

MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT BIOMETRICS CAPABILITY UPDATE PROJECT

INDEPENDENT QUALITY ASSURANCE REVIEW REPORT

JUNE 2020

FINAL

IN CONFIDENCE

INDEPENDENT QUALITY ASSURANCE NZ LIMITED

www.iqanz.com

Lead Reviewer: David Williams

This report has been developed for the Ministry of Business, Innovation and Employment (MBIE) and is not intended for release to any external party without the prior approval of IQANZ.

IQANZ thanks the staff and external suppliers involved in this review for their input and cooperation.

IQANZ has a long-standing relationship with MBIE and has provided both Independent Quality Assurance (IQA) and Portfolio Review Services since 2013. More recently, David completed a review of the ADEPT Programme in May 2021.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	4
INTRODUCTION	5
FINDINGS AND RECOMMENDATIONS	6
Review Objectives	6
Conclusion	6
Summary of Findings	7
Key Recommendations	12
DOCUMENT SIGNOFF	17
Overall Management Comment	17
Next Steps	17
Signoff	17
APPENDIX A – TERMS OF REFERENCE	18
APPENDIX B – ASSESSMENT RATINGS	21
DOCUMENT CONTROL	22

EXECUTIVE SUMMARY

OVERVIEW

The Biometrics Capability Update (BCU) Project will deliver an upgrade to the biometrics management software and algorithms to provide improved matching rates, maintain security and supportability, and improve total cost of ownership. It also includes replacement of In Person Enrolment used by a variety of business users including those from Border, Refugee and Compliance.

REVIEW OBJECTIVES

Provide the Senior Responsible Owner (SRO) and Project Steering Group assurance that the project is well positioned to deliver expected outcomes within time and budget, and to the expected level of quality

KEY MESSAGES

The BCU Project has suffered significant delays and there are some key lessons to be learned around the importance of clarifying the scope in sufficient detail, to allow completion of the necessary planning, to determine the solution and delivery path.

The project is currently going through a re-set and we support the robust planning approach being taken to elaborate the business requirements and complete the design activity. There are a few outstanding planning activities, and we have recommended the re-set change request (CR03) to be submitted when there is more certainty as to whether the solution can be configured, and realistic timeframes are established to complete this work.

Whilst the scope and business objectives are clear, there would be benefit in completing a re-launch once the implementation dates are clear, to re-set the delivery expectations. Delivery dates must be carefully monitored, and

documenting the roles and responsibilities of each of the parties, and their delivery obligations will greatly assist this.

DELIVERY ASSESSMENT

This summary assessment is the independent opinion of the Review Team on the likelihood of the project meeting its objectives and benefits within time, budget and to agreed quality levels.



RATING: Feasible

SUMMARY: Successful delivery of the project appears **feasible** but risks or issues require management attention. The risks or issues appear resolvable at this stage of the project if addressed properly. The project must take the necessary time to complete the necessary planning activity to provide confidence of the implementation path.

See Appendix B – Assessment Ratings for a full definition of the summary assessment ratings

INTRODUCTION

PURPOSE

This report has been prepared for Project SRO and Project Steering Group and for broader distribution within MBIE as appropriate.

This document summarises the discovery and fieldwork completed for the review, together with the key observations and findings we have uncovered and our recommendations for strengthening the project as it continues through its lifecycle.

BACKGROUND

IQANZ was engaged to undertake an IQA Review of the BCU Project. The project is in the delivery phase and has been dealing with a number of issues, including vendor engagement, agreement on detailed requirements and significant changes to the project resourcing during last year (2020).

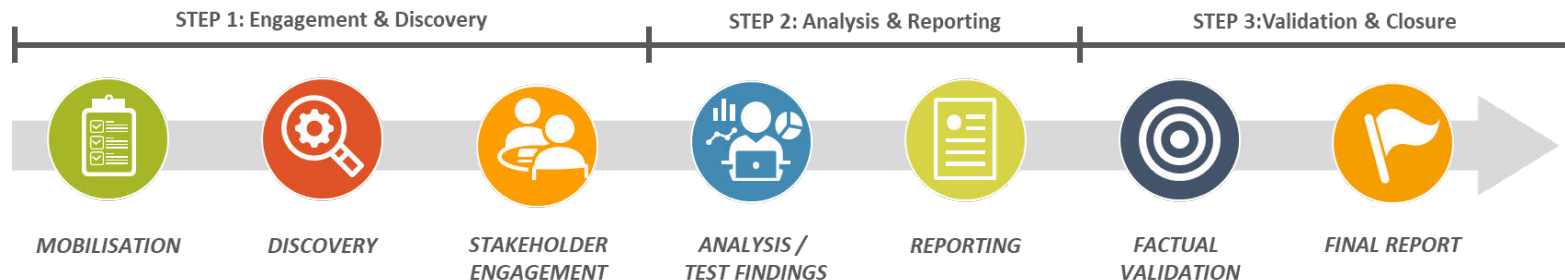
The scope of the BCU Project is to deliver an upgrade to the biometrics management software and algorithms to provide improved matching rates, maintain security and supportability, and improve total cost of ownership. It also includes replacement of In Person Enrolment used by a variety of business users including those from Border, Refugee and Compliance.

Field work for this review was carried out between 28 May to 8 June 2021.

Attached as **Appendix A** is the Terms of Reference for this engagement.

APPROACH

The diagram below outlines the key steps we took to understand the project and assess its current state. As part of our review we sought diverse views from a range of stakeholders including the Project Team, key Business stakeholders, those tasked with governing the project, and other suppliers as appropriate. **Appendix A** includes a full list of the people we met and spoke with.



FINDINGS AND RECOMMENDATIONS

REVIEW OBJECTIVES

The objectives of this review were to:

- Provide an independent view of the effectiveness of the project planning and implementation phases with specific focus on what is being done well and areas for improvement.
 - Provide the Sponsor and Project Steering Group assurance that the project is well positioned to deliver expected outcomes within time and budget, and to the expected level of quality.
 - Identify any strengths and possible areas for improvement and highlight learnings/lessons so they can be incorporated into future projects.
-

CONCLUSION

The BCU Project has suffered significant delays and we have noted some key lessons relating to ensuring there is a clearly defined scope, and that delivery is based on planning fact, rather than assumption. Whilst it is important to understand the key lessons, our review is very much focused on what the project is doing to rectify its current position and get itself back on track.

The project is now following a robust process to complete the planning activity; however clarity is needed as to when this work will be completed. It has clearly documented the scope and the high level requirements have been

elaborated and nearing completion. There are a few outstanding items that are being discussed, to confirm whether the solution can be configured out of the box as desired, or if customisation is required. The planning phase must be appropriately completed, and all components brought together in updated design document(s), to provide confidence of the implementation approach, timeframes and costs. Existing statements of work (SOW) will need to be reviewed and aligned.

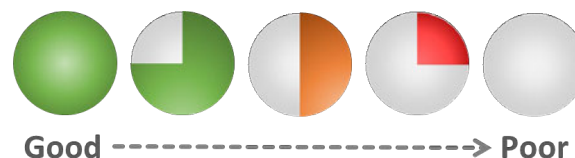
A re-set CR has been drafted and we recommend this is submitted when there is more certainty of how the solution will be delivered and the timeframes to complete the implementation. We've suggested the project complete a re-launch to re-communicate the business objectives, scope and delivery expectations. Delivery dates must be appropriately detailed in the status reporting, and carefully monitored. Documenting the roles and responsibilities (and accompanying RASCI matrix) of each of the parties, and their delivery obligations will assist this.

Governance and management controls are appropriate and there is good discussion occurring across the project and delivery partners, supported by quality reporting and controls. Decision making is clear, and we recommend a BCU project Design Authority is set up to formalise these arrangements.

Co-location arrangements are in place with key delivery partner, and this should as appropriate be extended to other delivery partners so there is horizontal discussion occurring across all parties. Similarly, the project must be able to directly interact with NEC USA (NECAM) who are doing the bulk of the delivery work.

SUMMARY OF FINDINGS

The following ratings for each review scope component identify the strengths and weaknesses of the project.



They take into account the surrounding context of the project and any work in progress.

COMPONENT	RATING	DESCRIPTION
Governance & Management		Project Governance • A Project Steering Group provides governance oversight, and is supported by a quality Terms of Reference (ToR). The group meets on a regular basis. • Membership is appropriate and key roles include Business Owner, Senior User and Senior Supplier. A recent addition is the inclusion of senior NEC representatives, and we support this. We have recommended consideration be given to whether the attendance of other similar senior stakeholders from the other delivery partners is required or not. Project Management and Reporting • Dashboard reporting is provided, and the report dated 10 May 2021 shows the project is red. The project is completing re-planning activity to re-set the baseline and we discuss this further in the scope section below. The report currently shows high level milestones (Go Live and Project Closure) and we'd expect this detail to be expanded at the end of planning, to ensure appropriate visibility of the key deliverables of each of the delivery partners. Delivery partners provide regular status reporting, and this is appropriate. • Regular project meetings are occurring across the project, including 3 x stand-ups each week, and daily stand-ups with the key vendor. • A number of workshops have been held to bring together the delivery elements, and we support this approach to facilitate the necessary solution discussions. • The Senior Responsible Office (SRO), Business Owner, Project Director and Project Manager have all been instrumental in helping the project get back on track, supported by the Portfolio Assurance Advisor. • A quality Project Control Workbook contains the risk, issues, assumptions, constraints, change requests, dependencies and decisions and is being kept up to date. It also contains key lessons, and we support these. • To date, there have been two change requests (CR) submitted and approved. A third CR (003) is being drafted to re-set the project and consideration must be given to when this is submitted so it provides confidence of the delivery time and costs. • Whilst roles and responsibilities are noted at a high level in the Single Stage Business Case, they are not well documented, and this requires resolution. There are multiple vendors involved in the project and there must be a clear understanding of the role each party

COMPONENT	RATING	DESCRIPTION
		plays, along with their delivery responsibilities. We have made some recommendations in this area, including the development of hierarchy diagram, and a RASCI matrix. • NEC New Zealand (NEC NZ) has co-located resources with the INZ project team, and this is a key success factor to delivering the required business outcomes. We have recommended consideration be given to including other key vendors in this arrangement, to bring cohesiveness across all delivery partners. The business Subject Matter Experts (SMEs) should also be included. • A BCU Solution Design – Part A and In Person Enrolment (IPE) Solution Design Part A were both completed and approved in April 2020. They contain traceability back to the original high level business requirements. Given the clarification of scope, and elaboration of the business requirements, we'd expect these to be updated and re-submitted for approval. The various players will all have input into the design(s), and the MBIE Lead Architect plays a pivotal role to bring this detail together to represent the end to end solution. The Lead Architect is not an MBIE employee and there must be the appropriate support put in place to ensure he is made aware of the ICT expectations, such as the process to gain Architectural Review Board (ARB) approval of the design, and the alignment to any agreed internal ICT standards. • The project has a data migration component; however this is not well defined, and should be covered in more detail in the design work. • Whilst NEC NZ is fronting the NEC deliverables, most of the delivery work is being done by NEC USA (NECAM). As the project progresses, it is important for three way conversations to be occurring so none of the detail is lost in translation. The project must have direct access to NECAM. • Various SOWs are in place, and these must be reviewed and updated at the end of the planning activity to ensure they align to the updated expectations. • There is no integration partner, and this role therefore falls to the Project Manager to manage all activity, and the detailed integrated schedule is key in managing the sequencing of the work. The project spans some 7-8 delivery partners and therefore integration is complex. Consideration could have been given to bringing on a delivery partner. Careful consideration will be needed as to the support arrangements that will need to be put in place as part of handover.
Scope Management		• The approved Business Case(s) details the scope, however as the project has gathered further information it has become clear that the scope of the work was not clearly understood, and the impact on other INZ systems. There also appears to have been some early assumptions made that the solution could be delivered fully through configuration, without the necessary fact to back this up. We are confident the project is now working through this detail. • An updated Scope Statement has been drafted (v 0.3 4 November 2020) and this must be confirmed (along with the business problem definition, and expected business outcomes) and finalised to re-set the scope baseline. There does appear to still be some differences between the review participants we spoke to as to the scope of the project. Communication is therefore required as part of the re-set, to ensure the wider delivery team is clear on the scope, and benefits of the BCU Project. In our opinion there is still a clear case for project continuation. • A CR (003) is being drafted to re-set the project, and we support this. The project is still working through some remaining planning activity, which includes the elaboration of requirements for the various parties and, whether the solution can be delivered through

COMPONENT	RATING	DESCRIPTION
		configuration etc. We recommend CR003 is not submitted until there is more certainty of the outstanding planning activity, and confidence of the implementation path and delivery approach.
Time/Schedule & Dependencies		Timeline & Schedule - The project will not deliver to the current May 2021 go live date, and is revising to approximately April 2022. - A detailed integrated project schedule (with some 1100 lines of tasks and milestones) captures the key milestones, and there are plans to update this, once the delivery path is clear. - It is important to note there will be various delivery options (e.g. Agile, waterfall or something in between) and the project must work through this detail with the various parties to agree the appropriate delivery approach as part of the re-set - There has been a focus on the NEC deliverables and timeframes, and whilst this has been the appropriate course of action, focus must be given to the other delivery partners to ensure all parties are clear on their delivery contribution and timeframes. - The submission, and subsequent approval of CR003 will re-set the baseline and we'd expect these dates to then be baselined and driven to completion across all parties. Dependencies - Internal dependencies are managed through the high level project schedule and contains a good level of detail. - There is one external dependency captured in the Dependency Register (completion of a Privacy Impact Assessment), however this is arguably a project task. There are dependencies with the Advance Digital Employer Processing and Targeting (ADEPT) Programme and these must be recorded in the dependencies register. Both projects are implementing solutions that will eventually replace the IGMS system.
Resources		- Resources are appropriate and include business subject matter experts (SME's). The SME's are not full time and consideration should be given to whether this is required as the project gains momentum. - Decision making is occurring and a regular meeting with the Business Owner, Product Owner, Project Manager and SME's is in place. We recommend this group is formalised as a BCU project Design Authority. The inclusion of the Lead Architect is needed, who brings with him the technical considerations. - Resources are detailed in the BCU Forecast Budget spreadsheet and forecast resources to the end of the project. This will need to be confirmed once the re-set CR is finalised. - The project has suffered from a lot of churn and this is a contributing factor to some of the delays experienced by the project. We discuss this further in the lessons learned.
Cost & Benefits Management		Cost Management The BCU Single Stage Business Case approved \$10,458,858 capital (capex) funding and \$46,272 operational (opex) funding, along with an overall capex contingency of 15%. A subsequent IPE Single Stage Business Case approved \$2,255,046 capital (capex) funding and \$33,180 operational (opex) funding, to enable the replacement of the In Person Enrolment solution.

COMPONENT	RATING	DESCRIPTION
		- The project is seeking approximately \$6.9m additional Capex funding. - The BCU Forecast Budget spreadsheet details the budget, forecast and actual costs for project. Forecasting occurs on a monthly basis. The re-set CR notes an additional \$6,911,871 is required Benefits Management - Benefits are captured in the Single Stage Business Case(s) and BCU RAID Register. They include improving biometric data complexity, reducing the identity manual resolution workload. - The project CR is reviewing benefits, and there are plan to further detail the achievement of benefits in a Benefits Realisation Plan.
Risks & Issues		- Risks and issues are captured in the BCU RAID Register and are being reviewed regularly. - Risks are being reported in the Project Status Reports and there is appropriate discussion occurring at the PSG. - At the time of our review there were eight open issues, which capture the current status of the project. Issues are included in Project Status Reporting.
Stakeholder Engagement, Communications and Change Management		- A BCU Business Change – Stakeholder Analysis spreadsheet details the high level stakeholders, impacts and engagement approach. Following the re-set, we understand there are plans for the Business Change Lead to update this following the re-set. - A draft BCU Change Management Plan (v0.2 May 21) details the change impacts, complexity, and change approach. Again we understand there is further work planned in this area, once the implementation path and approach is clear. - We understand the Business Change Lead is also looking at what changes will need to be made to the current business processes, although we understand there is no fundamental change.
Quality Management		There is currently little focus on the quality aspects. Whilst we see the project doing the right things in elaborating the requirements, and working to finalise the designs, they don't contain acceptance criteria. These aspects will need to be covered off in the test planning activity.
Lessons Learned	N/A	There are some key lessons to be learned. As noted, we have purposely kept these at a high level: Scope - The project was a maintenance project and because of this, there appeared to be a view that it would not be that complex. As the project gathered more detail and as a result of increased scope via change requests, it became clear that scope was not as simple as originally thought, and changes were needed to several systems. - The project spans some 7-8 delivery partners and therefore integration is complex. Consideration could have been given to bringing on a delivery partner. Requirements elaboration - The requirements were documented at a high level, and it is common practice to then elaborate the requirements further once the delivery partner is on board. The two parties typically work together with the business bringing the business need to the table,

COMPONENT	RATING	DESCRIPTION
		and the delivery partner brings system knowledge. This is a fundamental step that appears to have been missed and assumptions appear to have been made that the solution could be configured out of the box, without the fact needed to confirm if this was the case or not. Delivery responsibilities • Despite agreeing the delivery timeframes, the key delivery partner has repeatedly missed deadlines. This appears to be in part due to NEC NZ leading the engagement, whereas the bulk of the development is being done by NEC USA (NECAM). It is vitally important the project has access to both parties. We have made recommendations in these areas. Resource churn • There has been churn of almost all of the ICT project management and technical staff on the project. This has led to a substantial loss of knowledge, and delays. • The COVID portfolio reset resulted in considerable lost momentum.

See Appendix B – Assessment Ratings for a full definition of the summary assessment ratings

KEY RECOMMENDATIONS

Based on the detailed findings in this report, the following recommendations should be addressed as a matter of noted priority. The recommendations are broken into key themes/areas.

GOVERNANCE & MANAGEMENT

#	RECOMMENDATION	RATIONALE	Priority	Owner	Due Date	MANAGEMENT COMMENTS
1.1	Expand the key milestones in the status reporting to detail the key milestones.	The Project Status Report currently shows just two high level implementation milestones (Go Live and Project Closure), along with baseline and forecast dates. The project has suffered from several delays, and this includes a delivery partner missing agreed milestones. Once the project has gained approval for the re-set, we'd expect the milestones to be expanded further in the status reporting, to show the key deliverables of each of the delivery partners. This will provide the PSG with the appropriate visibility to hold the project, and delivery partners to account.	High	Project Manager	16 Jul 2021	Agree. It is intended to The review and update reporting to better support tracking of progress against milestones once re-baselining has been completed. Please note that the missed delivery partner milestones were noted as key issues and risks to the PSG, both in reporting and as a key focus for discussion.
1.2	Consider including other senior stakeholders from other supplier parties on the PSG where appropriate.	As a result of the delays, senior NEC representatives attend the PSG meetings. This is appropriate as it means NEC is taking the necessary responsibility for their deliverables, and allows the PSG to hold to them directly to account. There are other supplier parties involved in the project (e.g. Datacom, DXC, InTech) and consideration should be given as to whether there is similar benefit to including any additional senior stakeholders on the PSG. We note this may not be necessary, and the delivery accountability may well be best managed at the project level.	Medium	SRO	As required	Noted. Will be monitored and enacted if deemed appropriate and/or necessary.
1.3	Document the roles and responsibilities and update the project hierarchy. Develop the RASCI.	Whilst roles and responsibilities are noted at a high level in the Singe Stage Business Case(s), they are not well documented. There are multiple vendors involved, and it is vitally important the project has well defined roles and responsibilities for all key roles. Accountability is not something that can passed on and must remain with INZ for the duration of delivery. We'd expect there to	Critical	Project Manager	16 Jul 2021	Agree. Documenting the project hierarchy has commenced with roles and responsibilities to follow.

#	RECOMMENDATION	RATIONALE	MANAGEMENT COMMENTS		
		be a clearly defined roles and responsibilities, and a project hierarchy to reflect this. The hierarchy must clearly show the INZ Project Manager as the person with the delivery accountably, with the delivery partners Project Managers reporting up to her. Similarly, the same arrangements would apply to the INZ Lead Architect and Lead Business Analyst. We also recommend a RASCI is developed detailing who is Responsible, Accountable, Supports, Consulted and Informed. This ideally should be developed by the project deliverables. We'd expect this to include the delivery responsibilities of NECAM.			
1.4	Co-locate other delivery partners. Co-locate the business SME's.	NEC NZ has co-located resources with the INZ project team, and this is a key success factor to delivering the required business outcomes. Consideration must be given to including other delivery partners in this arrangement. This will allow for the necessary horizontal conversations to occur and brings together the delivery partners in a joined up environment and approach. A similar arrangement should be put in place for the business SME's. We note the SME's are not full time on the project, and this may need reviewing as the projects gathers pace.	Priority Owner Due Date	Critical Project Manager As required	Agreed. The project will look to co-locate other vendors and SMEs on an as required basis at the appropriate time. The focus at this stage of the project is on the main supplier, NEC. Noted that to date SMEs are regularly engaged as required with the project and would be difficult to backfill due to complexity and experience required.
1.5	Re-confirm the design. Include the traceability back to the elaborated business requirements. Include the data migration aspects. Provide support for the Lead Architect.	A BCU Solution Design – Part A and In Person Enrolment (IPE) Solution Design – Part A were both completed and approved in April 2020. It is unclear how this work was completed, when there did not appear to be enough information to determine the scope and if the solution could be delivered purely through configuration or if customisation would be required. There is still discussion occurring in this area (e.g. concurrency between BCU and AMS), and this is appropriate. Now the scope is clear, and there are elaborated requirements, we expect these documents to be updated and re-submitted for approval once the delivery approach is agreed. The various players will all have various input into the design(s), and the MBIE Lead Architect plays a pivotal role to bringing this together to represent the end to end solution.	Priority Owner Due Date	Critical Lead Architect 16 Jul 2021 (Part A)	Agreed. The Part A Design is currently being revised to reflect the overall design approach and will be re-presented to ARB/ ARG. Key design elements e.g. external concurrency are being finalised and the Part B Design progressed. This will be submitted to ARB/ ARG in stages as design completion of major

#	RECOMMENDATION	RATIONALE	MANAGEMENT COMMENTS
		The current design documents include traceability to the business requirements, and will need to be updated based on the newly elaborated requirements. Similarly the design should detail the approach to data migration. The Lead Architect is not an MBIE employee, and there must be the appropriate support put in place to ensure he is made aware of the ICT expectations, such as the process to gain Architectural Review Board (ARB) approval of the design, and the alignment to any agreed internal MBIE or INZ standards.	aspects is completed, similar to the approach adopted for the ADEPT project. Work is progressing in the data migration stream to confirm field level mapping and overall approach. Support for the Lead Architect is being addressed with ICT management.
1.6	Set up the Design Authority. Draft the ToR.	A Product Owner is in place and is the ultimate decision maker. She is supported by business SME's seconded part time to the project, and the Business Owner. Decision making is occurring, and the Product Owner, Business Owner, Project Manager and SME's meet on a regular basis, which is appropriate. As the project moves from planning to implementation, it will begin to move at pace. We recommend this group is formalised as a Design Authority, so there is some formality around the decision making, and so decisions can be made in a timely manner. A ToR will document the decision making roles and responsibilities. The Lead Architect should also be added, as he brings technical design experience.	Priority High Owner Product Owner Due Date 16 Jul 2021 Agreed. In progress. This will improve the speed of impact assessment, risk and detailed scope management, and decision-making as we move forward.
1.7	Ensure there is appropriate conversation and interaction occurring between the project, NEC NZ and NECAM.	Both NEC NZ and NEC US (NECAM) have roles in the project. NEC NZ are fronting the engagement, but much of the configuration is being delivered by NECAM. The impacts of these arrangements were perhaps not well understood, and it is important the necessary discussions occur across all parties and that INZ is not having to do this via NEC NZ. This will ensure none of the detail is lost in translation.	Priority Critical Owner Project Director/ Business Owner Due Date 16 Jul 2021 Noted. In place and being monitored.

#	RECOMMENDATION	RATIONALE			MANAGEMENT COMMENTS
1.8	Review and update the statements of work (SOW).	Various SOWs are in place with delivery partners. Once the planning work is complete and the implementation approach (time, and cost) is clear, these must be reviewed and updated to ensure they align to the re-set delivery expectations.	Priority	Critical	Agreed. Would normally be done on completion of re-planning and publication of the revised schedule.
			Owner	Project Manager	
			Due Date	30 Jul 2021	

SCOPE MANAGEMENT

#	RECOMMENDATION	RATIONALE			MANAGEMENT COMMENTS
1.9	Hold the change request submission until there is certainty of the delivery path and approach.	A CR (003) is being drafted to re-set the project, and we support this approach. The project is still working through some remaining planning activity, which includes the elaboration of requirements for the various parties and, whether the solution can be delivered through configuration or if customisation is required. There are also some outstanding discussions around concurrency of systems. We understand there is not yet an agreed approach as to how the solution will be delivered (e.g. Agile, waterfall or something in between). Until there is further agreement on these aspects towards the end of the planning stage, the project is not in a position to fully determine the implementation time and costs. We therefore recommend CR003 is not submitted until there is more certainty of the outstanding planning activity, and confidence of the implementation path. Without this detail, there is risk the project underestimates the time and/or cost. We note however a key consideration for this recommendation is whether the project has the money to continue to operate within the existing budgets.	Priority	High	Noted. Mitigation of the risk to outstanding design aspect decisions and therefore finalisation of re-planning, has been to revise the CR with an increased capex amount and to add three additional months into the timeframe. There is confidence, given all known information at this point, that this will enable the project to meet its delivery expectations.
			Owner	Project Director	
			Due Date	30 Jul 2021	
1.10	Re-confirm the scope and ensure this is clearly communicated to the wider team. Include the problem definition and expected business outcomes. Organise a re-launch.	An updated scope definition has been drafted (v 0.3 4 November 2020) and this must be re-confirmed as the scope version of truth, and finalised to re-set the scope baseline. There does appear to still be some differences between the review participants we spoke to as to the scope of the project. Once the re-set has been completed there would be benefit in bringing together the wider team (including the	Priority	High	Agreed. In progress
			Owner	Project Director	
			Due Date	30 Jul 2021	

#	RECOMMENDATION	RATIONALE	MANAGEMENT COMMENTS
		delivery partners) to re-launch the project, and re-communicate the scope, the problem definition, the desired business outcomes and the delivery expectations. This will ensure all parties are on the same page, and allow for a joined up approach.	

TIME/SCHEDULE & DEPENDENCIES

#	RECOMMENDATION	RATIONALE	MANAGEMENT COMMENTS
1.11	Confirm the timeframes to complete the planning and design work. Update the Project Status Report. Update the integrated Project Schedule.	The project is working through the necessary planning activity and the design activity. There were different views expressed as to when this activity will be completed, and we were advised the end of Jul and end of June. The Project Status Reports don't show any detail of the completion of this activity, and the integrated schedule shows 14 May 2021 (following ARG/ARB approval). Whilst the implementation dates may not be clear at this stage, the planning dates should be clear. The project must confirm the completion date, and then we'd expect it to be adhered to. The Project Status Report and integrated Project Schedule should be updated to include the end of planning milestone.	Priority Critical Owner Project Manager Due Date 30 Jul 2021 Agreed. Re-baselining of the project is currently in progress. Revised project reporting and updated integrated schedule will be in place by due date.
1.12	Confirm the implementation timeframes, as part of the re-set activity.	Again we had a range of views as to when the project will implement the solution following the re-set. CR003 notes the go live date will move from May 2021 to 24 April 2022. Project closure will move from October 2021 to 31 August 2022. This was not a view that was necessarily shared with the key delivery partner. Until the outstanding planning activity is complete and the implementation approach is clear, we do not think the project is in a position to confirm the delivery timeframes. This must be completed once the appropriate fact is known.	Priority Critical Owner Project Manager Due Date 30 Jul 2021 Agreed. As noted this is dependent on completion of re-baselining activity. Effectively this is an outcome of that process.

DOCUMENT SIGNOFF

OVERALL MANAGEMENT COMMENT

A very useful review and all the recommendations are accepted and being worked on. These independent reviews are useful for providing the overview of the projects progress from an independent perspective, and the points made are relevant and I will ensure are actioned.

NEXT STEPS

Please contact us if you would like to discuss the details of this report in person. We are happy to answer any questions or provide further explanations around the findings and intent of the recommendations.

SIGNOFF

s 9(2)(a)

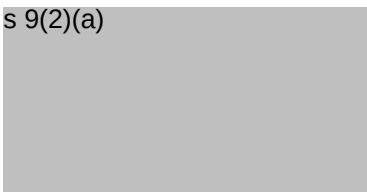


6 July 2021

Stephen Dunstan
Project SRO
**Ministry of Business, Innovation and
Employment**

[date]

s 9(2)(a)



30 June 2021

David Williams
Lead Reviewer
IQA New Zealand Limited

[date]

APPENDIX A – TERMS OF REFERENCE

SCOPE

SCOPE INCLUSIONS

The scope of this review included the following:

- Understanding the factors that contributed to the planning and implementation of the project, and what factors could have been managed better to support effective planning and implementation of the project.
- Whether the process used to develop the time and cost estimates was appropriate and aligned with good industry practice, and MBIE project management/planning standards.
- Whether qualified oversight over the suppliers' design(s) was robust and appropriate for the scale and significance of the project.
- Whether the solution delivery processes used were appropriate and align/ support MBIE project management processes/expectations.
- Whether the balance of using "out of box" functionality and amending INZ processes to take advantage of these adequately covers the requirements and/or if there is an identified gap that needs extra customisation work.
- Whether contractual arrangements with key suppliers captured the appropriate expectations.
- Assessment of the project governance and management environment and structures, including roles, responsibilities, capability, capacity, approach, processes, standards and controls that were used to support the planning and phase.
- Standard project management controls and the degree to which they were employed during the planning phase and support the remaining delivery:

- Scope definition and management, including managing design brief and outputs
- Schedule and dependency management
- Financial management, including the cost estimation
- Resource and contract management
- Commercial arrangements with suppliers
- Risk and issue management
- Stakeholder engagement and communication
- Quality management
- Identification of (what is going well and areas of opportunity for improvement over the remainder of the project lifecycle).

SCOPE EXCLUSIONS

The scope of this review excluded the following:

- Review of any other project or business system.
- Detailed review of the RFP processes or contractual arrangements.
- In depth quantitative review and assessment of cost estimates and financial business benefits.
- Detailed review of the suppliers' design(s) and their appropriateness.

KEY STAKEHOLDER INTERVIEWS

We would like to thank the following stakeholders for their input to this review:

1. s 9(2)(a)

2. s 9(2)(a)

3. s 9(2)(a)

4. s 9(2)(a)

5. s 9(2)(a)

6. s 9(2)(a)

7. s 9(2)(a)
8. s 9(2)(a)

9. s 9(2)(a)

10. s 9(2)(a)

11. s 9(2)(a)

12. s 9(2)(a)

13. s 9(2)(a)

14. Project Sponsor - Stephen Dunstan
-

REVIEW TEAM

TEAM MEMBER	ROLE	SUBSTANTIVE ROLE
David Williams	Lead Reviewer	Director
s 9(2)(a)		

DOCUMENTATION REVIEWED

_20200806 Memo_BCU project Scope, Funding and Delivery Approach_DCEI_CFO ...
 _BCU Forecast Budget 2021
 _3644 - BCU CR02 Change Request 3Jul2020 Update01 - FINAL
 210426 BCU - 3644 - BCU Status Report
 210504 BCU Project Steering Group Agenda
 _Biometric Capability Update Business Case APPROVED
 210504 BCU Project Steering Group Minutes
 210510 BCU -3644 - Project Status Report
 210518 BCU Project Steering Group Agenda
 3644 - BCU Change Management Plan
 3644 Biometric Capability Update - IPE Solution Design Part B
 BCU - Aggregated View of Change
 BCU - Identity Management Design - Part B
 BCU Business Change - Stakeholder Analysis v0.2.xlsx
 BCU Project PM Financials
 BCU Project Scope Statement
 BCU Steering Group TOR v2.0
 BCU PROJECT MASTER SCHEDULE
 Biometric Capability Upgrade project comm's plan
 FW BCU User Working Group 10 March summary and 24 March agenda [UNCLASSIFIED]
 FW BCU User Working Group Update [UNCLASSIFIED]
 FW Subject BCU User Working Group meeting 19 May - decisions & further information
 IDme Rescaling IPE Sub-Project Business Case v1.3 APPROVED
 In-Person Enrolment (Part A) FINAL
 3644 BCU short form CR01 v1.0 APPROVED
 BCU Project Change Request 03 v1.0
 PHC 3644 Biometric Capability Update 0-9
 NEC Not Available Out of the Box Register
 BCU and IPE Combined Test plan APPROVED
 _20200825 NEC Biometric Capability Update SoW_SIGNED
 NEC BCU Project Initiation SOW signed
 NEC IPE As a Service SOW - Signed 18Dec20 FINAL
 _Argonaut FCC Check Analysis SOW - Counter-signed FINAL
 Argonaut - FCC Check for BCU Integration SOW v2.0 - Signed - FINAL
 _20200825 DXC_WI836 Biometrics Capability Update (BCU) SoW_CE and DXC fully SIGNED.
 DXC WI-836 - BCU Additional requirements CR01 Mar21 - SIGNED

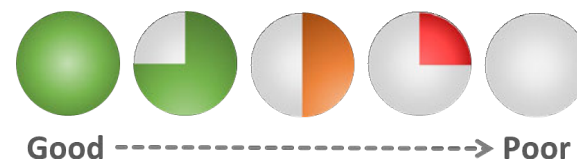
DXC WI-836 - BCU Additional requirements CR01 Mar21 - SIGNED
 BCU CR24 Include Business Context in DB16 & DB19 Messages FINAL
 BCU Initiation - IGMS Work Statement 458 Signed BMDW
 CR17 Datacom Extend the BCU Initiation Phase Signed
 CR014 - BCU extend initiation phase Signed
 BCU CR018 - Initiation Further Extension Commence Implementation-Signed
 20201218 Datacom Project Variation 4 Request K10902 INZ Biometric Capability_SIGNED
 K10902 - BCU_ENV0_Variation 1_DC Fully Signed
 ITMS BCU initiation Phase K10902 SOW Signed
 K10902 - BCU_ENV0_Variation 3_Ver 1.1 - Signed
 K10902 ITMS Variation 2 DC Fully Signed
 MBIE WR752a BCU Project ENV1 and ENV2 v1.3 FINAL-Signed
 Vodafone WR752 BCU EnvZero Project v1.1 Signed
 MBIE WR752a BCU Project Change Request CR001 v1.0 - Signed
 NEC IPE Functional Specification v2.3 APPROVED
 NEC BCU Non-Functional Requirements v1.0 APPROVED
 SRTP Business Requirements v6.6 APPROVED
 NEC BCU Business Requirements v1.0 APPROVED
 AMS Changes HL Requirements V0.6 DXC updates
 NEC IPE Hardware Requirements v2.1 DRAFT
 210518 BCU Project Steering Group Minutes
 BCU IQANZ Interview Schedule
 BCU_Document Checklist May 2021
 Project 3644 MBIE Biometric Capability Update - Report 21052021
 Project 3644 MBIE Biometric Capability Update - Report 31052021
 20210531 - Project 3644 MBIE INZ BCU In Person Enrolment Replacement
 20210517 - Project 3644 MBIE INZ BCU In Person Enrolment Replacement
 BCU - FCC Check Integration - Argonaut Project Report - 24 May 2021
 BCU - FCC Check Integration - Argonaut Project Report - 31 May 2021
 13 May 2021 BCU Project Status Report
 25 May 2021 BCU Project Status Report
 Biometric Capability Upgrade (Part A)
 BCU RAID Register
 BCU Project Change Request 03a v0.2

APPENDIX B – ASSESSMENT RATINGS

SUMMARY ASSESSMENT

RATING	SUMMARY ASSESSMENT DESCRIPTION
Highly Likely	Successful delivery of the project/programme appears highly likely and there are no major outstanding risks or issues that at this stage appear to threaten delivery successfully.
Likely	Successful delivery of the project/programme appears likely . However attention will be needed to ensure risks do not materialise into major issues threatening delivery.
Feasible	Successful delivery of the project/programme appears feasible but risks or issues require management attention. The risks or issues appear resolvable at this stage of the project/ programme if addressed properly.
In Doubt	Successful delivery of the project/programme is in doubt with major risks or issues apparent in a number of key areas. Urgent action is needed to ensure these are addressed.
Highly Unlikely	Successful delivery of the project/programme appears to be highly unlikely . There are major risks or issues, which at this stage do not appear to be manageable or resolvable. The project/ programme may need re-baselining and/or overall viability re-assessed.

COMPONENT RATING



RATING	DESCRIPTION
	Process, practice and disciplines are appropriate and fit for purpose. No material improvement opportunities exist.
	Process, practice and disciplines are mostly appropriate and fit for purpose. Minor improvement opportunities exist.
	Process, practice and disciplines need development to support project success. Material improvement opportunities exist and should be addressed as a priority.
	Process, practice and disciplines are not appropriate or fit for purpose. Significant material improvement opportunities exist that require immediate attention.
	Insufficient process, practice and disciplines exist, creating an unacceptable level of risk to project success.

DOCUMENT CONTROL

DOCUMENT INFORMATION

DOCUMENT NAME	INZ_BCU Project IQA Report
CONTACT	David Williams Director
STATUS	Final

DOCUMENT HISTORY

AUTHOR	DESCRIPTION OF CHANGE	DATE	VERSION
David Williams	Initial document	11 June 2021	0.1
David Williams	For factual accuracy review	11 June 2021	0.1
David Williams	For management comment	22 June 2021	0.2
David Williams	Final for sign off	30 June 2021	1.0

DISTRIBUTION CONTROL

PERSON	ROLE	DATE OF ISSUE	VERSION
s 9(2)(a)		11 June 2021	0.1
s 9(2)(a)		11 June 2021	0.1
s 9(2)(a)		11 June 2021	0.1
Stephen Dunstan	SRO	22 June 2021	0.2

PERSON	ROLE	DATE OF ISSUE	VERSION
s 9(2)(a)		22 June 2021	0.2
s 9(2)(a)		22 June 2021	0.2
s 9(2)(a)		22 June 2021	0.2
Stephen Dunstan	SRO	30 June 2021	1.0
s 9(2)(a)		30 June 2021	1.0
s 9(2)(a)		30 June 2021	1.0
s 9(2)(a)		30 June 2021	1.0



MINISTRY OF BUSINESS, INNOVATION AND
EMPLOYMENT

BIOMETRIC CAPABILITY UPDATE (BCU) PROJECT

INDEPENDENT QUALITY ASSURANCE REVIEW REPORT



In Confidence

Document Control

Document Information

Document Name	MBIE_BCU Project IQA Report
Contact	David Williams, Director – DW Consulting Limited
Status	FINAL

Document History

Author	Description of Change	Date	Version
David Williams	Initial draft Management of internal peer reviewer	3 October 2022	0.1
David Williams	For management comment Updated from factual accuracy	13 October 2022	0.2
David Williams	Final	27 October 2022	1.0

Distribution Control

Person	Role	Date	Version
s 9(2)(a)		6 October 2022	0.1
		6 October 2022	0.1
		6 October 2022	0.1
Stephen Dunstan	INZ SRO	13 October 2022	0.2
Robyn Moriarty	DDI SRO	13 October 2022	0.2
s 9(2)(a)		13 October 2022	0.2
		13 October 2022	0.2
		13 October 2022	0.2
Stephen Dunstan	INZ SRO	27 October 2022	1.0
Robyn Moriarty	DDI SRO	27 October 2022	1.0
s 9(2)(a)		27 October 2022	1.0
		27 October 2022	1.0
		27 October 2022	1.0

Contents

EXECUTIVE SUMMARY	4
Delivery Confidence Assessment Rating	4
Review Objectives	4
INTRODUCTION	6
Background.....	6
Review Approach.....	6
DETAILED FINDINGS AND RECOMMENDATIONS.....	7
Governance and Management.....	7
Delivery approach and Management controls.....	9
Re-planning and Requirements.....	12
Design and System integration approach	15
Testing and Validation	17
Contractual Arrangements	18
Benefit Management.....	19
Lessons Learned	19
REVIEW SIGN OFF	22
Management Comment	22
Signoff.....	22
APPENDIX A – REVIEW TERMS OF REFERENCE.....	23
Scope	23
Documents Reviewed.....	24
People Interviewed.....	25
APPENDIX B – DELIVERY CONFIDENCE RATINGS.....	26

EXECUTIVE SUMMARY

DELIVERY CONFIDENCE ASSESSMENT RATING

Possible

Successful delivery of the change appears possible. However, issues exist in key areas that require management attention in order to achieve the next key milestone. Issues appear to be resolvable at this stage if addressed promptly.

There is confidence the project will deliver to the newly agreed timeframes, and we are pleased to see the strong focus on the collaborative approach being taken across the delivery partners. Delivery success however will require firm commitment from all parties to achieving the agreed timeframes, and this includes ensuring there is an ongoing culture of trust and transparency.

The Project Steering Group is pivotal to delivery success, and must hold itself, and its individual members, to account for meeting the agreed re-planned milestones, with clear transparency and visibility of the agreed milestones in the project status reporting.

See **Appendix B** – Delivery Confidence Rating for a full description of the delivery confidence assessment ratings

REVIEW OBJECTIVES

The Ministry of Business, Innovation and Employment (MBIE) engaged David Williams Consulting to provide an Independent Quality Assurance (IQA) Review of the Biometric Capability Update (BCU) Project. This report details the findings of the review, and the recommendations aligned to the agreed objectives and scope.

See **Appendix A** for the detailed Terms of Reference agreed for this engagement.

The key objectives of the BCU Project IQA Review were to:

- Provide an independent view of the effectiveness of the project planning and implementation phases with specific focus on what went well, areas for improvement, and how the project arrived at its current state.
- Provide the Sponsor and Project Steering Committee assurance that the project is well positioned to deliver expected outcomes within time and budget, and to the expected level of quality.
- Identify any strengths and possible areas for improvement and highlight learnings/lessons so they can be incorporated into future projects.

Key Messages

- The BCU Project has been in flight since business case completion in 2019, and there have been significant time delays and financial impacts for all parties through its delivery life. There has been a historically s 9(2)(b)(ii), and these have all contributed to the current delivery position. There is now clear evidence these aspects are much improved, and we are pleased to see the renewed energy and focus shown across all parties, along with a constructive collaborative approach to complete delivery of the project by December 2023.
- Re-planning has occurred, and MBIE and NEC have committed to some key milestones working around the NEC advised delivery dates, and we understand these are referenced in PSG Minutes. There is confidence that the project can deliver to the newly agreed implementation timeframes, and further work is underway to finalise the detailed delivery plan. A key success will be entry into SIT scheduled for 17 October, with commitment given by NEC to achieve this.
- Further delay is no longer an option, and delivery success will require a firm commitment from all parties, underpinned by a strong and ongoing culture of trust and transparency. Gaining written commitment

from all major delivery partners for the updated delivery plan, will formalise this commitment to meeting the agreed delivery milestones. We have recommended the project re-launches itself and this will demonstrate both the commitment from senior leaders and set expectations around the culture and delivery.

- The Project Steering Group (PSG) must play a fundamental role in holding itself, and its members to delivery account. Strengthening the project status report with the detailed baselined delivery milestones and forecast dates will provide the appropriate transparency and visibility of the milestone progress.
- There are a number of recommendations contained in this report intended to strengthen the project, and its delivery. We have also included some key lessons and the ongoing future learnings/considerations that apply. Whilst it is important to reflect on these, the focus must remain firmly on project completion.

INTRODUCTION

BACKGROUND

The scope of the BCU Project is to deliver an upgrade to the biometrics management software and algorithms to provide improved matching rates, maintain security and supportability, and improve total cost of ownership. It also includes replacement of In-Person Enrolment used by a variety of INZ business functions including Border, Refugee and Compliance.

REVIEW APPROACH

The approach taken included a review of key project documents, and one-on-one discussion with a range of key stakeholders involved in oversight and delivery, to obtain their views of the project. Our review of the provided documentation, and discussion with key stakeholder took place between 16 and 28 September 2022, and reflects the status of the project at that time.

*See **Appendix A** for a full list of the documents reviewed and the key stakeholders we met with*

DETAILED FINDINGS AND RECOMMENDATIONS

Based on the detailed findings in this report, the following recommendations should be addressed as a matter of noted priority. The recommendations are broken into key review areas.

GOVERNANCE AND MANAGEMENT

Findings

Governance

- Governance is provided by the Project Steering Group (PSG) and supported by a quality Terms of Reference (ToR v5.0 12/9/2022). Membership includes the joint MBIE Sponsors, NEC Sponsor, MBIE Business Owner, NEC Delivery Owner, System Business Owner and Product Owner (Senior User). Attendees include the MBIE and NEC Project Managers, who provide progress updates through the provided project status reports. The PSG currently meets fortnightly, and this is appropriate given the project is focused on delivering to a re-based plan.
- The ToR details both the collective and individual role and responsibilities of the PSG and its members, however there are examples of decisions being made at the governance level, that have come as a surprise at the delivery level, and this requires clarity as to the visibility and the decision making path. Further clarity is required as to the decisions that are made by the Sponsor(s) vs. the day to day decision making of the Business Owner.
- There has been a recent step change in the governance arrangements, in that the NEC members attend (most of) the full duration of the PSG meetings, and this has created an environment of collaboration and working together to achieve the desired outcomes. We support this approach.
- The three (INZ, DDI, NEC) Sponsors are noted in the ToR as having accountability for success or failure of the project, and this is appropriate. Having continued strong and effective governance oversight is a key success factor in holding each other to account for the delivery of the project, as per the agreed plan and within the agreed timeframes.
- The Business Owner role is key to the day to day decision making, but has a current full time BAU role, including acting in a General manager's role. This does not allow for the necessary time to fulfil the responsibilities of this role. The role of the Product Owner and crossover of responsibilities with the Business Owner, also requires some clarity.

Reporting

- Regular, quality project status reporting is provided by both MBIE and NEC Project Managers and forms the basis of PSG updates. The MBIE Status Report (5/9/2022) notes the overall status as red, with completion at 68%. The NEC Status Report however (2/9/2022) notes the overall status as green (BCU) and amber (IPE). The differences appear to relate to the pending change request (CR04) to seek approval to re-baseline the delivery schedule. We understand the CR has now been approved. Whilst both status reports contain milestone information, they differ in detail in regard to the key milestones. We'd expect these key milestones to be clearly and consistently detailed in all status reporting, along with the baseline (CR04), actual and forecast dates for the whole of life of the project.

Recommendations

ID	Recommendation	Priority / Owner
1.1	Clarify the decision making and decision making path The ToR details the individual role and responsibilities, and decision making of the PSG members, and attendees. The joint Sponsor(s) are the primary decision makers; however the Business Owner plays a key role in the day to day decision making, on behalf of the joint Sponsor(s). Similarly, the	High MBIE Sponsor(s) End November 2022

ID	Recommendation	Priority / Owner
	Project Managers typically have visibility and appropriate discussion at the delivery level, prior to decision making occurring at the governance level. There are examples of decisions being made at the governance level, that have come as a surprise at the delivery level, and this requires further clarity. The PSG must agree the visibility of decision-making and the decision- making path. This includes agreeing the day to day decision making of the Business Owner, who works closely alongside the MBIE Project Manager. As with all decision making, we'd expect there to be the appropriate discussion at the delivery level (between the Project Managers, with key involvement of the Business Owner), before decisions are agreed at the governance level. This will allow options to be understood, along with an agreed recommendation, prior to PSG and/or Business Owner decision making.	
1.2	Appoint a full time Business Owner The Business Owner role typically deals with the day to day decision making, but has a current full time BAU role, including acting in a General manager's role. This does not allow for the necessary time to fulfil the responsibilities of this role. In addition, the Product Owner (Senior User) is a member of the PSG and has been tasked with oversight of the change management and training aspects. And again, has a current full time BAU role. The Business Owner plays a key role in project success and works closely alongside the (MBIE) Project Manager to make the day to day decisions. Typically the Business Owner also plays a key role in the communications and change management aspects, ensuring the necessary training is completed appropriately and the solution is ready for handover into BAU. We recommend a full time Business Owner is appointed and agreement reached at the PSG as to their role, responsibility and day to day decision making. This includes how the oversight responsibility of change management and training can be combined into a single, full-time Business Owner's role.	High MBIE Sponsor(s) End November 2022
1.3	Strengthen project status reporting The two project status reports contain milestone information; however they differ in detail. Whilst this is somewhat understandable, there should be better alignment of the key combined milestones (e.g. deployment into SIT, completion of SIT, Completion of UAT, Go Live) in the least. We also note the NEC status report contains more detail in regard to % complete, original date and target date, whereas the MBIE report simply contains a revised delivery date. Both status reports require strengthening to align key milestones (in addition to their own unique milestones). A new delivery plan has been agreed, and a detailed integrated project schedule has been developed. We have made a recommendation (<i>recommendation 1.12</i>) that written commitment is gained for the delivery	Critical MBIE and NEC Project Manager(s) End November 2022

ID	Recommendation	Priority / Owner
	milestones and a recommendation (<i>recommendation 1.5</i>) that the integrated project schedule is used as the one version of delivery truth. We recommend project reporting is strengthened to include the agreed milestones from the delivery plan. In addition, milestones must include baseline date (based on approved CR 04), actual date and forecast date. This will allow the required high level of visibility and transparency, and highlight any potential future slippage, so it can be appropriately mitigated.	

DELIVERY APPROACH AND MANAGEMENT CONTROLS

Findings

Management

- There appears to be a strong and productive relationship between the MBIE and NEC Project Managers. This strong collaboration, along with clear communication, is a key factor in delivery success, with MBIE maintaining overall accountability for delivery. Project delivery can be complex and when problems occur, there must be appropriate transparency, and a collaborative approach to resolution, along with the appropriate thought leadership, and involvement of the Business Owner representing the users.
- There are various meetings occurring, including a weekly meeting with all supplier project managers, a weekly meeting with business users, and system owner, a 15 minute standup twice weekly with NEC and three standups a week with the internal project team, and we support these.
- We were informed there is also intent to develop a Project Initiation Document (PID) for the project, and we support this.

Scope

- The scope of the project has changed a number of times (supported by approved CR's); however the scope now appears to be clear, with all parties working from, and delivering to functional requirements v1.3 (28/4/2022). There is still some residual work to be completed on the functional and non-functional requirements, and we discuss this further below in the *Re-planning and Requirements* section below. This is also a key lesson we discuss further in the *Lessons Learned* section below.

Time

- A well-constructed and detailed delivery plan (MS Project schedule) contains almost 1,500 lines of tasks and milestones that cover the depth and breadth of the remaining delivery. Whilst the plan is fit for purpose, it does not include some of the important non-product delivery components (e.g. communications, change management, training), and the MBIE Project Manager advises the schedule is being adjusted to be more 'product delivery based'. We understand there is currently a single schedule both MBIE and NEC are working towards for SIT, but not for other deployments. We recommend the integrated schedule is used as the one version of delivery truth.
- There has been a commitment given at the PSG to deliver to the re-baselined plan, and we see no reason for the dates not to be achieved. We note however there has already been some slippage in the delivery of the functional test exit report (10th to 17th October 2022). Whilst this is just one week, the project simply cannot afford ongoing slippage, and there must be a key focus on achievement of the agreed timeframes.
- External dependencies are detailed in the dependency register, with the internal dependencies being managed through the project schedule.

Budget

- The project is forecasting to deliver within budget.

Resources

- Resources are mostly appropriate, however there have been a number of impacts to resources across MBIE, NEC and NCAM across the life of the project, for a number of reasons. Our interviews confirmed there is solid resource commitment from all parties to providing the necessary dedicated resources to complete the remaining delivery and we understand there are some ongoing resource constraints. An integrated resource plan will formalise this commitment to ensure there are the appropriate resources needed.
- The project is being delivered using global resources, and any needed discussions must include the appropriate global resources, with the appropriate subject matter experts leading the discussion.
- One of the lead MBIE Architects is leaving the project, and a replacement must be found to ensure that MBIE provides the necessary leadership in bringing together all elements of the design into an integrated architectural view. We discuss this further in the *Design and System Integration Approach* section below.

Risks and issues

- MBIE risk and issues are captured in the RAIDS register, and are appropriate. Now that the re-baselined plan has been agreed, we'd expect some of the issues and risks to be closed.
- There are number of key risks the project must keep a careful eye on, and there must be shared ownership of risks through a shared risk register.

Stakeholder Engagement, Communications and Change Management

- Stakeholder engagement, communications and change management activities are detailed in the Master BCU Change Management Plan (v0.8 September 2022). The plan contains an excellent level of detail, including stakeholder analysis, impacts/influence, engagement and change management approach and plans for managing the change. The plan also include the training aspects.

Quality

- A Quality Plan details the artefacts that are to be produced by MBIE and its delivery partners, along with who will provide the peer review and sign off. Quality aspects are also built into the various project artefacts (e.g. entry, and exit criteria, and acceptance criteria in the test plans). We discuss this further below in the *Testing and Validation* section.
- Collaboration tools are in place and include a TeamSite instance with NEC, as well as access to Confluence and Azure DevOps etc. for all delivery parties. This will ensure the appropriate visibility and versioning.
- We understand there are plans to have some other shared registers and further discussion is required as to the registers that will be shared.
- We understand co-location is planned for the SIT testing as well as some other deployment activities, to orchestrate the deployment plans and run sheets. We support this approach.

Recommendations

ID	Recommendation	Priority / Owner
1.4	Include the non-product delivery components in the integrated schedule The project schedule is well-constructed and well detailed, containing almost 1,500 lines of tasks and milestones covering the depth and breadth of the remaining delivery. The schedule is broken into two parts with the key milestones (Technical Streams, Integrated Design, Integrated Test Planning, Migration and Deployments) shown upfront, then more detailed plans following, which includes the reporting requirements, design, development, security, testing, migration, deployments, disaster recovery, support and operating model, operational readiness, handover to BAU and closure. Whilst the plan is fit for purpose, it is more focussed on the technology delivery, and does not include some of the important non-product delivery	High MBIE Project Manager End November 2022

ID	Recommendation	Priority / Owner
	components (e.g. communications, change management, training). The MBIE Project Manager advises the schedule will be updated to be more 'product delivery based' and this will include the missing elements.	
1.5	Gain commitment for the integrated schedule as the one version of delivery truth We understand there is currently a single schedule both all vendors are working towards for SIT, but not for other deployments. We understand there is an upcoming planning session scheduled with all vendors, and the intent is to then start actively sharing the detailed integrated schedule. Once this has occurred, we recommend the integrated schedule is used as the one version of delivery truth.	High MBIE Project Manager End November 2022
1.6	Ensure there are dedicated resources assigned to the delivery Our interviews confirmed there is solid resource commitment from the delivery partners to providing the necessary dedicated resources to complete the remaining delivery. The project has suffered from changes in resources and there are several reason for this (resignations, covid etc). Whilst we understand this is not always achievable, the project must ensure there is a pool of dedicated resources for the remainder of the project, and this includes the delivery partners. This will ensure consistency in understanding the project, and its needs, but also enable a greater and more productive working relationship across all parties.	Critical MBIE and NEC Sponsor(s) End November 2022
1.7	Ensure there are appropriate peer to peer discussions occurring There appears to be good discussion occurring across the project, and this is an important success factor for delivery. The project is being delivered using global resources, and any needed discussions must include the appropriate global resources, with the appropriate subject matter experts leading the discussion. There must also be the appropriate peer to peer relationship (e.g. tester to tester, tester to developer, architect to architect etc.) and discussions occurring across the various project components. This includes MBIE resources having appropriate access and direction discussed with global resources. We understand there are examples where MBIE resources are having to write up questions and/or clarifications and this unnecessary work could be avoided through conversation. This is a key success cultural factor for the project.	Critical MBIE and NEC Sponsor(s) MBIE and NEC Project Manager(s) End November 2022
1.8	Develop the integrated resource plan Resources are mostly appropriate, however there have been a number of impacts to resources across MBIE, NEC and NECAM across the life of the project, for a number of reasons. We have also recommended (<i>recommendation 1.2</i>) a full time Business Owner appointed to manage the day to day decision making, and this includes some of the Product Owner responsibilities. Our interviews confirmed there is solid resource	Critical MBIE and NEC Sponsor(s) MBIE and NEC Project Manager(s) End November 2022

ID	Recommendation	Priority / Owner
	commitment from all parties to providing the necessary dedicated resources to complete the remaining delivery and we strongly support this commitment. Similarly, it is pleasing to see that NEC New Zealand has increased its resource pool over time, and this will have undoubtedly increased its knowledge and expertise in the solution(s) that are developed in North America and Japan. Due to the numerous past issues, an integrated resource plan is required to formalise the verbal commitment for dedicated resources to complete the delivery work.	
1.9	Confirm the MBIE Lead Architect The architectural design is central to all delivery partners, and MBIE plays an important role in bringing all of the design elements into an integrated view. One of the lead MBIE Architects is leaving the project, and a replacement must be found to ensure that MBIE provides the necessary leadership in bringing together all elements of the design into an integrated view.	Critical DDI Sponsor End November 2022
1.10	Finalise the communications and change management plans Stakeholder engagement, communications and change management activities are detailed in the Master BCU Change Management Plan (v0.8 September 2022). The plan contains an excellent level of detail, including stakeholder analysis, impacts/influence, engagement and change management approach and plans for managing the change. The plan also include the training aspects. The plan is still in draft and requires finalising.	High MBIE Project Manager MBIE Product Owner End November 2022
1.11	Agree the shared registers In addition to the shared integrated project schedule, we understand there are plans to have some other shared registers and we support this approach. Further discussion is required as to the shared registers and how they will be reviewed and administered.	High MBIE and NEC Project Manager(s) End November 2022

RE-PLANNING AND REQUIREMENTS

Findings

Re-planning

- The project has incurred significant delays, with impacts to all parties, through its delivery life. There has been a historically s 9(2)(b)(ii) es, and these have all contributed to the current delivery position. This was exacerbated by lack of clarity of elaborated business requirements, prior to commercial commitment, a misalignment of delivery approach, and external factors (e.g. Covid, loss of resources etc.), and created a challenging situation. There is now clear evidence of a much improved, coordinated and collaborative approach, along with an improved relationship across key delivery partners.

- The project has now been through a re-planning exercise and a new delivery plan has been developed, in collaboration with the delivery partners. A change request (CR04) has also been raised and approved, and this formalises the re-baselining of the project. We understand MBIE and NEC have committed to some key milestones working around the NEC advised delivery dates, and we understand there is referenced in PSG Minutes.
- Now that the CR (04) has been approved, we strongly recommend the updated plan (at milestone level) is tabled at the PSG, and there is a clearly documented and written commitment from all delivery partners to delivering to the agreed milestones (including the appropriate sign off for that commitment).
- The MBIE Project Manager advises there is a planning session scheduled at the project level in late September to kick things off again. Whilst we support this approach, there would be benefit in the project bringing together all parties together for a more formal re-launch co-hosted by the MBIE and NEC project sponsors.

Requirements

- Business Requirements have been detailed in several requirement documents for each of the delivery partners (Datacom, Intech etc.) and have been finalised. The current version of the elaborated functional requirements for NEC is v1.3 (28/4/2022). We understand the bulk of requirements have been completed, with the exception of the updating of some reporting requirements. We understand there are requirements that will/cannot be met, and there needs to be discussion as to the treatment applied.
- The non-functional requirements (V1.0 Final 4/5/2021) remain mostly valid, and we understand the new agreed approach is to manage changes in the Part B Solution Designs. We discuss this further in the *Design and System Integration Approach* section below.
- A number of showcases (demos) were planned to walk through the end to end solution, and this has not yet occurred. This creates significant risk to the project, in that there has been no visibility of the end to end solution, and this requires rescheduling ASAP once entry into SIT has been completed as planned on 17 October 2022.

Recommendations

ID	Recommendation	Priority / Owner
1.12	Gain written commitment from all parties for the new delivery plan A CR (04) has been approved to re-baseline the project, with a go live scheduled for August 2023 and a new delivery plan has been developed, with a go live date of August 2023 (excludes early life support). Both MBIE and NEC have committed to the new plan and milestones, based upon NEC provided timeframes, and we understand there is referenced in PSG Minutes. The detailed delivery plans are being confirmed and there is confidence in the achievability of the plan. We strongly recommend the updated scheduled (in the form of milestones) is tabled at the PSG, to gain written delivery commitment from all parties. This includes gaining written commitment for other major delivery partners who may not be represented at the PSG.	Critical DDI Sponsor End November 2022
1.13	Bring all parties together for a re-launch The MBIE Project Manager advises there is a planning session scheduled at the project level in late September to kick things off again. Whilst we support this approach, there would be benefit in the project bringing together all parties together for a more formal re-launch.	Critical MBIE and NEC Sponsor(s) End November 2022

ID	Recommendation	Priority / Owner
	This will provide the opportunity for MBIE and NEC Sponsors to communicate their commitment and expectations for a collaborative culture and working together with a focus on delivery to the agreed plan. The Project Managers could then present delivery approach and the key milestones detailed in the integrated plan etc.	
1.14	Baseline the Functional Requirements, including the reporting requirements The current version of the elaborated functional requirements (v1.3 28/4/2022) have been finalised, with the exception of the reporting requirements (impact to UAT only), which need further rework. Similarly, monitoring and alerting requires work. The functional requirements document requires baselining and should ideally have been completed prior to the design and development occurring. There should not be any outstanding work and/or uncertainty in this area at this late stage. We discuss this further in the <i>Lesson Learned</i> section below.	High MBIE Project Manager End November 2022
1.15	Determine the treatment of any unmet requirements We further understand there are requirements that won't/cannot be met, and there needs to be discussion as to the treatment applied, to ensure the project still delivers its outcomes to enable benefit realisation. The Business Owner (along with the system owner and product owner) will play a key decision-making role in deciding whether it is acceptable for the requirement not to be met or whether a workaround is required. Where a requirement is not met and there is no time/cost impact then we'd expect this to simply be noted in the traceability matrix with the appropriate documented agreement (i.e. an exchange of emails) between parties. However where there is a time/cost impact, we'd expect a formal CR to be raised and approved. A pragmatic approach would be to roll these in an overarching CR, rather than the current rats and mice approach being taken to raise individually.	Critical Business Owner MBIE and NEC Project Manager(s) End November 2022
1.16	Re-schedule the end to end showcase There has been previous agreement on three showcases, to demo the end to end solution, and the last showcase was cancelled/postponed. There appears to be good reason for this in that NEC was focussed on the completion the functional testing in order to achieve the 17 October 2022 deadline, and we support this work being prioritised. We understand a 'scenario' has been provided by MBIE for the end to end demo, but effort is required for NEC to build the demo due to the high level of customisation in some components of the solution. However, the end to end solution remains unseen and this creates both uncertainty and risk for the project. A demo of the 'working solution' is a key tool for the change management aspects, and will help to build user confidence. Once the SIT entry has been successfully completed,	High Business Owner MBIE and NEC Project Manager(s) Directly following completion of SIT Entry.

ID	Recommendation	Priority / Owner
	we understand there is agreement to the re-schedule the end to end showcase, and we support this.	

DESIGN AND SYSTEM INTEGRATION APPROACH

Findings

- Part A of the Solution Design (v1.5) was approved 5/8/2021, and underwent appropriate oversight as per the MBIE Architectural Review Board (ARB) approval process. However, it is required to be updated to reflect the latest NEC designs. The non-functional requirements remain mostly valid, and we understand the new agreed approach is to manage changes in the Part B Solution Designs.
- Numerous iterations of the detailed designs have occurred, and this work has been completed by all delivery partners, with the exception of NEC. We understand NEC have now completed their detailed design, including internal sign off, and this has been handed to MBIE to review and highlight any gaps
- There appears to have been the appropriate oversight of the design work, by dedicated, experienced MBIE architects. However, there has been a cycle of back and forth dialogue between both MBIE and NEC as to the design specifics over a long period of time, and it appears this approach has not been overly effective at times.
- There are two Part B Solution Design documents (one covering the application and one covering infrastructure architecture) and these are both currently in draft.
- A new approach has now been agreed where MBIE will update the integrated solution design documents from each of the delivery partners, and note any clarifications and/or gaps that require further discussion and resolution. Any dialogue must be led by the MBIE Lead Architect who has the overall design and integration, and obtaining the necessary approval via the MIBE Architectural Review Board (ARB) sign off process.
- Following the functional test exit report delivery and SIT entry acceptance, we understand there are plans to then deploy the BCU software into the MBIE environment, then commence the data migration activities. An MBIE SIT Environment Deployment Overview (v0.1) details the plans, and is a work in progress between the parties.
- The data migration aspects are detailed in the Migration to NEC IDme Plan, IGMS to NEC IDme, AMS to NEC IDme Plan (v0.7 3 October 2022). Data migration will involve various parties and various migrations between applications, and this creates complexity and risk. The plan requires finalising, so a walk through can be completed, and there must be a high level of visibility and transparency of data migration activities by all parties.

Recommendations

ID	Recommendation	Priority / Owner
1.17	Finalise the Part B Designs The delivery partner detailed designs have been through a number of iterations over a long period of time and a new approach has now been agreed where MBIE will update the integrated solution design documents (Identity Management Application Design Part B and Biometrics Capability SIT Solution Design Part B) and note any clarifications and/or gaps that require further discussion and resolution. Whilst we support the approach, there must be the appropriate peer to peer (i.e. architect to architect) conversations occurring so the design	High MBIE Lead Architect March 2023

ID	Recommendation	Priority / Owner
	can be agreed and finalised. Any dialogue around gaps, or further clarification must be led by the MBIE Lead Architect, who has the overall responsibility for bringing together the various architectural components into an integrated view, and then obtaining the necessary MIBE Architectural Review Board (ARB) oversight and sign off. Once the Part B designs are complete, there would be benefit in having a walk through with all delivery partners to ensure the solution is fully understood and the outstanding delivery work (and sequencing of that work) is clear across all parties. The Part B Detailed Design documents require finalising with urgency and they should ideally have been completed prior to the development occurring. There should not be any outstanding work and/or uncertainty in this area at this late stage. We discuss this further in the <i>Lesson Learned</i> section below.	
1.18	Finalise the Data Migration Plans and timings Ensure visibility and transparency of data migration activities The data migration aspects are detailed in the Migration to NEC IDme Plan (IGMS to NEC IDme, AMS to NEC IDme v0.6 15 September 2022). Data migration will involve various parties and various migrations between applications. We also understand some 47 million records will be migrated and this will occur in blocks of 5 million records. We further understand that all 47 million records will be migrated before MBIE SIT can begin, and we discuss this further in the <i>Testing</i> and Validation section below. Data migration can be extremely complex, and the migration plans must be clearly understood by all parties and any necessary pre-work completed to provide certainty of success. This includes data mapping/transformation, and the necessary practice runs to confirm the various migration aspects work, before committing to the actual live migrations. We understand this work is progressing and MBIE have provided records to NEC who are working through this detail currently. There must be clear visibility and transparency of this work from both parties, underpinned by clear communications. The Data Migration Plan requires finalising and a detailed run through of the plan is needed with all parties, to ensure all parties are clear on their role and how the various components will be sequenced, and any pre-migration work required. There were different views expressed by the review participants as to how much time is needed for the data migration activities. The finalisation of the plan, along with the initial test run of 200k records will confirm this and the speed in which it can be completed.	High MBIE and NEC Project Manager(s) End November 2022

TESTING AND VALIDATION

Findings

Testing

- Functional testing is nearing completion by NEC. A testing traceability matrix being completed by NEC to map their functional testing back to the design and business requirements, and we understand is undergoing review by NECAM before being passed over to MBIE.
- A robust MBIE BCU/IPE Updated Test Plan (v1.1 12/9/22) incorporating the final requirements, details the test approach and test phases and is awaiting sign off. We understand some 4000 test scripts have been created for SIT, and these have been scripted in MBIE's Azure Dev Ops (ADO) environment, with traceability back to the requirements. The plans also detail the test entry and exit criteria, and the different defect severity levels. There are a team of five testers, and this is an appropriate level of resources.
- The NEC Functional Test Exit Report is due to for completion on 17 October 2022, and an entry criteria for SIT is there are to be no outstanding P1 or P2 defects. At the time of our review, we understand there were just a few outstanding priority (P2) defects to be resolved.
- SIT testing is scheduled between 20/12/2022 and 28/3/2023, and we support the extended SIT timeframes to allow the end to end solution to be thoroughly tested. Test defect meetings will be held twice weekly.
- SIT won't begin until following the migration of all 47 million data records. We understand the migration is being completed in batches of five million records, and we recommend thought be given as to whether SIT can begin following the initial migration batches.
- Following the completion of NEC Functional Test Exit Report, the MBIE testing will join the NEC testers to support the resolution of any outstanding P3 and P4 defects in the NEC test environment. We applaud the collaborative approach being taken for testing.

Security

- We did not have visibility of the security testing plans or certification, but there is evidence of the completed and yet to be completed activity in the project schedule. We understand there has been a delay in security certification, and this is being worked through. We'd expect the project to follow the documented standard MBIE security process, ensuring the delivery solution is certified, and any residual risks are either mitigated or accepted, with appropriate risk(s) noted and business sign off.

Training

- Training activities are detailed in the Master BCU Change Management Plan (v0.8 September 2022). The plan contains an excellent level of detail, including learning scope, timing, delivery and learning approach.

Recommendations

ID	Recommendation	Priority / Owner
1.19	Complete the NEC test traceability matrix A test traceability matrix has been completed by NEC to map their functional testing back the design and requirements, and we understand is undergoing review by NECAM before being passed over the MBIE for review. The test traceability matrix is an important artefact that provides the linkage between the solution meeting the business need, and provides visibility and transparency of the depth and breadth of testing undertaken. Functional testing is drawing to end, and ideally the test traceability matrix should have been completed some time ago. This requires completing with	High NEC Project Manager End November 2022

ID	Recommendation	Priority / Owner
	some urgency and and is a dependency for MBIE to accept the NEC Functional Test Exit Report.	
1.20	Ensure the defect severity definitions are clear across all parties prior to SIT entry The MBIE BCU/IPE Combined Test Plan details the test entry and exit criteria, and the different defect severity levels. SIT entry criteria includes no outstanding P1 or P2 defects and this is appropriate. We note however the MBIE combined test plan documents the defect severity from critical to cosmetic. There must be appropriate discussion across both parties to ensure there is a clear and common understanding of the defect severity definitions and treatments. This includes the alignment between the MBIE and NEC severity definitions (e.g. P1 aligning to Critical).	High MBIE and NEC Project Manager(s) MBIE and NEC Test Manager(s) Prior to SIT entry
1.21	Determine whether SIT can begin prior to completion of the migration activity SIT won't begin until following the migration of all 47 million data records, and is scheduled to begin in late December 2022. We understand the migration is being completed in batches of five million records, and a total of 47 million records will be migrated. We understand the system will be unavailable while the records are being migrated, however we recommend further thought be given as to whether SIT can begin following the initial migration batches. This will allow SIT to start earlier than planned and provide early visibility.	High MBIE/NEC Project Managers MBIE/NEC Test Managers End November 2022
1.22	Review and refresh the training material Training activities are detailed in the Master BCU Change Management Plan (v0.8 September 2022). The plan contains an excellent level of detail, including learning scope, timing, delivery and learning approach. We understand there is some early engagement with NEC on training material and internal discussions occurring within MBIE. The plan is still in draft and requires finalising.	Medium MBIE Project Manager MBIE Product Owner End March 2023

CONTRACTUAL ARRANGEMENTS

Findings

- Signed Statements of Work (SoW) are in place with all of the vendors, and appear to contain appropriate detail including the services, deliverables, management, reporting, meeting and communications, roles and responsibilities, pricing and fees, and acceptance, using the standard MBIE template. Appendices are included for milestones and payments.
- In order to formalise the re-based plan, we understand a variation is being prepared to the SoW milestones, to align with the revised schedule, and we support this approach.

BENEFIT MANAGEMENT

Findings

- Benefits are captured in the original Business Cases (2019) along with alignment to the desired outcomes. Benefits include improvements in biometric data quality, reducing the risk of not capturing biometric data, and improved supportability.
- Benefits are also captured in the benefits tab of the RAIDS Register, and a benefits map provides alignment between the initiatives, outcomes, and benefits. Measures are also included. We note benefits have been tweaked as a result of CR01 and CR02, and additional benefits have been added, and this is appropriate. There is currently no Benefits Realisation Plan, and further work is required to develop one, along with the detailed Benefit Profiles for approval.

Recommendations

ID	Recommendation	Priority / Owner
1.23	Re-confirm the benefits and develop the Benefits Realisation Plan Benefits are detailed in the business case and have been tweaked in the Project RAIDS Register as a result of CR01 and CR02, and this is appropriate. There is good alignment between the project and outcomes that will allow benefits to be achieved. This includes KPIs, current state and timeframe information. Some of the benefits were based on the delivery of a COTS solution, and these require re-visiting and re-confirming as to the efficiency gains, and linkages to the change management aspects. The project must complete the Benefits Realisation Plan to confirm the information captured in the RAIDS Register as Benefit Profiles, benefit measures and owners, ensuring there remains the appropriate alignment of the benefits to the desired outcomes.	Medium Project Manager End March 2023

LESSONS LEARNED

The below section captures some key lessons/themes and the ongoing future learnings/considerations that apply. It is important to note some of the lessons are anecdotal and our review did not seek to do a deep dive into the lessons. Whilst it is important to reflect on these, the focus must remain on project completion.

Lesson	Learning(s)
There was no clear joint project establishment and agreed ways of working • The governance and management arrangements were not sufficiently discussed and agreed as to how the project would work together as part of project establishment. The project involved multiple delivery partners, and was being delivered using globally based NEC resources, despite the contractual arrangements being limited to NEC New Zealand. There was not enough upfront discussion as to the ways of working,	Complete project establishment activities. Discuss and agree the ways of working and document the governance and management arrangements • The governance and management arrangements are a key success factor for any project, especially those that involve multiple delivery partners, and globally based resources. • Determine if there needs to be additional contractual arrangements where delivery is largely completed elsewhere. Complete the

Lesson	Learning(s)
the resources required, the roles and responsibilities and the peer- to-peer global relationships required. • MBIE relied on NEC, via NEC New Zealand, to facilitate the NEC development, that was largely based in North America and Japan albeit within NEC. • The project was also operating during a global pandemic which made co-location of the NZ-based teams difficult, even though this attempted on at least two occasions. • MBIE has a clearly documented project delivery framework, with the appropriate expectation for its use. There was not a clear understanding across all parties as to its use. • The delivery approach was not agreed. This includes the delivery framework(s) used and the key stages. The delivery approach has been an uncoordinated combination of both waterfall and agile aspects and a lack of appropriate sequencing. The elaborated functional requirements were only finalised in March 2022 – three years after business case approval, and two years after SoW approval. The design work is still in progress, despite the development work also being completed. • The lack of agreement of the above aspects meant parties were operating in silos, and appeared to lead to a culture of mistrust, and not working in collaboration. There was not the appropriate visibility and transparency of the known delays and their causes, and shared problem solving.	necessary due diligence on both sales and delivery aspects of organisations. • Discuss and agree the governance and management arrangements upfront, as part of project establishment. This includes the collaboration aspects (and the global organisations/resources involved), the roles and responsibilities, and having appropriate and direct peer to peer relationships with the necessary expertise. Typically the governance and management arrangements would be captured in a Project Management Plan or Project Initiation Document. • Discuss and agree the delivery approach, and the sequencing of work, along with agreement of who will lead the various components. Ensure clear expectations are set as to expected adherence to the MBIE delivery framework. Agree whether waterfall or agile delivery is the most appropriate delivery mechanism. • Utilise the MBIE stage gate approval process. Stage gates are a useful mechanism to ensure projects have delivered agreed artefacts expected in each stage (e.g. elaborated requirements, design before development completion etc.) and to ensure there is continued alignment to the business case promises. • Agree the cultural aspects; encourage collaboration, trust, visibility, transparency and shared problem solving. Detailing these as a list of 'Principles' with the governance ToR, can be an effective way to foster a healthy culture.
There was not a clear discovery phase with the appropriate planning fact, to determine the delivery path • Statement of Work(s) were signed in August 2020 (BCU) and December 2020 (IPE) and reflected the change in scope. Whilst the SoW milestone dates were noted for delivery between 2020 and 2021, the requirements were at too high a level to detail the business need or determine the delivery dates.	Include appropriate discovery phase and planning activities to gain certainty of the delivery path • Include appropriate time to complete discovery and planning (the 'what'). This includes a collaborative approach between parties to elaborate the requirements, refine the high level design, determine any gaps, and how they will be managed. • When scope changes, revisit the discovery to include depth and breadth of the new scope.

Lesson	Learning(s)
- The first version of the elaborated functional requirements did not emerge until April 2021. These have been updated a number of times, and in the current version (1.3) they were completed April 2022. - A SoW variation was completed to update the milestones, following approval of CR03, and despite this the agreed deadlines were missed multiple times. s 9(2)(b)(ii) - We understand there was initially some high level discovery work done, however we didn't have visibility of this. When the scope changed, the discovery work was not repeated as it should have been.	- Following discovery and planning clearly document the delivery path (the 'how') and gain commitment the delivery timeframes. - Ensure the commercial arrangements manage risk by gaining agreement to commit a portion of the time / budget to do more detailed discovery to confirm the business case assumptions, and determine fit, and include a key stage gate decision to agree continuation of the project. - Ensure there are detailed and clearly documented milestones (including the baseline, forecast and actual dates) included in project status reporting. Ensure the PSG is clear on its accountability in holding itself, and its members to delivery account. - We understand a variation is being prepared to the SoW milestones, to align with the revised schedule and approved CR04, and this is appropriate.
There was not enough thought given to configuration vs. customisation - There was a generally accepted view that the project would be delivered as a commercial off the shelf (COTS) solution, and there was discussion on this. However some components (e.g. Reveal) have been highly customised. - CR02 clearly states 'Replacement of bespoke Datacom code with industry proven "off the shelf" NEC tools.' There does not appear to have been the appropriate focus on the desired outcome or the necessary work undertaken to confirm if this was indeed possible. - The current product is a bespoke (customised) solution, and it appears there was too much emphasis on replicating the current processes. - The project had a heavy integration need and the complexity of this aspect, given the NEC out of the box design, was under-estimated.	Determine the desired outcomes and complete the necessary work to confirm whether they are achievable - Agree the desired outcomes, and communicate the expectations (as part of the discovery phase). - Undertake the necessary work to determine whether configuration of the solution could have delivered on the benefits rather than customisation. Typically this work would be led by a business analyst, working closely with the business subject matter experts to document the current workflows, and the delivery partner to determine the changes required to the existing business process to deliver a COTS solution, and any gaps. The delivery partner would provide thought leadership and system expertise. - Understand the integration aspects needed and how this impacts the design and solution.

REVIEW SIGN OFF

MANAGEMENT COMMENT

This has been a useful review after a period of resetting the project and ensuring deliverables could be achieved. The project is close to achieving SIT entry and the start of data migration. Both, when achieved, will be notable achievements. The recommendations in this IQA report are useful and reinforce a focus on ensuring governance support for delivery teams, the continuation of a productive relationship with NEC, and the successful delivery of this programme of work. As such the recommendations are accepted, and will be tracked with achievement monitored by the joint NEC/MBIE Steering Group.

SIGNOFF

s 9(2)(a)



Robyn Moriarty
DDI Sponsor

19/10/22

[date]

s 9(2)(a)



Stephen Dunstan
INZ Sponsor

19/10/22

[date]

s 9(2)(a)



David Williams
Engagement Lead
DW Consulting Limited

19/10/22

[date]

APPENDIX A – REVIEW TERMS OF REFERENCE

SCOPE

The scope of this review included the following:

- The BCU Project, currently in the delivery phase.
- A detailed review of key project documentation.
- One-on-one meetings with key stakeholders.

To address the review objectives, the following items were included in scope:

- Understanding the factors that contributed to the re-planning and re-scheduling of the project implementation, and what factors could have been managed better to support effective re-planning and delivery scheduling of the project implementation.
- Whether the process used to develop the time and cost estimates of the re-planned project was appropriate and aligned with good industry practice, and MBIE project management/planning standards.
- Whether qualified oversight over the suppliers' design(s) has been robust and appropriate for the scale and significance of the project.
- Whether the solution delivery processes used were appropriate and align/ support MBIE project management processes/expectations.
- Whether contractual arrangements with key suppliers captured the appropriate expectations.
- Assessment of the project governance and management environment and structures, including roles, responsibilities, capability, capacity, approach, processes, standards, and controls that were used to support the planning and phasing.
- Standard project management controls and the degree to which they were employed during the planning phase and support the remaining delivery:
 - Scope definition and management, including managing design brief and outputs
 - Schedule and dependency management
 - Financial management, including the cost estimation
 - Resource and contract management
 - Commercial arrangements with suppliers
 - Risk and issue management
 - Stakeholder engagement and communication
 - Quality management
- Identification of what is going well and areas of opportunity for improvement over the remainder of the project lifecycle.

Scope Exclusions

The scope of this review excluded the following:

- Review of any other project or business system.
- Detailed review of the RFP processes or contractual arrangements.
- In depth quantitative review and assessment of cost estimates and financial business benefits.
- Detailed review of the suppliers' design(s) and their appropriateness.

DOCUMENTS REVIEWED

-  _20200825 DXC_WI836 Biometrics Capability Update (BCU) SoW_CE and DXC fully SIGNE
-  _20200825 NEC Biometric Capability Update SoW_SIGNED.pdf
-  _DXC WI-836 - BCU Additional requirements CR01 Mar21 - SIGNED.pdf
-  _NEC IPE As a Service SOW - Signed 18Dec20 FINAL .pdf
-  20201218 Datacom Project Variation 4 Request K10902 INZ Biometric Capability_SIGNED.p
-  20220121 MBIE 109 - Theta BCU API Delivery SOW v3 (Final) - Signed.pdf
-  20220616 - SIGNED Extension of Services NEC Master ICT Agreement.pdf
-  20220815 CR003 Datacom IGMS Sub Proj Plan (SPP#30) Resource extension.pdf
-  Argonaut - FCC Check for BCU Integration SOW v2.0 - Signed - FINAL .pdf
-  Argonaut FCC Check Analysis SOW - Counter-signed FINAL.pdf
-  BCU CR018 - Initiation Further Extension Commence Implementation-Signed.pdf
-  BCU CR24 Include Business Context in DB16 & DB19 Messages FINAL.pdf
-  BCU Initiation - IGMS Work Statement 458 Signed BMDW.pdf
-  CR014 - BCU extend initiation phase Signed.pdf
-  IQ_Office_BCU_ICT_Contract_MBIE_Final.pdf
-  ITMS BCU initiation Phase K10902 SOW Signed.pdf
-  K10902 - BCU_ENV0_Variation 1_DC Fully Signed.pdf
-  K10902 - BCU_ENV0_Variation 3_Ver 1.1 - Signed.pdf
-  K10902 ITMS Variation 2 DC Fully Signed.pdf
-  MBIE WR752a BCU Project Change Request CR001 v1.0 - Signed.pdf
-  MBIE WR752a BCU Project ENV1 and ENV2 v1.3 FINAL-Signed.pdf
-  Memo Datacom Squad May 2021 - SIGNED.pdf
-  NEC BCU Project Initiation SOW signed.pdf
-  NEC EnvZero SOW MEMO Signed.pdf
-  SIGNED IPE SoW for design assistance.pdf
-  SPP30_CR02_BCU Squad_Extension v1.1 Final.pdf
-  Vodafone WR752 BCU EnvZero Project v1.1 Signed.pdf
-  BCU RAID Register.xlsx
-  Copy of BCU Budget Forecast to complete.xlsx
-  BCU - Identity Management Application Design Part B V0.9.docx
-  BCU Architectural Solution Design Part A.docx
-  BCU Infrastructure - SIT Solution Design Part B v3.0.docx
-  Biometric Capacity Update - Part B for ARB.docx
-  MBIE Data to NEC Migration Plan v0.6.docx
-  3644 - Master BCU Business Change Management Plan.docx
-  20211101 MBIE Milestone Variation v1.5 MBIE_SIGNED.pdf
-  MBIE Data to NEC Migration Plan v0.7 tracked.docx
-  20220817 BCU Project Status Report.docx
-  20220819 MBIE Governance report.docx
-  20220823 BCU Project Steering Group Minutes2.docx
-  20220823 BCU Steering Group Meeting Agenda.docx
-  20220902 - MBIE Governance report.docx
-  20220905 BCU Project Status Report MBIE.docx
-  20220906 BCU Steering Group Meeting Agenda.docx
-  BCU Steering Group TOR v5.0 .docx
-  MBIE SIT Deployment Overview_Copy.docx
-  AMS Changes Detailed Requirements v0.8 APPROVED.docx
-  D008 DXC BCU Traceability Matrix v0.1 200831.pdf
-  Datacom IGMS BCU Business Requirements_v3.0 APPROVED.docx
-  Intech BCU Business Requirements v1.6 APPROVED.docx
-  MBIE Migration Backfill Detailed Requirements v0.4 APPROVED.docx
-  NEC BCU Business Requirements v1.0 APPROVED.docx
-  NEC BCU Business Requirements v1.2 ISSUED.docx
-  NEC BCU Business Requirements v1.3 Tracked Changes.docx
-  NEC BCU Non-Functional Requirements v1.0 APPROVED.docx
-  NEC Functional and Non Functional Requirements inclu feedback July 2020.docx
-  NEC IPE Functional Specification v2.4.docx
-  NEC IPE Hardware Requirements v2.2 APPROVED.docx
-  NEC Manual Resolution Requirements Final 200904.xlsx
-  NEC MBIE_Specific_Configuration_Requirements_Document_(CSCRD)_05_12_2022_V3_2 APPROVED.
-  NEC requirements changes and impacts v1.2 vs 1.3 draft.docx
-  SRTP Business Requirements v6.10 APPROVED.docx
-  Theta BCU Azure Business Requirements v0.8 APPROVED.docx
-  _Biometric Capability Update Business Case APPROVED.docx
-  BCU Quality Plan.xlsx
-  BCU RAID Register.xlsx
-  INZ_BCU Project IQA Report 1.0 FINAL.docx
-  BCU Technology Schedule 20220914.pdf
-  _3644 - BCU CR02 Change Request 3Jul2020 Update01 - FINAL.docx
-  _Biometric Capability Update Business Case APPROVED.docx
-  3644 BCU Project Change Request 04 v3_clean.pdf
-  3644 BCU short form CR01 v1.0 APPROVED.docx
-  BCU Project Change Request 03 Final for ICDC.pdf
-  BCU RAID Register.xlsx
-  MBIE Biometric Capability Update Test plan.docx

PEOPLE INTERVIEWED

Our thanks go to the following stakeholders who contributed to this review.

Name	Project Role
s 9(2)(a)	
s9(2)(a) (Acting for Richard Owen)	MBIE Business Owner
s 9(2)(a)	
Robyn Moriarty	DDI Sponsor
Stephen Dunstan	INZ Sponsor
s 9(2)(a)	

APPENDIX B – DELIVERY CONFIDENCE RATINGS

This review uses the Government Chief Digital Officer (GCDO) Delivery Confidence Ratings that aligns with the Office of Government Commerce (OGC) Gateway© Delivery Confidence Assessment, a recognised good practice standard.

Delivery Confidence Rating	Description
Highly Likely	Successful delivery of the change appears highly likely and there are no major outstanding issues that significantly threaten achievement of the next key milestone.
Likely	Successful delivery of the change appears likely. Attention will be needed to ensure that risks do not materialise into issues threatening achievement of the next key milestone.
Possible	Successful delivery of the change appears possible. However, issues exist in key areas that require management attention in order to achieve the next key milestone. Issues appear to be resolvable at this stage if addressed promptly.
Unlikely	Successful delivery of the change appears unlikely with major risks or issues in key areas that require urgent management attention. Achievement of the next key milestone is in doubt.
Highly Unlikely	Successful delivery of the change appears to be highly unlikely due to significant issues which do not appear to be resolvable at this stage. The schedule may need to be re-baselined or overall viability of the investment re-assessed



MINISTRY OF BUSINESS, INNOVATION AND
EMPLOYMENT

BIOMETRIC CAPABILITY UPDATE (BCU) PROJECT

INDEPENDENT QUALITY ASSURANCE REVIEW REPORT



In Confidence

Document Control

Document Information

Document Name	MBIE_BCU Project IQA Report
Contact	David Williams, Director – DW Consulting Limited
Status	FINAL

Document History

Author	Description of Change	Date	Version
David Williams	Initial draft	30 September 2023	0.1
David Williams	Final incorporating factual accuracy review and management comment	4 October 2023	1.0
David Williams	Final Signed for distribution	10 October 2023	1.0

Distribution Control

Person	Role	Date	Version
s 9(2)(a)		2 October 2023	0.1
		2 October 2023	0.1
		2 October 2023	0.1
Richard Owen	Project Sponsor	5 October 2023	1.0
s 9(2)(a)		5 October 2023	1.0
		5 October 2023	1.0
		5 October 2023	1.0
Richard Owen	Project Sponsor	10 October 2023	1.0
s 9(2)(a)		10 October 2023	1.0
		10 October 2023	1.0
		10 October 2023	1.0

Contents

EXECUTIVE SUMMARY	4
Delivery Confidence Assessment Rating	4
Review Objectives	4
INTRODUCTION	6
Background.....	6
Review Approach.....	6
DETAILED FINDINGS AND RECOMMENDATIONS.....	7
Governance and Reporting.....	7
Delivery and Management controls	10
Re-planning and Delivery	14
Testing and Validation	19
Contractual Arrangements	21
Benefits Management	23
Previous IQA Recommendations	25
REVIEW SIGN OFF	27
Management Comment	27
Signoff.....	27
APPENDIX A – REVIEW TERMS OF REFERENCE.....	28
Scope	28
Documents Reviewed.....	29
People Interviewed.....	30
APPENDIX B – DELIVERY CONFIDENCE RATINGS	31

EXECUTIVE SUMMARY

DELIVERY CONFIDENCE ASSESSMENT RATING

Unlikely

Successful delivery of the change appears unlikely with major risks or issues in key areas that require urgent management attention. Achievement of the next key milestone is in doubt.

Despite previous agreement of a refreshed delivery plan, and a firm governance commitment to achieving the delivery timeframes, the project will not achieve the current Go Live date of 17 November 2023. Given the project's poor delivery history, and its inability to meet agreed milestones, we have doubts as to whether the project will in fact deliver at all, and we question its continuation.

The project is focussed on the completion of the System Integration Testing (SIT), and we support this approach, given the time and cost to date, and the alternative options available. The completion of the SIT is a crucial milestone for the project, and must determine project continuation or closure. If the project can successfully complete SIT testing and confirm the solution meets the business requirements, it will likely be in a better position for the remaining delivery. However risk still remains, including the cost to complete delivery, along with the support arrangements.

As noted in our previous IQA review, the Project Steering Group (PSG) continues to be pivotal to delivery success, and must hold itself, and its individual members, to account for meeting the agreed re-planned milestones, with clear transparency and visibility.

See **Appendix B** – Delivery Confidence Rating for a full description of the delivery confidence assessment ratings

REVIEW OBJECTIVES

The Ministry of Business, Innovation and Employment (MBIE) engaged David Williams Consulting to provide an Independent Quality Assurance (IQA) Review of the Biometric Capability Update (BCU) Project. This report details the findings of the review, and the recommendations aligned to the agreed objectives and scope.

See **Appendix A** for the detailed Terms of Reference agreed for this engagement.

The key objectives of the BCU Project IQA Review were to:

- Provide an independent view of the effectiveness of the project planning and delivery phases with specific focus on what went well, areas for improvement, and how the project arrived at its current state.
- Provide the Sponsor, Project Steering Group and Delivery Governance Board assurance that the project is well positioned to deliver expected outcomes within time and budget, and to the expected level of quality.
- Identify any strengths and possible areas for improvement and highlight learnings/lessons so they can be incorporated into future projects.

Key Messages

- The BCU project will not achieve the Go Live of 17 November 2023, despite agreement of a refreshed, integrated plan, and a firm governance commitment that the timeframes would be achieved. We have doubts as to whether the project will in fact deliver at all, and we question its continuation.
- The project has encountered several delays in regard to the completion of the foundational documents (i.e. Solution Design(s) Part B – August 2023, updated Business Requirements – June 2023), completion of data migration activity. Unforeseen security vulnerabilities also played a part in the delay. A change request (CR05 – June 2023) only allowed for a three month extension to the Go Live date (31 August to 17 November 2023), and we question whether this was based on good planning or simply delivery desire, given the complexity of the work, the number of issues encountered, and the risks noted.

- The project appears to be in a constant cycle of fighting fires, and missing deadlines. Further re-planning activity is underway, with a focus of completing the priority 1 SIT testing scripts. This is not without risk, and already we see a six week delay of the deployment into the SIT environment at of 18 September 2023.
- The completion of SIT will confirm whether the end to end solution meets the business need, and will determine project continuation or closure. Despite our reservations, we support this approach given the time and costs to date, and the alternative options available. Some of our recommendations are therefore based on the premise of continuation. If the project can successfully complete SIT testing and acceptance, it will likely be in a better position for the remaining delivery, however risk still remains, including the cost to complete delivery, and the support arrangements.
- A set of project continuation criteria has been agreed, and this requires further work to consider other key inputs, and this includes the business case promises (outcomes, benefits) and the ongoing support costs. The agreement of tolerances will also assist in the decision making for project continuation. The development of high level plan(s) to document the alternative arrangements will allow the project to quickly turn its attention to the work required if the decision is made not to continue, including termination of existing contracts. Determining the key messaging for external stakeholders, will also support this work.
- The updating of the PSG ToR will confirm the vendors 'partial' membership that does not include any voting rights, and we'd not expect external vendors to be making decision of behalf of MBIE.
- Updating the milestones in the project status reporting, will allow the PSG the appropriate visibility for holding itself and the project to account for delivery. Similarly gaining senior level commitment for the refreshed delivery plan will be key to delivery success.
- SIT was forecasted as 12 weeks of effort, and this has now increased to 18-20 weeks, and this raises further delay concerns. The project must look at ways to reduce the testing effort, where appropriate, and test cases have been prioritised.
- Finalising the internal and external communications plans, will allow the necessary proactive focus on the communication to key stakeholders, given the project delays to date. This includes the careful management of any further media Official Information Act (OIA) enquiries.
- The work underway to review the Statement(s) of Work (SOW) will confirm the remaining vendor costs, and milestone payments, and we strongly recommend any further payments be based on MBIE's acceptance of the solution within the MBIE environment. Similarly, the agreement of the support arrangements will provide confirmation of the ongoing costs, and is an input into project continuation.

INTRODUCTION

BACKGROUND

The scope of the BCU Project is to deliver an upgrade to the biometrics management software and algorithms to provide improved matching rates, maintain security and supportability, and improve total cost of ownership. It also includes replacement of In-Person Enrolment used by a variety of Immigration New Zealand (IN business functions including Border, Refugee and Compliance).

REVIEW APPROACH

The approach taken included a review of key project documents, and one-on-one discussion with a range of key stakeholders involved in oversight and delivery, to obtain their views of the project. Our review of the provided documentation, and discussion with key stakeholder took place between 18 and 25 September 2023, and reflects the status of the project at that time.

See **Appendix A** for a full list of the documents reviewed and the key stakeholders we met with

DETAILED FINDINGS AND RECOMMENDATIONS

Based on the detailed findings in this report, the following recommendations should be addressed as a matter of noted priority. The recommendations are broken into key review areas.

GOVERNANCE AND REPORTING

Findings

Governance

- A Project Steering Group (PSG) remains in place for the project, supported by a Terms of Reference (ToR v7.0 7/02/23). We note a new draft version of the PSG ToR (v0.7.1 Draft un-dated) and understand this has been created to update names against roles (where people have left), and put into the new MBIE PowerPoint format. PSG meetings are currently held weekly (fortnightly for full PSG meetings, and internal (MBIE only) PSG meetings in between weeks) due to the red status of the project, and this is appropriate, until such time the project moves back to amber and/or green.
- Membership remains largely the same since our last review, and includes the MBIE joint-Sponsors, NEC Sponsor and Delivery Owner (Senior Supplier), MBIE Business Owner, NEC Delivery Owner (Senior Supplier), System Business Owner and Product Owner (Senior User). NEC representatives attend every second meeting, and this allows for MBIE to discuss any sensitive matters (e.g. budget) in between. We note these meetings are only 30 minutes in duration and don't appear to have formal actions and minutes, and this requires resolution. The PSG ToR includes roles and responsibilities, detailed against the various roles and includes accountability for the delivery and outcomes (MBIE Sponsor) and responsibility for ensuring that the solution meets the requirements (MBIE Business Owner, and NEC Delivery Owner).
- The NEC representatives are noted as being both 'members of the steering group' and 'full members of the steering group', and we do not agree with this. Whilst it is appropriate to have external vendors as member of a steering group, full membership or having voting rights is not accepted practice, and we'd not expect external vendors to be making decision of behalf of MBIE.
- We had noted in our last review, an environment of collaboration and working together in partnership to achieve the desired outcomes had been created. There appears to be some key difference of opinion in the delivery approach, s 9(2)(b)(ii) . This appears to be further exacerbated by some governance decisions that appear to have been either misunderstood or reneged (such as the agreement for concurrent stand up and deployment into multiple environments). Whilst we support the continued partnership approach and (non-voting) governance inclusion of NEC, MBIE has overall accountability for delivery success, must determine the delivery date, ensuring the MBIE project processes are managed appropriately. Despite opinions the November 2023 Go Live date is still achievable, it is not, and the activity needing completion for Go Live extends far beyond the functional testing of the NEC delivered solution (e.g. completion of the Security Accreditation and Certification process, UAT, change management, benefit handover, business handover etc.).
- We also noted the PSG was pivotal to delivery success and having continued strong and effective governance oversight was a key success factor in holding itself, and its individual members, to account for meeting the agreed re-planned milestones, with clear transparency and visibility of the agreed milestones in the project status reporting. An integrated delivery plan (MBIE BCU High Level Schedule – Steering Committee – Baselined 20230424 and accepted risks applied) was agreed, with a Go Live date of August 2023, and despite this many of the milestone have not been achieved.
- Whilst we observe some good discussion occurring with the PSG, and questioning of the delivery progress, there does not appear to have been the proactive governance oversight of some the key tasks and timeframes, in particular ensuing there was appropriate focus on completion of the planning and foundational activities needed to orchestrate delivery following our last review (e.g. completion of the Solution Design Part B – a task that was agreed in October 2022, but only completed in August 2023,

updating the business requirements – again agreed in October 2022, but only completed in June 2023). We discuss this further in the *Delivery Approach and Management Controls* section below.

- Regular meeting are also occurring with the Project Sponsor, Business Owner and Project Manager, and a Monday morning meeting, which includes the Business Owner, Project Manager, Business Systems Owner, and Change Manager, and these are both appropriate. A Business Working Group is also in place; however we did not receive or review their ToR, and we understand this is currently being written.
- The project encountered some further issues that were not anticipated, and this includes security vulnerabilities, and delays in the data migration activity, and as a result the Go Live date moved to November 2023 (CR05). Again this date will not be achieved, and we question the achievability of just a three month extension, given the issues encountered, and whether this date was based on quality planning or simply delivery desire.
- The ongoing delivery delays and associated issues have been escalated and the PSG are keeping the MBIE Delivery Governance Board (DGB) updated, and this is appropriate. We understand there is a planned meeting in October 2023 with visiting Japanese executives to discuss the project and gain senior level commitment for its continuation, and we support this approach

Reporting

- An MBIE Project Status Report (31 Aug 2023) notes the project is 70% complete and has an overall status of red. Budget and schedule are also showing red, and scope, risks, resources and benefits are shown as amber. Issues are shown as green, despite a number of issues including further delivery delays. Several milestones are showing as being overdue by more than 30 days. The Go Live milestone forecast is shown as 19 Jan 24 which is unlikely given the MBIE Xmas/New year closedown, and brown out period. The Commencement of SIT is not shown at all, although the project status report notes 'SIT cutover has taken 5 weeks longer than originally planned and we are yet to open the front doors'.
- An NEC Project Status Report (01/09/2023) has an overall status of red for BCU and green for IPE. Schedule is shown as red, scope, resources commercial as amber, and budget and relationship as green. It notes milestone (NEC) SIT delivery as 07-Mar-2023 (complete), and UAT Delivery as Sept 2023 (90% complete).
- The PSG meeting minutes (20230908) notes the forecasted Go Live date had moved. They further note it would not be acceptable to NEC for the dates to move out further than February 2024, and that NEC can't take the risk of a March Go Live date, and it can't go further than February to have this completed.

Recommendations

ID	Recommendation	Priority / Owner
2.1	Update the PSG ToR to clarify the 'non-voting' membership of the NEC representatives. There is a PSG that details the role, responsibilities and decision making of the PSG and Its members. The NEC representatives are noted in section 6. Individual Roles and Responsibilities, as being 'members of the steering group' whereas the MBIE representatives are shows as 'full members of the steering group'. However we also note in section 8.6 Vendor Participation, it states the two NEC representatives as 'full members of the steering group' and we do not agree with this. Whilst it is appropriate to have external vendors as member of a PSG, full membership or voting rights is not accepted practice. External vendors should never have full voting rights and MBIE can't pass on its delivery accountability to anyone. , and as a result we'd not expect external vendors to be making decision of behalf of MBIE. We also note The ToR states 'The final decision for all other matters rests with the Chair of the Steering Group', and this is appropriate.	Critical Project Sponsor Mid-October 2023

ID	Recommendation	Priority / Owner
	The PSG ToR must be updated to clearly state NEC are not full members, and do not have any non-voting rights.	
2.2	Expanding the duration of the (MBIE only) PSG meetings Formalise the decision making, actions and minutes The PSG meetings are occurring each week, with just the MBIE members meeting every second week. This allows for MBIE to discuss any sensitive matters (e.g. budget) in between. We note these meetings are only 30 minutes in duration and don't appear to have formal actions and minutes. Given the current status of the project, we recommend the meetings are changed to 60 minutes in duration. As with any governance meeting, we'd expect formal minutes to be taken, along with an action log of any agreed actions or decisions.	Critical Project Sponsor Mid-October 2023
2.3	Update the Project Status report milestones Ensure continued PSG oversight of the delivery An MBIE Project Status Report (31 Aug 2023) notes the project is 70% complete and includes number of milestones. Several of the milestones are showing overdue by more than 30 days (e.g. Commence UAT Testing Support and Operating Model Approved). The Go Live milestone forecast is shown as 19 Jan 24. The Commencement of SIT is not shown at all, although the Project Status Report notes 'SIT cutover has taken six weeks longer than originally planned and we are yet to open the front doors'. The project is currently undergoing re-planning, and once complete, the Project Status report milestones must be updated (and aligned with the vendor project status report milestones), pending approval of CR06. The project has been delayed multiple times, and further delays can no longer be tolerated. We are pleased to see both 'Baseline' and 'Forecast' dates included in the reporting – this highlights any potential future slippage and allows the PSG to take a more proactive approach in helping the project to mitigate and manage delivery. A key lesson for the project (and PSG) is ensuring there is a necessary 'lead time' for upcoming activity, with data migration and the stand up of the SIT environment are prime examples.	Critical Project Manager End October 2023
2.4	Gain senior level commitment for the new delivery plan As part of the re-planning activity, there must be agreement of the updated delivery plan by all parties. The PSG meeting minutes (20230908) note the forecasted Go Live date 'had slid into March 2024 and the project managers were working to try and bring it back to February'. They also note that 'it would not be acceptable to NEC for the dates to move out further than February, and that a commitment to speed is required, that where previous items were running in parallel, some items are singular now'. It was also noted that the end of financial year is March 31st, and 'that NEC can't take the risk of a March Go Live date, and NEC can't go further than February to have this completed.'. We understand NEC have indicated they will charge between \$350k -750k per month if the project Go Live is delayed beyond November 2023 to retain resources and keep environments running. This is of concern, and	High Project Manager End October 2023

ID	Recommendation	Priority / Owner
	using an estimate of \$400k/month this will total \$2.8m for a 7 month period December 2023-June 2024. The project re-planning indicates Go Live will be beyond March 2024, and this will require careful management at a senior level. The ongoing delivery delays and associated issues have been escalated and the PSG are keeping the MBIE Delivery Governance Board (DGB) updated, and this is appropriate. We understand there is a planned meeting in October 2023 with visiting Japanese NEC executives to discuss the project and gain senior level commitment for its continuation, and we support this approach. The discussion must include the indicated costs noted above.	

DELIVERY AND MANAGEMENT CONTROLS

Findings

Management

- The relationship at a project delivery level appears to be productive, although there was some clear frustration expressed by both parties during our interviews in terms of the delivery approach, and agreement of the delivery timeframes. This is an ongoing success factor for the project, and there must be continued strong communication, collaboration and mutual agreement of the agreed delivery plan, that considers both the need for haste, whilst allowing the appropriate sequencing and necessary time to ensure a fit for purpose solution is delivered, aligned to MBIEs delivery frameworks. Whilst the views and input of all parties is important, MBIE must maintain overall accountability for delivery, and acceptance of the solution, to the business requirements and agreed acceptance criteria.
- There are various meetings occurring including daily all-vendor meetings using a Confluence Board (what doing, what coming up etc.), and twice daily triage meetings to work through defects, and are appropriate.

Scope

- The scope has changed throughout the planning and delivery lifecycle due to ongoing discovery activities, late development of the foundational artefacts, and a clear understanding of the business requirements/solution. At the time of our last review there was agreement that delivery would be to functional requirements v1.3 (28/4/2022), albeit the requirements would be reviewed and updated. The current delivery is to functional requirements v1.6 (approved 10 June 2023) as the baselined requirements. Non-functional requirements are the same version as our last review. Reporting, monitoring and alerting requirements are captured in documents Morning Report Requirements v 1.0 Approved (16/06/2023) and Monitoring and Alerting Requirements v1.0 Approved (16 June 2023).
- Despite a desire for a Commercial off the Shelf (COTS) solution, much of the solution has been highly customised. We understand the requirements were based on the current workflows with IDme and the project missed an opportunity to review current (IDme) business processes, and make the appropriate changes to ensure the solution was 'configured' rather than 'customised'. This is typically a key component of the design workshops, where the vendor presents options to deliver the solution and allows for adjustments to be made to requirements and/or business processes to align with the system workflows, thus maintaining configurability. This will likely have an impact on the support arrangements, and we discuss further in the *Contractual Arrangements* section below.

Time

- A key milestone in our previous review was agreement to get into SIT by 17 October 2022, based on a date provided by NEC, and there was firm governance commitment to achieve. Despite this, SIT delivery (within the NEC environment) is noted as being complete 07-Mar-2023. Delivery into the MBIE SIT environment was updated in CR04, which notes SIT entry as 28 February 2023, and CR05 further revised the date to 30 June 2023. The Go Live date also moved from August 2023 to November 2023 and we

question whether this date was ever achievable, given the substantial change impacts detailed in the CR. CR05 also noted 'based on the probability of the risks, another change request is likely to be required in the coming months', and this raises concerns of further known, but unaccounted for, delay.

- The current forecasts are detailed in the agreed integrated delivery plan (MBIE BCU High Level Schedule – Steering Committee – Baseline 20230424 and accepted risks applied) and notes 16/10/23 for completion of UAT testing, 23/8/23 for pre-production cut over and DR testing, and 8/11/23 for Go Live. The integrated delivery plan notes SIT commencement on 17/08/2023, however this is currently running some six weeks behind schedule due to a number of cutover issues 'to open the front doors' and allow smoke testing to commence, prior to beginning functional/non-functional testing (including penetration testing).
- A recently updated draft delivery schedule (BCU SIT 22 Sep 2023) notes SIT smoke testing commencing 6/10/2023 and priority 1 functional/non-functional SIT testing commencing 9/10/2023. We discuss this further in the *Re-planning and Delivery* section below.

Budget

- The project costs are captured in the Project Finance Template – MASTER spreadsheet. CR05 requested additional capex and opex and notes the total project delivery costs as \$21,794,944 capex and \$4,337,653 opex, and a whole of life (WoLC) of \$31,949,202, and includes the support costs. The finance spreadsheet notes the total project delivery costs as \$29,547,151 capex and \$7,045,237 opex (a combined total of \$36,562,387), and a WoLC of \$43,432,464 and again includes the support costs.

Change Requests

- Since our last review MBIE change request (CR) 05 has been raised and approved, with the impacts on time and cost noted above.
- s 6(c)
[REDACTED]
[REDACTED]
[REDACTED]. We understand MBIE has agreed to \$220,150 worth of CR's to date (signed and paid), and there are some \$580,000 worth of CRs under review (noting some of the costs are MBIE's estimates at this stage). We discuss this further in the *Contractual Arrangements* section below. We understand it was agreed all NEC CRs would go the PSG for discussion/approval, but the sheer volume means this has not always been the case. We'd expect all NEC CR's to be reviewed and endorsed by appropriate MBIE roles (e.g. Project Manager, System Business Owner, Business Owner, Commercial/Contract Manager, PMO Assurance Advisor etc.), prior to Sponsor sign off.

Resources

- Resources appear to be appropriate at this stage, however the re-planning will need to review resource requirements, especially with external vendors, based on the further delayed timeframes.
- There is reference in the MBIE Project Status Report (31-Aug-2023) referencing 'resourcing being under pressure during concurrent SIT and UAT phases due the utilisation of the same resources, however the re-planning has somewhat separated the SIT and UAT activity'. We note there is delivery activity occurring from mid-January 2024, and INZ is also approaching its busy period. We discuss this further in the *Re-planning and Delivery* section below.
- We understand NEC New Zealand has increased the New Zealand based resources, however we do not have visibility of this detail, and given will no longer provide level 2 support, we question these resources.

Risks and issues

- There are 15 open risks recorded in the Risk Register (Risk Schedule 13 Sep 2023) that cover some of the expected risks. CR05 noted a number of risks, and it does not appear these are all articulated in the risk register as we'd expect.
- There is just one issue noted in the Issue Register (Project Server Issues Extract 20230914), and this does not appropriately represent the current situation, where the project is facing further delays.

Stakeholder Engagement, Communications and Change Management

- An INTERNAL Biometrics Capability Update Communications plan (version 4 1 February 2023) details the planned internal communications to Immigration New Zealand (INZ) people. A table of key dates and deliverables show the planned communications, but it is unclear on the activity to date.
- An EXTERNAL Biometrics Capability Update Communications plan (version 5 10 February 2023) details the planned external communications. Again we do not see the communication activity to date, however we do see several Official Information Act (OIA) requests from media, along with the MBIE responses. Given the further delays, there would be benefit in preparing some proactive external communications.
- A Master BCU Business Change Management Plan (version 0.9 August 2023) details the business change activities that are required to successfully implement the project. It has some excellent detail including how the change will be defined and managed, and includes the learning (training) aspects. It notes the first draft of key Standard Operating Procedures (SOPs), and User Guides would be completed prior to SIT, and we understand these will be updated in SIT with screen shots and workflows tweaks. Lastly, we note the plan is still not signed off, and was a recommendation in our previous IQA.

Quality

- The Quality Plan remains the same as our last review, and details the artefacts that are to be produced by MBIE and its delivery partners, along with who will provide the peer review and sign off. Quality aspects are also built into the various project artefacts (e.g. entry, and exit criteria, and acceptance criteria in the Test Plan).
- Collaboration tools are in place and include a TeamSite instance with NEC, as well as access to Confluence and Azure DevOps etc. for all delivery parties. Now that much of the NEC development work is complete, there has been a shift from NECAM in the USA to India. This has impacted accesses into MBIE systems as India is not part of Five Eyes intelligence Alliance, and this is appropriate.
- As noted in our last review, there must be continued efforts to ensure discussions involve the appropriate parties (e.g. testers talking to developers to explain defects) where required, rather than everything having to be filtered through NEC New Zealand.
- There are a number of lessons that have been captured in the lessons register, and these include scope management, and the complexity of the solution not being well understood.

Recommendations

ID	Recommendation	Priority / Owner
2.5	Review and update the risk and issues There are 15 open risks recorded in the Risk Register (Risk Schedule 13 Sep 2023) that cover some of the expected risks (e.g. concurrent implementation into SIT and UAT, the project is stopped before Go Live). CR05 noted a number of risks, and it does not appear these are all captured in the risk register (e.g. if SIT testing uncovers a significant number of defects, then the project could be delayed). There are also risks associated with delivery of the business case promises (e.g. the project doesn't deliver the outcomes or enable the benefits), and business acceptance (e.g. business buy in of the solution). There is just one issue noted in the Issue Register (Project Server Issues Extract 20230914), and this does not represent the current situation where the project is facing further delivery delays. We'd expect to see issues captured around the current SIT deployment, the project having to go back to Cabinet as it has gone over the \$35m threshold, NEC's stance on not being able to Go Live after June 2024. As part of the current re-planning, the project must review and update the risk and issues to reflect the current issues and the risks with the remaining	High Project Manager End October 2023

ID	Recommendation	Priority / Owner
	delivery. Having well thought out and managed risks is a key success factor for the project in managing any further delays.	
2.6	Review, update and approve the Internal Communications Plan An INTERNAL Biometrics Capability Update Communications plan (version 4 1 February 2023) details the planned internal communication activities. It contains detail in regard to the key messages, risks/mitigations, and the phased communications approach. A table of key dates and deliverables details the planned communications across four phases, and notes ‘This communications plan will be regularly reviewed and updated as the project progresses, with comms products (emails, articles) to be added as appendices as they are delivered.’. A number of the dates have passed (e.g. Phase 1: Announce – January-February 2023, Phase 2: Update – May 2023, Outcome of testing – TBC May 2023), and it is unclear on the activity to date, and the success of these communications. We do however note an ‘Announcement’ message in the Appendix from the DCE INZ, but the date is shown as ‘TBC’. The plan requires review following re-planning, the dates updating and the key messaging to date adding to the appendix. Given the delays experienced by the project, there would be benefit in providing an update to internal stakeholders, once re-planning has been completed. We also note the plan appears to be unsigned and recommended this is completed, given communications span the life of the project.	High Project Manager Communications Lead End October 2023
2.7	Review, update and approve the External Communications Plan Prepare the proactive external communications and media OIA responses An EXTERNAL Biometrics Capability Update Communications plan (version 5 10 February 2023) details the planned external communications. It contains detail in regard to the key messages, risks/mitigations, and the phased communications approach. Again we do not see the communications to date included in the appendix. The plan requires review following re-planning, the dates updating and the key messaging to date adding to the appendix. It appears the plan remains unsigned and we recommended this is completed with some urgency. We do see several media Official Information Act (OIA) requests, along with the MBIE responses, included in the appendix. The requests include information on delivery dates that have passed and costings, and this raises concerns given there will be further delay and cost increases. We recommend the project works with the MBIE communications team to think about the proactive communications that could be prepared, following re-planning, to manage external stakeholders and any further OIA’s requests, which appear highly likely.	High Project Manager Communications Lead End October 2023

RE-PLANNING AND DELIVERY

Findings

Re-planning

- The project has a history of poor planning and delivery, and there appears to have been a clear misalignment between the business requirements, and the complexity of what was required to deliver a fit for purpose solution, within achievable timeframes. Foundational documents have been updated multiple times since our last review, and their late delivery has undoubtedly contributed to the delays (for example there was agreement to update the solution design documents in October 2022, and see this work was not completed until August 2023. Similarly the review/update of business requirements were only approved in June 2023). We see an additional CR (CR05) raised and approved since our last review and we question the achievability of the dates shown. The project is running a number of years later than anticipated, and the costs have increased significantly. The project will need to undergo cabinet oversight as a result of exceeding the WoLC of the \$35,000,000 threshold. The foundational documents however appear stable, and there must be agreement these form the basis of the initial Go Live (excluding any major admissions).
- Further re-planning is underway, and changes to scope, time and cost will be detailed in CR06 (not drafted at the time of this review), with a focus on SIT completion and the completion of UAT Load Testing. Deployment into SIT is already running six weeks late, at of 18 September 2023. An updated draft delivery schedule (BCU SIT 22 Sep 2023) details SIT testing (functional/non-functional requirements) between 9/10/23 and 19/03/2024. Detailed testing activity in the draft schedule includes, accessibility testing (24/10/23- 5/3/20), penetration testing (28/11/23-29/2/24). Business Acceptance Testing (BAT) (23/1/24-5/3/24) and UAT (15/1/24-19/3/24). A memo was prepared for DGB in September 2023 and covered four options, Pause, Stop, Continue, and Concentrate on SIT, and deferred its decision until the completion of SIT priority 1 testing.
- We understand NEC have indicated they will charge between \$350k -750k per month if the project Go Live is delayed beyond November 2023 to retain resources and keep environments running. This is of concern, considering the project will not achieve the November timeframe. Using an estimate of \$400k/month this will total \$2.8m for a 7 month period December 2023-June 2024. We discuss this further in the *Contractual Arrangements* section below.
- SIT testing was estimated at 12 weeks of effort, and has increased to 18-20 weeks, and this also raises concerns. We discuss this further in the *Testing and Validation* section below.
- A number of governance Go/No Go (continuation) decisions have been included in the draft schedule, and we strongly support this approach. The agreement of the continuation criteria is a key factor for determining whether the project should continue or be closed. Some work is required to further strength the criteria and agree the acceptable tolerances.
- Upon acceptance of continuation, there are plans to raise an additional CR – CR07 to confirm the delivery timeframes and costs for the remaining activity. Again we support this cautious, fact based approach, given the project's history of missing previously agreed milestones. We would however expect CR06 to include some forecasted time and costs for the remaining delivery – noting they will be confirmed in CR07.
- It appears there was previous PSG agreement for concurrent deployment into SIT and UAT. Whilst we support the concurrent stand up of the environments, and the data migration activity to a degree, the recent delays in standing up the SIT environment are cause for this work to be staggered, so the project can learn and adapt.
- The deployment of the solution into UAT (software and integrations) should only occur at such time that solution has been appropriately tested in SIT, and the code is stable. We would still expect to see some cross over, with the solution being deployed into UAT well before SIT testing is complete. We'd expect a similar approach to progress deployment into Pre-production once there is confidence UAT acceptance criteria had been met.

- We note that there is delivery activity occurring from mid-January 2024, and Immigration New Zealand is also approaching its busy period. A review of resources availability is required to ensure availability over the Xmas/New Year period.

Design and integration

- The BCU Application Solution-Design-Part B (version 1.1 03/08/2023) details the application considerations, and the BCU Infrastructure – SIT Solution Design Part B_v4.10 (15/11/2022) details the infrastructure considerations from all parties. We understand both design documents have undergone appropriate internal review and endorsement. The design work has taken longer than expected, and we understand there was only high level detail provided by NEC in their design, and further work was needed to expand to an acceptable level with the MBIE design documents. A lack of workshops/demos to discuss the requirements and solution design, across relevant parties contributed to the delays, as did the departure of the previous Lead Architect. The project likely would have also benefitted by having an Enterprise Architecture involved in the development of the designs with knowledge of the complex MBIE infrastructure.
- We understand data migration into SIT has been completed, albeit with some delay, with further migration to be completed into UAT.

Security

- Two risk assessments have been completed for the project (IDme/IPE) and we understand there are clear security entry and exit criteria documented. We understand some s9(2)(ba)(ii) were discovered from the vulnerability testing carried out, and the majority of these have now been resolved (including all the critical and high's) to allow the project to proceed into the SIT environment. Whilst we did not review, we understand there is a memo that provides confirmation of the resolution of the issues, and commitments to advise if any s9(2)(ba)(ii) but not resolved. We further understand this is being added to the Support SOW and this is appropriate. We discuss this further in the *Contractual Arrangements* section below.
- We also understand the Penetration test provider changed, and this caused some delays in the PEN testing.

Implementation

- A BCU SIT CUTOVER Implementation Plan – (v. 62) 20230915 details the steps required to complete the stand up of the SIT environment and deployment of the solution, including the integrations. The tasks are broken into phases (e.g. pre migration, migration, post migration), and for each tasks there is a start date, estimate of duration of effort, actual effort, status, and owner. Several of the tasks have been completed, although at the time of our review the SIT deployment was running some six weeks late, due to issues encountered. We also note several of the of the tasks show the 'actual effort' as being longer than the 'estimated effort'.
- As noted previously, there have been some challenges standing up the SIT environment, enabling the integration with other key systems, and deploying the software. Getting into SIT to allow end to end workflow and integration testing to commence will be a significant 'win' for the project .
- Whilst there has been some activity to stand up the other environments (i.e. UAT, Pre-production), this work has been put on hold until the decision has been made on project continuation.

Recommendations

ID	Recommendation	Priority / Owner
2.8	Complete the re-planning and gain vendor acceptance Update the integrated project schedule and ensure it contains the necessary depth and breadth, and is achievable Re-planning is underway, and must be completed with some urgency to bring the necessary stability to the project, and the agreement of a clear and achievable delivery path that is agreed by all parties. The	Critical Project Manager End October 2023

ID	Recommendation	Priority / Owner
	foundational documents (business requirements, solution design) appear stable, and there must be agreement these form the basis of the initial Go Live (albeit excluding any major admissions). Changes to scope, time and cost will be detailed in CR06 (not drafted at the time of this review), with a focus on SIT completion and the completion of UAT Load Testing. A memo was prepared for DGB in September 2023 and covered four options, Pause, Stop, Continue, and Concentrate on SIT, and DGB deferred its decision until the completion of SIT priority 1 testing. Whilst we support this cautious approach, we would also expect CR06 to provide an estimate of the remaining time and costs for the life of the project. An updated draft integrated delivery schedule (BCU SIT 22 Sep 2023) shows SIT smoke testing commencing 6/10/2023 and priority 1 functional/non-functional testing occurring between 9/10/2023 and 19/03/2024. The project must ensure that the updated schedule contains the necessary depth and breadth of information, and is achievable. The project has been delayed multiple times, and further delays can no longer be tolerated – the updated scheduled must be socialised amongst the appropriate vendors to gain agreement of its achievability and their buy in. A key lesson for the project is ensuring there are the necessary ‘lead times’ for any pre-work (e.g. setting up the various environments, completion of data migration) and we discuss this further in <i>recommendation 2.13</i>). Upon acceptance of continuation, there are plans to raise an additional change request (CR07) to confirm the delivery timeframes and costs for the remaining activity. Again we support this cautious, fact based approach, given the project’s history of missing previously agreed milestones.	
2.9	Confirm the remaining delivery budget The project costs are captured in the Project Finance Template – MASTER spreadsheet. Current forecasts note the total project delivery costs as \$29,547,151 capex and \$7,045,237 opex (a combined total of \$36,562,387), and a WoLC of \$43,432,464 and this includes the support costs. As part of the re-planning, the project must confirm the remaining delivery costs. We understand NEC will request additional money for delays, and these must be carefully managed. We further understand other vendors (e.g. DXC, InTech, and One New Zealand) have requested additional funding. Whilst CR07 will be raised to confirm the cost for the remaining activity post SIT and UAT Load Testing, we would also expect CR06 to provide an estimate of the remaining cost for the life of the project.	Critical Project Manager End October 2023
2.10	Confirm the continuation criteria and the tolerances A number of governance Go/No Go decisions have been included in the draft schedule (e.g. priority 1 test, PEN testing, Security Assurance	Critical Project Sponsor Project Manager

ID	Recommendation	Priority / Owner
	Testing), and we strongly support this approach to determine project continuation or closure. We understand the priority 1 Go/No Go decision aligns to the priority 1 test scripts which covers the appropriate end to end workflow testing, and all integrations. The agreement of robust continuation criteria is pivotal to project continuation. Some work is required however to further strength the criteria, and agree the acceptable tolerances, and this includes: • The Business Case (v0.9.1 06/08/2019) details a number of outcomes, including some cost savings. We recommend the business case promises are reviewed in terms of whether the project will deliver the expects outcomes (and enable benefit delivery), and this should form part of the decision making for project continuation. • We understand NEC will be requesting additional money for delays (CR pending), and also other vendors (e.g. DXC and One New Zealand) will also request additional money. There must be consideration given to the WoLC as part of project continuation. • Negotiation is currently underway to agree the ongoing support costs, and we understand Datacom will now provide level 1 and 2 support, with NEC providing level 3 support. The support costs should also form part of the continuation criteria, in particular the ongoing releases. The BCU solution is a bespoke solution, and NEC may need to do significant work to complete a 'unique' release for MBIE. MBIE may also need to complete detailed testing, and this will incur internal test team costs. Agreeing a set of tolerances go hand in hand with the continuation criteria, given the projects poor delivery history – a good example is the current six week delay into SIT. We recommend the project determine the acceptable tolerances for continuation, and this could include changes to scope, cost, and time.	End October 2023
2.11	Confirm the day one must haves and align to the Go/No Go decision making The test scripts are being grouped by test priority. We understand the priority 1 test scripts covers the appropriate end to end workflow testing, and all integrations as noted below. Functional Tests across • IBW • SmartScan • Insights • MBIS • Central LMS • Reveal • Recovery from Ironkey • RBAC	High Business Owner Project Manager Test Manager End October 2023

ID	Recommendation	Priority / Owner
	All Crit 1 and 2 defects remediated and an agreed Defect Plan for all Crit 3 and lower. Integration tests include: • IQOffice • IDMe • MSMQ • PQC • IGMS • ETA • DMS • APIM • AMS • s6(All Crit 1 and 2 defects remediated and an agreed Defect Plan for all Crit 3 and lower. The priority 1 Go/No Go decision is aligned to the priority 1 testing and this is appropriate. It is unclear however what is included in the remaining priority testing, and what level of testing is needed to accept the solution for Go Live. There would be benefit in the project determining the day one must have needed for an initial Go Live – for example this could be completion/acceptance of the priority 1-3 test scripts, and priority 4 may be deemed 'nice to have'.	
2.12	Look for ways to manage parallel work to gain time Review resource availability over the Xmas/New Year period It appears there was previous PSG agreement for concurrent deployment into SIT and UAT, and we support the concurrent stand up of the environments, and the data migration activity to a degree. However the recent delays in standing up the SIT environment, are cause for this work to be staggered, so the project can learn and adapt. We understand there has been some activity underway to stand up the other environments/complete data migration, and the project manager has recommended pausing activity beyond SIT until the initial Go/No Go decision stage gate has been reached, and continuation agreed. This is partially due the monthly burn rate for resources, which is in excess of \$400k. We support this approach, and the desire to control further spend until there is agreement on project continuation as a result of SIT. The risk of this approach however is that it will result in further delay, and there must be agreement when this activity will resume, ensuring resources are available, especially over the Xmas/New Year period, and INZ's busy period. The deployment of the solution into UAT (software and integrations) should only occur at such time that solution has been appropriately tested in SIT, the defects fixed and the code is stable. We understand the project is discussing the criteria and this includes the priority 1 test	High Business Owner Test Manager Project Manager Ongoing

ID	Recommendation	Priority / Owner
	cases (severity 1 and 2 defects fixed), and the workflow penetration testing. We would still expect to see some crossover however, including into the other environments. The project must constantly look for opportunities to speed up delivery, whilst balancing risk and/or re-work.	
2.13	Capture the SIT deployment lessons Allow for the necessary lead time The commencement of SIT testing was forecast for the 17 August 2023, and currently running some six weeks behind schedule due to a number of cutover issue. Once SIT has been completed, the project must capture the lessons from the SIT deployment, so these can be applied to the stand up of the other environments. This includes any lessons around allowing for the necessary lead times to complete the work. We have noted in <i>recommendation 2.12</i> above that ensuring resource availability is also a key consideration.	High Project Manager End October 2023
2.14	Determine the alternative options, and document the high level plans Determine the key messaging A number of Go/No Go stage gates have been agreed to determine project continuation. In the cases of the latter, there would be benefit in the project thinking through the alternative options (e.g. enhancing IDme, going back to market), and documenting the high level plans, including how the termination of the current contractual arrangements would be managed. This will allow the project to quickly turn its attention to the work required to procure the resources to start to enact the plan. Similarly, preparing the key messages for external and internal stakeholders, including ministers and media would support any decisions not to continue.	High Project Sponsor Business Owner System Owner Project Manager End November 2023

TESTING AND VALIDATION

Findings

Testing

- An MBIE BCU – Biometrics Capability Update Test Strategy (version 2.0.1 final 27/10/2022) provides a test overview, scope, test approach, test team structure and roles, testing schedule and environments, test management procedure, and assumptions, dependencies, risks and issues. The plan states 'Component/System Testing' is the responsibility of the 'Vendor Dev/Test Team' and 'System Integration Testing' is the responsibility of the 'MBIE BCU Test Team'. The strategy also notes SIT will be completed in the MBIE hosted environment. There are defined SIT entry criteria (e.g. test exit reports from system testing, no open severity 1 and 2 defects, 3 and 4 severity defects accepted with an agreed remediation plan) and SIT exit criteria (e.g. all test cases executed, no open severity 1 and 2 defects, 3 and 4 severity defects accepted with an agreed remediation plan).
- An MBIE BCU – Biometrics Capability Update Test Plan (version 2.03 09/June/2023) largely repeats the information in the test strategy including the same SIT entry and exit criteria. The plan has several appendices and includes the test types, functional requirements in scope, and traceability matrix, with links. A Traceability Matrix maps the test cases back to the business requirements, and we see multiple test case for each requirement.

- An MBIE Non-functional Test Plan (version 1.1 07 March 2023) details the non-functional test aspects, and includes the various non-functional testing that will be carried out in the different environments, and who is responsible for the test completion of non-functional testing. We understand the project will test the non-functional requirements in SIT where appropriate, to identify issues early.
- There are some 5,500 test scripts that will be completed by the test team. 12 weeks had initially been allowed for SIT, and a review of the time effort against the test scripts has resulted in testing now being estimated at between 18-20 weeks. This raises concerns and we question why this work has occurred so late, and why SIT will take so many months to complete.
- The test scripts have been prioritised and the priority 1 Go/No Go decision is aligned to the priority 1 testing, and this is appropriate. We have also recommended the project consider what level of testing is needed to accept the solution for an initial Go Live.
- An MBIE Defect Management Process (version 1.0 21/10/2021) details the defect process including the defect priorities (1-5) and the reporting. We have previously noted there are twice daily triage meetings occurring to work through defects.
- An NEC MBIE In Person Enrollment Test Plan (Release 1.6, Status: Release, Released: 26 October 2022) and notes 'The purpose of this Test Plan is to show the test approach, test strategy and test plan to the stakeholders. Test activities for this project include Factory Testing (FT), System Integration Testing (SIT) and User Acceptance Testing (UAT).' It goes on to state 'NEC's focus for testing is the FT of the IPE terminal software and hardware, Local LMS and central LMS to prepare them for MBIE in their testing in SIT and UAT, which NEC will support.' The plan clearly notes Pre-System Integration Testing (PSIT) would be carried out in the NEC BCU environment by NECNZ and NECAM BCU staff. System Integration Testing (SIT) is noted as being carried out in the MBIE SIT environment by MBIE Immigration NZ staff.'
- We did not receive an NEC Test Plan for BCU, however the NEC Project Status Report (01/9/2023) notes the BCU SIT delivery was 07-Mar-2023 (Milestone M4) against an original date of 30/11/2021. Delivery of NEC's IPE software phase 1: SIT is noted as 1 Mar 2023 (Milestone M5a) against an original date of 19/03/2021.
- An NEC MBIE Biographic Capability Upgrade Project - REF 3664 Test Summary Report: System Testing (version V2.2 22 Feb 2023) details the test scope, out of scope (e.g. reporting), test execution (2524), the defects raised (1717) and resolved, and the number of outstanding defects (51 severity 3 and 4). It notes 'NEC recommend that the current release NEC IDME release 1.0.1 (NECAM release 1.4.6) is to be deployed into the SIT environment for SIT entry.'
- An NEC Test Summary Report for MBIE IPE (Version 1.0 – Final 01 Feb 2023) again details the test scope, out of scope (e.g. SmartScan fingerprint matching), test execution (298), the defects raised (197) and resolved, and the number of outstanding defects (37 severity 2, 3 and 4). It notes 'NEC recommends that the release 10 is installed into MBIE SIT environment on the condition that the severity 2 defect IPET-196 is fixed.'
- We understand there was some MBIE tester involvement in the system testing to familiarise themselves with the solution and provide the necessary training of how the system works, and they had access into the NEC test environment. Whilst we see evidence of the functional areas tested in the NEC Test Summary reports, we do not have evidence or a clear understanding as to what role the MBIE testers played in this testing. We also understand NEC provided test case and traceability back to the business requirements.
- There were various views expressed in regard to the 'functional' testing, and NEC appears to be of the opinion that testing of all the functionality is complete, including alignment to the requirements, and therefore the solution is fit for purpose. The test plans do clearly state NEC would focus on 'functional' testing, and MBIE on 'workflows, configuration and data type'. MBIE of course would expect to complete full end to end of the workflows and this will confirm whether the functionality meets the expected business requirements from their perspective.
- As previously noted, there must be continued efforts to ensure discussions involve the appropriate parties (e.g. testers talking to developers to explain defects) where required, rather than everything having to be filtered through NEC New Zealand.

Recommendations

ID	Recommendation	Priority / Owner
2.15	Look for ways to reduce the testing timeframes where appropriate System testing has been completed within the NEC test environment, and test exit reports have been completed. We also understand NEC provided test case and traceability back to the business requirements. There were various views expressed in regard to the 'functional' testing, and that this work was being repeated by MBIE within SIT. The test plans clearly state NEC would focus on 'functional' testing, and MBIE on 'workflows, configuration and data type'. There are some 5,500 test scripts that will be completed by the MBIE test team, although the testing of the workflows will cover many test scripts. 12 weeks (3 months) had initially been allowed for SIT, and 8 weeks for UAT. The test scripts are being currently peer reviewed and time estimates are also being put against the test scripts. This has resulted in SIT testing now being estimated at between 18-12 weeks (5 months). Whilst we understand MBIE's desire to complete detailed testing, using their own end to end workflows, within their own test environment, it must take into account the functional testing that has been completed and determine any areas a 'lighter' test touch may apply. For example, the business requirement that have been met through 'configuration' vs. 'customisation'. Similarly the testing in the NEC environment used 'stubs' to mimic integrations, and this requires 'detailed' testing.	High Test Manager Business Owner Ongoing

CONTRACTUAL ARRANGEMENTS

Findings

- A MSA between NEC-MBIE (270619) is in place, and we understand there are plans to extend the term, as it expires in 2025. This activity should only occur once project continuation has been agreed.
- Statements of Work (SOW) are in place for the various vendors (e.g. NEC, Datacom, Theta, DXC, Argonaut). There have been a number of variations (CRs) for additional funding, to the SOW(s) due to delays.
- We understand the NEC SOW(s) are being reviewed and updated, and this is in part due to some missing components, and to further clarify the milestone payment criteria. Typically milestone payments are made once the solution had been tested and accepted within the customers environment, rather than the vendor having software ready to deploy to SIT.
- s 9(2)(b)(ii) and we'd have expected these to have already been included in the existing SOW costing. Some of these CR's are for sizeable amounts (i.e. hundreds of thousands of dollars), and this is of concern. Also of concern is we understand NEC have indicated they will charge between \$350k -750k per month if the project Go Live is delayed beyond November 2023, to retain resources and keep environments running. Any variations to the NEC SOW(s) must also take into account any expectation around the remaining delivery work, and expected NEC costs, and this is a key input into project continuation.
- We understand a number of issues were discovered from the vulnerability testing carried out, and the majority of these have now been resolved. we understand there is a memo that provides confirmation of the resolution, and this is being added to the support agreement SOW, which appropriate.

- Ongoing work is underway for the support costs, with the tier 2 application support moving to Datacom. Despite a desire for a Commercial off the Shelf (COTS) approach, much of the solution has been highly customised, and this will likely have an impact on the support arrangements.

Recommendations

ID	Recommendation	Priority / Owner
2.16	Re-confirm the remaining SOW milestones and payment criteria Re-confirm the remaining delivery and expected costs Include the security vulnerability aspects SOW(s) are in place with NEC, and whilst we did not review in detail, or talk to anyone in the commercial or legal teams, we understand they are being reviewed and updated. We understand this is in part due to some missing components, and to further clarify the milestone payment criteria. For example milestone M04: Delivery of NECs BCU software phase 1 SIT states 'The BCU NEC SIT software Deliverables have been delivered to the Ministry and have passed the relevant tests set out in the NEC test Plan, as evidenced by the Test Exit Report with achievement of this Milestone to be assessed in accordance with clause 7.3(b)'. The milestones are not clear, and in the case of SIT acceptance and payment, we would have expected this to occur once the solution had been tested and accepted within the MBIE SIT environment, rather than NEC having software ready to deploy to SIT. s 9(2)(b)(ii) Whilst some of the CRs appear valid (e.g. CR100 MBIE Updated Reporting Requirements), others do not, and we'd have expected these to have already been included in the existing SOW costing (e.g. CR101 Sizing work for Data Dictionary, CR108 T&M for consulting Alert and Monitoring). We understand MBIE has agreed to \$220,150 worth of CR's to date (signed and paid), and there are some \$580,000 worth of CRs under review (noting some of the costs are MBIE's estimates at this stage). Also of concern is we understand NEC have indicated they will charge between \$350k -750k per month if the project Go Live is delayed beyond November 2023, to retain resources and keep environments running. Using an estimate of \$400k/month this will total \$2.8m for a 7 month period December 2023-June 2024. We question why resources could not be re-deployed until such time they are needed (i.e. the amount of work is still the same, just the timeframes have extended), which is a common model for global operating companies, such as NEC. It is unclear what is needed to keep environments running. Any variations to the NEC SOW(s) must also take into account any expectation around the remaining delivery work and expected NEC costs, and this is a key input into project continuation. Any variations to the SOW must also take into account any expectation around the remaining delivery work and expected costs, and we would not expect to see an ongoing cycle of CRs that we see today. We understand some s9(2)(ba)(ii) testing carried out, and the majority of these have now been resolved. We	High Commercial and Legal Teams Project Manager End November 2023

ID	Recommendation	Priority / Owner
	understand there is a memo that provides confirmation of the resolution of the issues, and commitments to advise s9(2)(ba)(ii) [REDACTED] We further understand this is being added to the MSA, and this is appropriate.	
2.17	Confirm the support arrangements We understand the support arrangements have changed, and Datacom will now provide the application (tier 2) support, as well as some reporting, alerting and monitoring. We see a SOW in place – Product Assessment to Support IDme SOW (v2.0 31 July 2023) and also a SOW for alerting and monitoring, and reporting. We understand ongoing discussion are underway with NEC to formalise the support arrangements. We further understand there has been a change in volumes for the face templates, due to the project taking so long. The s9(2)(ba)(ii) [REDACTED] The BCU solution is a bespoke solution, and NEC may need to do significant work to complete a ‘unique’ release for MBIE. MBIE may also need to complete detailed testing and this will incur internal test team costs. The must be a consideration in the Support Agreement SOW, and we have noted the support costs are a consideration for project continuation.	High Commercial and Legal Teams Project Manager End November 2023

BENEFITS MANAGEMENT

Findings

- Benefits are captured in the original Business Cases (2019), along with alignment to the desired outcomes. Benefits include improvements in s9(2)(ba)(ii) [REDACTED], and improved supportability.
- A Benefits Management Plan (version 02. 13/09/2023) has been drafted, and includes a benefits summary, benefits table, benefits schedule, and benefits owner. The benefits table includes a long list of benefits, and requires further consolidation. Similarly, the benefit targets require further work to detail the ongoing improvements.
- The project must confirm to the PSG of any instances where any of the benefits will not be met.

Recommendations

ID	Recommendation	Priority / Owner
2.18	Consolidate and finalise the benefits Update the target measures Confirm where the business case benefits won't be met A Benefits Management Plan (version 02. 13/09/2023) has been drafted, and includes a benefits summary, benefits table, benefits schedule and benefits owner. The benefits table includes a long list of benefits, and includes the original business case benefits, the change to benefits as a results of approved CRs, and some new benefits. This list is long and some further work is required to consolidate the list of benefits – we understand this work is underway.	High Business Owner Project Manager Business Analyst End November 2023

ID	Recommendation	Priority / Owner
	The benefits table (4. Benefits Table) includes baseline and target measures, along with timeframes. There are examples where the timeframe is simply shown as '5 years' – for example, the 'increase in identity fraud found' shows an improvement from s9(2)(ba)(ii) We'd expect there to be a gradual improvement across the five year period shown, and this will provide an indication as to whether the benefit is on track to achieve the target measure within the five year period. As part of updating the benefits, the project must advise any instances where any of the benefits will not be met – for example where the cost savings will not be realised. We'd expect the project to confirm this to the PSG (full voting members only) and any other relevant bodies.	

PREVIOUS IQA RECOMMENDATIONS

The below section details the recommendations made in previous IQA review in September 2022, and the current status.

ID	Recommendation	Status	Project comment
1.1	Clarify the decision making and decision making path	Closed	
1.2	Appoint a full time Business Owner	Not completed	Both a Business Owner and Technical Business Owner are actively engaged with the project. There are in place weekly check-in sessions with the Business Owner where progress and issues are discussed and direction given. There are daily check-in sessions with the Technical Business Owner where issues/ blockers from the technical aspect are discussed and direction given. Outside of these sessions both the Technical and Business owner are available for further engagement. At this point there is no necessity to increase Business Owner input.
1.3	Strengthen project status reporting	Closed	
1.4	Include the non-product delivery components in the integrated schedule	Closed	
1.5	Gain commitment for the integrated schedule as the one version of delivery truth	Closed	
1.6	Ensure there are dedicated resources assigned to the delivery	Closed	
1.7	Ensure there are appropriate peer to peer discussions occurring	Closed	
1.8	Develop the integrated resource plan	Closed	
1.9	Confirm the MBIE Lead Architect	Closed	
1.10	Finalise the communications and change management plans	Closed	
1.11	Agree the shared registers	Closed	
1.12	Gain written commitment from all parties for the new delivery plan	Closed	
1.13	Bring all parties together for a re-launch	Not completed	28/02/23 - Steering Group members made the decision not to go ahead with this recommendation
1.14	Baseline the Functional Requirements, including the reporting requirements	Closed	BCU IDme requirements including reporting currently in review with NEC. Final IPE functional requirements document is being updated.
1.15	Determine the treatment of any unmet requirements	Open	MBIE project Manager to confirm correct audience and organise a workshop before the end of April. Unmet requirements will be identified during SIT testing, which is due to complete by end November 2023.

1.16	Re-schedule the end to end showcase	Closed	
1.17	Finalise the Part B Designs	Closed	Finalised Part B scheduled to be presented to DRB 31/7/23. Endorsed by DRB on 04/08 with 7 conditions that need to be met prior to Go Live.
1.18	Finalise the Data Migration Plans and timings Ensure visibility and transparency of data migration activities	Closed	DM planning is complete. Bulk migration to SIT in progress. Timing tbc on completion.
1.19	Complete the NEC test traceability matrix	Closed	Prior to full SIT Entry. Incomplete draft received.
1.20	Ensure the defect severity definitions are clear across all parties prior to SIT entry	Closed	
1.21	Determine whether SIT can begin prior to completion of the migration activity	Closed	
1.22	Review and refresh the training material	Closed	Key learning activities scheduled and in progress. Current state Learn@MBIE and SOPS analysed, resourced and updates in progress. Learning Needs Analysis completed. High level learning design approved. Planning and set up for learning development has started.
1.23	Re-confirm the benefits and develop the Benefits Realisation Plan	Open	The project has received update production volumes and will update benefits based on this new information. 18/08: Benefits are currently being reviewed with the business; changes will be captured in CR06.

REVIEW SIGN OFF

MANAGEMENT COMMENT

Thank you to David Williams for this comprehensive IQA and the suite of recommendations provided. It is important to note that the IQA has assessed the likelihood of delivery by November 2023 as “Unlikely”. This has already been preceded by Project Steering Group discussions acknowledging this and noting that a more likely go-live date for the BCU project would be Q1 or Q2 of the 2024 calendar year – which will involve significant re-baselining of the project plan, stage-gates and milestones in agreement with NEC as our key supplier. However, as the IQA has noted, this continues to not be without its challenges. Successful SIT testing is a pre-requisite to proceeding further with this important project.

I fully support and agree with the recommendations made and will proceed with responding to these with haste so as to ensure the BCU project is as well placed as possible to deliver against its original intent.

SIGNOFF

s 9(2)(a)

Richard Owen
INZ BCU Sponsor
Ministry Business, Innovation and Employment

10 October 2023

[date]

s 9(2)(a)

David Williams
Engagement Lead
DW Consulting Limited

10 October 2023

[date]

APPENDIX A – REVIEW TERMS OF REFERENCE

SCOPE

- Assessment of the project governance and management environment and structures, including roles, responsibilities, capability, capacity, approach, processes, standards, and controls that were used to support the project planning and delivery.
- Understanding the factors that contributed to the project delays, and what factors could have been managed better to support effective re-planning and delivery scheduling of the project implementation.
- Whether the process used to develop the time and cost estimates for the project were appropriate and aligned with good industry practice, and MBIE project management/planning standards.
- Whether the process used to complete the requirements and traceability to the design was appropriate.
- Whether qualified oversight over the suppliers' design(s) has been robust and appropriate for the scale and significance of the project.
- Whether the solution delivery processes used were appropriate and align/ support MBIE project management processes/expectations.
- Whether the processes used to complete the testing were appropriate, and cover all the requirements.
- Standard project management controls and the degree to which they were employed during the planning phase and support the remaining delivery:
 - Scope definition and management
 - Schedule and dependency management
 - Financial management, including the cost estimation
 - Resource and contract management
 - Commercial arrangements with suppliers
 - Risk and issue management
 - Stakeholder engagement and communication
 - Quality management
- A review of recommendation made in the previous IQA review (September 2022), noting the recommendations that were completed, in progress or to be started.
- Identification of what is going well and areas of opportunity for improvement over the remainder of the project lifecycle.

Scope Exclusions

The scope of this review excludes the following:

- Review of any other project or business system.
- Detailed review of the RFP processes or contractual arrangements.
- In depth quantitative review and assessment of cost estimates and financial business benefits.
- Detailed review of the suppliers' design(s) and their appropriateness.

DOCUMENTS REVIEWED

-  2023-08-04 - MBIE Governance report.docx
-  2023-09-01 - MBIE Governance report.docx
-  3644 BCU MBIE Project Status Report - 20230804.docx
-  3644 BCU MBIE Project Status Report - 20230901 .docx
-  20230808 BCU Project Steering Group Minutes .docx
-  20230808 BCU Steering Group Meeting Agenda.docx
-  20230905 BCU Steering Group Meeting Agenda.docx
-  20230908 BCU Project Steering Group Minutes.docx
-  BCU Steering Group TOR v7.0.docx
-  BCU Steering Group TOR v7.1-Draft.pptx
-  Recommendations Action Tracking - as at 01SEP23.xlsx
-  Recommendations Action Tracking - as at 04AUG23.xlsx
-  Report back Memo to DGB 3644 BCU 2023-09-11 SUBMITTED.docx
-  3644 Biometric Capability Upgrade ICDC Memo.docx
-  Item # 3644 Biometric Capability Upgrade Change Request 05.pptx
-  MBIE BCU NEC Change Requests.xlsx
-  3644 BCU Project.pdf
-  3644 BCU SIT 22 Sep 2022.pdf
-  BCU Project Schedule DRAFT - as at 15SEP23.mpp
-  MBIE BCU High Level Schedule - Steering Committee - Baselined 20230424
-  MBIE High Level Schedule - Steering Committee 20230418.pdf
-  SIT Testing Schedule.pdf
-  2022-12-05 INTERNAL Biometric Capability Update communications plan.
-  2023-01-04 EXTERNAL Biometric Capability Update communications plan.
-  3644 - Master BCU Business Change Management Plan.docx
-  BCU Alerting and monitoring requirements V1.0 APPROVED.docx
-  BCU Traceability Matrix - Requirement to TestCase (1).csv
-  MBIE_IPE_Requirements_Traceability_Matrix.xlsx
-  Morning report requirements V1.0 Approved.docx
-  NEC BCU Business Requirements v1.6 APPROVED .docx
-  BCU Application Solution-Design-Part B.docx
-  BCU Infrastructure - SIT Solution Design Part B_v4.10.docx
-  ICT-Solution-Design-Part B 09052023 - Security.docx
-  Reveal Wireframes Dashboard - Analysis - Verify - Results-updated-04-07-20
-  BCU RAID Register - as at 15SEP23.xlsx
-  Lessons Learned Extract from ADO 20230914.xlsx
-  BCU SIT CUTOVER Implementation Plan - (v. 62) 20230915.docx
-  3644 Biometric Capability Update - Project Finance Template - MASTER Y1
-  BCU Benefits-Realisation-Plan-DRAFT.docx
-  BCU Completion of SIT and Revised UAT Requirements SoW.pdf
-  BCU EULA v0.4(MBIE review 7th Aug).docx
-  CR23_2023-08-03-16-06-40.pdf
-  CR28_2023-08-03-16-10-37.pdf
-  CR47_2023-08-03-16-05-02.pdf
-  CR58_2023-08-03-16-04-02.pdf
-  CR59_2023-08-03-16-03-13.pdf
-  CR82_2023-08-03-16-02-25.pdf
-  CR91_2023-08-03-16-01-33.pdf
-  CR93_2023-08-03-15-59-59.pdf
-  CR102_Theta Interface JWT Authorisation_2023-07-25T19_56_33.1167940Z (1) -
-  Datacom Product assessment to support IDME v2.0 SOW_signed.pdf
-  FCC Check - BCU Integration - SIT Entry Delays SoW v1.0.pdf
-  ITMS K46248 RHEL UAT Servers - approval memo_Signed.pdf
-  MBIE 109 - BCU API Re-trigger Remediation CR2.pdf
-  MBIE 148 - MBIE 109 BCU Project Extension.pdf
-  MSA between NEC-MBIE-270619.pdf
-  NEC CR104 - Transfer of IPE Hardware_signed.pdf
-  Project SoW - BCU Alerting and Monitoring v02.pdf
-  SOW Variation-1 Datacom BCU Delivery -Final v2.pdf
-  WI-12762 - BCU Migration Additions_SOW COUNTERSIGNED.pdf
-  WI-12784 - BCU SIT Testing Staff Augmentation_SOW COUNTERSIGNED.pdf
-  WI-12864 - BCU Overhead_SOW.pdf
-  WR1021 MBIE BCU SIT UAT Prod Build and Testing v2 (6.6).pdf
-  BCU Project Resources - Contract End dates.xlsx
-  BCU Project Issues Extract - 20230914.pdf
-  PSR028-RiskSchedule 13 Sep 2023.pdf
-  3644 SIT Testing Plan.pdf
-  BCU Test Plan_2.2. IBW.csv
-  BCU Test Plan_DB14 - Create Visa Application.csv
-  MBIE BCU- Defect Management Process (1).docx
-  MBIE BCU Non Functional Test Plan.docx
-  MBIE Biometric Capability Update Test Plan.docx
-  MBIE Biometric Capability Update Test Strategy_Final.docx
-  NEC IPE Test Plan v1.6.docx
-  NEC MBIE IDme (BCU) Test Summary Report - V2.2 final.docx
-  NEC MBIE IPE Test Summary Report_v1.0 Final1.docx

PEOPLE INTERVIEWED

Our thanks go to the following stakeholders who contributed to this review.

Name	Project Role
s 9(2)(a)	
Robyn Moriarty	DDI Sponsor
Richard Owen	INZ Sponsor

APPENDIX B – DELIVERY CONFIDENCE RATINGS

This review uses the Government Chief Digital Officer (GCDO) Delivery Confidence Ratings that aligns with the Office of Government Commerce (OGC) Gateway© Delivery Confidence Assessment, a recognised good practice standard.

Delivery Confidence Rating	Description
Highly Likely	Successful delivery of the change appears highly likely and there are no major outstanding issues that significantly threaten achievement of the next key milestone.
Likely	Successful delivery of the change appears likely. Attention will be needed to ensure that risks do not materialise into issues threatening achievement of the next key milestone.
Possible	Successful delivery of the change appears possible. However, issues exist in key areas that require management attention in order to achieve the next key milestone. Issues appear to be resolvable at this stage if addressed promptly.
Unlikely	Successful delivery of the change appears unlikely with major risks or issues in key areas that require urgent management attention. Achievement of the next key milestone is in doubt.
Highly Unlikely	Successful delivery of the change appears to be highly unlikely due to significant issues which do not appear to be resolvable at this stage. The schedule may need to be re-baselined or overall viability of the investment re-assessed



MINISTRY OF BUSINESS, INNOVATION AND
EMPLOYMENT

BIOMETRIC CAPABILITY UPGRADE (BCU) PROJECT

INDEPENDENT QUALITY ASSURANCE REVIEW REPORT



In Confidence

Document Control

Document Information

Document Name	MBIE_BCU Project IQA Report
Contact	David Williams, Director – DW Consulting Limited
Status	FINAL

Document History

Author	Description of Change	Date	Version
David Williams	Initial draft	2 May 2024	0.1
David Williams	Final incorporating factual accuracy review and management comment	9 May 2024	1.0

Distribution Control

Person	Role	Date	Version
s 9(2)(a)	Consulting Partner – Ernst & Young Global Consulting Services Early copy provided to support the commissioned Ernst & Young review, and not for further distribution. (noting the draft report has not undergone factual accuracy review)	3 May 2024	0.1
Michael Alp	INZ Sponsor Early copy requested for awareness of the commissioned Ernst & Young review, and not for further distribution. (Project Sponsor accepted that the draft report is still subject to fact checking, and the report will 'officially' be sent to him following factual accuracy, for management comment, and finalisation)	3 May 2024	0.1
s 9(2)(a)		6 May 2024	0.1
s 9(2)(a)		6 May 2024	0.1
Michael Alp	INZ Sponsor	9 May 2024	1.0
s 9(2)(a)		9 May 2024	1.0
s 9(2)(a)		9 May 2024	1.0
s 9(2)(a)		9 May 2024	1.0
s 9(2)(a)		9 May 2024	1.0

Contents

EXECUTIVE SUMMARY	4
Delivery Confidence Assessment Rating	4
Review Objectives	4
INTRODUCTION	6
Background.....	6
Review Approach.....	6
DETAILED FINDINGS AND RECOMMENDATIONS.....	7
Governance and Reporting.....	7
Delivery and Management controls	10
Testing and Validation	17
Contractual Arrangements	20
Benefits Management	21
Previous IQA Recommendations	23
REVIEW SIGN OFF	25
Management Comment	25
Signoff.....	25
APPENDIX A – REVIEW TERMS OF REFERENCE.....	26
Scope	26
Documents Reviewed.....	27
People Interviewed.....	28
APPENDIX B – DELIVERY CONFIDENCE RATINGS	29

EXECUTIVE SUMMARY

DELIVERY CONFIDENCE ASSESSMENT RATING

Possible
Successful delivery of the change appears possible. However, issues exist in key areas that require management attention in order to achieve the next key milestone. Issues appear to be resolvable at this stage if addressed promptly. We see an improvement in delivery confidence from our last IQA Review completed in September/October 2023, that rated the delivery confidence for the project as 'Unlikely' based on the original go live date of 13 November 2023. The project has agreed to a new Go Live date of 29 October 2024, and this is not without risk. System Integration Testing (SIT) has advanced, however there is no firm agreement when SIT will be completed. An increased focus is needed to complete the outstanding test scripts, along with a significant increase in defect resolution cadence, to allow the project to exit SIT, aligned with the agreed exit criteria. The Project Steering Group (PSG) continues to be pivotal to delivery success, and must hold itself, and its individual members, to account for meeting the agreed re-planned milestones, with clear transparency and visibility. There must also be a fundamental shift in focus from the delivery of an IT system to the delivery of a business solution, and as a result the project requires greater leadership, and involvement from within the Immigration New Zealand (INZ) business.

See **Appendix B** – Delivery Confidence Rating for a full description of the delivery confidence assessment ratings.

REVIEW OBJECTIVES

The Ministry of Business, Innovation and Employment (MBIE) engaged David Williams Consulting to provide an Independent Quality Assurance (IQA) Review of the Biometric Capability Update (BCU) Project. This report details the findings of the review, and the recommendations aligned to the agreed objectives and scope.

See **Appendix A** for the detailed Terms of Reference agreed for this engagement.

The key objectives of the BCU Project IQA Review were to:

- Provide assurance to the Sponsor, and Project Steering Group, that the project is positioned to meet the Go Live milestone within time and revised proposed budget (including proposed contingency) and to the expected level of quality.
- Provide assurance that the overall project governance and management environment (roles, responsibilities, capability, capacity, approach, processes, standards and controls) have been maintained and are of sufficient rigour to support successful delivery of the project.

Key Messages

- The case for the delivery of the Biometrics Capability Upgrade (BCU) Project remains strong, and strategically aligned. BCU is one of a wider suite of projects that supports Immigration New Zealand (INZ) to become digitally enabled. The project delivers a significant upgrade to the INZ biometrics management, capture and matching solution, that is the all-of-government source of identity information for non-New Zealanders.
- A new Go Live date of 29 October 2024 has been agreed, and whilst the date appears achievable, it is not without risk. There is an expectation and commitment from senior management that project must deliver to the newly agreed timeframes, and we strongly support this approach, and oversight. As noted in our previous IQA Review Report, the successful completion of SIT and having a firm PSG delivery commitment, remains the two critical success factors for delivery.

- There are several other improvement opportunities for the project that must be addressed if it is to deliver on expectations. These include:
 - Increasing senior INZ involvement, will ensure the project remains business driven, and aligned to the business need. Similarly, increasing business subject matter expert (SME) involvement will support the all-important change management activity, as well as some of the delivery aspects.
 - Gaining written commitment from all parties will increase the certainty of achieving the newly agreed milestones and delivery path, and ensure there is a firm commitment from all parties to meet their agreed milestones.
 - Re-confirming the milestones are achievable within the detailed project schedule, in particular those deliverables needed for Go Live, will support delivery of the Minimal Viable Product (MVP) solution. There must be a fully joined up delivery approach across the Delivery Lead and Project Managers, working from one version of the delivery truth. Updating the project status reporting, will provide the necessary transparency of the milestones for the PSG to fulfil their oversight role, and delivery commitments.
 - Increasing the Test Analysts will allow the completion of the remaining test scripts, flush out any remaining defects, and free up non-test resources to focus on the remaining deliverables. Significantly increasing the defect resolution cadence, will ensure the project delivers on the agreed exit criteria, with any acceptable workarounds agreed by the business.
- We have also made some key considerations in relation to Changes Request 06.
- Lastly, we have reviewed the status of recommendations made in our last IQA Review Report in September/October 2023.

INTRODUCTION

BACKGROUND

The scope of the BCU Project is to deliver an upgrade to the biometrics management software and algorithms to provide improved matching rates, maintain security and supportability, and improve total cost of ownership. The replacement of In-Person Enrolment used by a variety of Immigration New Zealand business functions (including Border, Refugee and Compliance) is to be delivered through a separate project working closely with the functionality delivered by BCU.

REVIEW APPROACH

Whilst this review focusses on 'Delivery Confidence', it is important to note another review is scheduled in September 2024 and will focus on 'Implementation and Handover', prior to project Go Live.

The approach taken for this review included a review of key project documents, and one-on-one discussion with a range of key stakeholders involved in oversight and delivery, to obtain their views of the project. Our review of the provided documentation, and discussion with key stakeholder took place between 19 and 29 April 2024, and reflects the status of the project at that time.

*See **Appendix A** for a full list of the documents reviewed and the key stakeholders we met with*

DETAILED FINDINGS AND RECOMMENDATIONS

Based on the detailed findings in this report, the following recommendations should be addressed as a matter of noted priority. The recommendations are broken into key review areas.

GOVERNANCE AND REPORTING

Findings

Governance

- An external Project Steering Group (PSG) remains in place for the project, and is supported by a Terms of Reference (ToR V7.1 12/04/2024 Draft), which appropriately details their purpose, role, and responsibilities. The ToR has recently been updated, to reflect the current absence of the Immigration New Zealand (INZ) Sponsor s 9(2)(a) and some new members, and has been endorsed by members on 23 April 2024.
- The external PSG is chaired by an interim Sponsor, who will also act in the existing INZ Sponsor's substantive role, until his return. Other members include a Digital, Data and Insights (DDI) Sponsor, INZ Business Owner, and DDI Delivery Lead. Both the interim Sponsor and the Delivery Lead come from other areas within MBIE, and the most senior INZ representative is the Business Owner. We note reference to an External (independent) Member, and strongly support this role.
- PSG attendees include the MBIE Project Managers, and the Supplier Project Manager, and this is appropriate.
- PSG meetings are currently being held weekly, and are supported by quality minutes and actions. We support the current frequency of meetings, as it provides key governance oversight, whilst the project focusses on the completion of the System Integration testing (SIT). We recommend these arrangements remain in place until at least SIT is completed, and which point the meeting frequency can be reviewed and potentially reduced.
- An (MBIE members only) PSG meeting has recently resumed each week prior to the external (full membership) PSG. This provides the opportunity to have any internal discussion, and there is ensure appropriate internal alignment before the Delivery Partner join.
- A weekly project management team is also in place, and comprises the Delivery Lead, and INZ Project Manager(s), and this ensures there is the appropriate management and delivery alignment within the project.
- The project is also reporting to the Delivery Governance Board (DGB) as the MBIE Board accountable for project success, on a monthly basis. The DGB are providing advice and support to the project, and also provides appropriate escalation for the PSG as needed.
- The relationship between MBIE and the key Delivery Partner appears to be greatly improved, and there is now a focus on delivery. The PSG remains pivotal to delivery success.

Reporting

- An MBIE Project Status Report (20240412) notes the project has an overall status of red. Budget, schedule and scope are also showing red, with risk, issues, resource and benefits shown as amber. Commentary provided notes the project still requires an uplift in both testing, and defect resolution, and we discuss this further in the *Testing and Validation* section below.
- The MBIE Project Status report is out of date in some key areas (e.g. % complete, milestones) and this reflects the re-set Change Request that has not yet been approved. We also note there is not the depth and breadth of the milestones we'd expect to see, nor does the reporting sufficiently detail 'baseline' and 'forecast' information - a key mechanism needed to manage any potential slippage.
- An NEC Project Status Report (12/04/2024) has an overall status of green. Scope, budget, schedule, resources and relationship are shown as green, with budget, and commercial shown as amber, and we question the green status based on the current defect resolution cadence. The NEC status report notes progress continues on the work with NZ team, more closely aligned with the international team, and work towards increased levels of defect fixes, and provides the appropriate focus on defect resolution.

We further note that the dates shown, do not align to those shown on the MBIE status report, and this requires resolution.

- A Change Request (CR 06) has been drafted to reset the project delivery (time, budget) and has been endorsed by both the PSG and the DGB. Final approval will be dependent on Cabinet/Ministerial approval and the MBIE Finance and Change Committee (FICC). Once approved, we'd expect the project to reflect a more positive overall delivery status.

Recommendations

ID	Recommendation	Priority / Owner
3.1	Increase senior INZ involvement The PSG is chaired by an interim Sponsor, who will also act in the existing INZ Sponsor's substantive role, until his return, and this is appropriate. Other members include a Digital, Data and Insights (DDI) Sponsor, INZ Business Owner, INZ System Owner, DDI Delivery Lead, and Senior Suppliers (delivery partners – noted as non-voting). Both the interim Sponsor and the Delivery Lead come from other areas within MBIE, and the most senior INZ member is the INZ Business Owner (a level four position). The BCU Project will deliver a business (rather than IT) solution, and there must be a key focus in this regard, ensuring there is appropriate business acceptance of the delivered solution, to ensure it meets business need. The project is an important project for INZ, and will deliver some key benefits to frontline staff. Given the project's importance, and its past delivery history, we'd expect to see more senior INZ (i.e. Deputy Secretary Immigration) membership involvement on the PSG, to provide a strong INZ voice and to manage the Ministerial relationship. This will also ensure there is a key business focus, and that business resources are made available to support the delivery, and the change management aspects.	Critical INZ Sponsor End May 2024
3.2	Gain commitment from all vendors for the updated delivery plan We understand all parties have verbally committed to a Go Live date of 29 October 2024, and this is appropriate. An email was sent out to parties in February 2024, requesting signed commitment to the Go Live date, and the majority of suppliers (Argonaut, Datacom, DXC, InTech and Theta) have completed this. We understand a few suppliers (NEC and One NZ) have not yet provided their written commitment, and this must be followed up, and obtained. The email included two attachments, a BCU Draft Schedule for discussion (to be updated), and an Entry and Exit Criteria for 3364 Biometrics Capability Update. The dates shown in these artefacts appear to have been superseded – for example, SIT completion is shown as 02/05/2024. An updated BCU Schedule Slide shows SIT completion as 01/07/2024. Similarly, the Entry and Exit Criteria for 3364 Biometrics Capability Update shows Priority 1 Test Scripts 'Estimated date for acceptance' as 23/02/2024, and 'Priority 2 & 3 Test Scripts Estimated date for acceptance END OF SIT' as 02/05/2024.	Critical INZ Sponsor End May 2024

ID	Recommendation	Priority / Owner
	Whilst we understand the two documents provided clearly noted they were draft or estimates, the Go Live date of 29 October 2024 has remained unchanged, and raises concerns around potential SIT slippage. Once the schedule has been baselined, the project must gain commitment from all suppliers for the updated plan(s). We discuss this further in <i>recommendation 3.6</i> below.	
3.3	Update the MBIE and NEC Project Status Report Milestones to reflect the current delivery path milestones Ensure start/end baseline, forecast and actual dates are shown in the MBIE status report Ensure continued PSG commitment and oversight of delivery and achievement of the milestones The MBIE Project Status Report (20240412) notes the project has an overall status of red, and this reflects the pending CR that has not been fully approved. We note there are missing milestones from the status report (for example some of the testing milestone(s) including SIT, the completion of the Privacy Impact Assessment (PIA), the user guides, the knowledge based articles etc.). Whilst this is partially due to there being two MBIE Project Managers, focussed on separate aspects of project delivery, there must be joined-up approach, with an all-inclusive schedule and status reporting. There are only ‘Actual’ and ‘Baseline’ ‘Finish’ dates shown, and we don’t see any ‘Start’ dates shown (a key indicator of upcoming potential slippage). We also see evidence of milestone dates differing between the MBIE and NEC status reports – for example we see UAT Commencement baseline date shown on the NEC report as starting 28 May 2024, with the forecast date shown as TBC. We don’t see a UAT Commencement date on the MBIE status report at all, just a UAT Finish date of 29/09/2023 and Baseline Finish date of 14/08/2023. A BCU Governance Dates spreadsheet (SteerCo 26 Mar), is solely IT focused, and is provided in addition to the Project Status Reports, shows UAT Commencement as 03/07/2024 and Finish as 03/08/2024, and again misaligns to the status reporting. Similarly SIT Completion is shown in the NEC reporting as 21 June 2024 (forecast), and the BCU Governance Dates spreadsheet as 01/07/2024. The Project Status Report is an important artefact, and the key mechanism used by the PSG to provide effective governance oversight. Whilst we understand CR06 approval is pending, it has been endorsed by both the PSG and DGB. Further, we have noted in our last two IQA review reports that the PSG remains pivotal to delivery success, and must hold itself, and it’s member to account for achieving the agreed delivery milestones. In order to fulfil its role, there must be appropriate reporting, showing all deliverables/milestones, based on the newly agreed delivery dates, along with consistent dates across the delivery partners reporting. We’d expect the MBIE Project Status Report to include the following • <u>All</u> key milestones for the project (across <u>all</u> vendors) • Baseline start and finish dates for <u>all</u> key milestones	Critical Delivery Lead Immediately

ID	Recommendation	Priority / Owner
	- Forecast start and finish dates for <u>all</u> key milestones - Actual start and finish dates for <u>all</u> key milestones We'd expect the NEC Project Status Report to include the following <u>Relevant</u> key milestones for their deliverables - Baseline start and finish dates for all relevant milestones, aligned to the dates shown in the MBIE status report - Forecast start and finish dates for all relevant milestones - Actual start and finish dates for all relevant milestones aligned to the dates shown in the MBIE status report Reporting both 'Baseline' and 'Forecast' information allows the project to highlight any potential future slippage, and allows the PSG to take a more proactive approach in helping the project to mitigate and manage the impact before it occurs. If it is not possible to change the dates in the MBIE Project Management tool due until the CR is approved, then we suggest the BCU Governance Dates spreadsheet is updated to include the above aspects. We discuss milestone dates, and the baselining of these further in the <i>Delivery and Management Controls</i> section below.	

DELIVERY AND MANAGEMENT CONTROLS

Findings

Management

- The relationship at a project delivery level appears to be productive, with the key focus on the completion of SIT. There are various meetings occurring across all vendors, including daily triage meetings to work through defects, and this is appropriate.

Scope

- The scope appears stable in terms of the overall delivery to the business needs, and references the previously finalised business requirements. There are still some changes being made to the BCU Alerting & Monitoring Requirements, and will be progressed when one of the Business Analysts is freed up from the SIT.
- A recent Change Request (06 - 15/04/2024) details a change in scope for the project to remove the In Person Enrollment (IPE) component, and set up as a standalone project for the Biometric Capability Upgrade (BCU) Project. While we support this split, it has the potential to increase the workload of existing project resources. There must some pragmatism shown in terms of having single artefacts that include both projects where possible.

Time

- A BCU Schedule (18/04/24) details the delivery activity and milestones across the various components and notes the project is currently 84% complete. A Go Live date of 29 October 2024 has been agreed, and CR06 has been endorsed by both the PSG and the DGB, with final approval pending. This is reflected in the schedule, but we note there are just 10 days of contingency available.
- A BCU Schedule Slide provide a visual one page summary of delivery activity and start/finish dates.
- A BCU Governance Dates spreadsheet (SteerCo 26 Mar) details the milestones, and critical path, and their start and finish dates.

- The BCU Schedule, and the BCU Governance Dates spreadsheet both have a key focus on the IT components, and there is little focus on some of the non-IT aspects needed of the project. We also see variations in the milestones across the various artefacts, and these both must be resolved with some urgency, and the delivery schedule/milestones baselined to confirm the Go Live date is actually achievable. SIT has been a key focus for the project, however there are several other deliverables that require advancing as part of the wider MVP.

Budget

- The total combined project costs of BCU & IPE are captured in the Project Finance Template – MASTER spreadsheet (as at 19 April 24). The total combined projects have an approved Baseline funding of \$21,794,944 Capex, and \$4,512,683 Opex, and an Actual spend (end March 2024) of \$21,863,581 Capex, and \$4,533,029 Opex. The current forecast is \$36,606,596 Capex, and \$12,532,577 Opex.
- CR06 has requested an additional capex and opex as below, and this requires Ministerial/Cabinet approval and splits BCU & IPE into their original project codes. For reference the original BCU project did not include any IPE deliverables. CR06 returns the BCU project to its original scope.
 - BCU
 - Capex FY23/24: \$4,590,784
 - Capex FY24/25: \$6,946,352
 - Opex FY23/24: \$133,256
 - Opex FY24/25: \$5,809,018
 - IPE
 - Capex FY23/24: \$573,265
 - Capex FY24/25: \$2,701,251
 - Opex FY23/24: \$348,512
 - Opex FY24/25: \$1,729,108
- A Capex contingency of \$1,052,830 (FY23/24), \$3,071,770 (FY24/25), and an Opex contingency of \$367,282 (FY 23/24), \$6,933,679 (FY24/25) has been allowed for in CR06. To date \$991,000 Capex and \$74,324 contingency has been used – a total of \$1,065,324. We understand the changes that have been raised were not part of the CR06 contingency forecast, and this requires review.

Resources

- Resources are tracked in the Project Finance Template – MASTER spreadsheet (as at 19 April 24), and we see a dedicated group of people, with a focus on delivery success.
- The completion of the SIT test scripts is taking longer than expected, and is consuming more time from the non-testing resources. There would be benefit in immediately increasing the number of testers, to flush out the remainder of the defects, so the SIT completion milestone can be achieved.
- Once of the Project Managers is acting in the role of Test Manager, and a resource had recently been brought on to focus on performance testing (within UAT), and this is appropriate. The Project Manager is also the Release Manager, and there may be some benefit in looking for a resource to fulfill this role.
- Several of the resources involved on the BCU project are contractors, and some of their contracts are coming up for renewal. This is a key consideration for management, especially with the current cost savings and resource reductions occurring across wider government.
- We see more involvement of the business subject matter experts (SME's) involved in the SIT, and we support this. We recommend this number is increased, especially in relational to advancing the standard operating procedures, training etc. Management must ensure there is no impact on business as usual in this regard.

Risks and issues

- There are 16 open risks recorded in the Risk Register (Project Server Risks Extract May24), and captures both the delivery and business risks. We'd expect risks to be reviewed on a regular basis by the internal PSG.

- There are two open issues noted in the Issue Register (Project Server Issues Extract 16April24), and include defects not being fixed in a timely manner.

Stakeholder Engagement, Communications and Change Management

- An INTERNAL Biometrics Capability Update Communications plan details the planned internal communications to Immigration New Zealand (INZ) people. A table of key dates and deliverables, includes four phases, however the plan contains several markups, and requires finalising.
- An EXTERNAL Biometrics Capability Update Communications plan details the planned external communications. Again we see a similar table detailing the activity across the four phases, however the dates are shown as TBC, and require updating. Similarly, there are references to resources who left the project many month ago. There has been several media/Official Information Act (OIA) question in the project, and when it will go live, and these are included in an appendix.
- A Master BCU Business Change Management Plan (version 0.10 April 2024) details the business change activities that are required to successfully implement the project. It contains details of how the change will be defined and managed. Whilst the plan documents the delivery components, including learning, the dates are noted as TBC and require firming up. We also see references to resources who left the project many month ago, and this requires updating.
- We understand the INZ Business Change resources have recently been re-allocated to BCU since mid-April 2024, and communication and learning resources are also being re-engaged. We understand there has been some high level internal and external communications, and there are plans to increase communications and change management activity following the completion of SIT. A dedicated Change Navigator site has been created, and is currently being populated, and we see a BCU High Level Design and a BCU Learning Plan. The training work is also underway, and we understand user manuals and SOPs are being advanced. There has also been a request for a training resource to be re-instated, and the Learning Plan re-validated.

Quality

- The Quality Plan remains the same as our last review, and details the artefacts that are to be produced by MBIE and its delivery partners, along with who will provide the peer review and sign off. Quality aspects are also built into the various project artefacts (e.g. entry, and exit criteria, and acceptance criteria in the Test Plan).
- Collaboration tools are in place and include a TeamSite instance with NEC, as well as access to Confluence and Azure DevOps etc. for all delivery parties.

Design and integration

- The Part B Application Solution-Design-Part B is progressing, We understand the understanding of some of the non-functional requirements (NFR) are being fine-tuned, along with the test cases. The NFRs will be tested in UAT, and we have made a recommendation for the Alerting and Monitoring requirements to be finalised, along with any other NFR test cases.
- Whilst we didn't talk directly to a security subject matter expert, we understand the certification and accreditation (C&A) process is advancing, with some outstanding security defects with vendors to resolve. Agreement of the C&A completion, along with any outstanding remediations and/or acceptance of any lower security risk, is part of the MVP delivery. Security control validation and testing was brought forward in the schedule to proactively identify any weaknesses early in the development lifecycle.
- The BCU Project lost some time due to the eight week delay in setting up the SIT environment (September/October 2023), and we are pleased to see these infrastructure issues have been resolved, and that the UAT environment has already been successfully set up and rebuilt for testing purposes.
- We are similarly pleased to see the successful migration of some 48m biometric records into the UAT environment. We understand migration of these records was estimated at some 700 hours of effort, and was completed with 30% of the time (saving some 490 hours). This is a win for the project, and will potentially increase the time contingency available and provides positive signs for performance testing.

Implementation

- We have not included implementation in this delivery confidence review, and there has been little, if any advancement of the Cutover Plan we'd previously reviewed. Implementation Readiness will be covered in a planned Implementation Readiness Review scheduled for September 2024.

Recommendations

ID	Recommendation	Priority / Owner
3.4	Finalise the BCU Alerting and Monitoring Requirements The scope appears stable in terms of the overall delivery to the business needs, and references the previously finalised business requirements (i.e. NEC BCU Business Requirements v1.6 APPROVED, NEC IPE Functional Specifications v2.5 APPROVED, Morning Report Requirements v1.0 Approved). There are still some changes being made to the BCU Alerting & Monitoring Requirements (V1.1 Marked Up) and will be progressed when one of the Business Analysts is freed up from the SIT. Whilst these requirements will not be tested until UAT, their completion will finalise the baseline scope in terms of the business requirements. It is important the scope remains unchanged, as it creates the foundation for delivery.	High Delivery Lead End May 2024
3.5	Consolidate project documents where possible CR06 (15/04/2024)) details a change in scope of the project to remove the In Person Enrolment (IPE) component, and set up as a standalone project to the Biometric Capability Upgrade (BCU) Project. While we support this split, it has the potential to increase the workload of existing project resources who will need to create two separate sets of artifacts (e.g. project schedule, benefits realisation plans). Both project are intertwined, and will Go Live at the same time, and there must some pragmatism shown in terms of having single artefacts that include both projects where possible.	High INZ Sponsor Immediately
3.6	Agree and align the delivery milestones, and dates, and baseline the schedule In March 2024, the PSG agreed to a Go Live date of 29 October 2024, and CR06 has been endorsed by both the PSG and the DGB, with final approval pending. There are various artefacts detailing the timeline/schedule, and include: • A detailed BCU Project Schedule (18/04/24) which covers all aspects of the business and IT delivery components. • A BCU Schedule Slide provide a visual one page summary of delivery activity and start/finish dates, and is only focused on the IT components. • A BCU Governance Dates Spreadsheet (SteerCo 26 Mar) details the critical path milestones, and their start and finish dates, and is only focussed on the IT components. Whilst we see the Go Live date of 29 October 2024 in all artefacts, we understand there are just 10 days of time contingency currently available. We further understand the project is looking at ways to increase this.	Critical Delivery Lead Immediately

ID	Recommendation	Priority / Owner
	The various milestones dates do not align across the above artefacts, and we see various versions of the delivery truth. e.g. the BCU Schedule Slide and the BCU Governance Dates (critical path) shows SIT completion as 1 July 2024. The NEC Project Status Report shows SIT completion as 20 May 2024 (baseline date), and 21 June (forecast) date. An testing update from Friday 22 April 2024 shows SIT completion as 25/06/24. We see an earlier version of the BCU Schedule Slide named 'Draft Schedule for discussion (to be updated)' that shows SIT completion as 2/5/24, 'with new code continues to be deployed' until mid-August. This was used to gain commitment from all vendors to achieving the milestone delivery dates back in mid-February (refer <i>recommendation 3.2</i> above). At this stage of the project, we'd expect the milestones, and milestone dates to be confirmed and finalised, and the schedule baselined. There are other key components that must be completed priority to delivery (e.g. Privacy Impact Assessment, User Guides, Training, System Operating Manual (SOM) etc.), and whilst these are included in the detailed schedule, many of these are absent from the critical path. We recommend the following 1. The detailed project schedule is used by the project as the MASTER integrated delivery schedule. The schedule MUST be baselined and used as the one version of delivery truth, to track delivery, along with any variations. 2. The Schedule slide (summary) is updated to reflect the project schedule and again baselined – this is the 'Plan on a Page' view. 3. The critical path is taken from the baselined project schedule, and includes <u>all</u> MVP deliverables, not just the IT components. The MBIE Delivery Lead, and MBIE Project Manager(s) must review, agree and confirm <u>all</u> milestones and delivery dates (across all vendors), to ensure the needed MVP activity can be completed within the necessary timeframes to enable Go Live no later than 29 October 2024 (i.e. working the key milestones back from the agreed Go Live date). October 2024 is a crucial milestone for the project, and INZ enters its busy processing period from November. If this date cannot be achieved, then the next Go Live opportunity would not present itself until after March 2025, and so it is vital it is achieved. Once the agreed set of 'achievable' milestones dates are fully documented, they must be baselined, and managed vigorously and proactively, with the appropriate governance commitment and oversight.	
3.7	Review the contingency allowed for in CR06 A Capex contingency of \$1,052,830 (FY23/24), \$3,071,770 (FY24/25), and an Opex contingency of \$367,282 (FY 23/24), \$6,933,679 (FY24/25) has been allowed for in CR06. To date \$991,000 Capex and \$74,324 contingency has been used – a total of \$1,065,324. In the case of Capex, this represents 24% of the Capex contingency, and we understand the changes that have been raised, were not part of the CR06 contingency forecast.	High INZ Sponsor End May 2024

ID	Recommendation	Priority / Owner
	We recommend the contingency (in particular Capex) is reviewed, and increased as appropriate. We discuss this further in the <i>Contractual Arrangements</i> section below.	
3.8	Increase the MBIE Test Analysts and free up the non-test resources Review the need to a Release Manager or Test Manager At the time of our review the project has completed 96% of the priority 1 test scripts, 41% of the priority 2 test scripts and just 25% of the priority 3 test scripts. There would be benefit in immediately increasing the number of Test Analysts by two or three, so the test scripts can be completed, and the remaining defects flushed out. We'd recommend the Test Analysts come internally from within INZ, and an obvious choice would be the ADEPT team. This will also free up the non-test resources (such as the Business Analysts) to focus on their assigned activities, some of which form part of the MVP delivery. Similarly, one of the Project Managers is acting in the role of Test Manager, and has some key responsibilities outside of testing (e.g. perform testing release management). We understand a resource has been brought in to focus on performance management, and this is appropriate. There would also be some benefit in looking for a resource to fulfil the roles of Release Manager, to allow the existing Project Manager to focus on testing, or a Test Manager, to allow his focus to shift to release management.	Critical INZ Sponsor Immediately
3.9	Review appropriate contract renewals Several of the resources involved on the BCU project are contractors, and some of their contracts are coming up for renewal in June 2024. This is a key consideration for management, along with the current resource reductions occurring across government. Key resource must be retained to keep the delivery momentum, as well as the project intellectual property.	Critical INZ Sponsor End May 2024
3.10	Increase Bus SME involvement Ensure business as usual is maintained We see more involvement of the business Subject Matter Experts (SMEs) involved in SIT, and this is appropriate now the P1 test scripts have been all but been completed, and the bulk of the severity 1 (critical) defects resolved. We understand approx. six SMEs have been given access to SIT to familiarise themselves with the functionality. Typically SME's are only brought in during User Acceptance Testing (UAT) and we support their early involvement in SIT as this will build confidence and provide opportunity to understand how the functionality works, and highlight any potential problem. We also understand a demo of the 'Reveal' functionality was given to the impact business group(s) with positive feedback received. We discuss this further in the <i>Testing and Validation</i> section below. Similarly, work requires advancing in the development of the training material, standard operating procedures (SOPs), and all-important change	Critical INZ Sponsor End May 2024

ID	Recommendation	Priority / Owner
	management activities. The business SME's will play a key role in these aspects, especially in the change management considerations. With the increased SME involvement, any impact to business as usual (BAU) must be carefully managed and maintained, ensuring there is no degradation in service, as the business teams become more involved. Management must explore options to ensure as little impact as possible, and this includes ensuring any processing backlogs are cleared away, and whether other INZ teams can provide backup support (such as the Border team).	
3.11	Review and advance other key deliverables needed for Go Live to support MVP SIT has been an important, almost singular, focus for the project for several months, and whilst we support this, it has consumed a lot of resource. As noted in our previous IQA report, the completion of SIT is a key success factor for the project, and provides confirmation the solution meets the business needs. Now the majority of the critical defects (severity 1) are resolved, and the remaining test scripts largely 'unblocked', we have recommended additional test resources are brought in immediately to continue the test momentum (refer <i>recommendation 3.8</i> above), and free up non-test resources to review and advance other key deliverables required for Go Live. This includes completion of the Security Certification and Accreditation (C&A), Privacy Impact Assessment (PIA), training material, and the System Operating Manual (SOM) etc, all required to operationalise the project. The Project Manager is acting in the role of Test Manager, and whilst we support this, his attention must turn to advancing the Go Live planning in the coming months. Once the detailed project schedule is baselined, the project must then advance any work needed for Go Live completion, and to support the MVP.	Critical Delivery Lead End May 2024 onwards
3.12	Update and finalise the Internal and External Communications Plans Update and finalise the Change Management Plan Commence change activities An INTERNAL Biometrics Capability Update Communications plan (last updated August 2023) details the planned internal communications to Immigration New Zealand (INZ) people. A table of key dates and deliverables includes four phases (Phase 1 Announce (Mar 24), Phase 2 update (Jul 24), phase 3 prepare/training (Sep 24), phase 4 Go Live (Oct 24). The plan contains several markups, and requires finalising. An EXTERNAL Biometrics Capability Update Communications plan (version 5 November 2023) details the planned external communications. Again we see a similar table detailing the activity across the four phases, however the dates are shown as TBC, and require updating. Similarly, there are references to resources who left the project many months ago, and this requires updating, before the plan is finalised. A Master BCU Business Change Management Plan (version 0.10 April 2024) details the business change activities that are required to successfully	High Communications Lead Change Lead End May 2024

ID	Recommendation	Priority / Owner
	implement the project. It contains details of how the change will be defined and managed. Whilst the plan documents the delivery components, including learning (e.g. Standard Operating Procedures (SOPs), and User Guides), dates are noted as TBC and require firming up. We also see references to resources who left the project many month ago, and this requires updating. We understand that the communication, change and learning resources have only been recently re-engaged by the project. Communication and change management are both key success factors for the project, and whilst we understand these plans are 'live documents' that require regular review, and updating, they require finalising, so the focus can shift to enacting the plan(s) as the project looks to exit from SIT. There will undoubtedly be several workarounds at the end of Sit that must be factored into the change/communication messaging.	

TESTING AND VALIDATION

Findings

- SIT is well underway, and there are a total of 3807 test scripts (test points) to be completed. Each test scripts takes an average of one hour to complete, and at the time of our review, there were some 2147 scripts yet to be completed (and 282 to re-test). There are 571 test scripts that have been identified as 'not applicable' and the 470 scripts are noted as a lower priority (P4), which bring the total scripts yet to be tested to approximately 1600. SIT testing has been slower than expected, and there must be an increased effort in this area.
- Test scripts have been prioritised into four priorities (P1-P4). The P1 test scripts represent the end to end functionality, with P2 and P3 continuing to check the functionality. An Entry and Exit Criteria documents MBIE expectations on the entry and exit criteria for each of the test environments, however the SIT exit criteria does not appear to be clearly understood across all parties, and requires re-iterating.
- At the time of our review the testing of the P1 scripts had reached 96% completion, with the P2 scripts at 41% and P3 at 25%, a combined total of 53%. We understand test scripts have an (approximately) 81% pass rate. The focus of testing appears to more focused on completion of test scripts, rather the resolution of test defects, and a fundamental shift is needed in this regard.
- Defect resolution has been far slower than expected, and at this time of our review there were some 82 severity 1 and 2 defects requiring resolution (across all vendors, s9(2)(ba)(ii) with four of these noted as severity 1. There has been a clear expectation that there needed to be 15 defects fixes in each fortnightly release, and this has not been the case. We also do not know how many potential defects there are within the remaining P2/-P3 test scripts, and this creates risk for the project, and completion of SIT.
- In addition to the 82 severity 1 and 2 defects, we also see there are 93 severity 3 defects. We understand there are only (approximately) four releases left until SIT completion, and an increased effort is needed to resolve the priority defects. We'd also expect the business to play a key role in determining the priority of defect resolution, and SIT exit acceptance.
- We see various dates for SIT completion, as previously noted above, we'd expect all dates to be finalised and baselined at this stage of delivery. There has been agreement for Go Live to be completed by 29 October 2024, and this will require the agreement of when the various stages of testing must be completed by.
- Several business SMEs have been brought into SIT, and this is appropriate. We understand a demo of the 'Reveal' functionality was completed to several end users, and we recommend an end to end demo of the functionality is completed prior to SIT completion.

- The NFRs will be tested in UAT, and an additional resource has been brought in to focus on performance testing, which is appropriate.

Recommendations

ID	Recommendation	Priority / Owner
3.13	Re-iterate the SIT exit criteria to all parties Confirm the plans to complete the P4 test scripts Test scripts have been prioritised into four priorities (P1-P4). The P1 test scripts represent the end to end functionality, with P2 and P3 continue to check the functionality. We understand the P4 test scripts are of lesser values, and a deemed more 'nice to have's'. An Entry and Exit Criteria (Jan 2024) documents MBIE expectations of the entry and exit criteria for each of the test environments. For SIT, the exit criteria includes Priority One Test Scripts: • To exit this phase, 95% of P1 Test scripts have been executed. • No Severity 1 defects are open that do not have an agreed remediation plan. The remediation of a Sev 1 needs to be within 1 release cycle. (max of 2 weeks), or earlier if possible. Priority Two & Three Test Scripts: • To exit this phase, 100% of the P2 and P3 Test scripts have been executed. • No Severity 1 defects are open at the formal conclusion of SIT • Less than 20 Severity 2 defects open with a plan to resolve within 2 release cycles. (max of 4 weeks), or earlier if possible. • NEC < 10-15 • DXC < 5-10 • All other Vendors < 5 • All Severity 3 & 4 defects open are documented and prioritised by INZ Business with a plan to resolve within 10 weeks after UAT Cutover. Review participants had varied views on the SIT test exit criteria, and some noted that only the P1 and P2 test scripts would be completed. This is not the case, and requires re-iterating across all parties. The exit criteria is also silent on the P4 test cases, and the exit criteria notes the completion of the P2 and 3 test scripts is the end of SIT. The project must confirm its position in regard to the P4 test scripts, and plans to complete these (and in what environment).	Critical Test Manager Immediately
3.14	Confirm the SIT completion date The SIT completion date is unclear, and we see various dates stated across various artefacts. We see reference to the P1 test scripts being completed 02/05/2024, and various references in the PSG minutes (including 15/02/24, 5th April, and 9th April), and raises concerns of potential slippage. The project schedule does not mention SIT completion whatsoever, and the updated BCU Governance	Critical Delivery Lead Test Manager Immediately

ID	Recommendation	Priority / Owner																																							
	Dates spreadsheet notes 25/06 (noting the original spreadsheet sent to suppliers in February 2024 showed 01/07/2024). Obviously, the project must detail both the test script completion date, and provide any additional time needed to resolve/re-test defects, before the SIT exit date. It is also unclear if any further severity 1 or 2 defects will be discovered in the remaining P2-3 test scripts. As noted above in <i>recommendation 3.6</i>, the project must agree the delivery milestones, and baseline the schedule; and this applies equally to the SIT completion date.																																								
3.15	Significantly increase defect resolution cadence Ensure there is business agreement of defect resolution and SIT exit The project has had a key focus on completion of test scripts, and whilst this is an important aspect, the focus must be firmly on defect resolution, aligned to the agreed exit criteria. Testing has been slower than expected, and this is partially due to the open critical (severity 1) defects, which were blocking other test scripts to be completed. We understand there needed to be an average 15 defects fixes in each release cycle, and this has not been the case throughout SIT testing, with one of the fortnightly releases (11 Apr) missed completely, as shown in the table below: NEC IDme/IBW release history: <table><tr><td>Release (average of 15 fixes per cycle)</td><td>1.0.11 (15 Feb)</td><td>1.0.12 (29 Feb)</td><td>1.0.13 (14 Mar)</td><td>1.0.14 (28 Mar)</td><td>1.0.15 (11 Apr 24 Apr)</td></tr><tr><td>Actual Fixes</td><td>11</td><td>6</td><td>11</td><td>4 Incl CR109</td><td>15*</td></tr><tr><td>Planned Fixes</td><td>16</td><td>9</td><td>12</td><td>10</td><td>16</td></tr><tr><td>Variance (15/cycle)</td><td>-4</td><td>-9</td><td>-4</td><td>-11</td><td>-1</td></tr></table> *Includes hot fix for 111664 CR109 Inflight - Edited DB15 transactions are not forced into matching. NEC IPE release history: <table><tr><td>Release</td><td>1.0.10.1 (08 Feb)</td><td>1.0.12.1 (22 Feb)</td><td>1.0.13.2 (21 Mar)</td><td>1.0.14.1 (19 Apr)</td></tr><tr><td>Actual Fixes</td><td>2</td><td>N/A</td><td>5</td><td>TBC</td></tr><tr><td>Planned Fixes</td><td>4</td><td>N/A</td><td>5</td><td>3*</td></tr></table> This is not acceptable, and a significant increase in defect resolution is required to meet the minimum defect fixes required for each release. Based on the 82 severity 1 (critical) and severity 2 (high) open defects, we were advised it was estimated that 53 of these would be resolved (assuming all build 1.0.15 defects pass), leaving 33 outstanding sev 1 and 2 defects. Based on the evidence shown, in regard to the lower than expected defect resolution, we question where the 53 defects will be resolved. We also see there are 93 severity 3 defects, and of these 33 were deemed priority to resolve prior to go-live/code freeze. We understand there are (approximately) four releases left until SIT completion, and significant additional effort is needed to resolve the 115 priority defects (and any more that come up through the remaining testing yet to be completed). Based on the resolution on 53 severity and severity 2 defects, and 33 severity 3 defects, this is an average of 21.5 defects to be resolved per release cycle. If we remove the 33 severity 3 defects (assuming they will be fixed in parallel to	Release (average of 15 fixes per cycle)	1.0.11 (15 Feb)	1.0.12 (29 Feb)	1.0.13 (14 Mar)	1.0.14 (28 Mar)	1.0.15 (11 Apr 24 Apr)	Actual Fixes	11	6	11	4 Incl CR109	15*	Planned Fixes	16	9	12	10	16	Variance (15/cycle)	-4	-9	-4	-11	-1	Release	1.0.10.1 (08 Feb)	1.0.12.1 (22 Feb)	1.0.13.2 (21 Mar)	1.0.14.1 (19 Apr)	Actual Fixes	2	N/A	5	TBC	Planned Fixes	4	N/A	5	3*	Critical Delivery Lead Test Manager Mid-May 2024
Release (average of 15 fixes per cycle)	1.0.11 (15 Feb)	1.0.12 (29 Feb)	1.0.13 (14 Mar)	1.0.14 (28 Mar)	1.0.15 (11 Apr 24 Apr)																																				
Actual Fixes	11	6	11	4 Incl CR109	15*																																				
Planned Fixes	16	9	12	10	16																																				
Variance (15/cycle)	-4	-9	-4	-11	-1																																				
Release	1.0.10.1 (08 Feb)	1.0.12.1 (22 Feb)	1.0.13.2 (21 Mar)	1.0.14.1 (19 Apr)																																					
Actual Fixes	2	N/A	5	TBC																																					
Planned Fixes	4	N/A	5	3*																																					

ID	Recommendation	Priority / Owner
	UAT commencing), this provides an average of 13.25 to be resolved per release cycle – again noting this does not account for any new sev 1 and sev 2 defects raised through the execution of remaining P1-P3 test scripts The defect resolution rate requires increasing significantly so the acceptance criteria can be achieved for SIT exit. Whilst we do understand that it is quite acceptable for there to be open defects at SIT completion, ideally it would be as closely aligned to the agreed exit criteria as possible. We'd also expect business acceptance of the SIT exit, and the agreement of any workarounds that will need to be managed in UAT, until there is a defect resolution. Similarly, we'd expect the business to play a key role in UAT exit, to ensure the solution deployed into production meets their needs, and allows them to carry out their roles, without any degradation.	
3.16	Do an end to end demo for the business users We support the 6-7 business SMEs that have been given access into the SIT environment to familiarise themselves with the functionality. We also support the recent demo of the 'Reveal' functionality provided to business users, and we understand this received positive feedback. Once the project moves into the User Acceptance Testing (UAT) environment, and progress has been made on the UAT testing, there would be benefit in the project doing an end to end demo to all business users so they can see the system fully working (and any agreed workarounds). This will also support the change management aspects.	Critical Test Manager End June 2024

CONTRACTUAL ARRANGEMENTS

Findings

- A Variation and EXTENSION to the BCU PROGRAMME OPTIONS PAPER ASSISTANCE Signed and Dated 28th November 2023, details changes to the contractual arrangements. It notes services will be based on time and materials basis (T&M), capped at \$369,930 per month, and has been signed by both parties.
- A variation agreement to the Statement of Work (1 March 2024) details the project milestones, the acceptance criteria and the amount payable, and has been signed by both parties.
- In addition to the monthly T&M payments, we see several change requests, which equals some 125 to date. We understand the Project Sponsor has requested all CRs are approved by himself, and support this.
- We understand the Master Services Agreement (MSA) is up for renewal in June. We did not receive or review this, but further understand the delivery partner has requested some changes, and these are being negotiated.
- We did not review the support arrangements and we understand these are yet to be fully worked through. Instead this will be a focus of our Implementation Readiness Review scheduled for September 2024. We have however made a recommendation to consider how any subsequent releases, and continuous improvement needed after Go Live will be funded.

Recommendations

ID	Recommendation	Priority / Owner
3.17	Tightly manage the change requests In addition to the monthly T&M payments, we see several change requests,	High INZ Sponsor

ID	Recommendation	Priority / Owner
	which equals some 125 to date (all vendors), where requirements are unclear or have been misinterpreted. We discussed this in our previous review, and the need to control the amount of CR's being raised and/or approved, unless there is a good reason for this (i.e. some requirements/features were missed completely). We understand the Project Sponsor has requested all CRs are approved by himself, and support this. In most cases, we'd expect CRs to be funded through the T & M budget.	
3.18	Determine the ongoing continuous improvement approach and whether any adjustment is needed to CR06 The support arrangements are being finalised, and we will consider these in more detail as part of our Implementation Readiness Review scheduled for September 2024. It is however likely that the project will go live with a MVP that includes a number of workarounds. The project must quickly address these through subsequent releases, and continuous improvement activity, that may span a lengthy period of time. The project must confirm where this work will be funded from, and adjust CR06 if it is deemed this will be the source of this funding	High INZ Sponsor End June 2024

BENEFITS MANAGEMENT

Findings

- The benefits for the project remain strategically aligned, and will reduce risk and increase security, scalability, and efficiency.
- The business case benefits are being reviewed, and updated and this appropriate given the business case was approved in 2019. There are also new benefits that have been introduced as a result of approved change requests.
- We note work has begun to develop two Benefit Realisation Plans (BCU IDme Benefits Realisation Plan (v0.4 22/03/2024) and IPE Benefits Realisation Plan (v0.1 22/03/2024). This potentially creates more work for the project, and have recommended both project are consolidated into a single plan.

Recommendations

ID	Recommendation	Priority / Owner
3.19	Finalise the benefits and approved the Benefits Realisation Plan The business case benefits are being reviewed, and updated and this appropriate given the business case was approved in 2019. There are also new benefits that have been introduced as a result of approved change requests that are included in CR06. The benefits table (4. Benefits Table) details a list of the benefits and this includes (BCU) Reduced Risk, Improved Flexibility and Scalability, Business Risks Reduction, and Improved Efficiency, and (IPE) Improved Supportability, and Improved usability and security. Baseline and target measures, along with timeframes are captured. The project must finalise and gain business approval for the Benefit Realisation Plan.	High Delivery Lead End May 2024

PREVIOUS IQA RECOMMENDATIONS

The below section details the recommendations made in previous IQA review in September/October 2023, and the current status.

ID	Recommendation	Status	Project comment
2.1	Update the PSG ToR to clarify the 'non-voting' membership of the NEC representatives.	Closed	An updated ToR was circulated, discussed and approved via the PSG on 23 April 2024
2.2	Expanding the duration of the (MBIE only) PSG meetings Formalise the decision making, actions and minutes	Closed	
2.3	Update the Project Status report milestones Ensure continued PSG oversight of the delivery	Open	Noted as open, based on the pending CR06 approval. We have recommended (see <i>recommendation 3.3</i>) the Project Status Report milestone are updated immediately, to the newly agreed delivery dates, so the PSG are able to provide oversight and drive these. We suggest this recommendation is closed.
2.4	Gain senior level commitment for the new delivery plan	Open	This is covered in (new) recommendation 3.2 in this report We suggest this recommendation is closed.
2.5	Review and update the risk and issues	Closed	Risks and Issues were updated and included in the weekly PSG for discussion.
2.6	Review, update and approve the Internal Communications Plan	Open	This is covered in (new) recommendation 3.12 in this report. We suggest this recommendation is closed.
2.7	Review, update and approve the External Communications Plan Prepare the proactive external communications and media OIA responses	Open	This is covered in (new) recommendation 3.12 in this report. We suggest this recommendation is closed.
2.8	Complete the re-planning and gain vendor acceptance Update the integrated project schedule and ensure it contains the necessary depth and breadth, and is achievable	Closed	
2.9	Confirm the remaining delivery budget	Open	Pending approval of CR06. Refer also (new) recommendations 3.7 and 3.19
2.10	Confirm the continuation criteria and the tolerances	Closed	A detailed report back was provided to the DGB in November 2023 which allowed the project to continue outside of tolerance and progress SIT & UAT. This was reiterated at the PSG held in February 2024.
2.11	Confirm the day one must haves and align to the Go/No Go decision making	Open	This is covered in (new) recommendations 3.6 and 3.12 in this report.

			We suggest this recommendation is closed.
2.12	Look for ways to manage parallel work to gain time Review resource availability over the Xmas/New Year period	Closed	Project explored the critical path for opportunities to manage parallel work. This saw early work commence for establishing a lite UAT and Cyber Control Validation happening in SIT early.
2.13	Capture the SIT deployment lessons Allow for the necessary lead time	Closed	SIT environments were successfully built and learnings for the failed automation scripts for UAT build remediated. This allowed UAT to be built as a lite environment early and the project successfully tested the rebuild of UAT
2.14	Determine the alternative options, and document the high level plans Determine the key messaging	Closed	An Alternative Options paper was presented to DGB in November 2023 and it was recommended that we continue on the same delivery path and other options were not providing the business outcomes required.
2.15	Look for ways to reduce the testing timeframes where appropriate	Open	Whilst the project has the noted as still being 'open', this recommendation is no longer valid, as the project has confirmed the test arrangements. The completion of SIT test case and defect resolution is covered in (new) recommendations 3.14, 3.15 and 3.16. We suggest this recommendation is closed.
2.16	Re-confirm the remaining SOW milestones and payment criteria Re-confirm the remaining delivery and expected costs Include the security vulnerability aspects	Closed	Commercial negotiations were held and completed resulting in a deed of variation to spread milestone payments and licensing costs across monthly instalments. A separate SOW was signed relating to Time & Materials which provides a capped amount and retention payments to be withheld until an agreed time.
2.17	Confirm the support arrangements	Open	We did not receive or review the support arrangements, and this will be included in our Implementation Readiness Review scheduled for September 2024.
2.18	Consolidate and finalise the benefits Update the target measures Confirm where the business case benefits won't be met	Closed	Benefits were reviewed and updated in CR06. The IPE benefits have been moved to its project code.

REVIEW SIGN OFF

MANAGEMENT COMMENT

Thank you for the in-depth review completed to inform this latest IQA report. I note that the project has made improvements since the last report back resulting in the rating moving up one to “Possible”. This is in part due to the commitment of the project team and the discretionary effort that I have seen by a number of individuals as MBIE uses all levers available to it to ensure success. You have provided a number of immediate interventions that MBIE can make and these are already in flight including lifting test execution cadence through additional test resources, establishing a separate commercial stream and a dedicated resource to complete the recommendations outlined in this report. I have seen an immediate response from INZ with a number of business resources supporting the non-technical and planning activities to ensure a successful transition. The office of the Chief Executive has also been briefed and will be supporting the project through organisational prioritisation and assisting with the lead vendor relationship management.

SIGNOFF

s 9(2)(a)

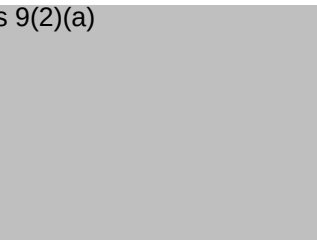


09/05/2024

Michael Alp
INZ BCU Sponsor
Ministry Business, Innovation and Employment

[date]

s 9(2)(a)



09/05/2024

David Williams
Engagement Lead
DW Consulting Limited

[date]

APPENDIX A – REVIEW TERMS OF REFERENCE

SCOPE

To address the review objectives, the following items are included in scope:

- The BCU Project, currently in the Delivery phase.
- A detailed review of key project documentation
- One-on-one meetings with key stakeholders
- Assessment of the project environment in order comment on the quality, robustness and suitability of the following:
 - The processes to ensure appropriate governance and management of the project.
 - The project’s monitoring and reporting processes and environment.
 - The project’s approach to decision making and the major decisions made to date.
 - The project’s objectives, success criteria and their definitions against the agreed Project Management Plan (or similar).
 - The processes used to develop a clear definition of the scope, inclusions and exclusions and to ensure ongoing alignment to scope.
 - The project schedule management and estimation processes, together with management of dependencies within and outside of the project.
 - The project’s planned implementation phase strategy and approach.
 - The project’s resourcing approach for both internal and external resources sourced under contract, the effectiveness of this approach and the resource capability and capacity across the project life.
 - The project’s approach to financial management; including budgets, approvals and reporting.
 - The project’s benefit identification, definition, monitoring and tracking processes.
 - The project risks and issues, mitigation/rectification strategies and management controls.
 - The project’s approach to communication and stakeholder engagement with internal and external stakeholders
 - The project’s approach to assessing organisational impact and the management of that change.
 - The project’s quality management and assurance processes and controls.
- A review of recommendation made in the previous IQA review (September 2023), noting the recommendations that have been completed, in progress or to be started.
- Support the EY review with background of the project, and history of the IQAs completed to date (noting this work will be charged as Time and Materials).

Scope Exclusions

The scope of this review excludes the following:

- Review of any other project or business system.
- Detailed review of the RFP processes or contractual arrangements.
- In depth quantitative review and assessment of cost estimates and financial business benefits.
- Detailed review of the suppliers’ design(s) and their appropriateness.

DOCUMENTS REVIEWED

-  2024-03-22 - MBIE Governance Report.pdf
-  2024-04-05 - MBIE Governance Report.pdf
-  2024-04-12 - MBIE Governance Report.pdf
-  20240322 BCU Project Status Report.pdf
-  20240326 BCU Project Steering Group Minutes.docx
-  20240326 BCU Steering Group Meeting Agenda.docx
-  20240405 BCU Project Status Report.pdf
-  20240409 BCU Project Steering Group Minutes.docx
-  20240409 BCU Steering Group Meeting Agenda.docx
-  20240412 BCU Project Status Report.pdf
-  BCU Steering Group TOR v7.1-Draft.pptx
-  Item 03.1 Biometric Capability Update.pdf
-  Item 04.1 3644 Biometric Capability Update Report Back (1).docx
-  3644 BCU Change Request 06 Playbook.docx
-  3644 BCU Change Request A3.pptx
-  NEC BCU Change Register extract 20240419.xlsx
-  BCU Goverance Dates.xlsx
-  BCU Schedule 240418 .pdf
-  BCU Schedule Slide.pptx
-  3644 Biometric Capability Update - Project Finance Template - MASTER
-  BCU IDme Benefits-Realisation-Plan v0.4.docx
-  IPE Benefits-Realisation-Plan v0.1.docx
-  2022-12-05 INTERNAL Biometric Capability Update communications plan.docx
-  2023-01-04 EXTERNAL Biometric Capability Update communications plan.docx
-  3644 - Master BCU Business Change Management Plan.docx
-  Business and Role Impact Assessment- BCU.xlsx
-  Business and Role Impact Assessment- IPE.xlsx
-  NEC Invoice IN14672_T&M Mar24.pdf
-  NEC Invoice_IN14355_BCU Nov T&M.pdf
-  NEC Invoice_IN14424_BCU Dec T&M.pdf
-  NEC Letter to MBIE re BCU and IPE Projects (1).pdf
-  NEC T&M Numbers JAN-MAR2024.docx
-  Variation Agreement - BCU SOW Signed.pdf
-  Variation and Extention to the BCU Porgramme sigend 30 January 2024.pdf
-  Approved - CR101 - MBIE Data Structures Documentation_Signed.pdf
-  Approved - CR109_Manual Transactions Resolution To be signed.pdf
-  Approved - CR113_New version of YAML files issued_2023-09-14T20_02_00.3028695Z - ..
-  Approved - CR115_Correlation ID-SIGNED.pdf
-  Approved - CR117_AIM-XM face deletion-Soft deletion.pdf
-  Approved - NEC CR110-Hiding Face Data on IBW_Signed.pdf
-  Approved_CR108_Monitoring & Alerting.pdf
-  Approved_CR112_Invalid Tenprint Requirements.pdf
-  BCU Programme Options Paper Assitance.pdf
-  CR94_IPE Dual camera use - Smartsan Launch icons for each camera_2023-08-23.pdf
-  CR106_Production volumes increase from Band B to Band C_2024-01-26T02_42_28.046..
-  CR121_Smartsan - Date range validation_2024-03-07T23_20_37.0601954Z (002).pdf
-  CR123_IDme FCC Get Fingerprints API not to return Segmented Slaps (FGP 11-20) in R...
-  Customer-Invoice_IN14259_20231113-012936UTC (1).PDF
-  Letter to NEC from MBIE regarding the BCU and IPE Projects 24.11.23.docx
-  NEC Invoice IN14540_Milestone Invoice Jan24.pdf
-  NEC Invoice IN14599_Milestone Invoice Feb24.PDF
-  NEC Invoice IN14602_T&M Jan&Feb24.PDF
-  NEC Invoice IN14603_BandB-C Jan&Feb24.PDF
-  NEC Invoice IN14664_Milestone Invoice MAR24.pdf
-  NEC Invoice IN14665 Band B-C Mar24.pdf
-  BCU Alerting and monitoring require...
-  BCU Project Resources - Contract End dates 16APR24.xlsx
-  BCU Project Server Issues Extract 16APR4.xlsx
-  BCU Project Server Risk Extract 16APR4.xlsx
-  Testing Friday 05 April 2024.docx
-  Testing Friday 19 April 2024.docx
-  Testing Friday 22 April 2024.odt
-  Testing Monday 04 March 2024.docx
-  Testing Thursday 21 March 2024.docx
-  Testing Thursday 28 March 2024.docx
-  Testing Tuesday 08 April 2024.docx
-  Testing Tuesday 15 April 2024.docx
-  Testing Tuesday 15 April 2024.odt
-  Testing Tuesday 23 April 2024.docx
-  Testing Tuesday 26 March 2024.docx
-  Testing Wednesday 03 April 2024.docx
-  TIM Testing Friday 23 April 2024.odt
-  IQA Recommendations SEP23 - Action Tracking Sheet.xlsx

PEOPLE INTERVIEWED

Our thanks go to the following stakeholders who contributed to this review.

Name	Project Role
s 9(2)(a)	
Michael Alp	Acting INZ Sponsor and Project Steering Group (PSG) Chair
Richard Owen	INZ Sponsor s 9(2)
Richard Griffiths	Delivery Governance Board (DGB) Chair
s 9(2)(a)	

APPENDIX B – DELIVERY CONFIDENCE RATINGS

This review uses the Government Chief Digital Officer (GCDO) Delivery Confidence Ratings that aligns with the Office of Government Commerce (OGC) Gateway© Delivery Confidence Assessment, a recognised good practice standard.

Delivery Confidence Rating	Description
Highly Likely	Successful delivery of the change appears highly likely and there are no major outstanding issues that significantly threaten achievement of the next key milestone.
Likely	Successful delivery of the change appears likely. Attention will be needed to ensure that risks do not materialise into issues threatening achievement of the next key milestone.
Possible	Successful delivery of the change appears possible. However, issues exist in key areas that require management attention in order to achieve the next key milestone. Issues appear to be resolvable at this stage if addressed promptly.
Unlikely	Successful delivery of the change appears unlikely with major risks or issues in key areas that require urgent management attention. Achievement of the next key milestone is in doubt.
Highly Unlikely	Successful delivery of the change appears to be highly unlikely due to significant issues which do not appear to be resolvable at this stage. The schedule may need to be re-baselined or overall viability of the investment re-assessed

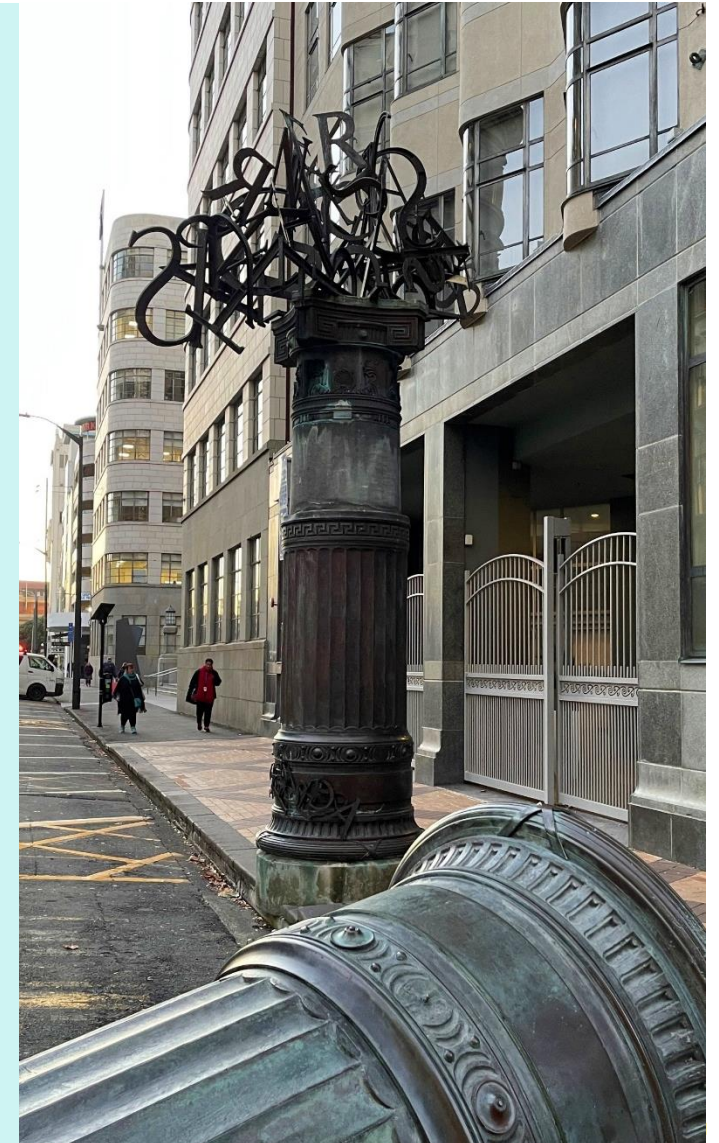


Immigration New Zealand BCU Project Independent Review

May 2024

Executive Summary

- ▶ EY has performed an independent and high-level review of the Biometric Capability Update (BCU) Project.
- ▶ For strategic context, the BCU solution is one key part of a larger Immigration New Zealand (INZ) solution and application ecosystem.
- ▶ The business case and strategic rationale for the BCU Project remains valid and will deliver critical capability for national security.
- ▶ The BCU Project has faced challenges, with both planned changes and unplanned events increasing solution complexity and impacting project schedule and cost.
 - ▶ The project has taken three years longer than planned, with budget expanding from ~\$10M at business case, through to ~\$40M with the most recent change request.
 - ▶ Change Request 2 introduced workflow to the NEC biometric system, which required significant customisation, extending testing requirements, timelines, and defects.
 - ▶ An IQA undertaken in October 2023 identified significant schedule and milestone challenges and found that the then planned Go Live date on November 2023 was 'unlikely'.
- ▶ The BCU Project has replanned and is now scheduled to Go Live in October 2024, and the latest IQA positions delivery confidence as 'Possible'.
- ▶ Significant issues and risks remain that require close management attention to increase delivery confidence.
 - ▶ System Integration Testing is currently off schedule due to pace of test execution and defect resolution, and additional testing resource has been assigned as one corrective measure.
 - ▶ It is likely that the business will need manual workarounds to operate with an initial 'minimum viable' BCU solution and these scenarios require INZ executive oversight.
- ▶ Given the BCU Project is close to completion and business impact can likely be managed, the project should continue, but with strengthened executive oversight.
- ▶ The BCU workflow component may be difficult and costly to maintain and enhance once in operational use, given the customisation level and the number of defects identified in testing.



EY has performed an independent and high-level review of the Biometric Capability Update Project

The BCU Project

Immigration New Zealand (INZ) are undertaking the Biometric Capability Update (BCU) Project. The project has been running since 2019 and aims to enhance New Zealand national security through better matching of immigration applicant biometric data against fraudulent or high-risk individuals.

EY's review and this report

EY has been asked to undertake a high-level and objective review of the BCU Project and provide independent advice and a report to the Minister of Immigration on the status of the project.

As part of this work, we have reviewed key INZ provided documents and interviewed a small number of key stakeholders and project team members associated with the project. Note that EY did not interview NEC (primary vendor) or other vendor stakeholders as part of this review.

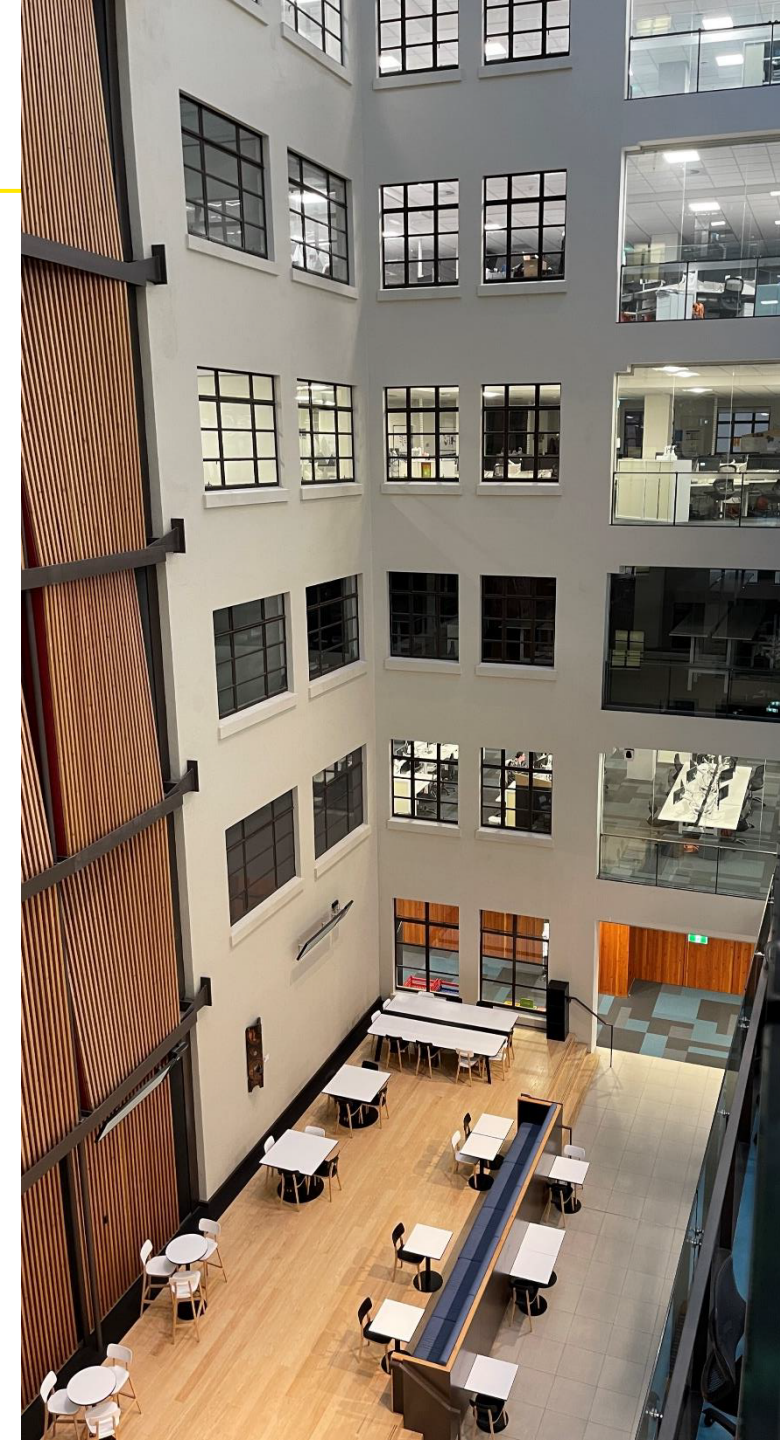
This report sets out our findings.

Note: Our EY review builds on and does not replace or duplicate the BCU Project Independent Quality Assurance (IQA) reviews performed by David Williams of DW Consulting. We are also aware of recent memos to the Minister of Immigration detailing the sequence of project and cost changes to date and this level of information is not replicated within this report.

MBIE assistance with this work

MBIE has fully supported and facilitated our work, providing proactive, prompt, and transparent access to all MBIE documents and relevant stakeholders for the BCU Project. MBIE has also been responsive, actioning risk mitigation activities in parallel as we worked through this review.

This report may require MBIE consideration to determine classification, given references to national security.



For strategic context, the BCU solution is one key part in a larger Immigration New Zealand solution and application ecosystem

- ▶ INZ has an ecosystem of solutions and applications that support key business processes.
- ▶ This architecture allows for specialised systems to perform important steps in the end-to-end process.
- ▶ It is common architectural practice to 'decouple' functionality into component systems.
- ▶ BCU solution will be a critical component of the end-to-end visa application and immigration capability.
- ▶ s 6(c)
The business strategy is to modernise and replace these over time.



The business case and strategic rationale for the BCU Project remains valid and will deliver critical capability for national security

The BCU Project was initiated following the approval of the 'INZ 3644 Biometric Capability Update Single Stage Business Case' in August 2019. While the project has been through several changes since business case approval, it still contains the required scope needed to deliver the benefits sought.

	New Zealand needs biometric capability for national security	Existing solution is not fit for purpose s 6(c)	Once completed, the upgraded BCU solution will enhance NZ's security position
Legal and security	New Zealand has a statutory and national security need to ensure people who are fraudulent, or a threat are not granted visas.	s 6(c)	Upgraded BCU solution will be fit for statutory and security purposes - a modern platform that is supported, reliable and future-proof. It supports national security through better detection of fraudulent and high-risk applicants.
Automation and efficiency	Biometrics solutions help protect our borders and immigration by automating matching of immigration applicants with s 6(c)		Upgraded BCU solution will significantly improve automation and quality of biometric matching, using a global leading biometrics solution provided by NEC.
Sharing and international community	New Zealand has international biometric data sharing commitments and will chair the Migration Five (M5) conference next year.		Upgraded BCU solution biometric data will align to international expectations, facilitating greater biometric sharing with international immigration partners and with other New Zealand agencies.

There are consequences if the BCU Project is stopped

MBIE undertook an options analysis for the BCU project in February and reached the conclusion that the project should continue. If the project was to stop:

- ▶ INZ would need to rely on the existing solution, which is not fit for purpose s 6(c)
- ▶ Biometric capability upgrade would still be required in the future at high cost, and current vendors (NEC) would likely need to be re-engaged to deliver.
- ▶ Most project costs are contractually committed regardless of whether the project continues.
- ▶ s 6(a)

The BCU Project has been challenged, with both planned changes and unplanned events increasing solution complexity and impacting project schedule and cost

The BCU Project has undergone many changes since initiation. Some of these changes have been planned scope changes with the intent of greater benefit and others have been unplanned. Many of the changes have impacted on complexity, cost and schedule and contributed to the project being challenged.

The October 2023 IQA rated BCU as '*Unlikely*' to deliver on the November 2023 Go Live date due to:

- ▶ Historic and continued inability to meet agreed dates with foundational deliverables (e.g. requirements, solution design) delayed.
- ▶ Uncertainty around System Integration Testing (SIT) completion.
- ▶ Vendor challenges, financial incentives, and vendors with steering group voting rights.

Cause: Planned changes and unplanned events

Planned changes

- ▶ **Six change requests** - the project has gone through six formal change requests. It started as a biometrics solution capability update, but the requested changes to scope have resulted in this project becoming significantly larger and more strategic.
- ▶ **Change Request 2** - notable because it increased to scope to include In-Person Enrolment and Workflow. Workflow has been problematic, and INZ's complex workflow business needs have required significant solution customisation. This led to significantly increased timelines, testing workload, and defect numbers.

Unplanned events

- ▶ **Team member turnover** - including seven different project managers.
- ▶ **COVID challenges** - key people reprioritised to other activities and project funding changes.
- ▶ **Implementation of legislation** - generating new capacity requirements and increased costs.
- ▶ **Contractual and vendor challenges** - commercial, relationship and expectation challenges.

Impact on Project Delivery

- ▶ **Complexity** - changes to scope have also increased the complexity of the solution and resulted in quality challenges, schedule extension, and significant testing / defect challenges. INZ's complicated solution ecosystem has also increased the project delivery complexity.
- ▶ **Cost** - expanded from ~\$10M to ~\$40M size project, including funding required to resource the work over a longer duration.
- ▶ **Schedule** - project has taken three years longer than planned to deliver due to the planned changes and unplanned events.

The BCU Project has replanned and is now scheduled to Go Live in October 2024, and the latest IQA positions delivery confidence as *'Possible'*

Since the IQA in October 2023 rated the BCU's delivery of 'Unlikely' against a November 2023 Go Live date, the BCU project has replanned the project to Go Live in October 2024. David Williams of DW Consulting has finalised an IQA report evaluating the project with this new delivery date, summarised here:

The May 2024 IQA increased delivery confidence to *'Possible'* for the revised October 2024 Go Live date

- ▶ The recent delivery confidence rating reflects both some progress made and the extended project deadline.
- ▶ There is potential for the BCU project to Go Live in October 2024, however there are critical areas of risks to be addressed before confidence in delivery can be achieved.
- ▶ These areas include completing SIT testing in July, and gaining strong commitment from the Project Steering Group to ensure that project milestones are achieved by the agreed deadlines.
- ▶ Additionally, the IQA has called out the need for increased INZ senior leadership ownership and involvement to support the successful direction, acceptance, and adoption of the updated solution.

While the delivery confidence rating has improved, the BCU Project still has risks

- ▶ An IQA rating of *'Possible'*, while an improvement, does not provide certainty of delivery.
- ▶ A *'Possible'* rating is not a strong endorsement given the project that has been extended by a further eleven months and is scheduled to Go Live in five months.
- ▶ There are several key risks to be managed and mitigated to increase delivery confidence going forward, which are outlined on the following two pages.

Business impact must be managed and mitigated

- ▶ The project has already taken several positive steps, including additional leadership capability, a weekly Chief Executive governance forum, Chief Executive meeting NEC leadership, additional four test execution resources.
- ▶ Updated BCU solution will be used by less than 50 INZ users, has no end customer usage, and areas of capability are not business essential by a particular date.
- ▶ Given this business context, INZ may choose to operationalise the BCU solution with short-term known issues on the basis that they can manage the impact through training, business workarounds, and greater hypercare support.
- ▶ This business context goes some way to offsetting the concerns and risks with the current project status.

Significant issues and risks remain that require close management attention to increase delivery confidence (1 of 2)

The highest impact issues and risks requiring proactive management to meet the October 2024 Go Live schedule and budget are shown on this page.

Issue or risk	Description	Active mitigation suggested or underway
SIT test execution is behind schedule	▶ SIT is due for completion in July, with approximately 3,000 scripts still to test. ▶ Completing SIT in July requires an execution pace of 300-350 test scripts per week; the current rate is approximately 110 test scripts per week. ▶ Complexity of existing environment prolongs SIT testing and may have flow-on impacts into the completion of UAT. ▶ Vendors have inconsistent expectations on the exit criteria for SIT.	▶ Underway: MBIE has increased the number of test analysts to increase pace. ▶ Underway: Chief Executive weekly governance forum providing active governance. ▶ Suggested: Ensure SIT exit criteria is clearly understood across all vendors.
Defect resolution rate will not meet SIT due date	▶ There are 79 defects (Severity 1 and 2), of which 59 sit with NEC. ▶ An unknown volume of defects will emerge from the remaining test scripts. ▶ Completing SIT in July will require NEC to fix 15 or more defects per fortnight, and current rate is 9-11.	▶ Underway: This has been escalated to the Chief Executive who is meeting with NEC leaders about resolution rate. ▶ Underway: Chief Executive weekly governance forum providing active governance of defects and resolution rates.
Unknown workaround impact on business	▶ It is likely that the business will need manual workarounds to operate with an initial 'minimum viable' BCU solution. ▶ SIT completion is required to understand the manual business workarounds, customer and business impact, and training requirements.	▶ Underway: Greater INZ business ownership through the Chief Executive weekly governance forum.
Insufficient focus on business change and readiness	▶ Project has been focused on technical solution and testing. ▶ Insufficient focus on business change, training and business readiness tasks. ▶ There is no roll-back once cutover starts, so business needs to be prepared to accommodate and adopt the new system from Go Live, including workarounds.	▶ Underway: Greater INZ business ownership through the Chief Executive weekly governance forum. ▶ Suggested: Business-led active prioritisation of defect resolution to minimise business impact of unresolved defects for Go Live.
INZ and NEC expectation misalignment	▶ There is concerning misalignment between INZ and NEC on the true status on SIT testing and defect resolution. Specifically, the BCU Project status report shows the overall project status as red, while NEC reporting shows overall project status as green.	▶ Underway: This has been escalated to the Chief Executive who is meeting with NEC leaders. ▶ Underway: Get a common understanding between the project team and vendors on the delivery status. ▶ Suggested: Build a single consistent view of testing status reporting for both MBIE and NEC.

Significant issues and risks remain that require close management attention to increase delivery confidence (2 of 2)

There are additional issues and risks, of lower impact than on the previous page, that require management to support project delivery and Go Live.

Issue or risk	Description	Active mitigation suggested or underway
Commercial MSA needs to be renegotiated with NEC	▶ NEC MSA expires in June and must be renegotiated to cover user licensing and level 3 operational support. ▶ NEC require negotiations to be conducted through a third-party law firm. ▶ INZ will want an MSA that meets their needs and financial expectations.	▶ Suggested: Get this commercial agreement in place early. ▶ Underway: MBIE is contracting Datacom to provide level 1 and 2 support, NEC is required for level 3 support.
Funding required for post-Go Live remediation and enhancements	▶ There is risk that the initial BCU solution release only contains essential functionality and may have some defects. ▶ Funding may be required to address a backlog of undelivered project scope and resolve post Go Live incidents.	▶ Suggested: Determine funding options for this work.
Other pre-Go Live deliverables may take longer than expected	▶ Many key project activities are still need to be completed, including business change preparation, training, privacy impact assessment, security certification and accreditation, communications and more.	▶ Suggested: Ensure these deliverables are planned in the project schedule. ▶ Suggested: Assign resources and begin work early to allow contingency for unexpected delays.
Potentially insufficient contingency if October delivery missed	▶ Given issues and risks, without significant mitigation, there is a chance October delivery date may be missed. ▶ If this occurs, project Go Live would need to be re-scheduled after the immigration busy period, likely March or April 2025. ▶ It is unclear whether the project would have sufficient funding contingency to keep the project running until a re-scheduled date.	▶ Suggested: The project should do everything within its power to ensure the October delivery date is met. ▶ Suggested: The project needs to be aware of its funding contingency and the financial impact if despite every effort the project is unable to Go Live in October.

Given the BCU Project is close to completion and business impact can likely be managed, the project should continue, but with strengthened oversight

Given BCU solution criticality, the closeness of completion, and manageable business impact, the project should continue

- ▶ BCU solution brings critical capability for national security.
- ▶ SIT is planned for completion in July 2024 and will provide an understanding of BCU solution quality, Go Live readiness and business workaround impact.
- ▶ The business context allows issues and risks to be managed and mitigated and goes some way to offsetting issues and risks outlined on the previous pages.

As such, it makes sense to continue the project, providing the greatest opportunity of completing the work and delivering benefits this calendar year.

At the same time, the MBIE Executive must strengthen their project oversight

- ▶ The BCU Project still faces delivery issues and risks as outlined and there is still significant work to be completed before Go Live.
- ▶ Following Go-Live, we expect INZ will receive a complex customised workflow component that will be challenging and costly to maintain and enhance.

While all of the issues and risks raised need addition, the MBIE Executive should pay particular attention to these areas:

Prior to Go Live	At Go Live	Post Go Live
<i>Key risks to pay attention to:</i> ▶ SIT test execution progress. ▶ Vendor defect resolution progress. ▶ Number and severity of defects that may go into operational environment. ▶ Extent of the manual workaround required, and business change impact of BCU Go Live. ▶ Extent that the project has planned for key business change and readiness milestones. The outcome of these risks will be known at SIT completion in July.	<i>What needs to be true, prior to Go Live:</i> ▶ Quality criteria for Go Live have been met. ▶ The business have approved trade-offs on manual work-arounds for Go Live. ▶ A plan to address the backlog of deferred functionality has been agreed. ▶ Commercial agreements to support cutover and ongoing operation have been signed. ▶ INZ is prepared for the change, has received training and has agreed workarounds.	<i>Ongoing attention for key post Go Live areas:</i> ▶ Volume and severity of incidents and outstanding requirements in the operational BCU solution that require resolution. ▶ Ongoing operational and contractual requirements to be managed with a challenging vendor. ▶ Risk and costs associated with the business operating a complex solution and in the case of workflow a highly customised solution.

Appendix | Documents reviewed and people interviewed

Documents reviewed

No.	Document
1	Biometric Capability Update Business Case Approved.docx - V0.9.1 (Aug 2019)
2	BCU Project Tracker - Microsoft schedule (Apr 2024)
3	Summary of Delivery Governance Board BCU Updates - BCU 2023-24.docx
4	BCU change.docx - (Apr 2024)
5	BCU CR2.pdf - Change Request 2 (Jul 2020)
6	Item 04.2 3644 BCU Change Request.pptx - Change Request 6 (Apr 2024)
7	3644 BCU Change Request 6 Playbook (Apr 2024)
8	MBIE BCU Project IQA (June 2020)
9	MBIE BCU Project IQA (Oct 2022)
10	MBIE BCU Project IQA (Oct 2023)
11	MBIE BCU Project IQA (May 2024)
12	IQA Actioned Recommendations - IQA tracker (Oct 2023)
13	RISKS 02052024.xlsx
14	ISSUES 02052024.xlsx
15	Document Overview: 20240502 BCU Project Status Report.pdf
16	Document Overview: 20240429 BCU Project Status Report.pdf
17	Document Overview: 20240419 BCU Project Status Report.pdf
18	Memo BIOMETRIC CAPABILITY UPGRADE PROJECT - VENDOR DELIVERY - SIGNED.pdf (Nov 2023)
29	Memo - BCU Options Analysis v1.2.docx (Dec 2023)
20	Report back Memo to DGB 3644 BCU - Final.docx (Feb 2024)
21	Timeline OF ADVICE TO MINISTER OF IMMIGRATION - Memo (Apr 2024)
22	20200806 Memo BCU project Scope, Funding and Delivery Approach_DCEI_CFO...pdf - BCU funding memo (Aug 2020)

People interviewed

No.	Name	Title	Interview Date
1	s 9(2)(a)		24 April 2024
2	Michael Alp	Chief Operating Officer	1 May 2024
3	s 9(2)(a)		1 May 2024
4			2 May 2024
5			2 May 2024
6			2 May 2024

Other people we engaged with, but not interviewed:

- ▶ Carolyn Tremain, Secretary and Chief Executive
- ▶ Greg Patchell, Deputy Secretary, Data, Digital and Insights
- ▶ Oliver Valins, Chief Advisor to the Secretary
- ▶ s 9(2)(a)

Note that EY did not interview NEC (primary vendor) or other vendor stakeholders as part of this review.

EY | Building a better working world

EY exists to build a better working world, helping to create long-term value for clients, people and society and build trust in the capital markets.

Enabled by data and technology, diverse EY teams in over 150 countries provide trust through assurance and help clients grow, transform and operate.

Working across assurance, consulting, law, strategy, tax and transactions, EY teams ask better questions to find new answers for the complex issues facing our world today.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. Information about how EY collects and uses personal data and a description of the rights individuals have under data protection legislation are available via ey.com/privacy. EY member firms do not practice law where prohibited by local laws. For more information about our organization, please visit ey.com.

© 2024 Ernst & Young, New Zealand.
All Rights Reserved.

This communication provides general information which is current at the time of production. The information contained in this communication does not constitute advice and should not be relied on as such. Professional advice should be sought prior to any action being taken in reliance on any of the information. Ernst & Young disclaims all responsibility and liability (including, without limitation, for any direct or indirect or consequential costs, loss or damage or loss of profits) arising from anything done or omitted to be done by any party in reliance, whether wholly or partially, on any of the information. Any party that relies on the information does so at its own risk.

ey.com



Immigration New Zealand BCU Project Independent Review - Update

July 2024



EY

Building a better
working world

MBIE’s response to delivery since the last review has been effective, proactive, and has driven significant progress

Since the May review of the BCU Project, the project has made significant progress, with key milestones over the next five to six weeks providing clarity on the new Go/No-Go decision. Whilst the July 9th SIT completion date was not reached, an alternative approach with additional releases and a late August code freeze has been planned for and focus on the critical path is clear.

Additional MBIE Executive focus and oversight was recommended in the May review to support acceleration of delivery and mitigation of key risks and this has been embedded in project governance for the past 8 weeks. The strengthened oversight, accountability and proactive approach to managing the testing, defect resolution and MVP (minimal viable product) for Go Live has provided clarity on the decisions and actions required to achieve success.

Key activities undertaken by MBIE since the last review include:

MBIE has embedded greater executive involvement in the Project	Enhanced executive, vendor, and INZ involvement has supported greater accountability and oversight of delivery. Notably, this has included Carolyn Tremain (Chief Executive), Greg Patchell (Deputy Secretary Digital, Data & Insights), and Alison McDonald (Deputy Secretary, Immigration), meeting weekly with key vendor leadership to escalate issues and clear the way for delivery.
Increased resourcing has supported increased testing velocity	MBIE has onboarded additional testing resources to increase cadence of SIT test script execution which has led to a majority of testing being completed by July 9th. Notably, this acceleration has also increased the pace of defect identification to match the pace of defect resolution, leading to a consistent net defect backlog across recent releases. With test script execution all but complete, future releases should result in a decrease in open defects.
MBIE has required greater accountability from vendors and the project team	Increased accountability focus from MBIE has built better buy-in with key vendors. As a result, progress has accelerated, and performance against defect resolution targets has improved, however improvements have been offset by the new defects from increased testing. We note an optimism bias has persisted with the key provider. Further, progress has been supplemented by clearer, more focussed planning and reporting, enabling a dynamic approach to future delivery options.
Project engagement with INZ has increased	The May review and IQA indicated an opportunity to embed greater involvement of Immigration New Zealand (INZ) decision makers into the Project. INZ leaders have been active in weekly governance forums and decision making. This has supported greater business understanding and enabled business-led prioritisation of defect resolution / work around decisions.

SIT test execution and defect resolution have been a key area of focus, however the path to Go Live requires consideration of a broader set of project deliverables

SIT test execution and defect resolution update

98%

Test Scripts complete

89%

Testing Pass Rate

68

Severity Two Defects outstanding

157

Total Defects outstanding

Test script execution has progressed well, with notable acceleration after onboarding additional testers. There are around 51 scripts yet to be tested, with another 367 scripts have failed, or are currently blocked.

An accelerated pace of test execution has resulted in an increase in defect identification. This increase in defects largely reflects faster testing and defect identification, rather than reflecting the quality of the solution.

Defect volumes have remained consistent over recent weeks, as the increased test pace and defect identification rate has meant the project been opening and closing a similar amount of defects during this time.

Whilst future releases will support the project to resolve the current Severity 2 defects, maintaining the current pace of 15 or more defects closed per release cycle will be required.

SIT Exit criteria sets the target of less than 20 total Severity Two defects for go live, with a defined plan for post-go live resolution.

With completion of testing nearing, and with three, potentially four, additional releases planned, a material reduction in defect volumes can be expected.

Defect prioritisation and investigation into manual and technical workarounds is ongoing and can be expected to further reduce the net volume of severity two defects requiring imminent resolution.

Consideration of a broader set of project deliverables is required to achieve go live

With minimal contingency available prior to go live, the project is now balancing risk between the quality of the technical solution and the complexity of running tasks in parallel.

The remainder of SIT testing will now occur concurrently with UAT, BAT, performance (load) testing , and pre-prod build work, which dilutes resource focus and increases the risk of issues. Some mitigations are in place but close attention to any performance / schedule delays is required. Parallel testing and use of SIT environment for non-SIT testing supports progress but increases inefficiency, technical risk, and requires focussed resource planning to overcome potentially split priorities across testing resources.

Engagement and involvement of INZ Exec in the BCU Project ensures that the optimal trade off decisions are made between defect resolutions / work arounds / incidents carried into production (fast followers). Our current understanding is that of the 68 open Sev 2s, 35 are business-critical and the remainder could be reprioritised to either work-arounds or could be packaged as fast-followers to be resolved immediately post- Go Live. It is vital to achieve maximum momentum on the business-critical defects within the next 2 release cycles to provide the best chance of achieving the October go live.

A back up plan of an additional 4th release (release 25) could be supported but would likely require the go live date to be pushed back 2 weeks into November.

With continued focussed effort, there is a path forward to delivery, with a key decision point becoming clear in September

Since the review in May, considerable progress has been observed. The strengthened governance oversight and onboarding of additional MBIE and vendor resources has had a notable impact. The next 6 weeks, which include reprioritisation and three additional release cycles, stand to deliver significant progress in completing testing and reducing the defect load ready for Go Live.

There is still significant project risk, however the outcomes of these releases will clarify the possibility of delivery in either October or November, enabling a decision on Go Live to be made.

There are key areas of focus in the coming weeks that will contribute to decision-making and support the project to continue to deliver at pace. These include:

Additional releases / reduce defects

Upcoming releases are expected to significantly reduce the defect volume, and with few test cases remaining, the expected number of new defects identified should be lower than prior releases. High levels of transparency and prioritised resolution of business-critical defects is essential, along with clarity on what work-arounds and fast followers are acceptable.

The Project has added three releases in August, with opportunity to consider an additional release if required in September to reduce the defect load going into production. Further exploration is taking place to determine whether combining releases will accelerate the pace of defect resolution.

Parallel delivery leads to go/no go decision

An outcome of the additional SIT releases is the requirement to conduct delivery cycles in parallel and hence manage the resulting risk. This will support the project to continue to progress around the remaining test and release cycles.

Parallel testing and other activities is introducing risk, inefficiency and complexity, and this requires close governance assessment and oversight.

A go / no go decision will be required in early September, by which stage, clarity of the net risk and quality position will be understood.

A back up option exists

A backup strategy under consideration is to defer Go Live from October to November. Planning for this alternative option is made in advance of a decision point occurring after the third additional release cycle (R24 - Aug 29th).

This option would support mitigation of risks produced by running activities in parallel, enable an additional release cycle, or support increased training of the business on the necessary workarounds.

If there is a need to defer go live until November, the option of deferring go live until 2025 should also be considered.

EY | Building a better working world

EY exists to build a better working world, helping to create long-term value for clients, people and society and build trust in the capital markets.

Enabled by data and technology, diverse EY teams in over 150 countries provide trust through assurance and help clients grow, transform and operate.

Working across assurance, consulting, law, strategy, tax and transactions, EY teams ask better questions to find new answers for the complex issues facing our world today.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. Information about how EY collects and uses personal data and a description of the rights individuals have under data protection legislation are available via ey.com/privacy. EY member firms do not practice law where prohibited by local laws. For more information about our organization, please visit ey.com.

© 2024 Ernst & Young, New Zealand.
All Rights Reserved.

This communication provides general information which is current at the time of production. The information contained in this communication does not constitute advice and should not be relied on as such. Professional advice should be sought prior to any action being taken in reliance on any of the information. Ernst & Young disclaims all responsibility and liability (including, without limitation, for any direct or indirect or consequential costs, loss or damage or loss of profits) arising from anything done or omitted to be done by any party in reliance, whether wholly or partially, on any of the information. Any party that relies on the information does so at its own risk.

ey.com

Immigration New Zealand Biometric Capability Update (BCU) Project Options Paper – Executive Summary

May 2025

MBIE



The better the question. The better the answer. The better the world works.

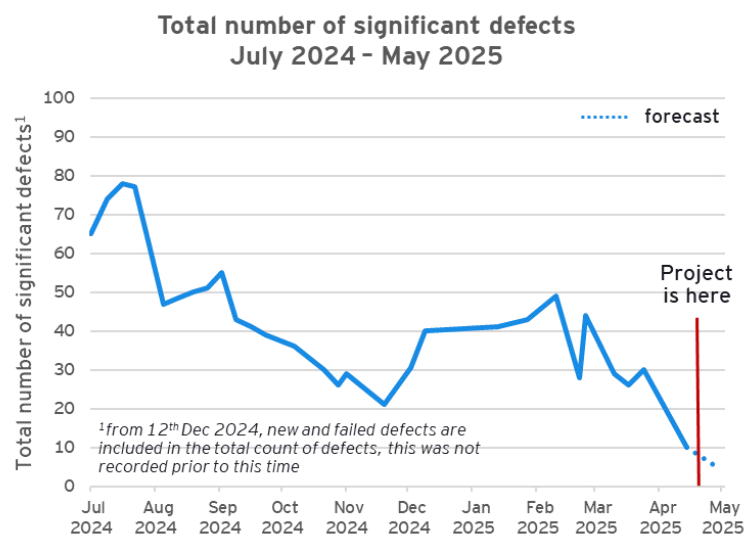


Shape the future
with confidence

Executive Summary (1 of 3)



- EY has performed a second independent and high-level review of the BCU Project to assess options and feasibility for go-live, while considering key risks such as security.
- The BCU Project has been unable to achieve previous planned go-live milestone dates (pre and post the 2024/2025 immigration busy period) and has not gone live.
- There are options available to deliver updated biometric capability, all of them come with risks. The plausible options still being considered are included in the table below.
- In considering the options, MBIE should maintain focus on the strategic objective of the project, which may influence short-term and long-term option decisions. The core strategic objective behind the project is to:
 - Provide an up-to-date, stable, working, reliable and hardened biometric capability that support's immigration related national security by improving both the efficiency and effectiveness of matching of immigration applicant biometric data.
- Strategic decision making on the best option requires consideration of business value, strategic alignment and trading off risks across service delivery & change, financial, reputation & trust, legal & commercial and compliance & security as shown in the table below.
- The direction of travel for the project is a possible go-live of the BCU Project MVP by early July 2025 (Option 1a), following latest releases showing material drop in defects (see graph below). During the writing of this report the relative quality of this option has increased with a significant drop in defects. The following challenges and risks will need to be managed during Option 1a go-live, if selected:
 - Management of outstanding defects and workarounds at go-live (i.e. fast followers)
 - Accelerated approval and initiation of the design and delivery of a security 'walled garden'
 - Making sure suitable commercial arrangements are in place for operational support
 - Understanding post go-live rollback options and managing the related business impact and risk
- Whilst all options have been assessed as discrete options it is plausible to choose Option 1a (to deliver early benefits) followed by a longer-term shift to one of the more strategic options (2b, 2d and 3b). If this path is chosen by MBIE, then the financial and reputational risks highlighted against options 2b, 2d and 3b would significantly reduce.



Options	Primary focus	Benefit	Alignment	Risk Rating				
				Service Delivery & Change	Financial	Reputation & Trust	Legal & Commercial	Compliance & Security
1a Existing BCU Project - Fast-Track		High	Low (low for up to 2 months and should move to medium)	4 - High	2 - Low	4 - High	4 - High	5 - Very High
1b Existing BCU Project - Conservative		High	Medium	4 - High	3 - Medium	2 - Low	3 - Medium	4 - High
2b Discontinue BCU Project and Adopt DIA FRaaS Solution		Medium	Medium	3 - Medium	5 - Very High	3 - Medium	3 - Medium	3 - Medium
		High	Medium	3 - Medium	5 - Very High	3 - Medium	3 - Medium	3 - Medium
3b Discontinue BCU Project and Adopt DIA FRaaS Solution		High	High	3 - Medium	5 - Very High	5 - Very High	3 - Medium	3 - Medium

Executive Summary (2 of 3)



The recent BCU Project release highlights significant improvements in defect resolution. Should MBIE decide to progress with the Option 1a, with the intent of going live in July to deliver early business value and benefits, they should remain vigilant to mitigating the risks associated with this option. Attention to the following pre and post go-live activities are recommended, in addition to the current approach to preparing the MVP solution.

To mitigate the risks associated with Option 1a, we recommend MBIE:		Recommendations mitigate risks under following categories				
		Service Delivery & Change	Financial	Reputation & Trust	Legal & Commercial	Compliance & Security
		Pre go-live Additional workstreams Post go-live				
1	Develop a clear set of readiness criteria for both project and business executives to be accountable for.	✓		✓		
2	Plan and rehearse a go / no-go decision process, utilising the rehearsal as means for refining the critical decision-making criteria.	✓		✓		
3	Prepare a comprehensive integrated implementation plan that includes all key workstreams / activities, schedule and committed resources (internal and supplier), business readiness, user communications, go-live release, hypercare, fast followers, walled garden and roll back delivery etc.	✓		✓		
4	Strengthen vendor partnership relationship and establish the best possible support coverage through the MSA and SoW process.	✓			✓	
5	Given the history of defects, resolution times and the operational risks identified, it is strongly recommended that a comprehensive rollback plan is prepared in the event of a catastrophic failure after the solution has gone live. The work should include a detailed feasibility analysis for performing a rollback from new to legacy platform; the criteria where a rollback will be enacted; the business and service impacts and risks incurred if enacted; and a full rehearsal of the technical rollback prior to go-live. Different scenarios need to be considered and rehearsed, such as rolling back during or immediately after go live compared to rolling back once the BCU solution has been in operation and processing transactions for a period. The rollback rehearsals will give confidence in feasibility, timeframes, service impact and data outcomes.	✓		✓		
6	Given the reliance on the 'walled garden' to mitigate security risk, it is strongly recommended that funding, resources and priority be given to completion of the walled garden design and implementation workstream. This work should be initiated with urgency to minimise the duration of the risk acceptance. Regular status updates should be reported to the CEO and executive owners until the risk is mitigated.					✓
7	Given the complexity and risk of operational issues with the solution in production, after go-live, it is recommended to maintain existing programme management, technical capability and executive attention until post go-live exit criteria are met. This ensures the focus of all post go live deliverables and operational handover of a stable operational service.	✓		✓		
8	After go-live, prepare a decision paper on whether to remain on Option 1a or initiate a longer-term strategy to pursue Option 3b or other options.	✓				
9	After go-live, complete delivery of the security walled garden and continue to maintain a security focus and maintenance of this control.					✓

Other Considerations

Acknowledging that the technical solution has improved significantly in quality in the recent releases, there are a number of broader programme deliverables that need to be focused on in the remaining weeks before a potential Option 1a go-live, including:

- **Rollback** - There is work currently underway to assess the feasibility and approach for rolling back the BCU solution and restoring the legacy solution should a catastrophic failure occur. While more work is required, EY's current understanding is that rollback is feasible but complex, and that immigration service delivery could be significantly impacted during the rollback process.
- **Security Risk Remediation** - Work should be undertaken to understand the security risks that will: be remediated by the walled garden both pre and post go-live; be remediated by the inclusion of requested security clauses in the contractual agreements with NEC and by making sure security processes (such as vulnerability management) are in place and are effective, both pre and post go-live; continue to remain open with the intention to close the risk(s) at a future date; or be permanently accepted. This piece of work will be crucial to understand the security risks accepted for go-live.
- **Implementation Planning and Critical Path View** - There is work currently underway to develop a view of an implementation plan (incl. business readiness and go/ no-go criteria) from now until post go-live. This work will also include developing a critical path view that involves multiple dimensions such as, solution issues/ defect count, security issue/ defect count, operational service peaks, and financials. This work will be crucial to understanding and mitigating risks during preparations for go-live and beyond.
- **Solution vendor on-shore resources for go-live** - MBIE have proactively engaged with NEC to bring specialised resources on-shore for the go-live and hypercare period. They also have the executive support within NEC available during this period to support decision-making. This is a significant risk mitigation approach to increase the speed of resolution of operational issues as they arise during cutover and post go-live.
- **Commercials** - There is work currently underway to complete negotiations and agreements with the solution vendor on the Support SoW, which will be crucial for operational support.

Immigration New Zealand Biometric Capability Update (BCU) Project Options Paper – Full Report

May 2025

MBIE



The better the question. The better the answer. The better the world works.



Shape the future
with confidence

Table of Contents



Section 1: Strategic Context	8
Section 2: Options Analysis	12
Section 3: Feasibility of Rolling Back in Production	26
Section 4: Appendices	28

Background and Scope of this Report

EY's work and this report

The BCU Project has faced challenges and has been unable to achieve previous planned go-live milestone dates.

EY has been asked to independently assess feasibility and options for the BCU Project. The work has included assessing:

- **Current project position**
- **Feasibility of current biometric and workflow capability going live before July 2025**
- **Other options to go-live by July 2025 and longer-term strategic options**
- **Security and contractual considerations across the options**

The discovery and analysis work has included reviewing key documents and participating in a small number working sessions. Note that EY did not interview NEC (primary vendor) or other vendor stakeholders as part of this work.

This report sets out EY's findings from this work.

Note: The EY work does not replace the BCU Project Independent Quality Assurance (IQA) reviews previously performed by David Williams of DW Consulting.

Scope of this report

This report presents and assesses BCU Project delivery options available to MBIE and INZ. Each option is assessed in the context of business value and strategic alignment, balanced with risk trade-offs. The information is intended to help MBIE Executives decide on the most suitable option or options for the BCU Project. In this report, **EY does not recommend or endorse specific options**, although recommended next steps are suggested to help mitigate risk if MBIE chooses Option 1a (fast-tracking go live of the current BCU Project).

MBIE assistance with this work

MBIE has fully supported this work, providing proactive, prompt, and transparent access to all MBIE documents and stakeholders.

This report may require MBIE consideration to determine classification, given references to national security and solution security risks.

01

Strategic Context

The BCU Project

The Immigration New Zealand (INZ) Biometric Capability Update (BCU) Project has been running since 2019. The core strategic objective behind the project is to:

Provide an **up-to-date, stable, working, reliable and hardened biometric capability** that support's immigration related national security by **improving both the efficiency and effectiveness** of matching of immigration applicant biometric data.

The Project has been through significant change over its duration and is looking to deliver:

- ▶ NEC Biometric (facial and fingerprint) matching of individuals seeking to immigrate to New Zealand.
- ▶ Workflow to support system and human processes for matching individuals.
- ▶ In-person Enrolment facilities to support immigration matching activities in in-person situations (for example, asylum seekers).

NEC is the primary supplier for this project, with Datacom, DXC and other suppliers also involved in specific areas.

Changing context and landscape surrounding this project

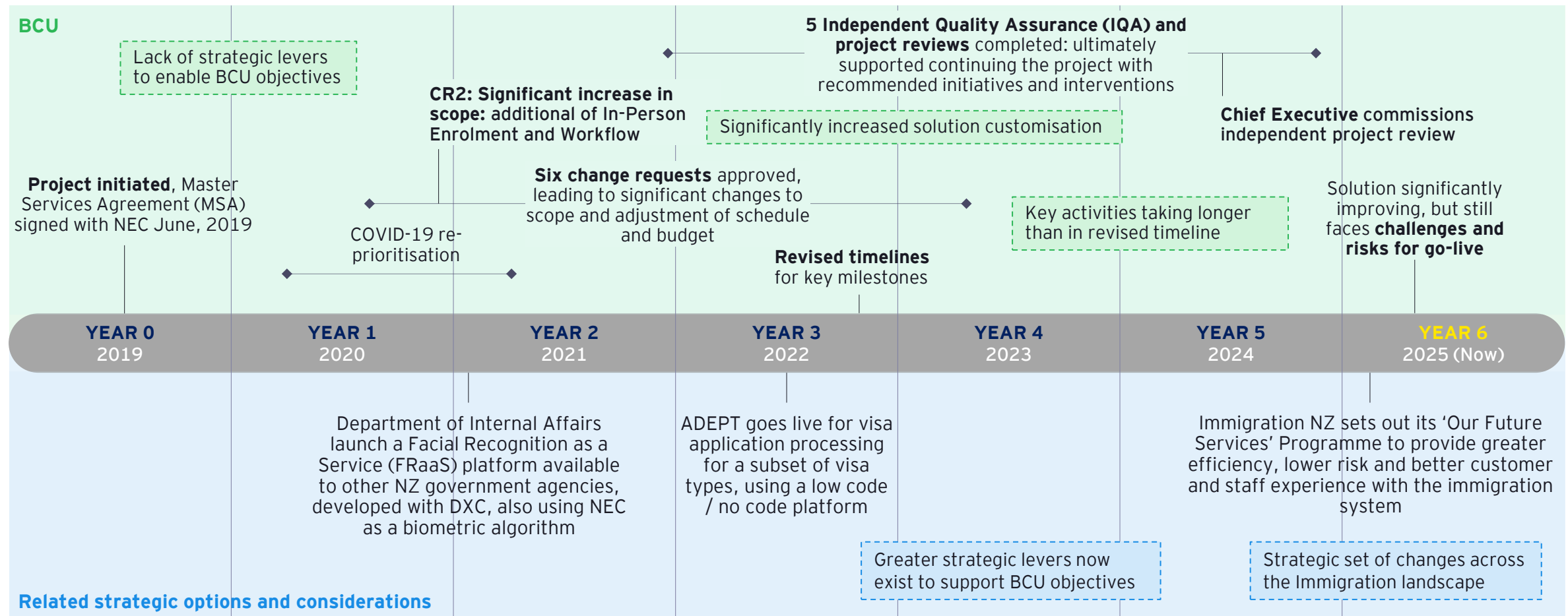
Given the project has been underway for six years, the broader context and landscape that this project operates within has moved on, with notable changes including:

- A more polarised and volatile geopolitical environment.
- COVID closing and reopening borders and diverting focus to essential services.
- 2023 having the highest net New Zealand migration rate in over 150 years.
- A focus on reuse of digital platforms and seamless citizen experiences across government services.
- An INZ 'Our Future Services' roadmap to deliver more flexible immigration system improvements for efficiency, technology risk and experience.

BCU Project Timeline and Emerging Strategic Landscape

As shown in the green section above the timeline, the Biometric Capability Upgrade (BCU) project commenced in 2019, but has faced significant setbacks, including six significant change requests and COVID-19 disruptions. This has led to substantial scope increases and delays to what was planned in the business case. In late 2018, a procurement exemption was approved for NEC to execute this specialised piece of work, and this major solution vendor has remained the same since the project's inception.

Shown in blue below the timeline, since the BCU Project's commencement, various other strategic options and considerations have emerged across the immigration landscape. These options and considerations were not in place when the BCU business case was approved, but if they had been, they likely would have influenced the direction taken by the project.



Current BCU Project Status

Summary of 2024 project review findings

EY was asked to undertake an independent review of the BCU Project in May 2024, and deliver findings to the Minister of Immigration and Chief Executive of MBIE. The findings of that review included:

- **Change requests and unplanned events** - these increased scope, solution complexity, project schedule and project cost.
- **Change Request 2** - added workflow into scope, introducing significant customisation with many defects and extended need for testing.
- **Workflow component considered difficult and costly to maintain** - due to customisation level and number of defects identified.
- **Greater management attention required** - to increase solution delivery and INZ operational confidence, given the number of defects and likely operational workarounds.

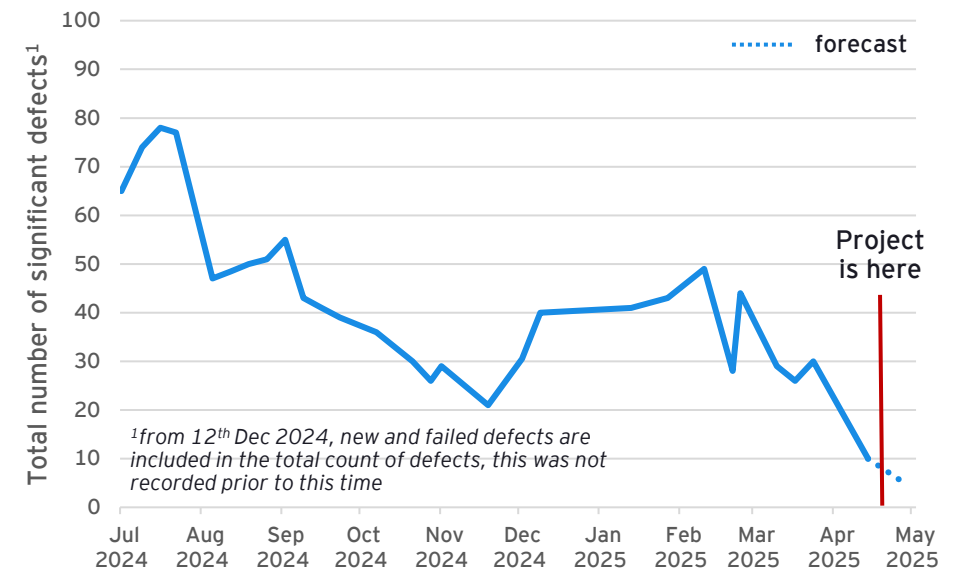
An IQA at the same time noted the BCU project delivery confidence as 'possible' for meeting the (at the time) scheduled go-live date of October 2024.

Current BCU Project status

Building on the previous review, we note the following status updates for the BCU project:

- **BCU Project has not gone live** - the planned go-live of October 2024 and a subsequent planned go-live of April 2025 were not met. Going live in early July 2025 period is being explored by MBIE but comes with challenges and risks.
- **The direction of travel is a possible MVP go-live by early July 2025 (Option 1a)** - following latest releases which show an increase in quality and a material drop in defects (see chart on right).
- **Security controls are a risk for production** - the BCU solution does not meet expected security standards and controls, and the solution may go-live prior to a fully completed implementation of a security 'walled garden'.
- **Complex rollback path may constrain production options** - if the decision is made to rollback to the legacy solution due to operational issues post go-live, rollback is likely to cause business impact and risks.
- **Workflow component has caused delays but now has reducing number of defects** - workflow is still a complex bespoke solution, may be costly to maintain, and could present production risks.
- **Commercial vendor arrangements may be a risk for production** - if unable to negotiate suitable support coverage and appropriate 'service level agreement' for resolution of operational issues.
- **Some options could weaken MBIE / INZ public, political and international reputation** - if solution impacts immigration operations, project investment is impaired, or further funding is required.

**Total number of significant defects
July 2024 - May 2025**



02

Options Analysis

Initial Options Explored

There are many options available for progressing biometric capability for INZ, as shown in this table. Note on the next page not all of these options are considered plausible.

Option	Sub-Option	Description	Tools		
			Biometrics	Workflow	IPE
1	Existing Full BCU Project				
	1a Existing BCU Project - Fast-Track	Fast-track BCU Project and commercial agreements, release urgent MVP with subsequent fast followers.	NEC	NEC	NEC
	1b Existing BCU Project - Conservative	Release BCU Project functionality once solution, defects, security and commercial agreements are acceptable.	NEC	NEC	NEC
2	BCU Biometric Capability with Alternative Workflow				
	2a BCU Biometric with Legacy Workflow - Fast-Track¹	Fast-track BCU Project biometric functionality and commercial agreements, having stripped out BCU workflow; combine with legacy MVP workflow solution using today's rules.	NEC	IDme s 9(2)(a)	NEC
	s 9(2)(j)	Release BCU Project biometric functionality and commercial agreements once these are ready, having stripped out BCU workflow; combine with legacy MVP workflow solution using today's rules.	NEC	IDme s 9(2)(a)	NEC
	2c BCU Biometric with New Workflow	Fast-track BCU Project biometric functionality and commercial agreements, having stripped out BCU workflow; combine with new MVP workflow solution with rapidly simplify rules and accelerated with AI (e.g. ServiceNow or Pega with AI).	NEC	New	NEC
	s 9(2)(j)	Fast-track BCU Project biometric functionality and commercial agreements, having stripped out BCU workflow; combine with upgraded version of legacy workflow (K2 Cloud) as an MVP solution with rapidly simplify rules and accelerated with AI.	NEC	s 9(2)(a) Cloud	NEC
3	Discontinue Current BCU Project				
	3a Discontinue BCU Project and Continue Using Legacy Solution	Discontinue BCU Project, with potential dispute resolution required, and continue to maintain and operate legacy biometric matching solutions.	IGMS	IDme s 9(2)(a)	
	3b Discontinue BCU Project and Adopt DIA FRaaS Solution	Discontinue BCU Project, with potential dispute resolution required, continue operating legacy biometric matching solutions in medium term while implementing DIA FRaaS solution.	FRaaS	MS Power-Platform	
	3c Discontinue BCU Project and Go to Market for New Solution	Discontinue BCU Project, with potential dispute resolution required, operating legacy biometric matching solutions in medium term while going to market for a new solution.	New	New	New

¹ Options 2a and 2b represent the same solution, with the distinction that Option 2a is a fast-tracked implementation of Option 2b

What Options are Plausible?

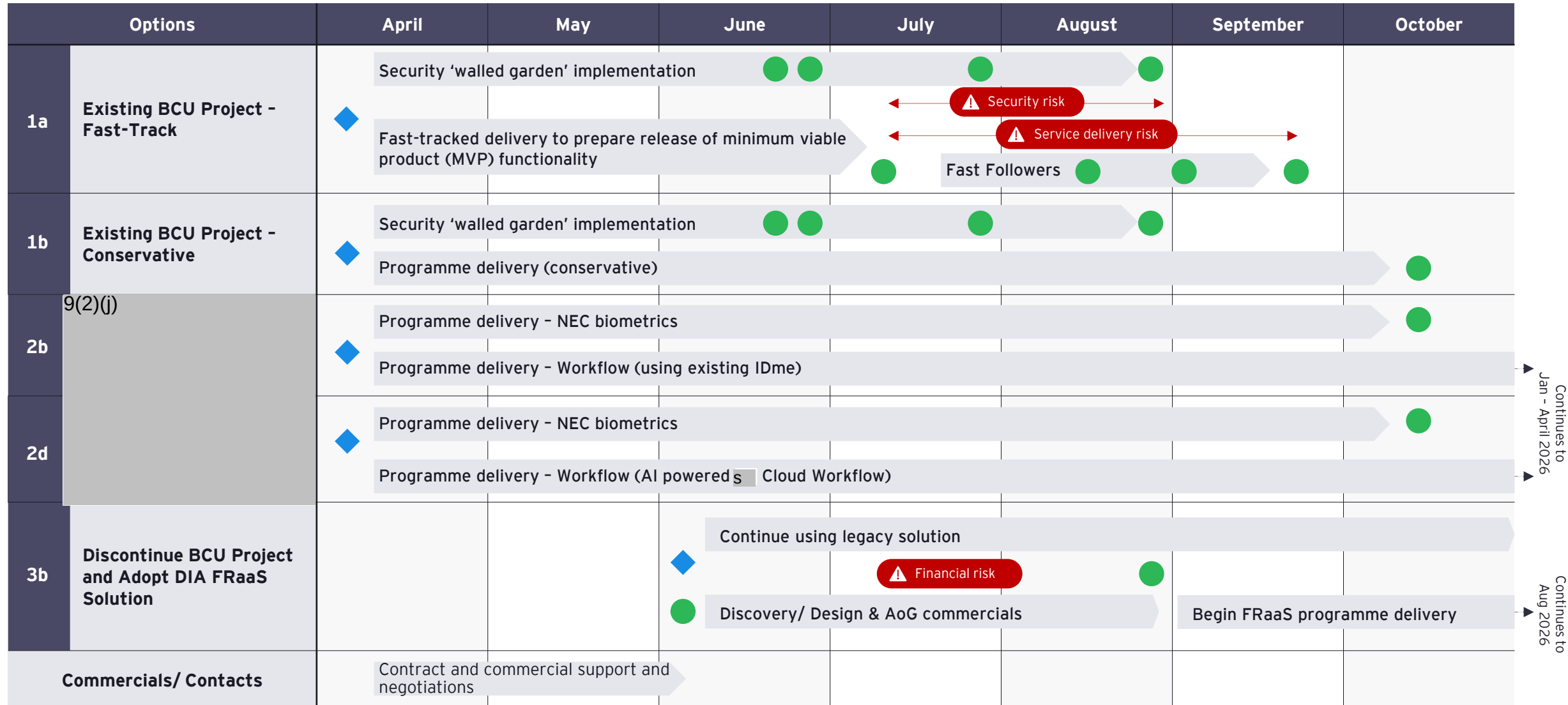
Not every option is plausible and those not considered plausible are identified here and not referred to again in this report.

Option		Sub-Option	Considerations	Go-Live Date	Plausible?
1	Existing Full BCU Project	1a Existing BCU Project - Fast-Track	This option prioritises go-live of a minimum viable product by early July 2025. It places delivery schedule and budget as highest priority and requires acceptance of lower strategic alignment and initially greater risk across service delivery, reputation and security categories.	Early July 2025	Yes
		1b Existing BCU Project - Conservative	This option prioritises go-live once the solution, known defects, security controls and commercial agreements are more comfortable, which likely will be after July 2025. The option requires acceptance of risk across delivery schedule, financial and reputation categories.	After August 2025	Yes
2	BCU Biometric Capability with Alternative Workflow	2a BCU Biometric with Legacy Workflow - Fast-Track ¹	This option mitigates the risks associated with NEC workflow by reverting to legacy workflow functionality. The legacy workflow capability is proven, although problematic, in production environment. Intent of this option was to explore ways to rapidly accelerate and deliver during June and July 2025 timeframe. This option is no longer considered plausible and is not explored further.	June - July 2025	No
		s 9(2)(j)	This option mitigates the risks associated with NEC workflow by reverting to legacy workflow functionality. The legacy workflow capability is proven, although problematic, in production environment. The option is expected to take approximately 9 months to deliver. It requires acceptance of delivery schedule, financial and reputation risk.	January - April 2026	Yes
		2c BCU Biometric with New Workflow	This option mitigates the risks associated with NEC workflow, prioritising go-live of a minimum viable product using NEC biometric and a new alternative workflow tool with potentially accelerated implementation with AI (e.g. ServiceNow or Pega). This no longer considered plausible and is not explored further.	September - December 2025	No
		s 9(2)(j)	This option mitigates the risks associated with NEC workflow, prioritising go-live of a minimum viable product using updated K2 cloud workflow with potential AI accelerated implementation. It cannot be delivered by July 2025 and also requires acceptance of risk across delivery schedule, financial and reputation categories.	September - December 2025	Yes
3	Discontinue Current BCU Project	3a Discontinue BCU Project and Continue Using Legacy Solution	This option mitigates the risks associated with the NEC solution and support, by exiting the commercial relationship and continuing with existing legacy solutions. This option is no longer considered plausible because it doesn't meet the core strategic objectives of the project. The option is not explored further.	Immediate	No
		3b Discontinue BCU Project and Adopt DIA FRaaS Solution	This option mitigates the risks associated with the NEC solution and support, by exiting the commercial relationship and initiating a new solution partnership to implement the DIA FRaaS platform. Service delivery and security risks could be reduced with this option. However, reputation, legal and financial risks could be higher.	August 2026	Yes
		3c Discontinue BCU Project and Go to Market for New Solution	This option mitigates the risks associated with the NEC solution and support, by exiting the commercial relationship and going to market for a new solution. This option is no longer considered plausible because a valid all of government alternative exists and so this option is not explored further.	April - June 2027	No

¹ Options 2a and 2b represent the same solution, with the distinction that Option 2a is a fast-tracked implementation of Option 2b

Indicative Timelines for Plausible Options

The following chart outlines the timelines, decision-making milestones, releases, and significant risks associated with each of the various plausible options. It is important to keep in mind that this information is merely indicative and may change as time progresses.



Key: ◆ Decision point ● Releases

Plausible options

Each plausible option is analysed further over the following pages. The plausible options include:

1a Existing BCU Project - Fast-Track

1b Existing BCU Project - Conservative

2b 9(2)(j)

2d

3b Discontinue BCU Project and Adopt DIA FRaaS Solution

Options have been treated as binary 1a, 1b, 2b, 2d or 3b, so that the business value, strategic alignment and risks for each option can be rated without ambiguity. It is noted that a potential pathway could be 1a (to get upgraded new capability live) followed by 3b (to improve the strategic alignment of biometric capability). This pathway has not been analysed and should it be pursued, the currently rated very high risks for option 3b for finance and reputation & trust would be mitigated to lower levels due to the implementation of option 1a.

Options analysis

Each plausible option has been analysed against business value, strategic alignment and risk. This provides a balanced view to facilitate MBIE decision making on the most suitable option or options.

Business value and strategic alignment analysis

Each option is analysed based on the following business value and strategic alignment categories:

- Business value
- Primary strategic alignment - BCU core strategic objective
- Secondary strategic alignment
 - Our Future Services' Roadmap
 - Shared Government Technology Platforms

Risk analysis

The following risk categories are used

- Service Delivery & Change risk
- Financial risk
- Reputation & Trust risk
- Legal & Commercial risk
- Compliance & Security risk

For analysing each option against risks:

- MBIE's Risk Management Framework, Risk Categories, and Risk Criteria have been used. Refer to Appendix A for more details on the MBIE risk matrix, categories and criteria.
- MBIE's Risk Category 'Legal & Compliance' has been split into two for this report under the categories 'Legal & Commercial' and 'Compliance & Security' as it was considered important to cover these areas separately given the nature of the options and risks.
- MBIE's Risk Category 'People Safety & Security' (noting security here refers to people security) was not included in the analysis as it was not considered relevant to the BCU Project.
- Options were placed wholly within discrete boxes in the risk matrix and not moved along continuums of likelihood and consequence. The intent is to follow the MBIE matrix as designed and also avoid ambiguity in rating each option.

Summary of Options Analysis



Each of the plausible options have been analysed against business value, strategic alignment and risk categories. The table below shows a summary of the resulting ratings against each of the three areas, with more detail and explanations provided over the following pages. It is important to note there are additional factors beyond the technical solution lens outlined below that should be considered in the decision-making process.

Options 3b and 1a have the highest total risk scores, while Options 1b, 2b and 2d have marginally lower total risk scores. However, it is essential to recognise that each risk category carries distinct values and implications. Therefore, MBIE should evaluate the risks against each of the options through the lens of which risk categories are most critical to their objectives.

Options		Primary focus Benefit Business Value	Alignment BCU Project- Core Strategic objectives	Secondary focus Alignment Our Future Services' Roadmap	Shared Government Technology Platforms	Risk Category					Total Risk Score
						Service Delivery & Change	Financial	Reputation & Trust	Legal & Commercial	Compliance & Security	
1a	Existing BCU Project - Fast-Track	High	Low (low for up to 2 months and should move to medium)	Medium	Low	4 - High	2 - Low	4 - High	4 - High	5 - Very High	19
1b	Existing BCU Project - Conservative	High	Medium	Medium	Low	4 - High	3 - Medium	2 - Low	3 - Medium	4 - High	16
2b	s 9(2)(j)	Medium	Medium	Low	Low	3 - Medium	5 - Very High	3 - Medium	3 - Medium	3 - Medium	17
2d		High	Medium	Low	Low	3 - Medium	5 - Very High	3 - Medium	3 - Medium	3 - Medium	17
3b	Discontinue BCU Project and Adopt DIA FRaaS Solution	High	High	High	High	3 - Medium	5 - Very High	5 - Very High	3 - Medium	3 - Medium	19

Strategic Alignment & Business Benefit Key:

Low	Medium	High
-----	--------	------

Risk Rating Key:

Very Low	Low	Medium	High	Very High
----------	-----	--------	------	-----------

Business Value and Strategic Alignment for Each Option

Each option has been analysed against business value and strategic alignment. We suggest that this framework be revisited during business readiness and go / no-go decision meetings as the position of each option is likely to change.

Options	Primary focus	Benefit	Strategic Alignment	Secondary focus	Strategy Alignment	
		Business Value	BCU Project - Core Strategic Objective ¹		Our Future Services Roadmap ²	Shared Government Technology Platforms
1a Existing BCU Project - Fast-Track		High	Low (low for up to 2 months and should move to medium)		Medium	Low
1b Existing BCU Project - Conservative		High	Medium		Medium	Low
s 9(2)(j)		Medium	Medium		Low	Low
		High	Medium		Low	Low
3b Discontinue BCU Project and Adopt DIA FRaaS Solution		High	High		High	High

Footnotes

1. The core strategic objective: *Provide an up-to-date, stable, working, reliable and hardened biometric capability that support's immigration related national security by improving both the efficiency and effectiveness of matching of immigration applicant biometric data.*

All options offer an enhanced biometric algorithm that could increase match rates from below 10% to around 50%, generating greater business value.

- **1a - Initially Low** due to known defects and security limitations, unimplemented fast followers and potential commercial agreements - should improve to medium over time.

- **1a, 1b - Medium** due to modernised and upgraded biometrics capability, but without the flexibility and technology risk profile preferred.

3b is the only option that will significantly reuse existing technology and platform across government, by using the DIA FRaaS platform.

3. EY has not evaluated the DIA FRaaS solution; ratings and comments are based solely on initial conversations with MBIE staff.

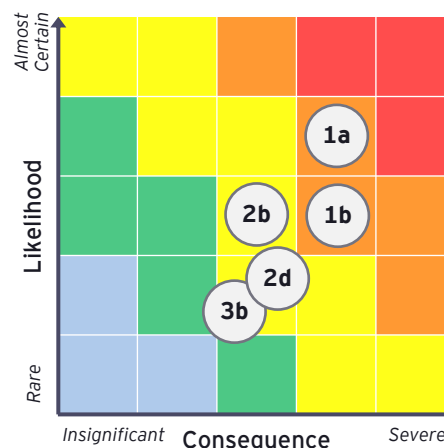
Risk Assessment for Plausible Options^{1,2}

This slide provides a view of the risk profiles (likelihood and consequence) for each of the plausible options. Descriptions of risk positions included in following pages.

Plausible Options

1a	Existing BCU Project - Fast-Track
1b	Existing BCU Project - Conservative
2b	s 9(2)(j)
2d	
3b	Discontinue BCU Project and Adopt DIA FRaaS Solution

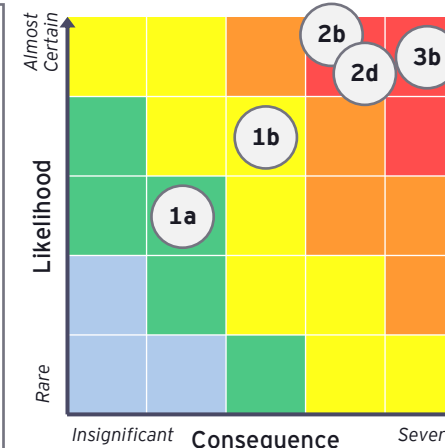
1. Service Delivery & Change



The service delivery & change risk category refers to the likelihood and consequence of:

- Outages or long-term delays.
- Failing to achieve Ministry and/or business group outcomes/ priority.
- Failing to reallocate effort or re-plan to remediate impact.

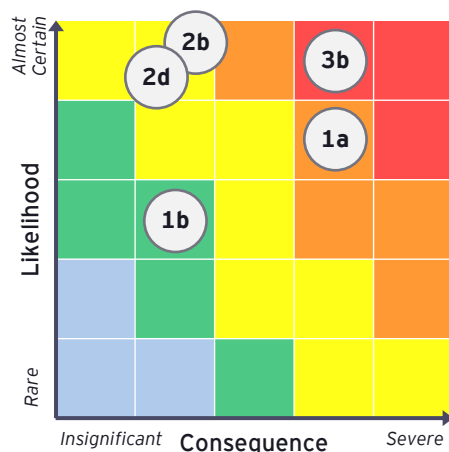
2. Financial



The financial risk category refers to the likelihood and consequence of:

- Fiscal impacts on business or change related activities, funding, success, shortfalls, costs or savings.

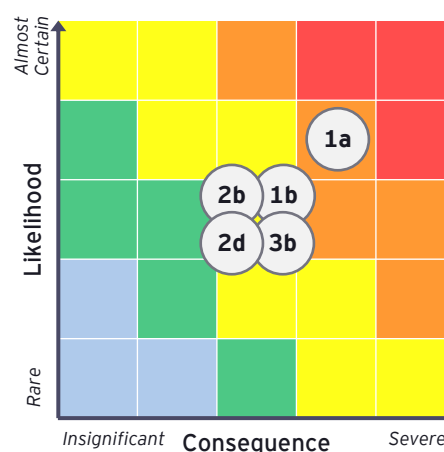
3. Reputation & Trust



The reputation & trust risk category refers to the likelihood and consequence of:

- Targeted media interest/ OIA requests.
- Impacts on internal and external stakeholders' trust, relationship and confidence.
- Ministerial scrutiny or investigation.

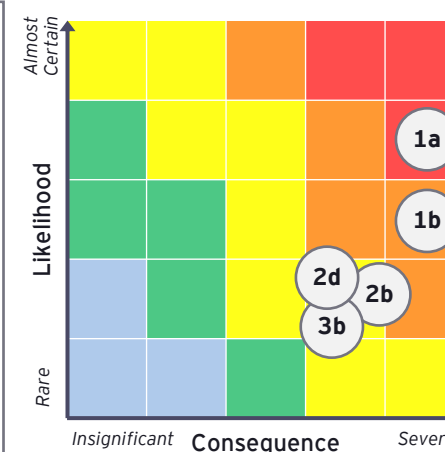
4. Legal & Commercial



The legal/ commercial risk category refers to likelihood and consequence of:

- Action, omission, or issue resulting in a dispute.
- Failing to agree on legal contracts that adequately meet the Ministry's needs.

5. Compliance & Security



The compliance (security) risk category refers to likelihood and consequence of:

- Penalties or action due to failure to comply with security related laws, regulations, standards or internal policies.
- Event or action to cause harm or loss to the Ministry's assets, including information, systems and operations

Risk Rating Key:

Very Low Low Medium High Very High

¹ adapted from the 'MBIE Risk Management Framework' and descriptions used here are summarised from this framework.

² See detailed risk assessment pages for risk position rationale. 19

Mitigating Option 1a Risk Profile¹

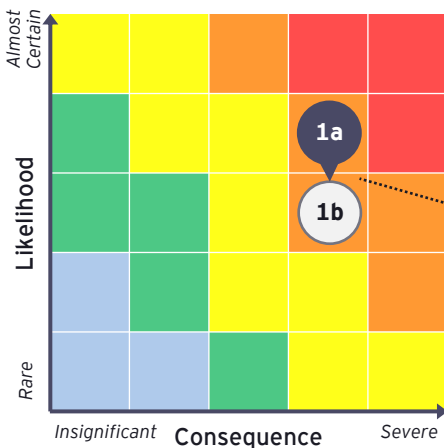
Should MBIE decide to progress with Option 1a and go-live in the early July timeframe, there are potential mitigation strategies that MBIE can undertake to mitigate and reduce the risk profiles associated with choosing this option.

Should MBIE select Option 1a, they may also choose to pursue other strategic long-term options (such as 2b, 2d and 3b) at an appropriate time.

Recommended mitigation strategies that MBIE can undertake are listed to the right of the risk profile maps in each of the risk categories.

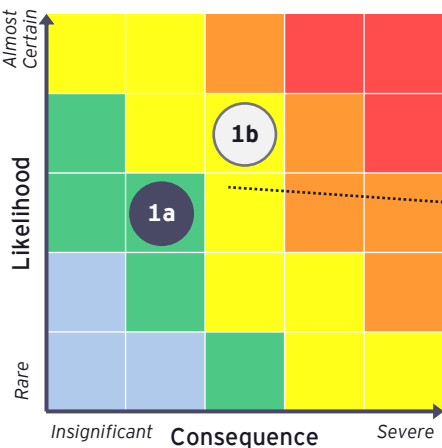
1a	Existing BCU Project - Fast-Track
1b	Existing BCU Project - Conservative

1. Service Delivery & Change



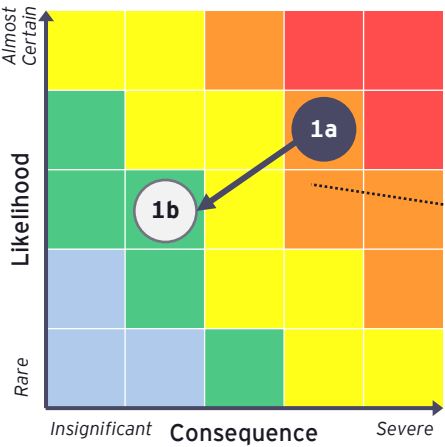
- Risk Mitigation Strategies:**
- Develop an implementation plan that provides a view of activities, timing and resources.
 - Maintain existing level of oversight until post go-live criteria is met.
 - Develop comprehensive post go-live rollback plan and perform technical rollback rehearsals

2. Financial



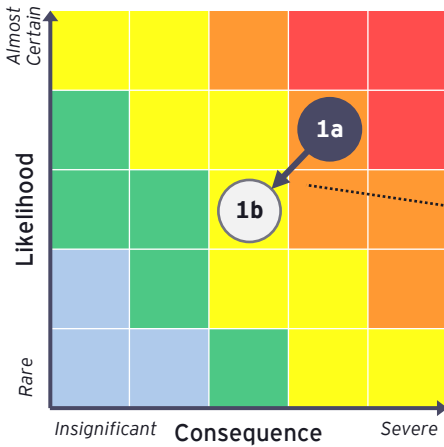
This category has not been considered as Option 1a already provides an improved risk profile over Option 1b.

3. Reputation & Trust



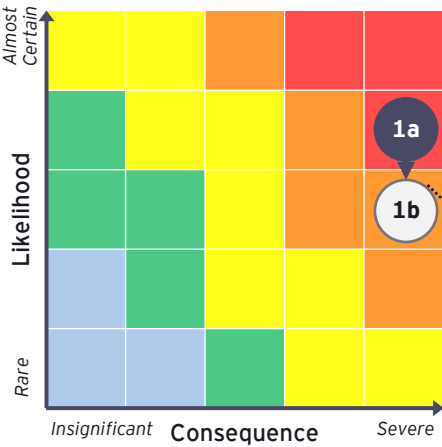
- Risk Mitigation Strategies:**
- Greater rigour in business readiness and go/ no-go decision-making (e.g. rehearsals).
 - Develop comprehensive post go-live rollback plan and perform technical rollback rehearsal.
 - All mitigation strategies in #1 to improve solution stability for service delivery.

4. Legal & Commercial



- Risk Mitigation Strategies:**
- Negotiate agreements that provide best possible support coverage.
 - Strengthen partnership with vendor.
 - All mitigation strategies in #1 to improve solution stability for service delivery.

5. Compliance & Security

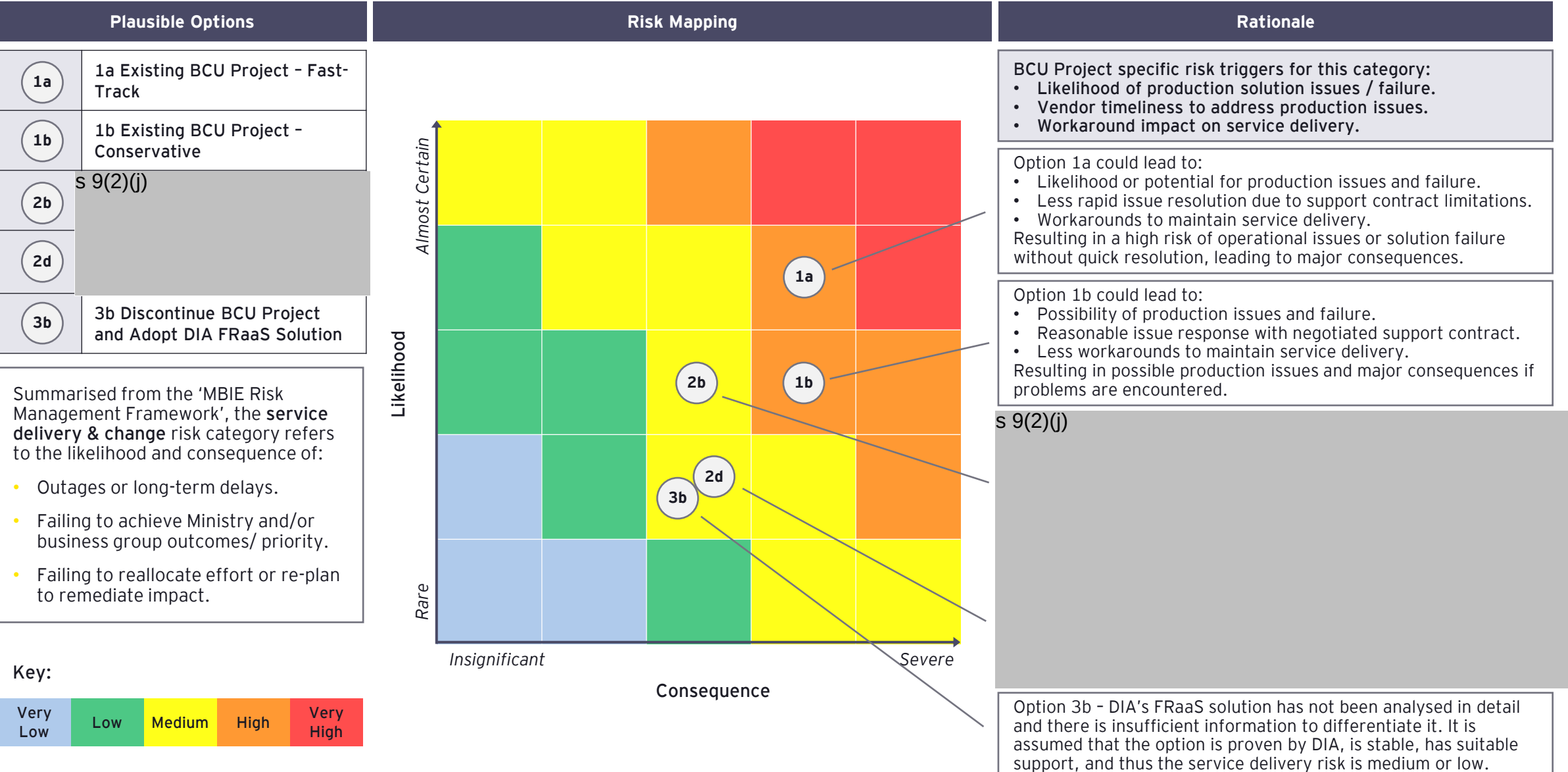


- Risk Mitigation Strategies:**
- Accelerate implementation of security walled garden.
 - Maintain existing level of attention to security risks.

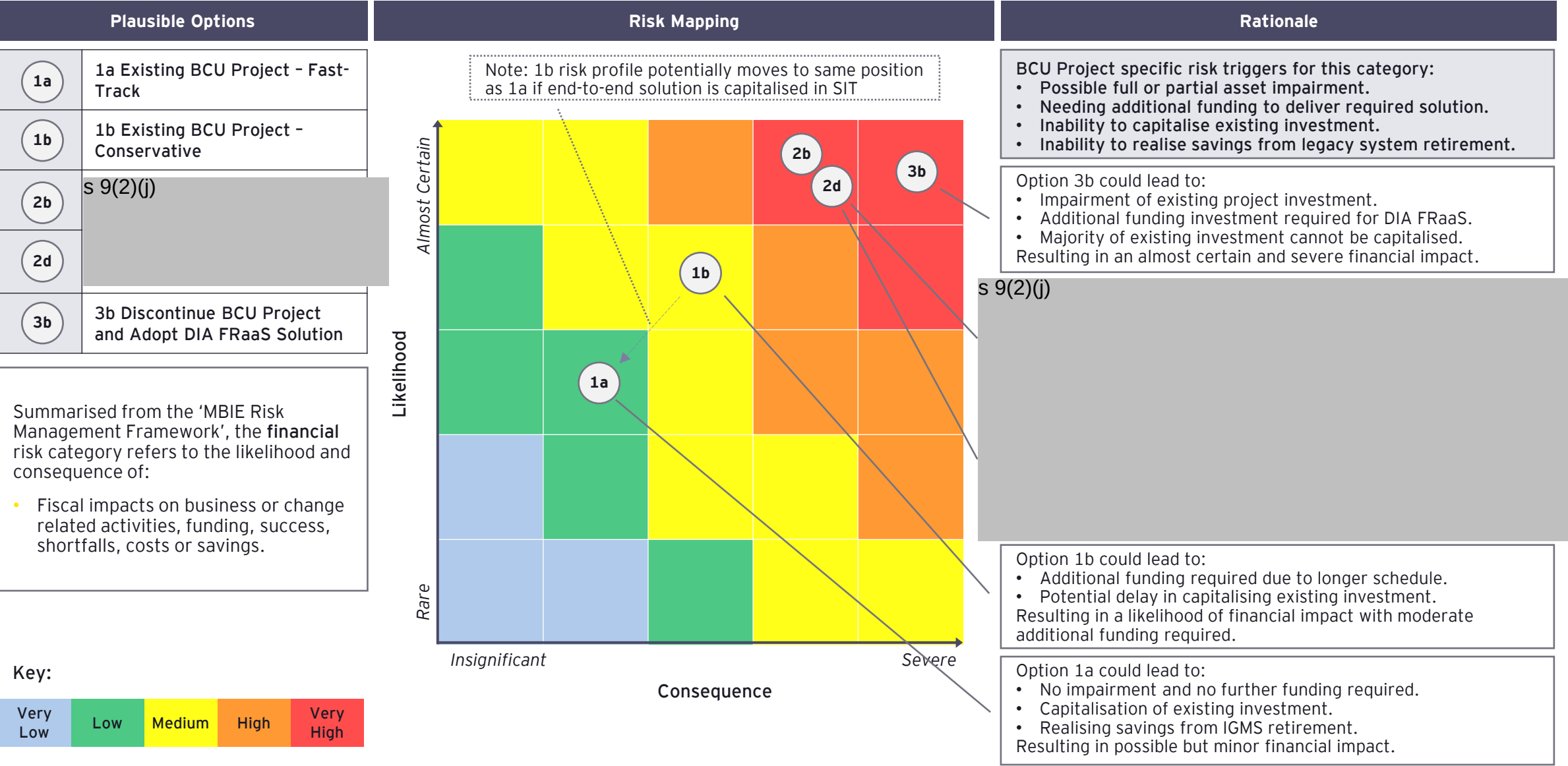


¹adapted from the 'MBIE Risk Management Framework'

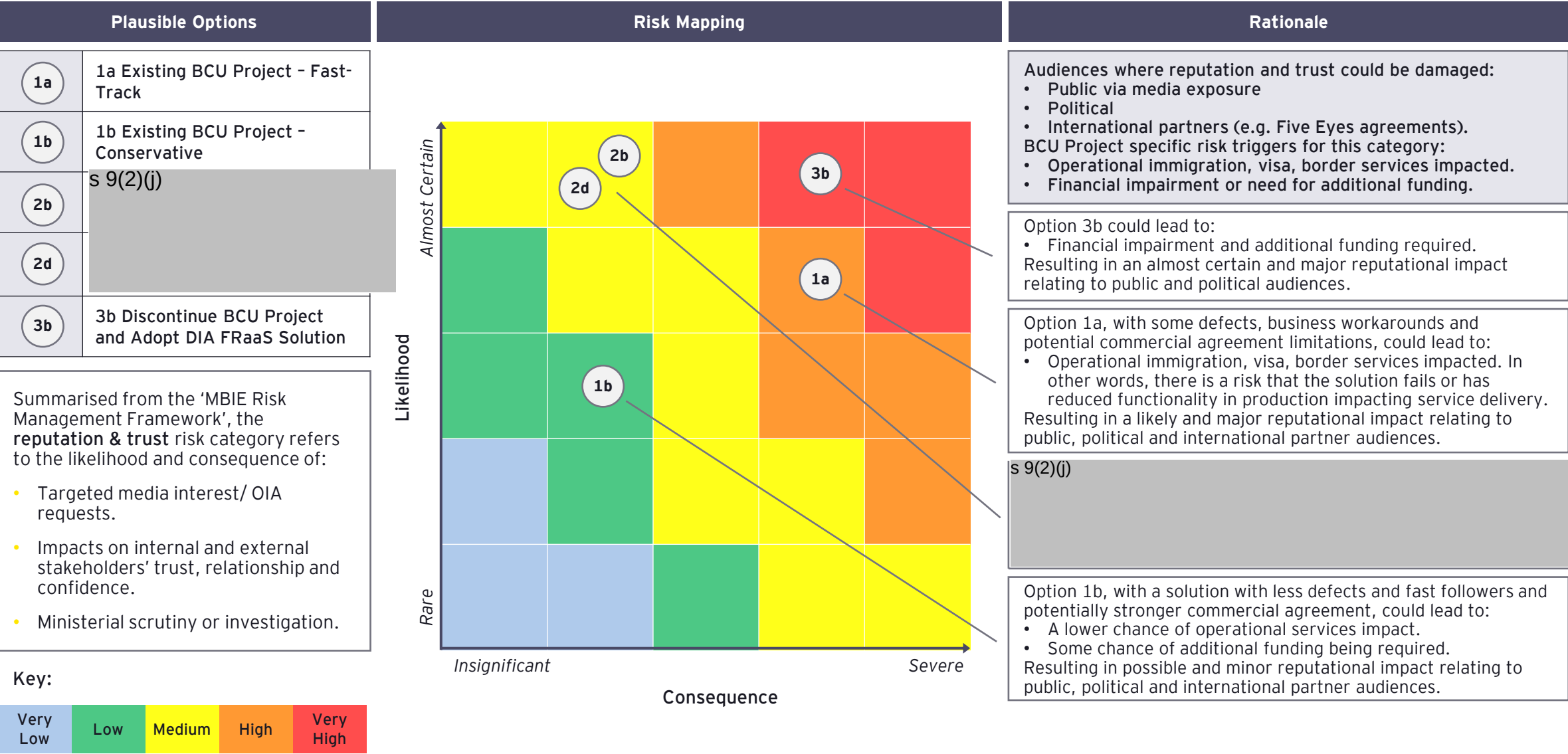
Risk Assessment - 1. Service Delivery & Change



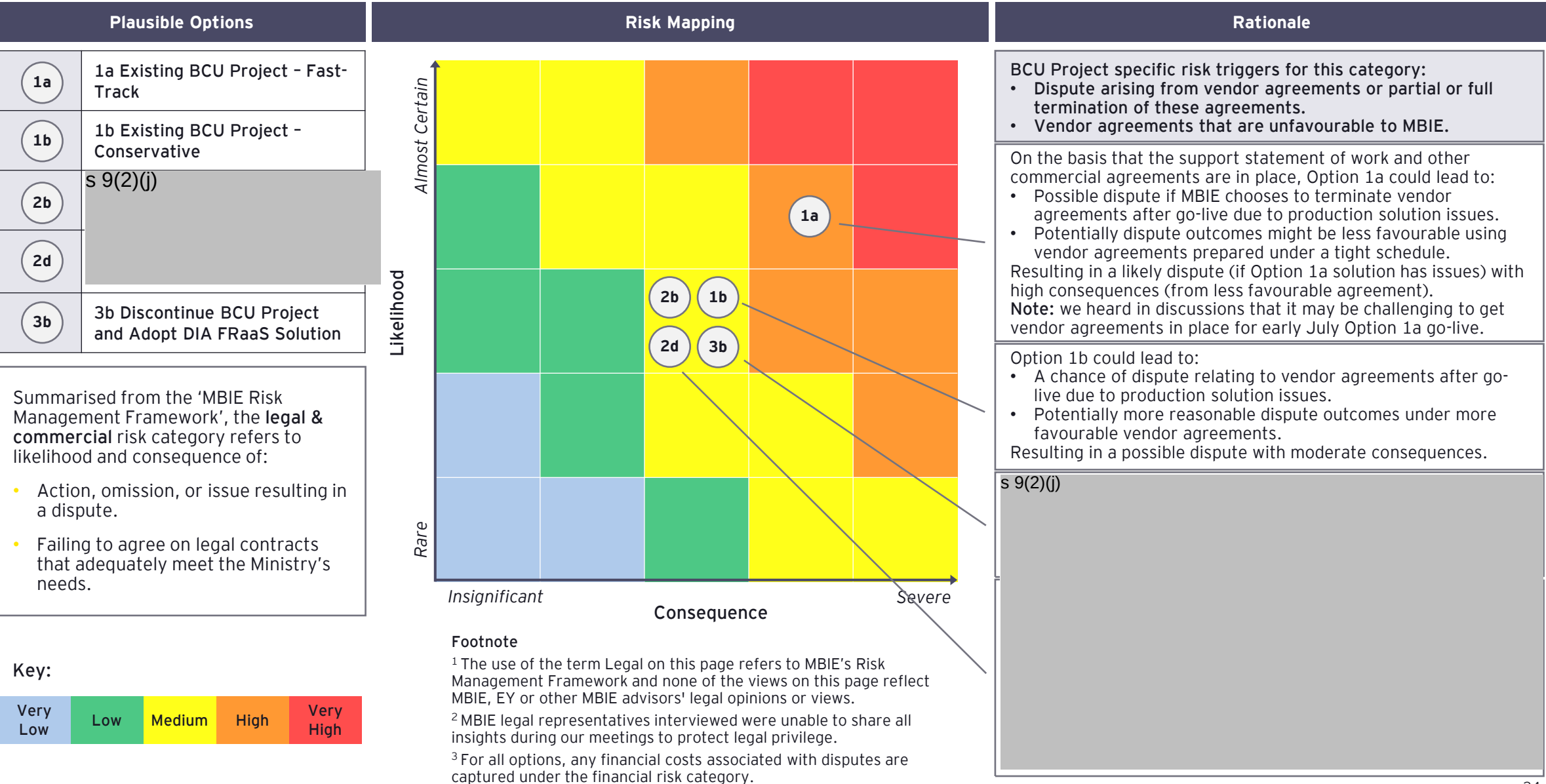
Risk Assessment - 2. Financial



Risk Assessment - 3. Reputation & Trust



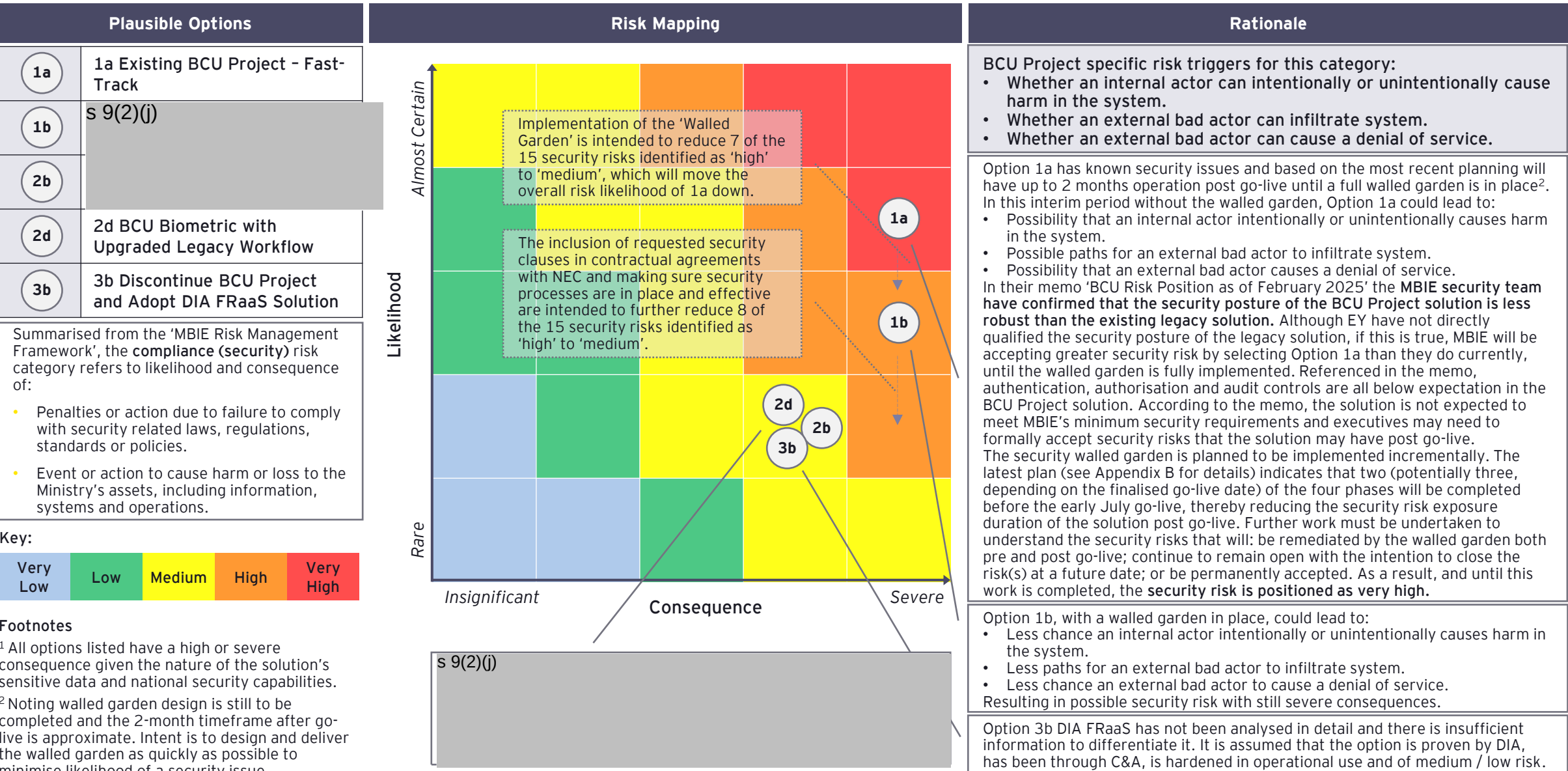
Risk Assessment - 4. Legal & Commercial^{1,2,3}



Key:



Risk Assessment - 5. Compliance & Security¹



Footnotes

¹ All options listed have a high or severe consequence given the nature of the solution's sensitive data and national security capabilities.

² Noting walled garden design is still to be completed and the 2-month timeframe after go-live is approximate. Intent is to design and deliver the walled garden as quickly as possible to minimise likelihood of a security issue.

03

Feasibility of Rolling Back in Production

Rolling Back BCU Solution in Production is Still Being Assessed

At the time of writing, work led by s 9(2)(a) from MBIE is underway to assess the feasibility and approach for rolling back the BCU solution after go-live and restoring the legacy solution. A rollback decision could be made immediately after go-live or sometime after operational use if the BCU solution encounters significant operational issues and meets the criteria where the decision is made to rollback.

While more work is required, EY's current understanding from the assessment so far is:

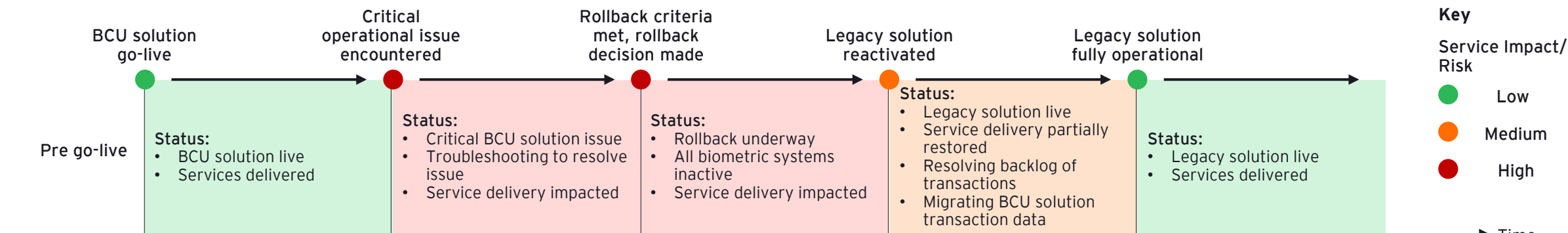
- **Rollback is likely to be feasible** - preliminary findings indicate that reverting from the BCU solution to the current solution is feasible but complex
- **Immigration service delivery will be significantly impacted during rollback** - and there will be operational risks to be mitigated and potential for operational data or transaction loss

Key impacts and risks to be considered include:

- **Transactional data in BCU live solution** - depending on when a rollback decision is made, there could be days, weeks or months of successfully completed transactions held in the new BCU solution environment, that may need to be restored into the legacy solution.
- **All systems down for the duration of the rollback** - systems would be unavailable for the duration of the rollback and transaction data during this time would need to be 'captured' using alternative methods or risk being lost.
- **Service continuity during rollback period** - Immigration activities will likely continue during the rollback period. A comprehensive assessment is necessary to understand the types and volumes of services that may be interrupted by system outage during the rollback and understand the contingency business processing plans that can be implemented to mitigate these interruptions. For example, approximately 4000 ETA applications are processed daily (in the July time of year), if a rollback is initiated and takes 3 days to complete, a robust plan would be required to process the 12,000 ETA applications that would be made during this process.
- **Validating technical rollback feasibility** - a comprehensive assessment of technical feasibility and rollback rehearsals needs to be considered to provide the confidence across rollback feasibility, timeframes, service impacts and data outcomes.

As mentioned, this work is underway and needs to provide sufficient insight and assurance to MBIE Executives during final preparations for BCU Project go-live.

Rollback Process (high-level and indicative only)



04

Appendices

Appendix A: MBIE Risk Framework 1/2

		Consequence				
		Insignificant	Minor	Moderate	Major	Severe
Likelihood	Almost Certain	Medium	Medium	High	Very High	Very High
	Likely	Low	Medium	Medium	High	Very High
	Possible	Low	Low	Medium	High	High
	Unlikely	Very Low	Low	Medium	Medium	High
	Rare	Very Low	Very Low	Low	Medium	Medium

Likelihood risk rating criteria				
		Description	Probability	Frequency
Likelihood	Almost Certain	The event is expected to occur and is almost inevitable	Greater than 95% chance of occurring	< 1 year
	Likely	The event is expected to occur in most circumstances	60% to 95% chance of occurring	1-2 years
	Possible	The event might occur in some circumstances	30% to 60% chance of occurring	2-3 years
	Unlikely	The event is not expected but could occur in some circumstances	5% to 30% chance of occurring	3-20 years
	Rare	The event may occur but only in exceptional circumstances	Less than 5% chance of occurring	> 20 years

Extracted from *MBIE Risk Management Framework Version 3.1*

Appendix A: MBIE Risk Framework 2/2

	Consequence Risk Rating Criteria				
	Financial	Service Delivery & Change	Reputation & Trust	People Safety & Security	Legal & Compliance
Severe	• >\$20m Financial impact on business or change related activities, funding, success, shortfalls, costs or savings • Impact cannot be managed or contained without additional funding from Government	• >48-hour outage or long-term delays to high volume and/or business critical services • Failure to achieve more than one Ministry or Business Group outcome or priority, to the extent that multiple targets will not be achieved • Impact cannot be managed or contained without significant additional resources	• Loss of confidence in the Chief Executive and Senior Leaders • Independently commissioned external review of the Ministry (e.g. Royal Commission, OAG, OPC) • Irreparable widespread damage to internal and external stakeholder trust and relationships • Extensive and ongoing targeted media interest	• Work-related fatality or life-threatening injuries or illnesses with serious permanent effects • Multiple people requiring hospital-based crisis treatment and/or long-term mental health care • Attrition of several critical roles and/or >17% turnover across the Ministry in 12-month period	• Action, omission, or issue resulting in a critical breach, external investigation and prosecution of the Ministry • The Ministry is held liable or found to be negligent
Major	• \$5m - \$20m Financial impact on business or change related activities, funding, success, shortfalls, costs or savings	• 24–48-hour outage or sustained delays to high volume and/or business critical services • Failure to achieve one Ministry or Business Group outcome or priority • Ministry impacted by significant slippage in business or change activity or service levels • Impact cannot be managed or contained without re-planning	• Sustained ministerial scrutiny or investigation • Temporary adverse impact (widespread) on internal and external stakeholder trust and relationships of significant interest to ministers • Targeted media interest • Significant increase in parliamentary questions, ministerial and/or Official Information Act enquiries	• Work-related injury or illness affecting a persons ability to return to work in the short-term (< 3 months) • A person requiring hospital-based crisis treatment and/or multiple people receiving short-term mental health care. • Attrition of several critical roles and/or >17% turnover in more than one Business Group in 12-month period	• Action, omission, or issue resulting in a significant breach and external investigation of the Ministry
Moderate	• \$1m - \$5m Financial impact on business or change related activities, funding, success, shortfalls, costs or savings	• 4–24-hour outage or intermittent delays to high volume and/or business critical services • Business Group impacted by significant slippage in business or change activity or service levels • Impact can be managed or contained with resource reallocation and some re-planning	• Targeted ministerial scrutiny or investigation • Temporary impact on internal and external stakeholder trust and relationships of interest to minister • Short-term media interest • Noticeable increase in parliamentary questions, ministerial and/or Official Information Act enquiries	• Work-related injury or illness requiring in-patient medical treatment or loss time injury • A person receiving non-hospital crisis mental health treatment • Attrition of one or more Key People / critical roles and/or >17% turnover within one Business Group in 12-month period	• Action, omission, or issue resulting in a serious breach, external investigation of the Ministry, compliance order and/or other sanction
Minor	• \$100k-\$1m Financial impact on business or change related activities, funding, success, shortfalls, costs or savings	• A number of brief infrequent service outages or short-term delays • Branch impacted by slippage in business or change activity or service levels • Impact can be managed or contained within current resources, with some re-planning	• Limited media interest and/or coverage • Limited impact on internal and external stakeholder trust and relationships • Routine parliamentary questions, ministerial and/or Official Information Act enquiries	• Work-related injuries or illness (mental or physical) requiring first aid or outpatient medical treatment with no long-term effects but may require restricted duties • Attrition of one or more Key People and/or >17% turnover within a Branch in 12-month period	• Action, omission, or issue resulting in a non-material breach requiring increased internal and external intervention and monitoring
Insignificant	• <\$100k Financial impact on business or change related activities, funding, success, shortfalls, costs or savings	• One brief isolated service outage or delay • Business Team impacted by slippage in business or change activity or service levels • Impact can be managed within current resources and does not require re-planning	• No media interest or visible adverse local or regional impact • Negligible loss of credibility with key internal and external stakeholders	• Work-related injuries or illness (mental or physical) requiring first aid or early pain and discomfort treatment. No long term effects. • Attrition of one or more Key People and/or >17% turnover within a Business Team in 12-month period	• Action, omission, or issue (including near miss) that constitutes a non-material breach of a legal obligation

Extracted from MBIE Risk Management Framework Version 3.1

Appendix B: High Level Walled Garden Implementation Plan

Vendor	Walled Garden Activity	Estimated Effort	Estimated Testing	Total Estimated Effort	Phasing
One NZ	Implement revised network firewall rules	5 - 10 days		15	Phase 1
			3-5 days		
Datacom	Implement revised host based firewall rules	20-30 days		50	Phase 2
			10-20 days		
	Implement Role Base Access Control	20-30 days		50	Phase 3
			10-20 days		
RedSheild	Implement Application layer filtering and authentication 5- 10 days plus 10-20 days of fine tuning	10-20 days		20	Phase 4
			10-20 days		
Notes: This is the estimated effort, and we need to confirm a SoW from Datacom, RedShield and One NZ for actual effort, but to do this we need a completed design. Each vendor can do their work in parallel, but we should implement one at a time as it becomes much easier to diagnose if things fail.					
Complete Design	Mid May 2025				
Implement Changes	Mid / Late June	Phase 1			
	June	Phase 2			
	July	Phase 3			
	Aug	Phase 4			

Note:

- All information above is provided by MBIE BCU Project Team on 2 February 2025.
- The walled garden design is still to be completed and timing and phasing is approximate at this time, however MBIE's intent it to focus on designing and delivering the walled garden as quickly as possible to minimise the time between the BCU solution going live and having the walled garden fully implemented and operational.

EY | Building a better working world

EY is building a better working world by creating new value for clients, people, society and the planet, while building trust in capital markets.

Enabled by data, AI and advanced technology, EY teams help clients shape the future with confidence and develop answers for the most pressing issues of today and tomorrow.

EY teams work across a full spectrum of services in assurance, consulting, tax, strategy and transactions. Fueled by sector insights, a globally connected, multi-disciplinary network and diverse ecosystem partners, EY teams can provide services in more than 150 countries and territories.

All in to shape the future with confidence.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. Information about how EY collects and uses personal data and a description of the rights individuals have under data protection legislation are available via ey.com/privacy. EY member firms do not practice law where prohibited by local laws. For more information about our organization, please visit ey.com.

© 2025 Ernst & Young, New Zealand.
All Rights Reserved.

This communication provides general information which is current at the time of production. The information contained in this communication does not constitute advice and should not be relied on as such. Professional advice should be sought prior to any action being taken in reliance on any of the information. Ernst & Young disclaims all responsibility and liability (including, without limitation, for any direct or indirect or consequential costs, loss or damage or loss of profits) arising from anything done or omitted to be done by any party in reliance, whether wholly or partially, on any of the information. Any party that relies on the information does so at its own risk.

ey.com

MBIE | Immigration New Zealand

Biometric Capability Update Project Rapid Review

29 October 2025



The better the question. The better the answer. The better the world works.



Shape the future
with confidence

Contents

Section	Page
Executive summary	3
Scope and approach	6
Interview observations	9
Supplier feedback	17
Conclusion and next steps	20
Appendix	
• Interviewees and documents reviewed	22
• Update on prior observations	

Inherent limitations

Our work is not performed in accordance with generally accepted auditing standards in New Zealand and accordingly does not express any form of statutory audit opinion. In performing our procedures, we have accumulated data, written various memoranda for our own use, and have had various meetings with representatives of the Ministry of Business, Innovation and Employment. The procedures performed, and related findings, are presented in this report.

The views expressed in our report are strictly limited to Ernst & Young Limited's area of professional expertise. Our report is strictly limited by the matters stated in it and is not to be applied by implication to any other matters.

The nature of this rapid review is limited and reflected within the scope. Observations are limited to documents provided, interviews performed and existing knowledge from previous phases of work. Our fieldwork was completed on 17 October 2025. Our findings are expressed as at that date. We have no responsibility to update this report for events or circumstances occurring after that date.

Third party reliance

This report has been prepared at the request of the Ministry of Business, Innovation and Employment. This report is solely for the benefit of the Ministry of Business, Innovation and Employment for the purpose set out in this report and is not to be used for any other purpose or distributed to any other party or relied upon by any other party without Ernst & Young Limited's prior written consent. Our Services are performed, and our report is prepared for the Ministry of Business, Innovation and Employment only, and we disclaim all liability to any other party in connection with the Services and/or our report. Other than our responsibility to the Ministry of Business, Innovation and Employment, neither Ernst & Young Limited nor any officer or employee of Ernst & Young Limited undertakes any responsibility or liability arising in any way to any third party, in respect of this report.

Thank you to the team for their rapid responses and participation in this engagement.

s 9(2)(a)

s 9(2)(a)



s 9(2)(a)

Partner, Consulting
Ernst & Young Limited

Executive Summary (1 of 2)

Strategic context

EY delivered an Immigration New Zealand BCU Programme Options Paper in May 2025 that explored options to go-live with the BCU solution by July 2025. In that review we outlined the objective of the programme as:

To provide an up-to-date, stable, working, reliable and hardened biometric capability that support's immigration related national security by improving both the efficiency and effectiveness of matching of immigration applicant biometric data.

To achieve this objective, the updated BCU solution algorithm is expected to significantly increase automation of matching biometric data reducing the manual matching

A history of supplier and defect challenges leading to missed delivery milestones

- BCU Programme has been operating for over 6 years since June 2019.
- In 2020 Change Request 2 introduced in person enrolment and workflow scope; the extensive workflow customisation has been a primary root cause of ongoing programme issues relating to testing duration, severe defects and solution brittleness.
- In May 2024 EY performed its first BCU Programme review; the programme had a planned go-live at that time of October 2024.
- At the time, the Programme faced issues with testing, severity 1 & 2 defects, business workarounds, supplier relationship, and meeting milestone dates.
- In May 2025 EY performed a second BCU Programme review to explore options to go-live by July 2025, after missing several earlier go-live dates.
- At the time, the Programme faced issues with security, severity 1 & 2 defects, business workarounds, supplier relationship, and meeting milestone dates.
- The BCU Programme continues in a cyclical pattern where go-live dates are set but unable to be achieved.

Executive Summary (2 of 2)



The technical solution is **off track** for a November 2025 go-live



If required the **business** could be ready to go-live in November 2025

- s9(2)(ba)(ii) [redacted]. Resolutions are slow and often introduces new bugs and issues, highlighting supplier quality assurance issues. There is considerable concern that this will continue in production, exacerbated by no contractual service levels for the supplier.
- Currently 15 severity 1 and 2 defects and there is little confidence that additional severe defects won't be found in testing as well as production.
- Business acceptance testing has identified concurrent user issues whereby the solution cannot support the required 50 concurrent users.
- There are no plausible or proven rollback options available in production for a November 2025 go-live following significant investigation and there may never be viable rollback solution. The untested rollback option does not provide required assurance to executives.
- Post go-live production support may not be ready due to lack of handover time to production support (Datacom) and support team members taking Christmas leave.
- Security mitigations, such as walled garden, are being delivered, but will only be ready in December 2025.
- Laptops for IPE are dependent on the production build which currently has 2 defects at present.

- The immigration business could rapidly get ready for a November go-live, but are behind on training and have a smaller window between go-live decision and go-live date than desired to be fully business ready.
- November go-live will be in a high volume immigration period compared to the earlier proposed release date of July 2025.
- s9(2)(ba)(ii) [redacted]
- There is mixed collective sentiment across business, programme and suppliers; covering programme fatigue, lack of knowledge sharing, relationship and trust issues, and lack of transparency and communication from MBIE.

Conclusions

Solution confidence remains low

- Code not yet complete.
- 'Unplanned' defects remain.
 - Failed concurrent user performance test.
- Early life support compromised by holiday period and short timeframe of knowledge transfer.
- The potential rollback option is limited and untested.

The business could be ready, however...

- About to enter the busiest immigration period.
- IPE devices are still to be provisioned.
- Minor support suppliers are ready, but Datacom could do with more time to be most effective.

All of this leads to operational risk for a November go-live, and the need for a risk / value consideration.

MBIE may wish to step back and re-evaluate alternative options given BCU Programme technical readiness has remained high risk for a long time, across many attempts to establish a production ready software build.

Technical readiness:

1. Defects:

Multiple high severity defects remain outstanding

BCU Project Risk #85, #80, #76

2. Production support: Post go-live production support unlikely to be ready

BCU Project Risk #84, #36, #10, #69

3. Solution performance: Solution does not support concurrent user numbers

BCU Project Risk #82, #71, #65

4. Rollback:

No proven rollback solution if BCU go-live fails

BCU Project Risk #53

5. In person enrolment:

Laptop build outstanding

6. Security:

Security mitigation activities progressing and s 6(c)

7. System integration: Thorough end-to-end testing completed

BCU Project Risk #53

Business readiness:

8. Commercial:

s9(2)(ba)(ii)

9. Business readiness:

The business could rapidly get ready but turnaround time and immigration volumes not ideal

BCU Project Risk #80, #76, #53

10. Collective sentiment:

Absence of shared understanding and trust with increased fatigue impacting sentiment

02

Scope and approach

We conducted a rapid review of the BCU Programme ahead of the decision for a November 2025 go-live

EY has been asked to do a rapid review of the BCU programme to provide input into the decision for MBIE to go-live with the BCU solution in November 2025.

This work follows EY's previous BCU Programme review and option paper in May 2025, and updates this in light of a chosen direction of travel to focus on current programme progress and go-live readiness.

Outcomes*

 Highlight where delivery pace is being balanced with risk acceptance.

 Provide an objective view of remaining project risk to governance forums.

 Highlight any remaining work to go.

Scope

Given the project stage the following scope is proposed to be completed over a two to three week time period:

In scope

- ✓ Short form review exploring:
 - ✓ Testing and outcomes.
 - ✓ Go-live requirements.
 - ✓ Business readiness (change and BAU).
 - ✓ Dependencies management.
- ✓ Update on progress towards observations provided to the programme on the 4 Aug as part of transition planning work.
(appendix two)

Out of scope

- × Supplier performance assessments.
- × Solution certification and accreditation confirmation.
- × Technical quality assurance.

Note:

Given the rapid turnaround of these insights, there has been limited validation to evidence points and it is predominantly based on independent observations.

The following approach was used to assess BCU Programme readiness

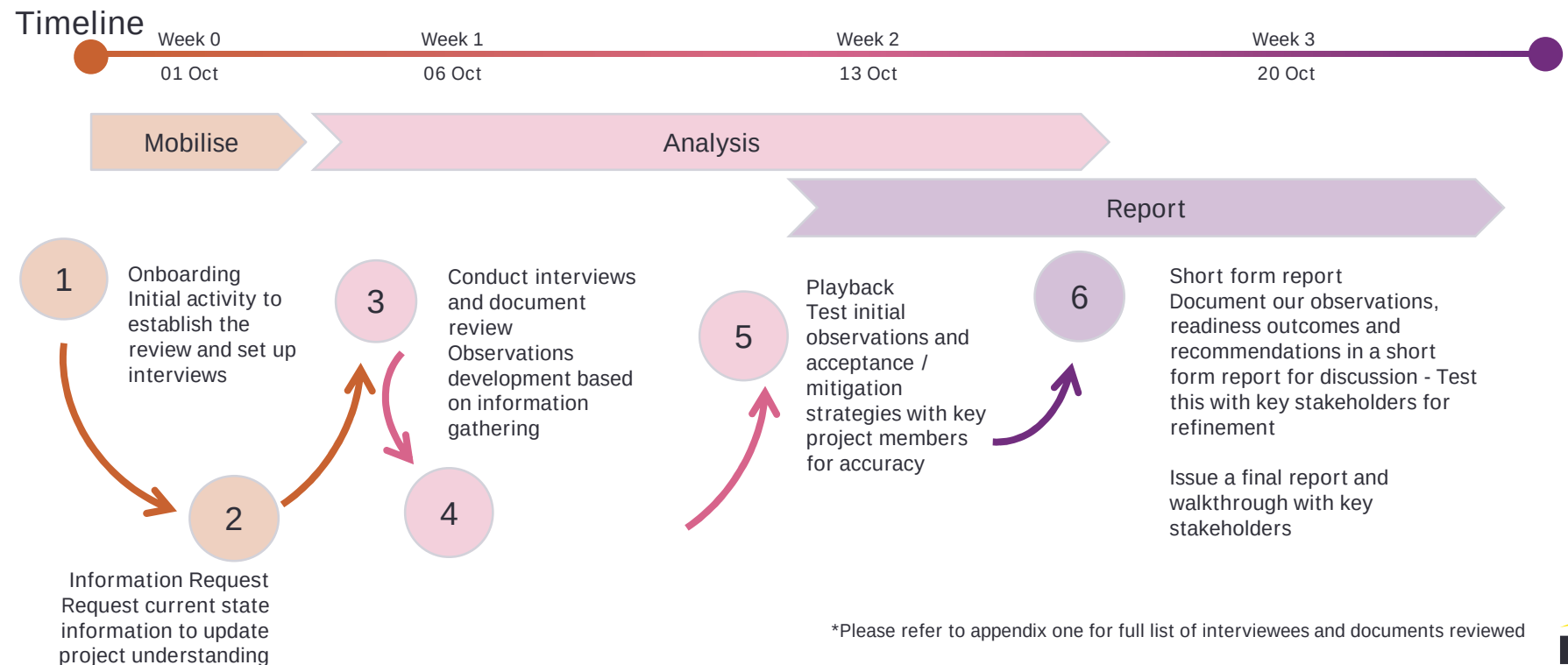
Discovery interviews were held with 14 key stakeholders from MBIE and key suppliers. Key documentation was reviewed including programme reporting, testing outcomes and options papers*. Additionally a readiness survey was completed by all support suppliers to understand current go-live sentiment, and deep dive sessions held with the two key suppliers Datacom and NEC.

Interview observations

Interview observations identified consistent themes that illustrate the cumulative BCU Programme readiness. These themes have been categorised as **on track**, **at risk** or **off track**.

Supplier feedback

We gathered supplier feedback through an online survey and our interviews, allowing us to gather qualitative and quantitative insights.



03

Interview observations

Ten themes of readiness arose from the interviews undertaken and documents reviewed*

The following pages outline our assessment of technical and business readiness.

A snapshot of results is presented to the right with further detail on the subsequent pages.

The following categorisation has been used for each readiness criteria:

- **On track** – no known issues or barriers to go-live.
- **At risk** – risks and issues emerging that could impact a successful go-live.
- **Off track** – substantial risks or issues that need resolution to go-live with an acceptable risk tolerance.

We have mapped these observations back to the BCU programme risk register where appropriate as mitigation actions are in play.

1. Defects:
Multiple high severity defects remain outstanding

BCU Project Risk #85, #80, #76

2. Production support:
Post go-live production support unlikely to be ready

BCU Project Risk #84, #36, #10, #69

3. Solution performance:
Solution does not support concurrent user numbers

BCU Project Risk #82, #71, #65

4. Rollback:
No proven rollback solution if BCU go-live fails

BCU Project Risk #53

5. In person enrolment:
Laptop build outstanding

6. Security:
Security mitigation activities progressing and s 6(c)

7. System integration:
Thorough end-to-end testing completed

BCU Project Risk #53

8. Commercial:
s9(2)(ba)(ii)

9. Business readiness:
The business could rapidly get ready but turnaround time and immigration volumes not ideal

BCU Project Risk #80, #76, #53

10. Collective sentiment:
Absence of shared understanding and trust with increased fatigue impacting sentiment

*Given the rapid turnaround of these insights, there has been limited validation to evidence points and it is predominantly based on independent observations.



Technical Readiness risk observations for a November 2025 go-live (1 of 4)

1. Defects: Multiple high severity defects remain outstanding BCU Project Risk #85, #80, #76		2. Production support: Post go-live production support unlikely to be ready BCU Project Risk #84, #36, #10, #69	
Observations	15 severity 1 and 2 defects remain outstanding at time of writing this report. This includes 10 severity 2 defects for stuck transactions relating to the solution and not data quality. - s 9(2)(b)(ii) and fix defects, and at times fixes provided in releases break previously working functionality, indicative of a lack of expected quality assurance from the supplier. - Given the number of defects, NEC is providing releases very close to the potential go-live date with no code freeze. This is allowing little time for MBIE testing and regression testing, especially as MBIE begins to divert attention to critical business readiness activities. As such, there is a high risk that the solution goes live with undetected, unresolved or introduced severe defects.	Observations	- Concerns raised by Datacom on their readiness to undertake level 2 support, due to: - Lack of familiarisation and handover from NEC to Datacom. - Limited programme visibility from Datacom. - Limited time until a November go-live date to get ready. - Lack of support scripts and automation in place for new platform. - Post go-live NEC will need to switch from delivery to level 3 support mode with faster resolution times than have been evidenced during development. - Concerns with early life and post go-live production support occurring over the Christmas shutdown period where Datacom and NEC may have lower availability with leave already approved.
Impact	EY stated in the May 2025 BCU Project Options Paper “the recent BCU Project release highlights significant improvements in defect resolution.” Despite that trajectory in confidence, the programme has been unable to achieve an acceptable number of defects to go-live. In our view: - The programme faces ongoing risk of fluctuating defect numbers. - The current severity 1 and 2 defects may inhibit go-live decision. - There may be insufficient time to fix and test defects ahead of go-live. - Defects combined with no proven rollback solution is high risk. - The pattern of defect solutions introducing new defects is a high risk should the pattern continue post go live. - Overall, progress is fragile – each step forward reveals new challenges.	Impact	- Highly effective early life and post go-live support will be essential given the BCU solution may be released with known defects, product brittleness, manual workarounds, and no proven roll-back option. - Datacom are not ready to provide level 2 support for the solution, and are unlikely to be ready for a mid-November go-live, especially given NEC focus is on getting product ready rather than handover. - Reduced support resources over the Christmas period during early life support presents a high risk to go-live. - Delivery timelines during the project will differ from operational delivery. This, in combination with the lack of contractual SLAs (see theme 8) may create issues in production such as extended service impacts and/or outages.



Technical Readiness risk observations for a November 2025 go-live (2 of 4)

3. Solution performance: Solution does not support concurrent user numbers BCU Project Risk #82, #71, #65	
Observations	- BCU solution failed concurrent user performance test with over 30 concurrent users – solution can't go-live with this issue. - The solution is required to allow 50 concurrent IDME users in order to allow MBIE to perform identity processing activities as well as performing other system functions. - Performance testing is still underway to validate solution ability to meet load and response time expectations. 16 performance tests to be completed week of 13 October. - Clarity required on maximum concurrent users required taking into account the system usage of IPE users.
Impact	- Greater understanding of performance results will be known ahead of go-live date decision. - The programme can not go-live without resolving these performance issues. - Concurrent user numbers may be a key issue for solution operations, as limitations may impact the ability to utilise surge system users if the business needs this to mitigate system issues and workarounds.
4. Rollback: No proven rollback solution if BCU go-live fails BCU Project Risk #53	
Observations	- BCU post cutover catastrophic failure solution is theoretical and untested. - Rollback is an absolute last resort, with no alternative option and could place MBIE in a worse position. - Work to validate solution requires suitable resources and readiness to test within the Preproduction or UAT environment. - Datacom's confidence in successfully reactivating IDME ^{5 6(c)} 40% (due to identity data). - The theoretical approach is likely to result in stuck transactions, lost operational data and lengthy outages - The work done to date would demonstrate there is no plausible rollback option without significant business risk.
Impact	EY stated in the May 2025 BCU Project Options Paper that work should include "a full rehearsal of the technical rollback prior to go-live." Unfortunately, this has not happened (due to lack of environment availability) and it seems progress for this critical path activity since May has been restricted to developing a deeper theoretical understanding on the implications of data state changes between the different roll back options while the workstream awaits a testing environment, resourcing and SME expertise to validate the theoretical understanding. Notwithstanding this, the enduring demand for a rollback plan ultimately speaks to the lack of solution confidence.



Technical Readiness risk observations for a November 2025 go-live (3 of 4)

	5. In person enrolment: Laptop build outstanding		6. Security: Security mitigation activities progressing and security posture improving
Observations	▪ Identified security and password issues are being resolved delaying laptop build. ▪ Laptop builds are vital for training front line staff on IPE, with a concession made to reduce this timeframe from 6 weeks to 2-3 weeks. ▪ If go-live is delayed a decision will be required around when to provision these laptops to reduce the upgrade burden in the interim.	Observations	▪ BCU solution not developed to modern security standards. ▪ Security risk exposure is limited to those on MBIE network. ▪ Walled garden work is progressing and security risk continues to be lowered. ▪ Walled garden is planned to be complete December 2025. ▪ Certification and Accreditation (C&A) exemption will be signed off ahead of a November 2025 go-live but the full C&A will not be completed by this time. ▪ Concerns raised over ongoing changing code that could introduce new untested security issues. ▪ Exploring options for taking data out of Cloud Data Platform in a secure way for Data Scientist reporting and analysis.
Impact	▪ Holding off on building IPE laptops until announcement of go-live date places these laptops on the critical path which adds unnecessary risk to the Programme. Something as small as laptop provisioning should not be a critical path item. ▪ Once technical issues are resolved, recommendation is to provision laptop build and ensure it is not on the critical path; even if they need to be upgraded subsequently due to a deferred go-live date.	Impact	▪ Security was a focus in the EY May 2025 report when the work on the walled garden had not commenced. ▪ Since then walled garden has progressed and reduced the security risk likelihood compared to earlier proposed go-live dates. ▪ Walled garden and full C&A will not be completed ahead of a November 2025 go-live, but MBIE executives will signoff and accept the interim risk until these items are complete.



Technical Readiness risk observations for a November 2025 go-live (4 of 4)

	7. System integration: Thorough end-to-end testing completed BCU Project Risk #53
Observations	▪ Confidence that BCU solution integration with other systems in the ecosystem has been tested end-to-end. ▪ DIA solution that interfaces with BCU solution for citizenship purposes is also to be updated on 14 November 2025 with unknown impact.
Impact	▪ System integration appears to be on track, but likely requires regression SIT testing with new code releases to make sure this integration remains stable. ▪ Given the programme is yet to be 'code complete' it should be considered whether additional cycles of SIT regression testing are required.



Business Readiness risk observations for a November 2025 go-live (1 of 2)

Observations	8. Commercial: s 9(2)(b)(ii)
Impact	▪ EY's May 2025 report explicitly set out the need to have commercial arrangements in place prior to go-live. ▪ NEC reconsidering previously confirmed agreements significantly puts at risk the likelihood of having agreed and signed agreements ahead of a November 2025 go-live. ▪ Given the delivery and quality challenges experienced to date, without contractual service levels in place for the supplier there will be a ongoing risk to manage around contractual recourse and operational service level management. ▪ Once in operations, the response and resolution of operational incidents will not be subject to SLA's (e.g. industry standard service management response time frames).

Observations	9. Business readiness: The business could rapidly get ready but turnaround time and immigration volumes not ideal BCU Project Risk #80, #76, #53
	▪ Confidence from Immigration New Zealand business that: ▪ They could rapidly get ready to go-live for November 2025. ▪ Many of their readiness activities are underway / complete. ▪ They can handle manual workarounds. ▪ s 6(c) ▪ Fast followers will be deployed in a timely manner. ▪ They can manage higher immigration transaction volume leading into summer, especially with updated biometric algorithm. ▪ They can bring in staff from other teams if required. ▪ Concerns around 2-3 week window from go-live date decision to go-live, given they asked for 6 weeks, but believe they believe they can make it work.
Impact	▪ Business readiness was a key consideration in the EY May 2025 BCU Project Options Paper. Overall, it seems like the business could rapidly get ready and has executive commitment to respond quickly once go-live decision is made. ▪ Given the business has been told to be ready to go-live many times, there is a degree of 'waiting to act until it is real'. As such, there may be a risk of optimism bias that may catch the business off-guard when decision to go-live is made. ▪ There remains a dependency on the laptop build to commence training, as discussed in theme 5.



Business Readiness risk observations for a November 2025 go-live (2 of 2)

	10. Collective sentiment: Absence of shared understanding and trust with increased fatigue impacting sentiment
Observations	▪ Programme is dynamic, with changing dates and priorities. ▪ Sentiment expressed from vendors and observed from interviews is that there are communication gaps and confusion on key dates, decision outcomes and readiness criteria. ▪ Concerns around team member fatigue and wellbeing given the very long duration of this programme and continued uncertainty around timelines. ▪ A number of the workarounds for go-live will impact the initial user experience until the fast followers are complete. ▪ Low trust and relationship challenges observed between key vendors and MBIE.
Impact	▪ The absence of shared understanding combined with low trust across the project leads to misalignment, inconsistent prioritisation and a lack of collaboration towards hitting key milestones. ▪ With increased fatigue there are concerns around wellbeing risk, employee retention and energy levels. Do team members have the energy to keep working towards continued and potentially extended periods of delivery and hypercare?

04

Supplier feedback

Interviews were held with Datacom and NEC as the key delivery and support partners

Key insights from NEC and Datacom interviews



Concerns with lack of knowledge sharing from NEC to Datacom was highlighted as a blocker to Level 2 supplier support.



Concerns with lack of communication and transparency from MBIE was expressed as a strong blocker to achieving a successful road to go-live i.e., visibility of go/no go criteria so they can support readiness activity.



Relationships and trust issues floated throughout the interviews from commercial tensions, reliability of delivery and individual competency (from both MBIE and vendor perspectives).

Overall the suppliers have confidence they can deliver and support a working solution, and while resourcing will need to be actively managed for a November 2025 go-live, the suppliers believe this is achievable.

Confidence in programme readiness

Programme suppliers by in large expressed confidence in the readiness of the programme. We believe this is in part due to them:

- Wanting to show strong support for the programme and its success.
- Answering more from their own perspective and their belief in how ready they are to deliver and support.
- Answering with limited visibility of all issues and considerations the programme is addressing.

Historically there has been supplier optimism bias towards outcomes that may result in the solution and support arrangements being operationally fragile if a November go-live was to proceed

We engaged with main and supporting suppliers of the Biometric Capability Uplift to understand overall sentiment

Theta, DXC, Argonaut Limited, and Intech Solutions all participated in a survey to capture their confidence levels for a November 2025 go-live date.

Survey questions were split into two categories across supplier specific confidence and holistic confidence including all programme parts

The survey findings show that supplier confidence is high when reflecting on their own readiness.

When considering wider programme influences, the overall sentiment about go-live is slightly lower.

Average Organisational Confidence Levels

Confidence in the current project schedule and key milestones leading up to go-live



Confidence in delivery of solution and readiness for system transition



Confidence in dependency understanding



Confidence in the current project schedule and key milestones leading up to go-live



Confidence the project is on track for a successful go-live



Overall sentiment about go-live

Not confident
Concerned or under pressure
Mixed – some uncertainty
Mostly ready, minor concerns
Confident and ready



05

Conclusion and next
steps

Given the observations and history to date, the programme presents itself as at a crossroads

The cumulative effect of the programme's outstanding issues across rollback, outstanding defects, concurrent user limits, support challenges, and contractual risks, ultimately mean that a November go-live is higher risk than MBIE likely could justify taking – especially for a solution that impacts national security and immigration service delivery.

The issues currently impacting readiness today have been a feature of the programme for the past 18 months, with numerous attempts to go-live. Given this, a leap of faith is required that delaying the go-live date again, without substantial intervention, will lead to a successful go-live date in early 2026. This lack of progress and certainty, combined with the additional elapsed time since the May 2025 options paper, provides an opportunity to revisit strategic options to ensure a deliberate choice is made on the preferred way forward while balancing the risk / value trade-offs. The prior decision was to select option '1a Existing BCU Project – Fast-Track' which at the time had a go live date of early July 2025.

1 Continue with resolution approach

In this option MBIE would continue progressing with the existing BCU Programme to achieve an operationally stable solution ready for go-live. Key factors for success will be:

- Achieving a stable solution, without consistent severe defects, and releases that do not introduce new defects.
- Testing and validating the rollback approach.
- Adequate handover preparation for operational support between NEC and Datacom.
- Confirmation of the critical path with strict milestone management towards it.
- Programme reset to support resilience and adequate resourcing going forward.

If the past is a predictor of the future – MBIE may remain with an operationally fragile solution

2 Re-evaluate programme options

In this option MBIE would pause and revisit strategic alternatives to the BCU Programme, including the option of utilising the DIA FRaaS solution. To further explore alternative options, consideration would need to be given to:

- Developing and analysing an updated suite of options, preferred option and recommended next steps.
- Any investment needs to mitigate risk in the existing operational solution.
- Appropriate wrap up of the existing BCU Programme in its current form.
- Commercial implications with NEC and other suppliers.
- Whole of life costs / impairment considerations.

Appendix

Appendix One | Documents reviewed and people interviewed

Documents reviewed

No.	Document
1	01 OCT 25 BCU Project Status Report_Redacted.pdf
2	01 OCT 25 IPE Project Status Report_Redacted.pdf
3	1-10 BCU business readiness overview for Alison.pdf
4	8-10 BCU business readiness overview for Alison.pdf
5	15-10 BCU business readiness overview for Alison.pdf
6	BCU Project Risk extract - as at 14 October 2025.xlsx
7	Defects and workarounds Identity team have reviewed.xlsx
8	Training tag checklist for user guides.xlsx
9	Executive BCU Catastrophic Failure Presentation Final 10 October (002).pptx
10	BCU Business Readiness Reporting week ending 3 October2025.pptx
11	Biometric Capability Update SIT Test Summary Report updated.docx
12	BCU RAID Register.xlsx
13	BCU summary for Alison (002).docx
14	BCU go-live date options- Sept 25 (002).docx
15	BCU Internal Executive Report 16 September 2025.docx
16	BCU Internal Executive Report 30 September 2025.docx
17	BCU Internal Executive Report 7 October 2025.docx

People interviewed

No.	Name(s)	Subject	Interview Date
1	s 9(2)(a)		Friday 10 October 2025
2			
3			
4			
5			
6			
7			
8	Richard Owen, s 9(2)(a)	Project Sponsor/ s 9(2)(a)	Monday 13 October 2025
9	s 9(2)(a)		
10			

Appendix Two | Addressing of recommendations to August 2025 report (1/2)

Theme	Observations at August 2025	Potential Impact/Risk	Recommendation	Status update October 2025
Go-live production Planning and Scheduling	- Production runsheet is still to be developed and the timelines contained within it are untested (including the end to end time which has been closer to three weeks when tested rather than 4 days planned in pre prod). - The activities planned to occur after the code deployment are still in development.	That the proposed timeline and activities anticipated for the cutover are incorrect leading to an elongated cutover timeline.	In progress – complete the technical runsheet and their alignment to vendor playbooks. Test the timing of critical activities in an unconstrained way to validate cutover timing assumptions	This remains a concern. See theme 2.
Vendor Confidence in Delivery Timeframes	- Vendor readiness to go-live in mid September is untested and the pipeline of remaining activities to be completed and tested may not meet the 7 week timeline. - This workshop was the first time some vendors heard the delivery date, and expressed concern at the proposed date.	That vendors will not be able to schedule key resources or meet the intended delivery timeline for remaining functionality or undertake their activities within the cutover timeframe.	Undertake a quick readiness check in with key vendors aligned to communicating the go-live date and ask for a readiness indicator (RAG) across critical categories such as – - Technical delivery clarity, - Go-live resourcing and scheduling, - Testing and validation of go-live task timelines, - Handover and dependencies mapped and communications channels understood.	This was not progressed by the BCU project team. EY conducted this assessment resulting in the output on pages 18 and 19.

Appendix Two | Addressing of recommendations to August 2025 report (2/2)

Theme	Observations at August 2025	Potential Impact/Risk	Recommendation	Status update October 2025
Management of Cross-Workstream Dependencies	- Technical workstream does not have clarity as to how the business workstream will be engaged throughout go-live to manage handover points and dependencies. - Examples include coordination between system implementation and hardware utilisation, operational constraints during go-live, and readiness to transition to BAU services after go-live.	Handover points and dependencies are not well understood.	In progress - Walkthrough the business and technical go-live components (planned for Wednesday 6th) to agree RACI, any critical dependencies or remaining joint planning actions.	This has improved and was no longer raised as a concern. However between vendors there remains concerns around ongoing support alignment per theme 2.
Collective Understanding of Expectations	Signs of disconnect between different areas across the programme regarding delivery expectations, and shared understanding of specific delivery requirements (i.e. timeframes, resources capacity expectations).	An absence of shared understanding across the project could lead to inconsistent prioritisation or risk tolerances.	Consider in the lead up to go-live some Q&A drop in sessions for everyone, including vendors to get updates on progress, showcase work completed to build cross-collaboration and distil key information across the programme. This could include the readiness tracking results, testing outcomes, escalation governance framework.	This continues to be a concern. See theme 10.
Understanding of Escalation Protocols	- Escalation tolerances are not well understood by all vendors. - The protocols for go/no go decisions and who is responsible for them have not been communicated widely.	Escalation processes and tolerances are not aligned to business expectations.	In progress – RACI walkthrough and testing of the transition governance to validate accountabilities and name mechanisms for approvals.	This has not progressed.

EY | Building a better working world

EY exists to build a better working world, helping to create long-term value for clients, people and society and build trust in the capital markets.

Enabled by data and technology, diverse EY teams in over 150 countries provide trust through assurance and help clients grow, transform and operate.

Working across assurance, consulting, law, strategy, tax and transactions, EY teams ask better questions to find new answers for the complex issues facing our world today.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. Information about how EY collects and uses personal data and a description of the rights individuals have under data protection legislation are available via ey.com/privacy. EY member firms do not practice law where prohibited by local laws. For more information about our organization, please visit ey.com.

© 2025 Ernst & Young, New Zealand.
All Rights Reserved.

This communication provides general information which is current at the time of production. The information contained in this communication does not constitute advice and should not be relied on as such. Professional advice should be sought prior to any action being taken in reliance on any of the information. Ernst & Young disclaims all responsibility and liability (including, without limitation, for any direct or indirect or consequential costs, loss or damage or loss of profits) arising from anything done or omitted to be done by any party in reliance, whether wholly or partially, on any of the information. Any party that relies on the information does so at its own risk.

ey.com



PROJECT HEALTH CHECK

3644 BIOMETRIC CAPABILITY UPDATE

PROJECT: 3644 Biometric Capability Upgrade

PROJECT MANAGER: s 9(2)(a)

START DATE OF REVIEW: 29-Oct-20

COMPLETED BY: s 9(2)(a)

REPORT DATE: 15 Dec 2020

BUSINESS OWNER: s 9(2)(a) – interviewed 9-Dec-20

DESCRIPTION

This project health check (PHC) reviews the management and governance effectiveness from a project practice perspective. Due to external factors the project practice rating may vary from the Red/Amber/Green (RAG) project status report rating and/or project outlook in the table below.

1. PROJECT RAG RATINGS

STATUS	OUTLOOK	PROJECT PRACTICE OVERALL			
Status as reported in recent Project Server status report	INZ assurance review's assessment of likelihood of successful delivery	RAID MANAGEMENT	SCOPE, SCHEDULE & RESOURCES	BUDGET	STAKEHOLDER ENGAGEMENT

2. GENERAL INTRODUCTION

The scope of this project is to deliver an upgrade to the biometrics management software and algorithms to provide improved matching rates, maintain security and supportability, and improve total cost of ownership. This includes consolidation of the full identity and s 6(c) into a single population. It also includes replacement of In Person Enrolment used by a variety of business users including those from Border, Refugee and Compliance.

3. PROJECT TEAM

While there have recently been significant challenges with engagement and retention of resources, the project team now seems to have stabilised.

While some new resources were very recently engaged at the time of the review, preliminary evidence indicates the team is working well together with a good level of engagement. Team members interviewed indicated a positive outlook and were generally looking forward to working with new team members as they come on board such as the new BA and solution architect.



Evidence indicates the new Business Change lead will be effective in leading this workstream, however it was noted by Assurance that she was not yet well-connected into the INZ Business Change Team practice. Portfolio Assurance has recommended that this occurs and it is understood to be under action.

4. PROJECT RAID AND CONFIGURATION MANAGEMENT

Note: "RAID" includes capture and management of Risks, Assumptions, Issues, Dependencies, Decisions and Actions. This section also reviews efficacy of capture and accessibility of relevant project artefacts.

Generally the project configuration management, including capture and management of RAID items is effective and appropriate.

- Project Server information indicates that Risks, Issues and Dependencies are registered and management actions on these are also captured appropriately there. Regular review of risks and issues occur with engagement of appropriate project team members and, where appropriate, the Business Owner and Sponsor.
- One significant factor increasing the risk profile for this project is the large number of different vendors involved, including a relatively new direct vendor relationship to MBIE in this area (NEC – who previously provided services indirectly Daon). Potential disconnects can occur with multiple vendors and in addition it is noted that NEC in NZ seems to be separated from NECAM (NEC America) s 9(2)(b)(ii) which increases risk of timely delivery of requirements. The Covid-19 risk of disruption is higher as well given the reliance on NECAM to do most of the work. However, the project appears to be maintaining an active management of these risks appropriately.
- Portfolio Assurance recommends that project assumptions are also captured with validation dates and monitored to avoid unexpected issues and risks eventuating. Preferably these should be captured in Project Server. The project RAID register has one assumption noted that was monitored and became invalidated which therefore resulted in it becoming an issue some time ago. It seems likely there may be value in reviewing whether other assumptions are outstanding and need to be monitored – and it is recommended that this is looked at when time allows, as well as capturing these in Project Server with validation dates.
- Dependencies are generally captured in Project Server appropriately. It is important to continue the ongoing work with ADEPT to manage key interdependencies in this area.
- Portfolio Assurance recommends capturing Lessons Learned as they occur in Project Server for improved early visibility across the portfolio and for later stages of the project.

5. PROJECT SCOPE AND SCHEDULE

- During the review it was noted that the project schedule is well-constructed, tracking is operating effectively against this schedule and updates are regularly published into Project Server.
- Discussion with some key stakeholders and SMEs highlighted a need to ensure the project scope includes all essential requirements. As there is substantial change to the way the project will provide for some existing functionality using the new technology, a stocktake of existing requirements needs to occur to ensure all necessary functions are provided by the updates to the solution. This process was commenced during the time of the review and will confirm any gaps and remedial action required.



6. PROJECT BUDGET

- It is understood that the project has taken into account the incorporation of the previously separate In Person Enrollment project within the scope of the BCU project in the recent change request and that the budget has been adjusted accordingly.
- If the stocktake of requirements result in extra work being done that isn't manageable within the existing budget – then there is a risk that budget changes may occur. This analysis should be completed as soon as possible (under way at present).

7. STAKEHOLDER ENGAGEMENT COMMS & REPORTING

- Stakeholder engagement seems to be planned and so far working effectively under the new project manager and business change/comms lead.
- Business Owner confirmed the effectiveness of the project team in providing regular reporting and with stakeholder engagement and communication.
- As noted in section 2 above, evidence indicates the project team is working well together.

RECOMMENDATIONS FOR PMO, PROJECT GOVERNANCE AND EXTERNAL STAKEHOLDERS

- Ensure sufficient availability of SMEs, appropriate key stakeholders and project resources to complete the requirements stocktake to ensure no gaps exist in covering essential existing functionality in addition to the new benefits to be delivered by the project.
- Portfolio Assurance has recommended that the Business Change lead is connected into the INZ Business Change Team practice – it is understood this is under action.

RECOMMENDATIONS FOR PM

- As mentioned above, complete the stock take recommended of all requirements; including those in the existing functionality that are being updated – to ensure that no gaps exist in important business needs when the new system is updated.
- Confirm and communicate updated/clarified scope with key business users to ensure everyone on the same page.
- Portfolio Assurance recommends capturing Lessons Learned as they occur in the Project Server section.



Project Frosty Executive Brief

October – 2025 – [STRICTLY PRIVATE & CONFIDENTIAL] - Draft

Executive Summary



Background

The Biometric Capability Update (BCU) Programme

In 2016, Immigration New Zealand (INZ) launched the Immigration Global Management System (IGMS), which included an identity management component called IDme. IDme comprises In-Person Enrolment (IPE), automated biographic and biometric matching, and manual identity resolution.

Subsequently, the BCU project was initiated in 2018 to upgrade IDme platforms and associated matching algorithms to ensure supportability, security, and fitness for purpose. The IGMS platform is now being enhanced with a new NEC solution, referred to as IDme ^{s 6(c)} (“IDme”), to improve identity matching capabilities.

The IDme solution is a bespoke solution built using NEC’s identity management platform called MBIS. The NEC MBIS platform provides the core identity matching capability and workflows that underpin the IDme solution.

Data Pivot From EDW to CDP ^{s 6(c)}

The BCU’s original design was to integrate IDme with MBIE’s Enterprise Data Warehouse (EDW) platform. However, due to performance and security concerns a new SQL data warehouse was provisioned for IDme as a tactical solution, since integrating with the Cloud Data Platform (CDP) ^{s 6(c)} (as MBIE’s approved new enterprise Data solution) was not deemed to be feasible within the BCU project’s go-live timeline.

However, performance testing of the tactical solution deemed it unable to meet the BCU project’s needs. Consequently, as of August 2025, the approach shifted to using CDPs ^{s 6(c)} as the target solution for data retention and data operational and compliance reporting.

For the planned go-live and to meet the legal and analytical requirements, only 35 specific tables from IDme databases were initially scoped to be replicated through to the CDPs ^{s 6(c)} solution. These tables include Personally identifiable Information (PII) (i.e. Name, address, data of birth, family members) and biometric/biographic meta data (non graphic information). We understand that data from other IGMS systems (i.e. ^{s6(c)} to CDP ^{s 6(c)} will also be required to enable operational reports to support MBIE’s frontline staff to be produced.

The Walled Garden

The BCU programme underwent multiple security tests that identified several high-rated risks. MBIE identified 10 High risk vulnerabilities requiring significant remediation. Appropriate, root cause remediation of these was deemed unfeasible due to the perceived complexity and operational impacts. Most of the exposures identified indicated significant weaknesses in ^{s9(2)(ba)(ii)}

As a result, MBIE worked to identify relevant compensating controls, represented by the concept of a *Walled Garden*. The Walled Garden originally consisted of 11 key compensating controls aimed to reduce these risks from High to Medium before BCU go-live. The overarching objectives of the Walled Garden was to create a controlled environment with strict access rules and a security enforcement point to validate all incoming and outgoing connections/traffic, and a degree of application code and API protection to compensate for the fundamental weaknesses of application code quality and architecture.

Executive Summary

Our Scope and Deliverables

Scope

You asked us to produce an Executive Brief of our perspectives and advice across the following areas:

- Obtaining an overall understanding of the BCU project/programme and design, and deep diving specifically into the Data scope and solution pivot from the EDW to CDP s 6(c) to robustly assess the implications, risk and way forward.
- Any additional matters we consider to be material to inform Go-Live decisions, specifically regarding the implementation of the Walled Garden compensating controls, and its current state and appropriateness especially in relation to the high risks identified.

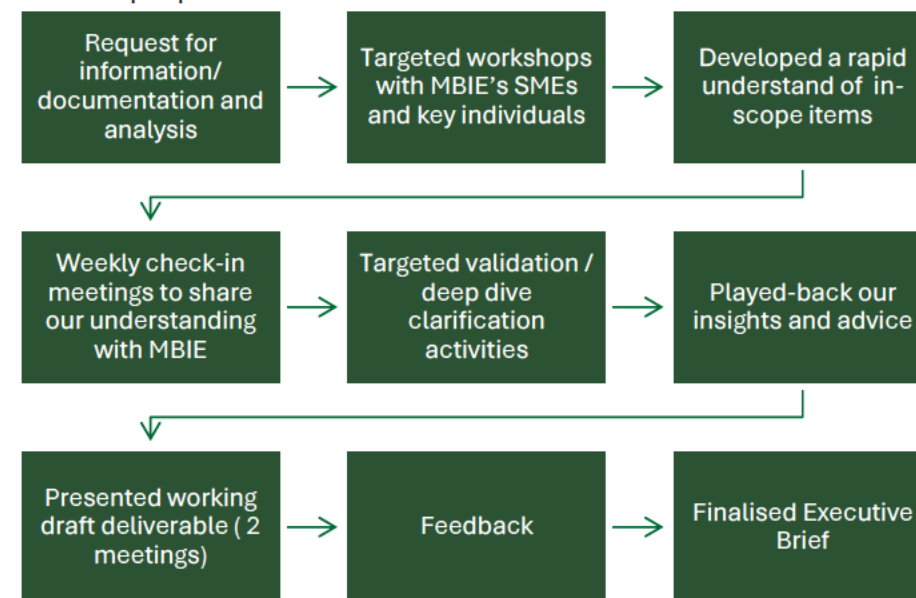
Deliverable

This Executive Brief is the sole deliverable of our work. This Brief sets out our insights and advice for the BCU Data Pivot From EDW to CDP s 6(c) and the Walled Garden with the following structure:

- Executive Summary (Slides 2-7)
- Key Facts (Slides 8-14)
- Key Risks (Slides 15-20)
- Key Advice (Slides 21-26)
- Appendices (Slides 27-29)
- Statement of Responsibility (Slide 30)

Our Approach

Our approach sought to understand the scope, design and material matters both within and surrounding the project to enable us to properly assess the Data solution pivot and the Walled Garden with the right context and risk profile to enable our advice to be fit for purpose.



Executive Summary



Summary of Key Insights

BCU Data Pivot from EDW to CDP

For the planned go-live, the data being replicated from IDme ^{s6(c)} to CDP ^{s 6(c)} consists of 35 tables containing ^{s6(c)}. The replicated data (transactional) in CDPs ^{s 6(c)} will become the only source of truth for operational and compliance reporting because data in IDme v2 that is replicated is subject to periodic monthly purging in the source database. Data in CDP ^{s 6(c)} will be retained for 50 years to meet MBIE's requirements. Therefore, the security, resiliency, integrity, accuracy and privacy of the data in CDP ^{s 6(c)} is deemed to be critical. ^{s6(c)}

^{s6(c)}

^{6(c)} for replication

from IDme v2 to CDP ^{s 6(c)}. For CDP ^{s 6(c)}, ^{s6(c)}

Walled Garden

^{s 6(c)} ^{s6(c)}

^{s 6(c)}

The Walled Garden is aimed to achieve implementation of compensating controls to mitigate the overall High level of exposure to a Medium. **Importantly, the Walled Garden isn't just intended to just protect ^{s6(c)} ^{s6(c)}**

This heightens the importance of the compensating controls and the risk profile of not implementing these well. However, MBIE has faced challenges with implementing the Walled Garden. Over time, the original controls have been reduced into a subset, and some of these revised into different controls. This has meant that the traceability and impact on achieving the intended risk mitigation is unclear. Additionally, some of the revised controls' approach has made it unnecessarily complex for MBIE and wouldn't achieve the targeted outcomes in spite of a lot of committed efforts to improve mitigation. **The current state of implementation of the compensating controls are: 3 completed, 5 in progress to varying degrees, and 3 not yet started. The key targeted outcome of reducing the risk of the fundamental weaknesses in application code quality and architecture has not been achieved. We identified three High risk exposures (outlined in page 6).**

Executive Summary



Summary of Key Advice

Key Advice on Do Now Actions

We advise all Pre Go-Live actions are completed and validated for effectiveness to reduce the exposures for MBIE to be in a viable Go-Live state. Not doing so could pose an unreasonable degree of risk to MBIE and its customers and put MBIE in a non-defensible position. *Refer to the next slide for an outline of these items, and further detail is covered in the Deloitte Advice section and Appendices.*

Additionally, we advise specific attention to the actions to improve s6(c)

Key Advice on Strategic Actions

Consider the longer term viability of operating and maintaining a highly bespoke s6(c) solution in a fit for need, secure and resilient way, and the ongoing operational requirements of sustaining the Walled Garden compensating controls. The current approach for managing risk is not viable in the long term since it is complex, expensive, and requires a high degree of capacity and expertise to just stand still. It is also highly likely that the exposures will continue to increase with the underlying weaknesses not being addressed, s 6(c)

. We advise MBIE revisits the strategic direction as soon as it is feasible to do so.

Executive Summary



Summary of Key Insights and Advice



BCU Data Pivot From EDW to CDP s 6(c)



The Walled Garden

Key Risk Exposures (High)	Key Advice on Actions
Personal identifiable information (PII), biometric metadata, and immigration data are at risk due s 6(c)	- Enforce improved s 6(c) security and resilience by implementing role based access, and validate s 6(c) security configuration. - Conduct an end-end dataflow and storage validation of BCU data migrated to s 6(c). - Enhance security of s 6(c)
s6(c)	large volumes of IDme data from s 6(c) Implement heightened monitoring and alerting for the profile of high risk users and devices – s 6(c)
s6(c)	Create a targeted reconciliation check to validate reliability, accuracy and completeness of data migrated from IDme to s 6(c)
Inability to detect and respond, and have a defensible position if / when compromises or problems occur.	- Implements s 6(c) and s6(c) application events ingestion into a centralised real time monitoring, alerting and response (24/7). - Enforce s 6(a) configuration of Moderate Level of detection and prevention for s6(c)

Key Risk Exposures (High)	Key Advice on Actions
s6(c)	- Enforce s 6(c) Active Directory whitelisting. - Enforce API client certificates and mutual TLS authentication in s6(c). - s6(c) that are required for the services and block any other endpoints. - Clean-up firewall rules and configurations. - Investigate and implement s 6(a) and s 6(c) API Protection Platform to enable server endpoint level API discovery and protection. (s6(c))
s6(c)	- Enforce s 6(a) configuration of Moderate Level of detection and prevention for Walled Garden servers. - s6(c)
s6(c)	s 6(c)

Executive Summary



Limitations

- This Executive Brief reflects our perspectives based on documentation and information provided to us by MBIE and relevant vendors / stakeholders. We have not conducted an independent deep-dive or validation of historical facts or technical implementation details beyond what was shared.
- Our work and advice represents a point-in-time view and does not account for subsequent changes or ongoing work. The BCU programme spans several years, and while we have made our best efforts to get across key artefacts and context, we have not reconstructed the full seven-year history.
- Our advice on key actions in terms of pre-go-live versus post-go-live actions are informed by the project's current timeline and business constraints; under normal circumstances, we would not typically recommend deferring certain security or architectural fixes beyond go-live. Our advice has been provided taking a balanced and pragmatic view of enabling MBIE to mitigate the highest risks identified in a feasible way.
- Accordingly, this Executive Brief should be considered advisory in nature, based on the information available at the time of our work, and subject to change as the solution evolves. No assurance is provided nor implied through our advice.

Key Facts for:

- BCU Data Pivot from EDW to CDP s 6(c)
- The Walled Garden

Key Facts – The BCU Data Pivot From EDW to CDP s 6(c)

BCU Project – IDme s 6(c)

- IDme is INZ's identity management solution, which matches biographic and biometric identity information when an update is made to a customer's identity record, such as a border movement, new application, or identity information update.
- IDme supports the capture and storage of biographic and biometric data for all non-New Zealanders wishing to enter the country. Data captured and/or stored within IDme comprises personal information such as face and fingerprint images, passport scans, and applicant details such as name, gender, age and country of birth.
- The data processed or stored within the IDme v2.0 solution is **Biometric information** (facial and fingerprint images), **Biographic information** (Identity information, travel, national identity number) and external requests from **M5 partners**.
- MBIE initially planned to use **EDW** as the Data Warehouse for **operational** and **compliance reporting** required for BCU. However, in July 2025 it found that EDW had **performance issues** and challenges associated with the appropriate safe storage of data.
- Since **EDW** is a **legacy** solution, it has s6(c). MBIE is planning to migrate from EDW to **Cloud Data Platform (CDP)** s 6(c) as the strategic enterprise data solution, but this is a longer term project.
- Based on the challenges identified, MBIE decided in August 2025 to pivot to the use of **CDP** s 6(c) for BCU's data solution for **operational** and **compliance** reporting. Initially, for Go Live, this is planned to only deliver a subset of the operational and compliance reporting required for BCU.

Cloud Data Platform (CDP)

- The **CDP** s 6(c) has been previously used for other MBIE projects and services and it is being considered akin to serving as the MBIE data warehouse for future projects.
- While the **CDP** s 6(c) platform was **C&Ad** in December 2023, the BCU data pivot and migration to CDP s 6(c) for operational and compliance reporting has **not** been security assessed by MBIE Cyber Security Assurance.
- The December 2023, the CDP s 6(c) C&A included a penetration test and covered a basic configuration review. However, based on our understanding, the C&A did not consider MFA for users, nor security monitoring and did not consider integration with third party applications.

Key Facts – The BCU Data Pivot From EDW to CDP s 6(c) (Cont.)

- In July 2025, a CDP s 6(c) Security Risk Assessment (SRA) was completed. The SRA found **4 open issues** (High/Medium) which were planned for remediation by the end of **November 2025**. All recommendations were non-technical and were related to the 2023 C&A. Finding were related to:
 - The process for Dataset Onboarding, including Business Owner risk acceptance & approval for data ingestion is unclear
 - CDP Platform and Data Operations SOP documentation is high level and does not include detailed procedures
 - The support and operational manual has not been endorsed by the Chief Data Officer.
 - The integrated change management document required improvement and more details.
- For the planned go-live, data replication from IDme s6(c) to CDPs 6(c) includes **35 tables**, which has been classified as **Restricted**. Data includes s6(c) not actual graphics).

Solution Name	Solution Component	Server / Application	Database tables	Tabled transferred to CDP (SF)
IDme s6(c)	NEC MBIS	MBIS	• UDB: stores image, descriptive info, feature data, audit trails • XMDB: stores the face and fingerprint to be matched and quality meta data. • Reporting DB • Keycloak: user information	• 35 Tables including (name, address, birth date, family member, bio fingerprint, template)
IGMS	ESB	s6(c)	• Various tables	• More than 100 tables but does not include PII data • CDP also contains a copy of s6(c) – however, this copy will not require refreshes since no relevant data will be changed in the s6(c) database post BCU go live

- A **high-level Privacy Impact Assessment (PIA)** has been conducted as part of the proof of concept (POC) for the data pivot of BCU data from IDme to CDP s 6(c) We understand **MBIE** intends **to leverage other PIA activities** undertaken at MBIE, as **these are relevant to the BCU project**.
- CDP s 6(c) to be used for BCU will be accessed and configured by only 5 users (MBIE and EY). All users were background checked and granted access.
- CDP s 6(c) will be considered as the **only source of truth** for the data replicated from IDme v2 to s 6(c) The older data in IDme s 6(c) tables targeted for replication is **subject to periodic monthly purging** in the source database. While NEC considered such data to be **purely transactional** without keeping the history of the changes, **MBIE** must **retain data** for **legal, audit, analysis and reporting** purposes.

Key Facts – The BCU Data Pivot From EDW to CDP s 6(c) (Cont.)

Qlik Replicate (Qlik)

- s 6(c) is used for **data replication** from IDme s 6(c) to **Azure Private End Point (PEP)** and onto CDP s 6(c). It is an on-premises solution within the MBIE network perimeter.
- s 6(c) will **store** the replicated data from IDme s 6(c) database to its **Disk** before migration to CDP s 6(c).
- s 6(c) is a **shared service** that is currently used for **other services** at MBIE, and not dedicated to BCU use.
- s 6(c) is managed by **Datacom** with some access by a different business unit to BCU within MBIE. The **number** of **external** and **internal** users is **unknown**.
- s 6(c) uses **encryption in-transit** (TLS 1.3) for data migration from IDme s 6(c).
- The duration for which data is stored in s 6(c) before being transferred to the CDP is configurable. Currently, the retention period has been asserted as being set to 7 days. During this time, data is stored as encrypted log transaction files on disk. These files are automatically overwritten after the 7-day period.

s 6(c)

s 6(c)

- s 6(c)
-
-

Key Facts – The BCU Data Pivot From EDW to CDP s 6(c) (Cont.)

Data Scientists

- Data Scientists use MBIE’s managed laptops which are configured with MBIE’s standard build and security controls such as s6(c)
- Data Scientists will use data migrated to s 6(c) for ad-hoc audit and compliance reports, operational reports (15 reports and morning reports), ad-hoc requested reports (by frontline), and data modelling reports.
- MBIE intends to complete implementation of the Posit Workbench on s 6(c) by Pre Go-Live, which should enable Data Scientists to execute some of their data modelling in Posit Workbench. Only 2 Data Scientists will have direct access to s 6(c) to the data required for this reporting. s6(c)
- The accuracy and integrity of data migrated to s 6(c) from IDme is important for ad-hoc, operational and modelling reports.

Key Facts – The Walled Garden

BCU Certification and Accreditation (C&A) and Security Testing

- IDme ^{s6(c)} will receive and process PII, biometric and biographic data, criminal background checks, other personal information (i.e. several copies of a person’s identity record). The process of extraction and matching includes integration with internal systems such as AMS and IGMS.
- The security classification of data in IDme v2 is **Restricted** and **the consequence of** any compromise or exposure is deemed **Severe**.
- IDme ^{s6(c)} has **not been** C&Aed. The current risk rating of using IDme v2 is assessed as **high** risk. According to the latest draft Interim accreditation memos for IDMe and IPE dated 29/10/2025 both of them will not be certified by the Chief Technology and Security Officer. MBIE Cyber Security Assurance are arranging to **complete a full assessment** of the BCU solution (IDme V2 and IPE), including **fast-follow updates**, within **2 months of go-live** to verify that the risk position improvements have been achieved as committed to.
- During BCU Security Testing a **significant number** of security defects and vulnerabilities were identified, **37 in total including 18 must fix, 15 fast follow, 4 recommendations**). The scope of BCU Security Testing includes IDME V2, IPE, and IQOffice aligning with BCU project objectives.
- Following remediation efforts, the number of unresolved vulnerabilities based on the Security Testing mentioned above was reduced to **25 (10 must fix, 13 fast follow, 2 recommendations)**. *(We note this may not cover the full set of security vulnerabilities that may be present in the current state of application code and architecture).*

Walled Garden Design and Progress

- Many of the unresolved vulnerabilities are associated with the application code and architecture. We understand MBIE was unable to get the vendor to resolve these vulnerabilities directly through application coding and architecture fixes. Consequently, the concept of a Walled Garden was introduced to design and implement compensating controls to mitigate these vulnerabilities. The original Walled Garden concept consisted of 11 compensating controls and key actions to reduce the risk of 10 must fix vulnerabilities from high to medium pre Go-live.
- MBIE experienced challenges executing on v1 Walled Garden controls. Consequently, v2 of the Walled Garden was conceived, which consists of a) a subset of the v1 actions / solutions BUT b) a revised view of what the subset of items would actually be.
- ^{s6(c)}
- The Walled Garden solution will be implemented for both Primary (DCSG Auckland) and DR (DCSG Wellington) data centres.

Key Facts – The Walled Garden (Cont.)

- Implementing s6(c) as a Web Application Firewall (WAF), to address IDME V2 and IPE code vulnerabilities is not an effective strategy. This would involve MBIE to implement s6(c) in a bespoke way for which it was never designed. At best, this approach will introduce unnecessary complexity and new risks, and at worse, it will demand significant effort and investment while still failing to mitigate the application code and API-related exposures. Furthermore, even in the best case scenarios, a WAF implementation would require detailed understanding of the application code to deploy protection that does not disrupt application functionality and service operations, which in this case, MBIE does not have. A more pragmatic and effective solution is therefore needed.
- The efficiency of Walled Garden delivered initiatives will be confirmed by follow up penetration testing.

Walled Garden (v1) Control Implementation Status

- The MTLS authentication has not been implemented for all API endpoints.
- s6(c) implementation for end user device whitelisting is in progress. This includes 6 different policies aligned with AD groups (in progress) and device compliance checks (completed).
- s6(c).
- Host-based firewall implementation is in progress for Walled-Garden Infrastructure (Linux-completed but Windows is in progress for Prod servers).
- s6(c) has been installed on all the Walled Garden servers, but only in Monitoring mode, not using the Moderate level of detection and protection.
- s6(c) is assumed to be in place and used to monitor BCU and the Walled Garden. Datacom performs monitoring for s6(c). This is a key assertion that needs to be validated, and the monitoring, alerting thresholds and response specific are not known.
- s6(c) will be used to restrict access to the internet from the Walled Garden network and servers.
- Separate but similar s6(c) and configuration will be used for Prod and DR datacentres.
- Deployment of inbound chokepoint using F5 is being completed for SIT environment (Prod in progress).
- Threat Scanning capability implementation on F5 has not started. We foresee this being complex and potentially ineffective considering the functionality to be deployed is that of a WAF, not typically geared for protection of a suite of internal application functions.
- Binary Scanning capability using ICAP servers has not started.
- API End Point Authentication (MTLS) and Authorisation (RBAC) has not started.

Key Risk Exposures for:

- The BCU Data Pivot From EDW to CDP ^{s 6(c)} (Pre- Go Live)
- The Walled Garden

Key Risk Exposures – The BCU Data Pivot from EDW to CDP ^{s 6(c)} (Pre Go-Live)

The table below outlines key risk exposure and their underlying factors identified for the BCU and the data warehouse pivot from EDW to CDP s 6(c). Identified risk exposures have been categorised and prioritised based on their impact and importance for the BCU. This includes 3 High-priority risks and 1 Medium priority-key risk.

#	Key Exposure	Factors that contribute to the exposure	Priority
1	Personally Identifiable Information and Meta data about biometrics and operational immigration data is at risk of compromise due to: • s6(c) • • •	• s6(c) is shared service which stores PII and Meta data on disk. Qlik is jointly supported/accessed by an external vendor and an internal MBIE team. s6(c) has not been C&Ad or independently security tested. • s6(c) including across NZ have shown the lack of MFA as a key weakness enabling exploitation. • A penetration test was conducted for s6(c) in 2023, s6(c) • The security assessment of s6(c) configuration has not been completed. • Data Scientists currently have access to, or receive extracts of, large volumes of IDme data from s6(c) for the purpose of generating operational (15 reports, morning reports) and compliance reports. These are processed, and held on their end user devices legitimately for the work they do. Compromises of identity (credentials) and devices are commonplace, and in the case of the Data Scientists would expose significant volumes of "Restricted" data. • Data migration from IDme to CDP s6(c) is routed through s6(c) Data will be retained in s6(c) for up to 50 years. However, an end-to-end validation of data flow and storage configurations from IDme through to s6(c) and beyond to the Data Scientists devices has not been completed.	High

Key Risk Exposures - The BCU Data Pivot from EDW to CDP s 6(c) (Pre Go-Live) (Cont.)

#	Key Exposure	Factors that contribute to the exposure	Priority
2	s6(c)	- s6(c) require complete and accurate datasets ins 6(c) to generate operational and compliance reports for front lines. Inconsistent and unreliable data migrated from IDme to s 6(c) can impact reporting accuracies, radialities and trustworthiness. - The completeness, integrity and reliability of information migrated form IDme to s 6(c) through s6(c) has not been validated and reconciled. Tampering of the data or if parts of data are "lost", no clarity on what controls are technically in place to detect this.	High
3	s6(c)		
4	s6(c)	A high-level PIA was conducted in August 2025 for the POC migration of IDme data to the CDP. s6(c)	Medium

Key Risk Exposures - The Walled Garden (Pre Go-Live)

s6(c)			
#	Key Exposure	Factors that contribute to the exposure	Priority
1	Biometrics, biographic, Personally Identifiable Information (PII) and operational Immigration data (for systems such as IDme DB and IPE Maria DB) is at risk due to: - Unsecure s6(c) - Excessive access to API endpoints - Partial implementation of network protection capabilities - Inability to track security risk burndown	- The IDme V2 and IPE have inherent weaknesses s6(c) which can lead to the bypassing of existing security controls. - s6(c)	High
2	Inability to detect and respond, and have a defensible position if / when compromises or problems occur	s6(c)	High
3	s6(c)		igh

Deloitte Advice for:

- **The BCU Data Pivot from EDW to CDP ^{s 6(c)} [REDACTED] (Pre- Go Live)**
- **The Walled Garden**

Key Advice – The BCU Data Pivot from EDW to CDP s 6(c)

The table below outlines our key advice on actions related to the BCU Data Pivot from EDW to CDP s 6(c) . Our key advice on actions has been categorised in two groups. Pre Go-Live actions that must be completed prior to go-live or release date. Post Go-Live actions that can be differed until after Go-Live. These typically require more detailed design, solution evaluation and implementation, which may not be feasible within the Go-Live timeline.

Key Exposure	#	Factors to be mitigated	Go-Live Phase	Key Advice on Actions
Personally Identifiable Information and meta data about biometrics and operational immigration data is at risk of compromise due to: - Inadequate s6(c) server security testing and configuration. - Outdated CDP s 6(c) penetration testing. - Unsecure reporting pipelines - Lack of an end-to-end technical data flow and storage testing.	1	s6(c) is a shared Service	Pre Go-Live	Conduct Certification and Accreditation (including a penetration test of the s6(c) platform) and enforce role based access controls and multifactor authentication for s6(c) application layer.
	2	MFA is not in place for s 6(c)	Pre Go-Live	s6(c)
	3	s6(c) monitoring and security configuration weaknesses	Pre Go-Live	- Enforce Application events ingested into centralised real time monitoring with relevant alerting use cases defined for 24/7 response. - Validate s6(c) security configuration to be in alignment s6(c) recommended practices. (Refer to Appendix B)
	4	Lack of end-to-end Data flow testing and storage validation	Pre Go-Live	Conduct technical validation for end to end data flow and data storage components for the BCU to CDP connectivity including validation of the data collection methods used by data scientist proposed for go-live.
	5	Lack of threat modelling	Post Go-Live (more than 3 months after Go-Live)	Threat model for data mishandling and compromise to enable advanced / fine grained monitoring, detection and alerting.
	6	s6(c)	Pre Go-Live	Configure and implement high sensitivity monitoring and s6(c)
	7	Unvalidated s6(c) security configuration and monitoring	Pre Go-Live	Validate security configuration of s6(c) specifically network and application security group policies being configured to control direct access to the private endpoint.

Key Advice – The BCU Data Pivot from EDW to CDP s 6(c) (Cont.)

Key Exposure	#	Factors to be mitigated	Go-Live Phase	Key Advice on Actions
Reporting is inaccurate or cannot be relied on due to inaccuracies and integrity issues in the data migrated from IDme to s6(c)	8	Lack of reconciliation and reporting	Pre Go-Live	Create a targeted reconciliation check to validate reliability, accuracy and completeness of data migrated from IDme to s 6(c)
s6(c)	9	Inadequate s 6(c) configuration for s6(c) Servers	Pre Go-Live	- Enforce s6(c) application events ingested into centralised real time monitoring with relevant alerting use cases defined for 24/7 response. - Enforce s 6(c) configuration of Moderate level of detection and protection on the s6(c) servers to enable better monitoring detection and response capabilities for the misconfiguration and misuse of s6(c) access.
	10	Lack of real-time s 6(c) monitoring	Pre Go-Live	Enforce s 6(c) application events ingested into centralised real time monitoring with relevant alerting use cases defined for 24/7 response.
s6(c)	11	Lack of an end-to-end PIA	Post Go-Live (more than 3 months after Go-Live)	Conduct an end-to-end Privacy Impact Assessment for data migration from IDme to s 6(c) in alignment with NZ Privacy Act requirements.
	12	Disruption of reporting	Addressing the above actions all contributes towards supporting the ability to meet compliance and regulatory obligations.	

Key Advice – The Walled Garden

The table below outlines our key advice on actions related to the Walled Garden. Our key advice on actions has been categorised in two groups. Pre Go-Live actions that must be completed prior to go-live or release date. Post Go-Live actions that can be differed until after Go-Live. These typically require more detailed design, solution evaluation and implementation, which may not be feasible within the Go-Live time.

Key Exposure	#	Factors to be mitigated	Go-Live Phase	Key Advice on Actions
Biometrics, biographic, Personally Identifiable Information (PII) and operational Immigration data is at risk due to : • s6(c) • Excessive access to API endpoints, and • Partial implementation of network protection capabilities • s6(c)	1	s6(c)	Post Go-Live	• Investigate and implement secure coding practices for BCU projects. Revisit s9(2)(ba)(ii) weaknesses identified in BCU Security Testing (s6(c), s9(2)(ba)(ii))
	2	s6(c)	Pre Go-Live	• Enforce s6(c) Active Directory whitelisting so only authorised individuals and devices are allowed to authenticate to the Walled Garden.
	3	s6(c)	Pre Go-Live	• Enforce API client certificates and s6(c) in s6(c). • Whitelist API endpoints that are required for the services and block the rest of endpoints.
	4	s6(c)	Pre Go-Live	• Clean-up firewall rules and configurations on the s6(c) nt firewall within the Walled Garden to remove any redundant or no longer required rulesets.
	5	Application and s6(c)	Pre Go-Live	• Investigate and implement s 6(c) API Protection Platform to enable server endpoint level API discovery and protection. This also provides some degree of application security protection.

Key Advice – The Walled Garden (Cont.)

Key Exposure	#	Factors to be mitigated	Go-Live Phase	Key Advice on Actions
s6(c)	6	Inadequate s 6(c) configuration for Walled Garden Servers	Pre Go-Live	Enforce s 6(c) Moderate level of detection and prevention sensor policies for servers within the Walled Garden.
	7	Absence of network security detection	Pre Go-Live	Investigate implementation of intrusion detection and prevention mechanisms on the s6(c) ll to provide network monitoring and alerting for cross VLAN traffic
	8	Absence of honeypot	Post Go-Live (more than 3 months after Go-Live)	Enable the use of honeytokens on server endpoints that can trigger alerts for data extraction.
s6(c)	9	Lack of rate limiting capabilities	Pre Go-Live	Implement a logical single security choke point for inspecting, and controlling ingress traffic into the IDme s6(c) databases including SQL and Maria databases

Appendix A – End to End Data flow and storage technical validation

The table below outlines our requirements for end to end data flow and storage technical validation for all the BCU data components through to the CDP.

Component	Requirements for Data flow and Storage testing
BCU Server Endpoints and Databases	- Validate server and database data backups align with regulatory and compliance obligations. - Validate how long the data is retained on server connected databases, and how data quality, completeness and integrity is regularly checked. - Validate if there is a data removal mechanism and its effectiveness for when data is no longer required / required to be purged.
Check Point firewall	- Check that VLANs between application, management and database are restricted and not open to enable all network traffic to pass through (flat network). - Check that external connectivity from F5 Virtual servers for end users with access through s6(c) servers are only to appropriate VLANs.
F5 Virtual Server	- Confirm that perimeter rules are not open and restricted to only the s6(c) servers. - Validate that data to the s6(c) servers is encrypted in transit using modern and strong techniques.
s6(c) Server Endpoints and Database	- Validate that data stored on the s6(c) service is encrypted at rest and restricted to only authorised individuals. - Confirm for how long data is retained on s6(c) servers and validate technical methods are effective for deletion so that retention is for no more than 7 days. - Validate that the mechanism for overwriting data is set to overwrite the oldest data first. - Validate that monitoring and alerting controls exist for any anomalous data movement or removal activities.
Express Route	Validate that data from the s6(c) servers across the Express VPN is encrypted in transit using modern and strong techniques.
Azure Private Endpoints	- Check the VNETs are configured to enable direct s6(c) s 6(c) data replication. Validate that network and application security groups are in place to restrict any external direct access. - Validate that the s6(c) s 6(c) connectivity is authenticated and not using interactive service accounts. - Validate that s6(c) is resolving appropriately for s 9(2)(a) private URL and not available to unnecessary devices.
s 6(c)	- Validate that s 6(c) data backups align with regulatory and compliance obligations. - Validate how long the data is retained on s 6(c) and how retention is enforced. - Validate the mechanisms for data removal once data is no longer required to be retained, and how effective these are. - Validate that s 6(c) aligns with Appendix B - s 6(c) security configurations strengthening.
s 6(c) Administrative user and Data Scientist endpoint devices.	- Validate that s 6(c) and Administrative user and Data Scientist endpoints are restricted to authorised MBIE devices and credentials are not able to be used from any device to access or interact with the s 6(c) services including API connectivity. - Validate how long the data which is extracted form s 6(c) is stored on s6(c). - Validate the mechanisms for data cleanup and removal on the endpoints once Data Scientists have completed their work.

Appendix B – s 6(c) security configurations strengthening

The following are recommended security configurations to support improvement of s 6(c) monitoring and security configuration.

[https://community.s 6\(c\).com/s/articles s 6\(c\) -Security-Overview-and-Best-Practices](https://community.s 6(c).com/s/articles s 6(c) -Security-Overview-and-Best-Practices)

Area	Recommended Security Configuration	Priority
Access & Identity Controls	Enforce Role based access controls including separation of duties for administrative roles as well as monitor any changes made to sensitive privileges.	Must
	Enforce the use of s6(c) s 6(c)	Must
	Restrict interactivity for all service accounts and enforce authentication best practices of using s 6(c) Oauth or External Oauth for authentication.	Must
	Consider the use of s6(c) ser authentication encryption methods offered by s 6(c)	Should
Data Protection	Implement data encryption, masking and tagging to table column/row levels to apply security controls consistently.	Must
	Validate that s 6(c) data backup copies are also encrypted and controlled with any customer managed keys. These keys should be available and accessible for restoration without relying on the s 6(c) platform being available.	Must
Third-Party integrations	Establish restrictions for s6(c) application usage without MBIE security approval.	Must
	Implement a weekly check of third-party data access, externally shared data and s6(c) integrations to maintain visibility of potential supply chain access and revoke any access that is no longer required.	Must
	Assess the security configuration of the third-party integrations and apply data protection configuration where required.	Should
Monitoring, Auditing & Alerting	Implement s 6(c) native audit logging and establish monitoring and alerting for anomalous user behaviors.	Must
	s6(c)	Must
Network Controls	Enforce s 6(c) s6(c)	Must
	Check the validity of any whitelisted Ip addresses within the s 6(c) platform.	Must
	Validate that the private connectivity to the s6(c) service is configured.	Must

Statement of Responsibility

Where Deloitte has provided advice or recommendations to MBIE, we are not responsible for, or the manner in which, suggested improvements, recommendations, or opportunities are implemented. The management of the MBIE, will need to consider carefully the full implications of each of these suggested improvements, recommendations, or opportunities, including any adverse effects and any financing requirements, and make such decisions, as they consider appropriate.

The scope of our work was designed to provide advice as set out in Page 3: Our Scope and Deliverables, using the Approach outlined. Our work was undertaken as a *Rapid Response* under the overarching Statement of Work for *Cyber and Crisis Response Partner Retainer* arrangement. The procedures that we performed did not constitute an assurance engagement in accordance with New Zealand Standards for Assurance engagements, nor did it represent any form of audit under New Zealand Standards on Auditing, and consequently, no assurance conclusion or audit opinion is provided.

We have prepared this deliverable solely for the use of MBIE. The Executive Brief is based on the best available information, as at the time of the efforts to date, and contains the constructive high level suggestions to improve practices which we identified in the course of our work. We would be pleased to discuss any items mentioned in this Executive Brief and to support the corrective action implemented by management.

This deliverable is not to be used for any other purpose, recited or referred to in any document, copied or made available (in whole or in part) to any other person without prior written express consent. We accept or assume no duty, responsibility or liability to any party in connection with the deliverable or this engagement, including without limitation, liability for negligence in relation to the factual observations expressed or implied in this debrief.



Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited (“DTTL”), its global network of member firms, and their related entities (collectively, the “Deloitte organisation”). DTTL (also referred to as “Deloitte Global”) and each of its member firms and related entities are legally separate and independent entities, which cannot obligate or bind each other in respect of third parties. DTTL and each DTTL member firm and related entity is liable only for its own acts and omissions, and not those of each other. DTTL does not provide services to clients. Please see www.deloitte.com/about to learn more.

Deloitte Asia Pacific Limited is a company limited by guarantee and a member firm of DTTL. Members of Deloitte Asia Pacific Limited and their related entities, each of which is a separate and independent legal entity, provide services from more than 100 cities across the region, including Auckland, Bangkok, Beijing, Bengaluru, Hanoi, Hong Kong, Jakarta, Kuala Lumpur, Manila, Melbourne, Mumbai, New Delhi, Osaka, Seoul, Shanghai, Singapore, Sydney, Taipei and Tokyo.

Deloitte provides leading professional services to nearly 90% of the Fortune Global 500® and thousands of private companies. Our people deliver measurable and lasting results that help reinforce public trust in capital markets and enable clients to transform and thrive. Building on its 180-year history, Deloitte spans more than 150 countries and territories. Learn how Deloitte’s approximately 460,000 people worldwide make an impact that matters at www.deloitte.com.

Deloitte New Zealand brings together more than 1900 specialist professionals providing audit, tax, technology and systems, strategy and performance improvement, risk management, corporate finance, business recovery, forensic and accounting services. Our people are based in Auckland, Tauranga, Hamilton, Rotorua, Wellington, Christchurch, Queenstown and Dunedin, serving clients that range from New Zealand’s largest companies and public sector organisations to smaller businesses with ambition to grow. For more information about Deloitte in New Zealand, look to our website www.deloitte.co.nz.

This communication contains general information only, and none of Deloitte Touche Tohmatsu Limited (“DTTL”), its global network of member firms or their related entities (collectively, the “Deloitte organisation”) is, by means of this communication, rendering professional advice or services. Before making any decision or taking any action that may affect your finances or your business, you should consult a qualified professional adviser.

No representations, warranties or undertakings (express or implied) are given as to the accuracy or completeness of the information in this communication, and none of DTTL, its member firms, related entities, employees or agents shall be liable or responsible for any loss or damage whatsoever arising directly or indirectly in connection with any person relying on this communication. DTTL and each of its member firms, and their related entities, are legally separate and independent entities.

s 9(2)(a)

