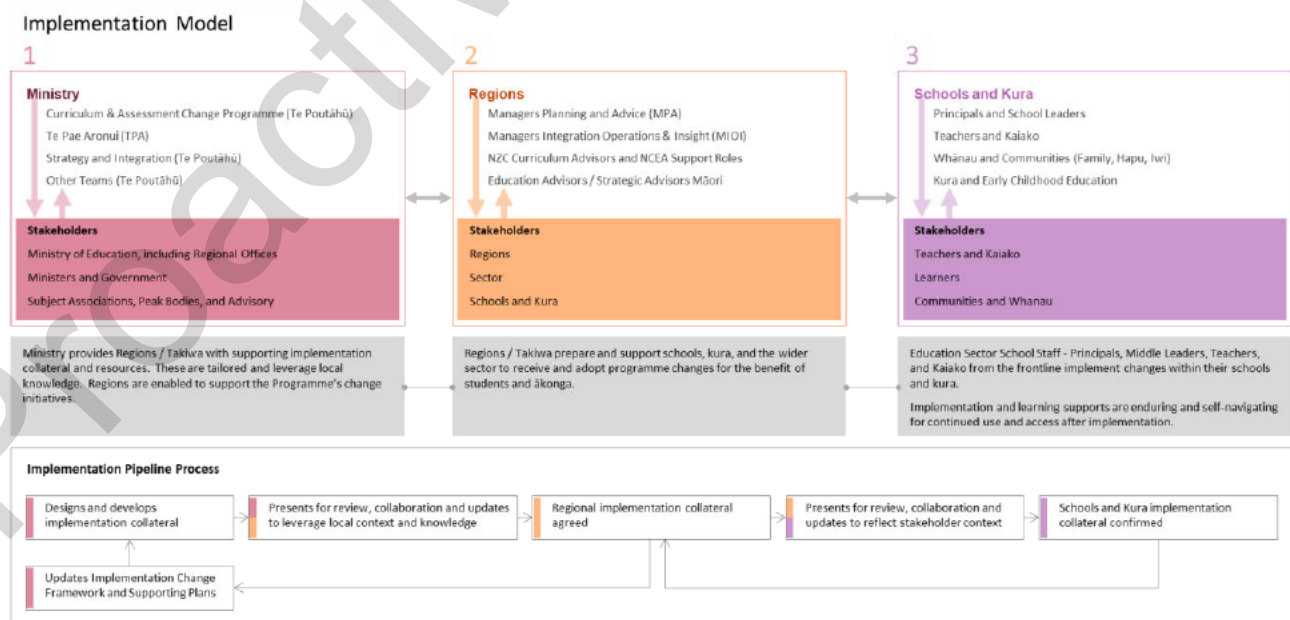


Figure 20. Implementation model

Stakeholder management

A Stakeholder Management Plan will be developed as part of the project initiation. The plan will:

- identify key external and internal stakeholders
- assess the project impact on each stakeholder and the likely levels of interest, influence, and involvement of key stakeholders throughout the project
- segment stakeholders into groups to determine the appropriate approach and level of engagement required for each stakeholder
- develop objectives, standard key messages, reporting activities and feedback processes for each stakeholder
- develop an approach to move stakeholders between quadrants should it be required (for example low interest to high interest)
- further segment stakeholders into categories indicating how they feel towards the project, i.e., unaware, resistant, neutral, and supportive. Strategies can be developed to move key stakeholders into the supportive category to manage resistance
- develop an intended 'end state' for each key stakeholder in terms of what they need to know, by when, along with target Assessment and Aromatawai tool usage rates for each school and teacher.

The influence / impact matrix below provides a useful representation of all stakeholders with an influence on, or who are impacted by, the new tool and its deployment.

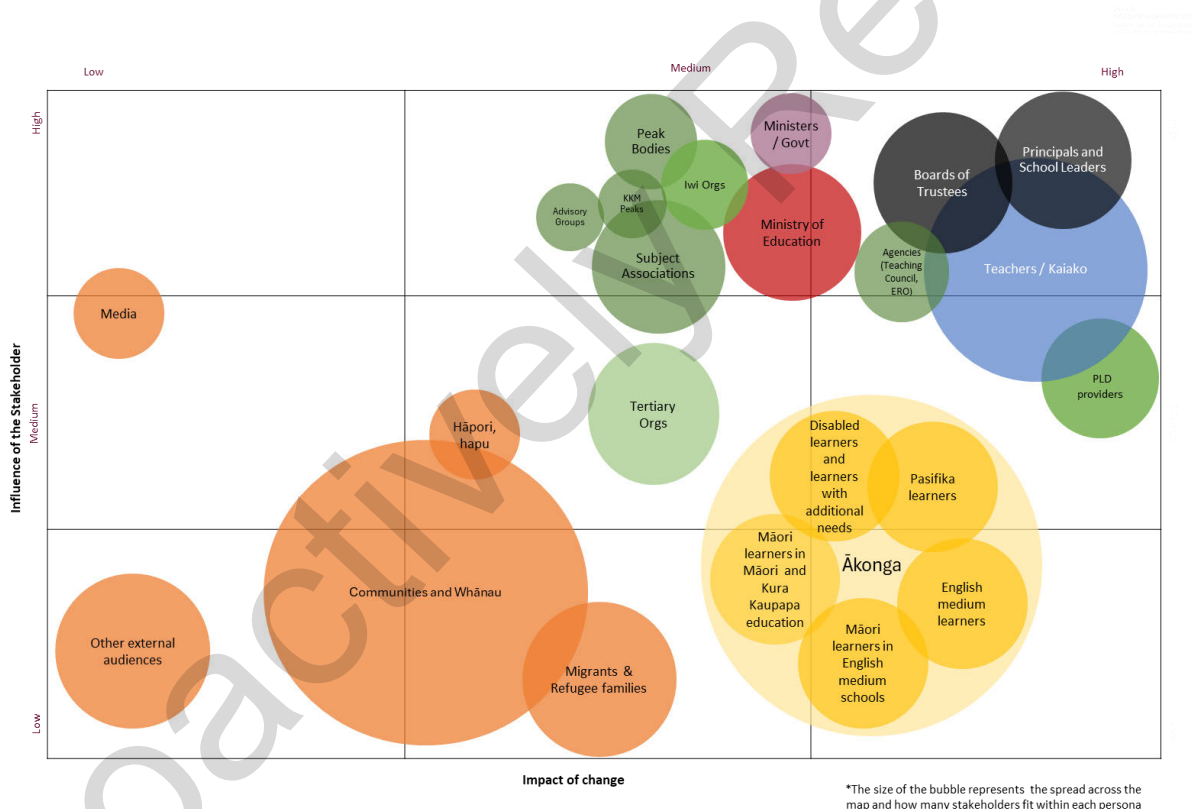


Figure 21. Stakeholder influence / impact matrix

Key internal and external stakeholders, who have been identified as high impact will be engaged directly and managed closely in all the key phases of the project. Where required, specific change interventions will be undertaken to manage resistance and increase buy-in. The Stakeholder Management Plan is a living document that will be refreshed and tested for effectiveness and completeness every six months over the life of the project.

Key principles of our stakeholder engagement approach include:

- Practising kāwanatanga: Te Tiriti o Waitangi by actively building closer relationships with Māori, lifting leadership practice in cultural capability that enables Māori to enjoy and achieve educational success as Māori.

- Kotahitanga, working together collectively: we will work as a collective; this will involve teamwork, actively seeking and enabling contribution, collaboration, connections (relationships) and empathy.
- Manaakitanga, caring for and supporting each other: we will be inclusive and transparent in our planning and in our process to build trust and create the right environment for collaboration and partnership.
- Tiakitanga, trusting and respecting each other: engagement must progress on a foundation of trust and connection, achieved through transparency, va'a (the space between) and time. We will work together as a collective to support our decisions which will help to do this.
- Whanaungatanga, making genuine connections: we will build stronger connections and relationships with our stakeholders, being thoughtful in how we engage with our different stakeholder groups to ensure an equitable process. We will monitor this through our relationship managers and engagement activities.

Change impact assessment

The Assessment and Aromatawai tool will have a range of change impacts for schools and kura, teachers and kaiako, students and ākonga as well as the Ministry and other education agencies. In particular, there will be a difference between the impacts for English medium schools, and kura delivering teaching and learning through te reo Māori, because of the differences in the current state of assessment and aromatawai practices, processes and tools. An appropriate approach for kura delivering teaching and learning through te reo Māori will need to be designed within the overall framework to ensure successful adoption of the tool.

Impacts (during and post project) will be refined and mapped over time, to ensure necessary supports are in place in advance of key milestones, release dates and final transition to business-as-usual.

The following table presents a summarised view of the draft stakeholder impact map.

Stakeholder Group	Technology	Teaching & Learning	Assessment	Aromatawai	PLD & Training	Planning & Reporting	Data, Information & Insights
English medium education setting overall	Low	Medium	Medium	N/A	High	N/A	N/A
Principals	Low	Low	Medium	N/A	N/A	High	Medium
Teachers kaiako	Medium	Medium	Medium	N/A	N/A	Medium / High	N/A
Students ākonga	Low	Low	Low	N/A	N/A	N/A	N/A
Families whānau	N/A	Low	Low	N/A	N/A	Low – Medium	N/A
Kura delivering teaching and learning through te reo Māori	Low	Medium	N/A	High	High	High	N/A
Tumuaki	Low	Medium	N/A	High	Medium	High	Medium – High
Teachers kaiako	Medium	High	N/A	High	High	High	N/A
Students ākonga	Low	Medium – High	N/A	High	N/A	N/A	N/A
Families whānau	N/A	Low	Low	N/A	N/A	Low – Medium	N/A
Ministry of Education	Medium	Low	Medium	Medium	Medium	Medium	Medium – High

Table 44. Draft stakeholder impact map

Change readiness assessment

The readiness of schools and kura to use the Aromatawai and Assessment tool will be measured and monitored through processes led from the Te Poutāhū Strategy and Integration Team, and supported by regional feedback from Regional Offices, Curriculum Leads and other staff. The project Change Lead from Strategy and Integration will ensure transition of these approaches to business-as-usual is well planned and managed.

Communications

A Communications and Engagement Plan will be developed for the project to provide detail on the communications that will be delivered, when and how. The Communications Plan will align with the Curriculum and Assessment Implementation Change Framework.

The project will work closely with the Ministry's Te Pou Rangatōpū | Corporate in-house communications and graphic design teams, and Te Poutāhū Strategy & Integration group who provide overall strategic guidance for enterprise-wide visual identity, stakeholder engagement and strategic level communications to ensure organisation wide alignment and governance. Internal resource will be used wherever possible prior to commissioning communications resource and/or external assistance. The Communications Plan is a living document that is regularly updated with all engagement activities as we progress.

Learning and development

A Learning and Capability Plan will be developed to support delivery of the new tool to the sector. Learning is timely, targeted, and delivered through multiple channels to reduce uncertainty as people familiarise themselves with new approaches and information. A key aspect is the understanding that not all people will need or want the same level of support to effectively deliver their outcomes from day one.

Our learning approach and materials are based on people's requirements and needs, including catering for levels from:

- Supported and targeted – provision of tailored support to meet needs
- Guided – provision of coordinated support and simple processes and procedures
- Self-directed – Provision of easy to access information about the changes.

We will ensure that the environment and content developed will have future applications to support ongoing knowledge management and the onboarding of new teachers, kaiako and school leaders.

We will continue the current approach of each school and kura having a lead/expert in the tool to provide support to their colleagues in the use of the tool.

7.6. Benefits management

The benefits and KPIs outlined in the Strategic Case, the ILM in section 3.7 and the Investment Benefit Profile in Appendix 5 will be tracked using agreed metrics and will be documented in the CACP Programme's Benefits Realisation Plan (BRP). The BRP will outline how the programme will manage benefits. The BRP will be approved by the Programme Governance Board.

The programme will follow the Ministry of Education and The Treasury's benefit management guidance which will ensure benefits management is integrated throughout the entire programme/project lifecycle.

Benefit Owners will be identified and assigned to each major benefit. They are accountable for benefit realisation from project initiation until realisation occurs.

The SRO is accountable for the BRP and for ensuring the outputs and deliverables for benefits realisation are delivered on time, to budget and quality. The Senior Project Manager is accountable for monitoring and reporting on benefits, forecasting and realisation during the life of the project. This accountability shifts to the Benefit Owner upon project closure.

As part of the implementation of the project, the Programme Governance Board will have overarching responsibility for the benefit delivery. Any material erosion of benefits will be reported to the Programme Director and Programme Governance Board as soon as identified.

All change requests will be assessed to consider the impact/impairment to a benefit of that change. This will be built into the change management process. Changes to delivery scope will be reflected as an adjustment to the expected benefit realisation plan.

Benefits reviews will be undertaken throughout the life of the project to ensure the integrity and suitability of the targets and metrics over the life of the project. Any subsequent amendment to the benefits profiles will follow the change control process and require governance oversight. Benefits reviews should also allow any risks and issues around the ability of the project to realise benefits to be raised and to be escalated as appropriate within the programme governance.

7.7. Risk management

The CACP and Aromatawai and Assessment Standardised tool project follow the Risk ([Risk Framework](#)) and Issue ([Issues Framework](#)) Management Framework, as defined by the PMO. The approach for managing risks includes a methodical process by which the project teams identify, score, and rank the various risks. Risks and issues with an extreme or high residual risk level will be reported to PGB.

The project will track and report on risks and issues they identify in delivering their outcomes. Risk and issue management is a process of working with team members and stakeholders to manage, mitigate or avoid exposure to the organisation.

The CACP will maintain a centralised Programme RAID (Risks, Issues, Assumptions and Dependencies Register. Key risks and issues will be documented in the respective monthly project status reports and programme status report.

While there is risk and issue reporting at the project level, these will also be managed at a programme level to ensure that any cross linkages and impacts are managed.

The risk and issue management process has been established to ensure that:

- A robust risk and issue identification process is carried out as part of project planning, with an acceptable level of due diligence applied
- Processes are in place for risks and issues to be analysed, monitored/controlled on a regular basis
- Relevant risk and issue information is reported by all projects within the Programme and as appropriate to the Programme Governance Board
- Risks and issues are prioritised and escalated at the correct level for decision-making in a timely manner
- There is active debate and analysis of risk and issue information at Programme Governance Board level.

Actions and due dates for mitigations are monitored on a regular basis and tracked in the Programme RAID Register. Project risk can be escalated to Programme risks after discussion with the Risk and Assurance Advisor, Programme Manager and Programme Director. Internal and external stakeholders are provided with risk information monthly, or when required.

All risks and management activities impacting the project which are described in this business case are listed in the programme risk register. The full risk register is a living document and is available on request.

Risk assessment workshops will be conducted periodically involving the project team and key stakeholders to identify and manage risks.

7.8. Project assurance

Assurance planning

The overarching objective of the Assurance Plan is to provide the Secretary for Education, the Programme Governance Board and SRO with confidence that the project is well managed and that the expected benefits will be delivered.

The CACP Assurance Plan, which is currently being updated, will be used by the project. This is being updated in conjunction with the Ministry's Internal Audit and Assurance team and will be endorsed by PGB and approved by the SRO. The CACP PMO will provide oversight of assurance arrangements and report to the PGB and Internal Audit and Assurance. Ultimate responsibility for assurance lies with the PGB.

The project will align with the Ministry's approach to governance of risk aligned to the 3 Line of Defence model ("3LoD") illustrated below and as advocated by the Office of the Auditor General.

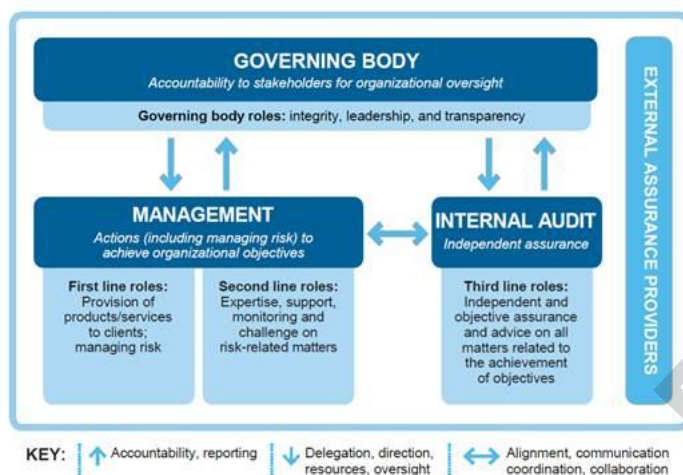


Figure 22. 3 Lines of Defence model

The **first line of defence** is compliance with the day-to-day programme and project management processes and controls, including quality management.

The **second line of defence** is provided by the presence of effective management, governance, and oversight arrangements, including unambiguous approved terms of reference for all governance bodies and Ministry Delivery Framework mandatory documents.

The **third line of defence** is exercising the use of independent assurance that the SRO/ PGB can obtain from either internal sources (e.g., Internal Audit and Assurance or Enterprise Portfolio Management Office), or external third-party assurance suppliers selected from the Digital Public Service Branch (formally GCDO) sub-panel of the MBIE Consultancy Panel of qualified assurance suppliers.

Each of the elements of the three lines of defence will be put in place with ownership and responsibility for them clarified in the Assurance Plan. The PMO will track and report progress monthly on recommended actions (open findings) from assurance activities to the PGB. The assurance plan will be reviewed each year by the PGB, and the following years plan confirmed with final approval by the PGB.

Treasury Risk Profile Assessment (RPA)

The Treasury Risk Profile Assessment has been completed and has resulted in a rating of 'high risk' for this project. Assurance activities will be used to validate risks are appropriately managed. Learnings have been noted from previous large Ministry programmes e.g., Te Rito, Novopay and external programmes e.g., New Zealand's 2018 Census.

Assurance activities

The project has adopted an integrated assurance approach. The programme assurance plan includes the:

- assurance activities to be undertaken during the project (refer indicative list in the table below)
- purpose of each activity
- method of assessment and frequency
- roles involved in assurance activities.

The following table summarises the assurance activities that are detailed in the Assurance Plan.

Def. line	Assurance activity	Purpose of the activity
1	Increment and Sprint related activities: <ul style="list-style-type: none"> Backlog Increment planning Backlog Increment review and retrospective Sprint planning Sprint retrospectives 	Continuous planning and review cycles to manage workload and maintain quality, and incorporate lessons learnt.
	Daily team stand-ups	Daily confirmation that the sprint goal is still achievable.
	Definition of Ready for: <ul style="list-style-type: none"> assessment items per domain pilots sector rollout 	Describes the minimum design upfront acceptance requirements that the delivery team deems desirable. Includes equality and inclusion acceptance criteria.
	Definition of Done per Sprint	Describes the quality standards / criteria the Delivery Team is working to when planning and delivering each sprint item. Includes equality and inclusion acceptance criteria.
	Project management processes and controls	Establishment and application of project management processes and controls based on the projects in Controlled Environments (PRINCE2) framework and Ministry Delivery Framework to ensure robust project management including management of scope, time, financial, risk and issues and quality.
	Business cases / project Initiation Documents	Completion of baseline control artefacts that provide delivery confidence and form the basis for reviewing delivery success. Business cases developed according to Treasury's Better Business Case methodology.
	Terms of Reference(s)	Describes programme/project governance arrangements; roles and responsibilities and decision making.
	Quality Management plan	Developed for each project to ensure products meet requirements.
	Project reporting	Monthly status reporting that provides visibility and transparency of project progress and highlights any areas of risk that may require attention and/or intervention.
	Stage gate decision making	Determines whether the project(s) can move to the next stage of delivery based upon the completion of agreed deliverables documented in the approved project Initiation Document.
	Peer reviews	Ensures programme /project artefacts are fit for purpose.
	High level design review	The Technical Working Group (TWG) will provide assurance over high level designs.
	High level data architecture design review	The Data, Information Design Group (DIDG) will provide assurance over high level data architecture designs.
	ICT architectural design review	The Ministry Design Authority will review all ICT product architectural designs to ensure ICT design standards are maintained.
	Privacy and security Certification and Accreditation (C&A)	Oversight of privacy and security C&A by the Legal and Privacy group and Digital Assurance & Cyber Security team.
	Productionisation of technology changes	The ICT Change Advisory Board (ICT CAB) is the management body that will approve all requested changes and approve the Authority To Operate (ATO).
2	Programme Governance Board	Provides programme/project governance oversight. Review programme/project status, provide direction, and provide independent advice to challenge thinking and inform decision making at critical stages.

Def. line	Assurance activity	Purpose of the activity
	Programme Management Office (PMO)	Oversight by a PMO responsible for the development and adherence of programme/projects frameworks (comprising processes, templates, guidelines, standards, techniques, and tools)
	Internal Audit and Assurance team	Provides assurance advice and guidance.
	Enterprise Portfolio Management Office (EPMO)	Internal programme/project advice and guidance.
	Procurement team	Provides procurement oversight to ensure probity requirements are met.
	Treasury's Investment Management and Asset Performance (IMAP) team Digital Public Service branch (DPSb formally known as Government Chief Digital Officer (GCDO))	Oversight as required.
3	Reviews from independent external sources (timing to be agreed)	Provide independent assurance that the project, workstreams, and services/products meet the appropriate standards during the project life cycle to provide confidence that that expected outcomes and benefits will be achieved.
	<i>Independent Quality Assurance (IQA)</i>	This includes periodic health checks and detailed assurance reviews prior to specific decision points e.g., readiness reviews.
	<i>Technical Quality Assurance (TQA)</i>	Specialist Quality Assurance reviews over products e.g., reviews on architecture, design, and implementation. These will be performed where required to support the workstreams' Product Quality Management plans.
	<i>Technical and commercial viability review</i>	This review (if required) needs to be done before a contract is signed for the tool and English medium assessment item procurement to ensure that the tool can technically deliver the requirements within budget, and that it is commercially viable in terms of the ongoing licensing and support costs, and clarity of roles, responsibilities, and deliverables.
	Gateway reviews	Provide assurance the project can progress successfully to the next stage at specific decision points during the project life cycle. Treasury Gateway reviews are planned for each year of the CACP programme and will be carried out as required and agreed with Treasury's Gateway Unit. The Investment risk profile assessment has produced a 'high' rating for this project.

Table 45. Assurance activities

Assessment item reviews

The assessment items that are developed will be reviewed by the following:

- Ministry Assessment and Aromatawai Item Quality Assurance Group – second line of defence
- External sector reviewers – third line of defence.

Further detail on the assessment item development process including quality review is contained in Appendix 9.

External reviews

Two Gateway Reviews and three Independent Quality Assurance Reviews have been planned and budgeted for across the project's life. This is in addition to reviews planned at the CACP programme level. Independent Quality Assurance review points include:

1. following project initiation i.e., a health check to ensure the project is set up for success
2. prior to first sector deployment i.e., a readiness review
3. post implementation.

A CACP Programme Gateway 0 review is planned for December 2024 which will include this business case.

Following a successful SSBC and Budget Bid submission the Programme Assurance Strategy will be updated accordingly.

Post implementation evaluation

A post implementation review will be scheduled to confirm that:

- the project has been delivered to time, cost, and specifications
- the new system/facilities are operating as intended and delivering the services proposed in the business case
- to identify any lessons learned from the management of the project/tranche that can be applied to future projects or projects in other agencies.

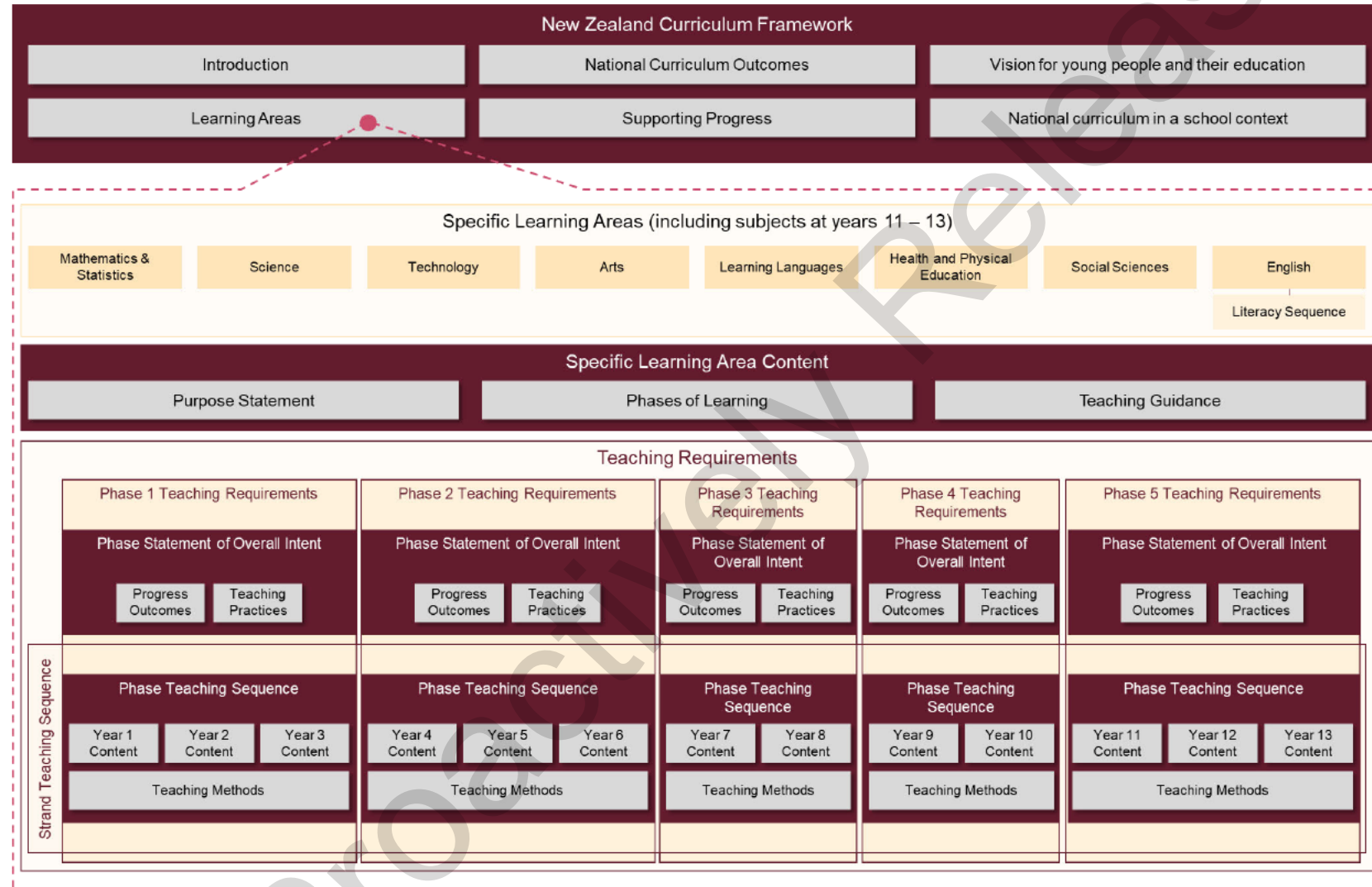
Internal project evaluation reviews to evaluate outcomes and benefits achieved are planned at regular intervals, starting in July 2028.

Unless otherwise agreed with Treasury, the project will report back to Cabinet within 12 months of the in-service date on the actual level of benefits achieved compared with those outlined in this business case.

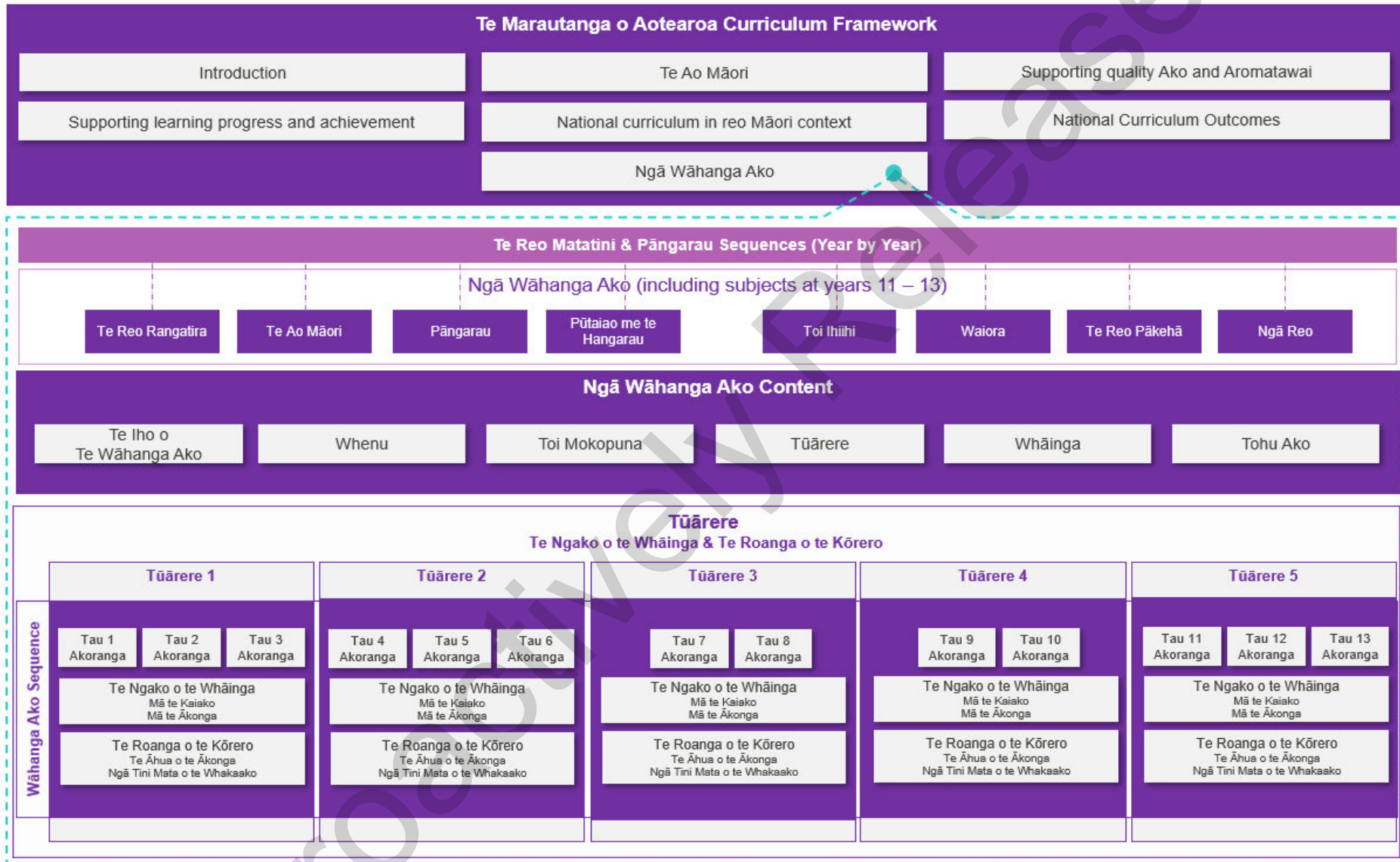
Proactively Released

Appendix 1. Proposed Curricula Frameworks

1.1 New Zealand Curriculum Framework



1.2 Proposed Te Marautanga o Aotearoa Curriculum Framework



Appendix 2. History of e-asTTle

An assessment tool for teaching and learning (asTTle) was developed by Professor John Hattie and his team at the University of Auckland. It was initially developed as a national tool for the purpose of supporting students | ākongā, teachers | kaiako to better understand achievement and progress of students | ākongā in relation to the NZC levels in reading, writing and mathematics. Assessment items were also developed for pānui, tuhituhi and pāngarau.

Originally asTTle versions two and three were a single user programme on disc. This progressed to server-based and multi-user in version 4, which was able to be installed and used across a school network. In 2007 an electronic asTTle (e-asTTle) was developed, with it becoming fully available to schools in 2009-10. The following advances to e-asTTle provided several benefits for the tool:

- The tool could be updated and upgraded virtually by the Ministry, it did not require schools | kura and teacher | kaiako, to update their own versions
- Students | ākongā could be assessed online in reading, pānui, mathematics and pāngarau
- The advent of computer adaptive testing (CAT) although this capability was not available in the reo Māori version of e-asTTle because of the low number of items
- The bank of assessment items for testing was greatly increased with the purchase of foreign-developed assessment items for reading, writing and numeracy only
- Integrating with and setting standard for the exchange of student | ākongā data with a SMS.

Several developments have occurred since the initial launch to improve the reliability and validity of student | ākongā results. In 2010 recalibration exercises for reading and mathematics were undertaken, which included the re-levelling of item difficulty and the removal of some unreliable assessment items. This was followed by a rebuild of the writing tool in 2012 and a recalibration of prompt difficulty and writing scores in 2013. In 2012, a revision of items was carried out for pānui and pāngarau which resulted in refinement of the item bank.

Other ongoing improvements have also been worked in over the years including:

- The establishment of the student | ākongā, result summary (2012)
- Progress by term reports (2012)
- The inclusion of the Individual Question Analysis (2013)
- The build of a new student | ākongā, testing portal (2016), which has seen a significant rise in popularity of online testing
- Password and user security developments (2020)⁵⁴
- Update of student and teacher portal to provide a modern look and feel (2024)
- Ongoing technical component upgrades to maintain the tool at supported levels.

Since 2011, the Ministry has engaged third party suppliers to provide training and support for leaders, teachers | kaiako throughout Aotearoa New Zealand in using e-asTTle effectively. Training is focused on how to use the tool to provide rich interpretations and specific feedback that relate to student | ākongā performance and what next learning steps need to be taken to progress learning.

⁵⁴ A review of the electronic assessment Tool for Teaching and Learning (e-asTTle) by Evaluation Associates, February 2020

Appendix 3. Use of e-asTTle

The following graph illustrates the total number of English medium assessments between 2014 and 2023. In 2023 there were 804,600 primary and secondary students | ākonga in English medium education.

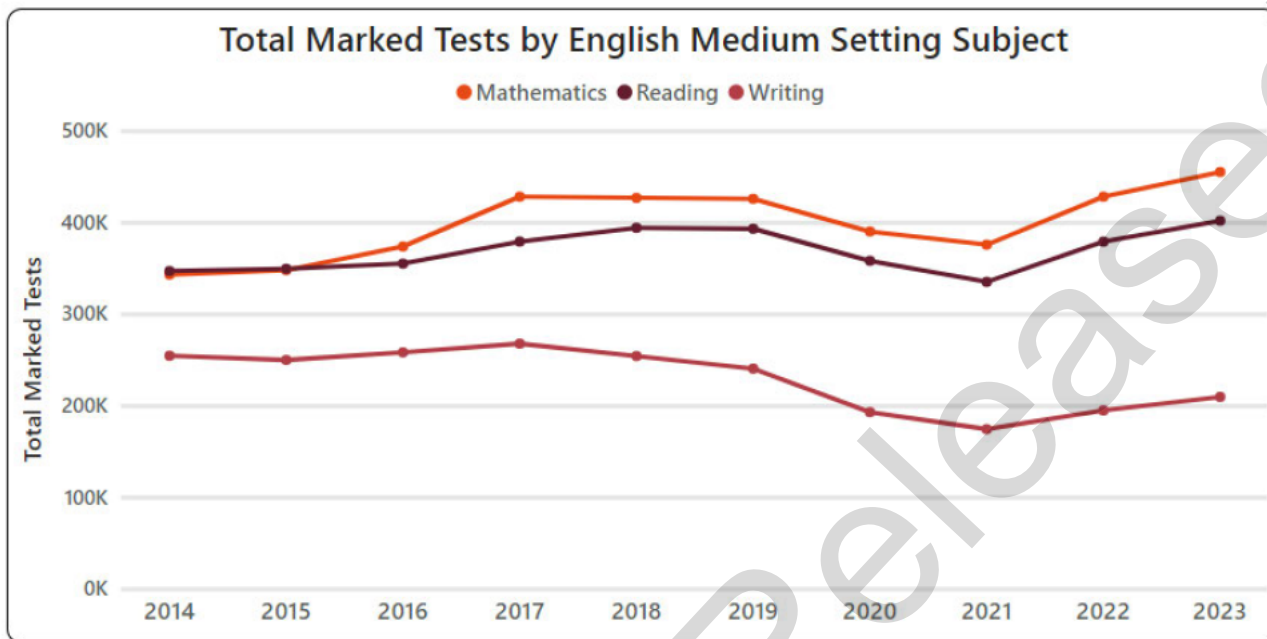


Figure 23. Total marked test/scripts in English medium

The following graph illustrates the total number of assessments between 2014 and 2023 for those learning through te reo Māori. In 2023 there were 26,400 primary and secondary students | ākonga in kura delivering teaching and learning through te reo Māori.

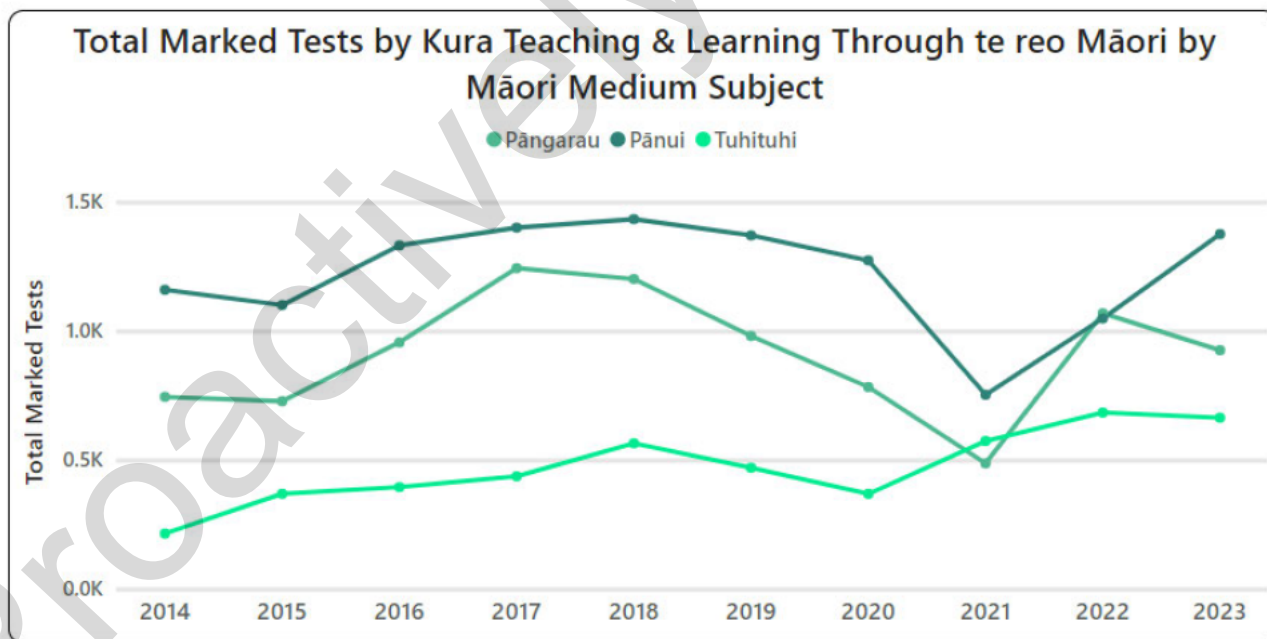


Figure 24. Total marked test/scripts for those learning through te reo Māori

The figures below illustrate the level of e-asTTle testing by year group. e-asTTle is most used in the Year 7 and 8 groups. The tool is well suited to this age level as most students | ākonga work within Levels 2-5 of the curriculum at this age group, therefore testing can be well targeted. Also testing is often done at key transition points (e.g., the start of Year 7 and end of Year 8).

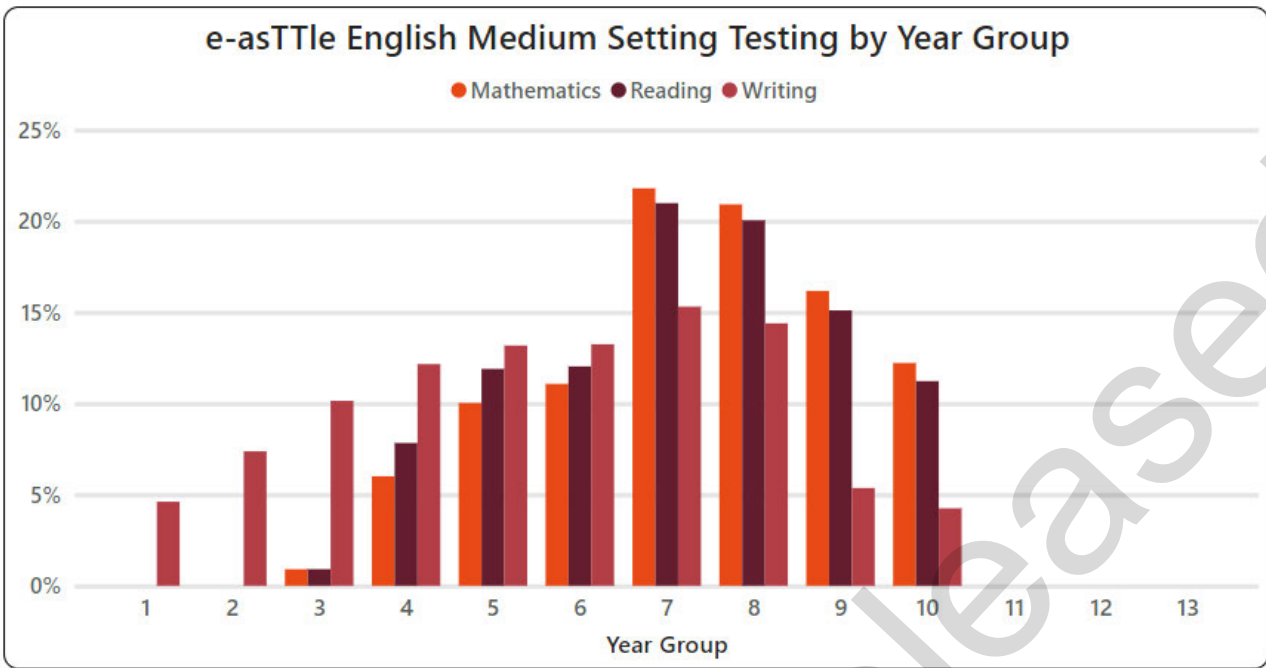


Figure 25. e-asTTle English medium, testing by year group

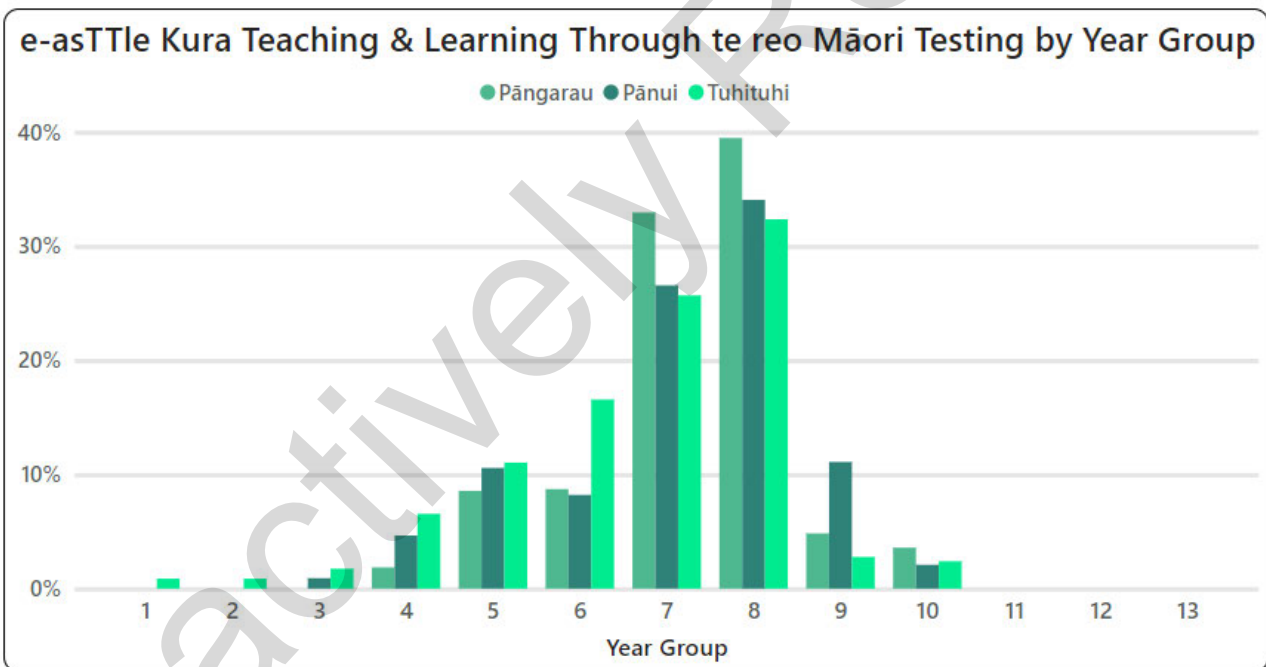


Figure 26. Kura delivering teaching and learning through te reo Māori, testing by year group

e-asTTle assessments for those learning through te reo Māori, are used far less often, in total number or as a proportion of the population of those learning through te reo Māori. 26,400 (3.1%) of students | ākonga are in Kaupapa Māori (13,000, 1.5%) and Māori medium education settings (13,400, 1.6%).

Appendix 4. Details on limitations e-asTTle including examples

e-asTTle assessment items are no longer relevant nor culturally appropriate

The following table provides a summarised evaluation of the domains (subjects) within each learning area in e-asTTle⁵⁵.

Domain	Review comment	Last updated
mathematics	Is popular and highly used. Needs updating to improve current relevance. For example, some assessment items have images that look old and others are testing content that has only minor relevance to our curriculum.	2010
reading	Is popular and highly used. Some assessment items could be improved. For example, some assessment items are not culturally responsive in an Aotearoa New Zealand context (American) and others are outdated (e.g., images and references to old technology or events).	2010
writing	Is popular and widely used in non-secondary settings. There are ongoing requests to increase the prompt bank (currently only 20 prompts).	2013
pāngarau	Minimal use and decreasing relevance for kura delivering teaching and learning through te reo Māori; not aligned to Te Marautanga o Aotearoa. The mix of English and Māori language within the tool makes it less valid, culturally relevant, and linguistically responsive. For example, the strand names for pānui and pāngarau and reports are only generated in English. Some items in the assessment item banks have grammatical and marking schedule errors.	2012
pānui		
tuhituhi		

Table 46. Evaluation summary of e-asTTle domains

The table above indicates that the item banks are becoming significantly outdated. They are not reflective of the current curricula (i.e., there is no alignment to the 2007/2009 curriculum changes) and will now need to support the updated NZC and Te Marautanga o Aotearoa and associated progression models.

An in-depth psychometric review of e-asTTle has not been undertaken in over 10 years, therefore the item calibrations and population norms are significantly out of date. A psychometric review is currently underway planned to complete at the end of 2024.

In addition, some assessment items are not culturally appropriate or inclusive (i.e., reference to family types).

⁵⁵ Assessment tool stocktake report, Evaluation Associates, February 2021

Examples that demonstrate the outdated or inappropriate assessment items are presented below

- 4) An electronics store is having a sale. Look at the sale advertisement below. You want to buy a CD (compact disc), three video tapes and an AM/FM pocket radio. **Estimate** how much money these items will cost by rounding to the nearest dollar.

SUPER SALE!

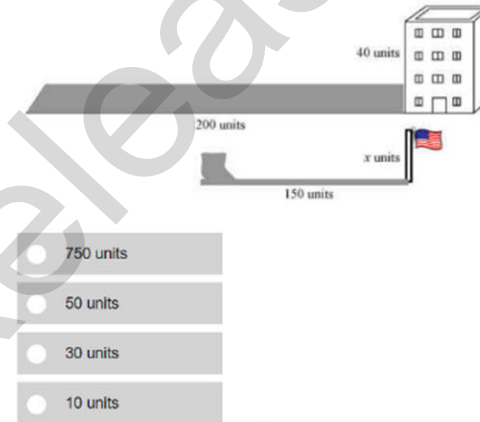
Double Cassette Portable stereo \$47.49	Electronic Portable Typewriter \$99.89
AM/FM Pocket Radio \$16.29 each	Compact Disc \$14.95 each
Video Tape Recorder \$219.45	Video Tapes \$7.69 set of three
Calculator \$59.99	Touch-tone Phone \$26.89

- \$29
- \$34
- \$39
- \$41



- D53. He aha te kaupapa tuatahi o ngā kōrero?
- Ko Matariki.
Ko te Mārama.
Ko ngā waiata.
Ko te Whānau.

- 19) The diagram below shows a building, a nearby flagpole, and their shadows. Based on the information in the diagram, what is the height of the flagpole, x?



- 750 units
- 50 units
- 30 units
- 10 units

To Let Wednesday, 13th August, 2003

ANDERSON BAY. Family Home, 4 bedrooms, large living area, open fire, garage and o.s.p.; \$250 p.w. - Phone Sandy or Nick.

BELLEKNOWES: Large size 3-b/r plus sep. dining room, lounge, sunny and tidy, d/w, garage, carport; \$325 p.w.; avail. end of Aug.

BRIGHTON. immaculate 3 b/r home, with upmarket kitchen/living, sep. lounge, multifuel, 2 bathrooms, views; \$300 p.w.

FLAT: 6B Scone Ave, NEV; 5 b/rs, sunny and tidy, o.s.p., incl. ff, m/w, w/m, drier; \$300 p.w.; no bond.

GARDENS. near Uni., modern 1-b/r Flat, \$170 p.w., w/w, o.s.p., sunny, no pets/smoking.

MAORI HILL, large 5 b/r family home, 3 bathrooms, some whiteware, available now, \$375 p.w.

MODERN 2 b/r Town House, \$255 p.w., non smokers. Open to view tonight 5-6 p.m., 10 Fernhill St.

- 9) Match the **term** on the left, to its **abbreviation** on the right.

Term	Abbreviation
<input type="checkbox"/> Off street parking	a) b/r
<input type="checkbox"/> Whiteware	b) p/w
<input type="checkbox"/> Bedroom(s)	c) w/w
<input type="checkbox"/> Per week	d) w/m
	e) o.s.p

Information to answer questions 5 - 10

TATTOO

- Tattooing is one of the few cultural traits that the people of America and Europe have adopted from Polynesians, an art form designed to enhance beauty, to show stature and adulthood and to signify courage.
- Tattooing was a feature of virtually every Polynesian outpost and so it was evident among the New Zealand Maori, among Tahitian and Marquesans, in Tonga and in Hawaii. Mummies found in Hawaiian burial caves had intricately incised designs and an artist on Captain Cook's third voyage to the Pacific in 1778 tried to recreate the patterns he witnessed on living canvases in the Sandwich Islands.
- But traditional tattoos are no longer a part of the Tongan, Tahitian or New Zealand lifestyle. Only in Samoa has the art survived, a vestige of an ancient Polynesian custom that, if anything, is on the upswing.
- A few decades ago, the full body tattoo was reserved for talking chiefs, a symbol of their authority. These days, tattoos are for anybody "who can handle the pain". It may take only two days for the particularly macho; it may take two weeks or even longer - the decision is left up to the individual, depending on the tolerance level. A recent development is that, where people used to bathe in the sea to cool the almost invariable infections, they can now use antibiotic tablets and antibacterial creams.
- The pigment used for tattooing is made from a nut, *alunites moloocana*. The tools are handcrafted from ivory, usually from boars' tusks and they are shaped to do particular jobs, the smallest, *aumono*, is used for fine design work and there are medium tools called *auoni'oso* and *lau'au*, which are used to create curves and small lines.
- A young man sits by a freshwater spring along the road to Faleolo. He has a full body tattoo. A teenaged girl leaps into the air on the netball court, her legs neatly - and permanently decorated with an intricate "stocking". Oh yes, tattooing is alive and well in Samoa.

- 7) The first paragraph states that people in Polynesia were tattooed to

- prepare themselves for marriage.
- copy European cultures.
- protect themselves from disease.
- show that they were brave

Low utilisation of e-asTTle in kura delivering teaching and learning through te reo Māori

e-asTTle tests are used far less often, in total number or as a proportion of the population of kura delivering teaching and learning through te reo Māori. 26,400 (3.1%) of ākonga are in Kaupapa Māori (13,000, 1.5%) and Māori medium education settings (13,400, 1.6%).

In addition to the problems with assessment items, there are several other reasons for the low use of e-asTTle in kura delivering teaching and learning through te reo Māori:

- The volume of assessment items for Māori medium is very low. pānui only has 10% of the volume of assessment items compared to reading. pāngarau has only 14% of the volume of assessment items compared to maths.
- The tests are not culturally or linguistically responsive. For example, in pānui, ākonga are provided with instructions in English while the test content is in te reo Māori.
- Very little development has been done for testing in kura delivering teaching and learning through te reo Māori since 2005. There was a partial review in 2012 but more work will be needed to align the tests and strands with the updated Te Marautanga o Aotearoa.
- There are few ākonga who can sit these tests. e-asTTle was designed to start at level two so these tests, even at the lowest levels are often too difficult for ākonga in bilingual units or similar.

An example item that uses English and te reo Māori is presented below. The preference is that all material used by ākonga should be in te reo Māori in kura delivering teaching and learning through te reo Māori.


This is your look-over time. You can't answer questions yet. If you've finished looking over the test, [click here to start answering](#).

1:08 look-over time left Question 1 of 6

Pānuitia te kōrero nei, ka whakautu ai i ngā pātai.

Ko te Kōhanga Manu

Ko ētahi o ngā manu ka hanga kōhanga ki runga i te papa, ko ētahi anō ka hanga kōhanga ki runga i te rākau. Ko te kōhanga hei kāinga hei whakaruruhau, hei wāhi whakawhānau heki, hei wāhi tiaki pīpī hoki. Ko te nuinga o ngā kōhanga ka hangaia ki te rārā rākau me te huruhuru manu, ā, ka kōtuituia ki ngā wāhanga o te tukutuku pūngāwerewere. Arā anō ētahi ka hangaia ki te paruparu ki te pātiti ki te rau.



1) He aha i hangaia ai te kōhanga e te manu ?

- He wāhi pai hei whakaruruhau.
- He pai te paruparu ki te manu.
- He āwhina nui ki te rapurapu kai.
- He pai te pūngāwerewere hei kai.

Figure 27. Example of assessment item that uses English and te reo Māori

e-asTTle writing and tuhituhi assessments are time consuming for teachers

The writing assessment process can be time consuming for teachers | kaiako adding to an already heavy workload. writing assessments require the teacher | kaiako to conduct the assessment, then manually mark the responses including participating in an offline moderation exercise with other teachers before agreeing final results and entering them into e-asTTle. If the moderation exercise is by-passed, then the results are considered to be less reliable. Time is also taken reviewing assessments with students and providing them with the appropriate guidance and resources for students to improve. The time and effort required from teachers | kaiako, especially around the marking and moderation, is likely to have contributed to the decrease in uptake of writing assessments over the last 5 years.

Levels of assessment can increase workload to the point where there are predictable negative impacts on well-being. There are two possible major risks.

1. The direct impact of the *compliance costs* when workload levels compromise working conditions such as work life balance and increase felt stress.

2. The *opportunity costs* that occur when teachers time is taken away from productive teaching time to conduct assessments and thus compromises their time to meet goals and objectives for their students' learning.

Teacher experiences in various experimental studies indicates it has taken up to six months of repeated sessions when first using the tool and several individual and group sessions when familiar with the tool to set purpose, agree on procedures, check potential 'drift' in accuracy, engage in the moderation, and the upskilling of new teachers. This is in addition to the time taken to assess each individual piece of writing using the annotated exemplars, rubrics, and teacher resources.

An experienced professional learning and development (PLD) facilitator estimated an already practiced teacher | kaiako takes 20-30 minutes for marking each student's piece, with an additional one-hour moderation if using the on-line resources, and a further 2 hours if moderation between schools is required (e.g., if in a Kahui Ako or cluster), followed by possible within school moderation⁵⁶. With 25 students in a class an experienced teacher might expend around 16 hours for each round of assessment.

Weaker reliability of writing and tuhituhi e-asTTle assessments

e-asTTle writing and tuhituhi scores generally show weaker reliability and far larger 'selection effects' (meaning teachers | kaiako have a preference when choosing which students | ākonga to administer tests to) than reading and pānui; or maths and pāngarau.

Currently teachers | kaiako must mark e-asTTle writing scripts manually, based on information provided in a rubric⁵⁷ and sets of student | ākonga exemplars. This introduces subjective variations in teacher | kaiako judgment leading to issues with reliability. For example, some teachers | kaiako could be 'hard' markers, others 'easy' markers, or they may emphasise different aspects in writing, while scoring a piece of work. A moderation process involving several teachers | kaiako is part of the e-asTTle marking process for writing. This is intended to support more consistent marking however, the moderation process is undertaken outside the scope of the e-asTTle tool, meaning there is no certainty that moderation is taking place as intended for writing and tuhituhi assessments and aromatawai.

Administering (assigning and marking) writing and tuhituhi assessments and aromatawai is time consuming for teachers | kaiako, which potentially causes the reliability issues and selection effects that have been observed. If teachers | kaiako have to mark every piece of work themselves, they may be more inclined to rush the marking. Also, some teachers | kaiako may feel they don't have the necessary time and therefore avoid administering writing and tuhituhi assessments in the first place.

The limited support, initial teacher training, and PLD related to e-asTTle delivered to the sector over the previous decade may have resulted in teachers | kaiako having less capability to properly administer e-asTTle writing and tuhituhi assessments and aromatawai, which may in turn contribute to the weaker reliability, lack of use and selection effects.

e-asTTle reports are not considered inclusive, clear, and easy to use for teachers | kaiako, families | whānau, students | ākonga

e-asTTle currently produces a range of reports showing student | ākonga progress and achievement against the curriculum; and compared to relevant cohorts on an individual and aggregate basis. The reports were created in the early 2000s through rigorous trial and feedback processes with significant input from both the sector and SMEs. e-asTTle reports were developed for use by teachers | kaiako, administrators, and school leaders, with some specific reports also developed for use by students | ākonga in collaboration with teachers | kaiako, families | whānau.

Although the reports were initially created through a rigorous process and contain a wealth of valuable information, there are concerns that they are no longer considered sufficiently inclusive, clear, and easy to use for teachers | kaiako, students | ākonga, families | whānau.

Feedback received from the sector over the past few years includes the following:

⁵⁶ Assessment Proposal, 9(2)(a), October 2020

⁵⁷ A rubric is an explicit set of criteria used for assessing a particular type of work or performance.

- Certain report types are under used or need updating
- Student reports (particularly Individual Learning Pathway) are confusing, provide unclear feedback/information on next steps for some students | ākonga, teachers | kaiako.
- Lack of visibility and reporting on student | ākonga responses in tests (currently reporting only shows whether the response was correct – not what the response itself was)
- An absence of reports with the students | ākonga, families | whānau audience in mind
- Reports for ākonga in kura delivering teaching and learning through te reo Māori are only available in English.

Therefore, the reports are under-utilised for their intended purpose of putting student | ākonga progress information in the hands of teachers | kaiako, students | ākonga families and whānau, to understand and interpret to improve teaching, learning and assessment.

Lack of dependability in e-asTTle adaptive testing

There are two types of online testing available in e-asTTle: customised and adaptive for reading and mathematics. Only the customised testing option is available for pānui and pāngarau, as there are not enough items in these domains for adaptive testing. Adaptive tests are an appealing testing mode as they better align to understanding progress, however they have not produced the same level of dependability in e-asTTle that customised testing does. Despite this, data provided by the Ministry's Data & Insights team shows that the number of schools using adaptive testing in e-asTTle for reading and writing has increased by 25% over the last 10 years to reach a level of 50% of schools who use this method.

There needs to be a significant improvement to the current e-asTTle adaptive methodology, or the adaptive testing methodology of any new assessment tool before this testing can be recommended to schools and kura with confidence. For adaptive tests to work most effectively it will mean increasing assessment items to the required level of practice (a minimum of 4,800 assessment items for pānui and pāngarau) for this to become an option for kura delivering teaching and learning through te reo Māori.

e-asTTle functionality is dated and opportunities to enhance it are limited, with an overall limited life left in the tool even if it was upgraded

The original bespoke e-asTTle tool was built to meet business needs and requirements defined in 2004. Although it has been enhanced over time, there have not been any significant functional improvements to e-asTTle since the introduction of the improved student | ākonga testing portal in 2016.

e-asTTle is an end-of-life tool and while further enhancements are being done to extend its life these are only updates within a limited structure and there are fundamental system limitations which reduce flexibility to address future changes.

The current design of the tool has remained unchanged and does not lend itself to basic enhancements and integration with other systems.

e-asTTle support and maintenance is limited to one company

Support and maintenance for e-asTTle is limited to one company with limited staff numbers which leads to concerns over long term viability of support.

Lack of capability to manage content in e-asTTle and bespoke technology

There is currently no capability within e-asTTle to curate (including upload, update and delete) assessment items and progressions. This lack of capability makes it very difficult to upload new items, manage existing items, and update the progressions to reflect changes to the updated national curriculum. There is also no ability to view the usage and performance of specific assessment items, which would be useful for regularly monitoring and recalibrating items to ensure they remain valid and reliable.

Assessment item quality issues in e-asTTle

A large number of assessment items contain embedded images. As a result, there is a significant risk that some items won't display in a psychometrically 'valid' way for students | ākonga especially given the widespread adoption of tablet devices in the last 15 years. For example:

- Items which have some positional context might be invalidated (e.g., something that is supposed to be 'on the right' might end up below)
- Some items require horizontal scrolling on smaller screens
- Some items require excessive vertical scrolling on smaller screens
- Some items are visually difficult to read.

System administrators have tried to fix these issues as best as possible. However, a fundamental issue with the current system is that the implemented content schema is loose. This has caused considerable additional effort and cost during both the initial loading and the limited ongoing maintenance of assessment items. It has also meant many assessment items have needed to be individually 'hacked' to work on the updated user interfaces, including transforming them into unwieldy images.

e-asTTle performance, reliability, and security constraints and issues

The current e-asTTle system has many known constraints and issues regarding performance, reliability, and security. Considerable work has been undertaken in recent years to address these constraints and issues, such as the Performance Optimisation Plan, the e-asTTle Technical Debt Reduction project, and the Solution Architecture Review. While these pieces of work have all contributed positively towards the quality of the e-asTTle system by upgrading components, addressing some security issues, configuring infrastructure, and improving performance, they have all been constrained by the inherent limitations and constraints that are part of the design of the e-asTTle system – the goal of these recent pieces of work has been to keep the current system operational for the foreseeable future until a new assessment tool can be implemented.

Note: e-asTTle was not architected to support full national use within a predefined testing window.

Ongoing investment to maintain and upgrade technology platform

As the owner of e-asTTle full fiscal responsibility for the performance and costs associated with maintaining the software is the borne by the Ministry. This includes the four types of software maintenance: corrective (issue resolution), adaptive (system updates), perfective (performance enhancements), and preventive (proactive problem prevention). Frequently with limited funding trade-offs are required resulting in only critical issues and updates able to be funded, thus leaving enhancements requested by the end user unfunded leading to reduced user support and usage.

Additionally, as e-asTTle is over 20 years old it follows what are now outdated design patterns that do not enable quick and cost-effective modifications to be made, and we are unable to locate well maintained relevant system documentation. It is currently assessed to require a major rewrite to be completed by 2030 to keep the tool going, this would need to be funded and started within the next 2 years given the tight timeframes.

Going forward it is preferable for the Ministry not to own and therefore need to maintain an assessment system, instead be one of many users of a system that meets our requirements thus sharing indirectly the maintenance burden. This aligns with Ministry strategic direction of buy before build

Appendix 5. Investment Benefit Profile

The benefit measures will be reviewed and refined to align to the new standardised assessment and aromatawai tool, once selected.

Benefit	How will we know when we have achieved it?				
	KPI	No.	Measure	Baseline	Target
1. Better quality information to support teaching, learning, and additional support decisions in schools and kura (50%)	Increased teacher, kaiako and leader use of Ministry provided standardised assessment tool	1	% of schools and kura actively using the tool <i>Source:</i> Tool/EDW <i>Measure Owner:</i> Senior Manager, Curriculum Assessment & Senior Manager Aromatawai	Section 1 of the 2018 ERO report ⁵⁸ 54% - effectiveness of the interaction of assessment with teaching and learning in primary schools (2007)	>90% of English Medium Schools are using the tool as part of their teaching practices for twice-yearly testing of students in reading, maths and writing by end of 2030 >90% of kura teaching through Te Reo Māori are using the tool as part of their teaching practices for twice-yearly testing of ākonga in pānui, pāngarau and tuhituhi by end of 2030 ERO to include their assessment of the active use in their ongoing reporting.
		2	# of individual progress reports (showing level and pace) exported for school and kura internal use and/or reporting purposes <i>Source:</i> Tool/EDW <i>Measure Owner:</i> Senior Manager, Curriculum Assessment & Senior Manager Aromatawai	453,947 reports were downloaded from e-asTTle in 2023	>85% (800,000) of individual progress reports available to be securely transferred to school SMSs or viewed for school internal use and/or support reporting to parents annually by end of 2030 subject to SSM and reporting systems Intent is to demonstrate an increase in use of individual student progress reports.
		3	# of class and school level reports exported for school and kura internal use and/or reporting to school or kura community <i>Source:</i> Tool/EDW <i>Measure Owner:</i> Senior Manager, Curriculum Assessment & Senior Manager Aromatawai	Under development May require a baseline to be established prior to launch from e-asTTle data	TBA
		4	# of transferring students whose records are moved to their new school or kura <i>Source:</i> Tool/EDW	Currently e-asTTle results are available to new schools if the previous school used e-asTTle.	100% of schools and kura have access to past assessment results from the new tool for enrolled students (transferred)

⁵⁸ Evaluation at a glance: A decade of assessment in New Zealand Primary Schools - Practice and trends, April 2018

Benefit	How will we know when we have achieved it?			
	KPI	No.	Measure	Target
			Measure Owner: Senior Manager, Curriculum Assessment & Senior Manager Aromatawai	Note: this does not cover transferring student records between schools SMSs
		5	% of teachers, kaiako and leaders who 'agree' or 'strongly agree' that the tool is clear and easy to use for assessments and for reporting Source: User Survey Measure Owner: Te Pae Aronui Data & Insights for Te Poutāhū, Manager, Planning, Outcomes and Impacts.	Anecdotal feedback only on e-asTTle therefore no current baseline. A baseline survey of e-asTTle could be run during the project >66% of teachers in English Medium Schools 'agree' or 'strongly agree' that the tool is clear and easy to use for assessments and for reporting by end 2030 >66% of kaiako teaching through Te Reo Māori 'agree' or 'strongly agree' that the tool is clear and easy to use for assessments and for reporting by end 2030 >66% of leaders 'agree' or 'strongly agree' that the tool is clear and easy to use for assessment and for reporting by the end of 2030
		6	% of teachers, and kaiako who 'agree' or 'strongly agree' that they have used the results with their students for formative purposes Source: User Survey Measure Owner: Te Pae Aronui Data & Insights for Te Poutāhū, GM Planning, Outcomes and Impact.	Anecdotal feedback only on e-asTTle therefore no current baseline. A baseline survey of e-asTTle could be run during the project >66% of teachers in English Medium Schools 'agree' or 'strongly agree' that the tool provides results that are clear and easy to use for formative purposes by end of 2030 >66% of kaiako teaching through Te Reo Māori 'agree' or 'strongly agree' that the tool provides results that are clear and easy to use for formative purposes by end of 2030
		7	% of Initial Teacher Education (ITE) courses and PLD providers that have integrated the tools into the training Source: Survey/Review of ITE and PLD Providers Measure Owner: Te Pae Aronui Data & Insights for Te Poutāhū, GM Planning, Outcomes and Impact.	Anecdotal feedback only on e-asTTle therefore no current baseline. A baseline survey of ITE courses and PLD providers that include e-asTTle in their courses could be run during the project >75% of ITE courses and PLD providers that have integrated the tool into their training by the end of 2030
Increased usability of Ministry provided	1	Number of training related service desk calls Source: Service desk reporting Measure Owner: Senior Manager, Curriculum Assessment & Senior Manager Aromatawai	Baseline to be established prior to launch based on calls relating to e-asTTle	5% reduction year on year for 3 years in number of training related service desk calls (end of 2026-2028)

Benefit	How will we know when we have achieved it?				
	KPI	No.	Measure	Target	
standardised assessment tool	2	2	Number of usability or training-related issues raised via e-asTTle email boxes <i>Source:</i> Front facing mailboxes <i>Measure Owner:</i> Senior Manager, Curriculum Assessment, Snr Manager, Aromatawai	Baseline to be established prior to launch based on calls relating to e-asTTle	10% reduction year on year for 3 years in number of issues logged via email boxes (end of 2026-2028)
	Increased consistency of assessments between curricula	1	Reliability and validity of assessments Rating – reading and maths; pānui, and pāngarau <i>Source:</i> Independent psychometric review report <i>Measure Owner:</i> Senior Manager, Curriculum Assessment & Senior Manager Aromatawai	Work by psychometrician during 2024 indicated issues with e-asTTle.	A technical review of the reliability and validity of reading and maths; pānui, and pāngarau assessments will be undertaken by qualified personnel at least once every five years and any critical or high-risk issues identified (with mitigations) actioned within 6 months of the report being finalised.
		2	Reliability and validity of assessments Rating – writing and tuhituhi <i>Source:</i> Independent psychometric review report <i>Measure Owner:</i> Senior Manager, Curriculum Assessment & Senior Manager Aromatawai	Work by psychometrician during 2024 indicated issues with e-asTTle.	A technical review of the reliability and validity of writing and tuhituhi assessments will be undertaken by qualified personnel at least once every five-years and any critical or high-risk issues identified (with mitigations) actioned within 6 months of the report being finalised.
		3	% of teachers, kaiako and leaders who 'agree' or 'strongly agree' that the tool helps them understand student progress against the curriculum they are teaching <i>Source:</i> User Survey <i>Measure Owner:</i> Te Pae Aronui Data & Insights for Te Poutāhū, GM Planning, Outcomes and Impact.	There is no baseline for this as it will be a new tool	>80% of teachers and kaiako 'agree' or 'strongly agree' that the tool helps them to understand student progress against the curriculum they are teaching by end of 2030 >80% of leaders 'agree' or 'strongly agree' that the tool helps them to understand student progress against the curriculum they are teaching by end of 2030
2. Increased individual level information on student progress and achievement available for system level	Increased availability of quality data at a system level	1	% of enrolled students in each Year level assessed for each domain <i>Source:</i> Tool/EDW <i>Measure Owner:</i> Senior Manager, Curriculum Assessment & Senior Manager Aromatawai	Approx. 300,000 students sat 1 million tests in e-asTTle in 2023 Approx. 60% of schools completing one or more assessments in e-asTTle in 2023	80% of enrolled students learning in English Medium Schools (with students enrolled in Years 3-10) assessed 2x yearly for each domain by 2028; 90% by end of 2030 80% of enrolled ākonga learning through Te Reo Māori (with ākonga enrolled in Years 3-10) assessed 2x yearly for each domain (for 50% of ākonga in Years 3-8) by 2028; 90% by end of 2030

Benefit	How will we know when we have achieved it?				
	KPI	No.	Measure	Target	
purposes by the Ministry (40%)		2	# of assessments for each student <i>Source:</i> Tool/EDW <i>Measure Owner:</i> Senior Manager, Curriculum Assessment & Senior Manager Aromatawai	Approx. 300,000 students sat 1 million tests in e-asTTle in 2023 Under development May require a baseline to be established prior to launch from e-asTTle data	# of students in Years 3-10 completing assessment per year (actual number and as a percentage of enrolled population) - number of assessment one or two (2) - number of domains one, two, and three Intention is to be able to demonstrate an annual increase until reaches as close to 100% as possible.
		3	% of enrolled students in schools and kura actively using (or required to use) the tool who are eligible to undertake assessments but have not <i>Source:</i> Tool/EDW <i>Measure Owner:</i> Senior Manager, Curriculum Assessment & Senior Manager Aromatawai	Approx. 300,000 students sat 1 million tests in e-asTTle in 2023 Under development May require a baseline to be established prior to launch from e-asTTle data	<15% of eligible enrolled students in schools and kura that have undertaken less than six assessments in the tool during the past year by end of 2030 % that have undertaken 5, or 4, or 3 or 2, or 1 or 0. Intention is to see the % of eligible enrolled students are not using the tool decrease until it is as close to 0% as possible
		4	% of records which are available for system-level purposes (i.e. data sharing with the Ministry not opted out of) <i>Source:</i> Tool/EDW <i>Measure Owner:</i> Senior Manager, Curriculum Assessment & Senior Manager Aromatawai	Under development May require a baseline to be established prior to launch from e-asTTle data	>90% of records are available for system level purposes by the end of 2030
		5	# and type of reports and analysis produced for system level purposes <i>Source:</i> Tool/EDW <i>Measure Owner:</i> Manager, Planning, Outcomes and Impacts	Under development	>80% of requests for reports and analysis can be satisfied with by standard reporting functionality. >50% of requests for one-off or speciality reports can be satisfied with less than 2 days of specialist reporting effort. Report annually frequency of report requests
		6	Ease of generation of insights by Data & Insights teams <i>Source:</i> Team surveys <i>Measure Owner:</i> Manager, Planning, Outcomes and Impacts	Anecdotal feedback only therefore no current baseline. Baseline needs to be established prior to launch	50% Improvement in level of user satisfaction re ease of data processing, by end 2028
	3. Improved resilience of the assessment	Increased technical availability of assessment tools	1	Average % availability of the assessment tool per quarter to geographically dispersed user base <i>Source:</i> Supplier SLA monthly report	e-asTTle has 99.5% availability for all users during the core hours of 7:30am and 5:30pm

Benefit	How will we know when we have achieved it?				
	KPI	No.	Measure	Target	
environment (10%)			Measure Owner: Product Manager, Student Systems (Digital)	New Zealand Time (UTC +12/+13) 5 days/ week. The current support hours for e-asTTle as of June 2024 are 7:30am-5:30pm	
		2	The number of concurrent users (teachers and students) that the tool has capacity to support during peak periods Source: Supplier SLA monthly report Measure Owner: Product Manager, Student Systems (Digital)	As at August 2024 e-asTTle supports 6,000 concurrent users The new tool supports up to 500,000 concurrent users (teachers and students) during peak periods by the end of 2026	
	Increased maintainability	1	Unit cost for maintaining assessment and Aromatawai items by Ministry admins Source: To be confirmed Measure Owner: Snr Manager, Curriculum Assessment; Snr Manager Aromatawai	24 hours of admin time to update one assessment item i.e., \$3,840 unit cost at a rate of \$160/hr	90% reduction in unit cost to administer (i.e., edit, add, delete) an assessment item within two years following launch (end 2028)
		2	Currency of software version Source: Supplier report Measure Owner: Product Manager, Student Systems (Digital)	9(2)(k)	Tool is always within 1 version of latest major software release

Benefit	How will we know when we have achieved it?			
	KPI	No.	Measure	Target
				9(2)(k)
			Number of extreme or high security risks <i>Source:</i> C&A memo <i>Measure Owner:</i> Chief Security Officer (Digital)	No extreme security risks on e-asTTle as at August 2024
				No extreme or high security risks at go live and following regular C&As every 2 years (or whenever significant changes are made to the system design) post go live (first one scheduled for 2 years post implementation in 2028)

Proactively Released

Appendix 6. High level requirements

REQ Id	Description	Priority
<i>Provide capability for a single fit for purpose assessment and aromatawai tool</i>		
REQ01	Aligned to the national curricula for standardised, valid, and reliable assessment of student ākonga progress in reading, writing, maths, pānui, tuhituhi, and pāngarau.	Must
REQ02	Enabling twice yearly testing for all Year 3 to Year 10 learners ākonga, each to be administered during a 10-15 day window (e.g., at the beginning of Terms 1 and 4), in either each of mathematics, reading, and writing, or each of pāngarau, pānui, and tuhituhi.	Must
REQ03	Enabling Year 3 to Year 10 learners ākonga to be tested two additional times a year, each to be administered at a time of a teachers choosing throughout the school year, in either mathematics, reading, and writing, or pāngarau, pānui, and tuhituhi.	Could
REQ04	Ensuring all relevant data is captured to understand learner ākonga progress against the national curricula and to enable reporting and insights at the various reporting levels.	Must
<i>Provide capability to enable</i>		
REQ05	Administrators to manage student, class, and group (e.g., all students in a Year) information. <ul style="list-style-type: none"> learner ākonga progress and achievement information is available to all schools the learner ākonga attends throughout their education. 	Must
REQ06	Administrators to manage school information.	Must
REQ07	Content SMEs to manage and maintain the content, including items, prompts, rubrics, images, visuals, exemplars, and the associated curricula metadata (e.g., assigned difficulty, alignment to curricula progressions, etc.) <ul style="list-style-type: none"> Includes content in English for English medium learners ākonga and in te reo Māori for learners ākonga learning through te reo Māori. Includes upload, create, update, and delete content and curricula metadata. 	Must
REQ08	Tests to be managed and maintained; includes create, update, and delete tests.	Must
REQ09	Teachers kaiako to manage and maintain tests; includes create, update, and delete tests.	Could
REQ10	Computer Adaptive Testing for the domains of reading, mathematics, pānui, and pāngarau.	Should
REQ11	Teachers kaiako to administer tests. <ul style="list-style-type: none"> Includes assigning tests on-screen or paper-based (including printing), marking and scoring tests. Includes entering test results of paper-based tests. 	Must
REQ12	Teachers kaiako to mark learner ākonga completed tests, with the assistance of automated marking (for on-screen tests).	Must
REQ13	Learners ākonga to sit tests. <ul style="list-style-type: none"> Tests, including instructions and guidance, are in te reo Māori for those learning through te reo Māori. Includes sitting writing and tuhituhi tests within the tool for on-screen tests. 	Must
REQ14	Learner ākonga to view and download reporting, clear feedback, and next steps (including links to relevant learning resources on Tāhūrangi) on their progress. <ul style="list-style-type: none"> Learner ākonga learning through te reo Māori can select which language they wish to receive reporting in, either te reo Māori or English. 	Must
REQ15	Teachers kaiako to view and download reporting, clear feedback, and next steps (including links to relevant learning resources on Tāhūrangi) at student, class, group, and school level. <ul style="list-style-type: none"> Includes teachers kaiako having the ability to add a narrative to reports to capture and provide insights that tests results alone do not provide. Teachers kaiako teaching through te reo Māori can select which language they wish to receive reporting in, either te reo Māori or English. 	Must
REQ16	Testing of additional domains in the future where the domain aligns with an existing technology pattern already implemented in the supplier's solution.	Should
REQ17	Testing of additional domains in the future where the domain does not align with an existing technology pattern already implemented in the supplier's solution (e.g., oral language in both English and te reo Māori).	Could

REQ Id	Description	Priority
<i>Provide a tool using modern technology to</i>		
REQ18	Enable online tailored guidance appropriate for each user role for all users of the system to assist in the effective and efficient use of the system. <ul style="list-style-type: none"> In both English and te reo Māori for those teaching and learning through te reo Māori. 	Must
REQ19	Enable effective and efficient use by all users regardless of their level of digital literacy.	Must
REQ20	Ensure ease of use by minimising time required for upskilling and the need for data entry.	Must
REQ21	Enable effective and efficient use on a range of modern classroom devices e.g., tablets, notebooks, laptops, and desktops.	Must
REQ22	Integrate with other Ministry systems as necessary to enable efficiencies, system-level reporting and archiving.	Must
REQ23	Support the assessment of disabled learners ākongā.	Must
REQ24	Allow 28,000 teachers kaiako to administer the twice-yearly testing within the 10-15 day window.	Must
REQ25	Allow approximately 540,000 learners ākongā to sit the assigned tests within the 10-15 day window.	Must

Appendix 7. Supporting detail for Economic Case

7.1 Options assessment – the long and short list

Options have been identified under the following dimensions:

Scale and Scope options – the key audiences and functionality of the solution

Service solution – how the services can be provided

Service delivery – who can, and who can assist to deliver the services

Implementation – whether the solution is phased into the sector or implemented in full

Options have been filtered against their ability to deliver on Investment Objectives (IO) and Critical Success Factors (CSF) to determine the short-list. ‘Yes’-Green, ‘Partial - High’ and ‘Partial – Low’ -Amber and ‘No’-Red.

Dimensions	Scope Options (What)																
	AUDIENCE			ASSESSMENT DOMAINS		ASSESSMENT YEAR GROUPS			ASSESSMENT FREQUENCY			FUNCTIONALITY		FUNCTIONALITY - WRITING ASSESSMENT			
	SC01	SC02	SC03	SC04	SC05	SC06	SC07	SC08	SC09	SC10	SC11	SC12	SC13	SC14	SC15	SC16	SC17
Reference																	
Description	Learners and teachers, educators, leaders	Learners and teachers, educators, leaders + Ministry administrators	Learners and teachers, educators, leaders + Ministry administrators + parents and whānau	Existing domains English medium: Reading, Writing, Maths Māori medium: Pānui, Tuhihi, Pāngarau	Existing six domains + another domain e.g., Science + Year 2 foundational skills check	Years 3-8	Years 3-10	Years 1-10	2x yearly	Up to 4x yearly	Unlimited (on demand up to 8x yearly on average)	Improved functionality	Advanced functionality	Updated/improved set of rubrics and exemplars	Updated/improved rubrics & exemplars + Digital assessment with basic automated marking (i.e. spelling and grammar)	Updated/improved rubrics & exemplars + Digital assessment + Automated marking	Updated/improved rubrics & exemplars + Digital assessment + Automated marking + Workflow for moderation
Investment Objectives																	
1. Improve effectiveness of literacy and numeracy assessments by providing bicultural, inclusive and relevant assessments tasks that align to the New Zealand curriculum for learners and ākonga.	Partial	Yes	Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Yes	Yes	Yes
2. Improve the effectiveness of te reo Māori and Pāngarau aromatawai for ākonga and kaiako by providing culturally and linguistically relevant, appropriate and inclusive aromatawai content that aligns to Te Tiroa Marautanga o Aotearoa.	Partial	Yes	Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Yes	Yes	Yes
3. Reduce risk of technology failure to provide literacy and numeracy assessments, and te reo Māori and Pāngarau aromatawai for learners and ākonga, teachers and kaiako.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Yes	Yes	n/a	n/a	n/a	n/a
4. Improve efficiency of the assessment process with improved automation and integration with teaching and learning, thus reducing teacher workload related to assessment.	Yes	Yes	Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Yes	Partial	Yes	No	Partial	Yes	Yes
5. Improve assessment data-driven decision making at each level of the education system to lift achievement levels for learners.	Yes	Yes	Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Yes	Yes	Yes
Critical Success Factors																	
CSF1. Contribution to learner educational outcomes and strategic fit	No	Yes	Yes	Yes	Partial	Partial	Yes	Yes	Partial	Yes	Yes	Partial	Yes	No	Partial	Yes	Partial
CSF2. Potential value for money	No	Yes	Partial	Yes	Partial	Partial	Yes	No	Yes	Partial	No	Yes	Partial	No	Yes	Yes	Partial
CSF3. Supplier capacity and capability	Yes	Yes	Partial	Partial	Partial	Partial	Partial	No	Partial	Partial	No	Yes	Partial	Yes	Yes	Yes	Yes
CSF4. Potential affordability	Yes	Yes	Partial	Partial	No	Yes	Partial	Partial	Yes	Partial	No	Partial	Partial	Yes	Yes	Yes	Yes
CSF5. Potential achievability	Yes	Yes	Partial	Partial	Partial	Yes	Partial	No	Yes	Partial	No	Yes	Partial	Yes	Yes	Yes	Partial
Summary	Discounted	Preferred	Discounted	Preferred	Discounted	Possible	Preferred	Discounted	Preferred	Possible	Discounted	Preferred	Possible	Discounted	Possible	Preferred	Possible
Short-List Options																	
1. Option A - Do nothing	↓																
2. Option B1 - Off the shelf tool - Foundational - 2x Yearly	Learners and teachers, educators, leaders + Ministry administrators			Existing domains English medium: Reading, Writing, Maths Māori medium: Pānui, Tuhihi, Pāngarau		Years 3-10			2x yearly			Improved functionality		Updated/improved rubrics & exemplars + Digital assessment + Automated marking			
3. Option B2 - Off the shelf tool - Foundational - 4x Yearly	Learners and teachers, educators, leaders + Ministry administrators			Existing domains English medium: Reading, Writing, Maths Māori medium: Pānui, Tuhihi, Pāngarau		Years 3-10			Up to 4x yearly			Improved functionality		Updated/improved rubrics & exemplars + Digital assessment + Automated marking			
4. Option B3 - Off the shelf tool - Advanced - 4x Yearly	Learners and teachers, educators, leaders + Ministry administrators			Existing domains English medium: Reading, Writing, Maths Māori medium: Pānui, Tuhihi, Pāngarau		Years 3-10			Up to 4x yearly			Advanced functionality		Updated/improved rubrics & exemplars + Digital assessment + Automated marking + Workflow for moderation			
5. Option C - Bespoke Tool - Foundational - 2x Yearly	Learners and teachers, educators, leaders + Ministry administrators			Existing domains English medium: Reading, Writing, Maths Māori medium: Pānui, Tuhihi, Pāngarau		Years 3-10			2x yearly			Improved functionality		Updated/improved rubrics & exemplars + Digital assessment + Automated marking			

Dimensions	Service Solution Options (How)										Service Delivery (Who)								Implementation Options						Funding Options			
	SERVICE SOLUTION					INTEGRATIONS		BUSINESS CHANGE			TOOL DELIVERY APPROACH				CONTENT DELIVERY APPROACH				ASSESSMENT CONTENT PHASING			TECHNOLOGY			FUNDING			
	SS01	SS02	SS03	SS04	SS05	SS06	SS07	SS08	SS09	SS10	SD01	SD02	SD03	SD04	SD05	SD06	SD07	SD08	IM01	IM02	IM03	IM04	IM05	IM06	FU01	FU02	FU03	
Description	Upgrade/extend e-asTTle	Re-use/extend a suitable existing Government or sector solution (e.g., Te Rito, PaCT, TWA, NZCER PAT, TEC LNAAT)	New off-the-shelf tool configured for NZ education requirements (includes solutions used overseas e.g., ACER PAT)	New off-the-shelf tool customised for NZ education requirements	New be-spoke tool based on e-asTTle using modern technologies and practices	Tahurangi + manual SMS integration	Add Te Rito Sector Longitudinal Hub (EDW, First, Enrol)	Add Te Rito Learner Data Hub	Create passive resources, combined with workshops and roadshows delivered by Regional offices	Add targeted extra support for specific schools and kura	Fully delivered by the Ministry in-house	Delivered by the Ministry together with outsourced partners	Fully outsourced (joint responsibility for integrations)	Fully delivered by Ministry in-house (Manual)	Fully delivered by Ministry in-house with Automated Item Generation	Delivered by the Ministry together with partners (Manual)	Delivered by the Ministry together with partners with Automated Item Generation	Fully outsourced	By Domain as they are ready (coexists with e-asTTle & PAT)	Both Curricula all Domains (all Years) with a minimum level of content initially followed by remainder	Both Curricula all Domains for Years 3-8 initially followed by remaining years (coexists with e-asTTle & PAT)	Both Curricula all Domains (all Years) with a full level of content	Big bang, single technology release	Phased technology releases	Funded from baseline with no new funding.	Partial funding from baseline and remainder funded from new 2025 Budget Bid.	Fully funded from new 2025 Budget Bid.	
Investment Objectives																												
1. Improve effectiveness of literacy and numeracy assessments by providing bicultural, inclusive and relevant assessments tasks that align to the New Zealand curriculum for learners and ākonga.	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Yes	No	Yes	Partial	No	No	Partial	Yes	Yes	Yes	Partial	Partial	Partial	Yes	Yes	No	No	Yes	
2. Improve the effectiveness of te reo Māori and Pāngarau aromatawai for ākonga and kaiako by providing culturally and linguistically relevant, appropriate and inclusive aromatawai content that aligns to Te Tīrewa Marautanga o Aotearoa.	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Yes	No	Yes	Partial	No	No	Partial	Yes	Yes	Yes	Partial	Partial	Partial	Yes	Yes	No	No	Yes	
3. Reduce risk of technology failure to provide literacy and numeracy assessments, and te reo Māori and Pāngarau aromatawai for learners and ākonga, teachers and kaiako.	No	Partial	Yes	Yes	Yes	n/a	n/a	n/a	n/a	n/a	Partial	Yes	Yes	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Yes	Yes	No	No	Yes	
4. Improve efficiency of the assessment process with improved automation and integration with teaching and learning, thus reducing teacher workload related to assessment.	No	No	Yes	Yes	Yes	Partial	Partial	n/a	n/a	n/a	No	Yes	Partial	n/a	n/a	n/a	n/a	n/a	Partial	Yes	Yes	Yes	Yes	Yes	No	No	Yes	
5. Improve assessment data-driven decision making at each level of the education system to lift achievement levels for learners.	Partial	No	Yes	Yes	Yes	Partial	Yes	Yes	Partial	Yes	Partial	Yes	Partial	n/a	n/a	n/a	n/a	n/a	Partial	Yes	Yes	Yes	Yes	Yes	No	No	Yes	
Critical Success Factors																												
CSF1. Contribution to learner educational outcomes and strategic fit	No	No	Partial	Yes	Yes	No	Yes	Yes	Partial	Yes	No	Yes	Partial	No	No	Partial	Yes	Yes	Partial	Yes	Yes	Partial	Yes	Yes	No	No	Yes	
CSF2. Potential value for money	No	No	Yes	Partial	Partial	Yes	Yes	Partial	Yes	Partial	Partial	Yes	Partial	No	Partial	No	Yes	Yes	Yes	Yes	Yes	Partial	Partial	Yes	No	No	Yes	
CSF3. Supplier capacity and capability	Partial	Partial	Yes	Partial	Yes	Partial	Partial	Partial	Yes	Partial	Partial	Yes	Yes	No	Partial	Partial	Partial	Partial	n/a	n/a	n/a	n/a	Yes	Yes	n/a	n/a	n/a	
CSF4. Potential affordability	No	Partial	Yes	Partial	Partial	Yes	Yes	Yes	Yes	Yes	Partial	Partial	Partial	No	Partial	No	Partial	Partial	n/a	n/a	n/a	n/a	Yes	Yes	No	No	Yes	
CSF5. Potential achievability	No	No	Yes	Partial	Partial	Yes	Yes	Yes	Yes	Yes	Partial	Partial	Yes	No	Partial	Partial	Partial	Yes	No	Yes	Partial	Partial	Partial	Yes	No	No	Yes	
Summary	Discounted	Discounted	Preferred	Discounted	Possible	Discounted	Preferred	Possible	Preferred	Possible	Discounted	Preferred	Possible	Discounted	Discounted	Discounted	Possible	Preferred	Discounted	Preferred	Possible	Discounted	Preferred	Discounted	Discounted	Preferred		
Short-List Options																												
1. Option A - Do nothing	↓																											
2. Option B1 - Off the shelf tool - Foundational - 2x Yearly	New off-the-shelf tool configured for NZ education requirements (includes solutions used overseas e.g., ACER PAT)					Tahurangi + automated SMS integration + EDW + First and Enrol			Create passive resources, combined with workshops and roadshows delivered by Regional offices			Delivered by the Ministry together with outsourced partners				Fully outsourced				Both Curricula all Domains (all Years) with a minimum level of content initially followed by remainder			Phased technology releases			Fully funded from new 2025 Budget Bid		
3. Option B2 - Off the shelf tool - Foundational - 4x Yearly	New off-the-shelf tool configured for NZ education requirements (includes solutions used overseas e.g., ACER PAT)					Tahurangi + automated SMS integration + EDW + First and Enrol			Create passive resources, combined with workshops and roadshows delivered by Regional offices			Delivered by the Ministry together with outsourced partners				Fully outsourced				Both Curricula all Domains (all Years) with a minimum level of content initially followed by remainder			Phased technology releases			Fully funded from new 2025 Budget Bid		
4. Option B3 - Off the shelf tool - Advanced - 4x Yearly	New off-the-shelf tool configured for NZ education requirements (includes solutions used overseas e.g., ACER PAT)					Tahurangi + automated SMS integration + EDW + First and Enrol + Te Rito			Create passive resources, combined with workshops and roadshows delivered by Regional offices + targeted extra support for specific schools and kura			Delivered by the Ministry together with outsourced partners				Fully outsourced				Both Curricula all Domains (all Years) with a minimum level of content initially followed by remainder			Phased technology releases			Fully funded from new 2025 Budget Bid		
5. Option C - Bespoke Tool - Foundational - 2x Yearly	New be-spoke tool based on e-asTTle using modern technologies and practices					Tahurangi + automated SMS integration + EDW + First and Enrol			Create passive resources, combined with workshops and roadshows delivered by Regional offices			Delivered by the Ministry together with outsourced partners				Fully outsourced				Both Curricula all Domains (all Years) with a minimum level of content initially followed by remainder			Phased technology releases			Fully funded from new 2025 Budget Bid		

7.2 Options identification and assessment

The following sections outline the Long-list analysis from the Shortlisting workshop.

Scope dimensions and options

Dimension option	Rationale for outcome	Outcome
AUDIENCE – USERS		
SC01 - Students and teachers, educators, leaders	This option is discounted as it only meets two of the investment objectives and 3 out of 5 of the CSFs. The limited audience does not enable the tool assessment items and progressions to be maintained online by a Ministry administrator.	Discounted
SC02 - Students and teachers, educators, leaders + Ministry administrators	This option is preferred as all investment objectives and CSFs are met.	Preferred
SC03 - Students and teachers, educators, leaders + Ministry administrators + families whānau	This option is discounted as it meets all investment objectives but only 1 out of 5 of the CSFs. Adding secure parent and whānau access increases complexity and cost putting achievability at risk.	Discounted
ASSESSMENT DOMAINS		
SC04 – Existing domains English medium: reading, writing, maths Māori medium: pānui, tuhituhi, pāngarau	This option is preferred as it meets all investment objectives and 2 out of 5 of the CSFs.	Preferred
SC05 - Existing six domains + another domain e.g., Science + Year 2 foundational skills check	This option is discounted as it doesn't meet any of the CSFs. It is not affordable at this stage to add any further domains.	Discounted
ASSESSMENT YEAR GROUPS		
SC06 - Years 3-8	This option is possible as it meets 2 out of 5 of the CSFs. However, it does not meet any of the investment objectives. The existing assessment tools cover years 9 and 10 so it would be a backward step to not include these years.	Possible
SC07 – Years 3-10	This option is preferred as it meets three investment objectives and 4 out of 5 of the CSFs.	Preferred
SC08 - Years 1-10	This option is discounted as it doesn't meet any of the CSFs. Supplier capacity, especially for Māori medium, to create assessment items for Years 1 and 2 will be stretched. This option is considered unachievable and not a good value for money as there is uncertainty as to whether the sector will utilise a standardised assessment tool for Years 1 and 2 where teachers would need to sit with each child individually to complete the assessment.	Discounted
ASSESSMENT FREQUENCY		
SC09 – 2x yearly	This option is preferred as it meets all the investment objectives and 3 out of 5 of the CSFs.	Preferred
SC10 – Up to 4x yearly	This option is possible as it meets all investment objectives and 1 of the CSFs. A further 33% of assessment items would be required to support years up to 4x yearly testing which impacts on supplier capacity and achievability in an acceptable timeframe. As 4x yearly testing is not a mandated requirement there could be an affordability and value for money consideration with this option.	Possible
SC11 – Unlimited (on demand up to 8x yearly on average)	This option is discounted as it doesn't meet 4 out of 5 of the CSFs. Catering for enough assessment items for unlimited testing is challenging in terms of affordability, achievability and supplier capacity and capability. It is not considered a good value for money as it is not expected that the sector will be administering standardised assessments 8 times yearly.	Discounted
FUNCTIONALITY		

SC12 – Improved functionality	This option is preferred as it meets four of the investment objectives and 3 out of 5 of the CSFs.	Preferred
SC13 – Advanced functionality	This option is possible as it meets all investment objectives and 1 out of 5 of the CSFs. Affordability, achievability and supplier capacity and capability become more challenging with this option due to the additional functionality required with this option e.g., AI next steps.	Possible
FUNCTIONALITY – WRITING ASSESSMENT		
SC14 – Updated/improved set of rubrics and exemplars	This option is discounted as it doesn't meet any of the investment objectives and meets only 3 out of 5 of the CSFs. This option does not help the teachers with the current problems related to time consuming writing assessments.	Discounted
SC15 – Updated/improved rubrics & exemplars + Digital assessment with basic automated marking (i.e., spelling and grammar)	This option is possible as it meets three of the investment objectives and 4 out of 6 of the CSFs. Although this option is an improvement with digital assessment with basic automated marking, the teacher still has to mark the writing work.	Possible
SC16 – Updated/improved rubrics & exemplars + Digital assessment + Automated marking	This option is preferred as all investment objectives and CSFs are met.	Preferred
SC17 - Updated/improved rubrics & exemplars + Digital assessment + Automated marking + Workflow for moderation	This option is possible as it meets three of the investment objectives and 4 out of 6 of the CSFs. Although this option automated marking, the teacher may choose to have further moderation of the writing work.	Possible

Service solution dimension and options

Dimension option	Rationale for outcome	Outcome
SERVICE SOLUTION		
SS01 – Upgrade/extend e-asTTle	This option is discounted as it doesn't meet any of the investment objectives or the CSFs. E-asTTle cannot be upgraded to make it into a fit for purpose standardised assessment tool due to its technology limitations. Therefore, it is not achievable, and it is not a good value for money option.	Discounted
SS02 – Re-use/extend a suitable existing Government or sector solution (e.g., Te Rito, PaCT, TWA, NZCER PAT, TEC LNAAT)	This option is discounted as it doesn't meet any of the investment objectives or the CSFs. None of the existing Government or sector solution (except for PAT) can be re-used/extended to make a fit for purpose standardised assessment tool. NZCER have indicated that they do not want to PAT to be the single tool for the sector.	Discounted
SS03 - New off-the-shelf tool configured for NZ education requirements (includes solutions used overseas e.g., ACER PAT)	This option is preferred as it meets all the investment objectives and 4 out of 5 of the CSFs.	Preferred
SS04 - New off-the-shelf tool customised for NZ education requirements	This option is discounted as it meets all investment objectives but only 1 out of 5 of the CSFs. Customising an off-the-shelf tool is costly and complex resulting in upgradeability issues in the longer term making this option not good value for money.	Discounted
SS05 - New be-spoke tool based on e-asTTle using modern technologies and practices	This option is possible as it meets all the investment objectives and 2 out of 5 of the CSFs. A bespoke build is a possible option particularly if there are no off-the shelf tools that meet requirements.	Possible
INTEGRATIONS		
SS06 – Tāhūrangi + manual SMS file import/export	This option is discounted as it will not enable the reporting and insights to enable decision making and interventions at the education system level.	Discounted
SS07 - Add Operational Data Hub (FIRST, ENROL) + EDW	This option is preferred as it meets all the investment objectives and 4 out of 5 of the CSFs.	Preferred

SS08 - Add Te Rito Student Data Hub	This option is possible as it meets all the investment objectives and 3 out of 5 of the CSFs. Te Rito integration will ensure that assessment information follows the student, so this is a possible option.	Possible
BUSINESS CHANGE		
SS09 – Create passive resources, combined with workshops and roadshows delivered by regional offices	This option is preferred as it meets 4 out of 5 of the CSFs.	Preferred
SS10 – Add targeted extra support for specific schools kura	This option is possible as it meets all the investment objectives and 2 out of 5 of the CSFs. Affordability of this option is a consideration as well as resource to provide the extra support.	Possible

Service delivery dimensions and options

Dimension option	Rationale for outcome	Outcome
TOOL DELIVERY APPROACH		
SD01 – Fully delivered by the Ministry in-house	This option is discounted as it doesn't meet any of the investment objectives and one of the CSFs. The Ministry's approach is to work with suppliers as opposed to hiring all resources required to deliver projects.	Discounted
SD02 – Delivered by the Ministry together with outsourced partners	This option is preferred as it meets all the investment objectives and 3 out of 5 of the CSFs.	Preferred
SD03 - Fully outsourced (joint responsibility for integrations)	This option is possible as it meets one of the investment objectives and 2 out of 5 of the CSFs. The Ministry integrations could be challenging with this option. Affordability and value for money of this option is a consideration.	Possible
CONTENT DELIVERY APPROACH		
SD04 – Fully delivered by Ministry in-house (Manual)	This option is discounted as it doesn't meet any of the investment objectives or the CSFs. The Ministry's approach is to work with suppliers as opposed to hiring all resources required to deliver projects.	Discounted
SD05 – Fully delivered by Ministry in-house with Automated Item Generation	This option is discounted as it doesn't meet any of the investment objectives or the CSFs. The Ministry's approach is to work with suppliers as opposed to hiring all resources required to deliver projects.	Discounted
SD06 – Delivered by the Ministry together with partners (Manual)	This option is discounted as it doesn't meet any of the investment objectives and one of the CSFs. Manual development of assessment items is time consuming and expensive.	Discounted
SD07 – Delivered by the Ministry together with partners with Automated Item Generation	This option is possible as it meets all the investment objectives and 2 out of 5 of the CSFs. If it is not possible to fully outsource assessment item development, using AIG with partners would speed up the process.	Possible
SD08 – Fully outsourced	This option is preferred as it meets all the investment objectives and 3 out of 5 of the CSFs.	Preferred

Implementation dimension and options

Dimension option	Rationale for outcome	Outcome
ASSESSMENT CONTENT PHASING		
IM01 - By Domain as they are ready (coexists with e-asTTle & PAT)	This option is discounted as it only meets two of the investment objectives and only 1 out of 5 of the CSFs. This option would require teachers and students to use both e-asTTle and the new tool until all domains have been delivered in the new tool. This comes with all the inherent problems with running two tools currently and keeping data for reporting consistent.	Discounted
IM02 – Both Curricula all Domains (all Years) with a minimum level of content initially followed by remainder	This option is preferred as all investment objectives and CSFs are met.	Preferred

IM03 – Both Curricula all Domains for Years 3-8 initially followed by remaining Years (coexists with e-asTTle & PAT)	This option is possible, but only meets two of the investment objectives and 2 out of 5 of the CSFs. Although this enables the tool to go live earlier, this option would require teachers and students to use both e-asTTle and the new tool until all domains have been delivered in the new tool. This comes with all the inherent problems with running two tools currently and keeping data for reporting consistent.	Possible
IM04 - Both Curricula all Domains (all Years) with a full level of content	This option is discounted as it only meets two of the investment objectives and 2 out of 5 of the CSFs. Given the limited supplier capacity for Māori medium assessment item development, the tool launch should not be held up till all content for both curricula are completed.	Discounted
TECHNOLOGY		
IM05 - Big bang, single technology release	This option is possible as it meets all the investment objectives and 3 out of 5 of the CSFs.	Possible
IM06 - Phased technology releases	This option is preferred as it meets all the investment objectives and the CSFs. It allows for a tool to be available to the sector earlier and is a less risky approach.	Preferred

Funding dimension and options

Dimension option	Rationale for outcome	Outcome
FU01 - Funded from baseline with no new funding	This option is discounted as it doesn't meet any of the investment objectives or the CSFs. It is not affordable to deliver the project with available baseline funding.	Discounted
FU02 - Partial funding from baseline and remainder funded from new 2025 Budget Bid	This option is discounted as it doesn't meet any of the investment objectives or the CSFs. It is not affordable as there is no baseline funding available to add to budget funding.	Discounted
FU03 - Fully funded from new 2025 Budget Bid	This option is preferred as all investment objectives and CSFs are met.	Preferred

7.3 Option scoring

Option scoring and weightings have taken the following into account to arrive at final options scores:

- Measurable weighted benefits score - 40%
- Risk (note that these scores have been inverted for the scoring process i.e. 10 – low risk (i.e., lower risk is preferable) and 0 – high risk) - 30%
- Cost - 30%

Combined Score	Weighting	Option A	Option B1	Option B2	Option B3	Option C
Benefits	40%	1	8.35	9.15	9.65	8.3
Risks	30%	0	5	4	3	0
Cost	30%	10	6.5	6.2	5.6	2.5
Combined / 10	100%	3	6.96174	6.24108	5.14668	0.75474
Score / 100		30	69.6174	62.4108	51.4668	7.5474

Proactively Released

Appendix 8. Full 10-year financials

<i>Inclusive of Inflation</i>													
Financial Case for preferred option													
Millions	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Years 1- 4	Year 5	10 Year
	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	Total	& outyears	Total
Project Capital Expenditure													
Resources	9(2)(j)												
Overheads	9(2)(j)												
Content	9(2)(j)												
Contingency	9(2)(j)												
Total Project Capital Expenditure	1.289	13.168	7.018	1.602	-	-	-	-	-	-	23.077	-	23.077
Project Operating Expenditure													Total
Resources	1.048	6.111	4.707	0.623	-	-	-	-	-	-	12.489	-	12.489
Overheads	-	1.337	1.116	0.230	-	-	-	-	-	-	2.682	-	2.682
Change management	-	6.171	5.151	-	-	-	-	-	-	-	11.322	-	11.322
Technology	0.110	1.876	0.935	-	-	-	-	-	-	-	2.920	-	2.920
Other project operating costs	0.090	0.607	0.439	-	-	-	-	-	-	-	1.136	-	1.136
Contingency	-	4.032	3.092	0.214	-	-	-	-	-	-	7.338	-	7.338
Total Project Operating Expenditure	1.248	20.133	15.439	1.066	-	-	-	-	-	-	37.887	-	37.887
Ongoing Operating Expenditure													
Resources	-	-	-	-	-	-	-	-	-	-	-	-	-
Overheads	-	-	-	-	-	-	-	-	-	-	-	-	-
Licensing and support & maintenance	-	5.757	7.676	7.676	7.676	7.676	7.676	7.676	7.676	7.676	21.109	7.676	67.166
Other costs	-	-	-	0.110	0.590	0.590	0.590	0.590	0.590	0.590	0.110	0.590	3.648
Contingency	-	1.530	2.504	2.634	2.770	2.770	2.770	2.770	2.770	2.770	6.667	2.770	23.285
Depreciation	-	0.291	1.713	1.838	1.838	1.838	1.838	1.838	1.838	1.838	3.842	1.838	14.872
Capital Charge	-	0.064	0.581	0.856	0.919	0.919	0.919	0.919	0.919	0.919	1.502	0.919	7.017
Total Ongoing Operating Expenditure	-	7.642	12.474	13.115	13.793	13.793	13.793	13.793	13.793	13.793	33.231	13.793	115.988
Total Operating Expenditure	1.248	27.775	27.913	14.181	13.793	13.793	13.793	13.793	13.793	13.793	71.118	13.793	153.875
Total Expenditure	2.537	40.943	34.931	15.783	13.793	13.793	13.793	13.793	13.793	13.793	94.195	13.793	176.951
Less funding from Budget bids													
Departmental funds	2.537	12.000	-	-	-	-	-	-	-	-	14.537	-	14.537
Non-Departmental funds	-	-	-	-	-	-	-	-	-	-	-	-	-
Less funding from existing baselines													
Departmental funds	-	-	-	0.927	0.927	0.927	0.927	0.927	0.927	0.927	0.927	0.927	6.488
Non-Departmental funds	-	-	-	-	-	-	-	-	-	-	-	-	-
Total funding available	2.537	12.000	-	0.927	0.927	0.927	0.927	0.927	0.927	0.927	15.464	0.927	21.026
Funding Shortfall	-	(28.943)	(34.931)	(14.856)	(12.866)	(12.866)	(12.866)	(12.866)	(12.866)	(12.866)	(78.730)	(12.866)	(155.926)

Appendix 9. High level item development and review process

The development processes⁵⁹ described for mathematics, reading, pāngarau and pānui could either use Automated Item Generation (AIG) or a manual approach. The process for writing describes the manual development of items based on the assumption that automated development is not appropriate for this domain.

AIG is a process that leverages manually created test templates (cognitive and item) and computer algorithms to quickly create a large variety of test items. This technology is likely to be used in some part by suppliers to mitigate the risk associated with the time and cost to manually develop items.

The high-level processes will be refined during the initiation stage of the implementation project by the project team (using subject matter experts, including a psychometrician) and the supplier.

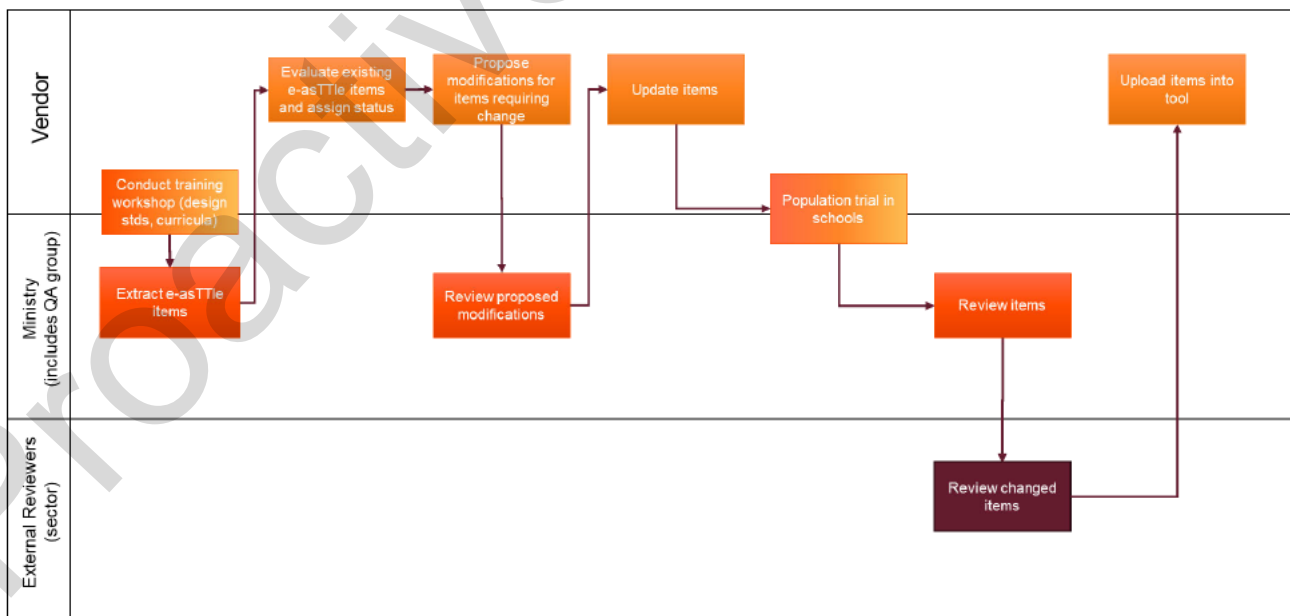
The Ministry will provide the supplier with design standards that new items must meet, as described in the Assessment and Aromatawai Item Design Standards document. The Ministry and supplier will agree on the minimum volume of items by domain, strand/aspect, and year of learning. This number will be influenced by how the Assessment and Aromatawai tool works, particularly regarding Computer Adaptive Testing (CAT), and finalised during commercial negotiations.

The Ministry will form an Assessment and Aromatawai Item Quality Assurance Group comprising of people with expertise in key areas such as assessment, aromatawai, psychometrics te ao Māori, diversity, inclusion, and accessibility. This group will have previously reviewed and approved the Assessment and Aromatawai Item Design Standards.

9.1 High-level item review process

This process is only necessary if the Ministry and the supplier agree to re-use items from the existing e-asTTle tool to provide the required volume of assessment items.

The process below details the high-level process for the review (i.e., retain as is, update or retire) of existing assessment items for mathematics, reading, pāngarau and pānui. The purpose of this process is to review existing items in terms of their validity from psychometric, curriculum alignment, and cultural perspectives so that only valid items are uploaded into the new tool.



⁵⁹ High-level Item Development & Review Processes – English Medium Education Settings
High-level Item Development & Review Processes – Māori Medium Education Settings

Figure 28. Existing item review process

9.2 High-level item development process

Mathematics, reading, pānui, pāngarau

The table below details the high-level processes for assessment item development and review for all the different domains of mathematics, reading, pāngarau and pānui.

Assessment items are to be written in English (New Zealand) for the NZC or te reo Māori for te Marautanga o Aotearoa (te reo Māori items are not to be direct translations of English NZC items).

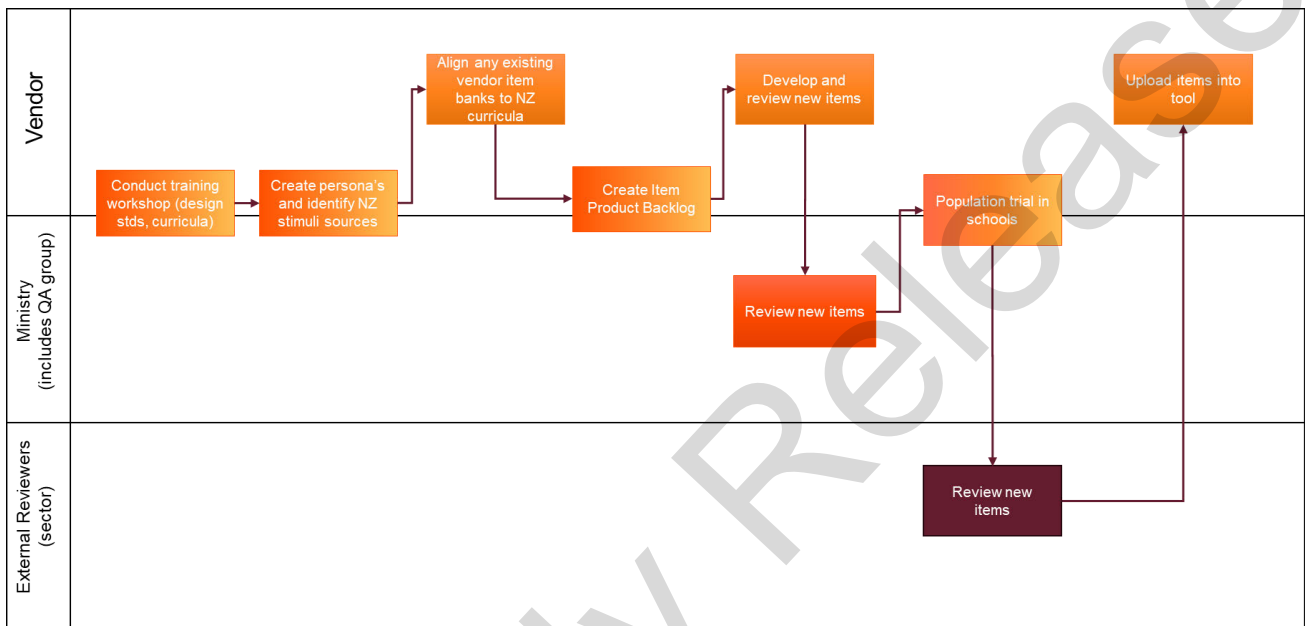


Figure 29. New item development process

Writing and tuhituhi

The process below details the high-level processes for development and review of the materials (prompts, rubrics, and exemplars) for the domains of writing and tuhituhi.

The supplier and the Ministry will work closely on this process with two separate teams for each of the two domains. The Ministry will form two Advisory Groups, one each for writing and tuhituhi, possibly including some external experts in each group. For simplicity we have assumed the new Assessment and Aromatawai tool will operate in a similar manner to e-asTTle with prompts, rubrics (marking guidance) and exemplars, with the addition of digital writing and tuhituhi assessment, and more efficient AI powered automated marking to reduce the time and effort required from teachers.

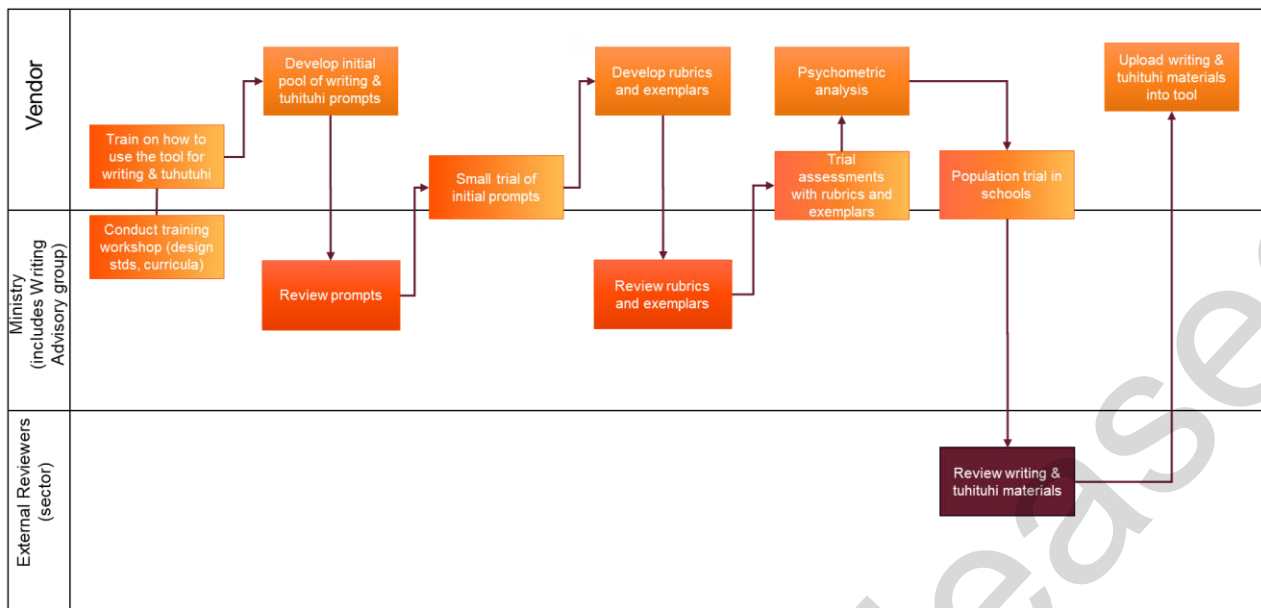


Figure 30. Assessment item development process – writing and tuhituhi

Proactively Released

Appendix 10. Agile delivery

The Agile approach is iterative where teams build products incrementally to develop the full list of products required. This approach enables the team to build in quality, learn fast and adjust as required. It enables flexibility, empowerment, and collaboration.

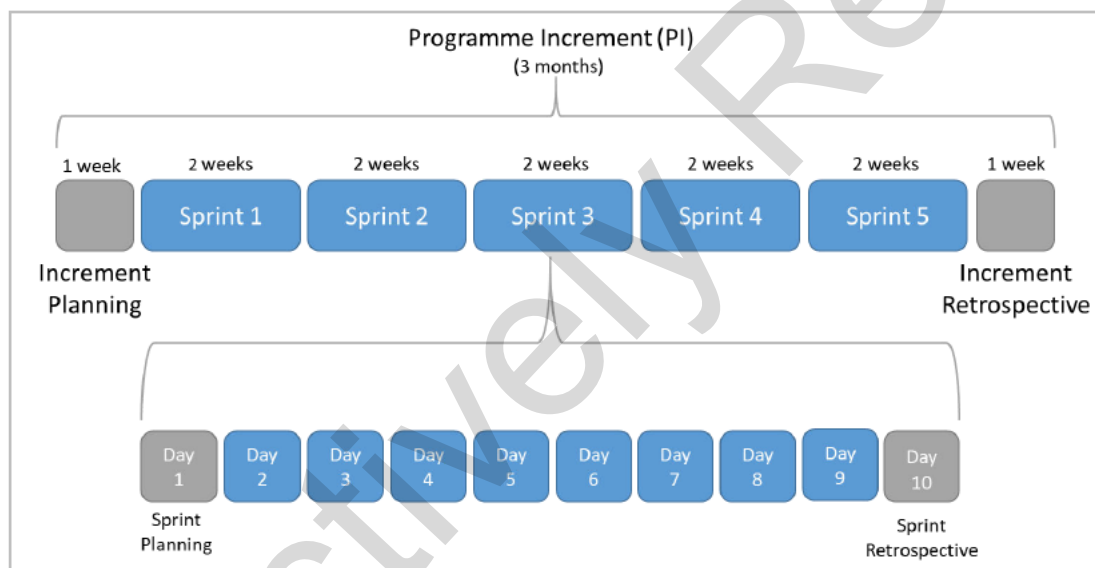
Backlog

The Backlog is made up of all the scope items and details each product that is required to be developed or required to support the sector change and products needed for the delivery teams during the implementation phase of the project. The entries in the Product Backlog are prioritised and ordered accordingly, with a clear set of acceptance criteria. A change request will be required to add or delete items from the backlog once confirmed and agreed.

Programme Increment

A Programme Increment (PI) is a 3-month timebox for delivery teams to develop a product or set of products from the Subject Backlog list. The 3-months is structured into a 1-week planning session, 5 sprints at 2 weeks each (totalling 10 weeks) and a 1-week review/retrospective at the end. This is illustrated in the diagram below.

Increment planning confirms the products to be completed within the increment. The Increment review and retrospective enables the understanding of what deliverables and goals have been delivered (the review) and reflect on the ways of working, continuous improvement, and innovation opportunity (the retrospective).



Sprints

The work within an increment will then be broken down and prioritised further with the Product Owners and their respective delivery teams. A Sprint is a 2-week time box to deliver a set amount of work from the Increment Plan. There will be 5 sprints (10 weeks) in one 3-month increment as shown in the above diagram.

The sprint planning day will confirm the items to be worked on for the next 2 weeks. Each day there will be a daily stand-up which will review the tasks in progress and move any to completed and confirm tasks to be started. It will also review any blockers, issues, and dependencies.

At the end of a 2-week period, a retrospective will be held to understand what improvements can be made to their way of working, and what to continue doing.

Appendix 11. Assessment and Aromatawai Strategic Framework

The Ministry has recently developed an Assessment and Aromatawai Strategic Framework. The following is an excerpt from the framework indicating the different intentions and uses of assessment and aromatawai tools and information.

This project is intended to provide information to support Assessment and Aromatawai for all areas other than credentialling.

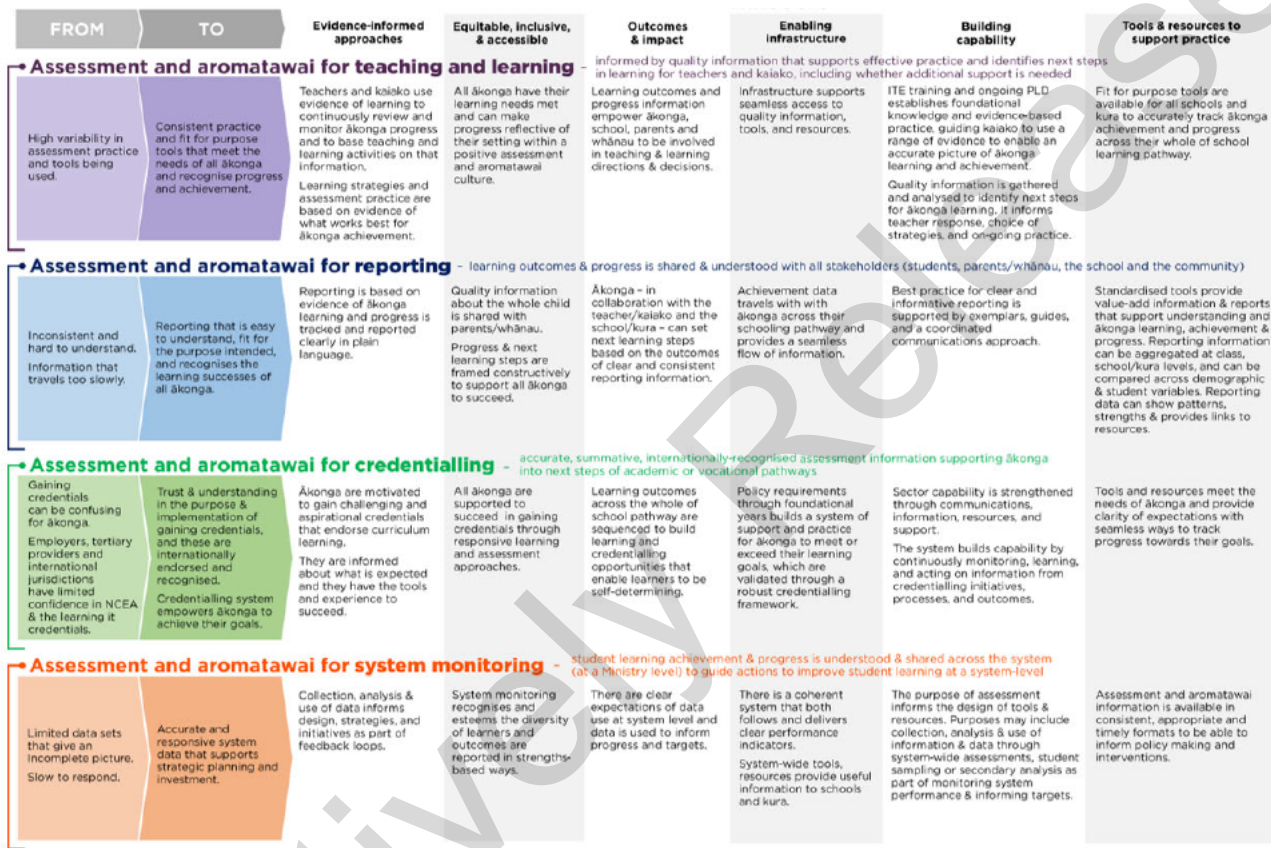


Figure 31. Applications of Assessment and Aromatawai

Appendix 12. Assessment and Aromatawai Intervention Logic for Target 7

The Ministry is using intervention logic to track progress on changes required to meet government targets. The following is an illustration of the approach for Target 7: more students will reach expected curriculum levels.

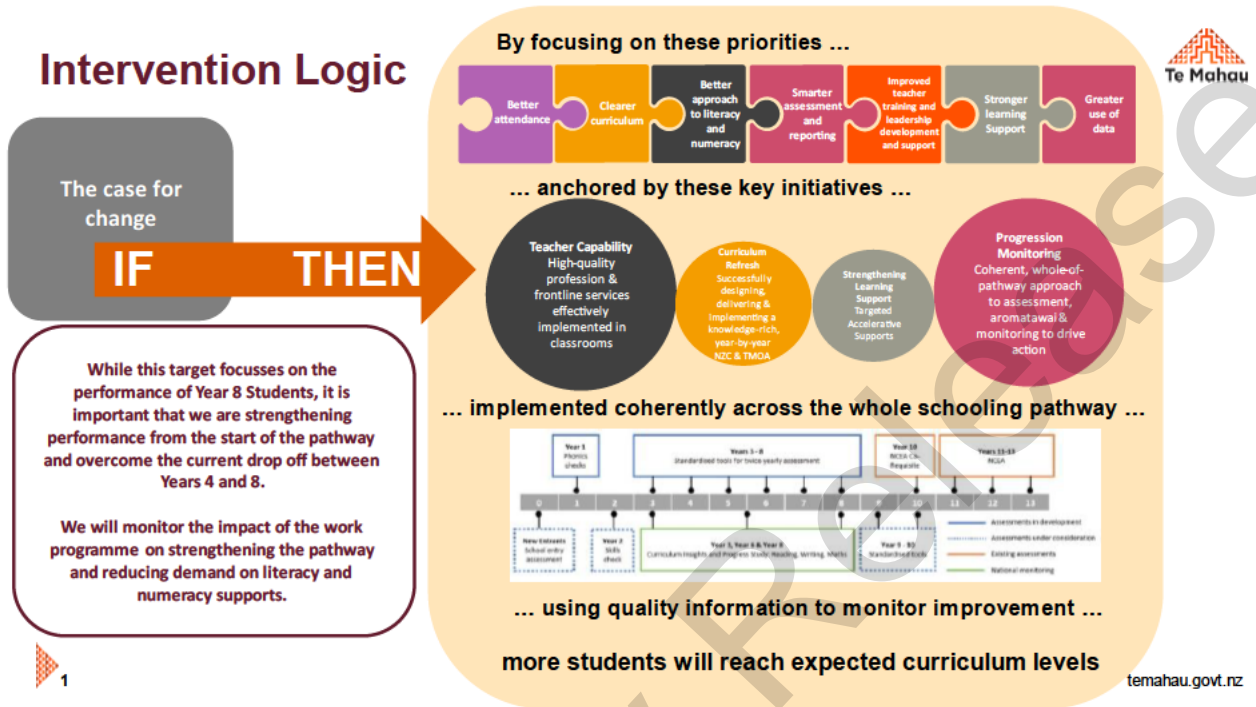


Figure 32. Intervention Logic for Government Target 7

Appendix 13. Intervention logic for Assessment and Aromatawai project

The following diagram outlines the intervention logic for the new Standardised Assessment and Aromatawai project at the time of writing this business case.

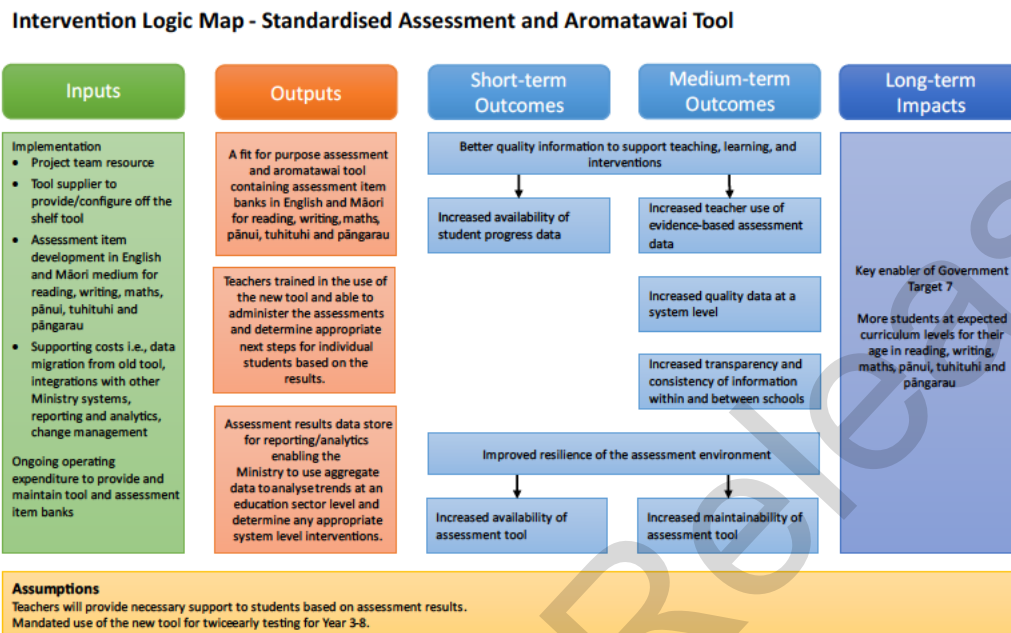
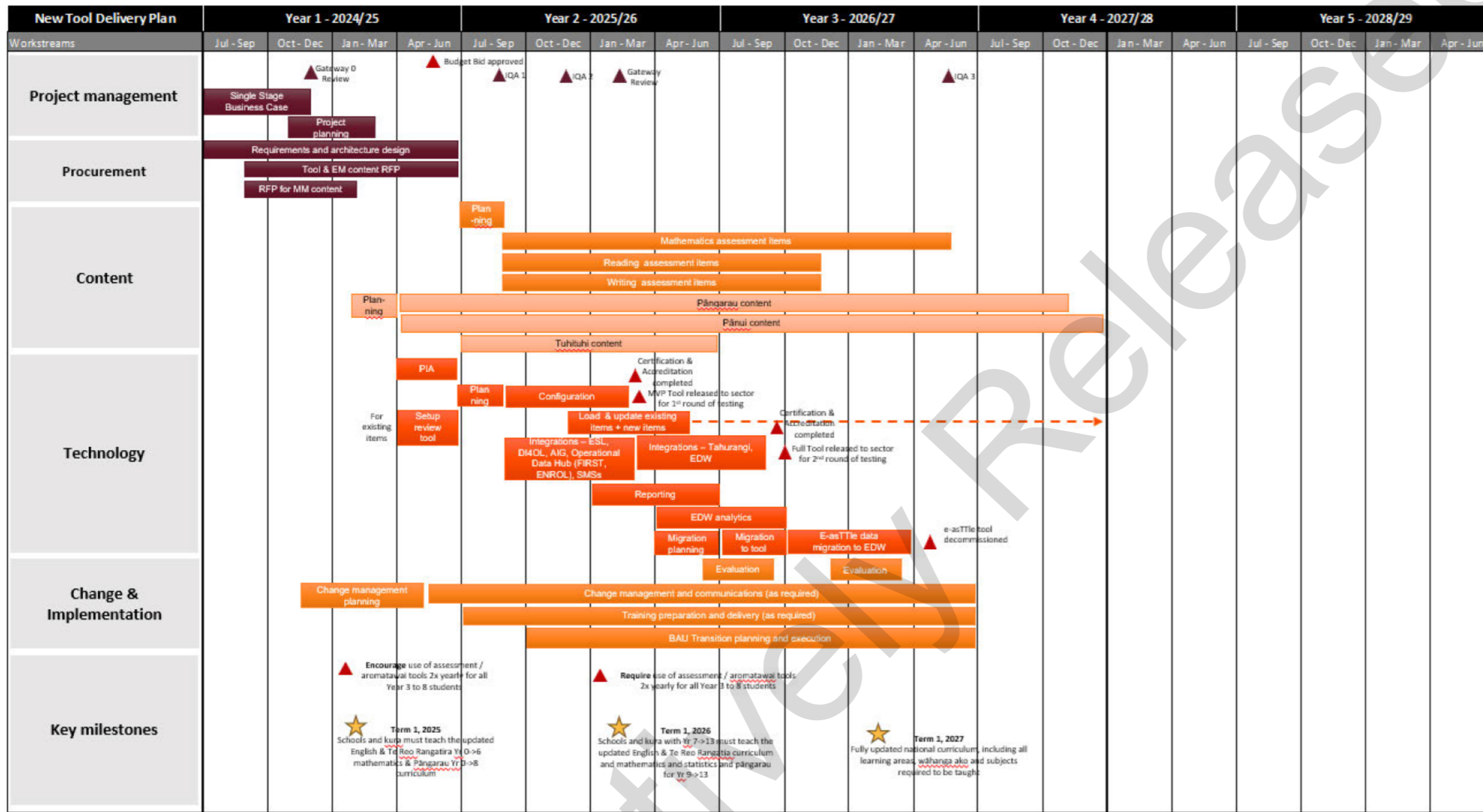


Figure 33. Intervention logic for Assessment and Aromatawai project

Appendix 14. High-Level Delivery Plan





Cabinet Social Outcomes Committee

Minute of Decision

This document contains information for the New Zealand Cabinet. It must be treated in confidence and handled in accordance with any security classification, or other endorsement. The information can only be released, including under the Official Information Act 1982, by persons with the appropriate authority.

Establishing a New Standardised Tool for Assessment and Aromatawai

Portfolio **Education**

On 12 February 2025, the Cabinet Social Outcomes Committee:

- 1 **noted** the contents of the submission *Establishing a New Standardised Tool for Assessment and Aromatawai* [SOU-25-SUB-0002];
- 2 **referred** the submission to Cabinet on 17 February 2025.

Jenny Vickers
Committee Secretary

Present:

Rt Hon Winston Peters
Hon David Seymour
Hon Simeon Brown
Hon Erica Stanford
Hon Paul Goldsmith
Hon Louise Upston (Chair)
Hon Dr Shane Reti
Hon Mark Mitchell
Hon Tama Potaka
Hon Matt Doocey
Hon Nicole McKee
Hon Casey Costello
Hon Andrew Bayly
Hon Karen Chhour
Hon Nicola Grigg

Officials present from:

Officials Committee for SOU
Office of the Minister of Education
Ministry of Education



Cabinet

Minute of Decision

This document contains information for the New Zealand Cabinet. It must be treated in confidence and handled in accordance with any security classification, or other endorsement. The information can only be released, including under the Official Information Act 1982, by persons with the appropriate authority.

Establishing a New Standardised Tool for Assessment and Aromatawai

Portfolio Education

On 17 February 2025, following reference from the Cabinet Social Outcomes Committee, Cabinet:

- 1 **approved** the Business Case for the new Standardised Tool for Assessment and Aromatawai project, attached to the submission under CAB-25-SUB-0031;
- 2 **noted** that the Minister of Education intends to mandate twice a year assessment and aromatawai from the start of 2026, and that schools will retain a choice of tool for this purpose of either the new tool or the existing New Zealand Council for Educational Research's Progress and Achievement Tool (NZCER PAT);
- 3 **noted** that the estimated cost to deliver the project is \$176.952 million over 10 years (\$23.077 million capital, \$153.875 million operating);
- 4 **noted** that over the budget forecast period, the Ministry of Education has reprioritised and made available \$22.391 million of operating and capital funding from its existing baseline and capital funding (including ongoing savings in outyears generated from decommissioning the e-asTTle tool);
- 5 **noted** that the Standardised Tool for Assessment and Aromatawai project requires further new investment (\$9.788 million of capital funding and \$75.808 million operating funding) through Budget 2025, to cover the remaining funding required to deliver the project;
- 6 **noted** that the Minister of Finance has granted pre-approval, subject to Cabinet decisions, for the remaining funding to be charged as a pre-commitment against the Budget 2025 operating and capital allowance so that the tool can be procured and available for schools and kura to use in early 2026;
- 7 **agreed** that the remaining funding (\$9.788 million of capital funding and \$75.808 million operating funding) over the budget forecast period be charged as a pre-commitment against Budget 2025 operating and capital allowance;

- 8 **approved** the following changes to appropriations and departmental capital injections to give effect to the policy decision in the paragraphs above, with a corresponding impact on the operating balance and/or net core Crown debt:

Vote Education Minister of Education	\$m – increase/(decrease)			
	2025/26	2026/27	2027/28	2028/29 & Outyears
Multi-Category Expenses and Capital Expenditure:				
Improved Quality Teaching and Learning MCA				
<i>Departmental Output Expense:</i>				
Support and Resources for Teachers (funded by revenue Crown)	24.775	24.913	13.254	12.866
Ministry of Education - Capital Injection	1.168	7.018	1.602	-
Total Operating	24.775	24.913	13.254	12.866
Total Capital	1.168	7.018	1.602	-

Rachel Hayward
Secretary of the Cabinet