Australian Government

Review of the Modernising Business Registers Program

Final Report | July 2023

Contents

Foreword

Hon Stephen Jones, MP
Assistant Treasurer
Parliament House
Canberra ACT 2600

14 July 2023

Dear Minister

On 9 February 2023, you announced an independent Review (the Review) into the Modernising Business Registers (MBR) Program.

The Review was tasked with delivering a comprehensive understanding of the current state of the MBR Program and providing recommendations for changes, improvements and strategies to best position it to achieve its intended objectives. The Review conducted 50 interviews with more than 100 participants, reviewed approximately 400 items of documentation, conducted workshops with the MBR Program Team on key areas of focus and was supported by expert analysis from McKinsey, Boston Consulting Group (BCG) and Paper Giant.

Under its current course, the Review has determined that the MBR Program will require further investment in the order of $2 billion and remains a high-risk undertaking.

This Report provides recommendations that address the scope, design, implementation and governance of the MBR Program. This highlights the need to focus on the most critical features of the MBR Program. Even with these proposed modifications, significant additional funding exceeding $1 billion will still be required.

The Review concludes that the most responsible and best available option for government is to stop the MBR Program on the basis that the considerable additional investment is not justified when measured against the benefits.

Instead, the Review recommends the return of registry functions from ATO to a new division in ASIC. This will require a targeted investment of approximately $105 million to uplift data integrity and quality and approximately $410 million to stabilise legacy systems and meet the costs of ceasing the MBR Program (a total additional cost of approximately $515 million).

The Review benefited from consultation with a range of stakeholders. I would like to thank everyone who participated for their open and frank contribution. A special mention must go to the MBR Program Team who embraced the Review constructively, devoting significant time while continuing to progress the MBR Program.

I would also like to thank the Review Secretariat for their contribution and support and the McKinsey, BCG and Paper Giant teams for their expertise and supporting analysis.

Damon Rees PSM
Independent Reviewer of the Modernising Business Registers Program

Terms and definitions

Term	Definition
ABN	Australian Business Number
ABR	Australian Business Register
ABRS	Australian Business Registry Services
ACSC	Australian Cyber Security Centre
API	Application Programming Interface
APS	Australian Public Service
ARFP	The Asia Region Funds Passport Register
ASIC	Australian Securities and Investments Commission
ASIC Act	*Australian Securities and Investment Commission Act 2001*
ATO	Australian Taxation Office
BCG	Boston Consulting Group
Business Registers	Business Names Register and ABR
CCIV	Corporate Collective Investment Vehicle
Companies Register	registers of companies (including CCIVs), Registrable Bodies Register, Foreign Companies Register, and Reserved Company Names
Corporations Act	*Corporations Act 2001*
Core Business Registers	Companies Register and Business Registers
COTS	Commercial off-the-shelf
Director ID	Director Identification Number
DISR	Department of Industry Science and Resources
DoF	Department of Finance
DSG	Digital Services Gateway
DSP	Digital Service Provider
DTA	Digital Transformation Agency
EST	Enterprise Solutions and Technology
FAR	Financial Advisors Register
FTE	full time equivalent
Horizontal Slice	a development technique where a particular use case is delivered end to end, serving to validate the usability of the product
ISM	Information Security Manual
IRR	Individual Registry Record

Term	Definition
MBR Program	Modernising Business Registers Program
MBR Program Team	personnel working on the MBR Program
MoG	Machinery of Government
MYEFO	Mid-Year Economic and Fiscal Outlook
NBSI	National Business Simplification Initiative
PI	Program Increment
PMO	program management office
PDays	ATO estimated person day effort
Report	the independent Report into the MBR Program
Review	the independent Review into the MBR Program
Review Team	the Independent Reviewer and the APS officials in the Secretariat that undertook the Review
ROA	Record of advice
SAO	Senior Accountable Officer
SBR	Standard Business Reporting
SES	senior executive service
SME	subject matter expert
SMSF	self-managed superannuation fund
SPBC	Second Pass Business Case
TAS Act	*Tax Agent Services Act 2009*
TPB	Tax Practitioners Board
UI	user interface
WofG	Whole-of-government

Executive summary

In February 2023, the Australian Government commissioned an independent Review into the Modernising Business Registers (MBR) Program to deliver a comprehensive understanding of the current state of the program and provide recommendations for changes, improvements and strategies to best position it to achieve its intended objectives.

Context

Companies, business and professional registry systems are operated by the Australian Government are critical digital assets for the Australian economy. They are an essential source of information for individuals and businesses who engage across the economy. They also support major regulatory activities and the effective operation of the legal system.

The processes, policies and technology that enable registry services in Australia are aged. The technology ecosystem hosting the registers face significant operational, cyber security and sustainability risks. Major technological refresh decisions were deferred as consideration was given to the future of the registry functions. Over this time these risks have increased and will continue to do so. It is necessary and urgent to invest in the existing technological ecosystem to safeguard Australia's registry services.

The quality and integrity of registry data is critical. The public and industry rely on the registers as a single source of truth which builds counterparty trust across the economy. Registry records are used in legal proceedings and by government for regulatory, investigative and enforcement actions.

The current registry system delivers a poor digital experience. This experience is steadily lagging behind more modern digital experiences being provided by government (both in Australia and in other jurisdictions). This generates uncertainty, re-work and unnecessary cost for businesses and government.

Despite the compelling argument for improving this experience, any significant change that goes beyond technological modernisation is inherently challenging. Efforts to shift the user experience away from the current forms-based system towards a more customer-centric approach across the registries is complicated by the need to harmonise laws that serve diverse policy objectives. While the existing systems fall short of what we expect from a modern digital experience, it is familiar and embedded across industry.

The significant transformation of registry services currently being progressed through the MBR Program impacts the experience of approximately 3 million companies and over 6 million non-company Australian Business Number (ABN) holders. The inherent transition complexity and risk for the registry ecosystem through this transition needs to be well managed to avoid unnecessary disruption and cost to industry and government.

The Machinery of Government (MoG) changes that moved registry functions from the Australian Securities and Investments Commission (ASIC) to the Australian Taxation Office (ATO) further complicates the undertaking and operating model.

Finally, the significant involvement of intermediaries and the authorisation model that exists between companies and people acting on their behalf increases the complexity of delivery and the introduction of digital identity across registry services.

Where are we today?

The MBR Program was mobilised in 2019 to transform the company, business and professional registry services of the Australian Government. The MBR Program was initially projected to be completed by the 2023 –24 financial year at a cost of $480.5 million. It aimed to improve the user experience of registry interactions, strengthen the integrity of registry data and remediate technology risks. The MBR Program was also tasked with establishing a new Director Identification Number (Director ID) scheme to enhance company trust and reduce illegal phoenixing and other shadow economy behaviours across the Australian economy.

To date, the underlying legislation that supports the MBR Program has been passed, the Commissioner of Taxation appointed as the Registrar, MoG changes progressed, the new Australian Business Registry Services (ABRS) website (www.abrs.gov.au) was introduced, and Director ID has been delivered.

Meaningful progress has been made on the new Companies Register, but aside from the Second Pass Business Case (SPBC), there has been limited analysis on what is required to transform the Core Business Registers, professional registers and historical registers. The MBR Program has not implemented any changes to existing registry services or started to realise any of the benefits identified within the SPBC beyond those associated with the introduction of the Director ID. Overall, the MBR Program is still relatively early in its lifecycle with most of the delivery, cost and risk still lying ahead.

Table 1: Key events

NOV 19	JUN 20	OCT 20	APR 21	OCT 21	NOV 21	MAR 22	OCT 22
Funding to commence program implementation	MBR legislation passed.	Full program funding released.	Director ID private beta testing. Machinery of Government. Commissioner of tax appointed as registrar.	ABRS.gov.au launched	Director ID public beta testing	Director ID goes live	Additional funding provided

Government was informed in July 2022 that the MBR Program would now cost at least $1.5 billion (or an extra $1 billion) with completion pushed out to 2027. Analysis undertaken by the Review indicates the cost to complete the MBR Program in its current form will be considerably higher than the July 2022 estimate.

How did we get here?

There are 4 broad categories of drivers that have resulted in a divergence between the SPBC and the current state of the MBR Program.

- Complexity: A significant underestimation of program complexity (with the current costs of the MBR Program approximately 5 times the amount estimated in the SPBC).

- Program design: A range of MBR Program design choices and assumptions including those associated with the commercial-off-the-shelf (COTS) product.

- Delivery and implementation approach: Delivery and implementation challenges that have impacted progress.

- External factors: External factors impacting mobilisation of resources, and movements in assumed labour rates.

Figure 1: Key Drivers

Complexity	Program design	Delivery and implementation approach	External factors
Significant underestimation of complexity	Technology choice	Governance is not fully effective	Direct consequences resulting from COVID-19
Complex cross-agency operating model	Some elements non-compliant with legal requirements	Program lacks a clear critical path for delivery	Increased market rates for specialist skillsets
Law reform	Effort not well aligned with benefits	Inadequate strategic workforce planning	Government decisions to expand scope of MBR Program
		Uncertainty has limited best practice vendor management	
		Program operating model and cultural alignment	

Importantly, the mobilisation of a large-scale workforce (current plans were for over 500 FTE at a cost of $12 million per month) ahead of resolving key positions such as further law change to support the aims of transformed service design, has contributed to the exhaustion of allocated funding and the continuation of high cost of delays.

Recommendations of the Review

The Review has identified 19 recommendations that can reduce the level of investment and improve effectiveness of the MBR Program.

Figure 2: Recommendations overview

Program Scope	**R1** Narrow the scope of the Modernising Business Registers Program to deliver the Companies Register	**R2** ASIC to deliver the professional registers independently of the Modernising Business Registers Program
	R3 Focus the Modernising Business Registers Program on achieving the benefits of the business data spine	**R4** Provide seed funding to examine law reform opportunities to reduce risk and complexity ahead of future decisions for Business Names and the Australian Business Register
	R5 Commit to final, agreed tranche of law change to support delivery of the Companies Register and then design and build to the law for the companies release	**R6** Lock the scope of the Modernising Business Registers Program until completion, using interim solutions or alternate pathways to implement policy changes

Program Governance	**R7** Focus leadership on strategic decisions and ensure decision-making accountabilities are clear	**R8** Establish a master status report focusing on critical path progress, forecast and program costs	**R9** Implement feedback loops on the effectiveness of governance forums
	R10 Build the top-down critical path to deliver the Companies Register and focus governance on it	**R11** The appointment and reporting of the assurance function should be independent, managed by the DTA.	

Program Finances	**R12** Structure program funding to provide funding certainty, reinforce good practice governance and reflect and manage uncertainty and risk

Program Organisation	**R13** Reset the program workforce to align with revised scope and implement strategic workforce planning	**R14** Revisit the use of vendors to align with the revised scope	**R15** Adapt team composition, capability and tooling to improve build and release activity

Design and architecture	**R16** Progressively uplift the integrity of registry data	**R17** Ensure the Australian Taxation Office provides the Australian Securities and Investments Commission with timely access to company and business data
	R18 Ensure design prioritises wholesale services	
	R19 Maintain target architecture with strengthened guardrails against the Verne roadmap	

How should we move forward?

Unfortunately, there are no easy options moving forward. The Review has identified 5 options for the future of the MBR Program (detailed explanation of each is provided at page 71 *Where to from here: Options for the government* of this Report).

Figure 3: Options for government

1	2	3	4	5
Stop Stabilise	**Proceed** Full scope	**Proceed** Narrow to companies only	**Stop** Revisit transformation options	**Stop** Stabilise and targeted uplift
Cease MBR; stabilise & uplift ASIC's aged registry systems where it is critical to do so	Continue to deliver the full scope of MBR as currently planned	MBR Program to deliver Companies Register only & other registers stay with ASIC	Stop MBR Program, reset & re-start in new registry agency	Cease the MBR program, return registry functions to ASIC, mitigate system risks & deliver targeted modernisations

Based on the current scope and approach, the MBR Program would require additional investment between $1.8 billion and $2.2 billion, increasing the total cost (including funding to date) to approximately $2.8 billion, or more than 5 times the original estimate in the SPBC (Option 2) [1]. The nature of the MBR Program means the first significant deliverable under this option will not be delivered until March 2026. The MBR Program would then progressively deliver through to March 2029, with final decommissioning and program closure expected in November 2029.

A cross-jurisdictional scan indicates the scale and breadth of registry transformation that the MBR Program is attempting is beyond that which is typically undertaken. The intention to combine over 30 registers adds a disproportionate level of complexity and risk when undertaken as a single initiative (in a waterfall delivery model).

There are opportunities to reduce complexity, enhance delivery effectiveness and provide government with options that will achieve most of the originally intended benefits of the MBR Program.

Consistent with the Terms of Reference, the Review has mapped out the best way forward for the MBR Program. This includes recommendations to focus the MBR Program's efforts on delivering the Companies Register by completely de-scoping the professional, banned and disqualified and historical registers, and postponing a financial decision about the future transformation of Business Registers (Option 3). In conjunction with the adoption of the 19 recommendations of this Review, future funding commitments would be limited to a range between $1.1 billion and $1.3 billion and should improve the effectiveness of the governance and delivery of the MBR Program, materially lower risk and increase delivery confidence. Nevertheless, there remains residual risk in the delivery of a program of this complexity.

When assessing how to proceed, the Review re-examined the benefits of the MBR Program and the likelihood they will be realised. It is clear the MBR Program will deliver an improved experience for

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1   Cost estimates in this Report are indicative and have not been agreed with the Department of Finance.

the people interacting directly with the government's public-facing retail services. However, most companies and businesses do not interact directly with the registers and instead rely on third party DSPs and/or intermediaries to transact on their behalf. The delivery methodology relies on uplifting the digital experience for all users (the wholesale API will be derived from the retail user interface (UI) once it is built). This means the retail and wholesale experiences will be the same. It is not evident that this is the most effective way to deliver the MBR Program. Building to all users rather than high-volume users increases the complexity and will result in only a sub-set of businesses experiencing the uplifted user experience.

It is not clear whether the post-transformation financial benefits to government will be realised. The savings from decommissioned end-of-life systems will likely be offset by the introduction of sustainment costs for the new platforms (noting these have not yet been quantified). The primary economic benefits of the MBR Program are associated with the uplift in data integrity. They are enabled by the integration of the new Director ID scheme with the Companies Register and the introduction of stronger identity assurance for transactions with the registry system through the integration of myGovID (Digital Identity).

With options to continue the MBR Program ranging from approximately $1.1 billion for a refocused approach to $2.2 billion for the full original program (in addition to what has already been committed), a decision to continue the MBR Program will need to primarily be based on prioritising the uplift of the end user experience. The investment cannot be justified on assumed financial savings to government as there are lower cost options available that achieve an uplift in data integrity and reduce the technology risks outlined in the SPBC.

The Review concludes that the MBR Program should be stopped, as the economic benefits from the program do not justify the level of additional expenditure required.

It is recognised that it can be difficult to cease a program with significant sunk expenditure and limited useable outcomes to date. However, this Review concludes that this is the responsible and best available option for government.

An alternative to continuing the MBR Program in its current form would be to reset and start afresh in a new, stand alone, dedicated agency with a revised approach to implementation (Option 4). While this would open the possibility of a range of new approaches to be explored, unencumbered by the need to integrate with existing agency systems, it would involve too much uncertainty to represent a viable alternative option to the MBR Program in the short-term.

A decision to cease the MBR Program would require an investment of approximately $410 million to wind-down the program, return registry functions to ASIC and undertake an urgent and unavoidable technology refresh to address risks with aged infrastructure and ensure services can be sustained (Option 1). This option would avoid further commitment of funding for the MBR Program of between $700 million and $1.8 billion and enable government to revisit strategic choices for the future of the registry system including its business model, technology and partnering options.

However, the benefits realised under this approach would be limited to the stabilisation of legacy systems and the associated increased availability of registry services and the benefits achieved from the introduction of the Director ID regime. None of the other core benefits of the MBR Program would be realised if the MBR Program was ceased – there would be no uplift in data integrity and no improvement in the user experience when interacting with registers.

Should the government agree to cease the MBR Program this decision should be taken quickly as possible to limit further expenditure on significant program overheads and expenses.

The Review's preferred alternative to moving forward with the MBR Program is to revert to the pre-MBR Program operating model for registry services and undertake an additional targeted investment of approximately $105 million in uplifting data integrity and quality on top of the costs of ceasing the program, with a total additional cost of approximately $515 million (Option 5).

While the Review recognises that this approach will have its own challenges – particularly the need to support the rebuild of capability within ASIC – the prospect of delivering some of the key economic benefits of the MBR Program at substantially lower cost means that it is by some distance the best of the options for the program.

Introduction

On 9 February 2023, the Australian Government announced the Independent Review of the MBR Program (the Review). The Review was commissioned to gain a comprehensive understanding of the current state of the MBR Program and develop recommendations for changes, improvements and strategies to best position it to achieve its intended objectives. The appointment of Mr. Damon Rees as the Independent Reviewer was announced on 22 February 2023.

This Report has been informed by extensive consultation with a broad range of stakeholders. This included:

- over 50 interviews with more than 100 participants across the public and private sectors

- workshops with the MBR Program Team (ASIC, ATO and Department of the Treasury (Treasury))

- International engagement with representatives from New Zealand and Canada.

The Review received a significant amount of information in relation to the MBR Program. Nearly 400 documents and associated artefacts were provided to the Review [2] as a result of 7 information requests.

The analysis underpinning this Report was supported by McKinsey, Boston Consulting Group (BCG) and Paper Giant. Their work included detailed analysis across 5 key areas:

- costings and financial analysis (Appendix 4 Analysis of MBR Costing and Options)

- international experience with business registers (Appendix 5 Analysis of International Experience with Business Registers)

- program governance (Appendix 6 Analysis of Program Governance)

- technical solutions (Appendix 7 Analysis of Technical Solutions)

- data related matters (Appendix 8 Analysis of Data Management).

The Report provides:

- a comprehensive understanding of the current state of the program with a focus on the factors that have driven increases in costs and delays in implementation

- recommendations on scope, governance and assurance, finances, program organisation and design and architecture

- a set of options for government.

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2   Refer to Appendix 2: Review interviews, workshops and program artefacts

How did we get here?

Australia's business registers are critical economic infrastructure. They provide the foundations for starting and operating businesses and companies and licensing participants in key sectors of the economy. The information contained on these registers provides legitimacy and protection for businesses, enables regulators to undertake compliance activities that ensure businesses are meeting their obligations, supports the expansion of the digital economy and creates opportunities for innovation.

The fees associated with the registry system not only perform a critical role in ensuring registry information is correct but also provide an ongoing stream of revenue for government (exceeding $1.1 billion annually).

MBR Program: history and state of play

Purpose of the transformation

The MBR Program was developed to upgrade multiple outdated and bespoke technology systems, transform how businesses and their intermediaries interact with government, make it easier for businesses to access information about themselves and others they transact with and improve the quality and accessibility of business data. It is a large transformation program that includes significant organisational change, changes to law and policy, user transition management, business process re-engineering, data enhancements, service re-design and customer experience transformation.

The MBR Program had 6 key objectives set by government. They are to:

- Increase trust and reliability in registry services: upgrading the technology platforms to enable streamlined processes and improved connectivity and exchange of data.

- Improve service delivery to reduce complexity for business: reducing the number of access points, time and cost to interact with multiple registers, while making it easier to understand the information that needs to be provided to meet obligations.

- Increase data availability to facilitate greater use and innovation: creating a single data source with higher integrity, availability and reliability.

- Deliver benefits to government by reducing the long-term costs of business registry services and provide greater flexibility to respond to policy issues: streamlining systems to reduce maintenance and support costs and delivering functionality that can be used to implement future policy measures.

- Foster economic activity and mitigate economic losses for businesses by minimising instances of fraud and business misconduct: enhancing counterparty trust through more current and accurate information.

- Build trust and confidence in the government's digital and data transformation initiatives: providing a more user-friendly, digital experience with fewer touchpoints.

The initial scope of the MBR Program included the ABR, administered by the ATO, and more than 30 registers administered by ASIC. In addition to modernising the Core Business Registers, the introduction of the Director ID regime was incorporated into the scope of the MBR Program in September 2018.

The register for the Asia Region Funds Passport (ARFP) Register and introduction of CCIVs were subsequently added to the scope of the MBR Program (see Figure 4 Australian Government registers in scope of the MBR Program). Changes to the FAR were also expected to be delivered by the program.

Figure 4: Australian Government registers in scope of the MBR Program

6 Core Business Registers	11 Professional Registers		3 Banned & Disqualified Registers
Australian Business Register	Credit Representatives	Register of Official Liquidators	Banned/Disqualified Persons Under Part 2-4
Business Names Register	Register in Respect of Authorised Representatives of Financial Services	Register in Respect of Financial Services Licensees	Register of Disqualified Company Directors and Other Officers
Register of Companies	Register in Respect of Financial Advisors of Financial Services	Credit Licensees	Register of Disqualified SMSF Auditors
Foreign Companies Register	Register of Auditors	Register of Managed Investment Schemes	**2 Added After Business Case**
Register of Registered Australian Bodies	Register of Approved SMSF Auditors	Register Relating to Trustees for Debenture Holders	Asian Region Funds Passport Register
Reserved Companies Names Register	Register of Liquidators		Corporate Collective

12 Historical Registers			
Unlicensed Carried-Over Instrument Lenders	Register of Licence Holders	Australian Register of Company Charges	Register of Futures Representatives
Banned From Credit Activities Under State/Territory Law	Register of Securities Representatives	Carbon Registrants Register	Register of General Insurance Brokers
Register of Credit Registered Persons	Register of Futures Licenses	Register of Life Insurance Brokers	Register of Foreign Insurance Agents

The MBR Program was originally expected to be delivered in 5 tranches (over 4.5 years) through to July 2024. The tranches included:

- Director ID: introduction of Director ID through the ABRS platform.

- Companies: redesigning and migrating the Companies Register and companies related information from the ABR to the ABRS platform.

- Business Names and ABR (non-companies): redesigning and migrating the Business Names Register and remaining ABR information to the ABRS platform.

- Professional and historical Registers: redesigning and migrating professional, historical and other ASIC Registers on either the ASIC Regulatory Portal or ABRS platform.

- Decommissioning: final decommissioning of legacy systems and MBR Program close.

What's happened so far

The proposal to modernise, consolidate and improve Australia's business registers is an ambitious undertaking, especially when the registers need to continue to function while they are being transformed.

The MBR Program was funded $480.5 million in 2019 –20 MYEFO to deliver over the 4.5 year timeframe. Enabling legislation received royal assent on 22 June 2020 and the Commissioner of Taxation (and Registrar of the ABR) was appointed as Registrar of the ABRS on 4 April 2021 under the:

- *Business Names Registration Act 2011*

- *Commonwealth Registers Act 2020*

- *Corporations Act 2001*

- *National Consumer Credit Protection Act 2009.*

Registry staff moved from ASIC to the ABRS through MoG changes that took place shortly after the appointment of the Registrar. Following the launch of abrs.gov.au, Director ID was brought online. As of 30 June 2023:

- the Director ID scheme has been implemented, with over 2.3 million Director IDs successfully issued

- additional funding ($80 million) has been provided to continue design and delivery of the modernised registry system

- the technology foundations and environments for the new registry environment are largely established

- design for the new Companies Register is approximately 76% complete

- build is approximately 18% complete with 60% of core interfaces validated through the delivery of Director ID and the Register a Public Company "Horizontal Slice".

Table 1: Key events

NOV 19	JUN 20	OCT 20	APR 21	OCT 21	NOV 21	MAR 22	OCT 22
Funding to commence program implementation	MBR legislation passed.	Full program funding released.	Director ID private beta testing. Machinery of Government. Commissioner of tax appointed as registrar.	ABRS.gov.au launched	Director ID public beta testing	Director ID goes live	Additional funding provided

State of play

The Companies Register is currently in the delivery phase. This register is by far the most complex and the program has experienced a range of challenges that have resulted in significant cost and time overruns.

The MBR Program was to be completed by the 2023 –24 financial year. In July 2022, government was advised that the program was expected to cost at least $1.5 billion (an additional $1 billion) with expected completion pushed out to 2027. Analysis undertaken through the Review confirms the cost to complete the full MBR Program in its current form is likely to be considerably higher than previously advised in July 2022.

Significant effort is still required to deliver the MBR Program, including the:

- progression of legislative changes

- transfer of registry functions

- design and build of modernised business registry services

- implementation and integration of the new system into a different agency

- linking of the Director ID

- transition the entire population of businesses, companies, intermediaries and DSPs onto the new system.

The MBR Program has undertaken considerable work to improve the understanding of the effort required to deliver the range of modernisations envisaged and the estimated schedule and costs for delivery are a stark difference to what was put forward in the SPBC.

Table 2: Comparison of SPBC and cost estimate breakdown

Component	SPBC costings	June 2023 revised costings (+/- 10%)	Approximate Movement
Director ID (finalised)	$69m	$55m	0.2x
Decommissioning	$6m	$6-$8m	1.3x
ASIC Registry Stabilisation	$15.5m	$60-$73m	3x
Program fixed costs (Establishment, enabling, governance, assurance, and business support)	$129m	$427-$522m	3.5x
Non-company ABNs	$51m	$193-$236m	4x
Business Names Register	$47m	$218-$367m	5x
Companies Register	$128m	$908-$1,110m	8x
Professional and historical registers	$35m	$257-$314m	8.5x

Explanatory notes:
*Total figures of costing may not add due to rounding
*June 2023 revised costings include the $578m funding to date
*Further cost estimate details are provided in Appendix 4: Analysis of MBR Costing and Options
*Costings are indicative and have not been agreed with the Department of Finance.

Drivers of MBR Program performance

Overview

The MBR Program has faced several key challenges that have affected MBR Program performance, leading to significant increases to the time and resources required to deliver the MBR Program. These challenges fall into 4 broad categories per Figure 1 below.

Figure 1: Key Drivers

Complexity	Program design	Delivery and implementation approach	External factors
Significant underestimation of complexity	Technology choice	Governance is not fully effective	Direct consequences resulting from COVID-19
Complex cross-agency operating model	Some elements non-compliant with legal requirements	Program lacks a clear critical path for delivery	Increased market rates for specialist skillsets
Law reform	Effort not well aligned with benefits	Inadequate strategic workforce planning	Government decisions to expand scope of MBR Program
		Uncertainty has limited best practice vendor management	
		Program operating model and cultural alignment	

Many of these factors are interlinked and have had a compounding effect on program performance. If not addressed, it is likely problems in program performance will continue.

Complexity

The MBR Program is more than an IT project, it is a large change program with additional complexity driven by the breadth and depth of interaction between the components of the MBR Program and the need to provide continuity of services during the transformation.

Significant underestimation of program complexity

Of all the registers in scope, the Companies Register is the most complex. The effort required to modernise the Companies Register and transition it to the new platform was severely underestimated in the SPBC. This was, in part, driven by:

- relatively immature design and planning at the time

- a lack of clearly defined boundaries between regulatory and registry activities and the ATO's under-appreciation of the required interfaces (as they were all contained within one agency)

- the lack of experience and time spent working with the COTS product and significant underestimation of the effort and investment required to integrate with the ATO's systems

- optimistic assessments and assumptions that were made with regards to the amount of law reform that could be progressed to rationalise existing business processes and reduce the delivery effort required.

Complex cross-agency operating model

The transfer of responsibility for Core Business Registers from ASIC to the ATO as part of the MBR Program has complicated delivery and the underlying operating model for delivery.

Law reform

The MBR Program has a proclivity to undertake system design and business process redesign ahead of law and policy change being agreed. In practice, the MBR Program's ability to undertake further law and policy reforms simultaneously has not simplified program delivery and IT build. Law and policy change can be a long and complicated process and decisions that rely on law change introduces risk. The lack of understanding and alignment across the program has driven uncertainty and contributed to the increase in cost and time to deliver.

Program design

The MBR Program's implementation activities are guided by a set of design principles. These principles include leveraging the ATO's existing capabilities to deliver modernised registry services where appropriate. The ATO also needs to ensure that there is sufficient insulation between the modernised registry system and the services used to administer the taxation and superannuation systems. In part, observing these principles has led to additional complexity and implementation effort for the MBR Program in comparison to an implementation of a base COTS product.

Technology choice

The assumptions relating to the acquisition of the COTS product for the new registry services have not held. The maturity of the product selected (Verne) and its ability to support MBR Program requirements has proven lower than expected. The effort required to apply the product within the Australian context and to integrate it with the broader ATO technology ecosystem has been more difficult than anticipated. The ability to access the required expertise in the product at the scale needed has proven challenging and has emerged as a key limiting factor in the delivery of the program. The decision to leverage the ATO's existing capabilities has also meant it is not utilising the full functionality of the product.

Effort not well aligned with economic benefits

While the MBR Program has focused on delivering a superior user experience for those directly interacting with Core Business Registers, most companies do not interact directly with the registers, instead relying on either intermediaries or business software to handle these interactions on their behalf.

On the other hand, there has been relatively little focus on the objective of achieving a high-quality business data spine – which, while difficult to quantify is the largest area of benefit identified by the program and more likely to achieve broader economic benefits. There has been limited co-design, collaboration and engagement with some stakeholders in the program. Program design needs to take greater account of ASIC's core and continuing need for timely access to registry information for regulatory purposes and the critical role that DSPs and other intermediaries play in helping business to navigate the complexity of existing company and business registry and regulatory requirements.

Some elements non-compliant with legal requirements

The MBR Program has designed some elements of the program in a way that does not reflect current legal requirements for registry users. This is on the assumption that the government and Parliament would agree to amend the law prior to the commencement of the program. This approach adds significant risk to the MBR Program as re-work would be required should law not be agreed or changed in time. This risk is heightened where there is an absence of clear prior agreement to progress changes in the law.

It should be noted that most of these decisions have been made consciously and transparently by the MBR Program in a risk-based way to progress the design and delivery of the new registry experience.

Delivery/Implementation Approach

There are several pressure points across the delivery and implementation approaches that are affecting the delivery of the MBR Program.

Program lacks a clear critical path for delivery

The current critical path does not extend beyond 30 June 2023 so does not map to the delivery of the companies release. It is essential that the MBR Program establish the critical path all the way to the delivery of the companies release and effectively Report against it.

A core factor underpinning the MBR Program's governance challenges is the lack of a simplified mechanism to effectively monitor the critical path. The current reporting is communicated in a manner that makes it difficult for senior stakeholders to interpret whether the program is on track. The inability to effectively interrogate the progress of the companies release has adversely impacted the MBR Program's rate of progress, expenditure and ability to resolve issues and risks quickly.

In part, the MBR Program appears to have reacted to the circumstances that eventuated following the COVID-19 pandemic and had attempted to make up for lost time. In doing so, it did not work through some of the larger issues in a timely manner.

Governance is not fully effective

The MBR Program has experienced issues establishing effective governance processes to successfully execute a program of this nature. Progress has been made over the last year to enhance the effectiveness of program governance but challenges remain.

The MBR Program is having difficulty utilising its governance forums effectively. Governance members have voiced concerns about the clarity and timeliness of meeting papers. This has impacted members' ability to make informed decisions (without the need to request additional information).

The current program critical path is difficult to interpret and does not extend to the companies release. The inability to report against a critical path in a simplified manner has made it difficult for governance members to interrogate delivery progress. The MBR Program has not maintained a rolling forecast of cost and timeline to delivery (for the whole program).

Ownership of decisions are attributed to governance forums rather than individuals or roles. The lack of clear decision-making powers and accountabilities across all levels of the program is impacting the effectiveness of timely decision-making.

These combined issues have distracted governance boards from maintaining a strategic focus.

Inadequate strategic resource planning

Historically, the MBR Program did not take the time to sufficiently work through the complex and slower-moving requirements, policy and legal dimensions of the program prior to ramping resourcing.

Currently, tactical workforce planning activities are being undertaken however, there is still limited top down, strategic workforce planning across the program. This limits the program's ability to address key skill pinch points, optimise productivity and achieve a cost-effective workforce balance.

These workforce issues were compounded by restrictions on movements including cross-border travel and an inability to recruit and onboard personnel to deliver the Verne product.

Uncertainty has limited best practice vendor management

The MBR Program incurs significant cost to leverage external resourcing. It is not evident if the use of vendors engaged on a time and materials basis is achieving value for money.

There is a heavy reliance on vendors to deliver specialist capability for the MBR Program. Use of a concentrated group of vendors may expose the MBR Program to operational risks if adequate protections do not form part of contractual arrangements.

Strict security protocols mean digital skills without clearances are not allowed to work on the MBR Program. This is compounded where skilled resources for some vendors are outside of Australia. The MBR Program has met required security protocols, but it is not evident if the MBR Program has fully investigated ways to isolate areas of the program to allow vendors to supplement program capability by drawing on offshore resources.

Program operating model and cultural alignment

The ATO has never undertaken to deliver a program of this nature. It is Australia's taxation organisation. While the ATO has a history of successful IT delivery, the complexity and scale of the MBR Program differs from its past IT transformations. The change in responsibility for the Core Business Registers from ASIC to the ATO has seen organisational cultural issues emerge. Approaches that work well for administering taxation are not always transferring effectively to company and business registry arrangements. For example, taxation records are only visible to people with the authority to access them, but registries are a different paradigm. They are premised on open and transparent data. This shift has resulted in conflicting priorities with the MBR Program.

External Factors

Direct consequences resulting from the COVID-19 pandemic

The COVID-19 pandemic had a material impact on the mobilisation of the MBR Program. The program's delivery phase commenced in February 2020, approximately one month before the nation entered a series of lockdowns. This affected the ability of the MBR Program to increase the workforce to the level required to deliver the MBR Program against the proposed schedule. It was a challenge to recruit and onboard additional, suitably skilled staff during the COVID-19 pandemic. Skills in the market were in short supply (and at a higher cost) and it was challenging to scale and onboard the MBR Program workforce into a complex program with stringent security protocols and in a fully remote environment. The COVID-19 pandemic then saw the ATO divert a proportion of its APS workforce to support critical government priorities including JobKeeper. These factors greatly affected the MBR Program including limiting its ability to commence design and planning activities around the Companies Register. This resulted in taking longer to identify the complexity associated with the companies release and has contributed to the program's cost and time overruns.

Increased market rates for specialist skillsets

The economic environment (inflation) and continued high demand for ICT skillsets has contributed to the rising cost of vendors. Actual costs incurred by the MBR Program for external labour exceed SPBC estimates by approximately 75%. In combination with a significantly greater use of external labour than planned, this materially contributes to the difference between program budget and increased forecasts to complete. In combination with a significantly greater use of external labour than planned, this contributes materially to the difference between program budget and increased the forecasts to complete.

Government decisions to expand scope of MBR Program

The MBR Program has had to respond to changes in scope, including the addition of CCIVs and the ARFP as well as accommodating changes to the Financial Advisers Register. Every time scope is added or changed, the program is required to pause design and slow delivery activities so it can assess the impact, provide advice to government and update the roadmap for future activities. This is creating noise in the program and means they cannot focus on delivery.

The best way forward for the MBR Program

Overview

The Review was asked to provide recommendations on how to best position the program to achieve its intended objectives. The Review has focused its efforts in identifying the best way forward for the MBR Program by addressing the issues identified within the MBR Program.

Overall, these recommendations are designed to reduce cost, complexity and risk and increase confidence around the timely delivery of the core benefits of the MBR Program. They should be considered in the context of Appendices of this Report.

This section sets out 19 recommendations for the MBR Program against 5 broad themes are designed to help the program to succeed. While they primarily focus on the delivery of Option 3, there is opportunity for learnings regardless of the agreed direction.

Figure 2: Recommendations overview below provides an overview the recommendations.

Figure 2: Recommendations overview

Program Scope		
R1 Narrow the scope of the Modernising Business Registers Program to deliver the Companies Register	**R2** ASIC to deliver the professional registers independently of the Modernising Business Registers Program	
R3 Focus the Modernising Business Registers Program on achieving the benefits of the business data spine	**R4** Provide seed funding to examine law reform opportunities to reduce risk and complexity ahead of future decisions for Business Names and the Australian Business Register	
R5 Commit to final, agreed tranche of law change to support delivery of the Companies Register and then design and build to the law for the companies release	**R6** Lock the scope of the Modernising Business Registers Program until completion, using interim solutions or alternate pathways to implement policy changes.	

Program Governance		
R7 Focus leadership on strategic decisions and ensure decision-making accountabilities are clear	**R8** Establish a master status report focusing on critical path progress, forecast and program costs	**R9** Implement feedback loops on the effectiveness of governance forums
R10 Build the top-down critical path to deliver the Companies Register and focus governance on it	**R11** The appointment and reporting of the assurance function should be independent, managed by the DTA	

Program Finances		
R12 Structure program funding to provide funding certainty, reinforce good practice governance and reflect and manage uncertainty and risk		

Program Organisation		
R13 Reset the program workforce to align with revised scope and implement strategic workforce planning	**R14** Revisit the use of vendors to align with the revised scope	**R15** Adapt team composition, capability and tooling to improve build and release activity

Design and architecture		
R16 Progressively uplift the integrity of registry data		**R17** Ensure the Australian Taxation Office provides the Australian Securities and Investments Commission with timely access to company and business data
R18 Ensure design prioritises wholesale services		
R19 Maintain target architecture with strengthened guardrails against the Verne roadmap		

Program scope recommendations

The scope of the MBR Program, both its size and complexity, is a key driver of cost. The Review proposes 6 recommendations to refine the scope of the MBR Program.

R1

Narrow the scope of the Modernising Business Registers Program to deliver the Companies Register

The Companies Register is central to achieving the MBR Program's key objectives. The capabilities it will deliver enable the streamlining of interactions between government and business. The MBR Program scope should be reduced to the delivery of the Companies Register only and no additional scope should be given to the MBR Program.

1.1

Deliver all functionality in scope for the Companies Register including CCIVs, Names Determination (for companies) and the Reserved Company Names Register

1.2

Remove professional and historical registers and non-company registers from the MBR Program.

Rationale

The Companies Register is the most significantly progressed register within the remit of the MBR Program.

There are over 25 registers in addition to the Core Business Registers. The breadth of registers currently in scope amplifies the complexity of the MBR Program without commensurate value.

The current breadth of scope also exposes the MBR Program to greater risk of new scope and re-direction to address emerging government priorities. Whilst narrowing the scope to Companies Register only will not eliminate this risk entirely, it will materially reduce the exposure.

The Companies Register will deliver a comprehensive range of services that can be reused to deliver other registers. It includes a new capability for government (business inbox) that can be extended for broader use at a later stage. This new capability aims to streamline interactions between the government and business and can be rolled out incrementally across the varying entity types.

Risks associated with ASIC's legacy systems continue to increase over time. Including Names Determination for companies and the Reserved Company Names Register in scope for the Companies Register will advance the mitigation of ASIC's legacy system risk.

Delivering the Companies Register in full means that the government will not have components of the Companies Register fragmented across ASIC and ABRS when further investments are contemplated.

Consequential adjustments

Names Determination and the Reserved Company Names Register will now be included in scope for the Companies Register and all elements not related to companies will be removed.

Some of the functionality of the new platform that is required for the ABR will be delivered as a part of the Companies Register.

Interim and transitional solutions will be required to maintain the link and real-time data exchange between Names Determination functionality, the Companies Register and Business Names Register.

Adjustments will be required to mitigate dependencies between professional registers and information held on the Companies Register.

Considerations

Directions for the Business Registers will be subsequent decisions for the government.

The existing delegated model between ASIC and the ABRS will need to be maintained for an extended duration for the Business Names Register.

Once design work on the Companies Register is completed, the government may wish to consider investing in preparatory design work to inform a decision to proceed with the remaining Business Registers. Preparatory work should be performed by a cross-functional team outside of the MBR Program to avoid diversion of focus from delivering the MBR Program. The government should be aware that, although there will be optionality regarding the level of transformation undertaken,

some level of investment in Business Registers is likely to be required.

If this recommendation is enacted, legislative change will be required to signal a new automatic commencement date for the transfer of the Business Names Register to the Registrar.

Separating the Names Determination functions for Companies and Business Names may introduce additional complexity and cost relative to the program's current plans that would have migrated both Names Determination functions as a part of the Business Names Register.

R2

ASIC to deliver the professional registers independently of the Modernising Business Registers Program

This recommendation assumes acceptance of *Recommendation 1*. Tasking ASIC with modernisation of the professional registers will simplify the MBR Program. It will also enable the benefits of the modernisation of the professional registers to be realised independently and in parallel with the delivery of the new Companies Register.

2.1

Move the end-to-end responsibility for the delivery and operation of the professional registers to ASIC.

2.2

Isolate the professional registers from the MBR Program and fund ASIC to deliver them independently.

2.3

Modernise the professional registers to address critical operational, cyber and sustainability risks.

2.4

Prioritise the definition and delivery of any required APIs to facilitate interactions between Companies Register and professional registers.

Rationale

The inclusion of professional registers within the scope of the MBR Program and the ABRS' remit introduces additional complexity and risk without commensurate benefits. Reverting full responsibility for the professional registers to ASIC will enable the MBR Program to narrow its focus to the Companies Register and enable ASIC to accelerate the modernisation of the professional registers independently of the MBR Program.

Removing ongoing interdependencies between ASIC and ABRS for the ongoing operation, maintenance and enhancement of professional registers will simplify operations for both organisations and enhance agility for government.

As the relevant authority in this sector, ASIC is best suited to deliver the professional registers.

ASIC finalised a digital strategy in 2022 that outlines how it will become a leading digitally enabled, data-informed regulator by 2030.

Consequential adjustments

ASIC will need to seek funding separately to uplift professional registers and mitigate its legacy systems risk. These costs have been accounted for in the total estimated costs under Option 3 (see consequential costs category).

Law changes will be required to move responsibilities back to ASIC and provide ASIC with equivalent powers to the Registrar.

Considerations

A scoping exercise is required to define the interfaces between the professional registers and the Companies Register so that the information that needs to flow between them continues to do so once the registers are hosted in different agencies.

ASIC will be responsible for design and delivery activities which may result in the use of different technologies to deliver the professional registers.

R3

Focus the Modernising Business Registers Program on achieving the benefits of the business data spine

The MBR Program currently prioritises the achievement of "Improved service delivery to reduce complexity for business" (Benefit 1) when undertaking design activities. However, the main benefit of the MBR Program will be achieving a "Single source of reliable, trusted and accessible business data" (Benefit 2). A focus on Benefit 2 will increase confidence in registry data and provide a robust data set to undertake regulatory functions. This improvement is the leading contributor to achieving genuine economic benefits through the MBR Program. The MBR Program should prioritise Benefit 2 over other named benefits when making design decisions.

3.1

Recut the benefits to ensure they are well defined and clearly define the benefits that the 'core data spine' will deliver.

3.2

Track delivery of benefits over time using more rigorous methodologies.

3.3

Design the services to ensure data is available to the people and businesses that rely on it the most including ASIC, DSPs, intermediaries, information brokers and government agencies.

3.4

Reduce effort on building low priority/low- volume elements of the Companies Register.

Rationale

The primary economic benefit of the MBR Program will be achieving a single source of reliable, trusted and accessible business data.

While there may be a strong preference to transform all current forms into digital services, it may not be cost efficient to do so in all circumstances. Low-volume, high-effort forms should not be digitised as part of the initial Companies Register, unless there are compelling reasons to do so.

Digitising transactions that are low volume, low value or high complexity will likely exceed the benefit they deliver.

Consequential adjustments

Planning, design and delivery processes may require updating to prioritise delivery of the business data spine.

Consultation with stakeholders to ensure services are designed to the people and businesses who will rely on the business data spine.

Considerations

Moving government priorities during delivery may impact delivering against the core benefit. The MBR Program should be given opportunity to deliver without the need to reassess.

R4

Provide seed funding to examine law reform opportunities to reduce risk and complexity ahead of future decisions for Business Names and the Australian Business Register

A key learning from the MBR Program, is the complexity and cost that is generated by attempting to undertake slower-moving law reform once the program is already mobilised at scale. Government should examine law reform in advance of a future decision point for Core Business Registers, to improve investment confidence and reduce delivery risk.

4.1

Establish a cross-agency team (Treasury, ASIC, ATO) with expertise in the relevant legal Acts, associated policy, registry operations, business regulation and human centred design, data management and technology. This team should be independent of the MBR Program to avoid diversion of focus for the MBR Program.

4.2

Establish the process and accountabilities for the delivery of the one-off activity. This includes defining criteria, principles and tolerance to help guide this work.

4.3

Undertake a targeted, one-off activity to examine opportunities to change the law where the change will enable the achievement of better transformation outcomes, reduced costs, shorter delivery timeframes, simplified delivery and/or increased benefits realisation.

Rationale

Australian business registry services are tightly linked with their underlying law and associated policies. Law changes may enable the achievement of a wider range of outcomes and benefits that may otherwise be forgone.

In the MBR Program, the speed at which law and policy change can be progressed, has proven slower than other elements of the MBR Program. Undertaking this work in parallel with design and other program activities has proven costly and exposed the program to uncertainty, rework, or missed opportunities to deliver a better outcome.

Failing to surface and resolve legal barriers to transformation and efficient delivery prior to business case finalisation also contributed to the reduced accuracy of estimates.

Business Names and the remaining non-company elements of the ABR will be subject to a future decision of government. Given this, government should progress slower-moving law reform in advance of that future decision point to improve investment confidence and reduce delivery risk.

Consequential adjustments

Seed funding may be required for the cross-agency team (Treasury, ASIC, ATO) with expertise in relevant law, policy, registry operations, ABN Act, regulation and human centred design (costs for this have not been calculated as part of the Review).

Considerations

The activity requires adequate resourcing from existing allocations to ensure access to capability and capacity is allocated to undertake this assessment.

The MBR Program will need to gauge whether there is sufficient priority in the legislative agenda to pursue changes.

The lead agency for this activity will need to be identified.

This activity will need guardrails to ensure it does not divert resources or focus from delivery of the Companies Register.

R5

Commit to final, agreed tranche of law change to support delivery of the Companies Register and then design and build to the law for the companies release

Attempting to progress law reform in parallel with design is one of the key challenges faced by the MBR Program. Focusing efforts on a final tranche of key law changes and then designing and building to existing law for the remainder of the companies release will reduce ongoing uncertainty and distraction moving forward.

5.1

Delivery agencies are to commit to progressing the final, agreed tranche of law change.

5.2

Build the Companies Register to conform with already agreed law and policy changes and present these changes to government for decision (which the Review assumes will proceed).

5.3

The MBR Program should continue to capture further opportunities for law reform, to be pursued as improvement opportunities post-program completion.

Rationale

There is a divergent range of views across stakeholders as to the level of opportunity for further law change that will benefit the MBR Program.

The law change process is relatively slow-moving and requires considerable effort from scarce resources. The lifecycle and timeframe for assessing, agreeing and implementing the associated changes is a driver of uncertainty, risk and rework for the MBR Program.

Agreeing the final tranche of law change and then using those changes and the existing law as design constraints will provide certainty to design and delivery teams.

Consequential adjustments

Elements that have assumed law change will require re-design where those law changes do not form part of the final tranche of law change.

The final tranche of law or policy matters to be assumed by the MBR Program include:

- ABRS Agents: Law changes to address issues arising under the *Tax Agent Services Act 2009* preventing registration or maintenance of combined ACN/ABN records by agents not registered with the TPB where they charge a fee.

- Registry fees:

  — changes to the fees regime reflecting that the system will not need to accommodate the collection of retail search fees (i.e. removing these fees)

  — settling a new wholesale fee regime

  — other fee reforms announced by the previous government.

- Minor and technical amendments switching lodgement between ASIC and the Registrar and consequential changes to subordinate legislation yet to be updated.

- Auto-commencement to align the latest commencement date for MBR legislation with the delivery schedule of the MBR Program.

- Changes to facilitate appropriate data sharing arrangements between ASIC and the Registrar. Data sharing arrangements must conform to all legal requirements.

- Confirmation of the policy position on whether Director ID numbers should be made publicly available.

- Any other law or policy changes necessary or ancillary to implementing other recommendations of the Review.

Ensure adequate capacity and prioritisation is provided by policy and law teams across Treasury, ASIC and the ATO to progress the final tranche of changes and confirm law conformance during design.

Considerations

There will be risk to the MBR Program should this final tranche of law changes not be implemented.

Whether there are circumstances where it would be appropriate to consider law/policy change and the appropriate forum for litigation of proposed changes. These circumstances may include changes to the current law that do not impact the design or build of the Companies Register (for example, correcting minor or technical errors or changes that only impact regulatory provisions/powers).

R6

Lock the scope of the Modernising Business Registers Program until completion, using interim solutions or alternate pathways to implement policy changes

The progress, schedule and costs of the MBR Program have been adversely impacted by additional scope and priorities. Government should insulate the program to the extent possible from the addition of new registers or further changes to existing registration regimes during implementation to improve delivery confidence.

Rationale

The MBR Program is inherently a waterfall project and is not positioned well to adapt to changing government priorities. Changes to scope and priority will come at the expense of program progress and its ability to achieve its core milestones and benefits.

The MBR Program requires clear runway to deliver effectively. Adding registers and new scope is distracting the delivery of the Companies Register and meeting the core mission of the MBR Program.

Consequential adjustments

Alternate pathways or interim solutions to achieve policy changes may need to be identified where there are dependencies with the MBR Program.

Any interim solutions for new proposals may need to be scaled back in scope and ambition.

Considerations

Interim solutions may need to be sustained for longer than originally planned (for example, if a decision is made to cease the program after the Companies Register or a decision is deferred).

Where government decides to expand the scope during implementation, it will need to be fully aware of the cost and schedule implications for the MBR Program and not only the direct cost of the new proposal.

Program governance and assurance recommendations

Managing a program of this size and scale is inherently complex and uncertain. It is inevitable that issues and challenges will arise. Effective program governance and assurance arrangements are essential to ensure the MBR Program is well positioned to handle these issues and optimise its chances for success. This section proposes 5 recommendations to improve program governance and assurance.

R7

Focus leadership on strategic decisions and ensure decision-making accountabilities are clear

Decisions that are critical to the delivery of the program should go directly to the Program Sponsor Group and bypass the MBR Program's subcommittees and governance forums (which should be notified in parallel).

The Program Sponsor Group should maintain authority for setting the MBR Program direction including strategic priorities. The Program Sponsor Group should ensure strategic priorities are communicated effectively to ensure execution of informed top-down planning processes for design and delivery teams.

7.1

Increase the emphasis of committee meetings on overall program health. For example, critical path, cost forecast and timeline forecast.

7.2

Refocus governance meetings on decision-making and consider the implications on the primary benefits of the program when making decisions.

7.3

Decision-making rights should be explicit, assigned to individuals and easily identifiable preferably in MBR Program governance process documentation.

Rationale

Program Sponsor Group meetings should focus on high level strategic issues and, when requested to make decisions, members should maintain a focus on alignment with core benefits. This will optimise the MBR Program's chances of delivering to the critical path in line with budget, time and quality expectations.

Decision-making powers should be delegated to appropriately levelled personnel. MBR Program personnel should know what decisions they have authority over and what decisions require escalation to their leadership cohort, the Program Board and/or the Program Sponsor Group. Operational matters should not be taken to Program Sponsor Group unless all other avenues to gain have been exhausted. Operational matters that are being brought to the Program Sponsor Group for consideration is distracting this forum from maintaining strategic oversight.

The Program Board has significant program design and delivery responsibilities and bringing forward high-level strategic matters on a regular basis is adding to the time taken to make a decision. There are examples of strategic issues being identified at the team level and working up through various governance forums before consideration at the Program Sponsor Group. This considerable lag in decision-making affects delivery performance and inflates costs and risks.

Making decisions in a timely manner provides certainty to design and delivery teams, which will reduce risk and associated lack of progress while issues and change requests are under consideration.

Several strategic issues should be prioritised to support delivery. Examples include the development of a workforce management strategy and critically Reviewing vendor management plans and arrangements to increase value for money. Further, meetings should be spent considering decisions rather than agenda items that are "for information" or "noting".

Consequential adjustments

Governance structures and plans should be updated to clearly describe how the Program Sponsor Group will sharpen their focus on strategic matters.

The MBR Program should consider engaging strategic program management coaching across the senior leadership cohort.

Update relevant governance structures, plans and processes to ensure personnel understand whole of program accountabilities and decision-making processes.

Considerations

Leverage the Program Sponsor Group to keep the Minister engaged with the program and its overall health.

R8

Establish a master status report focusing on critical path progress, forecast delivery date and program costs

Establish a single master status report, shared monthly with internal and external stakeholders containing the following key elements:

- key project milestones

- spend to date and forecast spend to complete

- earned value (or an equivalent) to enable clear monitoring of work completed compared to planned

- key workforce metrics

- material risks

- governance effectiveness metrics (see recommendation 9) change readiness indicators

- go live date.

Rationale

While considerable project reporting exists, the MBR Program has struggled to establish and maintain a timely, clear and shared understanding of its status, progress and health across its diverse stakeholder base. A single, concise source of truth for program health will enhance the ability for stakeholders to oversight, support, or intervene over the life of the MBR Program.

Establishing a single source of truth will reduce the reporting burden on the MBR Program and enable capacity to be redirected to higher value activity.

Focusing program reporting activities on the critical path for delivery will enable any necessary corrective action to be undertaken quickly.

Master status reporting will provide governance forums and the government with consistent visibility of program health and enhance transparency on the progress against the critical path for delivery. Execution of well-formed and articulate reporting will increase greater confidence in program delivery.

Standard reporting is a repeatable process and has re-use opportunities across the program. It can be used to streamline delivery confidence reporting to the Digital Transformation Agency (DTA) and sharpen the Gateway Review process.

Consequential adjustments

N/A

Considerations

Once established, the format of the Report should not change. Stakeholders should have a repeatable process and receive reports that have consistent in content and format and are easy to consume.

R9

Implement feedback loops on the effectiveness of governance forums

There are divergent views regarding the consistency and effectiveness of governance forums to support MBR Program success. The MBR Program should implement feedback loops on the quality of materials, engagement, debate and decision-making for all MBR Program governance forums to enable effectiveness to be objectively measured and continuously improved.

Rationale

Feedback from stakeholders indicated the quality of briefing materials needs improvement and forum discussions should be more effective.

Establishing a culture of continual improvement, openness and 360-degree feedback is best positioned from the top. By implementing effective feedback loops as part of standard operations, this culture should filter down to all layers of the MBR Program.

Increasing the effectiveness of governance forums in not only applicable to the MBR Program. There are opportunities to apply these approaches broadly across MBR Program stakeholder agencies and other agencies responsible for delivering ICT and digital investments.

There are instances where decisions have conflicted with the fundamental needs and requirements of key stakeholders. For example, where decisions are made without understanding the policy rationale or regulatory driver behind existing processes, it results in design decisions and assumptions that conflict with current legislative requirements and causes deviation and rework.

Including the right perspectives early in the process as issues are worked through will improve the quality of information considered by governance forums when making key decisions. It will also prevent requests for a decision reaching the Program Board and/or the Sponsor Group and then being returned to working level staff to seek additional information.

Consequential adjustments

Establish a light-weight process to capture feedback on each governance mechanism. For example, a short survey at end of each session to members and observers.

Assign accountability for completing the feedback loop process to a relevant team within the program and introduce regular reporting of the outcomes from analysis of the feedback to key stakeholders. This may include providing updates about changes that were made in response to the feedback. The process should not be onerous and be kept as simple as possible.

Considerations

Ensure there is clear accountability for acting on feedback to identify and implement improvement opportunities.

Any introduction of a feedback loops needs to be meaningful and not tokenistic.

The MBR Program should allow all stakeholder agencies access to the feedback. It may wish to consider other areas of the program that would benefit from creating standardised feedback loops.

The approach to gathering and reporting on feedback needs to be simple to apply and not perceived to be an onerous task.

Care is needed to avoid adding additional layers of complexity to the process.

R10

Build the top–down critical path to deliver the Companies Register and focus governance on it

The MBR Program currently lacks a clear understanding of its critical path. The MBR Program should prioritise the development of the critical path to support governance and program decision-making.

10.1

Develop the critical path for delivery of the Companies Register.

10.2

Focus governance on monitoring activities that are critical to achieving key critical path milestones.

10.3

Establish a cross-agency transformation office that brings together Treasury, ASIC, ABRS and ATO sub-providers (for example, Enterprise Solutions and Technology) to support critical design and delivery work required to implement the Companies Register.

Rationale

The absence of a clear critical path and view of limiting factors inhibits effective governance, optimal allocation of program resources and informed prioritisation.

A strong focus on bottom-up tasks is creating imbalance and shifting focus away from prioritising the most critical activities.

Setting a clear strategic direction that focuses on the outcome and the critical path to achieving it supports stronger planning alignment across MBR Program teams and sub-providers.

Alignment of governance means there are opportunities to zoom out and overlay decisions with a strategic and outcomes focused lens. As dependencies and risks emerge, prioritisation of the critical path can streamline decision-making and reduce bottlenecks by empowering staff at all levels to focus on the outcome.

Consequential adjustments

Planning is currently aligned to the available funding envelope and not to the program deliverables. Should the MBR Program continue an urgent priority is to establish a critical path through to completion.

Considerations

Broader agency support may be required to give the MBR Program priority where their deliverables impact the critical path for the MBR Program.

Consider forming "tiger teams" or enhanced Program Management Office (PMO) with appropriate representation and leadership to expedite significant matters.

R11

The appointment and reporting of the assurance function should be independent, managed by the Digital Transformation Agency

The current approach to Independent Assurance is not effectively independent of the MBR Program. Government should change Independent Assurance arrangements to strengthen independence.

11.1

Allocate the management of the MBR Program's independent assurance activities to an agency outside the program's lead delivery agency (preferably the DTA).

11.2

Establish regular independent assurance reporting to relevant Ministers.

11.3

Establish independent assurance that meets the requirements of the Assurance Framework for Digital and ICT Investments under the WofG Digital and ICT Investment Oversight Framework.

11.4

Update assurance planning that covers the full period it will take to deliver the Companies Register including aligning to key milestones and decision points.

Rationale

The MBR Program's independent assurer should be independent of the program's lead delivery organisation.

Having the independent assurer selected by the MBR Program and working to the SAO may limit the independent assurer's impartiality and ability to objectively undertake assurance activities. Please note, while this recommendation strengthens independent assurance measures moving forward, it not intended as a reflection on the conduct or quality of independent assurance undertaken to this point under current arrangements.

Consequential adjustments

The agency responsible for the management of the independent assurer will require adequate funding. Funding should be commensurate with the scope and complexity of the MBR Program.

Considerations

As a Tier 1 program under the DTA's WofG Assurance Framework for Digital and ICT Investments (Assurance Framework), the MBR Program is required to undertake independent assurance activities. This is in addition to the requirements under the Assurance Framework and the Department of Finances' cabinet mandated assurance process (Gateway Review process). The application of enhanced assurance for the MBR Program does not remove its obligation to meet mandated WofG cabinet processes.

Program finances recommendation

To be successful, key strategies are needed to maintain oversight of MBR Program expenditure to mitigate the risk of cost overrun where possible.

The Review proposes 1 recommendation in relation to MBR Program finances.

R12

Structure program funding to provide funding certainty, reinforce good practice governance and reflect and manage uncertainty and risk

The MBR Program will require funding certainty to effectively plan, resource and deliver the remainder of the Companies Register. Government should implement a funding approach for the remainder of MBR Program that balances the need for funding certainty with an ability to effectively oversight progress and manage contingency.

12.1

Commit $1.1 – $1.3b funding for the full Companies release.

12.2

Allocate identified $130m – $155m in additional contingency funding amount to be held centrally by the Department of Finance to be held in the Contingency Reserve (CR) and subject to release when a defined criteria is met.

12.3

Establish a process (agreed by DTA) that aligns access to continency funding with Tier 1 assurance activities.

12.4

Make funding for delivery beyond the Companies Register subject to future decisions of government.

Rationale

Reporting on risk treatment activities should be a standard practice within the MBR Program. The effectiveness of risk treatment activities in mitigating the impact of risks eventuating should be clearly understood by all stakeholders. Early advice to the Minister when contingency (risk) funding is required will ensure there's early visibility of matters that may derail the MBR Program from achieving its objectives.

Contingency (risk) funding should be held separately to delivery funding and released subject to established governance processes. This funding should only be released where risks are realised despite active management and additional funding is required to deal with the issue.

Consequential adjustments

Funding that is set aside for the MBR Program must fully cover the delivery of the Companies Register, including contingency (risk) funding.

Adjustments to the funding strategy will need to be finalised. For example, consideration to placing funding for future releases into contingency funding and released at key milestones.

Considerations

Updated design and delivery plans, risk profiles and forecast costs to complete may need to be provided prior to the release of funding for the delivery of future program deliverables. This will be dependent on the final funding strategy. Ability to provide this information should be factored into program planning activities.

Whilst government can cancel the MBR Program at any point throughout the companies release, it is unlikely that material value from the expenditure to date will be captured or retained prior to the final implementation (Director ID being the notable exception).

Consideration should be given to a scenario where the program does not proceed further to ensure sufficient funding is provided to close the program down and sustain the existing registry system.

Program organisation recommendations

Program organisation (the way it marshals it resources for delivery) has crucial implications for the productivity and cost effectiveness of the MBR Program. The Review proposes 3 recommendations to improve program organisation.

R13

Reset program workforce to align with revised scope and implement strategic workforce planning

At the start of this Review, the current MBR Program workforce was intended to encompass over 500 FTE and had been scaled in anticipation of delivering the original full scope and sequencing of the MBR Program. The MBR Program should re-size and re-shape the workforce to align with the reduced scope, reduced complexity and single tranche focus.

13.1

Set out the workforce required at each stage of design and delivery for the Companies Register and ensure the future strategy identifies and addresses workforce gaps.

13.2

Right-size the MBR Program team to reflect the narrowed focus of the program and the removal of the need to manage multiple-parallel tranches in the future.

13.3

Right-size resourcing to reflect the critical path. Focus workforce capacity increases on the MBR Program's limiting factor (build and release capacity).

13.4

Undertake an initial strategic workforce planning process using proven tools and repeat the process under a steady cadence.

13.5

Review the optimal mix of personnel across APS, labour hire (contingent workforce) and professional services.

13.6

Update balance between designers/developers and managers/coordinators.

Rationale

The workforce capacity is not optimised to reflect the critical path and limiting factors of the program.

Onboarding and upskilling overheads for new project personnel represent a significant productivity cost and a diversion of focus and capacity from core project deliverables. This dilutes the value of additional resources, especially for assignments of shorter duration.

Rapid efforts to scale resourcing, coupled with constraints in attracting new APS team members, drives an increase in the use of higher-cost contractors or professional service firms and will adversely impact MBR Program costs and forecasts.

Consequential adjustments

N/A

Considerations

Funding certainty for the MBR Program is required to enable the development of an optimal workforce strategy. A lack of funding certainty will drive greater reliance on high-cost labour and services agreements.

There may be a need to rapidly redeploy APS staff no longer required by the program and/or give notice to supplies for a reduction in the use of external labour.

Associated cost models will need to be to reflect the optimised workforce.

R14

Revisit the use of vendors to align with the revised scope

External resourcing represents a significant cost for the MBR Program. The MBR Program should critically evaluate its sourcing strategy and vendor management plans to achieve greater value for money, better align risk and reward, and mitigate vendor related risks.

14.1

Ensure best practice vendor management is being implemented across the program to drive optimal vendor performance and value for money.

14.2

Explore lower cost sourcing options that support partnership and risk sharing arrangements.

14.3

Ensure risk of market contention for critical and scarce resources such as Verne configurators are mitigated through appropriate contractual provisions.

Rationale

External resourcing costs represents a significant portion of the MBR Program's expenditure to date and its forecast to complete (approximately 65% APS and one third external resourcing)

External resourcing is principally leveraged under resource augmentation, using time and material arrangements with productivity costs and program risks borne by government.

Consequential adjustments

N/A

Considerations

Alignment with the MBR Program's workforce strategy to achieve the optimal blend of APS, labour hire (contingent workforce) and professional services (refer to the rationale at Recommendation 13).

R15

Adapt team composition, capability and tooling to improve build and release activity

The MBR Program is constrained by the rate at which it can build and release functionality for the new registers. The MBR Program should evolve to optimise for these functions moving forward to preserve the critical path and accelerate delivery of its critical path.

15.1

Move to cross-functional teams for build, ensuring design and SME capabilities are embedded within build teams.

15.2

Support teams with appropriate training and practices including in remote and hybrid work environments.

15.3

Ensure strong team and team of team level communication, practices are embedded.

15.4

Investigate potential productivity gains from augmenting or automating some delivery activities with Generative AI.

15.5

Explore the opportunity to adapt personnel security clearance requirements for lower-risk work that may be undertaken in a contained and insulated environment.

Rationale

The current program operating model was optimised to progress design in advance of technical resource availability and readiness. The functionally organised model introduces handoffs, hard dependencies between design and build teams and latency into design clarification and changes as development is undertaken. This places a productivity tax on the build and release activity, adversely impacting the rate of delivery and overall MBR Program schedule and cost.

Current personnel security clearance requirements constrain government's ability to leverage and productively mobilise a broader pool of talent.

Generative AI paired coding techniques have been shown to help uplift developer productivity by improving code quality and increasing the likelihood of completing development tasks. This technique can be used to accelerate Verne coding, testing and release tasks, noting that specific use cases will have to be tested before broader adoption.

Consequential adjustments

Appropriate environments will need to be established to support Recommendation 15.5 should opportunities be identified and agreed.

Considerations

Identifying work that may be undertaken in a contained and insulated environment under different security clearance requirements will be a change in culture and current practices. Any opportunities and proposed approach will need to be considered carefully within the context of the risk-appetite for the impacted agencies.

An alternative to Recommendation 15.5 is to explore options to accelerate the assessment of security clearance assessments to reduce the impact on the MBR Program.

Program design and architecture recommendations

Effective program design and architecture is essential to the program realising program benefits in the most effective manner. The Review proposes 4 recommendations to improve program design and architecture.

R16

Progressively uplift the integrity of registry data

The primary economic benefits of the MBR Program are unlocked through the uplift of the integrity of registry data. However little uplift is planned beyond the introduction of stronger authentication and controls when the new registry system is delivered. The MBR Program should strengthen its focus on data management to increase the likelihood of the intended benefits being realised.

16.1

Establish a data quality stream within the MBR Program and establish strategies to uplift the integrity and quality of register data over time.

16.2

Perform analysis on existing register data to identify inaccuracies, inconsistencies, gaps and integrity issues and then develop strategies to uplift data quality.

16.3

Develop longer term strategies to further uplift data integrity and quality post-implementation of the Companies Register.

Rationale

Benefits associated with improved integrity and quality of register data are central to the overall business case. Under the current trajectory, the MBR Program will not introduce measures that begin to impact the quality and integrity of future changes to registry data until 2027.

There is currently no planned activity to uplift the quality and integrity of existing registry data beyond linking it with Director ID information.

Current plans for the MBR Program are unlikely to have a material impact on the quality and integrity of registry data until beyond 2027.

Consequential adjustments

Identification and allocation of additional program effort required to implement this recommendation. Funding for this recommendation is included in sustainment costs under Option 3.

Considerations

This recommendation should be considered alongside Recommendation 18 *focus on wholesale services*. Most companies interact with the register through DSPs or intermediaries and, in many cases, the DSPs manage detailed information on behalf of companies. There are opportunities for DSPs and intermediaries to play a role in accelerating the uplift of register data integrity.

There will be ongoing costs to maintain data stewardship, governance and management frameworks to ensure the continued uplift in data quality and integrity. These costs will be incurred post-implementation of the Companies Register.

Care needs to be taken to avoid adverse impact to the MBR Program's critical path when implementing this recommendation.

R17

Ensure the Australian Taxation Office provides the Australian Securities and Investments Commission with timely access to company and business data

The ongoing need for ASIC to access registry data is clearly understood at a macro level, however the specifics on what is required and how best to enable this have been an ongoing source of friction and uncertainty for the MBR Program and agencies. The MBR Program should prioritise finalise ABRS data sharing with ASIC to provide regulatory certainty.

17.1

Ensure that data synchronisation services from ABRS to ASIC meet ASIC's requirements including in relation to terms of frequency and content.

17.2

Ensure ASIC's continued access to registry services and information and the way data is exchanged, is fit for purpose.

17.3

ATO and ASIC to prioritise the finalisation of data provision arrangements to remove ongoing uncertainty.

17.4

Agree a technical solution that recognises the need for registry data to be presented in a human readable form to ASIC and considers similar needs in the broader registry consumer ecosystem.

Rationale

A goal of the program is to enhance regulatory outcomes through modernised registry services. Key to achieving this is to ensure that ASIC's ability to leverage registry data for regulatory purposes is as good or better as result of the MBR Program.

Consequential adjustments

Treasury to progress law changes to ensure adequate information sharing arrangements between the Registrar and ASIC as per the position expressed at the MBR Program's Law and Policy Authority.

Adequate funding for this will need to be provided. Further design work is required to validate the estimated effort required to implement this recommendation in full.

Considerations

The appropriate level of governance and/or restrictions around providing ASIC with unrestricted access to registry data.

ASIC (and a range of other stakeholders who interact with the register) will require certain data to be rendered in a human-readable format.

Further unbudgeted costs may be incurred to address recommendations 17.3 and 17.4.

R18

Elevate focus on wholesale services

Elevate focus on wholesale services.

18.1

Ensure that key user groups (including intermediaries and DSPs) are adequately supported to continue managing a significant proportion of registry interactions on behalf of their clients.

18.2

Adjust stakeholder engagement approaches to ensure enhanced collaboration and consultation.

18.3

Enhance co-design with wholesale users to ensure future design is fit for purpose.

18.4

Prioritise the finalisation of wholesale service definitions and pricing.

Rationale

Intermediaries and DSPs play a critical role facilitating compliance with a range of obligations beyond business registrations. Many also facilitate compliance with regulatory lodgement obligations and taxation obligations.

A large proportion of transactions relating to the Companies Register occur via intermediaries and through third-party software (between 70 and 80%).

Delivering services including APIs that support DSPs and intermediaries to engage and interact with registry services is critical in achieving the MBR Program's objectives.

Migration of data to the new system will be complicated and represents a major risk to government and industry. To minimise the transition risk to the new registry services, the MBR Program needs to quickly establish certainty regarding future service arrangements including schema definition and pricing. Insufficient lead-time for DSPs and other consumers of wholesale services may limit industry readiness for the changes and could create material transition risk that may undermine the success of the MBR Program and the realisation of benefits.

Consequential adjustments

There is an external dependency on resolution of registry fee arrangements (refer to Recommendation 5 – *Commit to final, agreed tranche of law change to support delivery of the Companies Register and then design and build to the law for the companies release* in the consequential adjustments section).

Considerations

N/A

R19

Maintain target architecture with strengthened guardrails against Verne

Whilst the MBR Program continues to face challenges resulting from current technology choices, the Program is now at a point where the impacts of pivoting to a new technology approach will likely outweigh the benefits.

19.1

Verne should be maintained as the core of the new Companies Register system.

19.2

The MBR Program should explore opportunities to work with Foster Moore to accelerate required product enhancement.

Rationale

The program has worked through most of the complexity associated with using Verne to deliver the Companies Register and the integration required with ATO systems.

A departure away from Verne would be a fundamental change to the solution architecture and would result in significant rework to implement alternate technology choices.

Foster Moore is continuing to invest in delivering new functionality and features as a part of Verne's product roadmap to meet the needs of Australia's registry requirements.

Design and delivery teams have built some foundational capability in using the product and velocity and productivity is continuing to improve.

Consequential adjustments

N/A

Considerations

N/A

Where to from here: Options for the government

The Review has identified 5, high-level options for government:

Figure 3: Options for government

This section describes the elements of each of these options, the rationale for adopting it, estimated cost, program benefits that would be realised and likely timing and relative level of uncertainty of delivery.

The cost estimates described in this section are indicative and are for the purposes of supporting the analysis of each option (they have not been agreed by the Department of Finance). Where available, inputs have been drawn from documentation and advice provided by MBR Program agencies to the Review.

Detailed information can be found at *Appendix 4 Analysis of MBR Costing and Options* for all options except for Option 4.

Option 1: Stop – Stabilise

Notwithstanding the significant investment to date, government still has the option of stopping the program altogether.

Description/Scope

Under this option, the MBR Program would cease. Current registers would continue to be managed using existing infrastructure and capabilities without any modernisation. Companies, Business Names and the professional and historical registers would remain with ASIC and the data would not be integrated with the ABRS. Business Registration Services [3] and ABN Lookup, hosted by DISR on business.gov.au, would be retained. The ABR and Director ID would continue to be managed by the ABRS (in the ATO), with the Director ID being the only service hosted on the MBR platform. Several contracts would also need to be closed out.

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[3]   Business Registration Services may require additional sustainment under this option, or the service may need to transition to another agency.

Government would then be faced with the need to address the urgent and unavoidable challenges being addressed by the MBR Program, particularly the need to have an enduring solution to sustain ASIC's aged registry systems. ASIC's registry systems are already exposing ASIC to significant levels of cyber risk and sustaining these systems for even longer would only continue to elevate this risk.

There would also be a need to "reverse" the legislative and MoG changes associated with the MBR Program and re-establish a registry workforce within ASIC. This is not a simple undertaking, as ASIC transferred its registry workforce to the ABRS in April 2021 and has not maintained the requisite knowledge or capacity to operate the registers.

Rationale

Despite the well-known doctrine that sunk costs should not affect project decisions, in practice, decision makers are often reluctant to discontinue projects that are off-track – resulting in small mistakes becoming large ones and larger mistakes becoming disasters. Under this lowest cost option, government would have the opportunity to rule a line under the MBR Program on the basis that the estimated cost to complete the project is significantly higher than originally expected and no longer represents a sound investment for taxpayers.

Cost

Despite being the lowest-cost option, significant costs of between $375 million and $450 million are still expected under this option. The primary driver of this cost is associated with the critical stabilisation and some re-platforming of ASIC's registry systems and ABR services (between $280 and $300 million).

The other key driver of this cost relates to unwinding the program (including the cost of closing out existing MBR Program contracts   ), significant transition costs   associated with the reversal of the transfer of the registry function from ASIC to ATO, particularly on ASIC, which would be difficult to absorb from existing operational funding). It should be noted that this estimate does not include an estimate of any loss of expected revenue from the Director ID system not being linked to registers. [4]

There would also be additional program contingency and consequential costs ($54 million). [5]

This option is likely to see an increase in ongoing sustainment costs as older, outdated versions of software become costly to support and maintain over time. The implementation of policy changes, including requirements for new registers, will also be challenging as the critical skills and capabilities required to configure changes in the existing system continue to exit the workforce.

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[4] If the least–cost mechanism linking Director ID to the Companies Register is less than the foregone revenue from not linking, then it would be brought within scope and included in this cost.

[5] These costs reflect the consistent assumption across options that a decision would be taken in MYEFO and take effect from 1 January 2024. Should a decision to stop the program be made earlier then some of these costs would be lower.

Table 3: Option 1 costing components

Component	Additional Cost	Sub-Total
Stabilisation and re-platforming of legacy systems		**$294m**
Registry Stabilisation and Cyber Protection	$115m	
Professional Registry System	$105m	
Re-platforming of Business names registry	$32m	
Other ASIC re platforming	$5m	
Re-platforming ABR Services	$17m	
ASIC program Delivery	$12m	
Registry operating environment	$6m	
Program Wind Down Assurance	$1m	
ASIC Program Assurance (rounded)	$1m	
Costs of unwinding MBR Program		**$63m**
Termination of contracts	▓	
Staff transfer costs	▓	
Reversal of MoG (including removal of IT and Telephony Fit Out)	▓	
Unwinding legislative changes	▓	
Consequential Costs/Contingency		**$54m**
Total		**$410m**

Explanatory notes:
*Total figures of costing may not add due to rounding.

Considerations/Benefits Achieved

- Benefits realised under Option 1 would be limited to the stabilisation of legacy systems and the associated increased availability of registry services and the benefits achieved from the introduction of the Director ID regime. None of the other core benefits of the SPBC would be realised under this option. There would be no uplift in data integrity and no improvement in the user experience when interacting with registers. In addition, while a key driver of the MoG for the MBR Program was shifting ASIC out of the registry business so it could focus on regulatory responsibilities, under Option 1 ASIC would continue to be in the registry business for the foreseeable future.

- ASIC may pursue some uplifts, including the introduction of authentication requirements. However that would be considered out of scope (and therefore not costed) under this option.

- A lot of expert knowledge of ASIC's registry systems transferred with the registry workforce to the ABRS in April 2021 (or transitioned to other roles). Sufficient funding and resourcing would need to be provided to ASIC to rebuild registry capability and knowledge, and this exercise may

take some time. This will be partially mitigated by the return of skilled registry workforce to ASIC from ATO under the reversed MoG.

- It should be noted that, although recommended as part of this option, the cost and effort to migrate registry operational responsibilities from the ABRS back to ASIC is significant. As an alternate option, the government could consider the relative merits of leaving these responsibilities with the ABRS (within the ATO) and making iterative improvements to enhance the effectiveness and sustainability of this operating model (over the longer-term).

- Some services and service standards that return to ASIC may have degraded since April 2021 in anticipation of modernised registry services being available through the new system.

- ASIC would need to establish the required infrastructure to support registry service delivery.

- Re-establishing the registry function within ASIC may become a distraction for ASIC in pursuing other strategic goals. This means the administrative burden of governing and administering the registry system will likely come at the expense of pursuing strategic regulatory priorities.

- The change impact to the registry ecosystem under this option is lower than the other options.

Timing and Uncertainty of delivery

The different elements of this option would happen over different time periods. Unwinding the MBR Program would commence relatively quickly, with the cancellation of contracts and re-assignment of staff to other duties is expected to be completed within 3 to 6 months. Legislative changes are expected to take longer, reflecting the complexity of required amendments. The further stabilising ASIC's systems, including re-platforming and critical software upgrades would be expected to take several years to implement. Rebuilding the registry workforce and expertise will also take some time and this should not be underestimated.

Option 2: Proceed – Full scope

Notwithstanding the significant (higher than all other options) investment required to complete the MBR Program, government still has the option of completing the full scope of the program as planned.

Description/Scope

Under this option, the full scope of the MBR Program would be delivered as planned. This would mean continuing with the design and delivery of all the registers in scope and the transition of registry services to the ABRS. This includes new scope added to the MBR Program after the SPBC (registers for the CCIVs and ARFP as well as implementing changes to the Financial Advisers Register). Where delivery plans are not aligned to existing legislation or existing government decisions, the implementation of the program's proposed approach would require further policy approval. [6]

ABRS would:

• transition Companies, Business Names Registers and the ABR to the new platform

• deliver the capability to link Director ID information with companies

• deliver the business inbox functionality

• deliver integrated search functionality including information in professional registers, provide all registry data and information services and be the government's public-facing retail offer

• establish and maintain Individual Registry Records (IRRs).

This option means that agents, intermediaries and DSPs accessing registry services would engage with ABRS rather than ASIC.

ASIC would continue to deliver lifecycle services for professional registers, although these services would be made available through the OneASIC platform (as they are currently hosted in systems that will be decommissioned).

The ABN Lookup service and ASIC's search functionality would be retired [7] and the Business Registration Services currently hosted by DISR would be decommissioned. Historical registers would be archived but would still be accessible through data.gov.au.

ASIC would continue to retain full, free access in near real time to all data, including lodgements contained in Companies and Business Names Registers.

Rationale

The rationale for continuing with the full scope of the MBR Program would be that the benefits of the MBR Program would continue to outweigh its cost.

Cost

This is the highest cost option, requiring an additional costs of between $1.8 billion and $2.2 billion for completion. This is higher than the recent estimates MBR Program agencies provided. An

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6   This includes whether ABRS should deliver stage 2 of the changes to the Financial Advisors regime & the register to support ARFP. CCIVs are already in scope for delivery using the new system.

7   Subject to resolution of the interoperability between ABRS and existing ASIC search functions.

additional $1.6 billion would be required to complete the program and is a reflection on the drivers (outlined earlier in the Report) behind the increased cost of the program to date. It should be noted that this Review has identified several gaps with this estimate, including the need for contingency to reflect ongoing uncertainty ($263 million), a revised productivity assumption ($110 million), removal of the efficiency dividend [8] from agency estimates ($31 million), updated wage growth assumptions ($28 million) and added cost for ATO to respond to change control requests including the provision of timely information to ASIC ($20 million).

Table 4: Option 2 costing components

Components	Current	Additional	Total
MBR Agency Estimates	**$578m**	**$1,577m**	
Add			
Removal of Efficiency Dividend[8]		$31m	
Adjustment to Productivity Assumption		$110m	
Adjustment to Wage Growth Assumption		$28m	
Addition of Contingency for Risk		$263m	
Escalation alignment		$4m	
Policy and legislation		$17m	
Total	**$578m**	**$2,030m** ($1,800-$2,200m)	**$2,608m** ($2,378-$2,778m)

Explanatory notes:
*Figures in brackets are provided to indicate the estimated low and high-cost range

As Option 2 is the most complete in terms of scope compared to the SPBC, Table 5 shows the shift in estimated costs by key deliverable, noting that scope has been added to the program since the SPBC was approved.

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8   Costings are indicative and have not been agreed with the Department of Finance.

Table 5: SPBC and Option 2 comparison

Component	SPBC costings	Option 2 June 2023 revised costings (+/- 10%)
Director ID (finalised)	$69m	$55m
Decommissioning	$6m	$7m ($6-$8m)
ASIC Registry Stabilisation	$15.5m	$67m ($60-$73m)
Program fixed costs (Establishment, enabling, governance, assurance, and business support)	$129m	$475m ($427-$522m)
Non-company ABR	$51m	$214m ($193 –$236m)
Business Names Register	$47m	$243m ($218-$367m)
Companies Register	$128m	$1,000m ($908 – $1,110m)
Professional and Historic Registers	$35m	$285m ($257-$314m)
Contingency (June 2023 costings only)		$263m
Total	**$480.5m**	**$2,608m** **($2,378 –$2,778m)**

Explanatory notes:
*Total figures of costing may not add due to rounding.

Considerations/Benefits Achieved

Option 2 would realise the benefits envisaged in the SPBC in full. There would be a significant uplift in data integrity, with the ABRS establishing a single source of reliable, trusted and accessible business data that would foster economic activity and mitigate economic losses for businesses by enhancing counterparty trust.

There would also be a significant improvement in experience of users interacting with registers, with improved service delivery and reduced complexity for business. A more efficient registry service would increase reliability of registry systems and fully address ASIC's registry system risk.

This option provides the platform for future policy reforms to be implemented at a relatively lower cost as the MBR Program will deliver the underlying architecture and a suite of services that can be reused or adapted to meet emerging policy requirements. Having to deal with only one registry agency also means that there are fewer interfaces for government to manage when implementing changes to business registration obligations.

This option includes providing a suite of wholesale services to DSPs and making available an end-to-end testing environment (which does not currently exist for registry services) that will modernise the experience for DSPs and through them, enhance the experience of end users including intermediaries.

There may also be stakeholders, including intermediaries and DSPs, that hold a view that there may be little additional value unlocked by the modernised system, relative to the additional investment they would need to make. Many DSPs and intermediaries have made significant investments in the current system to ensure their products are fit for purpose and deliver the required business value. This cohort would be required to make new or additional investments to interact with the new services.

The significant increase in costs to complete the MBR Program (approximately $2 billion additional investment required) means the cost-benefit analysis underpinning the SPBC is no longer valid, particularly if there are alternate pathways available to achieve the program's core objectives.

Under this option, legislative change will be required to signal a new automatic commencement date for the transfer of the Business Names Register to the Registrar.

Timing and Uncertainty of delivery

Under this option, the MBR Program would deliver the companies release from March 2026 with an ABRS Agents release, through to November 2026 when the core Companies Register would be deployed together with the new business inbox. The Business Names Register, names determination functionality and the remainder of the ABR would then be delivered in November 2028. Delivery and data integration activities would continue through to March 2029, with decommissioning and closure activities then progressing until November 2029, when the program would close.

This option is inherently risky, given the associated scale, scope and complexity. Notwithstanding the full implementation of recommended mitigation measures, significant residual risks and uncertainty would remain that may result in further cost increases or delays.

Option 3: Proceed – Narrow to companies only

This option would continue with the MBR Program in a significantly modified form, with the objective of reducing cost, complexity and risk, while increasing confidence around the timely delivery of core benefits.

Description/Scope

Under this option, the MBR Program would only commit to delivering the Companies Register (including Company ABNs, Company Names Determination and all the associated company-related registers, including Reserved Company Names and CCIVs). Government would also commit to progress a final tranche of law changes agreed by agencies as critical to support the delivery of the Companies Register and the MBR Program would then design and build to those requirements. Importantly, government would also agree to lock the scope of the MBR Program until completion, using interim solutions or alternate pathways to implement policy changes while the MBR Program focuses on delivering the Companies Register.

The MBR Program would focus on achieving the core benefits of a high-quality and high-availability business data spine. ASIC would deliver the Professional registers independently of the MBR Program. Continuing the MBR Program to deliver the remaining Business Registers would be a subsequent decision for government, informed by the experience of implementing the Companies

Register. Government would provide seed funding to examine law reform opportunities to reduce risk and complexity ahead of future decisions for Business Names Register and the ABR.

The integrity of registry data would be progressively uplifted where possible without disrupting the critical path for delivery. The ABRS would provide ASIC with timely access to the company and business data needed to perform its regulatory function and ensure design prioritises the development and delivery of wholesale services.

This option does not integrate professional register data with data held in the ABRS system. This means that search capabilities may not be fully integrated. The IRR would only extend across the Core Business Registers as they are delivered, beginning with the Companies Register.

This option would maintain the target architecture. However, several adjustments to governance and management arrangements will be required to maximise the MBR Program's chances of achieving success.

MBR Program leadership would be focused on strategic decisions and ensure decision-making accountabilities are clear. A top-down critical path would be developed to deliver the Companies Register and used to inform key governance conversations. A master status report would be established focusing on critical path progress, forecast delivery date and program costs. Feedback loops would be implemented on the effectiveness of governance forums. The appointment and reporting line for the program's independent assurer would be managed by DTA.

Adjustments would also be required to the MBR Program's organisational structure to deliver the revised scope of under this option with efficacy. This would include the development and implementation of a strategic workforce plan and revisiting team level structures, capability requirements and tooling to enhance productivity of build and release teams. The revised scope would also provide the opportunity to revisit the use of vendors to support the program.

Rationale

This option would deliver many, but not all, of the benefits of the MBR Program with reduced cost, complexity and risk. With clear decision points required prior to entering the next stage, delivery confidence should increase as the scope of the investment would be narrower and informed by a well-defined plan for delivery. Government would still have the option of continuing to complete the full scope (as described under Option 1) of the MBR Program without having to make that full commitment upfront.

Cost

Option 3 is expected to cost between $727 million and $882 million less than Option 2. This reflects the reduced scope and reduced risk of this option.

A significant additional investment of between $1,148 million and $1,303 million would still be required under Option 3. This is for the period of 2025 financial year to the 2029 financial year and includes consequential costs of $180 million, costs that reflect the scope and complexity to complete the Companies Register (between $968 million and $1.1 million), the delivery of professional registers and other work out of scope by ASIC (approximately $158 million) and $5 million in costs for ATO's data consistency efforts.

Table 6 shows the indicative cost estimates to deliver each tranche, relative to the SPBC, noting this option narrows the focus to delivering the Companies Register and the professional and historic registers only. Under this option, there are no additional costs associated with the non-company aspects of the ABR, however there are costs associated with the Business Names Register to preserve the critical link with the Companies Register.

Table 6: SPBC and Option 3 comparison

Component	SPBC costings	Option 3 June 2023 revised costings (+/- 10%)
Director ID number (finalised)	$69m	$55m
Decommissioning	$6m	$2m ($1-$3m)
ASIC Registry Stabilisation	$15.5m	$110m ($99 –$121m)
Program fixed costs (Establishment, enabling, governance, assurance, and business support)	$129m	$355m ($320-$391m)
Non-company ABR	$51m	-
Business Names Register	$47m	$52m ($47-$57m)
Companies Register	$128m	$977m ($874 –$1,068m)
Professional and Historic Registers	$35m	$111m ($100 –$122m)
Contingency (June 2023 costings only)		$142m ($130-$154m)
Total	**$480.5m**	**$1,804m ($1,726 –$1,881m)**

Explanatory notes:
*Total figures of costing may not add due to rounding.
*In the SPBC, contingency was applied to each deliverable. In June 2023 revised costings, contingencies were calculated and presented separately.
*June 2023 revised costings include the $578m funding to date. Approximately $150m of unspent funding as of March 2023 is allocated to the Companies Register
*Further cost details are provided in Appendix 4: Analysis of MBR Costing and Options

Considerations/Benefits Achieved

Option 3 would focus on enabling the realisation of key benefits associated with the business data spine largely through an uplift in data integrity and making registry data more reliable and accessible. Transitioning the Companies Register to the new system would unlock opportunities in the future as there would be greater agility and responsiveness going forward to implement policy changes in the new system. The shift away from existing, forms-based transactions and towards digital services will establish patterns that can be reused to support further registry-related reforms.

Option 3 would also seek to mitigate ASIC's registry system risks. Some investment is required as the delivery timeframes for the Companies Register would leave little time to deliver the Business Names

Register and complete all the work required to fully mitigate ASIC's registry system risks. Some components will require re-platforming as they have already been extended beyond end of life and sustaining these components is becoming increasingly challenging and costly.

While Option 3 does not achieve the full range of benefits envisaged in the SPBC, it does take a significant step towards the desired future state and preserves options for the government to continue with full modernisation later.

Timing and Uncertainty of delivery

Under Option 3, the Companies Register is expected to be completed in a similar timeframe as Option 2 (around March 2026), with core company cutover in November 2026. The combination of the reduced scope of the MBR Program, the narrowed focus on delivering the Companies Register and certainty of law change should reduce ambiguity for design and delivery teams. Moving forward with a single workstream and the realizing the productivity benefits of a stable implementation plan are expected to broadly offset the impact of not scaling up program staffing.

Option 3 is designed to address the challenges currently faced by the MBR Program, with several recommendations to reduce the scale, scope and complexity of the program. However, there would still be significant risks (albeit less than under Option 2) to delivery of the MBR Program and these would need to be closely managed.

Option 4: Stop – Revisit transformation options

Description/Scope

Under Option 4, the MBR Program in its current form would be stopped, reset and restarted in a new, stand alone, dedicated agency with a revised approach to implementation. This would include conferring all the functions and powers of the Registrar of the ABRS to the new Registrar.

Rationale

Resetting the MBR Program afresh in a new stand-alone agency would open the possibility of a range of new approaches to be explored, unencumbered by the need to integrate with existing agency systems. It has the potential to provide increased policy flexibility and responsiveness once fully implemented and provides the opportunity to learn from the challenges and complexities that have severely impacted the MBR Program. A separate, standalone registry agency would reduce the number of registry organisations needed to implement policy changes. This model is like the one used in the United Kingdom through its Companies House.

Cost

There is too much uncertainty to provide an indicative cost estimate for Option 4. On the one hand, this option seeks to achieve the full objectives of the MBR Program (as per Option 2) without the benefit of the work the MBR Program has done to date. On the other hand, it is possible that the flexibility of implementing the program afresh through a small, stand-alone agency would identify opportunities to more efficiently deliver the MBR Program.

The costs to establish a new agency, including all the enabling infrastructure required to administer the Core Business Registers should not be underestimated.

Considerations/Benefits Achieved

The starting point for Option 4 would be to realise the benefits envisaged in the SPBC in full. It would also allow ATO and ASIC to remove themselves from the registry business and focus on their core functions. The reset of the MBR Program under this option could also include a re-evaluation of the balance between the costs of providing each of the elements under the program and the resultant benefits.

Timing and Uncertainty of delivery

Option 4 would inevitably result in a significant delay in program implementation. In addition to challenges of starting implementation afresh, it could be expected to take around 2 years for a new stand-alone registry agency to be fully functional. It is likely that this option would be subject to the requirements of the WofG Digital and ICT Investment Oversight Framework and consequently may need to develop first and second pass business cases. With the MBR Program, it took approximately 2 years from the announcement of the program through to submitting the SPBC in December 2018. This option would also have the highest level of uncertainty around delivery as the approach that would be taken to implementation is not yet known.

Option 5: Stop – Stabilise and targeted uplift

Description/Scope

Under Option 5, the MBR Program in its current form would be stopped. Responsibility for Core Business Registers (that ASIC used to administer) would be returned to ASIC in a new division. This function would need to be adequately resourced to rebuild the registry expertise that lost following the MoG of April 2021.

The new division within ASIC should be established in a way that would allow for it to be transitioned out in the future if necessary. Transitioning out of ASIC should only occur once ASIC is satisfied that its ongoing requirements for registry data will be met. Option 5 expands the scope of Option 1. The noticeable difference includes a targeted modernisation of ASIC's registry systems that aims to maximise economic benefits of having an enhanced registry system.

Option 5 assumes Director ID numbers and company information will be linked so that the full range of benefits flowing from the introduction of the Director ID regime can be enabled. This option also

assumes that ASIC will introduce authentication requirements for the people and businesses that transact with ASIC.

Should both assumptions hold true, then it is possible that a large portion of the benefits related to increased data integrity and quality could be realised.

The ATO would continue to administer the ABR and the Director ID regime.

There would be work required to unwind the MoG and progress any legislative changes required to support this option, including providing ASIC with powers equivalent to those currently held by the Registrar.

Rationale

Option 5 places the responsibility for the Companies, Business Names, professional and historical registers back into ASIC's structure. This will help to ensure that as ASIC continues to transition components of its regulatory system to the OneASIC platform, the boundaries between the regulatory and registry continue to be untangled so that the regulatory and registry systems are separable at some time in the future. ASIC is ideally positioned to ensure that the interfaces between the regulatory and registry systems are maintained during the transition period.

Returning program delivery to ASIC should enable greater confidence that regulatory needs will be fully met, which helps to create greater certainty and clarity of requirements during the design and delivery phase. Option 5 offers the prospect of delivering most of the key business data integrity benefits of the MBR Program at substantially lower cost, with less complexity and uncertainty in delivery than Options 2 or 3.

Cost

The targeted uplift under Option 5 would cost $105 million more than Option 1, bringing the total cost to approximately $515 million [9]. The increase is a reflection of the costs of system uplifts to improve data integrity.

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[9] As with Option 1, these costs reflect the consistent assumption across options that a decision would be taken in MYEFO and take effect from 1 January 2024. Should a decision to stop the program be made earlier then some of these costs would be lower. These costs exclude establishing a separate business unit within ASIC in a way that would allow for it to be transitioned out in the future.

Table 7: Costing reconciliation of Options 1 and 5

Component	Additional	Total Cost
Option 1		**$410m**
Add		
Director ID Linkage	$26m	
Authentication	$20m	
Additional ASIC's program activities for Option 5 (including Business Names and Professional registers)	$12m	
Data Exchange mechanism	$7m	
Companies' regulatory transactions	$12m	
Ongoing modernisation of ABR	$5m	
Continuous improvement	$10m	
Decommissioning	$2m	
Additional Contingency	$11m	
Subtotal	**$105m**	
Total		**$515m**

Considerations/Benefits Achieved

Option 5 would achieve a targeted uplift in data integrity of the company register system. While difficult to quantify, this is arguably the greatest broader economic benefit of the MBR Program.

While Option 5 would also achieve stabilisation of legacy systems and the benefits achieved from the introduction of the Director ID regime (as with Option 1), there would be minimal improvement in experience of users interacting with registers. ASIC legacy systems do not easily integrate with the new technologies used to deliver improved digital outcomes to stakeholders.

Like Option 1, Option 5 would involve moving ASIC back into the registry business (which is inconsistent with the key driver of the MoG that shifted ASIC out of the registry business for the purpose of focusing on regulatory responsibilities). However, under this option the structure of having a separate division within ASIC would provide a pathway for ASIC to exit the registry business in the future. In line with this, it is likely that the new function within ASIC would require some time to rebuild the registry expertise to support the ongoing administration of the system.

It should be noted that, although recommended as part of this option, the cost and effort to migrate registry operations responsibilities from the ABRS back to ASIC is significant. As an alternate option, the government could leave ABRS responsibilities within ATO and iteratively improve the effectiveness and sustainability of this operating model (over the longer-term).

Some of the services and associated service standards that transitioned to the ABRS may be degraded in anticipation of modernised registry services being delivered through the new system.

Under this option, ASIC would require adequate time to undertake a strategic planning and scoping exercise to identify an appropriately balanced plan that considers the various risks and other

initiatives that ASIC may also be progressing in parallel. At a minimum, agreeing to Option 5 will require an uplift in ASIC's critical technology and systems.

Timing and Uncertainty of delivery

As implementation would be on ASIC's existing legacy platform, it should occur under a progressive rather than "waterfall" approach. While many of the factors that lead to uncertainty under the MBR Program would no longer present, other risk factors would be looming and the distribution of risk may be uneven. For example, building increased functionality onto ASIC's legacy systems represents significant cost and risks. Introducing a new regime or register using legacy systems would heighten risks that already exist on the systems. The timing of delivery under this option is also dependent on ASIC's ability to rebuild registry expertise.

Comparison of options

Figure 5 below compares the key points of the 5 options for government. There are differences in scope under each option including the implications for delivery timeframes, potential for benefits realisation, the associated risk and indicative forecast costs to deliver.

Figure 5 Options comparison

OPTION	Costs	Data integrity benefits	Improvement in user experience	Delivery confidence
1. Stop – Stabilise	$375 – $450m	Minimal	NIL	High
2. Proceed – Full scope	$2.4 – $2.8b	Met	Met	Low
3. Proceed – Narrow to companies only	$1.7 – $1.9b	Progressively met (companies first)	Progressively met (companies first)	Medium-low
4. Stop – Revisit transformation	Unquantifiable	Met	Full transformation alternate organisation	Medium
5. Stop – Stabilise and targeted uplift	$475 – $550m	Largely met for companies	Limited	Medium-high

Costs/Finances

The additional investment required from government across the 5 options could range between $375 million and $450 million under Option 1 (stopping the MBR Program and stabilising ASIC's registry systems) and between $1.8 billion and $2.2 billion under Option 2 (delivering the full scope of the MBR Program as planned). While Option 4 is a viable long-term option, this Review has not sought to estimate the costs for the option. The effort and cost associated with establishing a new registry agency with should not be underestimated.

Option 1 presents the lowest financial risk, that is, where the costs are least likely to vary significantly from the indicative range contained in this Report. However, there may be a need to further bolster ASIC's registry systems and expertise to maintain these systems on an ongoing basis, particularly as more applications continue to age and become unsupported.

Option 5 contains the next lowest financial risk, relating mainly to the targeted investment which will need to be worked through in greater detail to validate the scope, associated costs and risks.

Options 2 and 3 have a reasonable degree of confidence in relation to the forecast costs for delivery of the Companies Register and the professional registers, however design activities for all remaining in-scope registers are not as advanced and therefore carry a risk that the costs will increase.

Under Option 3, the cost estimates to bring forward the Companies Names Determination functionality and the Reserved Company Names Register will require further validation as this was not included in the initial release of Companies Register functionality.

Analysis of the estimates of Option 2 indicate that the Companies Register and the professional and historic registers (the only registers that have undertaken more detailed design and planning activities) are now estimated to cost over 8 times the estimated costs that were presented in the SPBC.

It seems likely that the remaining registers (which are estimated to cost between 3 to 5 times the estimates in the SPBC (Table 1 of this report)), will increase costs as detailed design and planning activities are undertaken. To some degree, this is reflected in the contingency (or risk) that has been incorporated into the estimates, with Options 2 and 3 containing the highest contingency by percentage when compared to Options 1 and 5.

Business risks

Each option presents a different set of business risks for consideration beyond the complexity associated with design and implementation.

Option 1 requires ASIC to undertake organisational design activities to reintegrate the registry workforce. The transition of ABRS registry staff back to ASIC would partially mitigate the loss of registry expertise in ASIC. Time would be required to stabilise the registry workforce and provide support for the delivery of registry services including fit-for-purpose accommodation, network infrastructure and a client contact centre to support enquiries management. Some of this enabling infrastructure would transfer to ASIC as part of a MoG but consideration would be required to ensure alignment with ASIC's operating environment.

Option 5 has similar business risks to Option 1. Additional consideration is needed to decide how ASIC would design a new division so registry services can be transitioned in the future. This may have

implications for medium to long term accommodation requirements and whether a distributed or decentralised model for registry service delivery may be more aligned with ASIC's strategic direction.

Continuing with the migration of the professional registers to the OneASIC system will help to identify the interfaces between regulatory and registry processes, so that any future endeavour to modernise ASIC's registers can benefit from this work and be provided with a clearer definition.

Options 1 and 5 also remove some of the limiting factors preventing the MBR Program from progressing. For example, the need to integrate with ATO systems and then provide sufficient insulation between registry systems and the taxation and superannuation systems would not be required (which will continue under Options 2 and 3).

ASIC's existing registry system has increased stability and availability since MBR Program entered the implementation phase. This resulted from progressively migrating professional registers and investment in stabilisation. While work may still be required to bring the applications up to date with software versions, the capacity of the underlying infrastructure should be able to meet demand over the next 5 years. It is worth noting that the current investment in stabilising ASIC's registry systems should see it sustained through to June 2028.

The ABRS (ATO) would continue to administer the ABR and the Director ID regime under all options, noting that Option 4 would consider the viability of moving the Core Business Registers into a new agency.

There would be some necessary law change to revert to pre-MBR arrangements and the existing delegation model will need to be sustained until such time as the path forward is clear. There is also a risk that service standards will continue to degrade during this time.

Options 2 and 3 seek to continue with the MBR Program to varying degrees and both options would progressively mitigate the business risks mentioned above under Options 1 and 5.

Modernisations

The MBR Program encompasses modernisation across multiple domains including policy, law, business process reengineering, service delivery and technology.

It was envisaged that a suite of new, contemporary digital services would be delivered using modern technology. This arose after completion of a significant activity that examine opportunities to streamline and re-engineer registry business processes. These services would then be used to deliver registry services including services required for completing business registration obligations as well as a range of data provisioning and information services.

Under Option 2, most of the modernisations envisaged from the SPBC are preserved, although the extent to which they are achieved is subject to considerations such as the amount of law change that might progress. Option 3 is similar, although the lack of data integration between the professional registers and the ABRS system is a point of difference when compared with Option 2. However, it is worth noting that under Option 3, regulators will be able to access the data required to inform regulatory activities, despite the lack of data integration.

Option 1 offers the least amount of modernisation, limited to applications that may undergo some minor enhancement as a result of the need to re-platform these applications. As business process re-engineering would not be undertaken, there would little, if any, modernisation.

Option 5 offers the opportunity to pursue some modernisation through targeted investments in combination with the investment required under Option 1. With the right investment choices, this could deliver a substantial uplift and may strike an appropriate balance between the size of the investment required and the value that is delivered.

Benefits alignment

As described earlier in this Report, the MBR Program set out to modernise Australia's business registers that are critical economic infrastructure that provide the foundations for starting and operating businesses and companies and licensing participants in key sectors of the Australian economy. In addition to delivering a range of contemporary digital services that would streamline and enhance the experience of those interacting with registry services, the MBR Program's business case emphasised the importance of uplifting the integrity and availability of the data that is in the registers, so that it can be used by governments, business, and individuals to inform policy and business decisions and to facilitate counterparty trust.

It was thought the uplift in data integrity and reliability delivered by the MBR Program could be leveraged and used in concert with other measures to achieve broader economic outcomes. The phoenix compliance program that runs in parallel to the MBR Program and leverages Director ID data to inform more targeted responses to fraud and business misconduct matters is an example of how other initiatives can leverage from the new services delivered by the MBR Program to achieve broader outcomes.

A range of new and additional capabilities have been delivered and operationalised since the MBR Program's SPBC was considered. This includes the myGovID service which provides individuals with a Digital Identity that makes it easier for individuals to prove who they are when they are transacting online. MyGovID was a critical enabling service for the introduction of the Director ID regime, which is a new service delivered by the MBR Program. Director ID will help with the integrity of data in the Companies Register by filtering out fictitious characters over time and allow regulators to better understand the various business roles and relationships that exist between individuals and different entities.

Given the availability of myGovID service and the introduction of the Director ID regime, there are options available today for the government that were not available in 2018 (when the business case was being developed). This means the core objective of uplifting the integrity of the data held in the Core Business Registers can now be achieved using alternate approaches. The critical dependency on the ABRS that existed when the SPBC was under development no longer exists.

Conclusion

The terms of reference of this Review asked it to provide a comprehensive understanding of the current state of the MBR Program and recommendations on how to best position the MBR Program to achieve its intended objectives.

The Review has found the program would require a further investment of $2 billion to complete. This brings the total program cost to over $2.6 billion and represents more than 5 times the original estimate ($480.5 million) provided in the SPBC.

The extent of this cost overrun reflects a combination of factors, including:

• 	a significant underestimation of program complexity in the SPBC

• 	issues with the program design and delivery approach

• 	material increase in the use and cost of vendors

• 	the elongation of the MBR Program timelines

• 	external factors such as COVID-19.

More broadly, the experience with the MBR Program highlights the inherent risks in undertaking large, complex, monolithic digital and ICT projects, and a need for government to evolve its approach to investment, mobilisation, capability, and delivery of value from digital and ICT investments.

The Review focused on mapping out the best way forward for the MBR Program. However, even with 19 recommendations to narrow scope to the Companies Register, focus design, and improve execution and governance and assurance, significant additional investment (approximately $1.1 billion to $1.3 billion) would still be required. This would put the total program cost at approximately $1.8 billion, or nearly 4 times the costs estimated in the SPBC without delivering the full range of anticipated benefits.

To put this into perspective, the investment in the Welfare Payment Infrastructure Transformation program over 7 years from 2015 through to 2022 was over $1.5 billion and involved a complete redevelopment of the welfare payment system used to calculate and make over $110 billion in payments to approximately 6 million Australians each year. Another similar-sized investment was the My Health Record system, which received over $1.5 billion in funding and ran from 2012 through to 2020.

The review concludes that the economic benefits from the program do not justify further expenditure of this magnitude, and that the MBR Program should be stopped.

It is recognised that it can be difficult to cease a program with significant sunk expenditure and limited useable outcomes to date, however this review concludes that this is the responsible and best available option for government.

The Review recommends Review recommends the return of registry functions to a new division in ASIC. This will require a targeted investment of approximately $105 million to uplift data integrity and quality and approximately $410 million to stabilise legacy systems and meet the costs of ceasing the MBR Program. This will enable government to address most of the key risks associated with the Registry services and progress the strengthening of registry integrity, whilst removing the need to

commit more than double this amount in taxpayer funds with tenuous justification. Should government adopt this recommendation, the decision to cease the MBR Program should be made quickly to limit further expenditure on the significant MBR Program overheads and expenses of approximately $12 million per month.

Appendices

Appendix 1 Terms of Reference

July 2023

Terms of Reference

The Review of the MBR Program is designed to ensure investment in this core national economic infrastructure is delivered within a reasonable timeframe and budget.

The Review will provide a comprehensive understanding of the current state of the program by:

- assessing the expenditure to date including drivers contributing to cost increases

- measuring what has been delivered and work remaining to achieve the objectives of the program

- identifying key aspects that present significant risks, including to the successful delivery of the program's objectives, cost and delivery schedule

- validating current estimated costs and underlying assumptions

- evaluating governance and management practices.

It will provide recommendations on how to best position the program to achieve its intended objectives, including:

- improvements or changes to information technology solutions

- improvements or alternative approaches to design and delivery that will reduce cost, accelerate delivery and/or improve governance and management of the program

- strategies to mitigate significant risks to the successful delivery of the program's objectives, cost and delivery schedule.

Appendix 2 Review interviews, workshops & program artefacts

July 2023

MBR Program artefacts

More than 400 individual program documents and artefacts were provided to the Review Team. This included the program's business cases, management plans and a wide range of reports including governance documents; status and financial reports; technical system documents; design artefacts and procurement documentation. A number of written submissions were also received.

Stakeholder interviews and forums

The Review Team conducted over 60 interviews and workshops and attended multiple forums (as observers) to gain as many perspectives of the MBR Program as possible.

Australian Taxation Office – roles interviewed
Deputy Commissioner and Senior Accountable Officer
Assistant Commissioner, MBR Technical Design
Assistant Commissioner, MBR Pipeline and Delivery
ATO Assistant Commissioner, MBR Program Delivery and Integration
Deputy Commissioner, Australian Business Registry Services (ABRS)
Assistant Commissioner, ABRS Strategy, Governance & Change Integration
Second Commissioner, Chief Information Officer and ATO MBR Program Sponsor
Chief Service Delivery Officer
Assistant Commissioner, MBR Government Submissions and Reviews
Assistant Commissioner, Finance Service Delivery
Second Commissioner, Client Engagement Group
Commissioner of Taxation and Registrar Australian Business Registry Services
Assistant Commissioner, MBR Change Readiness and Future Design
MBR system designers
Delivery Lead, MBR Delivery and Integration
MBR API and User Interface team
Chief Finance Officer
Assistant Commissioner, MBR Governance and Program Management
MBR Developers
ATO Phoenix Compliance team

Australian Securities and Investments Commission – roles interviewed
Chair and Accountable Authority
Chief Operating Officer and ASIC MBR Program Sponsor
Senior Executive and Delivery Sponsor
Chief Financial Officer
Director, Budget Strategy and Business Partnering
Senior Executive Leader, Registry Interactions and Services
Senior Executive Leader, Corporations
Strategic Lead, MBR Data
Senior Executive, Service Delivery
Product Manager, Regulatory Systems

The Treasury, – roles interviewed
Deputy Secretary, Markets Group
First Assistant Secretary, Markets Group
Assistant Secretary, Corporate and Foreign Investment Group
Director, Digital Implementation Unit
Director, Corporate and Foreign Investment Group

Interviews with government organisations – roles interviewed
DTA – Chief Executive Officer
DTA – General Manager, Digital Investment Advice and Sourcing Division
DTA – Branch Manager, Portfolio Assurance
DTA – Branch Manager, Investment Advice and Contestability
DTA – Branch Manager, Digital Identity
Department of Finance, Assistant Secretary, Central Agency AAU
Department of Finance, Assistant Secretary, Digital ID Taskforce
Department of Finance, First Assistant Secretary, Regulatory Reform
Department of Finance, Assistant Secretary, Regulatory Reform
Australian Charities and Not-for-profits Commission, Commissioner
Australian Charities and Not-for-profits Commission, Assistant Commissioner
Ministry of Business, Innovation and Employment (MBIE) New Zealand

Non-government organisations interviewed
Foster Moore
KPMG, Independent Assurer for the MBR Program
Australian Payment Plus
Pitcher Partners
The Council of Small Business Organisations Australia (COSBOA)
Accenture
InfoTrack
BGL Corporate Solutions
Macquarie, Digital Networks and Data
Digital Service Providers Australia New Zealand (DSPANZ)
Macquarie Bank, Canada

Forums attended
Design Working Group (DWG)
Business Advisory Group (BAG)
Law and Policy Authority
Technical Design Authority
Design and Issues Authority
MBR Program Board
MBR Sponsor Group

Appendix 3 What is the MBR Program?

July 2023

Overview

The MBR Program was announced in December 2016 following the conclusion of a tender process to privatise ASIC's registry business. The MBR Program was part of the National Business Simplification Initiative (NBSI) which was led out of the (now) Department of Industry, Science and Resources. The MBR Program is a cross-agency initiative with representation from Treasury, DISR, ATO, ASIC and the DTA.

During 2017 and 2018, the policy settings were developed and refined through a series of consultations and extensive stakeholder engagement. The cross-agency team developed and delivered first and second pass business cases to government. The program commenced implementation in February 2020.

The MBR Program is designed to consolidate registry information from more than 30 ASIC registers with the ABR and deliver the Director ID. The MBR system brings together the ABR and ASIC registry services, which will make it easier for businesses to register, establish and maintain their business registrations. The ABRS was established in April 2021 within the ATO to operate the new registry regime.

Delivering the MBR Program includes:

• Modernising the register legislation to make it more flexible and responsive to policy changes.

• Transforming how businesses interact with the government through streamlined, digital services.

• Supporting experiences where multiple transactions can be managed in one interaction and being able to "update once and apply to many".

• Making it simpler for users to understand their fee obligations.

• Improving the quality of data held in the registers by introducing authentication requirements where they don't already exist and undertaking more proactive measures to ensure users maintain their registration obligations.

• Implementing Director ID and ensuring this information is linked with company information. This will help address broader issues around fraud and business misconduct and earlier identification and deterrence of potential illegal phoenixing activities.

Why modernise the registers?

Australia's business registers are critical economic infrastructure – they provide regulatory foundations for starting and operating businesses and companies and licensing participants in key sectors of the Australian economy. A fair economy requires reliable access to accurate business information.

Businesses rely on registers to establish counterparty trust. This reliance is increasing as the number of regulated entities and the digital economy grows. Businesses, consumers, regulators and policy

makers use the registers to understand Australia's businesses and regulated financial entities to make decisions. Any interruptions to registry services disrupts the market in numerous ways ranging from not being able to start an enterprise or meet regulatory obligations through to being unable to check the existence, legal status and details of business or whether it is entitled to collect goods and services tax.

However, the evolution of business registers in Australia has resulted in fragmentation. The management of business information is on different systems across multiple agencies and levels of government. They are governed differently, have various inconsistent fee structures and are accessed through multiple unaligned entry points. Interacting with the registers can be a frustrating and disjointed experience for all types of users. Quite simply, the registers were not envisaged nor designed for a digital economy. Addressing the risks and irritants provides the 4 prime business drivers for modernising Australia's business registers:

1. Decrease the risk of service failure and consequent market impacts of the registry services operated by ASIC (noting that most of ASIC's registry workforce transitioned to the ABRS in April 2021).

2. Improve services to businesses interacting with and using the registers, reduce the compliance burden and give them more time to focus on doing business.

3. Improve the integrity, reliability and accessibility of registry data to improve decision-making and policy development, foster innovation and facilitate the detection of fraud and business misconduct.

4. Enhance the efficiency of the registry service.

These key drivers translate into the following objectives set by government for the MBR Program:

•   increase reliability and trust in registry services

•   improve service delivery to reduce complexity for business

•   increase data availability to facilitate greater use and innovation

•   deliver benefits to government by reducing the long-term costs of business registry services, and provide greater flexibility to respond to policy issues such as the black economy and phoenix activity

•   build trust and confidence in the government's digital and data transformation initiatives

•   foster economic activity and mitigate economic losses for businesses by minimising instances of fraud and business misconduct.

When was MBR planned to be delivered?

The program proposed the following timeline for delivery as part of business case. Noting there had been very little design undertaken to that point and the limited understanding agencies had of the complexity they would need to work through, the program proposed a delivery timeframe of approximately 4 and a half years as shown in Figure 6 – SPBC tranche plan.

Figure 6 – SPBC tranche plan
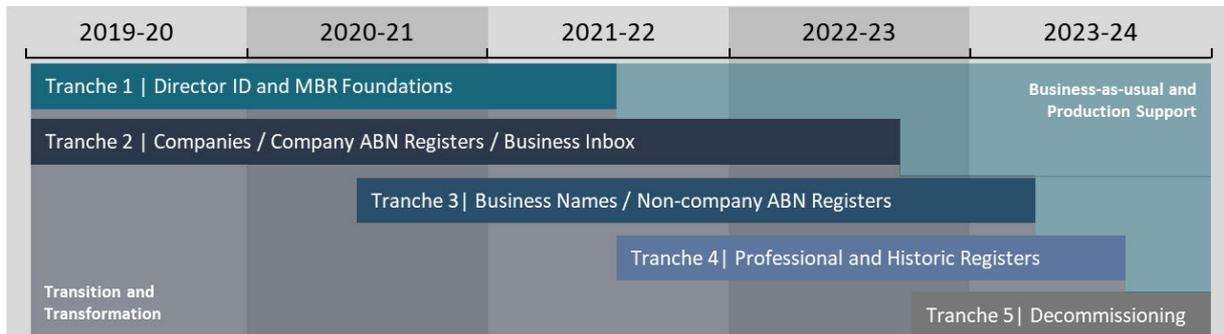
What has been achieved so far

To date, the MBR Program has achieved the following milestones:

- *Commonwealth Registers Act 2020* assented

- Commissioner of Taxation appointed as Registrar (April 2021)

- MoG of approximately 200 staff to ATO (April 2021)

- ABRS Brand established (July 2021)

- ABRS Website launched (October 2021)

- Director ID went live (November 2021)

- 2.3 million Director IDs issued as of 30 June 2023.

Remaining MBR scope for delivery

The MBR Program is currently in the detailed design and delivery phase of the companies release. While the foundation of the new registry platform is in place, the 31 ASIC registers and the ABR have not transitioned to the new system. All additional scope included since the SPBC was approved is also yet to be delivered – including the registers for the ARFP and CCIVs and changes to the FAR.

Appendix 4 Analysis of MBR Costing and Options

July 2023

Executive Summary

Purpose of Appendix

This appendix details the financial analysis undertaken to support the findings and recommendations of the Review. The primary aim of appendix 4 is to provide a comprehensive, forward-looking view of the costs associated with each option considered by the Review, and detail the underlying assumptions and considerations associated with each cost estimate. The appendix also aims to provide the fact base underpinning Recommendation 12, which outlines the recommended approach to funding for the MBR Program going forward.

Overview of Appendix

This appendix contains the following:

- **Summary of options and estimated costs:** Provides a high-level summary of the current state of the MBR Program (further detailed in the Report) and defines the scope and approach to cost each option

- **Detailed financial analysis of options:** Provides an overview of the cost of each option, the approach to costing, and an in-depth breakdown of cost categories and underlying assumptions

- **Funding approaches for the MBR Program:** Considers the different funding approaches available for the future of the MBR Program, to support Recommendation 12 made in the Report with detailed considerations of funding approaches, drawing on global best practice.

Summary of options and estimated costs

The Review considers 5 options for the MBR Program:

Figure 1: Options for government

1	2	3	4	5
Stop Stabilise	**Proceed** Full scope	**Proceed** Narrow to companies only	**Stop** Revisit transformation options	**Stop** Stabilise and targeted uplift
Cease MBR; stabilise & uplift ASIC's aged registry systems where it is critical to do so	Continue to deliver the full scope of MBR as currently planned	MBR Program to deliver Companies Register only & other registers stay with ASIC	Stop MBR Program, reset & re-start in new registry agency	Cease the MBR program, return registry functions to ASIC, mitigate system risks & deliver targeted modernisations

4 of the 5 options have been costed to inform the Review's recommendations and the financial analysis is outlined in this appendix. In addition to the MBR Program costs associated with each

option, the financial analysis has highlighted contingency costs, sustainment costs, and high-level consequential costs that may result from choosing each option (for example, additional costs that will be incurred outside of the MBR Program depending on the option chosen). These cost estimates were formed through Review and pressure testing of cost estimates provided by ATO and ASIC through an intensive consultation period of approximately 3 weeks and more than 15 hours of financial analysis workshop time with both agencies.

Table A4.1 provides a summary of the incremental program cost (new costs expected to complete the MBR Program), and total cost of each option. The total cost of each option includes consequential costs, and the $578 million funding provided to date consistent across all options. The funding provided to date figure assumes that all remaining funding the MBR Program will be spent by the time a decision is made by government with a January 2024 assumed start date for each chosen option. If decisions are implemented prior to January 2024 then there will be savings from the existing funding provided (approximately $12 million per month). Additionally, the estimates only consider the needs of ATO and ASIC, further investigation is required to assess the funding needs of other agencies currently captured in MBR Program costs (like ACNC and ORIC). More detail on the assumptions and data sources underlying these estimates are addressed in "Funding approaches for the MBR Program" below.

Table A4.1 Breakdown of costs for each option considered in the Review

	Option 1: Stop – stabilise	Option 2: Proceed – full scope	Option 3: Proceed – narrow to companies only	Option 4: Stop – revisit transformation opportunities	Option 5: Stop – stabilise and targeted uplift
Incremental program cost (MBR Program + contingency costs)	$400m	$2,030m	$968 –$1,123m	Not costed	$505m
Consequential costs	$9m	-	$180m	Not costed	$9m
Total incremental cost	**$410m** ($375-$450m)	**$2,030m** ($1,800 –$2,200m)	**$1,148 –** **$1,303m**	**Not costed**	**$515m** ($475-$550m)
Funded MBR Program cost to date [10]	$578m	$578m	$578m	$578m	$578m
Total cost of Option (incl. MBR Program, contingency, consequential costs and existing funding to date)	**$953 –$1028m**	**$2,378 –** **$2,778m**	**$1,726 –** **$1,881m**	**Not costed**	**$1,053 –** **$1,128m**
Funding duration	2024 –29	2024 –29	2024 –29	Not known	2024 –28
Stabilised sustainment (p.a.)	$58m	$112m	$81m	Not costed	$54m

Explanatory note:
*costs are approximate.

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10   Funded program to date is consistent across all options as it is based on current state assessment of MBR Program expenditure to date. This figure excludes any remaining funds available, so will be higher if a decision is made about the future of the MBR Program before remaining funds are expended.

Analysis of Option 1 suggests that stopping the MBR Program has an incremental cost of approximately $410 million over financial years 2024 to 2029. This is primarily driven by the stabilisation of the existing systems (which require critical updates or were expected to be decommissioned under the MBR Program ████████████████████████████ ████ and reversing MoG changes. Additionally, stopping the MBR Program carries consequential costs of approximately $10 million, which largely result from the need for ASIC to upgrade its systems given they would no longer be a temporary solution, and to uplift the registers since they will no longer be migrating to the ATO.

Analysis of Option 2 builds on existing cost estimates of continuing the MBR Program. The analysis found the current program cost projections made by ATO and ASIC underestimate the costs of the MBR Program as it is currently conceived, due to 8 key gaps in underlying assumptions and the absence of contingency. Once ATO and ASIC's cost estimates are adjusted for these gaps, it is estimated the MBR Program (under Option 2) would cost an additional $1.8 billion to $2.2 billion (in addition to existing funding). This is the most expensive option and involves completing the entire scope of the MBR Program (i.e. Tranches 2 to 5).

Analysis of Option 3 shows that refocusing the MBR Program to the core benefits presents a middle ground and is estimated to cost an additional $1.1 billion to $1.3 billion over the 2024–29 financial years (in addition to existing funding). This option nearly halves the incremental cost compared to Option 2 due to narrowed and locked scope, improved program governance and assurance practices such as master status reporting and feedback loops, and strategic workforce planning (amongst other recommendations outlined in the Report). Despite the lower cost, Option 3 is considered to deliver the core benefits of the companies data spine.

Option 4, which considers stopping the MBR Program to reset and start again with a new registry agency, has not been costed in this analysis. A separate in-depth analysis of the cost of this option would be needed if the government considers this as a viable option.

Analysis of Option 5 shows that stopping the MBR Program (as in Option 1) and refocusing on establishing a new function within ASIC and modernising its systems would cost between $475 million and $550 million (in addition to existing funding). A high-level costing of Option 5 has been developed by building on the costs of stopping the MBR Program under Option 1.

Context of financial analysis

This section sets out:

- A background and summary of the current state

- The options considered and recommendation to government

- Scope and approach of the financial analysis

Background and summary of current state

The MBR Program was announced in the 2019–20 Budget with a funding envelope of $480.5 million to over 30 registers onto a single platform by 2024. Approximately $100 million of additional funding has been provided to the MBR Program bringing total funding to $578 million. It includes:

• $18 million provided from ATO departmental resourcing in 2021–22

• $80 million funding measure for ongoing design and delivery in 2022–23

Out of the $578 million funded, approximately $430 million (or approximately 75%) was spent between November 2019 and March 2023. This expenditure focused on delivering 2 major milestones: (1) implementing Tranche 1, which largely consisted of establishing the Director ID and (2) initiating work on the Companies Register (Tranche 2). This means that the funding originally committed for all 5 deliverables of the original MBR Program has been spent as outlined in Table A4.2 (which is not an exhaustive summary of historical spend). The remaining funding of around $153 million (to March 2023) are expected to be spent on the Companies Register.

Table A4.2 Summary of expected and actual spend to date on key deliverables (not exhaustive)

Deliverables	SPBC costings	Actual spend to date	Progress to date	Original completion date
Director ID	$69m	$55m	Delivered	2022
Companies/ABN registers	$128m	$270m	50% detailed design completion 18% build completion	Early 2023
MBR Program management costs	$34m	$82m	Ongoing	Ongoing
Business Names / ABN registers	$47m	$1m (to commence high level design)	High level design commenced 2023	Late 2023
ASIC stabilisation and other agencies	$15.5m	$17m	Commenced, further stabilisation required	Ongoing
Professional and historic Registers	$35m	$1.8m	Commenced	Early 2024
Decommissioning	$6m	Minimal spend	Not started	Mid 2024

A further $86.2 million was provided for the following:

• $60.8 million for the sustainment of the Director ID regime, delivered through Tranche 1 of the MBR Program (and thus not costed in the projected sustainment costs throughout this Report)

• $25.4 million for stabilisation of ASIC's registries across 2022–23 to 2027–28.

In the most recent round of costings in March 2023, the MBR Program estimated as $1.5 billion (which this financial analysis determines is not enough to deliver the full program scope) with a timeline for value delivery extended between 2026 and 2029.

Qualitatively, there are several contributors to the significant cost deviation from what was forecast in the SPBC costing exercise, as outlined in the Report. As of 30 June 2023, approximately $103 million of the original funding is expected to remain. The MBR Program has a monthly run rate of approximately $12 million (over 500 FTE at a cost of $12 million per month), assuming if this expenditure continues, it will use its remaining funds by the end of 2023.

Summary of proposed options for government

There are 19 recommendations outlined in the body of the Report, and 5 options are proposed for the future of the MBR Program. The financial analysis in the "Detailed financial analysis of options" section of this appendix focuses on the financial implications of each of these options, which are summarised as follows:

Option 1: Stop – stabilise

Option 1 considers halting any further design and delivery activities, focusing instead on winding down the MBR Program and stabilising the existing legacy systems. This involves a MoG change as well as changes to policy and law to return registry functions to ASIC. This option involves ceasing any new development and transitioning resources towards managing and maintaining the current state of the systems.

Option 2: Proceed – full scope

Option 2 explores the scenario where the MBR Program continues to deliver the current planned scope in the same manner as it has been progressing thus far in order to deliver the full benefits originally planned under the MBR Program. This option maintains the ongoing development and implementation efforts, adhering to the existing roadmap and project plan.

Option 3: Proceed – narrow to companies only

Option 3 presents a strategic shift for the MBR Program, involving a refocusing of its objectives. This option aims to still deliver the high-quality data spine of the company data originally envisaged but narrows the MBR Program's scope to focus solely on the Companies Register and associated functions, including Company ABNs, Names Determination function and Reserved Company Names. Decisions around the remaining Business Registers would be deferred. All other work originally planned would be removed from the program, including delivery of the professional registers. Other registers and lifecycle services associated with them would be either migrated onto upgraded ASIC systems (excluding the ABR which remains at the ATO) or archived by ASIC.

Option 4: Stop – revisit transformation options

Option 4 represents a complete program reset, involving the establishment of a new registry agency and a revised approach to achieve the core benefits of the original MBR Program. This includes a thorough re-evaluation of decisions related to the operating model, governance, technology, and interoperability with other systems. It also will entail regulatory change, including the likely transfer of the Registrar role from the ABRS to the new agency. The new entity will be charged with a full transformation of the MBR Program to realise originally intended outcomes and benefits.

Option 5: Stop – stabilise and targeted uplift

Option 5 redirects the focus of the MBR Program from ATO to ASIC, establishing a function within ASIC to modernise current registry systems. This involves a MoG change as well as legislative changes

to return registry functions to ASIC, and the bulk of the effort would be on modernising ASIC systems and uplifting data. While the Director ID regime will remain under the ABRS, an integrated solution with ASIC's registers will be pursued to deliver the regime's benefits, ensuring improved data integrity and mitigating system risks for ASIC. This approach is intended to largely meet the benefits of the MBR Program by alleviating ASIC's system risks and improving data quality and integrity. It will also address some of the current program risks as it no longer involves integrating new registry services into the complex ATO environment and limits the sharing of data across agencies, except for Director ID.

Financial analysis scope and approach

Scope of analysis

The scope of this financial analysis is to thoroughly examine all future cost elements of the MBR Program under 4 of the 5 options considered by the Review (Options 1, 2, 3 and 5). Option 4 requires further investigation if considered necessary by government. The financial analysis conducted to inform government decisions, around the future of the MBR Program, is forward-looking and builds on the current state analysis outlined in the Report. It is assumed under each option that the current funding received to date is exhausted by December 2023. If a government decision is made earlier and work can commence immediately, existing funding will remain (saving approximately $12 million – current program run rate – for each month earlier the decision is taken and implemented).

Further, the analysis conducted for the Review estimates the funding required for 2 key agencies (ATO and ASIC) under each option from 1 January 2024, assuming a government decision on the path forward is made, supported by more detailed estimates that are agreed with central agencies. The cost estimates do not include the additional funding required for other agencies (e.g., DISR, ACNC and ORIC) which were captured in the project costs to date. Further, benefits analysis and detailed interrogation of the costs incurred to date are out of scope of this analysis.

The "Detailed financial analysis of options" section in this appendix contains the detailed financial analysis and starts by outlining the costs of Option 2 (proceed and deliver the full scope of the MBR Program), as the cost estimate builds on the current state assessment, before considering the costs of the other options available to government. The financial analysis of Option 2 considers the cost estimates provided by ATO and ASIC and adjusts these estimates based on a review of the underlying assumptions and missing cost categories. It then outlines the costs associated with Option 1 (stop and stabilise), Option 3 (proceed but narrow to companies only) and Option 5 (stop and stabilise and targeted uplift).

Costs provided in this appendix are indicative and have not been reviewed in detail by the Department of Finance. Costs for Options 1, 2, 3 and 5 should all be considered within a confidence interval of 10% of the figure. While efforts were made to provide a high-fidelity financial analysis of the MBR Program and the cost implications of each option, the analysis may not exhaustively capture the nuances of the program's financials given the information, resources and time available.

Note there may be some discrepancies in total costs throughout this appendix due to rounding.

Approach of analysis

The financial analysis was conducted based on initial cost estimates and underlying data provided by ASIC and ATO.

For Option 2, this included:

• 102 cost models from ATO dated April 2023 assuming a 1 January 2024 start date to funding

• ASIC costings in May 2023 assuming a 1 January 2024 start date to funding

• revised costs from ATO and ASIC provided throughout June 2023 assuming a 1 January 2024 start date to the MBR Program

• Treasury policy and legislation FTE effort provided in June 2023.

For Options 1 and 5, this included:

• ASIC costings provided in June 2023 assuming 1 January 2024 start date

• ATO provided several documents and assumptions in June outlining costs relating to termination of supplier/vendor, licensing and infrastructure contracts, reallocation of APS staff, reversal of MoG, and re-platforming of ABR services.

For Option 3, this included:

• ASIC costings provided in June 2023 assuming 1 January 2024 start date

• ATO provided several documents and assumptions in June outlining costs relating to transition of ABN lookup including ABR APIs, large change request and data sharing, migration of company names determination and reserved company names and continuation of design resources and gateway assurance. Costings from Option 2 were also leveraged for Option 3.

These estimates were reviewed and adjusted based on benchmarking with industry trends, global standards, expert input and analysis of methodology and approach to improve certainty of costs for each option. These were pressure tested and aligned through an intensive consultation period of approximately 3 weeks with ATO and ASIC.

Sensitivities to cost analysis

There are several variables which underpin the assumptions applied to the cost estimations. A qualitative analysis of impact of the key levers on each option is set out in the Table A4.3 below.

Table A4.3 Qualitative sensitivity analysis

	Option 1	Option 2	Option 3	Option 5
Labour mix	Low	High	High	Low
Wage and price escalation	Medium	High	Medium	Medium
Productivity	Medium	High	High	Medium
Scope	Medium	Medium	Medium	Medium
Program management effectiveness	Low	High	Medium	Medium

*Orange – High impact, Blue – Medium impact, Green Low impact.

At a high level, changes to each of levers will impact the options as follows:

Labour mix: The higher proportion of APS FTE under any given option, the lower costs will be – this is despite potentially lower productivity of APS FTE as APS rates are lower compared to contractors. Option 2 and 3 are more sensitive to changes in the mixture of internal and external staff due to the higher FTE required to complete these options. If Recommendation 14, which calls for a best practice sourcing strategy and vendor management plans, is implemented, this will result in lower costs.

Wage and price escalation: Increased escalations will have a significant impact driving up costs across options. As Options 2 and 3 involve completing more elements of the MBR Program, increases in the cost of goods due to inflation will impact these options more. Conversely, Options 1 and 5 remain exposed as there is still significant infrastructure to maintain.

Productivity: As productivity is dependent on attrition rates, ramp-up time and time dedicated to non-delivery focused activities, the options with greater FTE required to support the completion of the program (Options 2 and 3) are more sensitive to a drop in productivity (which would increase cost) than those with less staff (Options 1 and 5).

Scope: All options are sensitive to scope change (more scope added increases costs) but the impact level could increase or decrease depending on the size and nature of the change. Recommendations 1, 2, 3, 5 and 6 support a reduced scope under Options 3 and 5, which drive the costs of these 2 options down by approximately 30% on a high-level analysis of the deltas between Options 2 and 3. The FTE effort or Pdays [11] will require adjustment depending on changes to the scope.

Program management effectiveness: A streamlined approach to program management and governance will drive down the costs, particularly for options with larger scope (i.e. Option 2). Recommendations 7 to 11 detail some of the ways in which the MBR Program can consider increasing effectiveness of these functions, with further detail available in *Appendix 6 Analysis of Program Governance*. The most likely options this sensitivity lever will impact is Options 3 and 5, as these are the options the recommendations are most targeted at.

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11   PDay are ATO estimated "person day" effort.

Categories of costs

To provide government sufficient financial information to support informed decision-making, there were 4 types of costs considered when costing each option (set out below). When a total amount is used to describe an option in this Report, it captures the currently funded amount, plus the program cost and contingency cost. Sustainment is a cost to the government which is separated from the total cost estimate due to the variability in time periods for each option.

MBR Program cost

These costs refer to the direct expenses associated with the implementation and delivery of the Modernising Business Registers Program (MBR Program). This includes labour, infrastructure, data migration, and program management costs where they are directly tied to the design and execution of the program's objectives. These costs were determined by triangulating data from ASIC and ATO, insights from global best practice and expert inputs. Program costs should be considered within a confidence interval of 10%, which is the interval believed to best reflect the level of confidence in the estimates given the complexity of the costing exercise and the data and time constraints of the analysis.

Consequential costs

These costs are the unavoidable costs government will incur because of selecting each option, not directly shouldered through the MBR Program but a cost for government nonetheless (e.g. potential revenue lost from ending the MBR Program under Option 1). These costs are not comprehensive and were evaluated at a high level. These costs are to be used to evaluate the relative difference in consequential costs between options and the total cost of each option.

Contingency costs

The approach taken to contingency costs is consistent across Options 1-5, although the specific assumptions made vary within each option. Contingency costs are allocated as a buffer to address unforeseen circumstances and mitigate risks during a program's implementation. Calculating contingency involves applying a percentage to the total program costs. The contingency percentage is applied at a program-level rather than to specific cost categories within the MBR Program (e.g., one contingency for program management, another for data migration), to enable simplicity of decision-making for government. However, the blended contingency rate applied differs per option as described below.

Specific contingencies applied within each option were calculated by triangulating inputs from numerous sources:

- reviewing ATO and ASIC contingency assumptions

- considering Department of Finance contingency arrangements

- comparing to global benchmarks from programs of similar complexity and size against the different options.

These contingency percentages were then applied as specific percentages for different phases of the MBR Program's lifecycle, then blended and applied at a program level for each option. The contingency percentage increased or decreased for each option depending on an assessment of the level of program risk within the option.

The risk assessment considers the level of uncertainty and complexity associated with the scope. This means that during the design phase where there is a higher level of program uncertainty and unforeseen risks, a higher contingency percentage is applied. Conversely, as the program progresses to the build phase, the contingency percentage is adjusted down to reflect a lower level of uncertainty (whilst still capturing the risks inherent in program build, including changes in the market, pricing changes, and the risk of things going wrong). By aligning the contingency percentages with the evolving risk landscape at each phase of the program, the approach aims to maintain an appropriate level of financial flexibility and resilience.

Practical application of the contingency funding is further detailed in the last section of this appendix: Funding approaches for the MBR Program.

Sustainment costs

Sustainment costs, in the context of this Report, refer to the ongoing expenses associated with the maintenance, support, and operation of the modernised Core Business Registers once they are implemented. These costs encompass activities such as system maintenance, data updates, user support, infrastructure upkeep, and any necessary regulatory compliance measures.

Sustainment costs are calculated across all 5 options by applying 10% to the cumulative total incremental cost of the MBR Program as it stands under that option (unless a specific amount has been provided by ASIC or ATO). This approach was developed by triangulating existing ASIC and ATO approaches to sustainment, and global benchmarks from programs of similar complexity and size.

Sustainment costs have been estimated at a high-level and should be refined in future government decision context.

Sustainment costs across the options do not include several categories of costs either because they are already funded or because they are considered outside the scope of the MBR Program. These include:

• the cost of sustaining Director ID, as this has already been funded through the MBR Program

• the cost of sustaining ATO and ASIC's current systems in steady state

• the cost of sustaining further work conducted to support Business Registers but outside the scope of the MBR Program as defined by each option

• any continuous improvement function put in place to embed work conducted through the MBR Program.

Detailed financial analysis of options

This section contains a detailed financial analysis of each option covering:

- a summary of scope of the option

- the approach to costing the option

- the breakdown of costs into the categories of program, consequential, sustainment and contingency costs

- an outline of key assumptions.

As illustrated in Figure A4.1, the analysis finds the MBR Program will require further costs of between $400 million and $2 billion from 1 January 2024 (over and above the existing funding), depending on which option is pursued. This financial analysis focuses on the incremental costs to government from pursuing each option (i.e. additional funding required).

Table A4.4 Options 1, 2, 3 and 5 summary of cost breakdown

	Option 1: Stop – stabilise	Option 2: Proceed – full scope	Option 3: Proceed – narrow to companies only	Option 4: Stop – revisit transformation opportunities	Option 5: Stop – stabilise and targeted uplift
Incremental MBR Program	$356m	$1,767m	$855 – $986m	Not costed	$450m
Contingency	$44m	$263m	$113 – $137m	Not costed	$55m
Total Incremental MBR Program cost	**$400m**	**$2,030m**	**$968 – $1,123m**	**Not costed**	**$505m**
Consequential	$9m	-	$163m	Not costed	$9m
Consequential contingency	$1m	-	$17m	Not costed	$1m
Total incremental cost	**$410m ($375 – $450m)**	**$2,030m ($1,800 – $2,200m)**	**$1,148 – $1,303m**	**Not costed**	**$515m**
Funded MBR Program cost to date	$578m	$578m	$578m	Not costed	$578m
Total cost of Option	**$953 – $1,028m**	**$2,378 – $2,778m**	**$1,726 – $1,881m**	**Not costed**	**$1,053 – $1,128m**
Funding duration	2024–29	2024–29	2024–29	Not costed	2024–28
Companies deployment	-	November 2026	Q2 2026–27	Not costed	2024–25
Stabilised sustainment (p.a.)	$58m	$112m	$81m	Not costed	$54m

Explanatory note:

*Figure A4.1 shows the year-on-year costs across each option during this period.

*Figures in brackets are provided to indicate the estimated low and high-cost range

Figure A4.1 Year on year costs across Options 1, 2, 3 and 5, excluding sustainment costs
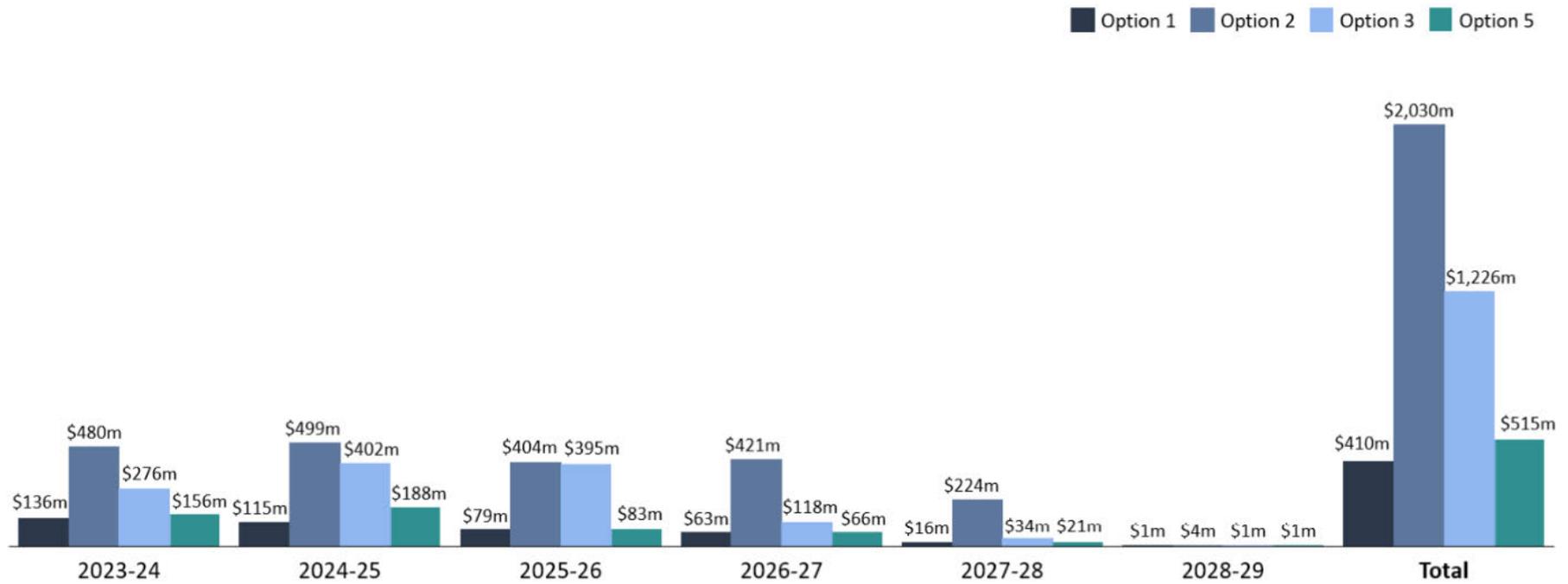
Explanatory notes:

*The incremental cost is in addition to $578 million of committed funding. Funding commences as of 1 Jan 2024. Includes consequential but excludes sustainment costs.

*Total figures of costing may not add due to rounding.

Cost of proceeding with full scope (Option 2)

Summary of scope

Option 2 involves completing the full scope of the MBR Program. This entails completing the design and build of the Companies Register (Tranche 2) and completing Tranches 3 to 5 (which have not commenced) over the next 6 years by 2029. A breakdown of the 4 categories of cost under Option 2 is set out in Table A4.5. Further consideration is required to capture the impact to these agencies.

Table A4.5 Option 2 total costs breakdown

Cost category	Estimate	What is included
Incremental program	$1,767m	Updated estimated costs to complete Tranches 2-5
Contingency	$258 – $268m	20% applied
Total Incremental MBR Program cost	$2,030m	Total estimated incremental MBR Program cost (excluding sustainment)
Consequential	-	None – program completed as intended
Consequential contingency	-	N/A
Total incremental cost	**$2,030m ($1,800 – $2,200m)**	**Total estimated incremental funding required (excluding sustainment)**
Funded MBR Program cost to date	$578m	Existing funding to date
Total cost of Option	**$2,378 – $2,778m**	**Sum of total funding to date and estimated additional funding (excluding sustainment)**
Funding duration	2024–29	
Companies deployment	November 2026	
Stabilised sustainment (p.a.)	$112m	Expected stabilised amount in 2030

Approach to costing Option 2

The approach to the financial analysis of Option 2 comprised 3 parts:

The starting position is the $578 million in existing funding provided to date for the MBR Program.

Next, ATO and ASIC estimated a further approximately $1.4 billion commencing in January 2024 is required on top of the $578 million of funding to date to complete the MBR Program. ATO and ASIC later revised their cost estimates in June 2023 by a further $192 million. [12]

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[12] The revised cost estimates of $192 million excludes $15 million sustainment by ASIC, which was captured separately.

A review of the provided estimates resulted in an increase to ATO and ASIC cost estimates by approximately $645 million to a total incremental cost of $1.8 billion and $2.2 billion.

This brings the total approximate cost of delivering the entire MBR Program to between $2.4 billion and $2.8 billion.

Overview of ATO and ASIC estimation of costs

ATO and ASIC provided updated estimates in May 2023 of $1.1 billion for ATO and $246 million for ASIC of additional funding required to complete the MBR Program as envisioned in the SPBC (which added 3 additional registers to the original scope and business inbox). In June 2023, as part of the Review of the cost estimates, ATO and ASIC provided revised costing which increased the ATO estimate cost to deliver the Companies Register to $1.2 billion (an additional $104 million). For ASIC, the revision increased their estimate by between $88 million and $334 million.

A Review of the ATO and ASIC cost estimates identified 8 gaps in their methodology and underlying assumptions. After accounting for these gaps, the projected incremental cost required to complete the MBR Program increases by approximately $645 million (including the new ATO and ASIC costings) to $2.2 billion under the current trajectory, bringing the total cost estimate of the MBR Program to between $2.4 billion and $2.8 billion including the funding provided to date.

Review of ATO and ASIC cost approach

The cost estimate for Option 2 provided by the ATO is comprised 102 models across 8 elements outlined in Table A4.6 below.

Table A4.6 ATO estimate breakdown by deliverable

	Description (number of models)	ATO Estimate
A	Companies Release (20)	$516m
B	ABR (16)	$234m
C	Business Names Register (19)	$217m
D	Professional registers (15)	$110m
E	Financial Advisors Register (12)	$19m
H	Decommissioning (5)	$5m
J	Business inbox (8)	$42m
O	Program management, governance, assurance (7)	$69m
	Total estimated cost as of October 2022 (102)	**$1,139m**
	Total estimated cost as of June 2023 (including revised amounts)	**$1,243m**

ATO and ASIC developed their cost estimates using a detailed bottom-up methodology which did not link the deliverables beyond Tranche level to the planned schedule.

The gaps and inconsistencies identified as part of the financial Review of ATO and ASIC cost estimates are detailed below.

Review of underlying assumptions in ATO and ASIC cost estimate

Figure A4.2 shows the 8 key gaps in the approach and underlying assumptions used in the ATO and ASIC initial cost estimates. Addressing these gaps drives the cost estimate up by an additional $645 million (of which $144 million is borne by ASIC and $484 million by ATO). A deep dive into each of the gaps will follow in accordance with the numbers indicated under the graph.

Figure A4.2 Breakdown of revised costing envelope for Option 2, $million 2024 –29
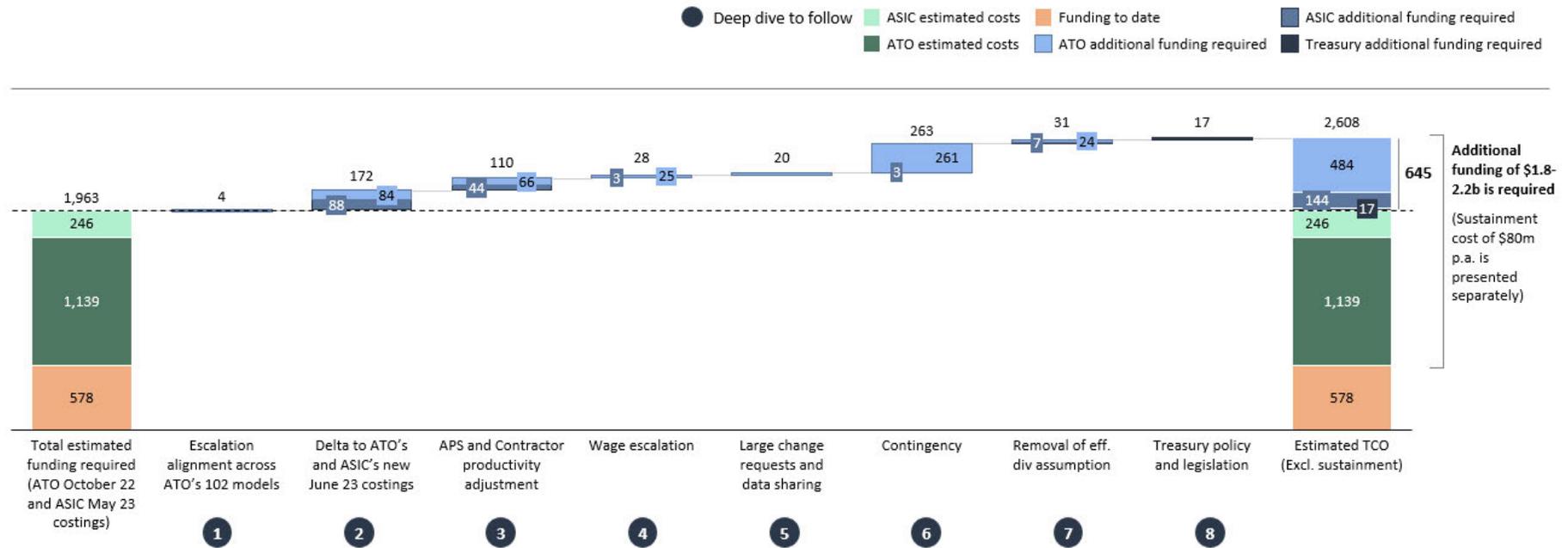
Explanatory notes:

*Total figures of costing may not add due to rounding.

*Excludes $86.2 million funding to the ATO and ASIC for Director ID sustainment and ASIC stabilisation as outlined in the October 2022 –23 budget.

*The gap is calculated based on ATO's 102 models under a common escalation indexation profile with the $1.14 billion cost reported by the ATO.

*$20 million for ATO ASIC large change request in ATO's $104 million delta is captured in the point below. $15 million of sustainment costs in ASIC's $104 million delta is captured under sustainment and presented separately.

*Large change request costs include costs for ASIC data sync, rework associated with Verne product enhancements, impact of large documents, MBR costs for the initial data load, and impact on Enterprise Data Warehouse ETL.

Source: Budget paper no. 2 2019 –20, 2022 –21, and October 22 –23, ATO costing summary for MBR program, ASIC MBR program costings, ATO re-estimated costings, assumptions, and high-level timeline, ATO and ASIC workshops

Gap 1 and 6: Alignment of escalation rates and removal of efficiency dividends

Some of the 102 models underpinning the ATO cost estimate exclude or inconsistently apply escalations rates and efficiency dividends. To develop a consistent baseline for the Review, a uniform escalation rate of 2.6% for 2024–25, 1.8% for 2025–26 and 1.9% for 2026 –29 and efficiency dividend of 1% was applied to all models. This results in a net $4 million increase to total costs.

As part of the Review, the 1% efficiency dividend was subsequently removed from all models to arrive at the 'true cost' of the MBR Program. This increases the total cost estimate by a further $24 million for the ATO and $7 million for ASIC.

Gap 2: Labour profile and productivity adjustment

ASIC and ATO apply a constant rate of productivity for internal and external labour from commencement and throughout the MBR Program. This does not account for approximately 50% of APS staff being new in 2024 and less productive during the initial onboarding period. Additionally, in a steady state it is assumed that there is 10% attrition.

Adjusting this assumption requires building in a 6 month ramp up period during 2021 which assumes new APS staff are 50% productive and everyone else is 80% productive. [13] For contractors, it is assumed that 20% will be new in 2024 and 80% productive while everyone else is 95% productive for the first 3 months. [14]

Following this initial period of training and upskilling, from 2025 onwards, it is assumed that in the ongoing steady state that 10% of staff will be new joiners (to account for the attrition) who will be 50% productive while the remaining 90% of experienced staff will be 90% productive (to upskill new staff). [15] Similarly, 10% of contractors are assumed new and 90% experienced. However, as less training is required to train contractors, it is assumed new staff are 80% productive while experienced staff are 95% productive. [16]

Adjusting the assumption to account for attrition and new FTE increases the ATO costs by $66 million and ASIC costs by $44 million.

Similar productivity adjustments have been made to the costings in Option 3 to continue the program. No productivity adjustments have been made to stop the program under Options 1 and 5.

Gap 3: Wage growth adjustment

ATO and ASIC, respectively, assume different annual labour rate escalations of 1.8 –2.6% and 1.9-4.0% for APS salary, contractor rates and IT costs across all tranches. These rates are adjusted to assume that:

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13   Based on expert input – experienced APS staff are assumed to spend one day a week coaching new staff for the first 6 months

14   Experienced contractors are assumed to spend 0.25 days a week coaching new staff for the first 3 months

15   Experienced APS staff is assumed to spend half a day a week coaching new staff on an ongoing basis

16   Experienced contractors are assumed to spend 0.25 days a week coaching new staff on an ongoing basis

- IT contractor wages are escalated at 3.4% p.a. reflective of IT salary growth trends of 3.4% p.a. between 2019 and 2022 and wage price index growth of 3.2% p.a. between June 22 and March 23

- APS salaries are escalated 3.5% based on the average of 3% ATO Enterprise Agreement pay rise in August 2023 and expected 4% Enterprise Bargaining Agreement pay rise (but does not pre-empt the outcomes of new Enterprise Agreement negotiations during this period).

- Adjusting for these labour rates and assuming all other on-costs (like organisational services and human resource costs) grow in accordance with Department of Finance (DoF) trends increases ATO costs by $25 million and ASIC costs by $3 million.

Gap 4: Large change requests and data sharing

In ATO's updated June 2023 cost estimate, it identified an additional cost ($20 million) relating to a large change request and data sharing that was previously excluded. This cost is required to support ASIC data synchronisation, rework on Verne product enhancements, Digital Services Gateway (DSG) impact of large documents, initial data load and an Enterprise Data Warehouse ETL (Exchange, Transfer and Load). Assuming these costs are appropriate to deliver the data exchange with confidence, this increases the ATO cost estimate by $20 million. Note that these assume delivery of info broker API plus 20 fields, 2x APIs, and overnight bulk data file; APIs to support an overnight batch process; further funding may be needed if there are additional requirements (e.g. real-time data sharing).

Gap 5: Addition of contingency risk

No contingency cost is factored into the ATO's April 2023 cost estimate. The ASIC cost estimate includes a 15% contingency for Tranche 2 (Companies Register) and Tranche 4 (professional registers), 10% for Tranche 3 (Business Names Register) and 0% for Decommission and Program Delivery.

In order to reflect the 'true' program cost, a blended 20% contingency rate is adopted based on the average risk across the tranches. This is above DoF guidelines due to the risk of the program where Tranches 3 to 5 are currently almost entirely in the design phase which is characterised by higher uncertainty, complexity and likelihood of unforeseen challenges. Companies tranche (tranche 2) has reduced risks as the high-level design has been completed. Applying a blended rate of 20% to ATO cost estimates for contingency risk increases the estimate by $261 million.

For ASIC, adopting a 10% contingency for decommissioning and program delivery in accordance with DoF guidelines increases the cost estimate by $2.5 million. This lower contingency rate is reflective of the lower uncertainty associated with decommissioning legacy systems and the robustness of the revised program delivery approach incorporating Review recommendations set out in *Appendix 6 Analysis of Program Governance*).

Gap 6: Removal of efficiency dividend assumption

See Gap 1.

Gap 7: ATO and ASIC's revised costs

The ATO provided a revised cost estimate in June 2023 which assumes a 1 January 2024 start date with an additional $84 million to reflect the additional 12-month schedule shift, law and policy costs and future releases for infrastructure/licensing. [17]

Similarly, ASIC's revised costs increase the estimate by $88 million. These changes reflect revisions to the costs tied to Tranches 2 to 5. [18]

Gap 8: Treasury policy and legislation costs

A further $17 million in policy and legislation related costs is required by Treasury to consider the impact of law reform and policy changes to the MBR Program. The amount covers a team of 17 FTE between 2023–26 which ramps down each year to 10 FTE by 2028–29 as on-going considerations are expected to decrease as the program is progressively delivered.

Additional opportunities

Developing a costing methodology that links spend to deliverables at a more granular level than Tranches would enable the ATO to clearly link expenditure to deliverables over time.

See *Appendix 6 Analysis of Program Governance* for further guidance the recommended approach to benefits realisation and tracking.

Cost breakdown

This section sets out a breakdown of the cost drivers within Option 2. As reflected in Figure A4.3 below, the annual key cost breakdown reflects a steady cost of between $421 million and $499 million over 4 years. Costs drops in 2028–29 as the MBR Program reaches completion.

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[17] ATO's June 2023 revised costings demonstrated a cost increment of $104 million relative to the October 2022 costings. The delta includes $20 million for large change requests and data sync, which was captured in Gap 4. The remaining $84 million has been captured under Gap 7.

[18] ASIC's June 2023 costings indicated a cost increment of $105 million relative to its May 2023 costings. The cost increment includes $15 million of sustainment, which has been captured separately.

Figure A4.3 Option 2 in-year spend and FTE by key cost components, $ millions 2024–29
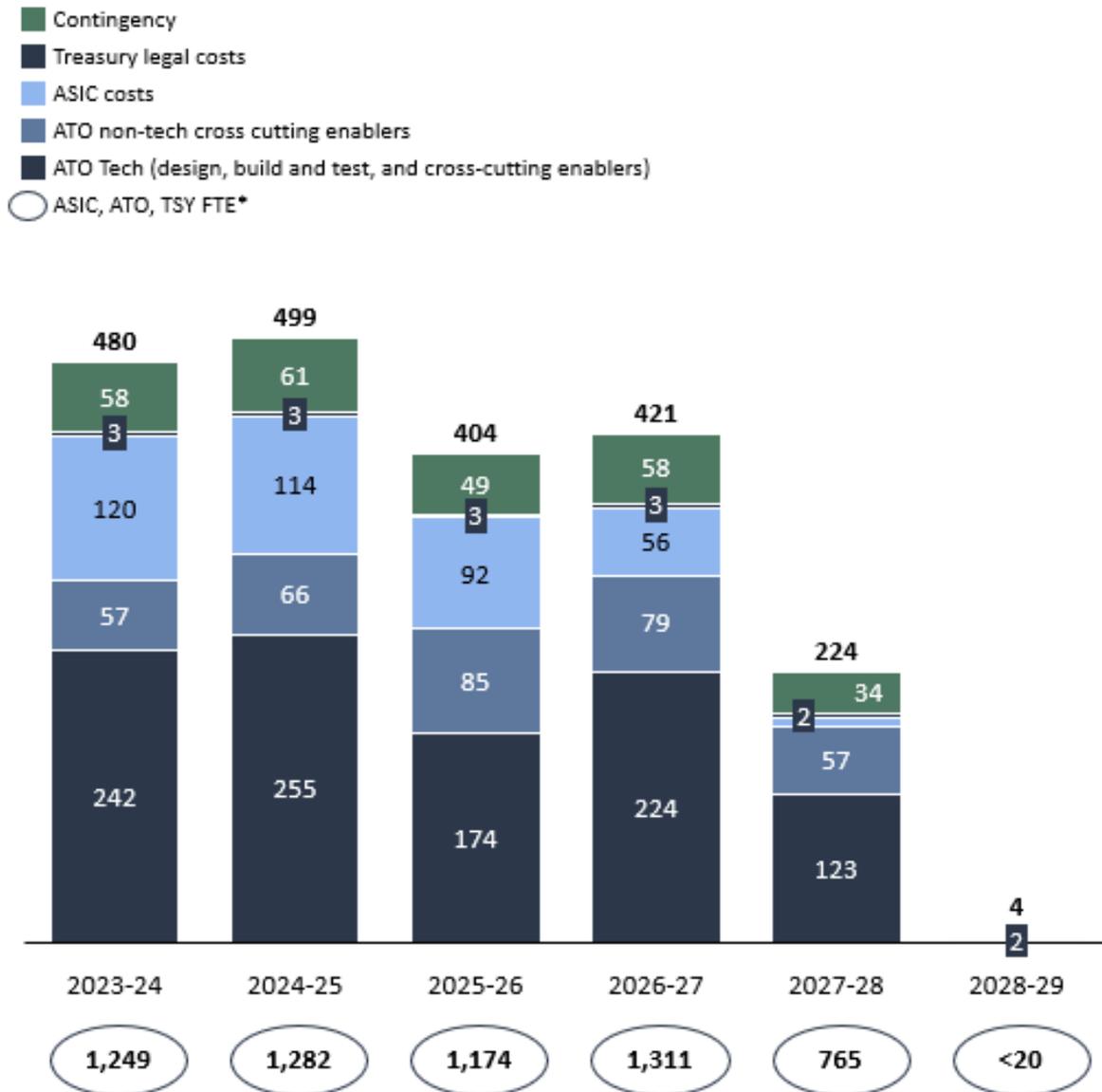
Explanatory notes:
*Total figures of costing may not add due to rounding
*Excludes sustainment costs
*FTEs include both APS and contractors. FTEs reflect the effective number of staff required accounting for productivity adjustments. Workforce numbers are indicative and will need to be smoothed to provide a uniform profile.
*The costs are inclusive of indexation
*The costs exclude sustainment costs and sustainment costs have been presented separately for government's consideration
Source: ATO MBR program request 4 – worksheets behind cost justifications Element 0-J, ASIC costings of the MBR program, ATO re-estimated costings, assumptions, and high-level timeline.

As shown in Figure A4.4 below, the total incremental cost is $2 billion and is split between ATO ($1.6 billion), ASIC ($390 million) and Treasury ($17 million) [19].

Figure A4.4 Option 2 in-year spend and FTE by agency, $ millions 2024–29
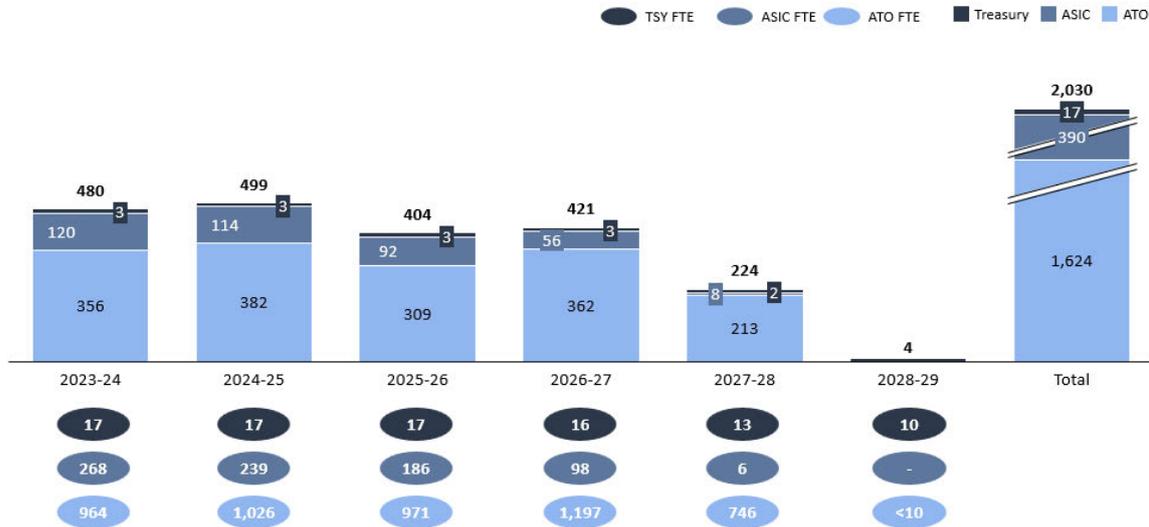
Explanatory notes:
*Total figures of costing may not add due to rounding
*Excludes sustainment costs
*FTEs include both APS and contractors. FTEs reflect the effective number of staff required accounting for productivity adjustments. Workforce numbers are indicative and will need to be smoothed to provide a uniform profile.
*The costs are inclusive of indexation
*The costs exclude sustainment costs and sustainment costs have been presented separately for government's consideration
Source: ATO MBR program request 4 – worksheets behind cost justifications Element 0-J, ASIC costings of the MBR program, ATO re-estimated costings, assumptions, and high-level timeline.

As reflected in the Figure A4.4 above, the primary drivers of ATO expenditure are $600–$700 million to complete the Companies Register and business inbox, $170–$210 million to complete the ABR Register and $160–$190 million to complete Business Names Register. For ASIC, the primary driver of costs is the professional registry systems at approximately $90–$100 million. For Treasury, the total amount of $17 million is allocated to understanding the impact of legal and policy changes to the MBR Program.

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19   The costs exclude sustainment costs. Sustainment costs have been presented separately for government's considerations.

MBR Program Cost

Figure A4.5 Option 2 in-year spend and FTE by MBR Program Cost, $ millions 2024–29
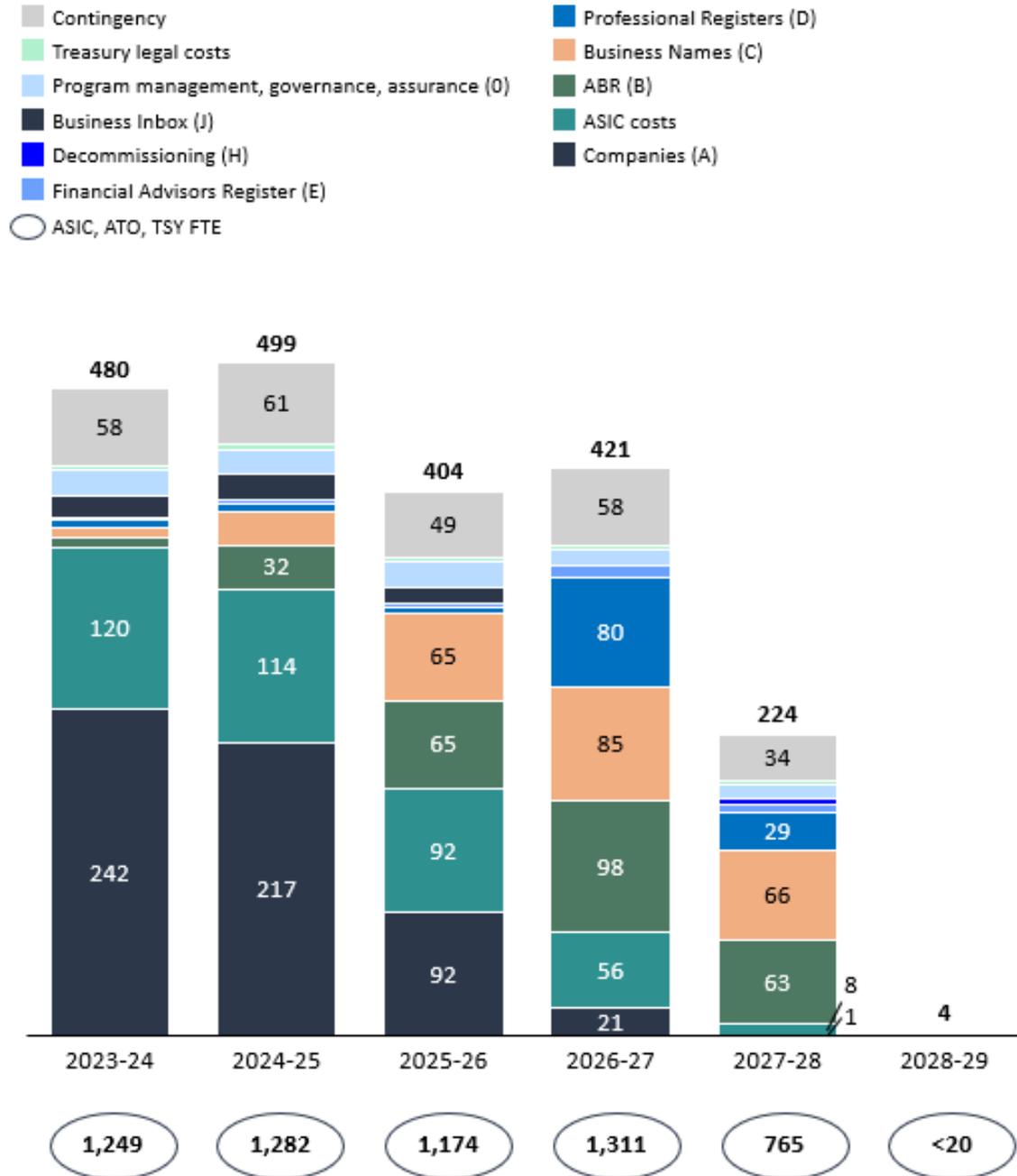
Explanatory notes:

*Total figures of costing may not add due to rounding

*FTEs include both APS and contractors. FTEs reflect the effective number of staff required accounting for productivity adjustments. Workforce numbers are indicative and will need to be smoothed to provide a uniform profile.

*The costs are inclusive of indexation

*The costs exclude sustainment costs and sustainment costs have been presented separately for government's consideration

Source: ATO MBR program request 4 – worksheets behind cost justifications Element 0-J, ASIC costings of the MBR program, ATO re-estimated costings, assumptions, and high-level timeline.

Consequential Cost

As Option 2 envisages completing the MBR Program as planned, there are no additional consequential costs to consider.

Contingency Cost

As outlined above, the total contingency cost is $263 million based on a blended application of 20% based on high level risk assessment across the tranches.

Sustainment cost

Based on global best practice and triangulating existing sustainment, a 10% sustainment cost is appropriate. As shown in Figure A4.6, sustainment commences in 2026–27 with the completion of Tranche 2 (Companies) at approximately $44 million and grows each year with the completion of more of the MBR Program until 2029–30 where it is estimated to stabilise at $112 million.

Figure A4.6 Annual sustainment cost for Option 2, $ millions 2027–31
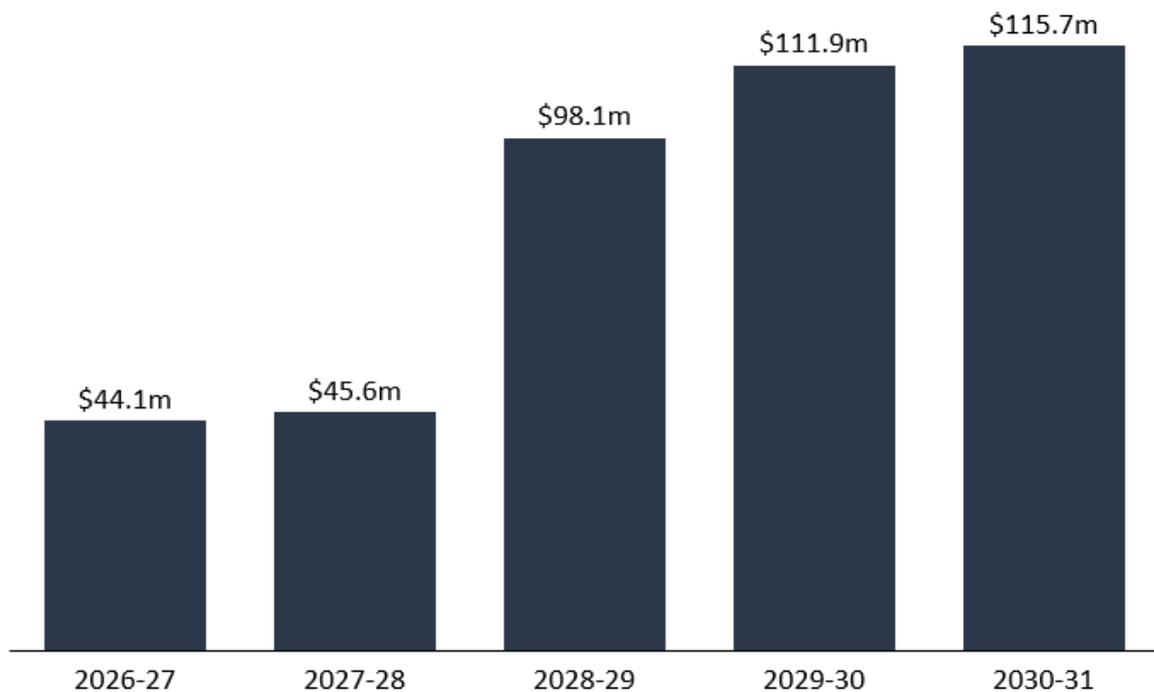
Table A4.7 Annual sustainment cost for Option 2, $ millions 2027–31

Cost category	Agency	2026 –27	2027 –28	2028 –29	2029-30	2030-31
Tranche 2 (Companies Release)	ATO	$44.1m	$45.6m	$47.1m	$48.7m	$50.3m
Tranche 3 (Australian Business Register and Business Names Register)[2]	ATO			$32.7m	$33.8m	$34.9m
Tranche 4 (Professional and banned and disqualified Register)[3]	ATO				$10.4m	$10.8m
Sustainment for post registry operating model[4]	ASIC			$18.3m	$18.9m	$19.6m
Total		**$44.1m**	**$45.6m**	**$98.1m**	**$111.9m**	**$115.7m**

Explanatory notes:

*Calculated based on 10% of the following build costs in Element A: ATO Smarter Data Program, Enabling Areas, Infrastructure, IT Delivery, MBR Pipeline and Design, summing to around $349 million. Escalation of 3.4% has been applied. It also accounts for sustainment for 10% of Companies Release which has been built.

*Calculated based on 10% of the following costs in Element B: ABRS BIS, Enabling, IT Built, Smarter Data Program; and Element C: ABRS BIS, ABRS Registry, Enabling, Infrastructure, IT Delivery, Delivery and Integration, Pipeline and Design, Smarter Data Program summing to approximately $316 million. Escalation of 3.4% has been applied.

*Calculated based on 10% of the following costs in Element D: ABRS BIS, Enabling, IT Delivery, Smarter Data Program, Pipeline and Design; and Element E: ABRS BIS, Enabling, IT Delivery, Delivery and Integration, Pipeline and Design, Smarter Data Program, summing to around $101 million. Escalation of 3.4% has been applied.

*ASIC estimates that sustainment costs will be around $15 million to cover costs relating to corporations data, data strategy and governance, complaints management, inter-agency registry governance, IT service management, law & policy design and support, professional registers product management, regulatory enquiries management, forms/transaction processing. The $15 million has been indexed at 3.5% p.a. over 6 years, estimated at $18.3 million for 2028–29.

*Total figures of costing may not add due to rounding

Source: ATO costing summary for MBR program, ASIC MBR program costings, ATO re-estimated costings, assumptions, and high-level timeline, ATO and ASIC workshops.

Key assumptions

In addition to the gaps addressed in the assumptions outlined in "Review of underlying assumptions in ATO and ASIC cost estimate" above, there are several assumptions used in the ATO and ASIC cost estimates which did not change as they were assessed to be reasonable and as a result did not impact the overall cost estimate.

APS FTEs and Mix

It is assumed that the ATO and ASIC has structured the appropriate APS labour profile and FTE profile mix to meet target deliverables.

As set out in Table A4.8 below, approximately 260 APS and 580 external FTE are estimated to start from 2024 ramping up to approximately 1,100 FTE by 2026. ASIC has included approximately 115 APS and 88 external FTE from 2024, ramping down to 5 FTEs by 2028. ASIC also assumes that program management will require approximately40 FTEs annually to 2026, making up 21% of total FTEs. ASIC's share of Project Managers is around 20% of total FTE which is above both ATO and industry

benchmarks. These FTE estimates are indicative and could be smoothed over the period to provide a more stable and uniform workforce. Assuming this is the appropriate internal and external mix of labour to deliver the MBR Program as per outlined by the agencies, there is no net impact to the overall cost of Option 2.

Table A4.8 FTE resourcing mix between APS and contractors assumed for Option 2 outlined by agencies (without productivity adjustments) [20]

	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
ATO APS	261	321	240	399	329	0.3
Contractors non-APS	482	463	295	348	144	1
Contractors APS	94	148	353	338	196	5
Total ATO FTEs	**837**	**932**	**887**	**1,085**	**669**	**6**
ASIC APS	115	108	87	42	4	
Contractors non-APS	88	87	65	39	1	
Total ASIC FTEs	**202**	**195**	**152**	**81**	**5**	

Additionally, ATO uses the average daily labour rate of ⬛⬛⬛ for Enterprise Solutions and Technology (EST) contractors and ⬛⬛⬛ for Smarter Data Program (SDP) contractors on Pday estimates. For ASIC, a ⬛⬛⬛ daily rate was escalated to ⬛⬛⬛. ATO and ASIC estimates are broadly in line with the Australian Government average daily rate of approximately ⬛⬛⬛ per person, per day. Additionally, the blended rate reflects the current rates the MBR Program is paying for APS (⬛⬛⬛ excluding on-costs) and contractors ⬛⬛⬛. Therefore, no further adjustments were made to the cost estimate.

Further, ASIC and ATO's assumption that APS FTE and contractors work 226 days per annum is broadly in line with an outside-in assessment which suggests APS FTE work 218 days and contractors work 231 days annually. No change to the cost estimates has been made as the labour profiles appear reasonable.

Number and complexity of widgets

It is assumed that the ATO has the appropriately robust number and type of widgets and determined the appropriate number of working days (Pdays) based on the complexity of the widgets and previous experience. It is also assumed that the ATO has a well-resourced plan to deliver the data migration and reconciliation.

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20   There are additional sustainment costs that would need to be incurred by the government

Technology stack

It is assumed that ATO and ASIC have appropriately costed the technology infrastructure based on historical costs, quotes, and government negotiated rates.

Indexation

Unless otherwise specified, an indexation of approximately 2% p.a. was applied to all costs.

Potential efficiency opportunities

There are potential efficiency opportunities in the non-technology cross-cutting enablers which have not been factored into the model as further consideration is required.

Decision timing and MBR Program start date

It has been assumed that time for future government decision on the option and more in-depth costing to support future budget decisions is needed before the MBR Program can restart under this option, taking the MBR Program to 1 January 2024. This means the remaining funded amount will have been spent. If this timeline is compressed and an earlier start date is possible then there will be a saving of approximately $12 million per month (which is the current program run rate).

The cost of stopping and stabilising (Option 1)

Summary of scope

Option 1 considers what it would take to stop the MBR Program altogether, given the costs and risks associated with continuing the MBR Program. However, Option 1 is not devoid of costs as it will require extensive activity to address the key risks that created the MBR Program and were intended to be resolved through the modernisation of registries (e.g., legacy systems, staffing risks etc). This involves cease work, revert the regulatory landscape to the pre-MBR Program position and carry out urgent work to mitigate risks relating to legacy systems. Consequential costs of Option 1 include extension of existing licences and eventual long-term upgrades required to legacy systems.

It is estimated that the net additional funding required to fund Option 1 is between $375 million and $450 million over the next 4 years until 2029 (bringing the total cost of funding of Option 1 to between $953 million and $1,028 million). A breakdown of the costs under Option 1 is set out in Table A4.9.

Table A4.9 Breakdown of total costs for Option 1

Cost category	Estimate	What is included in this category
Incremental MBR Program	$356m	Termination of contracts, reversal of MoG change, transfer of APS staff to other areas within the agencies, novation of property lease from ATO back to ASIC, new build costs to maintain service provision, uplifting Professional Registry System
Contingency	$44m	10 –15% applied depending on risk
Total Incremental MBR Program cost	**$400m**	**Total estimated incremental MBR Program cost (excluding sustainment)**
Consequential	$9m	Eventual upgrade of systems, extension of existing licenses
Consequential contingency	$1m	10% applied
Total incremental cost	**$410m ($375 – $450m)**	**Total estimated incremental funding required (excluding sustainment)**
Funded MBR Program cost to date	$578m	Existing funding to date
Total cost of option	**$953 – $1028m**	**Sum of total funding to date and estimated additional funding (excluding sustainment)**
Funding duration	2024 –29	
Companies deployment	Not costed	
Stabilised sustainment (p.a.)	$58m	Expected stabilised amount in 2026

Approach to costing Option 1

This option envisages 'stopping' any further design and delivery and instead looks to wind down the program and carry out urgent upgrades needed to maintain the current systems. All registers (excluding the new Director ID service) will be retained by the agency that currently manages them and all new registers and changes to existing registers (aside from changes to the ABR) will be retained by ASIC.

Unwinding the steps taken to date to progress the MBR Program are also a key cost of Option 1 (returning registry functions to ASIC, redeploying ASIC FTE that have been transferred to ATO, terminating contractual agreements and novating a property lease). The costs of unwinding the MoG changes (i.e. staff, infrastructure, and property operating expenses etc.) have not been included in these estimates as the transfer of functions will net out between the agencies. However, it should be noted that both agencies will incur costs to negotiate and transition these arrangements which are not costed as these are considered the usual operation of government.

Additionally, reverting to a pre-MBR Program position also requires the continuation of legacy systems intended to be decommissioned under the MBR Program and reinstating historical registries which have been switched off. This option creates new build costs related to minimum system uplift to ensure business continuity such that all registers can fulfil their requirements.

Cost breakdown

This section sets out a breakdown of the cost drivers within Option 1, as summarised in Figure A4.7. A deep dive will follow in this section in accordance with the numbers indicated under the graph. The cost of stopping and unwinding the MBR Program under Option 1 is estimated to cost an additional $410 million in addition to what has already been funded.

Figure A4.7 Option 1 estimated total MBR Program and consequential cost breakdown, $ million 2024–29

Legend: ⊗ Deep dive to follow ▪ Treasury estimated cost ▪ ATO estimated cost ▪ ASIC estimated cost ▪ Funding to date

Critical stabilisation and re-platforming of ASIC systems are expected to occur between 2023 and 2027 ($303m)

Net additional funding ($410m) +410

Estimated Program costs
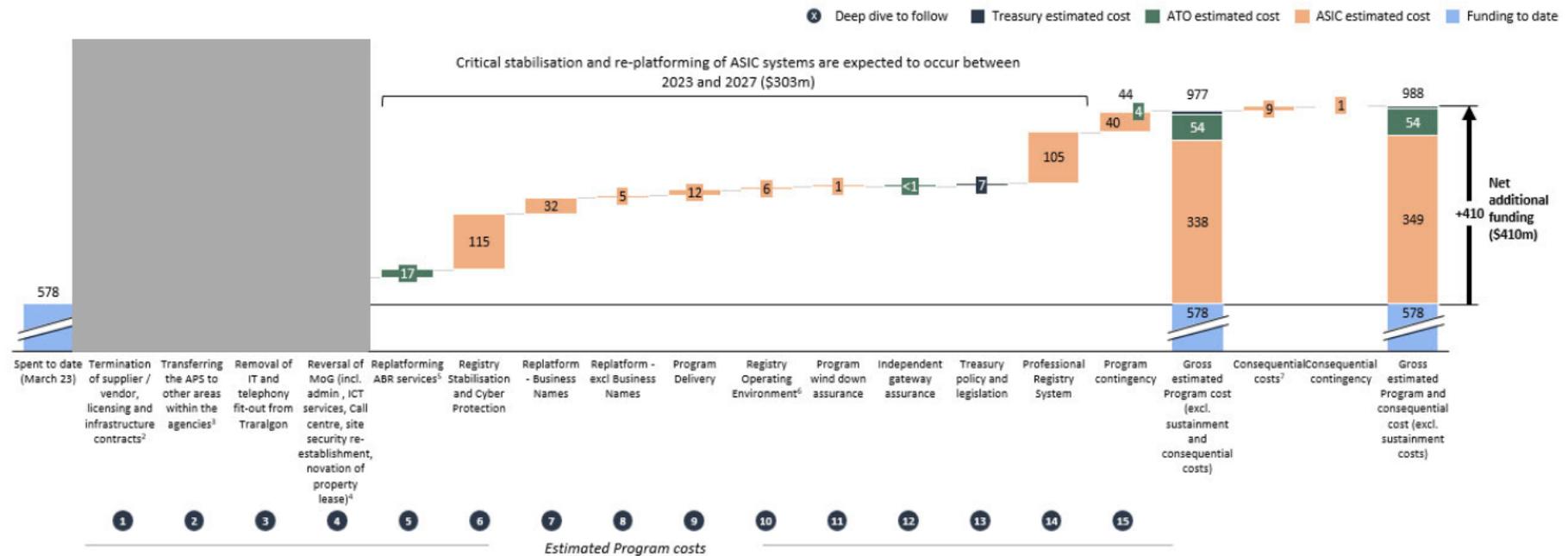
Explanatory notes:

*Includes indexation of 2% p.a. from 2025

*ASIC indicated that under Option 1 existing funding from Jul-Dec 2023 and an additional estimate of ▨ will be used to fund termination of contracts and unwinding of programs

*Cost to scale down and transfer APS over 3 month period

*Includes costs for ASIC of $800,000 ASIC MoG administrative costs (incl. only salary differential, independent financial advisor for appropriation discussions, info broker agreements due diligence), $1.9 million ASIC staff additional ICT Services cost, $13.1 million call centre infrastructure (excl. call centre property and security costs, Electronic boards, Acoustics), $1.0 million ASIC MoG Site Physical Security Re-establishment. Includes costs for ATO of $25,500 to novate lease of property back from ATO to ASIC. Excludes $10 million workstream resourcing cost that may need to be supported by government for ASIC to undertake MoG cost to reduce unintended consequences on ASIC BAU operations

*Includes business program costs to transition services ABN Lookup costs to continue ABN Lookup (for 2 years)

*There are additional sustainment costs of $98 million that need to be incurred by the government between 2024 –29. The costs are presented in the sustainment costs

*$8.6 million consequential costs includes Data power upgrade – extension, MQ upgrade- extension, Oracle IAM/Identity Manager Upgrade – extension, Registry Stabilisation – Licence extension, Z17 mainframe activation, in 2027–29

*The costs exclude sustainment costs and sustainment costs have been presented separately for government's consideration

Source: ASIC Option 1 MBR Costing 20230620, MBR Program Overview of ATO contracts, ATO Option 1 – stop now – cost of ABR explorer and ABN Lookup.

As reflected in Figure A4.8 below, the annual key cost breakdown reflects a significant cost in 2023–24 that steadily declines towards 2028–29 as the program winds down.

Figure A4.8 Option 1 in-year spend by key cost components, $ millions 2024–29
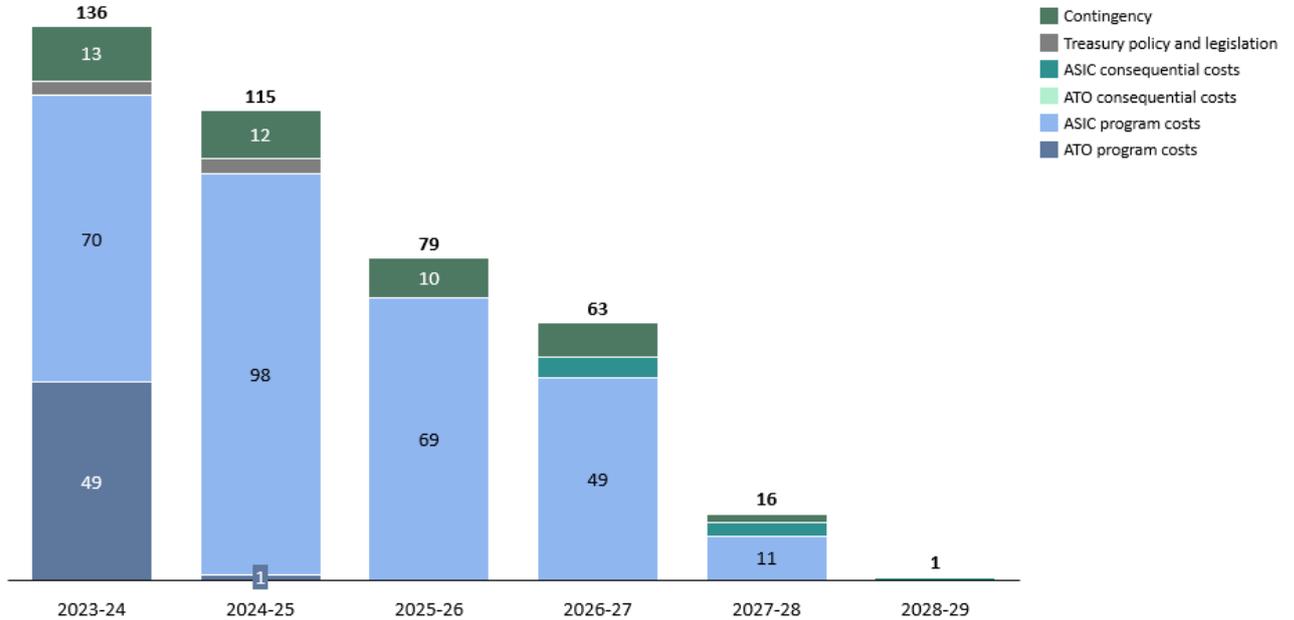
Explanatory notes:
*The costs are inclusive of indexation
*The costs exclude sustainment costs. Sustainment costs have been presented separately for government's consideration
Source: ASIC Option 1 MBR Costing 20230620, MBR Program Overview of ATO contracts, ATO Option 1 – stop now – cost of ABR explorer and ABN Lookup.

As shown in Figure A4.9, the additional funding is split between ASIC ($349 million), ATO ($54 million) and Treasury ($7 million).

Figure A4.9 Option 1 in-year spend by agencies, $ millions 2024–29
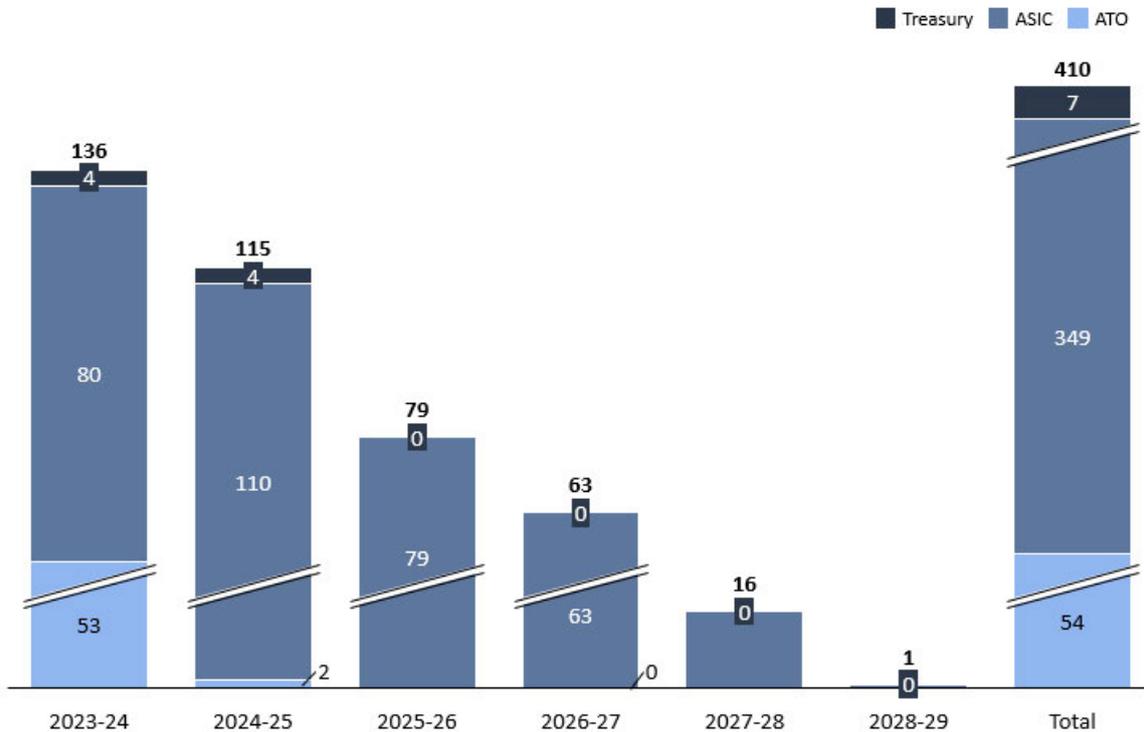
Explanatory notes:
*Total figures of costing may not add due to rounding
*The costs are inclusive of indexation
*The costs exclude sustainment costs. Sustainment costs have been presented separately for government's consideration
Source: ASIC Option 1 MBR Costing 20230620, MBR Program Overview of ATO contracts, ATO Option 1 – stop now – cost of ABR explorer and ABN Lookup.

MBR Program Costs

Cost 2: Transfer of APS FTE to other areas within agencies

Approximately 344 FTE from different agencies (210 ATO and 127 ASIC) will need be reallocated from the MBR Program. It will take approximately 3 months to conclude existing MBR Program work and transfer these FTE to other areas within the agencies. This is expected to cost the ATO approximately $6 million and ASIC approximately $4 million. The transfer of approximately 6 Treasury staff to other areas within the agency is assumed to incur no additional cost due to the low volume.

Cost 3: Removal of IT and telephony fit-out from Traralgon office

The ATO estimate for returning responsibility of the Traralgon office to ASIC is $1.9 million. This includes costs to remove telephony equipment and laptops that were issued to staff and will not be transferred to ASIC given the different operating environments.

Cost 4: Reversal of MoG change costs

ASIC estimates $17 million is required to unwind the MoG changes already implemented to support the MBR Program. This includes project implementation administrative costs of re-establishing an inquiry management function to handle inquiries related to the registries ($12.9 million), additional ICT services for FTE ($1.9 million) and re-establishing ASIC security around the physical site ($1 million).

For ATO, there are some costs of $5,000 for legal fees to novate a property lease back to ASIC and $20,000 to de-commission ATO-specific building security.

Cost 5: Re-platforming ABR Services

The transition of ABN Lookup and ABR Explorer that were planned to be decommissioned, or are historical systems that have been turned off, will need to be maintained at a cost of $17 million to the ATO. The ABN Lookup tools are assumed to be brought into the ATO from DISR while ABR Explorer will continue to be hosted by a third party. New ABR APIs are required as the Business Registry Services (BRS) channel is planned to be decommissioned and APIs will need to be provisioned in the new DSG channel. The current ABR APIs are on SBR1 and are at end of life. An uplift is required to place on ATO Service Gateway under Option 1.

Cost 6: Registry Stabilisation and Cyber Protection

ASIC anticipates $115 million is required to stabilise and cyber protect the broad range of existing systems and platforms. This includes ongoing operation of the mainframe, infrastructure required for stabilisation of legacy systems, uplifting data integration, and addressing key cyber issues ▮▮▮▮▮▮▮
▮▮▮▮▮▮▮

Cost 7: Re-platforming of Business Names Register

▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮ is due to expire within 3–5 years.
Major uplift is required to modernise this legacy system ▮▮▮▮▮▮▮▮▮
▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮ This is estimated to cost ASIC $32 million primarily related to architecture labour, PM labour, software licencing and testing.

Cost 8: Other re-platforming (excluding Business Names Register)

Re-platforming across a number of other systems will require $5 million in costs for ASIC. This cost is primarily related to development and application program changes, upgrades and regression testing.

Cost 9: Program Delivery

ASIC estimates $12 million in program delivery fees mostly consisting of labour costs to set up and run a PMO to manage resources to support stabilisation of legacy systems.

Cost 10: Registry Operating Environment

ASIC estimates $6 million to mitigate the registry operating environment key people risk as staff with expertise in legacy platforms are expected to depart creating a knowledge gap. This gap is expected to be filled by outsourcing to a third party.

Cost 11: ATO program wind down assurance

ATO estimates program assurance costs for obtaining new funding to undergo the work, and to establish an ongoing assurance process is estimated to be $540,000.

Cost 12: Independent gateway assurance

ASIC estimates an independent assurance by third party suppliers to complete a DoF Gateway Review is estimated to cost $300,000 based on historical costs.

Cost 13: Treasury policy and legislation costs

A further $7 million is expected by Treasury for policy analysis and advice related to winding back MBR legislation including reconciliation of amendments to Acts and other contingent amendments, reversal of MoG changes, decisions relating to fees, resolving immediate risks with ASIC's legacy systems and conduct analysis of policy and law changes required for reliant policies (e.g., BOI, FAR, ARFP and CCIV).

Cost 14: Professional Registry System

ASIC estimates the cost of modernising the Professional Registry System is approximately $105 million which includes transition onto ASIC's OneASIC system. This relates to urgent and unavoidable upgrade of Siebel to ensure existing registers can continue to function. If the government determines this is not immediately critical, it will still be a consequential cost under Option 1.

Consequential Costs

At a high level, there are at least $9 million in consequential costs which relate to eventual upgrade of systems and extension of existing licenses.

Contingency Costs

Program contingency costs (based on total incremental MBR Program costs) amount to $44 million with $4 million tied to ATO and $36 million related to ASIC costs. A contingency cost of 10% is applied to ATO costs and 15% to ASIC costs for this option considering the lower levels of uncertainty and complexity associated with backtracking on actions for the ATO compared to the higher uncertainty of maintaining dated legacy systems into the future for ASIC.

Similarly, the 10% contingency rate is applied to the consequential costs amounting to an additional $1 million.

Sustainment costs

Figure A4.10 Options 1 annual program sustainment cost
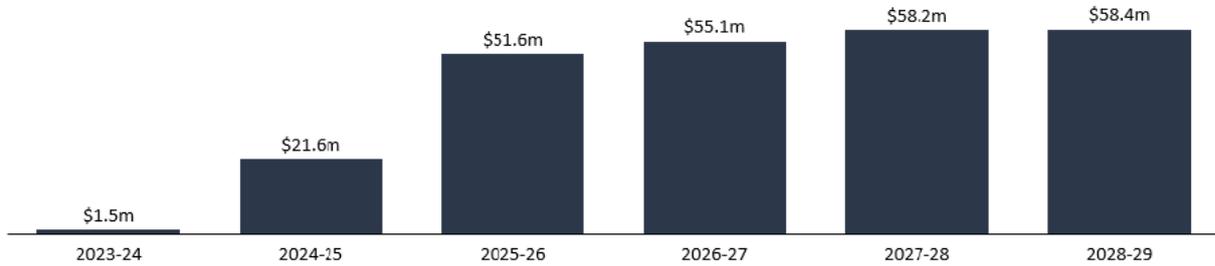
Table A4.10 Options 1 annual program sustainment cost

Cost category	Agency	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
Transition of ABN Lookup to include new ABR APIs	ATO		$5.86m	$5.98m	$6.10m	$6.22m	$6.35m
ASIC staff additional ICT Services Costs	ASIC			$1.14m	$1.17m	$2.05m	$1.21m
Call centre infrastructure	ASIC			$6.35m	$6.48m	$6.61m	$6.74m
Registry Operating Environment Systems Applications – ASIC Contract Management	ASIC		$0.84m	$1.71m	$1.74m	$1.78m	$1.81m
Registry Operating Environment Systems Applications – Run – Infrastructure	ASIC		$1.68m	$3.43m	$3.50m	$3.57m	$3.64m
Registry Operating Environment Systems Applications – Run – Staffing	ASIC		$8.57m	$17.50m	$17.83m	$18.19m	$18.55m
ASIC BI Publisher	ASIC			$0.10m	$0.11m	$0.11m	$0.11m
AWS Migration & Security Perimeter Zones	ASIC			$6.12m	$6.24m	$6.36m	$6.49m
Data Integration uplift costs	ASIC				$0.18m	$0.18m	$0.19m
Information Broker capacity	ASIC			$0.10m	$0.11m	$0.11m	
Software Licencing/Support	ASIC			$1.56m	$1.59m	$1.62m	$1.66m
Professional Registry System	ASIC	$1.5m	$4.61m	$7.58m	$10.01m	$11.39m	$11.62m
Total		**$1.5m**	**$21.6m**	**$51.6m**	**$55.1m**	**$58.2m**	**$58.4m**

Explanatory notes:
*Total figures of costing may not add due to rounding
*Includes indexation of 2% p.a. from 2025

As $86.2 million in funding was received as part of the October 2022 budget to sustain the Director ID regime there is no additional sustainment cost related to that platform.

Separately, as reflected in Figure A4.10, the cost to sustain Option 1 is estimated to be $21.6 million in 2024 –25 before rising to and stabilising at $51.6 million from 2025 –26. For the ATO, this relates to the transition of ABN Lookup to include new ABR APIs. For ASIC, sustainment covers a number of items including registry operating environment system applications, AWS Migration & Security Perimeter Zones and call centre infrastructure.

It is important to note that the professional registry system sustainment cost of $46.7 million was included above and is separate to the $105 million presented in the program costs.

Key assumptions

No unspent existing funding

It is assumed that funding provided to for Option 1 program implementation ($578 million) is expended by December 2023.

Indexation

An indexation of 2% per annum is applied from 2026 across all costs.

Sunk cost – $15 million

Given the nature of the program, minor assets have been either capitalised or are held as assets under construction in both ATO and ASIC. In the event that this option is accepted and implemented by government there will be negative impact to both the ATO and ASIC's financial position in the year incurred. If all things remain constant, this will mean that a technical financial loss will be incurred by both the ATO and ASIC of approximately $15 million for both agencies. There is no cash impact from this.

Removal of Assets – $1.7 million

The previous MoG change and transferring the call centre from the ATO to ASIC, the ATO will incur an asset write-off of $1.7 million. This is due to residual technical items that cannot be transferred to ASIC given their different operating environments. All physical assets will be transferred to ASIC as part of normal MoG transfers.

Decision timing and MBR Program start date

It has been assumed that time for future government decision and costing is needed before the MBR Program can restart under this option, taking the MBR Program to 1 January 2024. This means the remaining funded amount will have been spent. If this timeline is compressed and an earlier start date is possible then there will be a saving of approximately $12 million per month (which is the current program run rate).

Labour productivity

No labour productivity adjustments have been made to stop the program under Option 1 unlike Options 2 and 3.

The cost of proceeding and narrowing scope (Option 3)

Option 3 involves a significant refocus of the MBR Program by radically de-scoping to de-risk the MBR Program, whilst still delivering the core benefits of the program through a high integrity and high functionality business data spine. Option 3 incorporates all recommendations outlined in the Report. Given the parameters as outlined by the recommendations in the Report, the MBR Program under Option 3 will cost an additional $1,148–1,303 million over 2024–28, including consequential costs. This is approximately $727–882 million less than the total incremental cost of Option 2.

As a consequence of choosing Option 3, the government can also expect additional consequential costs to the sum of at least $180 million given ASIC will need to migrate registers now out of scope of the MBR Program and invest more money in upgrading their systems given they are no longer a temporary solution. A breakdown of the 4 categories of cost under Option 3 is set out in Table A4.11.

Table A4.11 Breakdown of total costs for Option 3

Cost category	Estimate	What is included in this category
Incremental MBR Program	$855 – $986m	ATO and ASIC work to migrate Companies Register, Company Names Determination, Reserved Company Names, data sharing solution between ATO and ASIC, and ASIC registry stabilisation and re-platforming work
Contingency	$113 – $137m	18% applied depending on risk
Total Incremental MBR Program cost	**$968 – $1,123m**	**Total estimated incremental MBR Program cost (excluding sustainment)**
Consequential	$163m	ASIC costs for work on professional registers, archiving historical registers, business names determination, business names CRM and non-technology enabling work; ATO costs for data consistency efforts
Consequential contingency	$17m	18% applied as a blended rate across the MBR Program
Total incremental cost	**$1,148 – $1,303m**	**Total estimated incremental funding required (excluding sustainment)**
Funded MBR Program cost to date	$578m	Existing funding to date
Total cost of option	**$1,726 – $1,881m**	**Sum of total funding to date and estimated additional funding** **Not including sustainment (see bottom row)**
Funding duration	**2024–29**	
Companies deployment	**Q2 2026–27**	
Stabilised sustainment (p.a.)	$81m	Expected stabilised amount in 2029

Summary of scope

Under Option 3, the program scope will be refocused on migrating and delivering functionality for the Companies Register, including Companies ABR, Company Names Determination function, all registers required by law to be connected to the Companies Register, and Reserved Company Names. This option prioritises the delivery of Core Business Registers. Professional registers and banned and disqualified registers will be considered out of scope for the MBR Program. ASIC will be responsible for migrating these registers to their regulatory system, and for maintaining lifecycle services and search functionality. Minimal data integration will occur between Companies Register and professional registers where necessary.

As a guiding principle under Recommendation 4, the MBR Program will build to the law. This means the MBR Program will give precedence to law and policy requirements, defining a list of law and policy changes to progress by exception and not pursuing regulatory changes outside of this list.

Approach to costing the option 3

Option 3 was costed by building on the Option 2 costing approach and modifying to reflect the refocused scope of Option 3. The high-level steps taken were as follows:

- building on the data used to cost Option 2

- using the same assumptions made to develop the revised Option 2 cost, including productivity, widget estimates, program management cost estimates etc.

- reducing the scope of costs included from Option 2 to ensure only work focused on the Companies Register was included

- adding additional cost estimates of extra effort needed to capture a nuanced Option 3 end state, for example the cost of data syncing given registers are distributed across ATO and ASIC

- capturing "consequential" costs for government to reflect the fact that a large amount of planned work that is likely to become inevitable is no longer captured in the refocused scope.

Cost breakdown

This section sets out a breakdown of the cost drivers within Option 3, as summarised in Figure A4.11. A deep dive will follow in this section in accordance with the numbers indicated under the graph.

Figure A4.11 Option 3 revised total cost of ownership (TCO) breakdown, $ million 2024–29
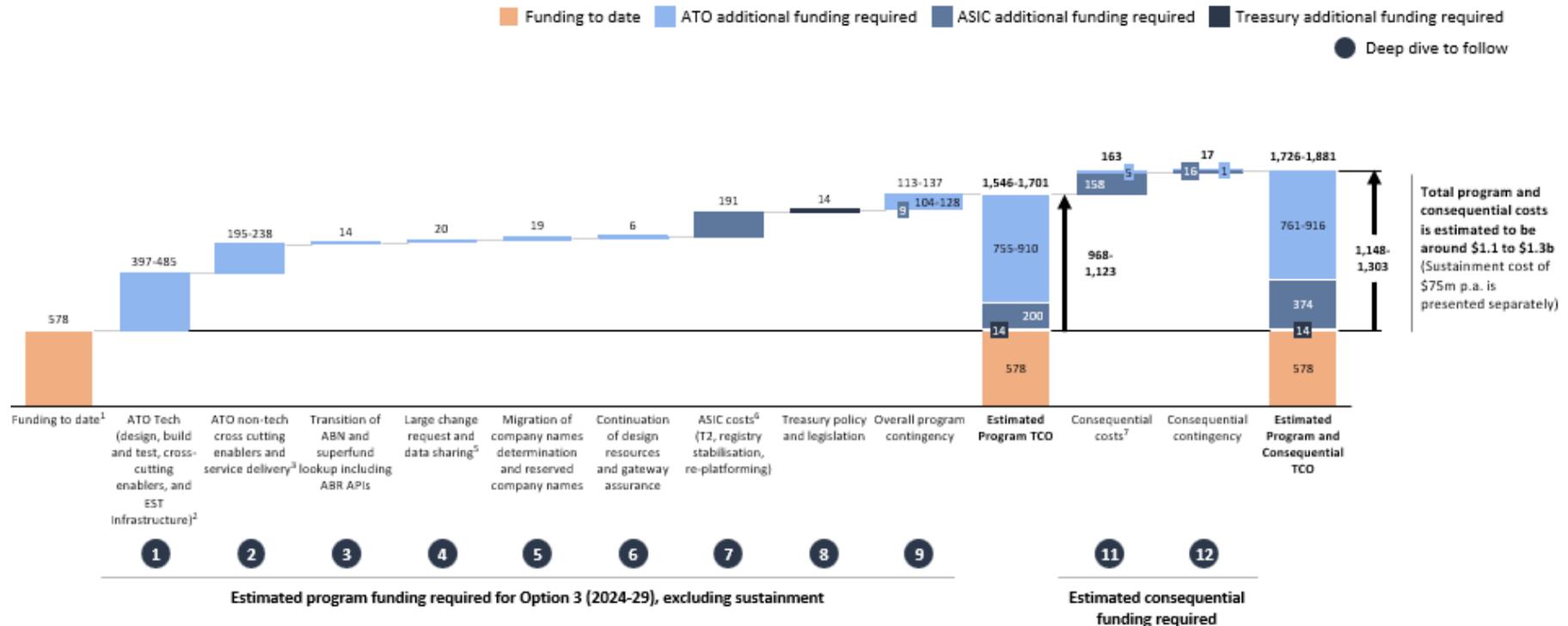
Explanatory notes:

*Excludes $86 million funding to the ATO and ASIC for Director ID sustainment and ASIC stabilisation as outlined in the October 22 –23 budget

*Tech costs for Companies and Business Inbox relating to IT, data, and outbound correspondence system development based on data from Option 2. Includes EST infrastructure/Licensing costs of $17 million and property operating expense.

*Non-tech enablers include program management and administration, change management, business process and experience, legal, policy, risk, strategy, marketing and communications and finance costs.

*ATO service delivery includes transition costs for telephony, processing and other support for clients. The costs relate to Companies and Business Inbox ABRS, Individuals and Intermediaries, Small Business, Client Account Services, and Strategy and Support.

*Large change request costs include costs for ASIC data sync, rework associated with Verne product enhancements, impact of large documents, MBR costs for the initial data load, and impact on Enterprise Data Warehouse ETL.

*ASIC costs include T2 data migration, strategy, delivery, archiving, testing and management, staff augmentation, legacy environment 142 stabilization phase 3, re-platforming of business names, registry 142 stabilisation and cyber protection.

*ASIC consequential costs include costs for professional registry system, archiving historical registers, call centre, program delivery, business names determination, business names CRM. ATO consequential costs include costs of updating central list for *Companies Names Determination (ABRS) and Business Names Determination (ASIC), estimated through the proxy cost of the National Names Index (NNI)

*Total figures of costing may not add due to rounding

*The costs are inclusive of indexation

Source: MBR Option 3 costing model, ATO MBR program costing, ASIC MBR program costing.

As reflected in Figure A4.12 below, the in-year spend under Option 3 gradually ramps up to a peak of $400 million across 2024 –25 (including program costs, contingency and consequential costs), and that steadily declines towards 2028 –29 as the scope of the MBR Program is delivered. FTE numbers follow the same gradual incline and decline, dropping rapidly in the last 2 years of the MBR Program. This is a lower workforce compared to Option 2, aligned to Recommendation 13 in the Report, which states that the program should right-size resourcing to align with refocused scope and reduced complexity.

Figure A4.12 Option 3 in-year spend by key cost components, $ millions 2024–29
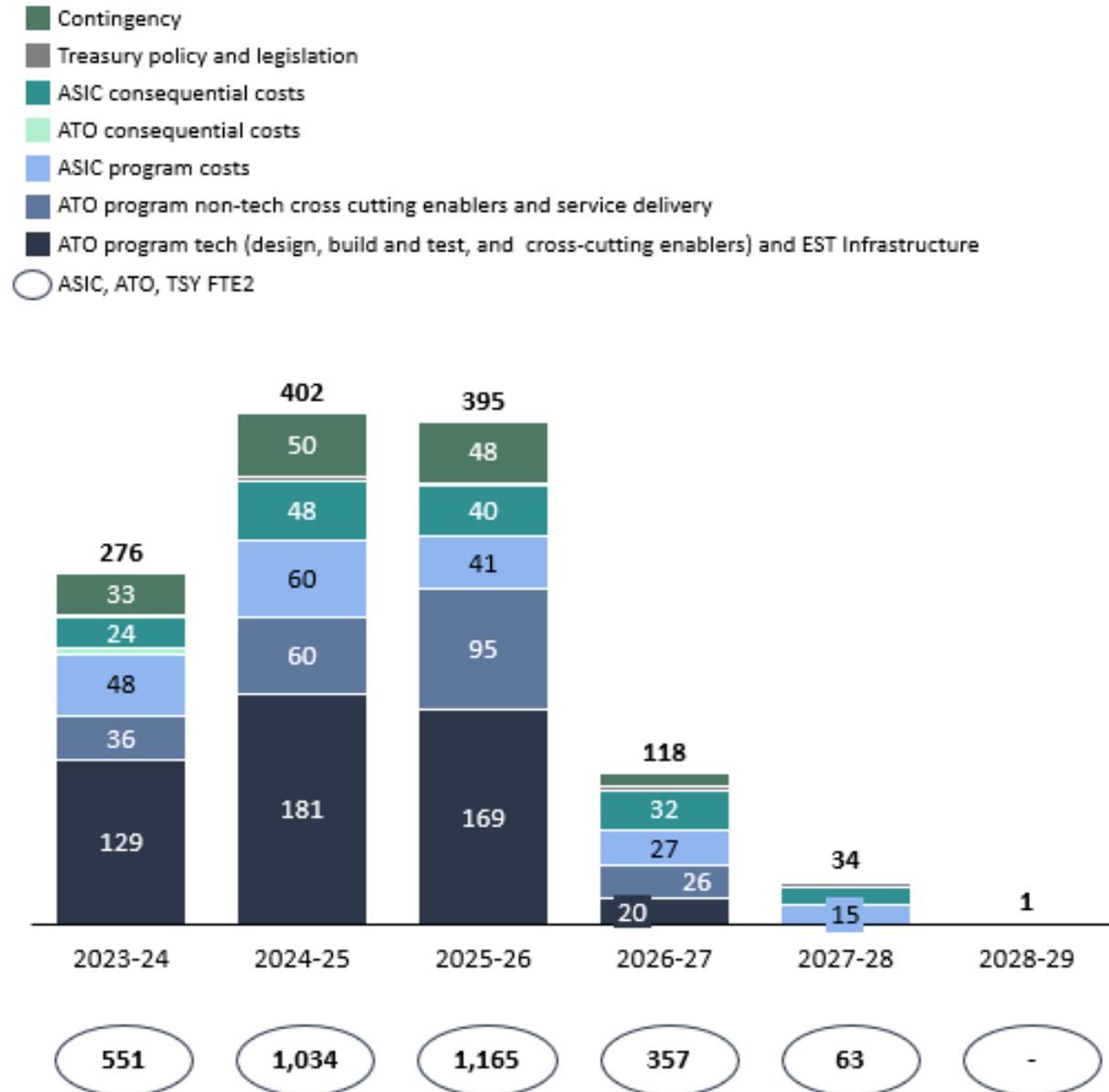
Explanatory notes:
*Includes consequential but excludes sustainment costs. Costings commence 1 January 2024.
*FTE include APS and contractors. Workforce numbers are indicative and needs to be smoothed to provide a uniform profile.
*Total figures of costing may not add due to rounding
*The costs are inclusive of indexation
*The costs exclude sustainment costs and sustainment costs have been presented separately for Government's consideration
Source: MBR Option 3 costing model, ATO MBR program costing, ASIC MBR program costing

As shown in Figure A4.13 below, ATO will account for around 68% of the funding with $838 million of work, ASIC will account for 31% of the funding with $374 million costs, and Treasury will account for the remaining 1% with $14 million of work.

Figure A4.13 Option 3 in-year spend by agencies, $ millions 2024–29
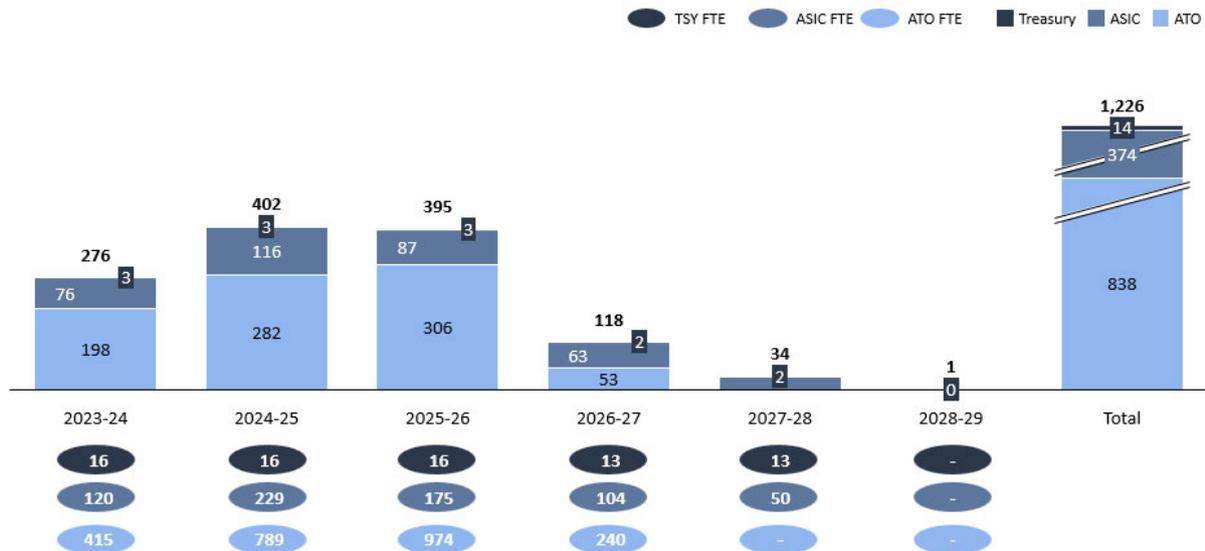
Explanatory notes:
*Includes consequential but excludes sustainment costs. Costings commence 1 January 2024.
* FTEs include both APS and contractors. FTEs reflect the effective number of staff required accounting for productivity. Adjustments. Workforce numbers are indicative and needs to be smoothed to provide a uniform profile.
*Total figures of costing may not add due to rounding.
*The costs are inclusive of indexation.
*The costs exclude sustainment costs and sustainment costs have been presented separately for government's consideration.
Source: MBR Option 3 costing model, ATO MBR program costing, ASIC MBR program costing

Program costs

This section details the cost categories numbered 1 – 9 below.

Cost 1: ATO Technology (design, build and test, and cross-cutting enablers)

This cost bucket of between $397 million and $485 million covers the design, build and test of technology focused work the ATO will undertake to deliver the companies release, business inbox, and other associated technology deliverables under Option 3. This cost includes the EST infrastructure and licensing costs of $17 million for the ATO. Technology cost estimates for Companies Register and business inbox are based on data from the ATO and ASIC's original cost models under Option 2, given they are the same costs, with the added scope included to account for Names Determination migration.

APS oncosts relating to superannuation allowance, long service leave allowance, staff training and development, human resources support, organisational services, desktop ICT services, property operating expenses, and worker compensation were included to be consistent with Department of Finance's costing template. This includes a property operating expense of ▓▓▓▓ per FTE per annum. More detailed assumptions are outlined in the Assumptions section below.

This bucket also includes cross-cutting enablers associated with the tech build under Option 3 such as enabling technology effort, enabling technology infrastructure, the Smarter Data Program, MBR Pipeline and Design teams, MBR Delivery and Integration teams, MBR Delivery and Integration, Marketing and Communications, and strategy and support. As outlined in Recommendation 19 of the Report, this will involve continuing to use Verne as the core of the new Companies Register system.

While the transfer of CCIVs is in scope under this option, it is not included in the technology cost as it has received its own funding measure.

It is also important to note that labour productivity adjustments have been made to the costings in Option 3 to continue the program, similar to under Option 2.

Cost 2: ATO non-tech cross cutting enablers and transitional service delivery
Option 3 will cost the ATO between $195 million and $238 million in transition costs and non-technology enabling work. Non-technology enablers include program management and administration, change management, business process and experience, legal, policy, risk, strategy, marketing and communications and finance costs. Transitional service delivery costs include the cost of a surge workforce to manage higher call centre demand during the transition, telephony, correspondence templates, and data processing work. Costs for non-technology enablers have also been accounted the transition costs incurred by the ATO. The costs relate to Companies Register and business inbox (ABRS), individuals and intermediaries, small business, client account services, and strategy and support. Service delivery funding would also be required under Option 2.

Cost 3: Transition of ABN Lookup
The $14 million is a once off cost to upgrade ABR wholesale services and transition ABN LookUp services. This effort includes upgrading existing ABR wholesale services from SBR1 APIs, and transitioning ABN LookUp services from DISR to ATO-hosted APIs, and building authentication for ABR wholesale and retail channels. The work is required as the APIs are at end of life and currently unauthenticated following work on the rest of ATO's systems.

Cost 4: Large change requests and data sharing
The cost of $20 million includes costs associated with supporting data syncing with ASIC and managing change requests. Data sharing costs capture the incremental work required to ensure data sharing and consistency across ATO and ASIC and includes initial data load costs for the MBR Program, and work to uplift ETL performance when integrating information into ATO's Enterprise Data Warehouse. Allocating funding for data sharing is critical to the success of Recommendation 17 in the Report, which calls for the ATO to ensure it provides ASIC with timely access to the company and business data. Managing change request work includes processing rework associated with Verne product enhancements and managing large documents (which requires the MBR Program go work outside of Verne).

Cost 5: Migration of company names determination and reserved company names
The cost of $19 million supports the work required to migrate names determination functionality for companies (which makes sure new company names align to company name rules) and the reserved company names register to the new ABR platform. It will occur once the Companies Register and associated functions/registers have been delivered. This has been included in the scope of Option 3 as it will advance mitigation of ASIC's legacy systems.

Cost 6: Continuation of design resources and gateway assurance

The ATO has indicated that it is critical to retain the current design team upon completion of the design deliverables to provide design support, given the size and complexity of the companies release. This cost is estimated to be $5.7 million. This should also support for continuous improvement of business processes.

The costings also incorporated an estimate of $300,000 for gateway assurance as it is expected that further assurance is required as part of future budget process.

Cost 8: ASIC costs

The cost of $191 million accounts for all the in-scope work ASIC will be funded for under Option 3. ASIC costs include migration of the Companies Register to the ABRS, re-platforming of business names, and minimal legacy environmental stabilisation and cyber protection required to support data integrity and mitigate risk. Part of this work involves ASIC stabilising its systems to account for the build of an enquiry management function. This functionality is currently run by the ABRS under a delegation model. To sustain this in steady state, ASIC will need infrastructure and a team to run it.

This cost bucket also includes all enabling work required to support this data migration/archiving, such as strategy, delivery, testing and management, and staff augmentation. And all work required to support this.

Cost 9: Treasury policy and legislation

The cost of $14 million covers the work required by Treasury to consider the impact of law reform and policy changes to the MBR Program under Option 3. The amount covers a team of 16 FTE between 2024 –26 which ramps down to 13 FTE by 2027 –28 (on-going considerations expected numbers to decrease as the program is progressively delivered).

Consequential costs

The adoption of Option 3 brings with it certain unavoidable costs for the government, amounting to a minimum of $180 million. These costs will be spread across the ATO, ASIC, and other agencies. One cross-government cost is the combined higher sum of sustainment cost compared to Option 2. This is due to ASIC continuing to maintain its own systems, along with ATO sustainment for the new ABRS system – 2 sustainment costs compared to the previously planned one consolidated ABRS system.

For the ATO, there are approximately $5 million in consequential costs, including:

- Approximately $5 million to support the ongoing work of updating a central list for Companies Names Determination (ABRS) and Business Names Determination (ASIC), given they will now be split across the agencies. This cost has been estimated through the proxy cost of the National Names Index (NNI).

- <$1 million contingency cost for the work of updating the central list, based on an 18% contingency rate.

- For ASIC, there are approximately $160 million in consequential costs, including:

  - Approximately $1.7 million to archive historical registers (previously considered part of Tranche 4 under the MBR Program but out of scope under Option 3, but still necessary for ASIC to complete).

— Approximately $110 million to complete the work planned to migrate the regulatory professional systems from legacy systems ▊▊▊▊▊▊▊▊▊▊▊▊ to the regulatory environment.

— Approximately $10 million to re-build call centre capability given ASIC have decommissioned the infrastructure in anticipation of all registers migrating to the ABRS. ASIC estimated that it will require around 16 FTE to support call centre enquiries.

— Approximately $12 million to complete work associated with Business Names Determination and Business Names CRM, given this work is now out of scope of the MBR Program.

— Approximately $27 million in additional program delivery costs compared to Option 2 to support work now outside of the MBR Program.

• For other agencies, there will also be costs related to linking their systems or registers to Director ID, including DISR, the ACNC, and ORIC.

Contingency costs

The program and consequential contingency costs for Option 3 are estimated to be between $130 million and $154 million over the course of the MBR Program (2024 –29). This is based on a blended rate of around 18% of the total estimated MBR Program cost, which considers the potential uncertainties associated with continuing to deliver the core elements of the MBR Program balanced against the increased room for proactive improvement of processes allowed for by the reduced scope and complexity of Option 3. This percentage is lower than Option 2 given the reduced scope and need for regulatory change, and assumed improved program governance functionality. However, it still remains high relative to comparable benchmarks to account for the ongoing complexity of the MBR Program under Option 3, and the potential increase in risk now that ATO and ASIC work will be undertaken concurrently within and outside of the MBR Program scope.

Sustainment costs

Sustainment costs under Option 3 are estimated to reach relative stability by 2029–30 at an approximate cost of $81 million annually. This cost will increase slowly from 2026–27 and is categorised into 3 silos of sustainment costs as outlined in Table A4.12.

Figure A4.14 Sustainment costs under Option 3, $ millions 2025–30
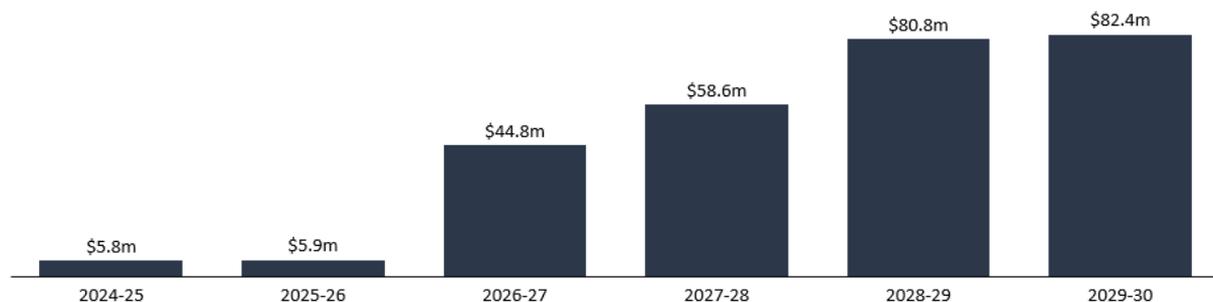
Table A4.12 Sustainment costs under Option 3, $ millions 2025–30

Cost category	Agency	2024–25	2025–26	2026–27	2027–28	2028–29	2029–30
Sustainment of Companies and Business Inbox	ATO			$38.8m	$52.51m	$53.56m	$54.62m
Sustainment of ABR APIs	ATO	$5.8m	$5.9m	$6.0m	$6.09m	$6.18m	$6.32m
ASIC sustainment	ASIC					$21.06m	$21.46m
Total		**$5.8m**	**$5.9m**	**$44.8m**	**$58.6m**	**$80.8m**	**$82.4m**

Explanatory notes:
* Sustainment of Companies and Business Inbox estimated at 10% of build costs. It also accounts for sustainment for 10% of Companies release which has been built.
*ASIC sustainment costs cover costs relating to IT service management, registry PMO, transaction processing, inter-agency registry governance, law & policy design support, corporations data, data strategy and governance, software licensing and support, business names and regulatory enquiries support.
*Total figures of costing may not add due to rounding
Source: MBR Option 3 costing model, ATO MBR program costing, ASIC MBR program costing

Companies Register, business inbox and ABR API sustainment costs for the ATO are estimated to be 10% build cost. This estimate includes an assumption that it will support continuous improvement of business processes and integrity of registry data over time. ASIC sustainment costs were provided by ASIC and cover costs relating to IT service management, registry PMO, transaction processing, inter-agency registry governance, law & policy design support, corporations data, data strategy and governance, software licensing and support, business names and regulatory enquiries support.

Given Option 3 scope is focused solely on delivery of the Companies Register and associated functions, sustainment costs are only based on effort required to deliver this work, and sustainment costs for functions delivered in relation to the Companies Register will not start until this work has been delivered. The Director ID regime will also incur a sustainment cost under this option; however, this has already been funded and amounts to approximately $20 million.

Sustainment costs are based primarily on IT build cost and include any additional costs to maintain current systems above current funding requirements.

Outline of key assumptions

The following section outlines the key assumptions used to develop Option 3 costs, and reasons in support of the assumptions:

Table A4.13 Outline of key assumptions used to develop Option 3 costs

Topic	Assumption	Reasoning
APS/contractor split (for ATO)	A split of around 60:40 APS to contractor ratio is assumed for ATO technology, and a split of 85:15 APS to contractor ratio is assumed for ATO non-technology FTE. ASIC FTEs also assume a 60:40 APS to contractor ratio.	This ratio for both tech and non-tech FTE is consistent with ATO's current workforce modelling, as it was deemed reasonable based on current market conditions and an assessment of what is needed to deliver the work under Option 3. The lower proportion of contractors for non-technology activities reflect the lower need for specialised external resources. The assumed proportion of contractors under Option 3 is lower than current state (which is approximately 60% contractors). This reflects Recommendations 13 and 14, which provides that the MBR Program should establish the right mix of personnel across APS, labour hire and professional services to minimise disruption and risk within the MBR Program and revisit the use of vendors.
Tech ATO FTE resource level	A consistent resourcing profile of 480 ATO technology FTE is assumed between 2024 –27.	This assumption was made based on Recommendation 15, which provides that the MBR Program should establish and maintain a consistent resource profile for delivery of the Companies Register to maintain a steady cadence, increase predictability, and improve productivity
Non-tech ATO FTE resource levels	An average of 130 non-tech ATO FTEs (APS + contractors) per annum is assumed to support cross-cutting activities such as program management, change management, business processes, legal, policy, risk, strategy, marketing and communications and finance costs. The following benchmarks (as % of tech costs) were used to estimate non-tech cross-cutting costs: • Program management: 7% • Change management, business processes, and experience: 6% • Legal, policy, risk, strategy: 6% • Marketing and communications: 2% • Finance costs: 1%	This assumption is based on the level of effort required for non-tech enablers, which was estimated at approximately 22% of tech-related effort, which is broadly in alignment with industry benchmarks of 20 –25% and ATO's Option 2 costings.
Transition ATO FTE resourcing	An average of 150 FTEs p.a. between 2024 –27 is assumed as required to support the transition of Companies from ASIC to ABRS The costs are estimated to be $98 million. Non-tech cross-cutting enablers for service delivery have been accounted as part of the costings.	This assumption is based on ATO's estimates of FTEs required, informed by the following Option 2 costing models: • Companies and business inbox ABRS • Individuals and intermediaries • Small business • Client account services • Strategy and support.

Topic	Assumption	Reasoning
EST Infrastructure and Licensing	$17 million of costs for EST infrastructure and licensing for companies release	The assumption is provided by the ATO and assumed to be adequate
Proportion of non-tech enabler costs	The following proportions of non-tech FTE requirements are assumed across the non-technology enabler FTEs: • change management, business process and experience: 6% • program management and administration: 7% • legal/policy/risk/ strategy: 6% • marketing and communications: 2% • finance: 1%.	These assumptions are based on the share of non-technology activities as a proportion to ATO's total program cost in Option 2, which are broadly in line with industry standards.
FTE productivity assumptions	**APS** It is assumed that 50% of APS in 2024 are new and 50% productive; and everyone else is 80% productive over first 6 months. In the steady state, it is assumed that there is 10% attrition and new staff, and the remaining 90% of APS staff are 90% productive. **Contractors** Assume that 20% of contractors in 2024 are new and 80% productive; and everyone else is 95% productive over first 3 months. In the steady state, it is assumed that there are 10% attrition and new staff, and the remaining 90% of contractors are 95% productive.	These assumptions are based on comparable benchmarks and incorporate assumptions from Department of Finance on activities such as loadings, leave, and training. The APS productivity estimates are based on the following assumptions • New APS staff spends 2.5 days/week training over the first 6 months (50% productivity). • Existing APS staff spends 1 day/week coaching new staff (80% productivity over the first 6 months) and 0.5 day coaching after the first 6 months (90% productivity). The contractor productivity estimates are based on the following assumptions • New contractors spend 1 day/week upskilling over first 3 months (80% productivity). • Existing contractors spend 0.25 days/week on coaching (95% productivity). It is assumed productivity will be supported by new program design under Option 3, including: • continuity of the FTE resource level (described above) reduces the need for extensive onboarding and training • consistent delivery timeline with no fast ramp up also means longer testing lead times, minimising the chances of costly errors or delays. It was assumed that contractors achieve a higher productivity rate than APS FTE based on the following reasons: • contractors are typically engaged for specific tasks or projects, allowing them to focus their efforts solely on those assignments

Topic	Assumption	Reasoning
		• contractors generally bring specialised skills and expertise that allow them to quickly adapt and pick up the task required
		• contractors are generally driven by performance-based targets and contractual obligations.
Pday estimates	It is estimated that it takes approximately 224,000 Pdays to undertake technology-related activities to deliver the companies release and business inbox	Pdays, which are used in ATO costing to estimate number of working days required for particular pieces of work (widgets), are primarily based on ATO cost models for Option 2 relating to key technology related activities for the Companies Register (Element A) and business inbox (Element J): • Element A: IT Delivery – Design, build and test effort • Element A: IT Delivery – Enabling Areas • Element A: IT Delivery – Enabling Infrastructure • Element A: Smarter Data Program • Element A: Strategy and Support • Element J: IT Delivery – Design, build and test effort • Element J: IT Delivery – Enabling Areas • Element J: IT Delivery – Enabling Infrastructure • Element J: IT Delivery – Strategy and Support
FTE rates	The Pdays were converted to FTEs requirements and multiplied by a blended APS and contractor day rates to understand the cost of effort: • APS rate: ▊/FTE per day excluding on-costs • Contractor rate: ▊/FTE per day	The APS rate is calculated based on the blended profile mix in Option 2 of: • APS 5: 10% • APS 6: 25% • EL1: 48% • EL2: 15% • SES1: 1.5% • SES2: 0.5% The average contractor rate of ▊/FTE per day was used based on current average rate paid by the ATO to external contractors.

Topic	Assumption	Reasoning
On cost assumptions	• Superannuation allowance: 15.4% • Long service allowance: 2.6% • Staff training and development: 3.0% • Human resources support costs: $1,451/FTE p.a. • Organisational services costs: $7,145/FTE p.a. • Desktop ICT services costs: $5,717/FTE p.a. • Property operating expenses: /FTE p.a. • Workers Compensation Premium: $1,500/FTE p.a.	Assumptions were adopted based on Department of Finance costing template.
Escalation of FTE rates	APS labour rates will increase at 3.5% per annum, and contractor labour costs will increase at 3.4% per annum	APS labour escalation was indexed at 3.5% based on the average 3% ATO Enterprise. Agreement pay rise for August 2023 and a potential 4% Enterprise Bargaining Agreement pay rise. IT contractor wages are escalated at 3.4% reflective of IT salary growth trends of 3.4% between 2019 and 2022 and wage price index growth of 3.2% between June 22 and March 23.
Indexation: escalation of on costs (indirect labour costs)	On costs will increase by approximately 2% per annum for the following cost categories: human resources support, organisational services, desktop ICT services, property operating expenses.	These assumptions were based on a mix of historical APS indexation figures and average indexation profiles provided through the DoF template.
Indexation: escalation of infrastructure costs	Infrastructure costs will increase by 2% per annum.	Based on average profile provided through DoF.
Indexation: escalation of sustainment costs	Sustainment costs will increase by 2% per annum.	Based on average profile provided through DoF.
Other agency costs not included	Other work to link agencies to Director ID not included (e.g., ACNC and ORIC).	Focus of the analysis is on ATO and ASIC, so work originally planned relating to other agencies would need to be captured in a future government decision process.

Topic	Assumption	Reasoning
Program burn rate and momentum	The program will expend its current funding by the time they commence with the new scope under Option 3 in January 2024, based on continued momentum and run-rate of $12 million per month.	It has been assumed that time for future government decision and costing is needed before the MBR Program can restart under this option, taking the MBR Program to 1 January 2024. This means the remaining funded amount will have been spent. If this timeline is compressed and an earlier start date is possible then there will be a saving of approximately $12 million per month (which is the current program run-rate).
Seed funding under Recommendation 4	It is assumed ATO, ASIC and the Department of Treasury will fund the cross-agency team to examine law reform opportunities under Recommendation 4 of the Report and additional funding is not required.	Seed funding for a cross-agency team to examine law reform opportunities is required to reduce risk and complexity ahead of future decisions for Business Names Register and the ABR has not been specifically costed for Option 3, as agencies will not require additional funding for this.

The cost of revisiting transformation options (Option 4)

Option 4 involves a complete reset of the MBR Program by establishing a new registry agency to administer registry services and hold the Registrar function. Option 4 has not been costed, pending further refinement and definition of scope.

Key elements that would require costing under this option would include the establishment and transition of the new registry agency, the re-evaluation of the future state operating model and governance arrangements, the selection and implementation of appropriate technology, and the integration of registry services with other regulatory systems. As Option 4 represents a significant departure from the current program, further analysis and refinement is required before this option is given closer consideration.

The cost of stopping, stabilising and targeted uplift (Option 5)

Option 5 redirects the program's focus to ASIC, including granting ASIC powers equivalent to those currently held by a Registrar role and prioritising the modernisation of ASIC systems and improving data integrity. The Director ID regime will be maintained under the ABRS and integrated with modernised ASIC systems. Given the parameters outlined in the Report, Option 5 is going to cost an incremental $475 million and $550 million. This cost estimate builds on the MBR Program and consequential costs under Option 1.

The costs for Option 5 were calculated based on the costs to stop the program (Option 1), with incremental costs to deliver retaining Companies and Business Names Register with ASIC, linking Director ID with the Company register, supporting data exchange between regulators and other government agencies, and undertaking selected continuous improvements. Options 1 and 5 includes approximately $10 million to support the transfer of APS FTE that are currently supporting the MBR Program to other areas within their respective agencies. Although it has not been costed in Option 5, ASIC may instead choose to retain and reallocate some of its existing APS FTE on the MBR Program to support the incremental activities instead of ceasing and re-hiring new staff.

A breakdown of the 4 categories of cost under Option 5 is set out in 0.

Table A4.14 Option 5 total costs breakdown

Cost category	Estimate	What is included in this category
Incremental MBR Program	$450m	Costs to stop the MBR Program (same as Option 1), plus cost to link Director ID to ASIC systems, undergo selective modernisation of ASIC legacy systems, and support data exchange between ASIC and ATO
Contingency	$55m	15% applied depending on risk
Total Incremental MBR Program cost	**$505m**	**Total estimated incremental MBR Program cost (excluding sustainment)**
Consequential	$9m	Additional program management costs including Gateway Reviews, work to integrate Director ID with the Business Registration Service (BRS), other agency costs to link to Director ID
Consequential contingency	$1m	15% applied
Total incremental cost	**$515m** ($475 – $550m)	**Total estimated incremental funding required (excluding sustainment)**
Funded MBR Program cost to date	$578m	Existing funding to date
Total cost of option	**$1,053 – $1,128m**	**Sum of total funding to date and estimated additional funding (excluding sustainment)**
Funding duration	2024–28	
Companies deployment	-	
Stabilised sustainment (p.a.)	$54m	Expected stabilised amount in 2027

Summary of scope

Option 5 enables ongoing operation of the mainframe and establishes a function within ASIC to deliver a targeted modernisation of ASIC registry systems to alleviate ASIC's system risks and deliver many of the benefits enabled by improved data quality and integrity. Under this option, the Director ID regime and the ABR would continue to be administered by ATO, but ASIC would continue to have responsibility for all other registers in scope of the MBR Program (excluding ABR and Director ID).

Option 5 includes 4 key scope items:

• Retaining Companies and Business Names Registers with ASIC and undergoing a MoG to transition the function from ABRS to ASIC.

• Linking Director ID (which remains with ABRS) with the Companies Register in ASIC.

• Ensuring data exchange between regulators and other government agencies, and ASIC providing data for users of information.

• Selected continuous improvement from both ASIC and the ATO to deliver targeted uplifts in capability that will ensure data integrity and alleviate user pain points, including ongoing modernisation of ABR.

The costs of Option 5 include Treasury policy and legislation costs of $7 million as per Option 1. A noted implication of Option 5 is the removal of 24-hour services. This is because ASIC does not provide 24/7 services and is not required to provide this uplift in client services under Option 5, given the focus is on improving data integrity. This is a lost capability compared to Option 2 and 3.

Another outcome of Option 5 is there will be no ability to deliver a public search function for Director ID. ASIC will undertake to find a solution for an interagency search / data exchange process, given Director ID will still be administered by the ABRS, but will not provide a public search function if a policy decision is made to progress one.

Approach to costing the option 5

The costs for Option 5 are calculated based on the costs to stop the program (Option 1), with key incremental costs to deliver retaining Companies and Business Names Registers with ASIC, linking Director with the Companies Register, supporting data exchange between regulators and other government agencies, and undertaking selected continuous improvements. Under the current costings, it is assumed that remaining funding of the MBR Program ($103 million at June 2023) will be utilised to December 2023 and the new funding will commence on 1 January 2024. Additional savings could be realised and will be contingent on timely decision-making by the government.

There were 2 high-level steps taken to develop an Option 5 cost starting from the total cost estimate of Option 1:

- adding additional ATO and ASIC estimates of the minimal level of further work required to deliver a high integrity data spine within ASIC (for example, cost to link Director ID to the Companies Register in ASIC) and address some key user pain points

- identifying key consequential costs that result from the added scope of Option 5 compared to Option 1.

Breakdown of costs

This section sets out a breakdown of the cost drivers within Option 5, as summarised in Figure A4.15. A deep dive will follow in this section to describe the costs in more detail, by detailing the discrepancies between Option 1 and 5 costs.

Figure A4.15 Option 5 total in-year spend and projected FTE, $ millions 2024–28
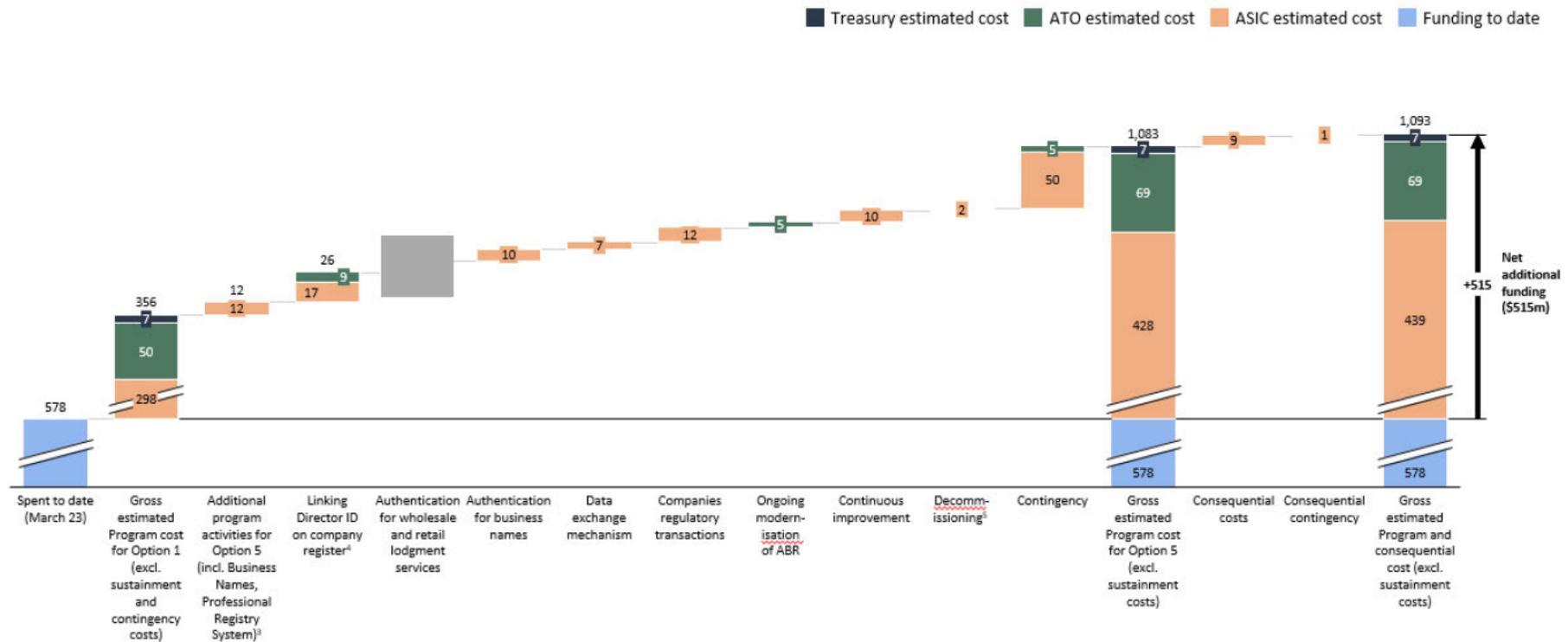
Explanatory notes:
*includes estimated costs for ORIC, ACNC
*includes indexation of 2% from 2025
*includes delta in ASIC costings for Business Names, Professional Registry System, Program Delivery, and Registry Stabilisation and Cyber Protection
*includes ATO costs to support linking of Director ID from the ABRS with ASIC systems, including building 3 APIs and bulk report mechanism
*decommissioning of legacy systems that have been replaced in Option 5
*the costs exclude sustainment costs. Sustainment costs have been presented separately for government's consideration.
Source: ASIC Option 1 MBR Costing 20230620, MBR Program Overview of ATO contracts, ATO Option 1 – stop now – cost of ABR explorer and ABN Lookup, ATO MBR Review Option 1,4, 5, ASIC Option 5 MBR Costing.

As reflected in Figure A4.16, the in-year spend under Option 5 gradually ramps up to a peak of $188 million across 2024–25 (including program costs, contingency and consequential costs), and steadily declines towards 2028–29 as the scope is delivered.

Figure A4.16 Option 5 in-year spend by key cost components, $ millions 2024–29
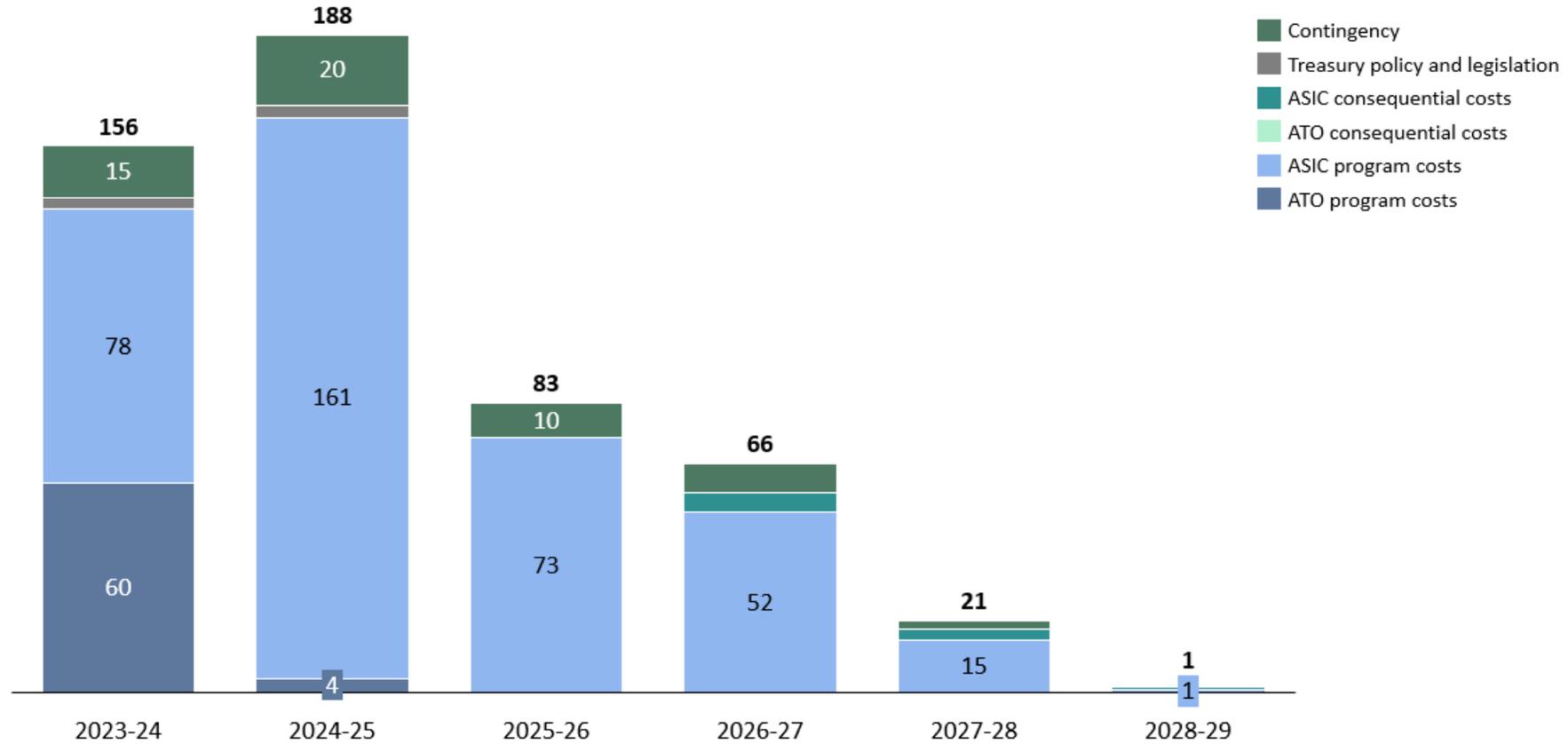
Explanatory notes:
*The costs are inclusive of indexation
*The costs exclude sustainment costs. Sustainment costs have been presented separately for government's consideration
Source: ASIC Option 1 MBR Costing 20230620, MBR Program Overview of ATO contracts, ATO Option 1 – stop now – cost of ABR explorer and ABN Lookup, ATO MBR Review Option 1,4, 5, ASIC Option 5 MBR Costing.

As shown in Figure A4.17 below, ATO will account for 14% of the funding with $69 million of work, ASIC will account for 85% of the funding with $439 million costs, and Treasury will account for the remaining 1% with $7 million of work.

Figure A4.17 Option 5 in-year spend by agencies, $ millions 2024–29
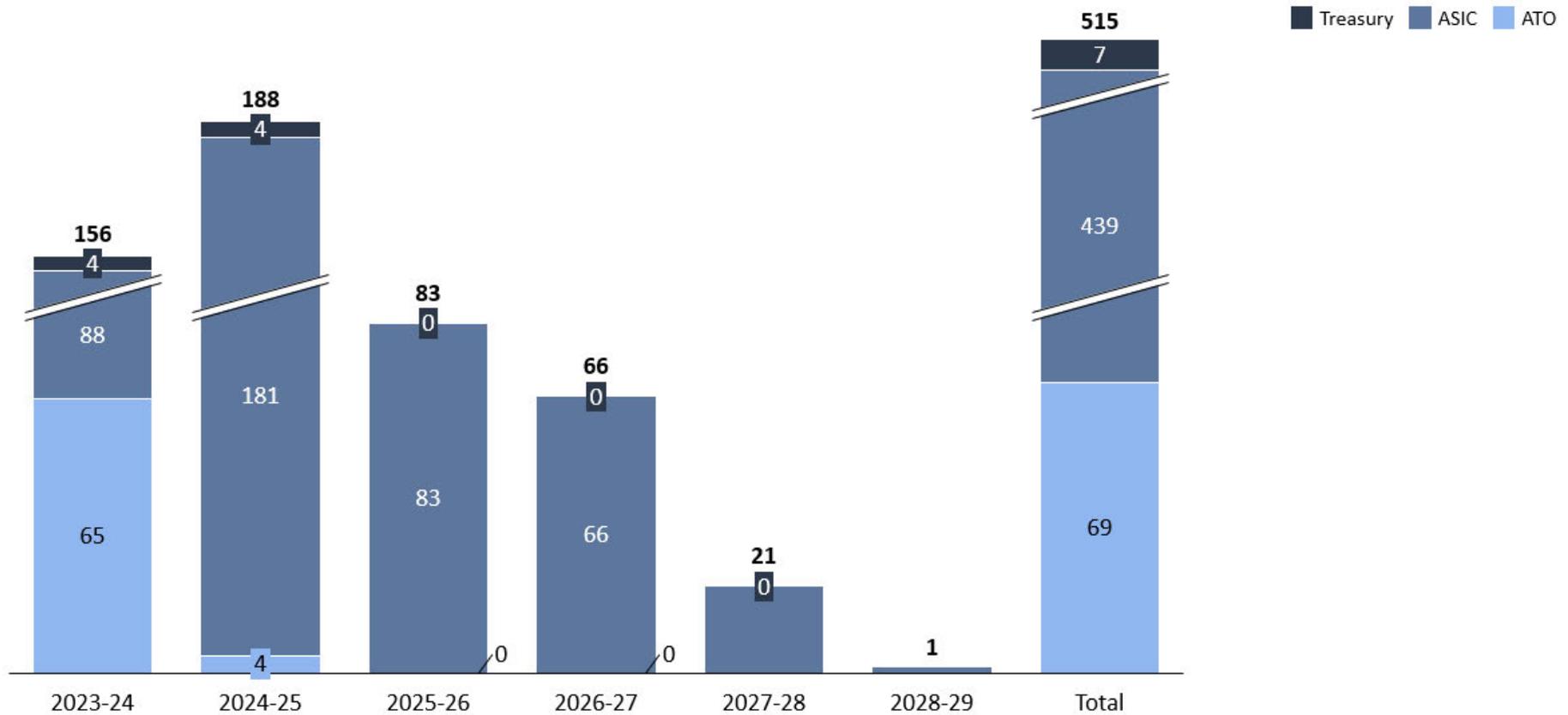
Explanatory notes:
*The costs are inclusive of indexation
*The costs exclude sustainment costs. Sustainment costs have been presented separately for government's consideration
Source: ASIC Option 1 MBR Costing 20230620, MBR Program Overview of ATO contracts, ATO Option 1 – stop now – cost of ABR explorer and ABN Lookup,
ATO MBR Review Option 1,4, 5, ASIC Option 5 MBR Costing.

Program costs

Figure A4.18 outlines all costs added or subtracted from the Option 1 cost model to develop a high-level cost for Option 5. It shows that the total cost of the MBR Program under Option 5 will be $505 million, with the majority (87%) of program costs required by ASIC. This section provides more detail on what is included within these categories of costs for ATO and ASIC.

ATO's program costs amount to $69 million, and include some costs replicated from Option 1, and some additional costs required to deliver a level of data integrity and user uplift compared to Option 1. ATO's costs replicated from Option 1 include (for more detail, see Option 1 section):

- $30.0 million to account for termination of current vendors and transfer of APS FTE to other areas within the agency

- $13.6 million to upgrade ABR wholesale services and transition ABN services, including upgrading existing ABR wholesale services from SBR1 APIs and authenticating ABR wholesale and retail

- $0.26 million to novate lease of property back from ATO to ASIC, specifically to decommission the ATO specific security and pay for legal support (noting there will be sunk fit-out costs for ATO amounting to $1.7 million)

- $1.9 million to remove IT and telephony fit-out from Traralgon following the original MoG changes

- $0.3 million to support a Gateway Review to close the MBR Program

-
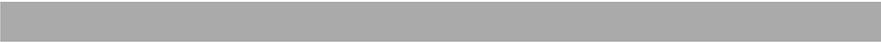
- $1.0 million to transition services ABN LookUp/BRS

- $2.8 million ($1.4 million annually over 2 years) to continue ABN LookUp.

Additional costs under Option 5 not included in Option 1 include:

- $5 million ($2.5 million annually over 2 years) for the ATO to support a continuous improvement function that will target selective ABR modernisation

- $8.78 million to support linking of Director ID from the ABRS with ASIC systems, including building 3 APIs and bulk Report mechanism.

ASIC's program costs amount to $439 million, and include some costs replicated from Option 1, and some additional costs required to deliver a level of data integrity and user uplift compared to Option 1. ASIC's costs replicated from Option 1 include:

- $287.6 million of urgent and unavoidable costs to mitigate risks relating to legacy systems, cyber security and key persons, including $35.0 million to mitigate risks and re-platform the legacy eBusiness system, $1.5 million to undergo work on regulatory professional registers, and an additional $12 million to rebuild names determination for business names

- $16.9 million to reverse MoG changes, cease the delegation model and unwind law and policy reform undergone to date

- $4.2 million for transfer of APS FTE to other areas within the agency

- $1 million for termination of current vendors

- $0.5 million program assurance costs for obtaining new funding to undergo the work, and to establish an ongoing assurance process.

ASIC's additional costs under Option 5 not included in Option 1 reflect work required to replace their front-end services and backend services (ASCOT), and link Director ID to deliver greater data integrity and user experience:

- $17.0 million to design, build and implement a solution that integrates the Director ID regime administered by ABRS with ASIC registry system

- $10 million for authentication work, applying to all wholesale and retail lodgement services for the company registers

- $10 million for authentication work implemented for Business Names Register

- $6.6 million to implement a data exchange mechanism between ASIC registry and regulatory systems

- $12.4 million to undergo modernisation of companies regulatory transactions (which are forms) onto the OneASIC platform (ASIC's legacy regulatory portal)

- $10 million ($5 million annually over 2 years) to support a continuous improvement function that will target selective system modernisation and process improvement (for example, improving fee structures) to ensure data integrity

- $1.9 million for decommissioning of legacy systems that have been replaced.

ASIC also has a reduction in cost of $42.8 million over 6 years, as it is assumed ASIC will increase insourcing after they modernise their Siebel platform.

There are 2 other cost elements to note because of winding up the MBR Program, as noted in Option 1 financial analysis:

- Approximately $15 million of sunk costs. Given the nature of the program, minor assets have been either capitalised or are held as assets under construction in both ATO and ASIC. In the event that this option is accepted and implemented by government there will be negative impact to both the ATO and ASIC's financial position in the year incurred. If all things remain constant, this will mean that a technical financial loss will be incurred by both the ATO and ASIC of approximately $15 million for both agencies. There is no cash impact from this.

ATO will incur an asset write off $1.7 million from the MoG change and transferring the call centre from the ATO to ASIC. This is due to residual technical items that cannot be transferred to ASIC given their different operating environments. All physical assets will be transferred to ASIC as part of normal MoG transfers. The costs of Option 5 also include Treasury policy and legislation costs of approximately $7 million as per Option 1.

Consequential costs

There are some costs that have not been included in the above ATO and ASIC program costs that may also be incurred under Option 5 across the government:

• ongoing program management costs including change management, particularly for ASIC to support changing all external facing user interfaces for the company and business names registers

• effort potentially required to integrate Director ID with the Business Registration Service (BRS), an interagency service previously operated by the Department of Industry that allow companies to register for an ABN

• other agency costs related to the MBR Program to link to Director ID, including DISR, ACNC, and ORIC

• DISR costs to potentially transition BRS to the ATO and decommission existing services within DISR

• Gateway Reviews (Department of Finance)

• cost of administered campaigns

• extension and upgrade of existing licenses.

Contingency costs

The contingency costs for Option 5 are estimated to be $56.2 million over the course of the MBR Program (timeframe of which is not currently known). This is based on a blended rate of 15% of the total estimated ASIC and ATO program build cost, which considers the potential unknowns of the effort required to end the current program, selectively modernise ASIC systems and link Director ID to ASIC.

Sustainment costs

Sustainment costs under Option 5 are estimated to reach relative stability in 2027–28 and will cost approximately $54 million annually. This cost includes the cost of maintaining ASIC systems and services and supporting data exchange between ASIC and ATO. This has been calculated based on $5.8 million annual sustainment of ABR APIs for ATO as well as the sustainment of program build elements for ASIC such as the enquiry management function, data integration and ICT services. Detailed sustainment costs are captured in Table A4.15.

Figure A4.18 Options 5 Annual MBR Program sustainment cost
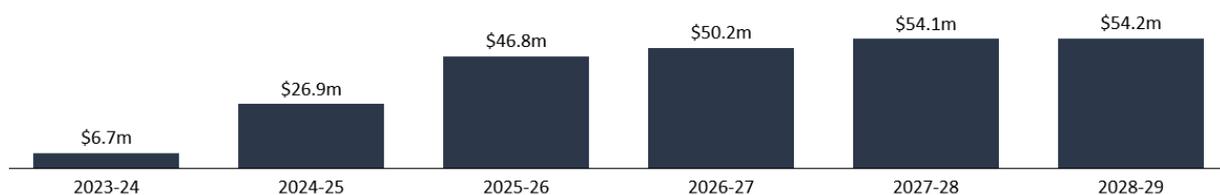
Table A4.15 Annual MBR Program sustainment cost for Options 5, $ millions 2024–29

Cost category	Agency	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
Transition of ABN Lookup to include new ABR APIs	ATO		$5.86m	$5.98m	$6.10m	$6.22m	$6.35m
ASIC staff additional ICT Services Costs	ASIC			$1.14m	$1.17m	$2.05m	$1.21m
Call centre infrastructure (excl. call centre property and security costs (fit-out), Electronic boards, Acoustics)	ASIC			$6.35m	$6.48m	$6.61m	$6.74m
Registry Operating Environment Systems Applications – ASIC Contract Management	ASIC		$0.84m	$1.71m	$1.74m	$1.78m	$1.82m
Registry Operating Environment Systems Applications – Run – Infrastructure	ASIC		$1.68m	$3.43m	$3.50m	$3.57m	$3.64m
Registry Operating Environment Systems Applications – Run – Staffing	ASIC	$5.0m	$10.2m	$10.4m	$10.61m	$10.82m	$11.05m
ASIC BI Publisher	ASIC			$0.10m	$0.11m	$0.11m	$0.11m
AWS Migration & Security Perimeter Zones	ASIC			$6.11m	$6.24m	$6.36m	$6.49m
Data Integration uplift costs	ASIC				$0.18m	$0.18m	$0.19m
Information Broker capacity	ASIC			$0.10m	$0.11m	$0.11m	$0.11m
Director ID linked on company register	ASIC					$0.90m	$0.92m
Professional Registry System	ASIC	$1.51m	$4.61m	$7.58m	$10.0m	$11.39m	$11.62m
Authentication applied to wholesale and retail lodgement services	ASIC		$1.02m	$1.02m	$1.02m	$1.02m	$1.02m
Authentication applied for business names	ASIC		$1.02m	$1.02m	$1.02m	$1.02m	$1.02m
Data exchange mechanism between ASIC's registry and regulatory system	ASIC	$0.17	$0.46m	$0.6m	$0.66m	$0.66m	$0.66m
Companies regulatory transactions onto regulatory portal (i.e., form modernisation)	ASIC		$1.24m	$1.24m	$1.24m	$1.24m	$1.24m
Total		**$6.7m**	**$26.9m**	**$46.8m**	**$50.2m**	**$54.1m**	**$54.2m**

Explanatory notes:
*Total figures of costing may not add due to rounding
*Includes indexation of 2% p.a. from 2025
*Sustainment costs for Registry Operating Environment, Director ID and Information Broker capacity have been extended to 2028–29

Outline of key assumptions

Assumptions made in determining these costs include:

- wind up of the MBR Program is assumed to occur 3 months after a decision is made about the MBR Program, before work then begins to selectively modernise ASIC systems and link Director ID

- work on ASIC's regulatory professional registers assumes all professional registers are moving to the OneASIC platform.

Funding approaches for the MBR Program

In addition to the scope of the financial analysis, this appendix aims to support Recommendation 12 in the Report. Recommendation 12 states that the MBR Program funding approach should be structured to provide funding certainty, reinforcing good practice governance and reflecting and managing uncertainty and risk. This section sets out the considerations and guardrails government should consider when determining the optimal funding approach including:

- a detailed summary of the recommended funding approach

- the assumptions that this approach is built upon

- analogous examples across Australia that support the approach.

Considerations

In determining the optimal funding approach for the MBR Program, the government can be guided by 3 principles:

- government benefits from assurance that the range of funding required to deliver the MBR Program is accurate and risk of further cost overruns have been minimised, by appropriately costing the MBR Program and putting mechanisms in place to prevent further cost overruns

- the MBR Program benefits from a level of certainty over scope and timing of funding, allowing for an effective ramp-up and timely delivery of benefits within the specified timeframe

- government benefits from optionality to make decisions in later stages of the MBR Program around how other registers no longer in scope (e.g., the Business Names Register) should be maintained.

In recommending a funding approach that accounts for these guardrails, several levers are available, including:

- how many years of funding (out of the total duration of the refocused MBR Program) the government should provide upfront to the program

- how the spend of this funding is tracked across the life of the MBR Program

- conditionality of contingency funding to manage risk of cost overrun (contingency funding)

- decision points or 'stages' to release additional funding once the Companies Register is delivered

- The recommended funding approach considers all of these levers.

Recommended approach

The recommended funding approach calls for committed amount of whatever amount of funding is required (depending on option pursued) to deliver the MBR Program, which is released in stages, with access to a separate reserve of contingency funding that could be triggered based on conditions defined by the government.

Committing the full amount of program funding will give the MBR Program certainty that it can deliver the scope of the MBR Program. To provide program oversight, a regular reporting mechanism framework to the Department of Finance, the Treasury and DTA should be adopted to ensure the MBR Program remains on schedule with appropriate levels of transparency. This reporting mechanism would involve a status report (building on the master status report outlined in Recommendation 8 of the Report) shared every 6 months that points to specific milestones or outcomes that should have been met along the critical path as defined in *Appendix 6 Analysis of Program Governance*. To enable this process, ongoing MBR Program expenditure will need to be tracked against deliverables over time, as outlined in the assessment of the MBR's current costing approach under Option 2 in this appendix.

To monitor expenditure, establishing lead indicators would be valuable. These indicators could include tracking the progress and adherence to key milestones, monitoring the rate of scope changes, assessing the efficiency of system integrations, and closely monitoring the decision-making process timeline.

To provide the government with flexibility to make decisions around further work**,** decision points would be scheduled in years 2 and 3. These decision points would involve the government making a cost-benefit assessment of whether to invest additional funds in commencing scoping work that was originally planned for Tranches 3–5 (including on the Business Names Register), or whether it is better to invest in stopping and stabilising at the end of work on the Companies Register.

An additional 15–20% of total program funding would be held centrally in a contingency reserve by the Department of Finance, to account for MBR Program risks. The size of the reserve funding would decrease over time to appropriately reflect decreasing uncertainty and risk of delivery with as program scope and solution become clearer. The potential drawdown would follow an independent assurance process based on clearly defined markers of reduced risk (agreed to by the Department of Finance), so that it is clear at what stage funds should be drawn down from the reserve. As outlined in Recommendation 12, this independent assurance process would be aligned to key milestones and decision points (such as detailed design stage gates, or stakeholder alignment milestones), and involve regular reporting arrangements with the Minister. Upon release of contingency funds, the MBR Program would be expected to update the critical path, delivery and cost forecasts.

As stated in Recommendation 12, contingency should only be released following early advice to the Minister, when risks are realised despite active management. Contingency funding would be released to the MBR Program based on clearly defined 'triggers'. Circumstances that trigger the release of a contingency fund need careful consideration. Potential triggers would include an abnormal variance in cost within a specified timeframe (for example, quarterly spend on technology infrastructure rises above 10% so contingency funds are released to prevent greater cost overruns). Another consideration may be consistent delays in delivery (e.g., 5 core milestones missed successively so contingency funding is released to provide surge support). What is critical to this process is that the independent assurance function can confirm that any cost overrun is due to external factors (e.g., added scope, market factors) or increased risks rather than gaps in program management.

This recommended approach relates to MBR Program funding only and consequential costs would need to be considered in addition. While costing a preferred option as part of a funding or future government decision, agencies would also need to consider whether funding for consequential costs are required. It may be appropriate to include this funding if costs are likely to be incurred over the forward estimates, with the release of funding subject to project delivery. Consequential costs beyond the forward estimates can be noted, with any required funding beyond existing appropriations to be sought in future budget processes.

Assumptions underlying this funding approach

The recommended funding approach operates under several underlying assumptions. First, it assumes that the program requires funding certainty to enable successful ramp up and ongoing planning and delivery. Second, it assumes that upfront funding is beneficial to provide flexibility and mitigate potential delays. Further, it assumes that the program scope can be delivered within the estimated cost, and that an independent assurance process will provide sufficient confidence to the government in terms of the program's financial requirements and contingencies.

Further consideration is needed by government to determine how to translate this recommendation into the MBR Program's future funding approach, particularly with respect to what the tracking mechanisms and stage gates / decision points should look like.

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ATO, May–June 2023, Worksheets behind cost justifications, Elements A and J Part 1 – Companies release and Business inbox, Spreadsheets 8–14, Received 6 June 2023

ATO, May–June 2023, Worksheets behind cost justifications, Elements A and J Part 2 – Companies release and Business inbox, Spreadsheets 15–21, Received 6 June 2023

ATO, May–June 2023, Worksheets behind cost justifications, Elements A and J Part 3 – Companies release and Business inbox, Spreadsheets 22–36, Received 6 June 2023

MBR Review support, May–July 2023, Option 2 costing financial analysis

Option 3:

ASIC, 22 June 2023, Explanatory overview of ASIC MBR (Option 3) MBR continues except Professional Registers are delivered outside MBR

ASIC, Option 3 Costing ASIC MBR Costing – Full costing, Received 22 June 2023

Expert interviews and global benchmarks to inform assumptions

MBR Review support, May–July 2023, Option 3 costing financial analysis

Option 5:

Refer to Option 1

ASIC, 27 June 2023, RFI 253 ASIC explanatory overview of ASIC MBR (Option 5) address risks and selectively modernise for customer experience and to uplift data integrity

29 June 2023, Updated option 5 costings

MBR Review support, May–July 2023, Option 5 costing financial analysis

Appendix 5 Analysis of International Experience with Business Registers

July 2023

Executive summary

This appendix summarises findings from a comprehensive global survey of registry transformation and governance programs, to support the recommendations of the Independent Review of the Modernising Business Registers (MBR) program Review (the Review).

The global survey builds upon a systematic scan of registry transformation programs, leveraging open-source data, such as government strategies, meeting notes, parliamentary briefings, RFQs and tender responses, FOI requests, annual account statements, directives and acts, scholarly publications and popular media.

Guided by technological, legislative and programmatic similarity to Australia's MBR Program, the research provides detailed case studies of programs in New Zealand, Ontario (Canada), Botswana, the United Kingdom, the European Union and Estonia. A broad global scan underpins insights into operating models of registries, as services or agencies, and the predominant government departments they operate under.

Our findings indicate several recurrent themes:

- **Historical data cut-offs:** most jurisdictions have capped data migration in time. For instance, the United Kingdom has enacted a 10-year sunset regime, with older data remaining accessible via the National Archives. Other jurisdictions only migrate data after action by companies and other relevant entities. In Botswana and Canada, companies were required to re-register and apply for an authentication key, respectively.

- **Registry launch as data integrity enabler:** Some jurisdictions have required businesses to re-register (Botswana, Canada). In doing so, businesses were required to Review, validate and update their details. While it required effort from users, it has been a mechanism to increase data integrity as part of a large-scale transformation program.

- **Uniqueness of Australia's MBR Program:** Our findings suggest that the scale of Australia's MBR Program is unique in its ambitions to centralise into a 'super-register', and unique in its scale to do that work across over 30 registers. No other jurisdictions that form part of our global Review have embarked on similar projects, without considering the benefits of an incremental approach that utilises prototyping, testing and scaling.

Research methodology

Global Review

Our global Review involves a systematic scan of the global portfolio of registry transformation programs. The research focused on transformation programs showing technological, legislative or programmatic similarities to Australia's MBR Program. Findings are reported as current for June 2023, with the caveat that many jurisdictional transformation programs are still in progress. Selected priority jurisdictions for a detailed program Review and comparison include:

- New Zealand
- Ontario (Canada)
- Botswana
- United Kingdom
- European Union
- Estonia

Consolidated fact-finding

Research efforts involved collating, Reviewing and synthesising open-source data about registry transformation programs and in response to emerging research questions as formulated by the Independent Reviewer. Our research encompasses government strategies, meeting notes, parliamentary briefings, RFQs and tender responses, FOI requests, annual account statements, directives and acts, scholarly publications and popular media.

Using thematic search terms and prioritising trusted sources, we generated insights from well over 100 documents. As findings emerged, we defined a set of attributes that apply to all transformation programs.

Thematic analysis of findings

The following attribute labels are used to categorise and develop findings and insights:

Theme	Line of enquiry
Status	Where is the development or implementation at? Which registers are integrated?
Model	Is the jurisdiction developing a centralised or decentralised registry? How many registers are involved?
Growth	What are the additional registers or features that the jurisdiction is considering?
Enabling Act	When and how was new or amended legislation passed to enable the transformation?
Speculative benefits	What is the jurisdiction aiming to achieve by transforming its registers?
Cost	What was the budget for the transformation or how much has been invested?
Operational resources	How is the operational program resourced, and which government agencies provide the resourcing?

Vendor solution	Which technology environment enables the transformation?
Data migration	What are the parameters and volume of data migration involved in the program?
Authentication	How do users access the register? How are multiple accounts managed?
CX transformation	How do citizens continue their interactions with the registry?
Comparable Australian registers	Which registers flagged for transformation in the MBR Program Scope of Work, show a conceptual match with the registers transformed in the respective jurisdiction

Transformation timelines

To consolidate macro knowledge of the transformation programs and their progress over time, we have included synthesised timelines of the registry transformation program of each jurisdiction (including fundamental legal change, integrations, launch and expansion).

Definitions

Term	Definition
Centralised register	A centralised register is managed by a single government agency that is fully and solely responsible for all aspects related to governance, data storage, management and maintenance of the register. There is no inter-agency transfer of information visible to the end-user, though information transfer may occur, for example, with law enforcement or supervisory bodies.
Decentralised register	A decentralised register involves governance, data storage, management or maintenance across multiple government agencies. However, the end-user experience is typically singular and seamless. The European Union's business register (BRIS) is decentralised, as it provides a single user interface into the registers of all individual Member States. Member States continue to be solely responsible for managing and maintaining their business registers.
Agency	A public service executive organisation that operates under a government department.
Service	A government services interface administered by an agency or government department to support the administration of business registers. In the context of our global Review, most registry services are online technology solutions.

Considerations and limitations

This research offers an in-depth and comprehensive analysis of register transformation programs in jurisdictions that resemble the economic scale, legal structure or program complexity of Australia and the MBR Program.

Leveraging public data, we have meticulously examined the processes, costs, solutions, data migrations and nature of the registers involved in each jurisdiction's transformation program.

While this research is comprehensive, it's essential to consider a few limitations and unique factors that influence the interpretation and applicability of our findings, as outlined below.

Point-in-time analysis

This research presents a snapshot of transformations based on open-source documents retrieved in May and June 2023. As the technological and legislative landscapes continue to evolve rapidly, the insights and findings captured here represent this point in time.

Public data

The research is limited by the availability of information in open-source, public documents. While we made an effort to provide a comprehensive analysis, the unavailability of detailed government analyses, business cases, Reviews, audits or program context limits the scope of knowledge at our disposal, potentially affecting the overall depth of the research.

Similarly, we disclose costs based on public RFQs, tender responses, FOIs, annual plans, audits and strategies. We note these costs typically only encompass technology transformation as a bespoke, well-defined component of a program. The WofG costs, such as staffing to support the design, development, implementation and maintenance of such programs, are not usually publicly disclosed, leaving an incomplete picture of the total expenditure.

Register comparability

To understand the similarities and differences between each jurisdiction's transformation program and the MBR Program, we map comparable registers. We draw upon conceptual similarities of registers, without the benefit of detailed legal analyses. The mapping provides a solid indication of the scope, complexity, variety and scale of register transformation programs.

While useful in providing a high-level understanding, this approach may lack granularity in reflecting the unique nuances and complexities embedded in each register's legal framework.

Operating model

We surveyed the global registry ecosystem to understand operating models of registries and structures within the respective government department or ministry that operates and maintains business registers. While we identified 4 predominant categories, the majority of jurisdictions comparable to Australia administer registers under departments for justice or business:

Service under a department for justice or business

Our findings suggest that for the large majority of jurisdictions, business registers operate as a service directly within their respective government department:

- Austria [21], under the Department of Justice

- Belgium [22], under the Federal Public Service Economy

- Bosnia and Herzegovina [23], under the Federal Ministry of Justice

- Slovakia [24], under the Ministry of Justice.

Agency under a department for justice or business

We identified jurisdictions that establish separate agencies to administer registers, e.g. Companies House United Kingdom, Companies Office New Zealand, Centre of Registers and Information Systems Estonia, Tunisia [25] and Singapore [26].

Most of these agencies are established to enable and promote '*ease of doing business*' and '*transparency*' (i.e. the '*one-stop shop*' notion). They typically have access to a range of enforcement capabilities or collaborate with other agencies to enforce compliance.

Service under a department for taxation and revenue control

Registers are administered by a department for taxation and revenue control only in a small number of global jurisdictions. Where this is the case, registers operate as a service:

- Azerbaijan [27], under the Ministry of Taxes

- Madagascar [28], under the General Directorate of Taxes

- Paraguay [29], under the Secretariat of State Taxation

- Russia [30], under the Federal Tax Authority

- Tajikistan [31], under the Tax Committee

- US, Maryland [32], under the Department of Assessments and Taxation

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21   Austria: https://www.justiz.gv.at/service/datenbanken/firmenbuch.36f.de.html
22   Belgium: https://kbopub.economie.fgov.be/kbopub/zoeknummerform.html?lang=en
23   Bosnia and Herzegovina: https://bizreg.pravosudje.ba/
24   Slovakia: http://www.orsr.sk/default.asp?lan=en
25   Tunisia: https://www.registre-entreprises.tn/search/ExtraitRegistre.do?action=getPage
26   Singapore: https://www.bizfile.gov.sg/
27   Azerbaijan: https://www.e-taxes.gov.az/ebyn/commersialChecker.jsp
28   Madagascar: https://hetraonline.impots.mg/
29   Paraguay: https://marangatu.set.gov.py/eset/perfilPublicoContribIService.do
30   Russia: http://egrul.nalog.ru/
31   Tajikistan: https://andoz.tj/Fehrist?culture=ru-RU
32   US, Maryland: https://egov.maryland.gov/BusinessExpress/

Agency under a department for taxation and revenue control

The operating model that best resembles the Australian model (i.e. ABRS as an autonomous agency operating under the ATO) is rare across global economies.

Our research suggests that the pool of jurisdictions with established agencies to administer registers and operate under the department responsible for taxation and revenue control is limited to one (i.e. Albania [33]) under the Ministry of Finance and Economy.

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[33]   Albania: https://qkb.gov.al/search/search-in-trade-register/search-for-subject/

Comparative summary

Attribute	New Zealand	Ontario (Canada)	Botswana	European Union	United Kingdom	Estonia
Model	Centralised	Centralised	Centralised	Decentralised	Centralised	Centralised
Benefits	$A56m/a	Business performance, user access	Business performance	$A 716m/a	$A11.1b/a	Business performance
Cost (∑)	-	$A47.1m	$A1.95m	$A29.5m	$A156m	$A18.6m
• **Design**	-	$A18.4m	$A930k	$A3.0m	-	-
• **Development**	-	$A15.6m	-	$A11.8m	$A37m	-
• **Implementation**	NZBN reg: • $A11.1m Disclose reg: • $A7.2m BO reg: • $A4.6m	$A12.8m	$A 600k	$A13.1m	$A117	-
• **Maintenance**	BO reg: • $A3.1m/a	-	$A400k	$A1.6m/a	$A8.8m	-
Vendor/solution	Foster Moore (Catalyst)	Foster Moore (Catalyst)	Foster Moore (Verne)	Custom	Custom	Custom
CX transformation	Fully digital, no paper-based processes remaining	Preference for digital; paper-based processes remaining (fee for service). Electronic forms can be emailed	Fully digital, no paper-based processes remaining	All member states maintain paper-based transactions with their respective business registers (fee for service)	Preference for a digital interaction with the registry. Paper-based annual returns possible, fee-for-service model	Fully digital, no paper-based processes remaining
More detail	See Program Review: New Zealand	See Program Review: Ontario (Canada)	See Program Review: Botswana	See Program Review: European Union	See Program Review: United Kingdom	See Program Review: Estonia

Program Review: New Zealand

Attribute	Finding	Evidence
Program	Companies Office	
Administrator	Ministry for Business, Innovation and Employment (MBIE)	Companies Office is an agency within MBIE. • Companies Act, 1993. https://www.legislation.govt.nz/act/public/1993/0105/latest/whole.html?p=1#LMS698397
Status	Transformation of similar scale as MBR Program	• Companies Office. 2022. https://www.companiesoffice.govt.nz/about-us/what-we-do/our-legislation/ • Ministry of Business, Innovation and Education, 2018, https://www.mbie.govt.nz/assets/95da7c6783/discussion-document-nzbn-primary-business-data-change-proposals.pdf, p.9
Model	Centralised	
Growth	No	Our understanding is that no further registers are being considered for integration into Companies Office
Enabling act	Companies Act, 1993; New Zealand Business Number Act, 2016	• Companies Act, 1993. https://www.legislation.govt.nz/act/public/1993/0105/latest/whole.html?p=1#LMS698397 • New Zealand Business Number Act, 2016. https://www.legislation.govt.nz/act/public/2016/0016/20.0/DLM6431505.html
Speculative benefits	NZ$60m/a ($A56m/a)	• The Treasury. 2016. https://www.treasury.govt.nz/sites/default/files/2016-09/mppr-jul16.pdf, p. 28
Cost (Σ)	-	
• **Design**	-	
• **Development**	-	
• **Implementation**	NZBN Register: • NZ$12.1m ($A11.1m) Disclose Register: • NZ$7.9m ($A7.2m) Beneficial Ownership Register: • NZ$5m ($A4.6m)	Note: expenditure for all 22 registers administered by Companies Office cannot be retrieved. However, based on the available information assumptions can be made about total expenditure35F[34]. Note: expenditure is assumed to include staffing and operational costs.

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[34] Average implementation cost, based on findings, NZ$8.3m per register. Across all 22 registers, this suggests a total of NZ$182.6m ($A166.9m).

Attribute	Finding	Evidence
		• Ministry of Business, Innovation and Employment. 2014. https://www.mbie.govt.nz/assets/8f54528daf/ris-registers-and-fma-fees-and-levies.pdf, p.7
		• The Treasury. 2017. https://www.treasury.govt.nz/sites/default/files/2017-11/b17-3703920.pdf, p. 2
		• The Treasury, 2018. https://www.treasury.govt.nz/sites/default/files/2018-02/b14-2844628.pdf, p. 4
		• Ministry of Business, Innovation and Employment. 2022. https://www.mbie.govt.nz/dmsdocument/18885-better-visibility-of-individuals-who-control-companies-and-limited-partnerships-proactiverelease-pdf, p. 20
• **Maintenance**	Beneficial Ownership Register: • NZ$3.4m per annum ($A3.1m)	Note: expenditure for all 22 registers administered by Companies Office cannot be retrieved. However, based on the available public information assumptions can be made about total expenditure36F[35]. Note: expenditure is assumed to include staffing and operational costs. • Ministry of Business, Innovation and Employment. 2022. https://www.mbie.govt.nz/dmsdocument/18888-better-visibility-of-individuals-who-control-companies-and-limited-partnerships-minute-of-decision-proactiverelease-pdf, p. 6
Operational resources	25 staff at Companies Office (2023). NZ$542k budget for staffing to enable Disclosure Register	• LinkedIn. 2023. https://www.linkedin.com/company/new-zealand-companies-office/about/ • The Treasury. 2014. https://www.treasury.govt.nz/sites/default/files/2018-02/b14-2844628.pdf, p. 10
Vendor/solution	Foster Moore (Catalyst)	New Zealand is considering a transition to Foster Moore Verne product
Data migration	290 million records migrated, comprising 14 million documents, 1 million entities, 4 million individuals (directors, shareholders etc), 12 million addresses and 175,000 registered users	• Foster Moore. 2010. https://www.fostermoore.com/new-zealand-companies-register
Authentication	Username/password combination. Ability to add additional users to Organisational Account.	• New Zealand Companies Office. 2023. https://companies-register.companiesoffice.govt.nz/help-centre/getting-support-to-use-the-companies-register/new-zealand-business-number-nzbn/

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35   Average maintenance cost, based on findings, NZ$3.4m per annum per register. Applied to all 22 registers, this suggests a total of NZ$74.8m ($A68.4m).

Attribute	Finding	Evidence
CX transformation	Fully digital, no paper-based processes remaining	Minister of Commerce and Consumer Affairs. 2021. https://www.treasury.govt.nz/sites/default/files/2022-05/ria-mbie-fcof-nov21.pdf, p. 3

Attribute	Finding	Evidence
Program	Companies Office	
Administrator	Ministry for Business, Innovation and Employment (MBIE)	Companies Office is an agency within MBIE. • Companies Act, 1993. https://www.legislation.govt.nz/act/public/1993/0105/latest/whole.html?p=1#LMS698397
Status	Transformation of similar scale as MBR Program	• Companies Office. 2022. https://www.companiesoffice.govt.nz/about-us/what-we-do/our-legislation/ • Ministry of Business, Innovation and Education, 2018, https://www.mbie.govt.nz/assets/95da7c6783/discussion-document-nzbn-primary-business-data-change-proposals.pdf, p.9
Model	Centralised	
Growth	No	Our understanding is that no further registers are being considered for integration into Companies Office
Enabling act	Companies Act, 1993; New Zealand Business Number Act, 2016	• Companies Act, 1993. https://www.legislation.govt.nz/act/public/1993/0105/latest/whole.html?p=1#LMS698397 • New Zealand Business Number Act, 2016. https://www.legislation.govt.nz/act/public/2016/0016/20.0/DLM6431505.html
Speculative benefits	NZ$60m/a ($A56m/a)	• The Treasury. 2016. https://www.treasury.govt.nz/sites/default/files/2016-09/mppr-jul16.pdf, p. 28
Cost (∑)	-	
• Design	-	
• Development	-	
• Implementation	NZBN Register: • NZ$12.1m ($A11.1m) Disclose Register: • NZ$7.9m ($A7.2m) Beneficial Ownership Register: • NZ$5m ($A4.6m)	Note: expenditure for all 22 registers administered by Companies Office cannot be retrieved. However, based on the available information assumptions can be made about total

Attribute	Finding	Evidence
		expenditure37F[36].
		Note: expenditure is assumed to include staffing and operational costs.
		• Ministry of Business, Innovation and Employment. 2014. https://www.mbie.govt.nz/assets/8f54528daf/ris-registers-and-fma-fees-and-levies.pdf, p.7
		• The Treasury. 2017. https://www.treasury.govt.nz/sites/default/files/2017-11/b17-3703920.pdf, p. 2
		• The Treasury, 2018. https://www.treasury.govt.nz/sites/default/files/2018-02/b14-2844628.pdf, p. 4
		• Ministry of Business, Innovation and Employment. 2022. https://www.mbie.govt.nz/dmsdocument/18885-better-visibility-of-individuals-who-control-companies-and-limited-partnerships-proactiverelease-pdf, p. 20
• **Maintenance**	Beneficial Ownership Register: • NZ$3.4m per annum ($A3.1m)	Note: expenditure for all 22 registers administered by Companies Office cannot be retrieved. However, based on the available public information assumptions can be made about total expenditure38F[37].
		Note: expenditure is assumed to include staffing and operational costs.
		• Ministry of Business, Innovation and Employment. 2022. https://www.mbie.govt.nz/dmsdocument/18888-better-visibility-of-individuals-who-control-companies-and-limited-partnerships-minute-of-decision-proactiverelease-pdf, p. 6
Operational resources	25 staff at Companies Office (2023). NZ$542k budget for staffing to enable Disclosure Register	• LinkedIn. 2023. https://www.linkedin.com/company/new-zealand-companies-office/about/
		• The Treasury. 2014. https://www.treasury.govt.nz/sites/default/files/2018-02/b14-2844628.pdf, p. 10
Vendor/solution	Foster Moore (Catalyst)	New Zealand is considering a transition to Foster Moore Verne product
Data migration	290 million records migrated, comprising 14 million documents, 1 million entities, 4 million individuals (directors, shareholders etc), 12 million addresses and 175,000 registered users	• Foster Moore. 2010. https://www.fostermoore.com/new-zealand-companies-register

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36   Average implementation cost, based on findings, NZ$8.3m per register. Across all 22 registers, this suggests a total of NZ$182.6m ($A166.9m).

37   Average maintenance cost, based on findings, NZ$3.4m per annum per register. Applied to all 22 registers, this suggests a total of NZ$74.8m ($A68.4m).

Attribute	Finding	Evidence
Authentication	Username/password combination. Ability to add additional users to Organisational Account.	• New Zealand Companies Office. 2023. https://companies-register.companiesoffice.govt.nz/help-centre/getting-support-to-use-the-companies-register/new-zealand-business-number-nzbn/
CX transformation	Fully digital, no paper-based processes remaining	• Minister of Commerce and Consumer Affairs. 2021. https://www.treasury.govt.nz/sites/default/files/2022-05/ria-mbie-fcof-nov21.pdf, p. 3

Cross-jurisdictional register comparison

Australian register (MBR Program)	Comparable register
	• **Companies Office, 2023** **https://www.companiesoffice.govt.nz/all-registers**
ABR (ABR)	Companies Register, NZBN Register
Australian Company Register	Companies Register, NZBN Register
Business Names Register	Companies Register, NZBN Register
Managed Investment Scheme (MIS) Register	Disclose Register
Registerable Australian Bodies Register	Charitable Trusts Register
Foreign Companies Register	Approved Overseas Auditors & Associations of Accountants, Limited Partnerships (New Zealand & Overseas)
Financial Adviser Register	Financial Service Providers
Registered Liquidators Register	Insolvency Practitioners
Registered Company Auditor Register	Auditors
Self-Managed Superannuation Fund (SMSF) Auditor Register	Superannuation Schemes
Australian Financial Services Licensee (AFSL) Register	Disclose Register
General insurance brokers (Pre-FSR) – immutable	Financial Service Providers
Foreign insurance agents (Pre-FSR) – immutable	Financial Service Providers
Life insurance brokers (Pre-FSR) – immutable	Financial Service Providers
Australian Credit Licensee Register	Disclose Register
Australian Credit Representative Register	Credit Unions
ABR	Companies Register, NZBN Register

Australian register (MBR Program)	Comparable register
	• **Companies Office, 2023** https://www.companiesoffice.govt.nz/all-registers
Australian Company Register	Companies Register, NZBN Register
Business Names Register	Companies Register, NZBN Register
Managed Investment Scheme (MIS) Register	Disclose Register
Registerable Australian Bodies Register	Charitable Trusts Register
Foreign Companies Register	Approved Overseas Auditors & Associations of Accountants, Limited Partnerships (New Zealand & Overseas)
Financial Adviser Register	Financial Service Providers
Registered Liquidators Register	Insolvency Practitioners
Registered Company Auditor Register	Auditors
Self-Managed Superannuation Fund (SMSF) Auditor Register	Superannuation Schemes
Australian Financial Services Licensee (AFSL) Register	Disclose Register
General insurance brokers (Pre-FSR) – immutable	Financial Service Providers
Foreign insurance agents (Pre-FSR) – immutable	Financial Service Providers
Life insurance brokers (Pre-FSR) – immutable	Financial Service Providers
Australian Credit Licensee Register	Disclose Register
Australian Credit Representative Register	Credit Unions

Program timeline

Phases	1. Initiation	2. Revenue office integration	3. Inter-agency enable	4. Full flight	5. Scope expansion
Steps	Previous decade	2014	2015	2018	2022–23
	2004: Companies Office launches fully electronic Companies Register (Foster Moore product) 2008: 17 registers added to single solution.	2014/15: Business case development for integration of NZBN into Companies Office solution 2014: IRD Employer registration	2016: NZBN requirement for all businesses is enacted 2015: Interagency referencing through agency identifier in NZBN implemented	2018–2021: 900,000+ remaining businesses have signed up for NZBN	2022: scope of the NZBN register extended to capture more data, including trading names, industry descriptions, status and Māori Business Identifier.

Phases	1. Initiation	2. Revenue office integration	3. Inter-agency enable	4. Full flight	5. Scope expansion
Major features	2008–2010: Foster Moore developed Catalyst based on NZ functional requirements 2008: Data migration of 290 million records to new Companies Office solution.		NZBN enabled businesses to "tell government once" and share primary business data. Through increased agency interoperability, businesses seamlessly provided their data to multiple agencies at once.	2018: Whole of government commitment to implement NZBN Program 2018: E-invoicing implementation to digitally transact across the entire procure-to-pay lifecycle	2021: Maori Business Identifier initiative launches. 2023: Planned Review to scope options for facilitating greater use of NZBN program.
Back-ground	2008: New Zealand first in the 'ease of doing business survey' (World Bank).	Detailed business case and government directives are in consultation for full NZBN implementation	2016: Legislation passes for NZBN required for all businesses. Cabinet directive issued; build stage of platform begins	2018: New Zealand first in the 'ease of doing business survey' (World Bank)	2021: NZBN API and Companies API launched.

Key program documentation:

- **Centre for Public Impact. 2015.** https://www.treasury.govt.nz/sites/default/files/2022-04/oia-20210453.pdf

- **Ministry of Business, Innovation and Education. 2018.** https://www.mbie.govt.nz/assets/95da7c6783/discussion-document-nzbn-primary-business-data-change-proposals.pdf

- **New Zealand Business Number. 2023.** https://www.nzbn.govt.nz/whats-an-nzbn/about/

- **The Treasury. 2021.** https://www.treasury.govt.nz/sites/default/files/2022-04/oia-20210453.pdf

- **World Bank Group. 2016.** https://openknowledge.worldbank.org/server/api/core/bitstreams/73ab366a-6cbf-5e6a-9627-74cb9a332b2f/content

- **New Zealand Business Number. 2023.** https://www.nzbn.govt.nz/whats-an-nzbn/about/

- **The Treasury. 2021.** https://www.treasury.govt.nz/sites/default/files/2022-04/oia-20210453.pdf

- **World Bank Group. 2016.** https://openknowledge.worldbank.org/server/api/core/bitstreams/73ab366a-6cbf-5e6a-9627-74cb9a332b2f/content

Program Review: Ontario (Canada)

Attribute	Finding	Evidence
Program	Ontario Business Registry (OBR)	• Government of Ontario. 2023. https://ontario.ca/page/ontario-business-registry
Administrator	Ministry of Public and Business Service Delivery	OBR is an agency within the Ministry • Business Names Act, 1990. https://www.ontario.ca/laws/statute/90b17#BK3
Status	Fully digitised register, including searches, information updates and filings	• Government of Ontario. 2023. https://ontario.ca/page/ontario-business-registry
Model	Centralised	
Growth	Yes, current RFI	• Ontario Tenders Portal. 2022. https://www.merx.com/public/supplier/solicitations/notice/22629257317/abstract?
Enabling act	Cutting Unnecessary Red Tape Act, 2017	• Government of Ontario, 2017. https://www.ontario.ca/laws/statute/s17020 • Ministry of Government and Consumer Services. 2019. https://www.canadiancharitylaw.ca/uploads/MGCS_19-148_Records_Release_Letter_Signed_(Oct_24_2019).pdf, p. 15
Speculative benefits	Business performance, user access	• Government of Ontario. 2023. https://ontario.ca/page/ontario-business-registry
Cost (Σ)	C$41.5m ($A47.1m)	
• **Design**	C$16.2m ($A18.4m)	We have distributed costs across critical project phases, based on our assessment of the registry transformation timeline: • Ontario Treasury Board Secretariat. 2014. https://collections.ola.org/ser/15767/2013-2014/V.3.pdf. p. 157 • Ontario Treasury Board Secretariat. 2013. https://collections.ola.org/ser/15767/2012-2013/V.3.pdf. p. 160 • Ontario Treasury Board Secretariat. 2012. https://collections.ola.org/ser/15767/2011-2012/V.3.pdf. p. 168
• **Development**	C$13.9m ($A15.6m)	We have distributed costs across critical project phases, based on our assessment of the registry transformation timeline: • Ontario Treasury Board Secretariat. 2019. https://files.ontario.ca/tbs-public-accounts-2018-19-volume-3.pdf. p. 165 • Ontario Treasury Board Secretariat. 2018. https://files.ontario.ca/pa18_vol_3.pdf. p. 173

Attribute	Finding	Evidence
		• Ontario Treasury Board Secretariat. 2017. https://files.ontario.ca/en_fr_volume_3.pdf. p. 159
		• Ontario Treasury Board Secretariat. 2016. https://files.ontario.ca/volume3.pdf.pdf. p. 155
		• Ontario Treasury Board Secretariat. 2015. https://collections.ola.org/ser/15767/2014-2015/V.3.pdf. p. 165
• Implementation	C$11.4m ($A12.8m)	We have distributed costs across critical project phases, based on our assessment of the registry transformation timeline:
		• Ontario Treasury Board Secretariat. 2022. ontario.ca/files/2022-09/tbs-public-accounts-2021-22-detailed-schedules-of-payments-en-fr-2022-09-22.pdf. p. 115
		• Ontario Treasury Board Secretariat. 2021. https://files.ontario.ca/tbs-public-accounts-2019-20-detailed-schedules-of-payments-en-fr-2021-09-21.pdf. p. 112
		• Ontario Treasury Board Secretariat. 2020. https://files.ontario.ca/tbs-public-accounts-2019-20-detailed-schedules-of-payments-en-fr-2020-09-23.pdf. p. 118
• Maintenance	-	Foster Moore is not providing maintenance (per Joel Foster interview). Maintenance is handled in-house by the OBR team accordingly cost data is not available.
Operational resources	Approximately 31 staff work on the Ontario Business Registry Program (2023)	• Government of Ontario. 2023. https://data.ontario.ca/dataset/government-of-ontario-employee-and-organization-directory-info-go
		• Government of Ontario INFO-GO. 2023. https://www.infogo.gov.on.ca/org?id=219572&_b=c2VhcmNodHlwZT0yJnNvcnRkaXI9YXNjJnNvcnRjb2w9UkFOSyZ0b3Bvcmc9MCZwYWdlPTEma2V5d29yZHM9T0JSJnNvcnRsYWJlbD1zb3J0LW9wdGlvbjAmbG9jYWxlPWVuJmpvYj0w
		• Note: In addition to stated employees, refer to Services and Operations Team and Business Service Team for complete count.
Vendor/solution	Foster Moore (Catalyst)	• Foster Moore. 2023. https://fostermoore.com/customers/ontario
Data migration	Companies apply for a company key to access and update their OBR business data, or use an intermediary. Known data migration issues.	• Government of Ontario. 2023. https://ontario.ca/page/ontario-business-registry
		• Toronto Star. 2021. https://www.thestar.com/politics/provincial/2021/12/14/ontario-government-making-fixes-to-troubled-online-business-registry.html
Authentication	Companies must obtain a 9-digit key to access OBR profiles. With a key, users can sign up for a ONe-key ID, allowing users to access government services and	• Government of Ontario. 2023. https://ontario.ca/page/ontario-business-registry
		• Government of Ontario. 2022. https://ontario.ca/page/beneficial-ownership-information-requirements

Attribute	Finding	Evidence
	create a ServiceOntario account. Users can then link their ServiceOntario account using a company key and access the OBR. Ability to add additional Individuals with Significant Control to the account.	
CX transformation	Preference for digital; paper-based processes remaining (fee-for-service model). Electronic forms can be emailed.	• Government of Ontario. 2021. https://forms.mgcs.gov.on.ca/en/dataset/on00241 • Government of Ontario. 2023. https://ontario.ca/page/ontario-business-registry • Government of Ontario. 2023. https://ontario.ca/page/ontario-business-registry-all-services#section-1

Cross-jurisdictional register comparison

Australian register (MBR Program)	Comparable register
	• **Government of Ontario. 2023.** **https://ontario.ca/page/ontario-business-registry**
ABR (Companies Register)	Corporations Register, Partnerships Register, Co-operatives Register
Australian Company Register	Corporations Register, Partnerships Register, Co-operatives Register
Business Names Register	Business Names Register
Registrable Australian Bodies Register	Not-for-Profit Organisation Register
Foreign Companies Register	Extra-Provincial Corporations Register
Australian register (MBR Program)	Comparable register
	• Government of Ontario. 2023. https://ontario.ca/page/ontario-business-registry
ABR (Companies Register)	Corporations Register, Partnerships Register, Co-operatives Register
Australian Company Register	Corporations Register, Partnerships Register, Co-operatives Register
Business Names Register	Business Names Register
Registrable Australian Bodies Register	Not-for-Profit Organisation Register
Foreign Companies Register	Extra-Provincial Corporations Register

Program timeline

Phases	1. Project approval	2. Development period	3. Regulation reform	4. Launch	5. Maintain
Steps	2010–2012	2013	2017	2021	2023
	2010: Replacement of legacy system (ONBIS) approved 2012: Foster Moore product chosen	2013–2021: Development undertaken by Foster Moore	2017: New act introduced to support OBR rollout	2021: the OBR launches, enabling businesses to complete 90 transactions through the online registry	2023: 31 staff work to maintain the Ontario Business Registry Program
Major features	2012: Foster Moore selected as a vendor and entered into a 7-year agreement to implement the Catalyst registry	Between 2012–2017: several Reviews by Service Ontario and Infrastructure Ontario to confirm operating model to govern ORB	The Cutting Unnecessary Red Tape Act, 2017 was passed to reduce regulatory costs and streamline the compliance process for small businesses	Registry streamlines access for organisations. Allow for more than 90 types of transactions including incorporation, amalgamation and dissolution of existing businesses	
Back-ground	The need for a new registry is related to the Ontario Not-For-Profit Corporations Act 2010 (ONCA, which came into force 19 Oct 2021), which mandates more efficient processes for not-for-profits	2017: Service Ontario advised to implement the CAC model which is a blended public-private model with a role for private sector service providers	2019: Federal procurement for a multi-jurisdictional registry access (MRAS) service to connect registries across all Canadian provinces. Ontario were a key leader in the development of MRAS	OBR poorly received at launch with a public opinion piece stating "shutdowns, glitches and substantive problems associated with the OBR are causing significant disruption, delaying transactions and adding costs for businesses"	

Key program documentation:

- CBC News. 2021.
  https://www.cbc.ca/news/canada/toronto/ontario-online-business-registry-1.6262751

- Government of Canada. 2019.
  https://canadabuys.canada.ca/en/tender-opportunities/tender-notice/pw-19-00866471

- Government of Ontario. 2017. https://www.ontario.ca/laws/statute/s17020

- Government of Ontario. 2022.
  https://www.ontario.ca/page/guide-not-profit-corporations-act-2010

- Government of Ontario. 2023. https://ontario.ca/page/ontario-business-registry

- Ministry of Government and Consumer Services. 2019.
  https://www.canadiancharitylaw.ca/uploads/MGCS_19-148_Records_Release_Letter_Signed_(Oct_24_2019).pdf

- Ministry of Government and Consumer Services. 2020.
  https://www.ontario.ca/page/published-plans-and-annual-reports-2019-2020-ministry-government-and-consumer-services

- Mondaq. 2021.
  https://www.mondaq.com/canada/corporate-and-company-law/1119938/ontario-business-registry-launches-october-19-2021

- Government of Ontario. 2022.
  https://www.ontario.ca/page/guide-not-profit-corporations-act-2010

- Government of Ontario. 2023. https://ontario.ca/page/ontario-business-registry

- Ministry of Government and Consumer Services. 2019.
  https://www.canadiancharitylaw.ca/uploads/MGCS_19-148_Records_Release_Letter_Signed_(Oct_24_2019).pdf

- Ministry of Government and Consumer Services. 2020.
  https://www.ontario.ca/page/published-plans-and-annual-reports-2019-2020-ministry-government-and-consumer-services

- Mondaq. 2021.
  https://www.mondaq.com/canada/corporate-and-company-law/1119938/ontario-business-registry-launches-october-19-2021

Program Review: Botswana

Attribute	Finding	Evidence
Program	Online Business Registration System (OBRS)	• Companies and Intellectual Property Authority. 2019. https://www.cipa.co.bw/
Administrator	Companies and Intellectual Property Authority (CIPA)	CIPA is an agency under the Ministry of Trade and Industry • Companies and Intellectual Property Authority Act, 2011. https://ictpolicyafrica.org/pt/document/qqq0m92n7sg?page=1
Status	Fully digitised register, including searches, information updates and filings	• Companies and Intellectual Property Authority. 2020. https://www.cipa.co.bw/wp-content/uploads/2021/02/CIPA-Annual-Report-20192020.pdf
Model	Centralised	
Growth	No	
Enabling act	Companies and Intellectual Property Authority Act, 2011	• Companies and Intellectual Property Authority Act. 2011. https://ictpolicyafrica.org/api/documents/download?_id=5d4bb830a0c67b001b921f1a
Speculative benefits	Business performance	• Corporate Registers Forum. 2018. https://www.slideshare.net/CorporateRegistersForum/the-cipa-registry
Cost (∑)	BWP 17.5m ($A1.95m)	
• Design	NZ$1.1m ($A930k)	• Companies and Intellectual Property Authority. 2020. https://www.cipa.co.bw/wp-content/uploads/2021/02/CIPA-Annual-Report-20192020.pdf, p. 100
• Development	-	
• Implementation	BWP 5.2m ($A600k)	We note a number of payments in Botswana's Annual Statements of Accounts between 2018 and 2020 that suggest a change process is being implemented. We have no conclusive evidence that these amounts only apply to the OBRS project. • Ministry of Finance. 2018. https://www.finance.gov.bw/index.php?option=com_content&view=category&id=36&Itemid=116 • Companies and Intellectual Property Authority. 2019. https://www.cipa.co.bw/wp-content/uploads/2021/02/CIPA-Annual-Report-20182019.pdf, p. 74
• Maintenance	BWP 3.5m ($A400k)	• Companies and Intellectual Property Authority. 2020. https://www.cipa.co.bw/wp-content/uploads/2021/02/CIPA-Annual-Report-20192020.pdf, p. 83
Operational resources	-	

Attribute	Finding	Evidence
Vendor/solution	Foster Moore (Verne)	• Companies and Intellectual Property Authority. 2020. https://www.cipa.co.bw/wp-content/uploads/2021/02/CIPA-Annual-Report-20192020.pdf, p. 100
Data migration	All companies required to re-register to enable accurate and reliable data	• Companies and Intellectual Property Authority. 2020. https://www.cipa.co.bw/wp-content/uploads/2021/02/CIPA-Annual-Report-20192020.pdf, p. 12
Authentication	Username/password combination	
CX transformation	Fully digital, no paper-based processes remaining	• Companies and Intellectual Property Authority. 2020. https://www.cipa.co.bw/wp-content/uploads/2021/02/CIPA-Annual-Report-20192020.pdf

Cross-jurisdictional register comparison

Australian register (MBR Program)	Comparable register
	• **Companies Act, CAP 42:01 Section 11, 2018.** https://www.cipa.co.bw/wp-content/uploads/2019/06/companies_act-2.pdf
ABR	Companies Register
Australian Company Register	Companies Register
Business Names Register	Business Names Register
Foreign Companies Register	Register of Overseas Entities

Program timeline

Phases	1. Enable	2. NZ development support	3. Regulation support	4. Implementation	5. Ongoing
Steps	2011	2012	2018	2019	2023
	2011: Companies and Intellectual Property Authority Act, 2011 enabled the streamlining of business registry.	New Zealand supports economic development and export of Foster Moore product, indirect funds Botswana ORBS project.	2018: Regulation reform to empower digitisation	2019–2020: OBRS is implemented	Present: Foster Moore ongoing maintenance of system

Phases	1. Enable	2. NZ development support	3. Regulation support	4. Implementation	5. Ongoing
Major features	2012: Engagement with counterparts in New Zealand for support for the development of an online system for the registration of Companies and Business Names.	New Zealand Ministry of Foreign Affairs and Trade (MFAT) provided an indicative maximum funding amount of $1,050,000 NZ$ to New Zealand Companies Office (NZCO) for the implementation of OBRS.	2018: Several acts were passed to facilitate further digitisation and transformation of registers, such as Companies Amendment Act and the Registration of Business Names Act	2019: The new system is piloted in Gaborone, the capital of Botswana. 2020: The new business registration system is rolled out nationwide. The old business registration system is retired.	Foster Moore has since signed a maintenance and support contract with the Companies and Intellectual Property Authority (CIPA), the government agency responsible for maintaining the business register in Botswana, to be renewed annually.
Back-ground	Legacy business register was predominantly paper-based and required attendance at one of the registry offices.			Fully digitised, online-only business register, with regional offices providing access to citizens without suitable technology access.	

Key program documentation:

- **Companies and Intellectual Property Authority Act. 2011.**
  https://ictpolicyafrica.org/api/documents/download?_id=5d4bb830a0c67b001b921f1a

- **Companies and Intellectual Property Authority. 2020.**
  https://www.cipa.co.bw/wp-content/uploads/2021/02/CIPA-Annual-Report-20192020.pdf

Program Review: European Union

Attribute	Finding	Evidence
Program	Business Registers Interconnection System (BRIS)	• European Commission. 2018. https://e-justice.europa.eu/489/EN/business_registers__search_for_a_company_in_the_eu?clang=en
Administrator	European Commission, e-Justice Group	BRIS is a service delivered and managed by the European Commission • Directive 2017/1132. 2017. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02017L1132-20200101
Status	Only business register, insolvency (IRI) and beneficial ownership register (BORIS)	• Regulation 2015/848. 2015. http://data.europa.eu/eli/reg/2015/848/oj/eng • Directive 2018/843. 2018. http://data.europa.eu/eli/dir/2018/843/oj/eng
Model	Decentralised	Individual Member States continue to manage their registries but provide API endpoints into them to support EU BRIS service
Growth	Yes, add'l registers flagged for transformation and integration	• European Commission. 2023. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2023:177:FIN • Notaries of Europe. 2023. https://www.notariesofeurope.eu/en/european-commission-publishes-a-new-proposal-for-a-directive-on-the-digitalisation-of-company-law/
Enabling act	Business Registers Interconnection System Directive, 2012	• Directive 2012/17/EU. 2012. http://data.europa.eu/eli/dir/2012/17/oj/eng
Speculative benefits	EUR437m/a ($A716m/a)	• European Commission. 2023. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2023:177:FIN
Cost (∑)	EUR18.1m ($A29.5m)	
• **Design**	EUR1.8m ($A3.0m)	• Directorate-General for Justice and Consumers. 2023. https://ec.europa.eu/transparency/documents-register/detail?ref=SWD(2023)79, pp. 13-14
• **Development**	EUR7.2m ($A11.8m)	• Directorate-General for Justice and Consumers. 2023. https://ec.europa.eu/transparency/documents-register/detail?ref=SWD(2023)79, pp. 14-15
• **Implementation**	EUR8.0m ($A13.1m)	• Directorate-General for Justice and Consumers. 2023. https://ec.europa.eu/transparency/documents-register/detail?ref=SWD(2023)79, p. 16
• **Maintenance**	EUR1.0m per annum ($A1.6m per annum)	• Directorate-General for Justice and Consumers. 2023. https://ec.europa.eu/transparency/documents-register/detail?ref=SWD(2023)79, p. 21
Operational resources	3 FTE at EC over and above existing Member State Registry staff (2020 data)	• Directorate-General for Justice and Consumers. 2023. https://ec.europa.eu/transparency/documents-register/detail?ref=SWD(2023)79, p. 15

Attribute	Finding	Evidence
Vendor/solution	Custom	• Regulation 2021/369. 2021. http://data.europa.eu/eli/reg_impl/2021/369/oj/eng • Regulation 2021/1042. 2021. http://data.europa.eu/eli/reg_impl/2021/1042/oj/eng
Data migration	N/A, EC prescribed BRIS message format for Member States	
Authentication	Via individual member states (EU eID or alternatives).	
Registers	Business register Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden	All Member States and EEA members connect to BRIS.
	Insolvency register Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden	IRI only links European Member States, not EEA members.
	Beneficial ownership register *(suspended)*	BORIS is suspended due to a recent court ruling that argued the BO Register is not considered legally required to prevent money laundering and is, in fact, considered to interfere with fundamental rights [private life, protection of personal data] • WM and Sovim SA v Luxembourg Business Registers. 2022. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:62020CJ0037
CX transformation	All member states maintain paper-based transactions with their respective business registers (fee-for-service model)	• European Commission. 2018. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=SWD%3A2018%3A141%3AFIN

Cross-jurisdictional register comparison

Australian register (MBR Program)	Comparable register
	• European Commission. 2021. https://e-justice.europa.eu/content_business_registers_at_european_level-105-en.do
ABR	Business Register Interconnection System
Australian Company Register	Business Register Interconnection System
Business Names Register	Business Register Interconnection System

Program timeline

Phases	1. EU Directive	2. Development	3. Pilot and launch	4. Integrations	5. Other registers
Steps	2012 –13	2014	2017	2021	2023
	2012: BRIS Directive 2013: Planning and analysis	2015 –2016: Development, testing and pilots 2014: Strategic decisions related to technical specifications and legislation	2017: BRIS launch and roll-out as scheduled	2021: BORIS and IRI integration	2023: Centralise other registers
Major features	Program initiated by European Commission (DIGIT Project) is a joint effort by EU governments and the European Commission to combine the registers of all EU Member States, Iceland, Liechtenstein and Norway	Development of the solution was a decentralised architecture (decoupled) using standardised APIs, based on a service-oriented architecture (SOA).	2017: Fully operational using the technical parameters outlined in Commission Implementing Regulation (EU) 2015/884 2018: All but 3 Member States connected to BRIS	Other registers continue to be integrated within BRIS, such as BORIS (Beneficial Ownership Registers) and IRI (Insolvency Registers), each with their unique legislation.	2023: Proposal for a Directive to further expand and upgrade the use of digital tools and processes in company law.
Back-ground	The planning and analysis stage done by the EU included a business practices survey and technical practices survey, interview and meetings with member states.	Strategic decision relating the technical specifications and policy strategy for the Implementing Act and adoption.		2022: EU commissioned an in-depth Review of BRIS program, timeline and expenditure to inform future initiatives that form part of EU Single Market strategy	

Key program documentation:

- Directive 2012/17/EU. 2012. http://data.europa.eu/eli/dir/2012/17/oj/eng

- Directorate-General for Justice and Consumers. 2023.
  https://ec.europa.eu/transparency/documents-register/detail?ref=SWD(2023)79&lang=en

- European Commission. 2023.
  https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2023:177:FIN

- Magda Talaban. 2013. https://slideplayer.com/slide/2513743/

- Regulation 2021/1042. 2021. http://data.europa.eu/eli/reg_impl/2021/1042/oj/eng

Program Review: United Kingdom

Attribute	Finding	Evidence
Program	Companies House	• Companies House. 2023. https://www.gov.uk/government/organisations/companies-house
Administrator	Department for Business and Trade	• Companies House is an executive agency under the Department for Business and Trade • Companies Act, 2006. https://www.legislation.gov.uk/ukpga/2006/46/part/35#section-1060-3
Status	Public information about companies (UK inc), LLPs and CICs. Primarily a digital register, with future transformation to include software-only filing.	• Companies House. 2023. https://companieshouse.blog.gov.uk/2023/04/26/using-the-companies-house-advanced-search-function/ • Rachel Meese. 2023. https://companieshouse.blog.gov.uk/2023/02/10/changes-to-accounts-part-1-moving-to-software-only-filing/
Model	Centralised	
Growth	Yes, crime prevention, addition of Register of Overseas Entities (2023)	• Rachael Watts. 2023. https://companieshouse.blog.gov.uk/2023/03/07/register-of-overseas-entities-the-story-so-far/ • Andrew Williams. 2022. https://companieshouse.blog.gov.uk/2022/12/12/companies-house-reform-identity-verification/
Enabling act	Companies House Act, 2006; Economic Crime and Transparency Bill, 2022	• Companies Act, 2006. https://www.legislation.gov.uk/ukpga/2006/46/contents • Economic Crime and Transparency Bill, 2022. https://bills.parliament.uk/bills/3339
Speculative benefits	Qualitative benefits in the context of crime prevention and reducing the cost of registration fraud **(GBP5.9b/a)**	• Department for Business, Energy and Industrial Strategy. 2022. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1057767/corporate-transparency-and-register-reform-white-paper-impact-assessment.pdf, p. 2, 81 • Home Office. 2019. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/782656/understanding-organised-crime-mar16-horr103-2nd.pdf, p. 11
Cost (Σ)	GBP83.0m ($A156m)	• Department for Business, Energy and Industrial Strategy. 2022. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1060726/corporate-transparency-white-paper.pdf, p. 33
• **Design**	-	
• **Development**	GBP 20m ($A37m)	• Department for Business, Energy and Industrial Strategy. 2022. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1060726/corporate-transparency-white-paper.pdf, p. 33

Attribute	Finding	Evidence
• Implementation	GBP63m ($A117)	• Department for Business, Energy and Industrial Strategy. 2022. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1060726/corporate-transparency-white-paper.pdf, p. 33
• Maintenance	GBP4.7m ($A8.8m)	• Companies House. 2022. https://www.gov.uk/government/publications/companies-house-annual-Report-and-accounts-2021-to-2022/companies-house-annual-Report-and-accounts-2021-to-2022#financial-statements
Operational resources	248 FTE in Department of Digital, Data & Technology (2022)	• Companies House. 2022. https://www.data.gov.uk/dataset/a4c8ea1b-4708-423b-84dc-e28b4cd868c6/organogram-of-staff-roles-salaries
Vendor/solution	Custom	
Data migration	Major data migration in 2017 – 2020 due to Brexit, including 40TB image data and 300m rows. No pre-2011 data	• Steve Bowen. 2019. https://companieshouse.blog.gov.uk/2019/07/02/making-the-best-use-of-cloud-capabilities/
Authentication	Username/password combination (IDAM). Ability to assign additional user rights to People with Significant Control (PSCs)	• Companies House. 2022. https://www.gov.uk/guidance/people-with-significant-control-pscs
CX transformation	Identity verification, privacy protection and data sharing to improve the quality of information on the register. Preference for a digital interaction with the registry. Paper-based annual returns possible, fee-for-service model.	

Cross-jurisdictional register comparison

Australian register (MBR Program)	Comparable register
	• **Companies House. 2023.** https://companieshouse.blog.gov.uk/2023/06/23/register-of-overseas-entities-where-we-are-now/ • **Companies House. 2023** https://resources.companieshouse.gov.uk/serviceInformation
ABR	Companies House Register
Australian Company Register	Companies House Register
Business Names Register	Companies House Register
Registerable Australian Bodies Register	Charitable Organisation Register
Foreign Companies Register	Register of Overseas Entities
Reserved Company Names Register	Companies House Register
Disqualified persons register	Disqualified Directors Register
AFS banned/disqualified persons register	Disqualified Directors Register

Program timeline

Phases	1. Initial data merger	2. Single service launch	3. Migrate to cloud	4. Single user account	5. Crime prevention role
Steps	**Previous decade**	**2014**	**2017**	**2019–2020**	**2022**
	2006–2009: The Companies Act 2006 was passed to allow the combination of the Northern Ireland register with the England and Wales data, and major digitisation.	2014/15: Launch of the combined single digital search service Companies House Service (CHS)	2017: Launch of revenue registration services with (tax and incorporation registration) 2017: CH service migrates data to full cloud solution	2020–2023: Development of new identity management and verification system (IDAM)	2022: New role and expanded powers for Companies House in crime prevention 2022: implementation of the Register of Overseas Entities
Major features	2 major factors in enabling the changes in Companies Act 2006, which changes the legal framework within which they operate, and launch their own	2015: The launch of Companies House Service (CHS) gives free online access to register through single portal and API. CHS replaces legacy search (WebCHeck and	2017: Development of the "Register Your Company" service with HMRC allows people to incorporate a company and register for taxes (Corporation Tax	2020: launched to deliver a new, modern and fit-for-purpose Identity and Access Management (IDAM) System, to support fraud management. Full	2022: A 'data lake', is proposed so data is stored so that it can be analysed to provide intelligence for fighting crime.

Phases	1. Initial data merger	2. Single service launch	3. Migrate to cloud	4. Single user account	5. Crime prevention role
	programme to update and modernise our Companies House Internal Processing Systems (CHIPS).	Companies House Direct – planned to retire in 2008, but actual retirement planned 2023).	and PAYE) at the same time. 2016: Brexit means transition data from European servers to British hosted cloud data.	implementation expected 2023.	
Back-ground	The CHIPS programme is the most significant change Companies House has made to its internal processing systems for over 20 years, to support full digital transformation	2016: Implementation of significant legislative and process changes introduced by the Small Business, Enterprise and Employment Act 2015 (SBEEA).	2018: Full adoption of agile Scrum and DevOps practice across companies house	2019: Consultation on Corporate Transparency and Register Reform, the Department for Business, Energy and Industrial Strategy (BEIS).	2022: Economic Crime and Corporate Transparency Bill passes enabling next phase of transformation.

Key program documentation:

- **Companies House. 2007.**
  https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/250731/0768.pdf

- **Companies House. 2016.**
  https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/540443/AnnualReport_201516.pdf

- **Companies House. 2018.**
  https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/730842/CH_Annual_Report_2017-18_web.pdf

- **Companies House. 2021.**
  https://www.gov.uk/government/publications/companies-house-annual-Report-and-accounts-2020-to-2021

- **Companies House. 2022.**
  https://www.gov.uk/government/publications/companies-house-annual-Report-and-accounts-2021-to-2022

- **Steve Bowen. 2019.**
  https://companieshouse.blog.gov.uk/2019/07/02/making-the-best-use-of-cloud-capabilities/

Program Review: Estonia

Attribute	Finding	Evidence
Program	E-äriregister (E-Business Register, EBR)	• Centre of Registers and Information Systems. 2020. https://ariregister.rik.ee/
Administrator	Ministry of Justice	EBR is a service administered by Centre of Registers and Information Systems, a state authority under Ministry of Justice) • Commercial Code, 1995. https://www.riigiteataja.ee/en/eli/ee/530012015002/consolide/current
Status	Fully digitised register, including searches, information updates and filings. Free access since January 2022.	• Centre of Registers and Information Systems. 2022. https://abiinfo.rik.ee/en/uudised/e-business-register-data-now-available-everyone-free-charge
Model	Centralised	• Centre of Registers and Information Systems. 2022. https://www.rik.ee/en/agency
Growth	No	There are no further transformation programs underway; all critical business registers are integrated within the Centre of Registers and Information Systems
Enabling act	Commercial Code, 1995 (RT I, 18.12.2012, 3)	• Commercial Code, 1995 (RT I, 18.12.2012, 3). 2012. https://www.riigiteataja.ee/en/eli/ee/522062017003/consolide/current
Speculative benefits	Business performance	
Cost (Σ)	EUR11.4m ($A18.6m)	• OpenTender Estonia. 2022. https://opentender.eu/ee/search/tender
• **Design**	-	
• **Development**	-	
• **Implementation**	-	
• **Maintenance**	-	
Operational resources	165 staff at RIK, 97 of whom in Engineering and IT (2023)	• LinkedIn. 2023. https://www.linkedin.com/company/centre-of-registers-and-information-systems/
Vendor/solution	Custom	
Data migration	N/A, standardised message format for BRIS. Parts of register environment available online	• GitLab. 2023. https://koodivaramu.eesti.ee/explore/projects

Attribute	Finding	Evidence
Authentication	Via ID-card, Mobile-ID, Smart-ID or EU eID. Ability to add additional users to business account.	• Centre of Registers and Information Systems. 2021. https://abiinfo.rik.ee/en/e-business-register-queries/instructions-administrator-user-contractual-client
CX transformation	Fully digital, no paper-based processes remaining	

Cross-jurisdictional register comparison

Australian register (MBR Program)	Comparable register
	• **European Commission. 2021.** https://e-justice.europa.eu/106/EN/business_registers_in_eu_countries?ESTONIA&member=1
ABR	Companies Register, Sole Trader Register
Australian Company Register	Companies Register
Business Names Register	Companies Register
Registerable Australian Bodies Register	Non-Profit Association Register
Foreign Companies Register	Companies Register
Reserved Company Names Register	Companies Register
Registered Liquidators Register	Companies Register
Registered Company Auditor Register	Companies Register
Authorised Representative Register	Companies Register

Program timeline

Phases	1. Online register	2. Global advisory	3. Integration with e-Residency program	4. Cross-border data	5. Free registry access
Steps	**Previous decade**	**2013**	**2014**	**2019**	**2022**
	2002: Registry becomes fully electronic and online. Hard copy Reporting no longer required. 2007: Online company registration portal launches, reducing time to setup business from 72	2013: Through TAIEX, Estonia collaborates with other global jurisdictions to integrate Estonia's electronic business registry platform: Bulgaria, Oman and UAE	2014: Estonia launches e-Residency program, enabling EU citizens to establish businesses in Estonia	2019: Through X-Road architecture, business registers of Finland and Estonia commence instant and comprehensive data exchange	2022: All registry data is accessible to everyone free of charge in response to EU Directive 2019/1024

Phases	1. Online register	2. Global advisory	3. Integration with e-Residency program	4. Cross-border data	5. Free registry access
	days to 2 days.				
Major features		International collaborations continue to expand: Georgia (2019), Kosovo (2019) and Faroe Islands (2019)	Time to establish a business in Estonia is further shortened to a single day	98% of businesses in Estonia are now established online, and all legal requirements are completed through the e-Business Register portal	
Back-ground	2009: Residents of Finland, Portugal, Belgium and Lithuania can establish a business using the e-Business Register portal via their European ID card	2012: Transformation of Estonia's Company Law to restrict annual reporting to online only	The e-Residency program embodies Estonia's ambition to create a borderless digital society for global citizens.	2016: Estonia launches accounting software for SME that integrates with other government services to support businesses in fulfilling annual requirements	

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Appendix 6 Analysis of Program Governance

July 2023

Executive summary

As part of its Digital Business Plan, the Australian Government announced it would deliver the Modernising Business Registers (MBR) program to streamline how business information is registered, viewed and maintained in Australia. The program brings together more than 30 ASIC registers and the ABR in one platform, and includes introduction of a Director ID.

In February 2023, the government announced an Independent Review of the program's progress. BCG was engaged by the Review secretariat to assess the MBR's program management and operating model. The assessment is based on consultation, interviews and a review of existing program documentation.

Overall observations

The MBR Program's scale, complexity, and cross-agency stakeholder requirements are a challenge from a program management perspective. The complexity of business processes, legal requirements and technical solutions and the range of stakeholders has affected the speed of decision-making and governance. A 'big-bang' launch approach means it is difficult to test the solutions and benefits progressively. Finally, a prolonged period of ambiguity regarding the scope and funding has hampered long-term decision-making.

The program has been reviewed over the past 4 years through Gateway Reviews and by the independent assurer. This has led to improvements in program management, such as risk monitoring and detailed project scheduling. However, challenges persist in the areas of scope and objectives, program benefits realisation, planning and tracking, governance, organisation and skills, and vendor management.

Based on observations from this assessment, further changes to program management and operating model are needed to increase the probability of a successful outcome and mitigate significant delivery risks. The focus areas are based on good practice and tailored to the specific context of the MBR Program, and intended to be pragmatic, achievable, and measurable.

Table A6.1 Focus areas

Category	#	Focus area
Scope	1	Clarify the scope and ensure alignment across all key stakeholders
Benefits	2	Recut the benefits to reflect the current state of the program, and achieve the benefits of the business data spine
	3	Track delivery of benefits over time using more rigorous methodologies
Planning and Tracking	4	Build the top-down critical path to deliver the Companies Register and focus governance on it
	5	Establish a master status report focusing on critical path progress, forecast delivery date and program costs
	6	Build an activist transformation office that unites ATO & ASIC and ensures the intended impacts are achieved
Governance	7	Focus leadership on strategic decisions and ensure decision–making accountabilities are clear
	8	Implement feedback loops on the effectiveness of governance forums
Organisation and Skills	9	Provide additional support for senior program leaders on technology transformation leadership
	10	Develop and execute a strategic workforce plan to address key gaps
Risk Management	11	Focus on a small number of larger risks and mitigate these rigorously
Vendor Management	12	Ensure best practice vendor management is being implemented across the program to drive optimal vendor performance and value for money

Table A6.2 Mapping of focus areas to overall Report recommendations

	Recommendation (per overall Report)	#	Focus area (informing recommendations)
1	Narrow the scope of the MBR Program to deliver the Companies Register	1	Clarify the scope and ensure alignment across all key stakeholders
2	ASIC to deliver the professional registers independently of the Modernising Business Registers Program		
3	Focus the Modernising Business Registers Program on achieving the benefits of the business data spine	2	Recut the benefits to reflect the current state of the program, and achieve the benefits of the business data spine
		3	Track delivery of benefits over time using more rigorous methodologies
4	Provide seed funding to examine law reform opportunities to reduce risk and complexity ahead of future decisions for Business Names and the Australian Business Register		
5	Commit to final, agreed tranche of law change to support delivery of the Companies Register and then design and build to the law for the companies release	5	Establish a master status report focusing on critical path progress, forecast delivery date and program costs
6	Lock the scope of the MBR Program until completion, using interim solutions or alternate pathways to implement policy changes		

7	Focus leadership on strategic decisions and ensure decision–making accountabilities are clear	7	Focus leadership on strategic decisions and ensure decision–making accountabilities are clear
		9	Provide additional support for senior program leaders on technology transformation leadership
8	Establish a master status report focusing on critical path progress, forecast delivery date and program costs		
9	Implement feedback loops on the effectiveness of governance forums		
10	Build the top-down critical path to deliver the Companies Register and focus governance on it:	4	Build the top-down critical path to deliver the Companies Register and focus governance on it
	• **10.3**: Establish a cross–agency transformation office that brings together Treasury, ASIC, ABRS and ATO Sub–providers (for example, Enterprise Solutions and Technology) to support critical design and delivery work required to implement the Companies Register	6	Build an activist transformation office that unites ATO & ASIC and ensures the intended impacts are achieved
		11	Focus on a small number of larger risks and mitigate these rigorously
11	The appointment and reporting of the assurance function should be independent, managed by the DTA		
12	Structure program funding to provide funding certainty, reinforce good practice governance and reflect and manage uncertainty and risk		
13	Reset program workforce to align with revised scope and implement strategic workforce planning	10	Develop and execute a strategic workforce plan to address key gaps
14	Revisit the use of vendors to align with the revised scope	12	Ensure best practice vendor management is being implemented across the program to drive optimal vendor performance and value for money
15	Adapt team composition, capability and tooling to improve build and release activity		
16	Progressively uplift the integrity of registry data		
17	Ensure the ATO provides the ASIC with timely access to the company and business data		
18	Ensure design prioritises wholesale services		
19	Maintain target architecture with strengthened guardrails against Verne roadmap		

Methodology

The Program Management and Operating Model workstream of the Independent Review team undertook a review of the MBR's historical and current practices. Our assessment was informed by BCG's Technology Program Recovery Framework which provides best practice guidance across a number of domains. This program management and operating model assessment focused on 8 areas of the Technology Program Recovery Framework (shaded in Figure A6.1).

Figure A6.1 BCG's Technology Program Recovery Framework
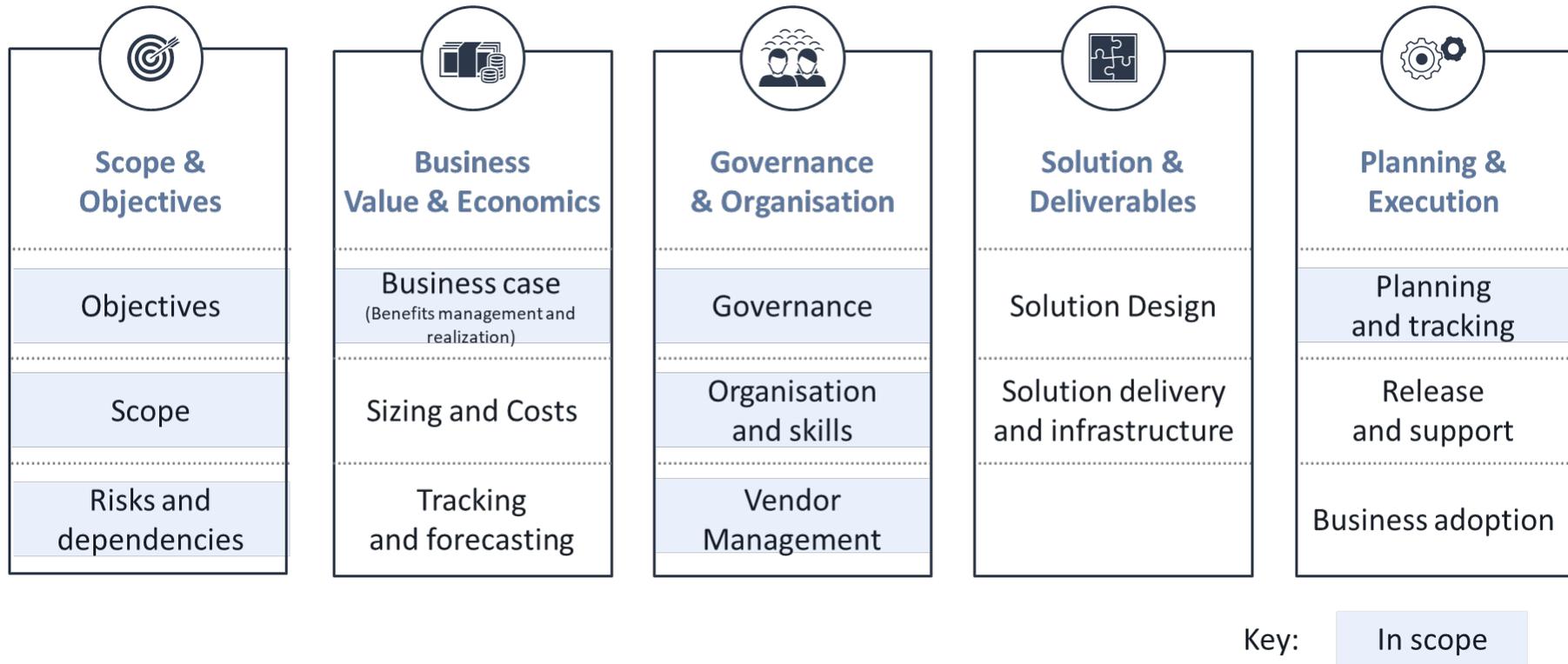
Source: BCG

Sources of analysis

The assessment is based on a review of existing program documentation, interviews and workshops with representatives from the MBR Program, ATO, ASIC, Treasury, the Review secretariat and other workstreams, over a 6-week period during May-June 2023. The full list of sources is located in the Annexure to this appendix.

Observations and focus areas

Scope and objectives

Observations

The initial scope of the MBR was outlined in the 2019 SPBC. [38] During 2020 and 2021, it became clear that the complexity of the program had been underestimated [39] and the program schedule was revised in June 2021. Since this time, the MBR Program has continued to design the business registry solution and most of the design for the first tranche of work (Companies Release) has been completed. [40]

3 main issues have arisen regarding the scope and business requirements of the program.

- The ASIC access and data sync business requirements are yet to be agreed. This includes:

  – The frequency at which data is provided to ASIC (e.g., nightly transfer or continuous disclosure). [41]

  – The number of data fields needed for information exchange to meet ASIC's requirements.

  – The legal obligation of ATO disclosures to ASIC (current disclosures are discretionary and not required by law). [42]

  – The responsibility for maintaining the interface with the end registry. [43]

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38   MBR Second Pass Business Case, ATO, 5 February 2019

39   Gateway Review Report (Mid-stage review), ATO, 2021, page 17

40   Interview, MBR architecture team

41   Interview notes, MBR ASIC team

42   Interview notes, MBR ASIC team

43   Interview notes, MBR ASIC team

- **Key dependency on law and policy simplification that has not been agreed.** A key element assumed by the MBR Program was the modernisation of relevant law and policy. While significant law and policy changes have been delivered, some key stakeholders believe that further changes are required. A Law and Policy Authority was only recently established to assess and prioritise potential changes to law and policy.

- **Timeline of decommissioning of ASIC systems.** Ambiguity around ASIC's future data access permissions and the MBR Program timeline has led to uncertainty over how long ASIC legacy systems will need to be maintained. [44] This uncertainty has impacts on project cost, timelines, legal risk, complexity, stakeholder alignment and benefit realisation.

Focus areas

Focus area 1

Clarify the scope and ensure alignment across all key stakeholders
Informs Recommendation 1

Ambiguities in the MBR Program scope and objectives make it difficult to determine program costs, and to estimate and allocate the resources and time needed to complete the program. To deliver the program, the scope and objectives will need to be revisited and clarified, and the revised timeline and costings will need to be agreed by all stakeholders.

Implementation guidance

- clarify overall scope of the tranches the MBR Program will deliver, including timing and budget

- refine and confirm business requirements and user experience design with ASIC data users

  - develop user journeys for ASIC activities to understand the key use cases of the data, and whether design decisions will impact them

- confirm extent to which further regulatory/legal streamlining will take place

Program benefits realisation and tracking

Observations

The MBR Program will deliver a single platform for business registries in Australia, with a range of benefits for business and government such as providing trusted registry data in one interface,

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44 Interview notes, MBR ASIC team

increased ease of use for businesses and greater system reliability. However, the main benefit will be the core data spine that will give businesses more confidence in the parties they are transacting with and provide regulators and policy makers with a more robust data set.

The program has a benefit tracking and management plan that defines 6 categories of benefits (Table A6.3). [45] While the measurement and delivery of the first 4 categories of benefits have been well defined, they represent a small amount of the program's financial benefits.

Table A6.3 Benefits that will deliver the most value are less clearly defined

Benefits	Quantification and measurement	Detail of drivers	Ability to track	Financial benefit
1. Improved service delivery to reduce complexity for business	1.1 A net regulatory saving of $25m per year 1.2 Fewer than 1,100 paper-based interactions 1.3 2 separate logins and access points 1.4 70% satisfaction index score 1.5 ATO Service Standard 1.6 Minimise negative press and stakeholder feedback	●	●	$25m p.a.
2. Single source of reliable, trusted and accessible business data	2.1 Increased data integrity measurement timing 2.2 Increased range and consumption of APIs and data services	◕	◕	N/A
3a. Increased reliability of registry systems	3.1 As per current ABR system availability = 99.5%	◕	●	N/A
3b. Delivered benefits to government by reducing the long-term costs of business registry services and increasing satisfaction	3.2 Reduced long-term cost of business registry services ($11m per year) 3.3 Reduction in the number of agencies offering registry services (one) 3.4 Government users – increased satisfaction in registry services to 80%	◕	●	$11m p.a.
4. Increased trust and confidence in digital and data transformation initiatives	4.1 Increased trust in registry services (60%)	◕	◕	N/A
5. Increased revenue outcome (director ID wider revenue effects) through the Phoenix Compliance Program	5.1 Director ID wider revenue effects ▮▮▮) ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮ [46]	◔	◔	▮▮▮

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45   MBR Benefits Realisation Plan Version 3.0, ATO, Approved 18 August 2022

46   Interview, ATO Revenue Analysis Branch team

Benefits	Quantification and measurement	Detail of drivers	Ability to track	Financial benefit
6. Foster economic activity and mitigate economic losses for businesses	6.1 Regulatory savings (per year) for the business community ($550m) *Broader economic uplift will come from more accurate and accessible data, stronger identity verification and a modernised platform. This will support investment in new information products and services, earlier detection of fraud and misconduct, new policy initiatives and business confidence.* [47] *It is calculated from time saved by businesses from more efficient processes, and reduced time spent dealing with fraud. The calculation may be over-estimated as the model considers the time saved for all individual businesses,* [48] *but according to ASIC data, 40% of businesses use intermediary third party agents.* [49] *Overall economic impact was not modelled and may be larger than $550m.* [50]			$550m p.a.

Source: MBR Program Benefits Overview 20 March 2023 v4.0

Our assessment of the program's benefit tracking and prioritisation identified 3 observations:

- **The benefits of the core data spine are not well defined.** To date, program design has focused on the 4 smaller categories of benefit related to user experience (benefits #1-4). Most of the estimated financial benefits are in benefit #5 ⬛⬛⬛⬛⬛⬛ and #6 ($550 million per year) and relate to the core data spine that will provide a more robust and accurate business data set. There is insufficient detail for benefits #5 and #6 to be able to link program activity decisions more directly to the value to be gained from using integrated data to improve compliance activity and support business activity.

- **There is limited consideration of benefits in decision-making processes:** Integrated program plan milestones do not reference the benefits being delivered,52F[51] and anecdotal reports indicate that benefits have not been discussed in detail in senior governance forums (e.g. limited or no mentions of "benefit" in meeting records). [52, 53]

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[47]   MBR Benefits Realisation Plan Version 3.0, ATO, Document approved 18 August 2022

[48]   Interview, ATO Revenue Analysis Branch team

[49]   ASIC Registers on a page, ASIC, 2022

[50]   Benefits Model, Modernising Business Registers – Impact on Community, ATO, 21 December 2021

[51]   MBR Integrated Schedule, March 2023

[52]   MBR Sponsor Group minutes Jan 2023, MBR Sponsor Group minutes, Feb 2023

[53]   MBR Program Board meeting Dec 2022, MBR Program Board meeting, Dec 2022

- **Benefits are not planned to be realised or tracked until the Companies system is delivered:** MBR benefits will be tracked after major tranche releases, or after the legacy system is decommissioned. [54, 55] Benefit checkpoint reports have been deferred since mid-2022, [56] and the program has been tracking performance using Earned Value SPI and internal costs in branch status reports. [57]

Focus areas

Focus area 2
Recut the benefits to reflect the current state of the program, and achieve the benefits of the business data spine
Informs Recommendation 3

Having a clear view of program benefits, and tracking progress against them, is essential for the successful delivery of the MBR Program. The ability to identify, prioritise and realise benefits is especially critical for the MBR given the potential impact on other government agencies and businesses.

The largest benefits from the MBR Program – benefits 5 and 6 – have not yet been modelled at a level that can be used to inform and validate the program design. In particular, the benefits related to the core data spine are qualitative and the issues that prevent them from being realised are not defined.

Recutting the benefits and providing more detail about how they will be tracked and managed would enable the prioritisation of effort, resources, and design decisions to achieve the program objectives.

Implementation guidance

- recut benefits to outline the design requirements needed to deliver the benefit. Priorities are benefit 5 and benefit 6

    – articulate the major benefits expected from the creation of a core data spine (i.e. greater economic activity, greater confidence in the business environment, more effective compliance activity and targeted policy-making (see Table A6.4).

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54   MBR Program Benefits Overview, 20 March 2023 v4.0

55   MBR Benefits Traceability Map companies release Only, June 2023

56   Note, MBR Program Review Request Benefits Update (RFI 202), June 2023

57   MBR Program Board meeting, Dec 2022, page 25 –26

Table A6.4 Example of core data spine benefits that could be included in recut benefits

Benefits	Current problems identified	Example of level of detail
Uplift in economic activity through new and innovative services built on trusted data	Market opportunities are limited by the lack of a single information source, as well as the need for data users to check, de-duplicate and match data before using it.	What types of market opportunities would a single source of truth for data create? Which datasets would drive these opportunities? Which data fields are mismatched between datasets, and how much time/effort is needed to clean them?
	Users note that the costs of interacting with a range of systems and technologies to access the data are high and limit the use of data in products and services	Which systems and technology could data users access to create new products and services? What is the current cost and time needed to access data within these systems? What is the expected decrease in time and cost to access data from the old system to the new system?
	Search and data services are limited. While some search products are available online, data services to cover search requests are largely manual and service delivery to customers is slow	Which search and data services are processed manually and/or not online? Which manual steps are taken to complete these searches? What issues does this cause for businesses? What design changes are needed to digitise and automate these steps to enable 24/7 operation?
Uplift from more effective compliance activities	Regulatory and compliance activity is compromised without access to comprehensive information about businesses and their owners. More robust regulatory and compliance activities would strengthen system integrity and support legitimate business activities	What data issues prevent compliance agencies from accessing comprehensive information? What causes these issues? How do these data issues limit effective compliance and enforcement activities? What are the design requirements needed to solve these data issues in the MBR Program? [58]
Economic impact from businesses having greater confidence in business data	Discrepancies between identification and authentication requirements across agencies and registers can make participation in the shadow economy easier	What are the estimated businesses losses caused by fraudulent actors? How much could this be improved with more robust company data?
	ASIC does not perform identify verification for officeholders and there is no link between officeholders and their other businesses	What are the types and number of record inaccuracies?

Source: BCG analysis

Focus area 3

Track delivery of benefits over time using more rigorous methodologies

Informs Recommendation 3

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58   Excluding the PI planning process, which is managed by other branches

The MBR Program has, in practice, adopted a delivery approach with a 'big-bang' release, that realises benefits after the solution is fully delivered. However, an approach that periodically tests and tracks whether program design is meeting its objectives would demonstrate the impact of design changes before the project is completed and allow for course-correction, if needed.

Implementation guidance

- consult every 3-6 months with business stakeholders to confirm that work-in-progress design will still deliver the intended benefits

- re-start twice-yearly benefit checkpoint reports and include additional information:

    – up-to-date views on benefits expected from program delivery

    – progress of benefits against schedule

    – modifications to benefits to reflect the changing business or program conditions

    – change control measures to close gaps between benefit ambition and forecast

- include benefits checkpoint reports and stakeholder assessments in program board meetings to support decisions based on value and benefits delivered.

Planning and tracking

Observations

MBR planning and tracking activities [59] are owned and delivered by the MBR Governance and Program Management Branch. [60] MBR Program Management documentation [61] demonstrates detail in program management processes and practices, and the MBR Governance and Program Management Branch has been responsive to assurance findings during the program (e.g. providing greater certainty around the schedule for Tranche 2 in response to 2022 Gateway Review). [62]

Our assessment of the program's planning and tracking activities resulted in the following observations:

- **Milestones:** Key milestones are articulated as activities and not outcomes, and do not follow best practice principles (e.g. 'Implementation strategy' does not capture what has been completed or approved). Further, the program's critical path is not mapped beyond 30 June 2023, meaning that there is no critical path mapped all the way to the delivery of the companies release. [63]

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59   Excluding the PI planning process, which is managed by other branches.

60   MBR Program Operating Model, ATO, December 2022, page 4

61   For example: MBR Program Management Plan Version 3.2, MBR Governance and Program Management, 21 March 2023

62   Interview, MBR ATO team

63   MBR Sponsor Group Meeting and Papers, MBR PMO, Meeting Date 24 February 2023, page 14

- **Reporting:** Detailed program reports are created on a regular cadence (see Table A6.5 MBR Program reporting outputs). However, it is difficult to interrogate overall progress against the critical path to understand whether program delivery is on track.

- **Dual PMOs:** ASIC retains its own program management function [64] in addition to the PMO activities run by the MBR Governance and Program Management branch. Neither the ASIC or the Governance and Program Management PMO appear to be integrated into the broader governance map for the MBR Program. Both PMOs appear to operate more as administrative and reporting functions, rather than activist PMOs or transformation offices that focus on driving outcomes.

- **Cost and timeline forecasts:** There is no 'rolling forecast' of total cost or estimated delivery date based on the latest information.

- **Use of 2 different planning and tracking tools:** Both MS Excel and MS Project are used across the program to track schedules and deliverables. [65]

Table A6.5 MBR Program reporting outputs

Report	Cadence	Primary Users	Inputs
Branch Status Reports	Fortnightly	Project Managers Program Delivery Status Report Uploaded to SharePoint	Work streams Report by PI deliverables and milestones (split by project) Team Foundation Server TFS reporting from Teams
Program Delivery Status Report	Fortnightly	Members and Advisors of the Program Delivery Status meeting Uploaded to SharePoint	Branch Status Reports
Program Executive Report	Fortnightly / Monthly *produced monthly (or as required) one week prior to the scheduled MBR Program Board	MBR Program Board MBR Sponsor Group MBR Sponsor Other corporate reporting obligations Uploaded to SharePoint	Program Delivery Status Report Finance/resources reporting Program Schedule Program Risks & Issues Other as required
Program Minister's Office Report	Monthly	Minister's Office Treasury ATO Executive CIO / MBR Sponsor SAO	Program Executive Report Finance/resources reporting Program Schedule Program Risks & Issues Metrics from Delivery Leads Other as required

Source: ATO PMP framework [66]

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64   ASIC MBR Program: information for independent reviewer, ASIC, March 2023, page 24

65   Interview, MBR ATO team

66   MBR Program Reporting Framework, MBR PMO, 13 December 2022, page 3

Focus areas

Focus area 4

Build the top-down critical path to deliver the Companies Register and focus governance on it

Informs Recommendation 10

Critical path analysis is an effective tool for monitoring time, resources and risks. The critical path shows opportunities to improve milestone articulation and program reporting. As the critical path is extended, making it more user-friendly and easier to track progress, it will support the successful execution of the program. Research shows that transformations with effective monitoring are approximately 75% more successful than programs without it. [67]

Implementation guidance

- include the following features in the critical path (Table A6.2 Mapping of focus areas to overall Report recommendations):

    - 5 to 10 outcome-focused milestones with delivery dates (including what the outcome is, and what needs to happen for it to be completed)

    - 2 to 8 sub-outcomes for each milestone, which serve as a 'checklist' that the milestone is on track (e.g. product owners have endorsed final designs)

    - a red-amber-green (RAG) status for each sub-outcome to capture whether the underlying activity is at risk/missed (red), on a watch list (amber), or on track (green)

    - post-go live activity (e.g. decommissioning)

- use the critical path to support program reporting and other senior stakeholder engagement activities (e.g. Ministerial reporting).

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[67]   BCG Digital Transformation Study n=825 (Market Research), n=70

Figure A6.2 Example critical path for the Companies Release

Guide

① **Business requirements signed off with business sponsor**
- ● Sub-outcome 1
- ● Sub-outcome …
- ● Sub-outcome 8

②

Companies design complete (definition of 'done' met)
- ● Sub-outcome 1
- ● Sub-outcome …
- ● Sub-outcome 8

Companies Release publicly launched (Day 1)
- ● Sub-outcome 1
- ● Sub-outcome …
- ● Sub-outcome 8

③ Date

Date   **Date**   **Date**

Date   **Date**

Implementation strategy endorsed by Program Board
- ● Sub-outcome 1
- ● Sub-outcome …
- ● Sub-outcome 8

Companies release pilot of 500 end users completed
- ● Sub-outcome 1
- ● Sub-outcome …
- ● Sub-outcome 8

④ **Decommissioning of legacy systems completed**
- ● Sub-outcome 1
- ● Sub-outcome …
- ● Sub-outcome 8

① Critical path should include 5-10 high-level outcome-focused milestones

② Aligned to each milestone should be 2-8 sub-outcomes which should serve as a 'checklist' to ensure achievement of the high-level milestone is on track

③ Each high-level milestone should include clear delivery dates

④ The critical path should include the journey post-go live e.g., decommissioning

RAG status | ● At risk or missed ● Watch list ● On track

Source: BCG experience, BCG interviews with MBR stakeholders and documentation [68]

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68   MBR Program leadership team, MBR documents and interview notes from Independent Reviewer and Secretariat

Focus area 5

Establish a master status report focusing on critical path progress, forecast delivery date and program costs

Informs Recommendation 8

A master status report that reports on milestones, timelines and cost is an effective way to engage senior stakeholders in program progress and decisions. It could be used in multiple forums (e.g. the Sponsor Group and Ministerial reporting), and should include the following information:

- **Critical path:** What are the upcoming critical path milestones? Are they at risk of not being delivered on time? If that is the case, what action should be taken to address this?

- **Go live:** What is the estimated date for go-live of the companies release, based on all latest information? What is the confidence of delivering by that date? If less than 90% confidence, what are the root causes and what mitigations are in place to address?

- **Cost:** What is the overall projected program cost until all benefits are realised? How does that compare vs last month?

- **Key workforce metrics:** How is program tracking to its strategic workforce plan? Are there critical workforce shortages and what activities have been put in place to mitigate this?

- **Material risks:** What are the top 3 to 8 key risks, what is their mitigation status and has their risk status improved since the last meeting?

- **Governance effectiveness metrics:** How is the group performing against the tracked governance effectiveness metrics (e.g., aggregated survey results regarding effectiveness of previous meetings)?

Implementation guidance

- build capability for a 'rolling forecast' of the total program cost and estimated delivery date, based on the latest information

- keep the report brief, and clearly list the actions/mitigations that need support from senior stakeholders

Focus area 6

Build an activist transformation office that unites ATO & ASIC and ensures the intended impacts are achieved
Informs Recommendation 10

PMOs that adopt activist transformation management practices achieve 90% higher transformation success [69]. To achieve this, the MBR Program would need to establish a small transformation office team (Figure A6.3). A dotted line reporting model could also be considered for the ASIC PMO to create unified oversight across the program.

Implementation guidance

- recruit 3 to 4 team members with significant experience and expertise in major business and technology transformations to operate an activist program management office

- define clear accountabilities for the activist transformation office to distinguish this from existing PMO capability:

  - keep Executives and other stakeholders informed on progress towards milestones and leading indicators to detect off-course activities

  - stretch the thinking of colleagues across program teams (vs acting as a process orchestrator), in alignment with program methodology, tools and templates

  - reduce silos between program teams with open communication and collaboration, and by identifying and managing interdependencies

  - resolve and manage risks and issues by working across branches.

- clarify PMO reporting line to the Program Board and Sponsor Group

- consider 'dotted line' integration of the ASIC PMO, ensuring unified oversight for the program and single centre of excellence for program management (see Figure A6.3).

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69   Global research "Change Readiness Baseline" (N=964 companies). Quotes are from CTOs interviewed in 2019

Figure A6.3 An activist program management office adds value by keeping ahead of the main reasons that programs fail

Most significant challenges …

What was the single most important factor in determining the failure of initiatives?

- Ability to measure progress — 29
- Lack of commitment by senior management — 21
- Employee resistance — 19
- Insufficient funding — 16
- Poor communication — 15

(%)

How a Transformation Office can help…

- Provides enterprise/program-wide view of progress
- Provides the discipline, oversight, and level of detail needed for leaders to manage multiple initiatives (e.g., metrics, reports, priority setting, conflict resolution)
- Sets priorities and timing to mutually reinforce initiatives

- Promotes a close working relationship with program sponsor/CEO that helps ensure leadership engagement
- Helps create and maintain a sense of urgency within the organization

- Drives coordinated communication and creates a clear picture of what the change is, why it is needed, and how people will be impacted
- Maintains perspective of key constituencies (customer, employees, shareholders)
- Monitors the organization's pulse and ensures commitment to initiatives

Source: BCG Research [70]

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70   PMI 2016 Thought Leadership Series / Economist Intelligence Unit Survey, 'Strengthening benefits awareness in the C-suite', 2016

Figure A6.4 Example Cross-MBR Program Management structure

	ATO MBR PMO	ASIC MBR PMO	Activist Transformation Officers
Team	ATO MBR PMO	ASIC MBR PMO	Activist Transformation Officers
Role	• Schedule and risk reporting • Finance • Planning & integration	• Delivery enablement • Governance • RAID • Resource management • Financial management • Scheduling • Scope management • Change control • Reporting	• Focus on results • Executive visibility and transparency • Influence, stretch and challenge thinking of program teams • Break silos across teams • Resolve and manage risks and issues
FTE	~25	~10	3-4

Source: BCG Experience, BCG interviews with MBR Project leadership, MBR documents & interview notes from Independent Reviewer and Secretariat

Governance

Observations

Overarching responsibility for the MBR Program plan and governance arrangements sits with the Governance and Program Management Branch. [71] The Branch also has responsibility for most forums in the MBR Governance landscape, including the Sponsor Group and Program Board. [72] Ownership for some program integration forums sits elsewhere, such as the Design & Issues Authority and Technical Design Authority which are owned by the MBR Change Readiness and Future Design team. [73]

ASIC runs its own governance forums to interface with the MBR Sponsor Group and Program Board: the ASIC MBR Sub-Committee of the Executive Committee, and the MBR ASIC Delivery Program Board. [74]

Governance forums have expanded since the SPBC. Latest program documentation shows 3 layers of forums, with ATO-led program integration forums increasing from one to 6. [75]

Our assessment of the program's governance arrangements resulted in the following observations:

- **Forum papers:** Briefing papers have been flagged as a potential impediment to decision-making. Specifically, Sponsor Group and Program Board participants have voiced concerns about papers being complicated and received too late. [76] The length of agendas and papers received is an additional impediment (e.g., Sponsor Group agenda and papers from December 2022- February 2023 ranged from 50 [77] to 106 [78] pages; Program Board agenda and papers from December 2022-March 2023 ranged from 42 [79] to 134 [80] pages). Non-ATO attendees have also voiced concerns that they are sometimes not sufficiently briefed before meetings to make decisions. [81]

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71   MBR Program Operating Model, ATO, December 2022, page 6

72   MBR Program Operating Model, ATO, December 2022, page 6

73   Interview, MBR ATO team on ATO business delivery and transition costs

74   MBR Program Management Plan Version 3.2, MBR Governance and Program Management, 21 March 2023, page 29

75   MBR Program Management Plan Version 3.2, MBR Governance and Program Management, 21 March 2023, pages 28 –29. Note, Decision 202 noted the dissolution of the Program Integration Committee effective from 13 April 2022. Source: MBR Decision Register, Last updated 1 March 2023

76   Interview notes, KPMG Independent Assurers

77   MBR Sponsor Group Agenda and Papers, MBR PMO, Meeting date 25 January 2023

78   MBR Sponsor Group Agenda and Papers, MBR PMO, Meeting date 16 December 2022

79   MBR Program Board Agenda and Papers, MBR PMO, Meeting date 14 March 2023

80   MBR Program Board Agenda and Papers, MBR PMO, Meeting date 13 December 2022

81   Workshop, MBR team

- **Cross-agency decision-making:** This process has been described as complex, with mixed experiences across different governance levels. [82] For example, the Change Control Board has been described as an effective forum for cross-agency decisions, with clear information and experts involved to support decision-making. [83] Conversely, there are opportunities to strengthen top-down, cross-agency decision-making. [84]

- **Limited ASIC representation on the Program Board:** ASIC representation averages only 19% in Program Board meetings (aggregate), and some key future business customers within ASIC (e.g. Office of Enforcement, Legal) are not represented. [85]

Focus areas

Focus area 7
Focus leadership on strategic decisions and ensure decision-making accountabilities are clear
Informs Recommendation 7

Decision rights in the MBR Program are assigned to forums instead of individuals. Assigning ownership of decisions to individuals and clarifying the role of governance forums will support faster decision-making.

Implementation guidance

- identify the critical 10 to 20 program decisions, including strategic decisions (e.g. program delivery schedules above tolerance), governing and tracking decisions (e.g. scope of planning increments), and enabling decisions (e.g. vendor selection) (as per example in Table A6.6)

- assign an accountable role for each critical program decision

- identify consultation needed in governance forums (including cross-agency consultation)

- integrate decision rights into role descriptions and communicate across the Program (e.g. include in Program onboarding documents).

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82   Workshop, MBR ASIC team

83   Workshop, MBR ASIC team

84   Workshop, MBR ASIC team

85   BCG analysis, BCG interviews with MBR Project leadership over the course of this engagement, Documents and interview notes from Independent Reviewer and Secretariat

Table A6.6 Illustrative breakdown of critical decision ownership

Category	#	Decision	Decision maker	Decision-making process at a glance
Strategy	1	Program delivery schedule changes, outside tolerance levels	Program Sponsor	Decision made within Sponsor Group, final decision rests with Program Sponsor Consultation with Ministers and partner agencies
	2	Changes to program governance	Program Sponsor	Decision made within Sponsor Group, final decision rests with Program Sponsor.
	3	Changes program benefits (financial & non-financial)	Program Sponsor	Decision made within Sponsor Group, final decision rests with Program Sponsor.
Governing and tracking program delivery	4	Go-live decisions	SAO	Decision made within Program Board, final decision rests with SAO.
	5	Scope of planning increments (feature prioritisation)	Assistant Commissioner – MBR Program Pipeline and Design	Decision made during PI planning sessions
	6	Operational change requests	SAO	Decision made within Change Control Board, final decision rests with SAO.
	7	Approve progression through stage gates	SAO	Decision made within Program Board, final decision rests with SAO.
	8	Approve work at risk – >100 P/Days	SAO	Decision made within Program Board, final decision rests with SAO.
	9	Approve architectural trade-offs	A/Commissioner – MBR Program Delivery and Integration	TBD
	10	Approve customer journeys	Product Owners	Decisions made by Product Owners after Design Endorsement workshops.
	11	Approve customer experience	SAO	Consultation with Minister and sample users, including a mix of wholesale and retail user.
Enabling decisions	12	Decide security and privacy requirements	A/Commissioner Data and Information Services lead	TBD
	13	Path to resolve risks and issues rated significant or higher	SAO	Decision made within Program Board, final decision rests with SAO.
	14	Decisions relating to vendor selection	TBD	TBD

Source: BCG Experience, BCG interviews with MBR Project leadership over the course of this engagement, Documents and interview notes from Independent Reviewer and Secretariat

Focus area 8

Implement feedback loops on the effectiveness of governance forums
Informs Recommendation 9

The Governance and Program Management Branch has invested in improving governance practices, including pre-read materials for Program Board and Sponsor Group. However, formal feedback loops between Report preparers and primary users have not been established. Regular feedback loops would support the effectiveness of MBR governance forums.

Implementation guidance

- establish rapid feedback loops for all MBR Program governance forums and reports:

  – responsibility for establishing feedback loops sits with forum owners/report preparers

  – feedback loops could be established with primary users, reviewers/approvers

  – emphasis could be on creating feedback loops with as little administrative burden as possible (Figure A6.5 Example feedback form for governance forum participants)

- use feedback loop outputs to inform changes to governance forums and program reports

- seek monthly feedback from participants/recipients on whether governance arrangements continue to meet requirements.

Figure A6.5 Example feedback form for governance forum participants

1. On a scale of 1-10, how useful was the **pre-read material / pre-briefings** in helping you achieve forum objectives?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Very unhelpful Neutral Very helpful

2. How could pre-read material / pre-briefings be **improved**?

3. On a scale of 1-10, how effective was the forum at **making decisions**?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Very unhelpful Neutral Very helpful

4. How could decision making be **improved**?

Source: BCG Experience, BCG interviews with MBR Project leadership over the course of this engagement, documents and interview notes from Independent Reviewer and Secretariat

Organisation and skills

Observations

The success of the MBR Program requires a specific set of resources, including the right mix of seniority, skills and experience across the program. Without it, there is a higher risk of program delay.

Within the ATO, teams are organised into branches. [86] As at March 2023, the MBR Program had 473 staff, structured into 5 branches (Government Submissions & Reviews branch, Change, Readiness, and Future Design branch, Governance and Program Management branch, Delivery and Integration branch, and Pipeline and Design branch) across APS and contractor staff. Within each of these branches, there are various sub-branch groupings. Additionally, ASIC retains its own MBR Program delivery structure, with workstreams delivering activities across tranches. [87]

Our assessment of program organisation and skills identified the following observations:

- **Leadership experience and positions:** It was acknowledged during workshops that members of the program leadership team had not previously led any similar programs of equivalent scale and complexity to the MBR Program. [88] The level of the program director role as an SES Band 2 reporting to the Chief Information Officer of the ATO, is also at a lower level than the reporting lines adopted for other large scale programs, such as the Welfare Payments Infrastructure Transformation (WPIT) at the Department of Services (now Services Australia), which was a dedicated Band 3 role reporting directly to the Secretary.

- **Program resourcing:** Resourcing and capability was raised as a risk as early as October 2020. [89] During the assessment, we identified 4 drivers of resourcing challenges:

- **Skill shortages:** [90] Business Service Catalogue (BSC) consultants are a critical role in the 5 design teams, but few consultants have Verne design experience due to its limited market presence. Other skills shortages include Business Analysts with process design expertise, [91] and legal resources, service designers or analysts with registries knowledge. [92] The program also anticipates future skill shortages in areas such as external change management and stakeholder engagement closer to the launch of the Companies Release [93]

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86   MBR Program Operating Model, ATO, December 2022, page 6

87   ASIC MBR Program: information for independent reviewer, ASIC, March 2023, page 24

88   Interview notes, MBR ATO team; Interview, MBR SMEs on the discussion of workforce plans, models and capability assessments

89   See Risk 161, date raised 27/10/2020. Source: MBR Risk Register, Author unknown, last updated 24 February 2023

90   ATO Gateway Review, 12 February 2021, page 31

91   Interview, MBR ATO team on ATO business delivery and transition costs; Interview, MBR SMEs on the discussion of workforce plans, models and capability assessments

92   Interview notes, MBR ATO team

93   Interview, MBR SMEs on the discussion of workforce plans, models and capability assessments

- **Strategic workforce planning:** While strategic workforce planning has taken place, it does not appear to be current. Furthermore, it is unclear how it is being used to identify roles with long hiring lead times, to identify roles that are challenging to hire or how it is used to optimise the overall cost of the program.

- **Competing government priorities:** For most of 2020, the MBR Program was reduced to a skeleton operation to free up resources to support COVID-response initiatives (e.g. JobKeeper). [94] In addition, secondments into the MBR Program from Treasury or ASIC were declined [95]

- **Attrition:** Business analyst roles with process design experience experienced high staff turnover. [96] Foster Moore has also experienced high staff turnover and challenges in bringing additional skilled and experienced people onto the program [97]

The program is actively addressing program resourcing challenges by pursuing the recruitment of additional staff and running Verne academies for new staff. [98]

Observations on the structure of the delivery teams and proposed focus areas are covered the *Appendix 7 Analysis of Technical Solutions.*

Focus areas

Focus area 9

Provide additional support for senior program leaders on technology transformation leadership

Informs Recommendation 7

Given the scale and complexity of the program, leadership coaching provided by experienced technology transformation leaders could enhance leadership effectiveness and have a positive cascading effect on the rest of the program.

Implementation guidance

- offer leadership coaching to the SAO, Assistant Commissioners and all team leaders reporting into Assistant Commissioners

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94   Interview, MBR Independent Review team; Interview notes, MBR Policy and Second Pass Business Case Leads

95   Interview notes, MBR Policy and Second Pass Business Case Leads

96   Interview, MBR ATO team on ATO business delivery and transition costs

97   MBR Sponsor Group Agenda and Papers, event date 16 December 2022, page 22

98   February 2021 Gateway Review and Program Issue 409: BSC Consultant shortage impacting BSC milestones

- structure the coaching program over 6 to 12 months for the highest impact and include:

    – regular 1:1 coaching sessions (e.g. 1 to 4 hours/session, 1 to 2x/month)

    – shadowing 360-degree feedback interviews

    – on the ground support (e.g. meeting preparation) as needed

    – vary coaching support by level, with more intensive support for senior leaders

- engage independent coaches who are technology transformation leaders with deep expertise in the relevant branch topic – pair each participant with one coach for the duration of the coaching program.

Focus area 10

Develop and execute a strategic workforce plan to address key gaps

Informs Recommendation 13

While strategic workforce planning has taken place, it is crucial to ensure best practice is used going forward. Best practice strategic workforce planning sets out the workforce required at each stage in a project and supports teams to identify and address future workforce gaps. By running this process regularly (e.g. in line with Program Increment (PI) planning processes or more frequently if required), strategic workforce planning can help to identify workforce gaps in advance and address them before they begin to affect the project (see the *Appendix 7 Analysis of Technical Solutions* for more information).

Implementation guidance

A robust strategic workforce planning process involves 5 steps – define job clusters, simulate workforce supply by cluster, simulate workforce demand by cluster, identify gaps/risks, and deploy human resources measures (Figure A6.6).

Figure A6.6 Best practice strategic workforce planning process incorporate supply and demand considerations

MBR could adopt a similar approach to support Program workforce planning activities

Source: BCG Experience

Risks

Observations

Risk identification and mitigation is critical for large technology programs with complex dependencies and multiple hand-offs. A robust approach to managing risks encompasses risk evaluation, reporting and governance. [99] Risk management provides the program leadership and delivery team confidence that delivery will occur on time and to budget.

The MBR Program risk management approach is owned by the MBR PMO, within the Governance and Program Management Branch. The approach has been codified in the MBR Program risk management framework [100] and plan [101] and provides the structure to evaluate, Report and govern risks. Risks are identified, evaluated and managed via the risk register. [102] The risk register is used actively, with 356 risks logged on the risk register over the program history. [103] Risks are assigned a risk owner and a risk manager. [104] Risks with an assessment rating above 'significant' (i.e. high, severe, and catastrophic) require a treatment plan and are reported to a governance forum. [105]

An issue management approach runs in parallel to risk management. It is also owned by the MBR PMO and has been codified in the MBR Program issue management framework [106] and plan. [107]

The MBR risk and issue management ecosystem is underpinned by the MBR assurance approach. [108] 3 lines of assurance 'defence' are used to identify, manage and mitigate risks and issues. [109]

The ASIC PMO runs its own RAID process for ASIC-specific risks. [110]

Outside formal channels for managing risks, feedback was mixed regarding raising risks within teams. ATO Brisbane team members were confident to raise risks within their teams, [111] while other teams were less comfortable doing so. [112]

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99   BCG Risk Frameworks; BCG Expertise

100   MBR risk management framework version 9.0, MBR PMO, 28 November 2022

101   MBR risk management plan version 5.0, MBR PMO, 28 November 2022

102   MBR Risk Register, MBR PMO, last updated 24 February 2023

103   MBR Risk Register, MBR PMO, last updated 24 February 2023

104   MBR Risk Register, MBR PMO, last updated 24 February 2023

105   MBR risk management framework version 9.0, MBR PMO, 28 November 2022, page 5-6

106   MBR issue management framework version 9.0, MBR PMO, 14 December 2022

107   MBR issue management plan version 5.0, MBR PMO, 14 December 2022

108   MBR assurance approach document, MBR Assurance team, November 2022

109   MBR assurance approach document, MBR Assurance team, November 2022, page 4

110   ASIC MBR Program: information for independent reviewer, ASIC, March 2023, page 24

111   Visit to ATO Brisbane, MBR Review Team

112   Interview notes, MBR ATO and Accenture teams

Our assessment of the program's risk management approach identified 2 observations – the specificity of risks and the timing of responses.

Specificity of risks: While significant effort has been applied to management processes within the MBR Program, some risks could be more specific (e.g. resourcing and capability (ID161) and Wellbeing of Staff (ID287). [113]

Timely risk resolution: Rapid response to program risks has been a challenge. [114] The risk register shows 17 of 37 active risks were open for over a year (as at 17 March 2023), 15 of which are classed as strategic risks. [115] Further, 21 out of 37 do not have a target date for resolution.

Focus areas

Focus area 11
Focus on a small number of larger risks and mitigate these rigorously
Informs Recommendation 7 and 10

The MBR Program has set up detailed risk management processes and can build on this by making risks more specific and focusing on the top 3 to 8 risks in the program. Not resolving risks quickly and comprehensively could affect program delivery, program scope and timelines.

Implementation guidance

- capture risk to a level of detail to support a treatment plan

- identify the top 3 to 8 risks to be prioritised for resolution

- support risk managers to resolve risks with an activist PMO that:

    – evaluates risk assessments and advises on mitigation strategies and treatment plans

    – helps secure resources to implement risk mitigation strategies

    – facilitates discussions with key team leaders and stakeholders to action mitigations

    – tracks and reports risks to program leadership, with clear status on resolution progress and blockers raised and appropriately addressed.

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113   MBR Risk Register, MBR PMO, last updated 24 February 2023

114   MBR Program health check Report, KPMG Independent Assurer, 18 March 2022, page 4

115   MBR Risk Register, MBR PMO, last updated 24 February 2023

Vendor management

As part of our SME assessment, we requested documents to understand and review the approach to vendor management. Table A6.7 shows the documents requested and whether they were provided to SMEs.

Table A6.7 Documents requested to Review vendor management approach and status

Information requested	Status
Contracts for all major vendors ▓▓▓▓▓▓ ▓▓▓▓▓▓	Received limited, redacted ▓▓▓▓ contract for trial licence
	Did not receive ▓▓▓ contract
Rate cards for all major vendors ▓▓▓▓▓ ▓▓▓▓	Received rate card with:
	• Role name
	• Level (not aligned to APS level)
	• Rate
	Unclear which vendor the rates referred to (e.g. ▓▓▓▓▓▓▓▓ other vendors) and how the roles and levels related to the organisation structure provided
Internal documentation showing ongoing market comparison of vendor value	No documentation received
Internal documentation showing management and assessment of vendors against pre-agreed plans (e.g. vendor management plans)	No documentation received
Any additional, relevant documentation to understand vendor value to the program	Received monthly update documents prepared by ▓▓▓▓▓▓▓ respectively

In addition to the above, several meetings were conducted with the MBR Program team to understand the nature of the vendor relationships within the MBR Program.

Observations

The MBR Program has engaged several vendors to-date:

- ▓▓▓▓ – System integrator. Also provides consulting and advisory support

- ▓▓▓▓▓ – Technology partner

- KPMG – Independent Assurer and author of several reports during 2021 on the state of the program

- ▓▓▓▓▓▓▓▓▓▓▓▓▓▓

- Integral – No information provided to ascertain role

- DXC – No information provided to ascertain role

Vendors play a significant role in program delivery and overall cost.

- The major vendors listed above account for approximately 40% of total headcount in the Delivery and Integration, and Pipeline and Design branches, [116] and approximately 60% of total expenditure on resources (including APS staff). [117]

Our assessment of the vendor management in the program identified several observations, based on the documents made available to the Review team and related discussions:

- **Overall expenditure:** approximately $207m has been spent on vendors over the course of the program to-date, including $148m on Accenture, $37m on Foster Moore and $22m across the remaining vendors. [118]

- **Vendor oversight:** Demand for vendor resources is managed at a branch level, with leaders of each branch requesting vendor staff. Overall, contracts with vendors are managed by the SAO.

- Contract structure:

  - Accenture: Contracts are based on a capped, time and materials basis, with monthly invoices and payments linked to the achievement of monthly milestones (i.e. agreed activities and deliverables). The day rates and value for money have been market-tested in several approaches to market. [119]

  - Foster Moore: Contracts are based mainly on software licensing fees and related services, such as technical implementation support.

Focus areas

Focus area 12

Ensure best practice vendor management is being implemented across the program to drive optimal vendor performance and value for money

Informs Recommendation 14

Best practice vendor management spans the initial RFP and vendor process, contract structure, and operating model.

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116 MBR Line Organisation Chart SES and EL2, March 2023; MBR Change Readiness and Future Design Branch structure, 20 March 2023; MBR Delivery and Integration Branch structure, 13 March 2023; MBR Governance and Program Management Branch structure, 16 February 2023; MBR Government Submissions and Reviews Branch structure, March 2023; MBR Pipeline and Design Branch structure, 10 March 2023

117 MBR Program and Contract Spend to 31 March 2023, slide 3

118 MBR Program and Contract Spend to 31 March 2023, slide 3

119 No documentation was received regarding these processes

Under best practice RFP and vendor selection processes, critical elements to consider include:

- **Vendor contestability**: Establish a panel with multiple vendors to secure the right skills, increase contestability and competitive tension and reduce the risk of 'vendor lock-in' to a single incumbent vendor (thereby giving them significant negotiation and pricing power), particularly in a constrained resource environment with strict requirements, such as specific technical roles and Australian Government Security clearances.

- **Work packages:** When the requirements can be specified, structure work packages based on outcomes, to minimise the use of time and resources-based contracting.

Contractual structure elements to consider include:

- **Initial contract structure**: Contracts reflect the service being provided, including the level of risk assumed by the vendor, skill and efficiency of the individual contractor and expertise bought by the vendor. All services expected to be provided by the vendor are contractually enshrined. Termination clauses reflect the service being provided by the vendor (e.g. for time and resources contracts, this would be approximately 2 weeks' notice).

- **Governance mechanisms**: Contractual governance mechanisms ensure that vendors deliver on agreed expectations, including incentive and risk sharing models where appropriate.

- **Reporting mechanisms**: Reporting mechanisms are data-driven and tailored to the vendor's role. Metrics can take multiple forms, including specific KPIs, metrics, service levels and surveys. Reporting of metrics is standardised across the organisation, with key milestones for escalation. Escalations are communicated up to program and vendor leadership and outcomes from the escalations should then be communicated back down to teams.

- **Vendor oversight**: Vendor management is managed by a centralised and specialist function which has control over vendor spend and resource allocation to ensure standardised vendor engagement and accountability. Capabilities required include: commercial and vendor negotiation expertise, and procurement and contract management.

In addition to the contractual elements, on-the-ground operating model elements that should be observed under best-in-class vendor management:

- **Ongoing performance management:** 3 behaviours to observe, if the program is effectively managing ongoing performance:

  – Evaluation against reporting mechanisms on a periodic basis (e.g. monthly) using data driven metrics defined in vendor contracts.

  – Where a risk sharing model is employed, evaluation against governance mechanisms to understand whether incentive/risk thresholds have been met.

  – Ongoing reporting of vendor value for money to program governance forums, with forum endorsement of this value.

- **Periodic evaluation against market:** Periodically re-tender/re-test with market, considering elements such as price, quality and expertise required to ensure the program continues to receive value for money.

- **Substantiated vendor expertise**: 2 behaviours to observe, if best-in-class vendor expertise is being provided.

  – Strong and effective vendor leadership who can bring the best of their organisation to the specific project (i.e. high performers, with strong and demonstrable expertise in the areas required, including named resources within vendor contracts) as substantiated by key qualifications and effectiveness compared to other staff (based on data driven quantification).

  – Significant input from vendor senior leadership (e.g. multiple times per week) and from international expertise (e.g. multiple times per month).

- **Ongoing management of vendor resources:** Ongoing management of individual resources includes appropriate onboarding structures, tooling and embedding of vendor teams into the program.

Annexure

Basis for our observations

The assessment contained in this appendix is based on extensive consultation, collaboration, and a review of existing program documentation over a 6-week period (see Table A6.8).

Table A6.8 Sources of analysis for the Program Management and Operating Model assessment

Category	Sources and references
Stakeholder engagement	A range of stakeholders have been engaged across the MBR Program, ASIC and ATO
	For a full list of stakeholders engaged over the course of the program, see the general list of stakeholders engaged.
Stakeholder workshops	Stress test (Option/Recommendation) workshops
	MBR companies' workshop
Notes from interviews previously completed	11 ATO interviews, 5 ASIC interviews/meet and greets/site visits, 4 Treasury interviews, 2 DTA interviews, 2 vendor interviews (Accenture and Verne), 1 ABRS interview, 1 Finance interview, 1 independent assurer interview.
Program document analysis	SPBC documents (e.g. program management plan and benefits management plan)
	Current project management plans (e.g. including program governance arrangements and program governance plans).
	Assurance documents (e.g. Gateway Review Reports and Reports from the Independent Assurer (KPMG)).
	Program registers, governance and reporting (e.g. Program Board and Sponsor group minutes, agenda and papers).
	Program organisation structures.
	Benefits documentation (e.g. Benefits overview and Revenue Analysis Branch Model).
	ASIC documents (e.g. ASIC MBR Program: information for independent Reviewer).

Source: BCG analysis of MBR Program stakeholders and documentation

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Appendix 7 Analysis of Technical Solutions

July 2023

Executive summary

As part of its Digital Business Plan, the Australian Government announced it would deliver the Modernising Business Registers (MBR) program to streamline how business information is registered, viewed, and maintained in Australia. The program plans to consolidate more than 30 ASIC registers and the ABR into a single technology platform, and includes introduction of a director ID.

In February 2023, the government announced an Independent Review of the program. BCG was engaged by Treasury to support the Independent Reviewer with the technology assessment component of the Review. Our assessment is based on Reviewing program documentation, interviews, and consultation with BCG and external experts.

The technology assessment focused on the technology scope, solution design, delivery, release, and support planning practices and decisions. The findings presented here were developed collaboratively with the Independent Review Secretariat, for consideration by the Independent Reviewer in the development of the recommendations.

Overall observations

The core technology solution selected by the MBR Program is a commercial off-the-shelf (COTS) product called Verne, produced by Foster Moore, which has out-of-the-box features for building and operating registry systems. However, the unique and complex requirements of Australian business law and processes, and the decision to integrate the MBR solution into the ATO ecosystem, has required extensive customisation of the product. Verne configuration capabilities and the detailed registry knowledge needed for customisations are specialised skills not readily available in the market, limiting the scalability of delivery teams to implement faster.

The scope of the MBR Program includes all company and business registers in Australia. The largest is the Companies Register, followed by ABR Register, professional registers, Business Name Register, historical registers, and banned and disqualified registers. To date, the program has completed the majority of design for the Companies Register and is in the early stages of the build. 2 workstreams, the Pipeline and Design and Delivery and Integration workstreams, drive the pace at which the features are designed and delivered. Delivery velocity has improved in the last 8–12 months, however the productivity of these workstreams continues to be constrained by resourcing and hand-offs between workstreams leading design re-work.

The MBR technology solution also needs to integrate with ASIC's registry systems. ASIC's systems were developed in the 1990s and are approaching or have reached end-of-life. With the expectation of MBR providing a long-term solution, ASIC has implemented tactical fixes, such as adding capacity and extending existing support agreements (including $82.2 million in the October 2022 budget).

Options being considered by the Independent Review

The Independent Review is considering 5 options for the MBR Program: [120]

- Option 1: Stop the MBR Program and stabilise and uplift ASIC's legacy registry systems where it is critical to do so.

- Option 2: Deliver the full scope of MBR and the full transformation as currently planned.

- Option 3: Refocus MBR to deliver core benefits (companies first; business later; other registers stay with ASIC) .

- Option 4: Stop MBR and re-start with new registry agency, new program, governance and delivery arrangements and revised approach to achieve all benefits.

- Option 5: Stop MBR and establish a function within ASIC to mitigate system risks and deliver targeted modernisations.

Focus areas

The focus areas based on our observations are aligned to the 5 options being considered by the Review. The focus areas reflect industry leading practice and are tailored to the specific context of the MBR Program.

Technology architecture (relevant for Options 2, 3 and 5)

The future technology architecture will vary depending on the option pursued for the MBR Program. Under Option 2 or 3:

- Continue with current plans for the MBR technology architecture, with stronger governance and guardrails to minimise technology debt and address delivery risks.

Under Option 4 and 5:

- Reassess current plans for the technology architecture and reduce early critical path dependencies, especially where inter-agency alignment is required.

Skills and capability (relevant for Options 2 and 3)

As with technology architecture, the approach to skills and capability will vary depending on the option pursued. Under Option 2 or 3, the following focus areas could lift productivity and delivery velocity**.**

- Rebalance the team composition in *Delivery and Integration* and *Pipeline and Design* workstreams to increase output speed.

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[120]   Options overview, MBR Independent Review, June 2023

- Accelerate the onboarding of new staff and improve retention of existing staff.

- Expand multidisciplinary teams to include embedded, dedicated design and policy team members.

- Increase engagement and collaboration with Foster Moore to uplift the Verne product capability of inhouse team members.

- Evaluate the potential for developer augmentation or automation tools (e.g. AI-based co-pilots and similar Generative AI based tools) to improve engineering productivity.

Interdependencies with current business registry systems (relevant for Options 1 to 5)

Decisions about existing business registry systems will need to be made regardless of the option pursued. For each option, ASIC has provided the Review with a cost estimate to remediate the technical and key personnel risks associated with ASIC's legacy registry systems. ASIC has indicated that re-platforming, software upgrades, or ████████████████████████████ on ASIC's mainframe (ASCOT) may be required. Nevertheless, under any option, the following focus areas could help to mitigate risks:

- Consider technical solutions to reduce short-term system risk (e.g. apply compensatory controls, perimeter security or virtual patching) and assess further investments based on risk and timing.

- Determine the acceptable level of risk and/or upgrade pathway for end-of-life or out-of-support systems, and, if necessary, develop the business case for investment.

- ██

  mitigate personnel risk.

Table A7.1 Mapping of focus areas to overall Report recommendations

#	Recommendation (per overall Report)	Focus areas (informing recommendations)
1	Narrow the scope of the MBR Program to deliver the Companies Register	
2	ASIC to deliver the professional registers independently of the Modernising Business Registers Program • 2.1: Move the end–to–end responsibility for the delivery and operation of the professional registers to ASIC • 2.3: Modernise the professional registers to address critical operational, cyber and sustainability risks	
3	Focus the Modernising Business Registers Program on achieving the benefits of the business data spine	
4	Provide seed funding to examine law reform opportunities to reduce risk and complexity ahead of future decisions for Business Names and the ABR	
5	Commit to final, agreed tranche of law change to support delivery of the Companies Register and then design and build to the law for the companies release	
6	Lock the scope of the MBR Program until completion, using interim solutions or alternate pathways to implement policy changes	
7	Focus leadership on strategic decisions and ensure decision–making accountabilities are clear	
8	Establish a master status report focusing on critical path progress, forecast delivery date and program costs	
9	Implement feedback loops on the effectiveness of governance forums	
10	Build the top-down critical path to deliver the Companies Register and focus governance on it • **10.1:** Develop the critical path for delivery of the Companies Register • **10.2:** Focus governance on monitoring activities that are critical to achieving key critical path milestones • **10.3:** Establish a cross–agency transformation office that brings together Treasury, ASIC, ABRS and ATO Sub–providers (for example, Enterprise Solutions and Technology) to support critical design and delivery work required to implement the Companies Register	Increase confidence in program delivery *(Noting that the components of this recommendation would feed into all elements of the critical path)*
11	The appointment and reporting of the assurance function should be independent, managed by the DTA	
12	Structure program funding to provide funding	

#	Recommendation (per overall Report)	Focus areas (informing recommendations)
	certainty, reinforce good practice governance and reflect and manage uncertainty and risk	
13	Reset program workforce to align with revised scope and implement strategic workforce planning • **13.5:** Review the optimal mix of personnel across APS, labour hire (contingent workforce) and professional services	Rebalance the team composition in Delivery and Integration and Pipeline and Design workstreams to increase output speed
14	Revisit the use of vendors to align with the revised scope	
15	Adapt team composition, capability and tooling to improve build and release activity • **15.1:** Move to cross–functional teams for build, ensuring design and SME capabilities are embedded within build teams • **15.3:** Ensure strong team and team of team level communication, practices are embedded • **15.4:** Support teams with appropriate training and practices including in remote and hybrid work environments • **15.5:** Explore the opportunity to adapt personnel security clearance requirements for lower–risk work that may be undertaken in a contained and insulated environment • **15.6:** Investigate potential productivity gains from augmenting or automating some delivery activities with Generative AI	Accelerate the onboarding of new staff and improve retention of existing staff Expand multidisciplinary teams to include embedded and dedicated design and policy team members. Investigate potential productivity gains from augmenting or automating some delivery activities with Generative AI.
16	Progressively uplift the integrity of registry data	
17	Ensure the ATO provides the ASIC with timely access to the company and business data	
18	Ensure design prioritises wholesale services	
19	Maintain target architecture with strengthened guardrails against Verne roadmap	Apply stronger governance and guardrails to minimise technology debt. Increase engagement and collaboration with Foster Moore to uplift inhouse Verne capability.

Methodology

Assessment Methodology

The Technical Assessment workstream of the Independent Review team undertook a strategic Review of MBR's technology architecture, delivery skills and capabilities and interdependencies with the current business registry systems. We assessed the MBR Program's technology architecture, including scope, solution, delivery practices, infrastructure, and release and support, to understand the current program setup and the impacts of technology choices and delivery practices on progress to date, and where there might be opportunities for improvement.

Our assessment was informed by BCG's Technology Program Recovery Framework which provides best practice guidance across a number of domains. The Framework's 5 dimensions align with the factors required to successfully deliver a large technology program:

- **Scope and Objectives:** Realistic scope aligned to business needs.

- **Business Value and Economics:** A positive benefits case supported by proven estimation practices validated and tracked against realistic risk scenarios.

- **Governance and Organisation:** Experienced project leadership that actively engages stakeholders and manages vendors.

- **Solution and Deliverables:** Solutions designed, validated and deployed in a structured, methodical and agile way.

- **Planning and Execution:** A program management organisation that tracks progress and tackles issues early.

Our technology assessment focused on a subset of the most relevant Framework dimensions for the MBR Program (shaded in blue in Figure A7.1).

Figure A7.1 BCG's Technology Program Recovery
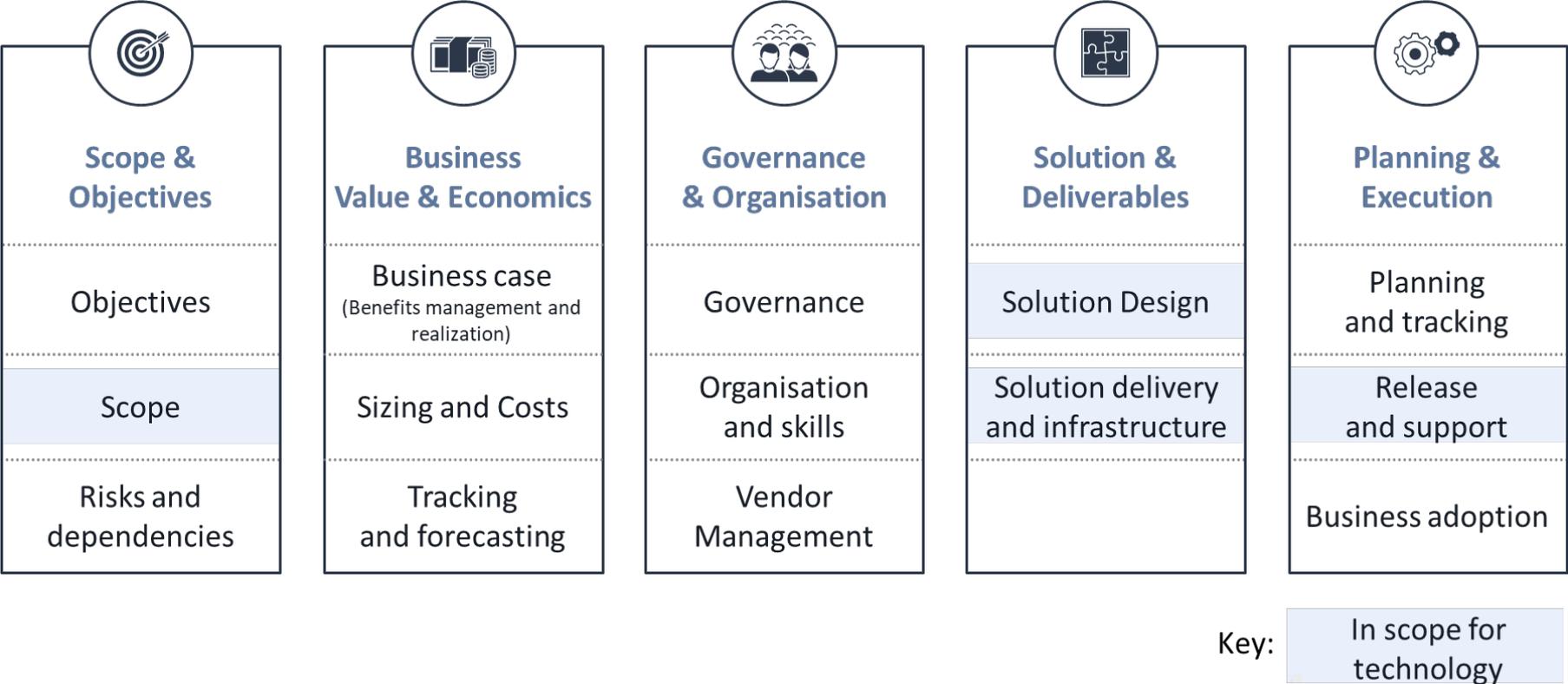
Source: BCG

We relied on documents, interviews with MBR Program, vendors and discussions with experts to calibrate with leading practice (Table A7.2).

Table A7.2 Technology Program Recovery Framework elements used to guide the assessment

Framework dimension	Scope of technology assessment	Observations and focus areas
Scope A realistic, value-focused scope aligned with business needs	• requirements complexity of the solution • product features roadmap, MVP approach and release plan.	Interdependencies with current business registry systems
Solution design A well-designed and validated technology solution that meets program objectives and business needs	• design authority effectiveness and solution alignment to architecture principles • solution design documentation and guardrails for build teams • solution technology validation and technical risks • solution technology customisation • business analytics and reporting features • user experience design • validation of performance and non-functional requirements.	Technology architecture
Release and support Forward-looking release planning and support management that pre-empts and addresses issues early	• go live criteria and decision-making • post implementation support planning • business continuity planning • deployment and rollout strategy and approaches.	
Solution delivery and infrastructure Modern, resilient infrastructure for the technology solution that is delivered and deployed in a well-structured, agile way	• business requirements • delivery lifecycle • DevOps and engineering practices • collaboration approach and technologies of delivery teams • solution testing plans, skills and resources • data migration planning and validation • infrastructure and environment design and plans.	Delivery skills and capability

Other jurisdictions registry implementations

Several international jurisdictions including Ontario (Canada), New Zealand, the UK and the EU have been implementing new digital registry systems, with a range of relevant insights for the MBR Program**.** [121]

Figure A7.2 Registry program have been implemented across Ontario, Estonia, Botswana, New Zealand, United Kingdom and European Union

Source: Paper Giant, BCG research

Registry implementations can typically take 7 to 10 years: In Ontario, a project to digitise 7 registers into one involved a 7-year agreement with Foster Moore to implement the registry system. New Zealand started a program in 2013 to implement a New Zealand Business Number for 900,000+ businesses in 2021/22. In the UK, Companies House Service was launched in 2014, and legacy platforms (WebCheck and CH Direct) were decommissioned in 2023, 6 years behind schedule. The UK program has been running for nine years and is continuing (e.g. moving the management system to cloud technologies).

Minimum data migration standards and alternate options can lead to improved data integrity: In the UK, data migration is capped to the last 10 years, older records remain accessible via National Archives. In other jurisdictions, such as New Zealand, no specific data migration caps are in place and over 1 million records are being migrated. Botswana requires all companies to re-register to minimise data migration, which is a common approach in smaller jurisdictions to solve complex data migration issues. [122]

Separate agencies have continued to maintain separate registries with a single point of access: The EU continues to maintain its Member State's registers in a decentralised manner, but with a common user interface and API layer to orchestrate and provide access to services. New Zealand centralises most registers within the Companies office and uses New Zealand Business Numbers to link with other government agencies who manage their own registers.

Standard technology stack and microservices architecture will reduce complexity and improve scalability: Estonia, the UK and the EU use custom, scalable platforms and technologies aligned to the organisation's core technology stack (Oracle and Dynamics). [123]

Case studies of registry implementations, both Foster Moore and custom-built, are included in the Annexure.

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121   Global scan to support MBR Review, Appendix C: Global Review

122   Paper Giant interview with Chief Innovation Officer, Foster Moore, June 2023

123   STIRData business data model, 2023

Observations

Technology architecture

The MBR's starting point for the technology architecture was Foster Moore's [124] registry software, Catalyst. Catalyst was selected as the commercial-off-the-shelf product for the MBR implementation, following a formal approach to market and design validation with Foster Moore. [125] During the course of the program, the implementation changed to a later version of Catalyst called Verne.

Verne is a cloud-hosted registry product that uses Linux/Unix OS and a document database that is suitable for registries. It uses a lesser-known Java-based programming language called Groovy. [126] Verne provides out-of-the-box functionalities for registration management, client management, content management, access management, configuration management, analytics and reporting, data provision, account management, communication management, document management, API management, and fee and revenue management. The user interface framework provides a flexible way to generate XML based APIs.

Integration with ATO systems

To align with ATO technology architecture and improve service reliability, the program prioritised the use of the ATO's enterprise capabilities ahead of using Verne's out-of-the box functionality, which has required integration between Verne and 19 ATO systems.

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124   Foster Moore, www.fostermoore.com [website], 2023

125   MBR Platform Product Assessment, October 2019

126   Groovy is listed at #25 on the Popularity of Programming Language (PYPL) list and outside the top 50 in the TIOBE Index. Python, Java, C#, C/C++ feature in the top 5 popular programming language on both lists

127   ATO SPBC MBR Technical Solution Architecture Overview, December 2018

Figure A7.3 MBR Technical Solution Architecture

While all registry implementations globally are complex and require some degree of customization due to the unique jurisdictional requirements of legislation, the MBR Program is Foster Moore's biggest and most complex implementation project to date. Other implementations include New Zealand, Ontario, Botswana:[128]

- In New Zealand, the Companies Office combined 22 registries and migrated approximately 1 million registered companies and 290 million records, at a cost of $160 million.

- In Ontario, Canada, the Business Registry implementation combined <10 registers with approximately 0.5 million registered companies, at a cost of $37 million.

- In Botswana, the registry system implementation combined <10 registers with approximately 100,000 registered companies without migrating data, at a cost of $2 million.

In comparison, Australian business registers combines 34 registers with 5.8 million registered companies, 915 million registry records and 91 million financial transactions to migrate.

The implementation of MBR has also been more complex than originally envisaged or estimated in the SPBC:[129]

- customisations increased by 25%

- Business rules for implementation increased 10x

- APIs for API gateway increased by 61%

- integration platform interfaces increased 5x

Further, cross-agency decision-making processes have led to ambiguity of requirements and rework. For example, ASIC depends on continued access to data to perform its regulatory duties, which requires formal agreement on data to exchange (specific fields), format (API, pub/sub or batch), and frequency (real time, near real time, batch) (referred to by the program as Data Sync issue). In one instance, reaching agreement on a file sharing format for one form (Form 5602) took 6 months.[130] Agreement on this issue is on the critical path and will affect project cost and timeline.

Considerations and risks for the path forward

One consideration is whether to continue with the current technology architecture, or switch to an alternative product or platform. Continuing with current architecture would build on progress to date:

- Director ID and integration with Service Management and authentication, user interface framework (navigation and standard UI elements) could be reused in future builds.

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128   Global scan to support MBR Review, Appendix C: Global Review

129   ATO SPBC MBR Technical Solution Architecture Overview, December 2018

130   Interview with MBR Leadership, June 2023

- Most design work has been completed and delivery teams have progressed around 10% of the subsequent build. Delivery velocity has increased as teams gain knowledge of the product and technology.

- Most issues related to complex mapping have been resolved, such as aligning the data schema to SBR standards to enable integration with DSPs.

- End-to-end testing of 'Register a Public Company use case (referred by the program as Horizontal Slice) has been a successful strategy to de-risk the program.

- Foster Moore is building some customisations as product enhancements to minimise technical debt (27 of 27 have been delivered). The program team believes that majority of the enhancements have been addressed.

- Foster Moore has invested in tools to enhance developer productivity and reduce dependence on deep technical knowledge, including functionalities to speed up configuration, an automated template builder, and configuration and activity lists.

Possible risks to consider in the path forward include:

- solution maintenance and obsolescence (given Verne's technology requires integration with ATO technology architecture)

- high cost of future changes due to customisation and integration

- delayed cross-agency agreement on critical requirements.

Depending on the option selected, there may need to be a re-evaluation of alternative products, based on compatibility with the ATO's technology ecosystem, architecture fit, total cost of ownership and maintenance.

Delivery skills and capability

The MBR Program includes resources from the ATO, ASIC, and Treasury. The ATO's 473 staff include APS, Accenture and Foster Moore, and independent contractors. Teams are organised into 5 branches (3):

- Government Submissions and Reviews.

- Change, Readiness and Future Design.

- Governance and Program Management.

- Delivery and Integration.

- Pipeline and Design.

Figure A7.4 MBR branch set up and size

MBR Branches (ATO)	FTE	
Government Submissions and Reviews	11	
Change, Readiness and Future Design	85	
Governance and Program Management	25	
Delivery and Integration	35	*Critical path delivery constraint*
Pipeline and Design	117	
Total	473	

Source: ASIC MBR Program staff structure, March 2023

Given most of the design for the Companies release is complete, the emphasis has now shifted to delivery. The Delivery and Integration workstream is responsible for the technical delivery of the program, including solution build, testing, integration, data migration and security, which are on the critical path for delivering the Companies Register. The team includes 235 FTE, with 130 APS, 60 Accenture staff, 37 Foster Moore staff and 8 contractors. The workstream structure, skill and role mixes and team capacity help to determine the speed at which features of technology solution are delivered. In addition, the Pipeline and Design team could be re-focused to support delivery.

Delivery velocity has improved over the past 4 planning stages.[131] The next planning stage needs to deliver 15 complex and very complex widgets, up from the recent average of nine.[132] However, increasing delivery velocity even further is constrained by resourcing, the skill mix and role ratios within workstreams, and rework from design and delivery processes.

Resourcing challenges that lead to delivery uncertainty

The MBR Program relies on security-cleared, skilled, technical resources with an understanding of registry contexts. The program has used employee attraction mechanisms to recruit and retain staff, including positive team culture and learning and development opportunities.[133] The program also offers a 6-month rotation on the ATO Graduate program, and uses ATO and other APS department merit lists to identify high performers. However, delivery has still been affected by resourcing.

One reason is that Verne skills can be hard to find in the market. Customisation of Verne requires knowledge of its proprietary frameworks and the lesser-known Java-based programming language Groovy, both niche skills with limited transferability to other roles.[134, 135] Groovy is ranked 25 on the Popularity of Programming Language Index (PYPL), a leading indicator of programming language

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131 Planning Increments (PI) is 12 weeks in duration

132 Source: RFI 184 Velocity and throughput trends (PI33-36)

133 Interview with ATO MBR Leadership, 8 June 2023

134   Interview with MBR Review Team stakeholder notes, April 2023

135   Meeting with Verne configuration team, April 2023

popularity based on Google searches for language tutorials. (Groovy has a share of 0.42% of language tutorial searches; Python, Java, JavaScript, C#, C/C++ have a combined share of 67%).[136] The TIOBE index, which uses additional search engines, ranks Groovy outside the top 50 with an 0.2% share.[137]

ATO security requirements also affect resourcing, as employees must be a citizen of Australia or a country in the Five Eyes alliance, and security cleared. Onboarding can be delayed by up to 6 months due to Australian Government Security Vetting Agency (AGSVA) process.[138, 139]

Training new staff takes up to nine months, with 3 months before staff are 50% productive (on average across APS and contractors).[140] Additionally, experienced team members provide support and guidance to new staff until they can build medium to complex widgets independently, which reduces the time spent on delivering program outcomes. To reduce upskilling time, Foster Moore is working to improve training content and formalise certification and credentials for its standard product.[141] However, training content is not customised for the MBR Program.

Senior developers are also continuously training the pipeline of APS graduates.[142] Graduates who achieve 7/10 in coding tests are trained on the MBR Program,[143] but only around 50% return to the program in full time roles after completing their Graduate program rotations.

Turnover of Vendor resources on the program is affecting delivery speed and reducing access to technical expertise (see Figure A7.5). The program is putting contracts in place with the vendor that includes named resources.[144]

Technical and design staff on the program require specialist knowledge of Australian Corporations Law, and business registry and regulatory policies,[145] and are dependent on law and policy expertise across agencies, including through the Law and Policy Working Group and the Law and Policy Authority.

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136   PYPL Index (pypl.github.io/PYPL.html), June 2023

137   TIOBE Index for June 2023 (tiobe.com/tiobee-index)

138   Meeting with Chief Innovation Officer, Foster Moore, April 2023

139   Defence struggling to process staff security clearance needed ahead of AUKUS rush, ABC News, March 2023

140   Interview with MBR Delivery Team Leads, 6 June 2023

141   Interview with Chief Innovation Officer, Foster Moore, 8 June 2023

142   Interview with ATO MBR Leadership, 8 June 2023

143   Coding test conducted by the MBR Program

144   Item 185 – Team Stability, ATO, June 2023

145   Meeting with configuration team, Verne Configuration notes, June 2023

The program has very specific skill and capability requirements. Customisation of Verne requires knowledge of its proprietary frameworks and the lesser-known Java-based programming language Groovy, both niche skills with limited transferability to other roles. [146] Turnover of Vendor resources on the program has also affected delivery speed and reducing access to technical expertise (see Figure A7.5). The program is putting contracts in place with the vendor that includes named resources. [147]

The MBR Program relies on security-cleared, skilled, technical resources with an understanding of registry contexts. These requirements affect resourcing, as employees must be a citizen of Australia or a country in the Five Eyes alliance, and security cleared. Onboarding can be delayed by up to 6 months due to Australian Government Security Vetting Agency (AGSVA) process.' In addition, technical and design staff on the program require specialist knowledge of Australian Corporations Law, and business registry and regulatory policies, are dependent on law and policy expertise across agencies, including through the Law and Policy Working Group and the Law and Policy Authority.

The program has attempted to attract staff by fostering a positive team culture and providing learning and development opportunities. Training new staff to full productivity takes up to nine months, with at least 3 months before staff are 50% productive. Additionally, experienced team members provide support and guidance to new staff until they can build medium to complex widgets independently, which reduces the time spent on delivering program outcomes. To reduce upskilling time, Foster Moore is working to improve training content and formalise certification and credentials for its standard product. However, training content is not customised for the MBR Program.

The program also offers a 6-month rotation on the ATO Graduate program and uses ATO and other APS merit lists to identify high performers. Graduates who achieve 7/10 in coding tests are trained on the MBR Program, but only around 50% return to the program in full time roles after completing their Graduate program rotations. Senior developers are also continuously training the pipeline of APS graduates.

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146   Interview with MBR Review Team stakeholder notes, April 2023, Meeting with Verne configuration team, April 2023

147   Item 185 – Team Stability, ATO, June 2023

Figure A7.5 Delivery Team Stability between September 2022–June 2023.
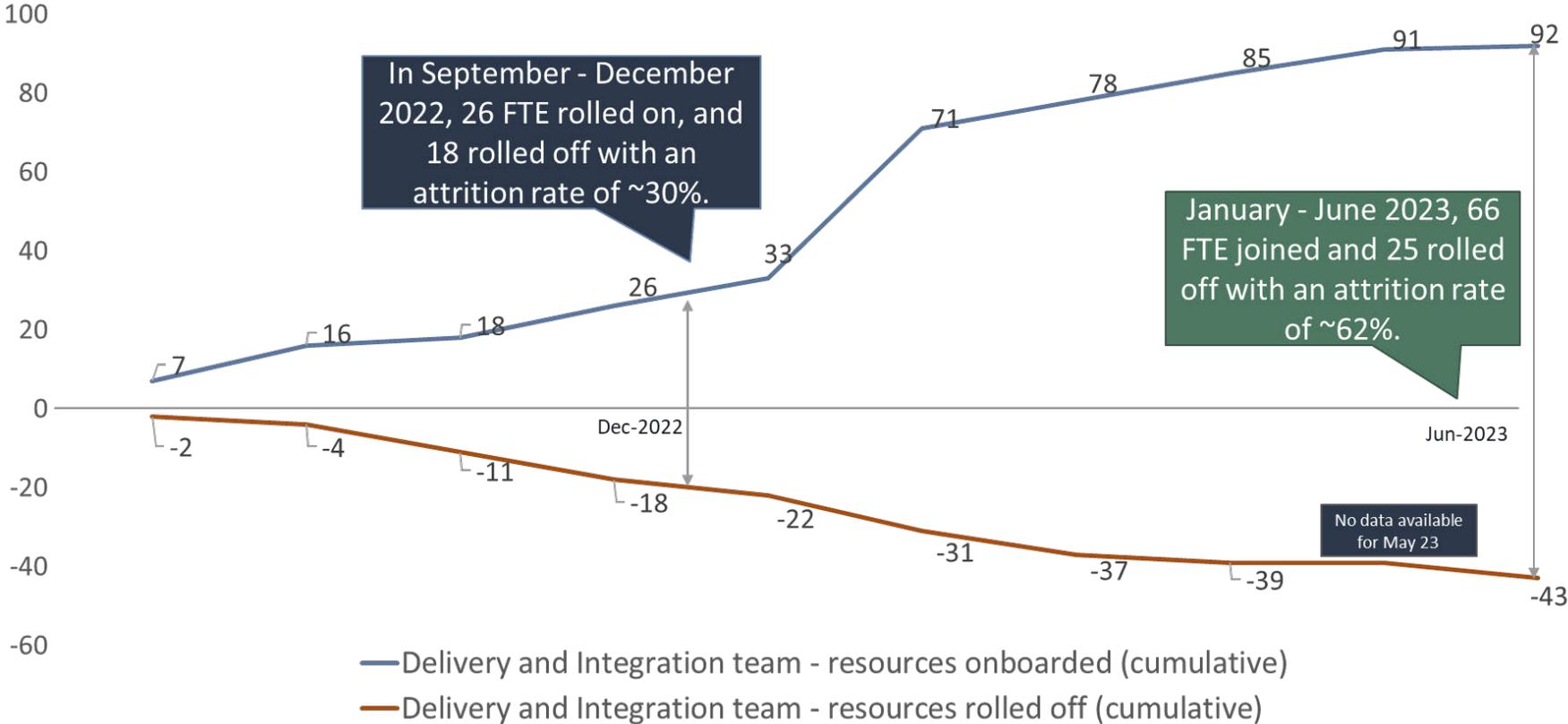
Source: Item 185 – Team Stability, ATO, June 2023

Table A7.3 Delivery team onboarding and roll-offs across 2022 and 2023

Organisation	2022			2023		
	Roll-off	Onboarded	Attrition	Roll-off	Onboarded	Attrition
ATO	1	13	**11%**	12	42	**29%**
Accenture	11	9	**122%**	9	14	**64%**
Foster Moore	4	3	**133%**	4	7	**58%**
Others[2]	2	1	**200%**	0	3	**-**

Source: Item 185 – Team Stability, ATO, June 2023

APS staff composition[148]

Of the 130 APS staff in the Delivery and Integration Workstream, 52 (40%) are APS level 1 to 4[149, 150] and require direction and support from leadership to complete complex work (see Figure A7.6). In turn, senior resources spend time supporting more junior teams to plan and allocate work, teach them technical skills, overcome challenges or fix bugs.

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148   APS Work Level Standards

149   ATP MBR Pipeline and Design Branch structure, March 2023

150   ATO MBR Delivery and Integration Branch Structure, March 2023

Figure A7.6 APS staff by level in the Pipeline and Design, and Delivery and Integration, workstreams
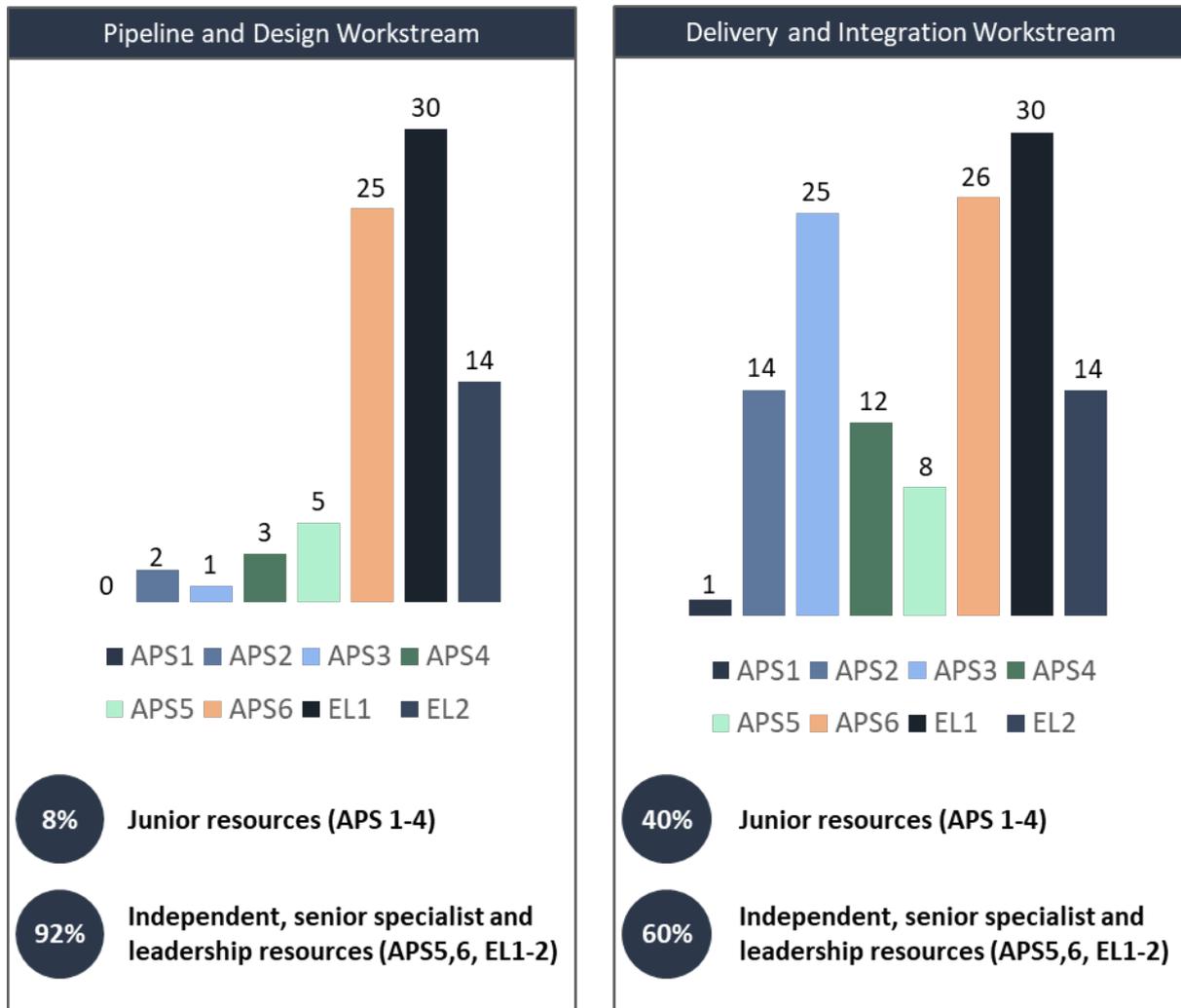
Source: ATO MBR Pipeline and Design Branch structure, 2023; ATO MBR Delivery and Integration Branch Structure 2023

Ratio of designers/developers to managers/coordinators in the Delivery and Integration workstream[151]

70% of staff work on design and build roles (e.g. designers, architects, coders, developers, configurators, testers etc.).[152, 153] This is below the average of 80 to 85% in large technology implementations and best practice of 90 to 95% in product teams at organisations such as Google, Amazon and Netflix (Figure A7.7). Further, designer/developer roles spend 80% of their time on outcome-focused tasks such as feature development, testing or designing, and 20% on training and other coordination activities, which brings down the percentage to less than 60%.

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151   BCG benchmarks

152   ATO MBR Pipeline and Design Branch structure, March 2023

153   ATO MBR Delivery and Integration Branch Structure, March 2023

Figure A7.7 Design and build roles in Delivery and Integration workstream compared to benchmarks
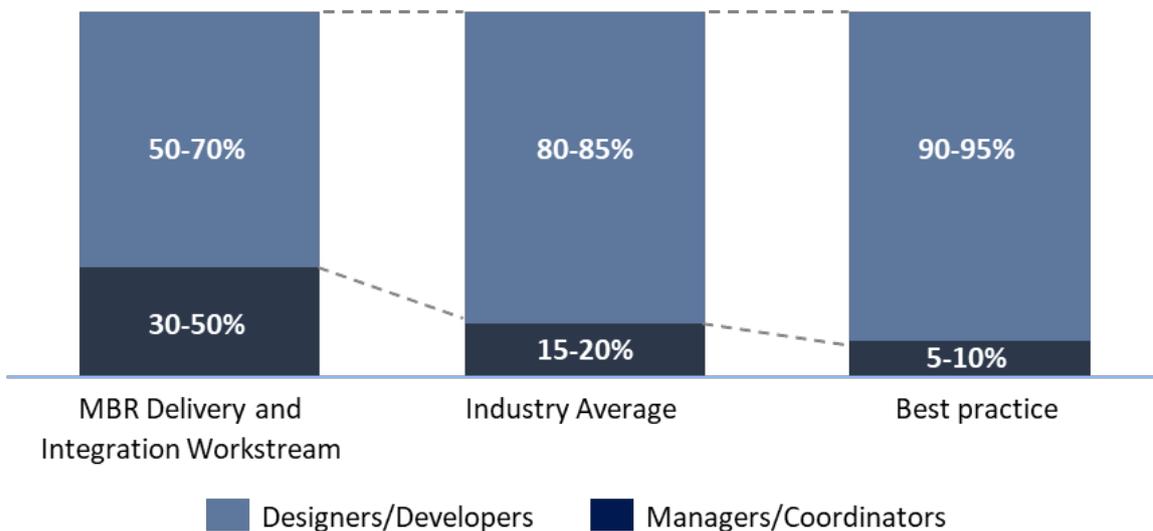
Source: BCG benchmarks, ATO MBR Pipeline and Design Branch structure, 2023, ATO MBR Delivery and Integration Branch Structure, 2023, Stakeholder interviews. Note: Graduates excluded from analysis as they contribute to program on 6-month rotations

Opportunity to refocus Pipeline and Design workstream

Approximately 92 staff are responsible for delivering the MBR Program design in future stages.[154, 155] 35% are in designer/developer roles (architects, designers, developers and system analysts), below the average of 60% for large technology programs and best practice of 70% (noting best practice figures assume an efficiency gain from using smaller, persistent design teams during the product delivery stage) (Figure A7.8). Further, designer/developer roles spend 80% of their time on outcome-focused tasks of building and designing, with the remaining time spent on supporting the delivery team and training.

The remaining 65% of staff are in manager/generator roles (including generators such as Business SMEs/Consultants and Correspondence Leads, and Leadership support roles such as Product Owners, Scrum Masters, Project Managers/Officers).

With the Companies release design largely complete, the Pipeline and Design workstream could refocus on solution delivery.

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154   ATO MBR Pipeline and Design Branch structure, March 2023

155   ATO MBR Delivery and Integration Branch Structure, March 2023

Figure A7.8 Design and build roles in Pipeline and Design workstream compared to benchmarks
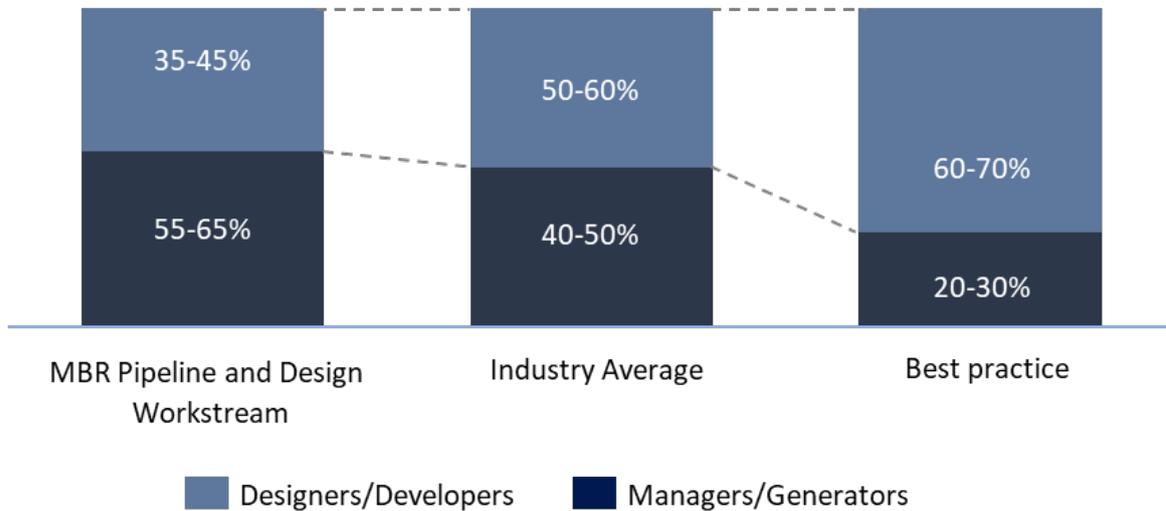
Source: BCG benchmarks; ATO MBR Pipeline and Design Branch structure, 2023, ATO MBR Delivery and Integration Branch Structure, 2023, Stakeholder interviews Note: Graduates excluded from analysis as they contribute to program on 6-month rotations

Design hand-offs between workstreams

Developers and configurators in the Delivery and Integration workstream spend additional time interpreting design outputs. For example, to understand build requirements, a configurator Reviews 3 to 7 documents, some 100+ pages. The Pipeline and Design and Delivery and Integration workstreams work independently and collaborate in workshops and Q&A posts, instead of fully detailed requirements.

Some designs have been misinterpreted, leading to build delays while changes are made. Up to 30% of Business Service Catalogue (BSC) Design team's work has been related to design-rework, and the Pipeline and Design workstream has a team dedicated to design rework.[156]

Interdependencies with current business registry systems

ASIC's registry systems were developed in the 1990s and are approaching or have reached end-of-life. Many of these technologies were marked for decommissioning when the MBR Program was delivered. With the expectation of MBR providing a long-term solution, ASIC has implemented tactical fixes, such as adding capacity and extending existing support agreements (including $82.2 million in the October 2022 budget). Changes to program delivery dates and the ongoing need for ASIC systems has highlighted risks related to systems and personnel.

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156 RFI 184 Velocity and throughput trends, June 2023

In the last decade, demand for registry services has increased and data use and provision has changed (e.g. overnight batch processes run by information brokers can cause demand spikes on ASIC systems). These shifts will require a higher-capacity technology architecture.

System risk

A Technical Risk Review ▮▮▮▮▮▮ identified 14 systems that are approaching or have reached end of life and have a moderate to high-risk rating (Figure A7.9).[157] Risks associated with the infrastructure layer have been mitigated by extending support arrangements and making incremental upgrades (e.g. Mainframe upgrade).

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157   ▮▮▮▮▮▮▮▮▮▮

Figure A7.9 System risks

Personnel risk

Recruiting and retaining people to work for the program is influenced by legacy systems, as the skills needed to support the existing technology and the Verne solution are not readily available in the market or there is limited value for experts to upskill. The program is dependent on existing personnel for ███████████████████████████ have noted an intention to retire or reduce their workloads in the next 5 years (see Figure A7.10).[158] Of the remaining personnel, ████ ████████ have not expressed current plans, and █████████ being recruited. ██████ ██████████████████████████

Figure A7.10

Technology focus areas for the MBR Program

Our technology solution assessment covered 3 areas of the MBR Program: technology architecture; skills and capability; and interdependencies with business registry systems. Based on the observations from the assessment, we have outlined a set of focus areas pertaining to the 5 options being considered by the Independent Review Secretariat.

- Option 1: Stop the MBR Program and stabilise and uplift ASIC's legacy registry systems where it is critical to do so.

- Option 2: Deliver the full scope of MBR and the full transformation as currently planned.

- Option 3: Refocus MBR to deliver core benefits (companies first; business later; other registers stay with ASIC).

- Option 4: Stop MBR and re-start with new registry agency, new program, governance and delivery arrangements and revised approach to achieve all benefits.

- Option 5: Stop MBR and establish a function within ASIC to mitigate system risks and deliver targeted modernisations.

Technology architecture (relevant for Options 2, 3 and 5)

The future technology architecture will vary depending on the option pursued for the MBR Program.

Under Option 2 or 3, stronger governance and guardrails will minimise technology debt and proactively address delivery risks.

Apply stronger governance and guardrails to minimise technology debt

Informs Recommendation 19

- Assess customisation benefits, implementation cost and on-going maintenance needs, and consider trade-offs of using out of the box functionality.

- Increase engagement and collaboration with Foster Moore to uplift inhouse Verne capability.

- Build Verne product enhancements and feature builds into the MBR delivery schedule.

Increase confidence in program delivery

Informs Recommendation 10

- Continue with the Horizontal Slice for delivery of the 'Register a Public Company' retail use case to build confidence in the end-to-end delivery.

- Expand Horizontal Slice to include a wholesale use case to build confidence in the machine-to-machine interactions.

- Finalise inter-agency requirements that are on the critical path (e.g. data sync) and the integration architecture needed to deliver those requirements.

- Bring forward API cut-over and operational readiness planning to provide certainty to the market (e.g. API definitions and implication of deprecated APIs).

Under Option 4 and 5, there would be an opportunity to reassess the technology architecture and reduce early critical path dependencies, especially where inter-agency alignment is required.

Reassess the technology architecture and reduce early critical path dependencies

Does not inform recommendations as recommendations focus on Option 2 & 3

- Assess viability of a market leading platform with a rich partner ecosystem to build the end-to-end solution.

- Select technologies that align with the ATO technology ecosystem and skills available in the market.

- Maximise cloud-based ecosystem with pre-built connectors to minimise integration effort.

- Make trade-offs based on features, implementation cost/complexity, dependence on future changes, maintenance cost.

- Agree to requirements and delivery model for integrations and external APIs upfront to reduce critical path dependencies.

Skills and capability (relevant for Options 2 and 3)

As with technology architecture, the approach to skills and capability will vary depending on the option pursued. Under Options 2 or 3, the following focus areas could lift productivity and delivery velocity.

Rebalance the team composition in Delivery and Integration and Pipeline and Design workstreams to increase output speed

Informs Recommendation 13

- Rebalance the mix of the APS workforce in the Delivery and Integration workstream to increase the proportion of senior resources (APS 5, APS 6, EL1, EL2).

- Increase the proportion of the Delivery and Integration roles (e.g. designers, architects, developers, configurators, testers) to 80%-90%.

- Develop and execute a strategic workforce plan to address gaps in skills and capacity (refer to the Program Management appendix for details).

Accelerate the onboarding of new staff and improve retention of existing staff

Informs Recommendation 15

- Review security clearance requirements for access to non-production environments to access a larger pool of market resources and accelerate on-boarding.

- Explore options to increase the scale, speed and impact of the program approach to upskilling to address skills shortages (e.g. partnerships with external education, training and technology providers, adapting Foster Moore lab environment to match MBR customisation – See Annexure).

- Identify and pursue ways to retain key APS staff in the program (e.g. tenure requirements in employment contracts).

Expand multidisciplinary teams to include embedded and dedicated design and policy team members

Informs Recommendation 15

- Refocus the Pipeline and Design workforce on the design of the Companies release and improve team and team of teams communication by embedding some design staff within the Delivery and Integration teams (e.g. embed Solution Architect Lead, Solution Architect, Application Architect and Data Architect within delivery and integration teams).

- Focus policy analysts from all agencies on delivery and integration teams to facilitate faster interpretation of requirements.

- Provide additional support for senior program leaders on technology transformation leadership (refer to Project Management and Operating Model appendix for details).

Increase engagement and collaboration with Foster Moore to uplift inhouse Verne capability

Informs Recommendation 19

- Set up regular live product questions and answers with the Verne Product team.

- Use the Foster Moore knowledge resources (e.g., Stack Overflow) to accelerate troubleshooting and learn from the broader community.

Investigate potential productivity gains from augmenting or automating some delivery activities with Generative AI [159]

Informs Recommendation 15

- Conduct a proof-of-concept for selected Generative AI paired programming use-cases for Groovy coding (e.g. automated code generation, automated test case generation, code summary and explanation).

- Explore Generative AI use cases to accelerate delivery cycle outside of paired programming (e.g. generation of user interfaces, generation of epics and user stories, identifying features for future releases).

Interdependencies with current business registry systems (relevant for options 1 to 5)

Under all options, some decisions and expenditure will be required regarding the existing ASIC business registry systems. For options 1 to 3 and 5, ASIC has provided the Review with a cost estimates to remediate the technical and key personnel risks associated with ASIC's legacy registry systems. ASIC has also indicated that re-platforming, software upgrades, or ▢▢▢▢▢ ▢▢▢▢▢ on ASIC's mainframe (ASCOT) may be required (see Figure A7.11).

Figure A7.11 Cost estimate for Options 1, 2, 3 and 5, including costs to remediate technical and personnel risk, provided by ASIC to the Independent Review. Note: no Option 4 costings were provided

Option 1	Option 2	Option 3	Option 5
• **Registry Stablisation and Cyber Protection** ($136.0M) • **Registry Operating Environment Run Costs** ($90.5M) • **Replatforming Costs** ($35.8M) • **Tranche 2 delivery, Professional Registry System, Program delivery and Reversal of MoG costs** ($142.9M) • **Contingency** ($29.6M)	• **Legacy environment stabilisation** ($49.9M), which includes staff augmentation for a 5 year period ($40.2M) and re-platforming, hardware upgrades, additional licensing fees and a technical risk review costs ($9.7M) • **Tranche 2-5 delivery, Reg Professional Registers delivery, Reg Enquiry Management and Program Management** ($149.4M) • **Contingency** ($28.9M)	• **Legacy environment stabilisation** ($76.8M), incl: staff augmentation for 5 years ($40.2M) and re-platforming, hardware upgrades, addl. licensing and a technical risk review costs ($9.7M) • **Registry Stabilisation and Cyber Protection** ($22.9M) • **Replatform Business Names Registry** ($29.4M) • **Tranche 2 - 5 delivery, Professional Registers, Program, Call Centre, Business Name Determination, Business Name CRM** ($135.4M) • **Contingency** ($23.2M)	• **Registry Stablisation and Cyber Protection** ($135.8M) • **Registry Operating Environment Run Costs** ($50.1M) • **Business Names, Data Sync, Authentication, Director ID Link to Companies Register, Forms Modernisation** ($94.5M) • **Tranche 5 delivery, Professional Registry System, Program delivery and Reversal of MoG costs** ($139.3M) • **Contingency** ($52.6M)

Source: ASIC costings provided to the Independent Review

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[159]   This recommendation has not been included in the aforementioned costings

Nevertheless, under all options the following focus areas would support the mitigation integration risks (*Informing Recommendation 2*):

- Consider technical solutions to reduce short-term system risk (e.g. apply compensatory controls, perimeter security or virtual patching) and assess further investments based on risk and timing.

- Determine the acceptable level of risk and/or upgrade pathway for end-of-life or out-of-support systems, and, if necessary, develop the business case for investment.

- Undertake market testing for ███████████████████████████████ to mitigate personnel risk.

Annexure

Global Registry implementations and experience

Foster Moore's Verne and Catalyst solutions for registry programs have successfully been implemented in 3 jurisdictions.[160]

- **New Zealand:** New Zealand opted to implement a centralised model that combines 22 registries and has migrated approximately 1 million records. Most registers are centralised within the Companies Office, including the New Zealand Business Number register. Total expenditure for all 22 NZ registers administered by Companies Office could not be retrieved, however, based on available information, assumptions can be made about total expenditure.[161]

- **Botswana:** Botswana's registry system has centralised <10 registries and without migrating any registry data. All companies have been asked to re-register to avoid data migration and increase the likelihood of accurate and reliable data. The cost is approximately AU$2 million.

- **Ontario, Canada:** The province of Ontario implemented a centralised model for the Ontario Business Registry, which combined <10 registries and uses Foster Moore's Catalyst platform. Data migration issues have occurred in the process. The cost was AU$36.9 million and 35 staff are working on the program (2023).

3 successful custom-built registry solutions have been observed in the EU, UK and Estonia.

- **European Union:** The European Union has a centralised Business Registers Interconnection System which combines the business register, insolvency, and beneficial ownership registers. There are 56 registers involved, with additional registers flagged to be added. This centralised model provides a single user interface and access point, and agreed data structures, into the registers of all Member States using APIs. The cost is AU$29.5 million.

- **United Kingdom:** The United Kingdom has built a primarily digital register, Companies House, that combines <10 registers. It is a custom build within a Microsoft Dynamics 365 environment. Due to Brexit, data migration has been substantial, including 40TB image data and 300M rows. In 2022 there were 248 FTE in the Department of Digital, Data and Technology, and the cost was approximately AU$119 million.

- **Estonia:** Estonia has implemented a digitised register, including searches, information updates and filings with no paper-based processes remaining. There are <10 registers being combined in this centralised system, with 165 staff (97 in Engineering and IT) and a cost of AU$18.6 million.

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160   Global scan to support MBR Review, Appendix C: Global Review

161   Average implementation cost, based on findings, NZ$8.3 million per register. Across all 22 registers, this suggests a total of NZ$$182.6 million.

In Australia, multiple federal, state and local government registry systems are running on Microsoft Dynamics. Approximately 60 departments in Australian Government are leveraging a Microsoft Dynamics solution, including ASIC, Austrade and the Therapeutic Goods Administration.

Best practice approaches to upskilling

The MBR Program is taking positive steps to upskill specialist capability and provide a healthy pipeline of talent for the program. Steps include enhancing the MBR Program brand and using the ATO Graduate program and ATO and APS merit lists to bring in new staff.

The current approach to upskilling combines classroom training, lab environments for experimentation, and dedicated time to learn by doing on the job. This approach broadly covers the key components of leading capability building and upskilling programs (Figure A7.12), which emphasise embedding learning into daily work routines, building community learning groups and driving frequent feedback and reflection.

Figure A7.12 Best practice upskilling Approach and MBR practices

Leading upskilling practice	How MBR approaches this
Workflow application and routines — Learning embedded into daily work supported effective learning rhythms and routines E.g., projects, stretch roles, manager routines, daily huddles, pulse checks	50-60% of new developer time is spent delivering low complexity features, 20-30% on defect resolution, 20% on training
Coaching — Use expert coaches to stimulate reflection, reinforce learning and problem solve E.g., Mentors, expert coaches, SMEs	Beginner configurators placed in teams with lower output targets and dedicated senior capacity to train juniors
Peer-to-peer — Use community learning groups to stimulate reflection, reinforce learning, and engage with content in social settings E.g., Peer groups, workgroups, online learning forums	Semi-regular informal 'brown bag' learning sessions conducted to share technology insights and foster community learning
Training — Traditional, experiential and immersive learning situations, focused on content personalization E.g., Targeted e-learning, external visits, role play, simulations	Lab training in environments based on COTS Verne, substantially different to configured Verne in MBR
Assessment — Goals broken into milestones, pre-, post- and ongoing assessments to measure progress and tailor future content (E.g., Assessments, project check-ins, certification paths)	Aptitude testing to place new joiners into upskilling program; knowledge testing at the end of the program aligned to curriculum

Source: KPMG Review of the approach to uplift specialist capability (Feb 2023); Interview with ATO MBR Delivery Team Leads 6 June 2023; Interview with ATO MBR Leadership 8 June 2023; BCG expert interviews; BCG experience

However, skill shortages could be addressed with faster training of more people so they can contribute to program delivery sooner. One way to achieve this is to consider partnering with education and technology providers to formalise and expand talent attraction mechanisms (Table A7.5).

Table A7.5 Opportunities to improve scale, speed and impact of upskilling

Dimension	Opportunities
Curriculum and University	• Expand the program training curriculum to include broader, transferrable engineering and technology skills (ways of working, problem solving, value focus) and the ATO environment. • Partner with external education providers to offer training through existing technology courses and degrees.
Certification	• Develop an 'ATO Ready/ MBR Ready' certification in conjunction with external training provider (e.g. TAFE or university) that fast-tracks recipients into ATO/MBR roles. • Progress MBR configurators through Foster Moore certification programs when they become available. • Create incentives or fast track hiring of Foster Moore certified talent into the MBR Program.
People	• Dedicate capacity for senior resources to coach and train junior resources inside delivery squads. • Set up a Train-the-Trainer model to scale the upskilling program and deliver consistent training.
Logistics	• Use third-party content management systems and online learning delivery platforms to deliver self-paced content to practitioners. • Shape Foster Moore technical lab environments to mirror the ATO and MBR environments.
Community	• Formalise an MBR developer community of practice, set up knowledge sharing structures, build an asset library and define the cadence and style of interactions. • Connect MBR configurators to Foster Moore Stack Overflow page and global developer community. • Connect MBR community of practice with other global implementation projects, and set up global network and community practitioners.

Upskilling case Study: Setting up an engineering incubator at a global insurer[162]

Context

A global insurer wanted to build its software engineering capability to meet future growth needs in product innovation and new technology solutions. The organisation had limited inhouse talent and depended on third parties to access the required skillsets. At the same time, there was no consistent career path for within the technology organisation to pursue engineering. To meet its business and people needs, the organisation recognised it needed to attract and upskill more engineers.

Approach

The organisation established an incubator to upskill talent and support retention of engineers with a specific skillset (high speed-to-output, high-quality code, focus on community assets and contribution, learns by doing) and profile and a passion for designing, developing and improving software products. The incubator ran over 12 weeks to transform entry-level developers into engineers using project-based application of skills, with a goal of participants being 80% productive on delivery tasks while participating in the incubator. It was phased in 4 stages:

- Pre-university: One week of self-paced online learning to achieve basic familiarity with core concepts

- University: 2 weeks of instructor-led classroom training application-based exercises. Followed by an assessment to build an app using the technology and tools taught in the curriculum

- Tech lab: 2 weeks of hands-on experience and application of tools in a lab environment to reinforce classroom learning. Followed by a group task solving a problem as part of a team and assessed using self, peer and instructor observations

- Field work: 7 weeks of hand-on experience and application of tools by working in program delivery on simple, but real applications. Assessed by coaching observations and feedback from building a real application or feature

To scale the program sustainably and deliver quality outcomes, the organisation set up additional enablers:

- Train-the-trainer model to enable perpetual scaling and consistent coaching. For every 10 engineers that went through the incubator, 3 high performers were selected to be trained as coaches by a dedicated team of 'elite coaches' and would coach a future incubator cohort.

- Coaching focused on collaborative learning and building a community culture. Mixed learning squads with a coach partnering with 3 to 4 incubator participants. Curriculum encourages paired programming and community exchange to reinforce group problem solving.

- Early and frequent assessments to identify skills gaps, target content to the needs of the participants and ensure quality outcomes of the training.

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162   BCG case experience

Impact and value

Over 1000 engineers were added to the organisation's headcount and upskilled in 3 years, operating at higher levels of efficiency. Resources maintained an average of 80% project productivity during the incubator which minimised opportunity costs. The incubator was able to self-sustain and scale by using a train-the-trainer approach and coaching focused on collaboration and community learning.

Gen AI best practice and approach

Generative AI-assisted paired coding has the potential to improve developer productivity by up to 50% by improving code quality, increasing problem solving capabilities and fostering learning, and increased likelihood of completing tasks by 25 to 30%.[163] Generative AI can assist developers by automatically suggesting code snippets aligned to best practice and coding standards, offering real time feedback and identifying potential bugs or vulnerabilities, allowing for more efficient iteration and optimisation of development process.

5 use cases could directly impact the build and release cycle and deliver up to 50% increase in speed of feature delivery, 40–60 percentage points increase in test coverage and unblock time for value added tasks such as solving complex problems.[164]

1. Code generation to automate dev tasks: generate draft code; generate predictive lines of code from comments and existing patterns; document and comment.

2. Generate test cases based on code that has been developed, automate running of tests.

3. Perform automated code quality Reviews and identify bugs or security vulnerabilities.

4. Read, summarise and explain code to help developers get up to speed quickly on Foster Moore Verne product and MBR codebase.

5. Perform prompt-based parametrisation to reduce duplication and increase code reuse.

Additionally, the broader use cases in Agile product lifecycle and application support can accelerate the end-to-end delivery process, some of which may not be relevant to Tranche 2 (Companies Register) given majority of design work is complete. However, these are relevant for the subsequent phases of delivery.[165]

6. Accelerate application co-design and generate first drafts and refine epics and user stories based on human defined requirements

7. Rapidly generate user interfaces to validate business and registry logic, create and validate prototypes and proofs of concepts of new requirements, write design prompts in natural language

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163   Amazon Code Whisperer Productivity Challenge, 2023

164   GitHub Copilot study 2022; BCG experience

165   Interview with Chief Innovation Officer, Foster Moore, 22 June 2023

8. Support product adoption and provide human free user support (e.g. chatbots, knowledge bases)

9. Generate analytics to identify features for future releases

Generative AI-assisted paired coding platforms like GitHub co-pilot has matured for popular programming languages like Python, Java, JavaScript, TypeScript, Ruby and Go. However readymade model for Groovy (the scripting language for Foster Moore Verne) is not readily available. We recommend that the MBR Program work closely with Foster Moore to conduct a 12 to 14-week proof of concept to prove specific use cases. A typical proof of concept for Generative AI value delivery looks as follows:

- 4 weeks to align on the common understanding of value delivery, setting up the infrastructure required and ingesting data to train the model

- 6 weeks to design and prototype the solution, including building specific use cases, user testing and design refinement, setting up responsible AI guardrails, policies and risk mitigation plans

- 4 weeks to Deploy the proof of concept, set up performance analytics and feedback loop, and measure value delivery

There are several factors that influence the ease of executing the use cases, including:

- **Existing vendors and degree to which they have integrated Generative AI into their tooling**: Foster Moore has implemented automation to drive developer productivity, and has expressed interest in working with MBR to explore Generative AI use cases[166]

- **Level of automation of current workflows**: the current delivery processes are integrated into the delivery pipeline and are able to support continuous integration and continuous delivery

- **Legal and compliance considerations**: ATO has previously adopted Generative AI for code co-piloting. The legal and compliance requirements will need to be considered appropriately.

- **Degree of integration of first party data into existing tools**: The code base from global Verne implementations and MBR-Director ID implementation can potentially be used to train the model

- **Amount of cross-functional collaboration required to execute the use case:** Minimal but targeted ATO/Treasury/ASIC collaboration will be required for the use case execution, which needs to be agreed up-front.

Given the sensitivity of the program as well as the heightened security requirements of ATO, the infrastructure and security set up considerations are critical. 2 models can be explored for implementation (see Figure A7.13).

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166   Interview with Chief Innovation Officer, Foster Moore, 22 June 2023

Figure A7.13 2 options for implementation for MBR

	Managed secure	Hybrid private
Typical buy vs. Integrate vs build		
Buy	Public research / Model	Public research / Model
Integrate with Solution provider	Solution provider — Model & Data	Solution provider
In-house build	MBR	MBR — Model & Data
User/app		
Description	Integrate with solution providers and partner for inference and fine tuning to ensure data privacy and protection with minimal build	Buy model and partner with provider for fine tuning, build in-house tech and capabilities to train and inference model with minimal integration with solution provider
Training effort	Minimal	Medium
Cost driver (usage)	API pricing	Hosting/compute
Private data sharing	Yes (e.g., Azure OpenAI Service)	Yes
Data privacy	Dependent on whether use case involve identifiable privacy data processing. If so, all privacy requirements apply	
Hosting	PaaS	IaaS / On-prem

Source: BCG case experience

Finally, Generative AI is a nascent and rapidly evolving technology, with risks to actively assess and mitigate.

- **Code can have bugs and low performance.** Generative AI paired coding is not a replacement for developers. Manual code verification and tool assisted Reviews using tools such as CAST and SonarCube will be valuable

- **Exposing enterprise code and test data to 3rd parties without legal framework:** Invest time in selecting a tool that contractually protect own code or data exposed in the tool. Additionally limit exposure for all non-critical procedures.

- **Data storage and retention vulnerabilities expose material risk:** Use robust data governance and automated data cleansing techniques (profiling, visualisation & statistical analysis) to filter noise and normalise data by converting to a standard format

- **Biased or unethical data in test datasets fuelling user stories and epics:** Link the technology use cases to the company's responsible AI framework, and further mitigate the risk via manual verification of user stories and epics

Delivery and Integration team role composition

Figure A7.14 Delivery and Integration Workstream

Group	Roles			FTE
Program leadership and support	• MBR Program Director • Functional Leads • Product Owner • Program Support	• System analyst • Resourcing support • Contracts • Finance	• Graduates	35
Release Train Delivery 1	• Scrum Masters • Leads (tech, test, API) • System Analysts • Developers	• Configurators • Testers • Project Officer • SAP Tech Architect	• Graduates	34
Release Train Delivery 2	• Scrum Masters • Leads (Test, Delivery, Product Support) • System Analysts	• Developers • Configurators • Testers • Project Officer	• SAP Tech Architect • Graduates	32
Release Train Delivery 3: Verne Delivery	• Engineers • RTE Support • App Architects • Scrum Masters • Configurators	• Product Owner • System Analyst • Testers • Developers • UI	• Product Consultant • Solution Architect • DevOps Engineer • Business Consultant • Graduates	65
Data Migration	• Leads • Project Managers • System Analysts • Data Mapping	• Designers • Developers • COTS SME • COTS Consultant	• Data Cleansing Coordinator • UPEP	20
Integration and Testing	• Test Manager • Leads (Integration, Test)	• MBR Enterprise Test Lead • Test Automation	Architect • Testers • Systems Analyst	17
MBR Shared Services	• Leads • System Analysts • Systems Consultant	• Infrastructure Designer • Scrum Master • DevOps Engineer	• GRAD • UPEP	32

Source: ATO MBR Delivery and Integration Branch structure, March 2023, ATO MBR Line Organisational Chart SES and EL2, March 2023

Basis for our observations

The assessment contained in this appendix is based on extensive consultation, collaboration, and a review of existing program documentation over a 6-week period (see Table A7.6).

Table A7.6 Sources of analysis for the Technology Assessment

Category	Sources and references
Stakeholder engagement	• A range of stakeholders have been engaged across the MBR Program, ASIC and ATO • For a full list of stakeholders engaged over the course of the program, see the general list of stakeholders engaged
Stakeholder workshops	• Stress test (Option/Recommendation) workshops • MBR companies' workshop
Notes from interviews previously completed	• 11 ATO interviews, 5 ASIC interviews/meet and greets/site visits, 4 Treasury interviews, 2 DTA interviews, 2 vendor interviews (Accenture and Verne), 1 ABRS interview, 1 Finance interview, 1 independent assurer interview
Technology document analysis	• SPBC documents (e.g. SPBC Technical Solution Architecture) • Platform and Product Assessment documents (e.g. . MBR Product Design Validation Outcomes Report, MBR Business Process COTS Product Findings Report) • Technical Solution Architecture documents (e.g. ATO Technical solution, ▒▒▒▒▒ ▒▒▒▒▒▒▒) • Program organisation structures (e.g. Pipeline and Design Branch structure, ASIC IT key persons of risk) • ASIC documents (e.g. ASIC MBR Program: information for independent Reviewer)

Source: BCG analysis of MBR Program stakeholders and documentation

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Appendix 8 Analysis of data management

July 2023

Executive summary

Purpose of this appendix

This appendix details the findings of the Review with respect to data management. This appendix focuses on 2 core questions. Firstly, is the MBR Program's approach to data management comprehensive, robust, and achievable? Secondly, will the approach deliver the intended data-enabled benefits for government and the broader economy?

The Review has identified 5 options for government to consider which describe alternative pathways for the MBR Program, including 2 options to stop the MBR Program altogether. The MBR Program has designed a data management approach within the context of *Option 2: Proceed – Full scope*. Specific elements of the approach vary across the 5 options (such as data migration and government-to-government data exchange) but the core themes remain constant. The data management component of the Review has assessed the data management approach for Option 2 and called out when this approach varies for the other 4 options.

The Review has examined the data management approach by reviewing supplied documentation, interviewing MBR Program stakeholders, and applying a 2-part assessment approach. Firstly, the Review has formed a qualitative perspective on the extent to which the MBR Program is likely to achieve the data-enabled benefits as outlined in the SPBC (2019) and Benefits Realisation Plan (2023). Secondly, the Review has assessed the MBR Program's data management approach based on 7 technical dimensions.

This appendix is intended to be effective in a standalone context, but it also supports, and is supported by, the broader Report and the other appendices.

Findings

The MBR Program's overall data management approach is generally sound, however key gaps need to be addressed

The MBR Program has designed a data management approach that leverages modern technology and data management practices and is consistent with the government's ambition to improve the performance and integrity of registers. The approach is also consistent with the Data and Digital Government Strategy published in 2023.

The link to benefits is unclear

Benefits for the MBR Program were developed based on the 6 government objectives which were anchored to the policy intent of business deregulation, making it better for business. The majority of data-enabled benefits will be delivered by a subset of MBR Program features. Foremost is the roll-out of Director ID (backed by strong digital identity and linked to companies and director

appointments). This measure will enhance the integrity of register data by creating traceable records of director identity across companies and ensure disqualified directors are prevented from acting as officeholders. These data linkages will enable ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮, which accounts for approximately 85% of the total direct benefits quantified by the MBR Program. Viewed through this lens, the MBR Program should prioritise the wider revenue effects from Director IDs and aggressively descope effort that does not directly link to this outcome.

The target data architecture is modern and capable, but highly complex

The data architecture satisfies the core requirements of a modernised register system, but it carries a high degree of risk, which is explored in detail within *Appendix 7 Analysis of Technical Solutions*. Known architecture risks include the reliance on an unproven commercial-off-the-shelf (COTS) product and the tight coupling with existing ATO systems. While no single architecture choice appears unreasonable in isolation, when viewed collectively, the target state architecture is highly complex. An integrated view of risk is therefore useful to weigh the cost/benefit trade-offs implicit in MBR Program decisions.

Registers do not seem fundamentally broken to most users, but beneath the surface, there is legacy risk that must be addressed – including significant cyber risk. The systems operated by ASIC that support registers (excluding the ABR) are ageing and many are approaching or have reached end-of-life. Many of these systems were developed in the 1990s and the underlying infrastructure and software are approaching hard capacity and support limits. While these systems have been stabilised in the short term (funded in the October 2022 Budget), further stabilisation efforts are required at substantial cost. The government should recognise that every proposed option involves a multi-year delivery time horizon and the experience for the business community will remain unchanged.

Ecosystem participants such as information brokers, digital service providers and registered agents are centrally critical to the MBR Program

Registers sit at the heart of an ecosystem of data owners, data consumers, and intermediaries who use the information in different ways, with different objectives, and usually via APIs. Most businesses choose to interact with the Companies Register via registered agents, and most search and lodgement interactions (between 70 and 80%) occur via APIs. Between 2014 and 2018, API request volume increased by 976% while in the same period non-API request volume only increased by 6% [167]. The importance of ecosystem participants is not always reflected in the approach to delivering the program.

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167   2021 –2022 ASIC Registers on a page

The data migration approach appears consistent with best practice

The MBR Program has performed detailed analysis of the data migration approach and conducted successful end-to-end testing (via the Horizontal Slice process). An incremental approach has been designed to avoid the need for a "big bang" migration at the end of Tranche 2. The data migration approach addresses critical requirements such as data harmonisation and data matching.

The data exchange approach between ABRS and ASIC is not finalised

ASIC requires uninterrupted access to timely data to perform its role at the regulator, however this has not been appropriately scoped by the MBR Program, and significant legislative blockers still need to be overcome. While the nature of this gap is understood by the MBR Program, a realistic solution has not been fully agreed to by ASIC/ABRS or reflected on the critical path of the MBR Program.

The steady state data operating model is not finalised

The data operating model comprises elements such as strategy, interagency governance, stewardship, ethics, quality, and continuous improvement of data products. While it was recognised in stakeholder interviews that the steady state data operating model is critical to the effective operation of business registers, detailed planning and costing for this capability has not been completed by the MBR Program.

Focus areas

This appendix provides 6 overarching data management focus areas that directly link to the broader findings and recommendations of the Review. These 6 overarching data management focus areas are intended to be relevant, irrespective of the option that is ultimately chosen by government. These focus areas are intended to reduce the level of risk and increase the level of certainty in the delivery of the MBR Program. Regardless of the government's chosen course of action and the extent to which these recommendations are adopted, significant residual risk will remain on the MBR Program, requiring active management.

Focus area 1: Bring forward benefits realisation

Implications for Review options

This focus area applies to all the Review's proposed options

The benefits realisation schedule does not anticipate benefits accruing until the delivery of Tranche 2 (other than an unquantified subset of phoenix compliance outcomes that can be achieved within the ATO based on backend matching of Director IDs to companies). As such, the MBR Program is unlikely to deliver material benefits until 2026 at the earliest. Such a significant lag between costs and benefits is considered poor practice in large IT programs.

The largest single benefit of the MBR Program relates to increased revenue ▓▓▓▓▓▓
▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓ which will be enabled
by Director IDs linked to companies and strong digital identity. Both these features have been
delivered via Tranche 1, and over 2.1 million Director IDs[169] had been obtained by company directors
by Q1 2023. The MBR Program should consider implementing Director IDs into existing ASIC systems
in the immediate term and establish linkages across registers.

Further, the MBR Program should consider accelerating data quality uplift initiatives by
systematically identifying instances of inaccuracy in register data, and encouraging record owners to
update their information, using existing mechanisms like the annual review process, and new
mechanisms like personalised behavioural nudges.

In doing so, the MBR Program can improve data quality and integrity on a substantially shorter
timeline (unlocking associated benefits sooner), de-risk and simplify future data migration activities,
and ensure company directors derive value from their Director IDs.

Focus area 1: Supplementary recommendations

Recommendation 3: Focus the Modernising Business Registers Program on achieving the benefits of the business data spine

3a. Recut the benefits so that they are linked to individual features
3b. Integrate Director IDs into the Companies Register in the immediate term to accelerate benefits realisation

Focus area 2: Ensure the continuation of access to timely data for ASIC

Implications for Review options

This focus area:

- Does not apply to Options 1 and 5, assuming that legislation and MoG changes are rolled-back.

- Applies to Options 2 and 4, assuming that all registers will be consolidated to a single agency other than ASIC.

- Applies to Option 3, where registers will be maintained by ABRS and ASIC in the target state.

ASIC is responsible for promoting a fair, transparent and efficient financial system by regulating the
conduct of companies, financial markets, financial services organisations, and professionals
associated with these sectors. ASIC requires timely access to business data required to perform its
regulatory functions. Firstly, legislative changes should be progressed to recognise ASIC's
requirement to access register data. Secondly, a formal agreement is required between ABRS and
ASIC that lists the specific data attributes to be exchanged, the data format, the technical
mechanism, and the associated service levels. Thirdly, detailed scoping of the data exchange
approach should be prioritised so that the MBR Program cost and critical path can be updated to
reflect this.

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168   2023 May MBR Program Benefits Overview

169   MBR Program Board Meeting

Focus area 2: Supplementary recommendations

Recommendation 17: Ensure the Australian Taxation Office provides the Australian Securities and Investments Commission with timely access to company and business data

17a. Ensure that ASIC continues to have timely access to the data it needs to fulfil its regulatory obligations

Focus area 3: Continue to identify opportunities to simplify scope and complexity of data management

Implications for Review options

The general intent of this focus area is relevant to all the Review's proposed options, that is, to simplify the program wherever possible. The opportunities for simplification vary depending on the option that is chosen by government.

The MBR Program has not exhausted all opportunities to simplify scope and complexity. It is important to recognise that, on a program such as this, it is often the accumulation of many small tasks, rather than a handful of very large tasks, that contributes most to delays and cost overruns. For this reason, the Review has recommended a set of decision guardrails such as "build to the law" and "defer business transformation", which can be applied by the MBR Program as a rubric in the daily continuum of prioritising and deferring scope. Removing even small scope items can have outsized impact on the critical path, reducing concurrency and enabling clearer focus by key program resources. On this basis, there are additional scope reduction opportunities in data management for the MBR Program to consider.

The MBR Program should adopt a 'benefits-back' lens to Tranche 2 scope and descope effort that does not align directly with program benefits. For example, it is not clear how features such as "tell us once" (i.e. cascading updates) in the retail web user interface and business inbox contribute towards the current benefits case, even if these features at face value appear attractive.

The MBR Program should also consider prioritising effort based on user demand. Of the 3.1 million online lodgements in 2021/22, the top 3 forms accounted for approximately 70% of the total volume, and the top 10 forms accounted for approximately 92% of the total volume[170]. On the other hand, there are approximately 100 forms that haven't been lodged at all since 2020. This highlights the opportunity to defer migration of low volume forms to a later date and adopt manual workarounds as an interim solution.

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170   2021 – 2022 ASIC on a page

Focus area 3: Supplementary recommendations

Recommendation 3: Focus the Modernising Business Registers Program on achieving the benefits of the business data spine

3c. Reduce program scope by de-prioritising features that have an unclear link to the benefits case, including low priority/low volume elements of the Companies Register

Recommendation 16: Progressively uplift the integrity of registry data

16a. Consider simplifying the multi-step migration approach to reduce complexity and minimise potential failure points

Recommendation 19: Maintain target architecture with strengthened guardrails against Verne

19a. Maintain the MBR Program's target architecture to support the breadth of intended data-enabled outcomes

Focus area 4: Collaborate closely with the ecosystem and provide certainty on the direction of the MBR Program

Implications for Review options

The general intent of this focus area is relevant to all the Review's proposed options, that is, to the MBR Program should collaborate more closely with the private sector. The nature of the collaboration will shift slightly depending on the option chosen by government.

Program should explore how to leverage the data held by DSPs, including legislative changes, to accelerate data quality and integrity initiatives, and de-risk the data migration process, such as the matching of natural persons to Director IDs.

Most businesses choose to engage intermediaries to act on their behalf, who in-turn use third-party software (DSPs) to interact with the register. Approximately 55% of lodgements are performed via DSP software at present[171] using the ECR and EDGE API services provided by ASIC. DSP software solutions are often aligned to sectors (e.g. accounting) and provide a broad range of business capabilities of which register interactions represent only a small part. DSPs offer advanced features that ASIC does not currently provide but are intended to be delivered in Tranche 2, such as "tell us once" and the linking of Director IDs to companies.

DSPs hold rich company and business data. For example, a single DSP product is used by registered agents to manage over 800,000 companies (representing more than a quarter of companies on the register)[172]. This product provides end-to-end capabilities across the company lifecycle, including many that are clearly outside the scope of the MBR Program, such as trust management and distributions. Consequently, this product holds rich, relevant, and recent company data, over and above what is held in registers, including more than 500,000 Director IDs linked to companies. This case study highlights how DSPs can rapidly deliver tailored, customer-centric solutions that are much

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171   2021 – 2022 ASIC on a page

172   User interview with a large Digital Service Provider

broader in utility than the current design of the retail portal of the MBR Program.

While DSPs have been engaged on the MBR Program to-date via the MBR Design Working Group and other mechanisms, the effectiveness of this engagement should improve. Ahead of new investment in their own systems, ecosystem participants require certainty on the target state, API definitions, data standards, the implications of the intermediaries release within Tranche 2, and on future fee models. More broadly, the MBR Program should prioritise collaboration with ecosystem participants on future use cases, technology and data innovation. It should focus on how Core Business Registers can be a driver of economic growth.

Focus area 4: Supplementary recommendations

Recommendation 16: Progressively uplift the integrity of registry data

16b. Collaborate with DSPs to improve the quality and integrity of register data

Recommendation 18: Ensure design prioritises wholesale services

18a. Provide certainty to ecosystem participants on the target state, API definitions and data standards, the intermediaries release, and future fee models

18b. Provide more certainty around the intermediaries release

Focus area 5: Establish a steady-state data operating model

Implications for Review options

The general intent of this focus area is relevant to all the Review's proposed options, that is, for the Registrar to establish a steady-state capability to manage and govern register data. It is noted that, depending on option chosen by government, the Registrar or Registrars may change.

The data operating model comprises elements including strategy, interagency governance, stewardship, ethics, quality, and continuous improvement that inform how data is managed and used. For example, interagency decision-making is required on an ongoing basis to assess whether data-enabled use cases are consistent with legal and ethical boundaries. Interagency forums exist across the ATO and ASIC currently, but these are not targeted to Core Business Registers specifically and do not cover the full set of program needs.

More broadly, a conceptual pivot is required to recast registers as data products and the Registrar as an enterprise whose operating cadence is inspired by start-ups in the private sector. Among other things, the data operating model should define a clear vision and strategy for the data products, should measure how effectively the data products implement the strategy and deliver benefits, and should maintain a continual heartbeat of end user engagement across stakeholder groups (including clients, registered agents, ecosystem participants, and government) to inform continuous improvement activities.

The MBR Program should perform a detailed planning exercise for the implementation of a steady state data operating model. This exercise should address the team structure, skills mix, and interagency interactions required to implement the operating model, and identify the delta in costs between the current and target states.

Focus area 5: Supplementary recommendations

Recommendation 7: Focus leadership on strategic decisions and ensure decision-making accountabilities are clear

7a. Consider shifting towards a simplified steady state data governance model, enabling greater agility and leveraging broader ATO forums as needed

Recommendation 13: Reset program workforce to align with revised scope and implement strategic workforce planning

13a. Proactively identify resourcing and capabilities required to implement a steady state operating model and define a strategy to ensure adequate skill capabilities

Focus area 6: Proactively quantify and address data-related program risks

Implications for Review options

The general intent of this focus area is relevant to all the Review's proposed options, that is, to take a proactive stance with respect to data risks this includes prioritising management of legacy risk in ASIC's current environment.

The MBR Program is inherently risky. Register data is used by individuals, businesses, and government agencies to establish trust, support high value business decisions, perform compliance and regulatory functions, and support arguments in court. As such, the integrity of register data, and by extension, trust in registers, is foundational to the success of the MBR Program. These risks include reduced trust in government, reputational risks for government agencies, cyber risk, compliance risk, delivery risk (such as errors that reduce the integrity of register data), operational risks (such as increased call volume due to system outages) and reduced economic activity.

Risks are managed through existing program governance functions but the existing set of risks being managed does not adequately account for data-related risks, and some of the known risks are not being effectively managed.

Focus area 6: Supplementary recommendations

Recommendation 2: ASIC to deliver the professional registers independently of the Modernising Business Registers Program

2a. Continue to invest in ASIC's registers to reduce risk and extend life

Recommendation 16: Progressively uplift the integrity of registry data

16c. Conduct data quality remediation within ASIC environments prior to data migration to mitigate integrity issues at cut-over

Mapping of focus areas to recommendations

Table A8.1 Overarching data management focus areas

Overarching data management focus areas	Recommendation	Data management supplementary recommendation
1. Bring forward benefits realisation	3: Focus the Modernising Business Registers Program on achieving the benefits of the business data spine	3a. Recut the benefits so that they are linked to individual features
		3b. Integrate Director IDs into the Companies Register in the immediate term to accelerate benefits realisation
2. Ensure the continuation of access to timely data for ASIC	17: Ensure the ATO provides the Australian Securities and Investments Commission with timely access to the company and business data	17a. Ensure that ASIC continues to have timely access to the data it needs to fulfil its regulatory obligation
3. Continue to identify opportunities to simplify scope and complexity of data management	3: Focus the Modernising Business Registers Program on achieving the benefits of the business data spine	3c. Reduce program scope by de-prioritising features that have an unclear link to the benefits case, including low priority/low volume elements of the Companies Register
	16: Progressively uplift the integrity of registry data	16a. Consider simplifying the multi-step migration approach to reduce complexity and minimise potential failure points
	19: Maintain target architecture with strengthened guardrails against Verne	19a. Maintain the MBR Program's target architecture to support the breadth of intended data-enabled outcomes
4. Collaborate closely with ecosystem and provide certainty on the direction of the MBR Program	16: Progressively uplift the integrity of registry data	16b. Collaborate with DSPs to improve the quality and integrity of register data
	18: Ensure design prioritises wholesale services	18a. Provide certainty to ecosystem participants on the target state, API definitions and data standards, the intermediaries release, and future fee models
		18b. Provide more certainty around the intermediaries release
5. Establish a steady-state data operating model	7: Focus leadership on strategic decisions and ensure decision-making accountabilities are clear	7a. Consider shifting towards a simplified steady state data governance model, enabling greater agility and leveraging broader ATO forums as needed
	13: Reset program workforce to align with revised scope and implement strategic workforce planning	13a. Proactively identify resourcing and capabilities required to implement a steady state operating model and define a strategy to ensure adequate skill capabilities
6. Proactively quantify and address data-related program risks	2: ASIC to deliver the professional registers independently of the Modernising Business Registers Program	2a. Continue to invest in ASIC's registers to reduce risk and extend life
	16: Progressively uplift the integrity of registry data	16c. Conduct data quality remediation within ASIC environments prior to data migration to mitigate integrity issues at cut-over

Context of the data management review

Current state

Australia's business registers are key economic infrastructure that identify companies and people and the roles they can play in the economy. Registers confer rights, obligations, and prohibitions on entities, such as a company's right to limited liability, or whether a person is prohibited from acting as a director. The information held by registers is widely used by people, businesses, and government. Easy access to high integrity register data plays an essential role in a well-functioning economy.

Registers are more complicated than they seem at first. This is due to tight coupling between registers and legislation, the complex relationships between entities such as agents, directors, and companies, and data model requirements, such as the need to preserve the history of every record indefinitely. Registers also need to hold large volumes of heterogenous data and maintain the highest levels of system available and reliability.

Figure A8.1 The register landscape is complex

3.1m companies	**6.6b** textual records	**8K** forms lodged / day
7 core business registers	**300m** documents	**180m** data requests / year
12 historical registers	**200+ years** of historic records	**1400** Support calls / day
15 professional registers	**40+ TB** of data	**6-7%** annual data growth
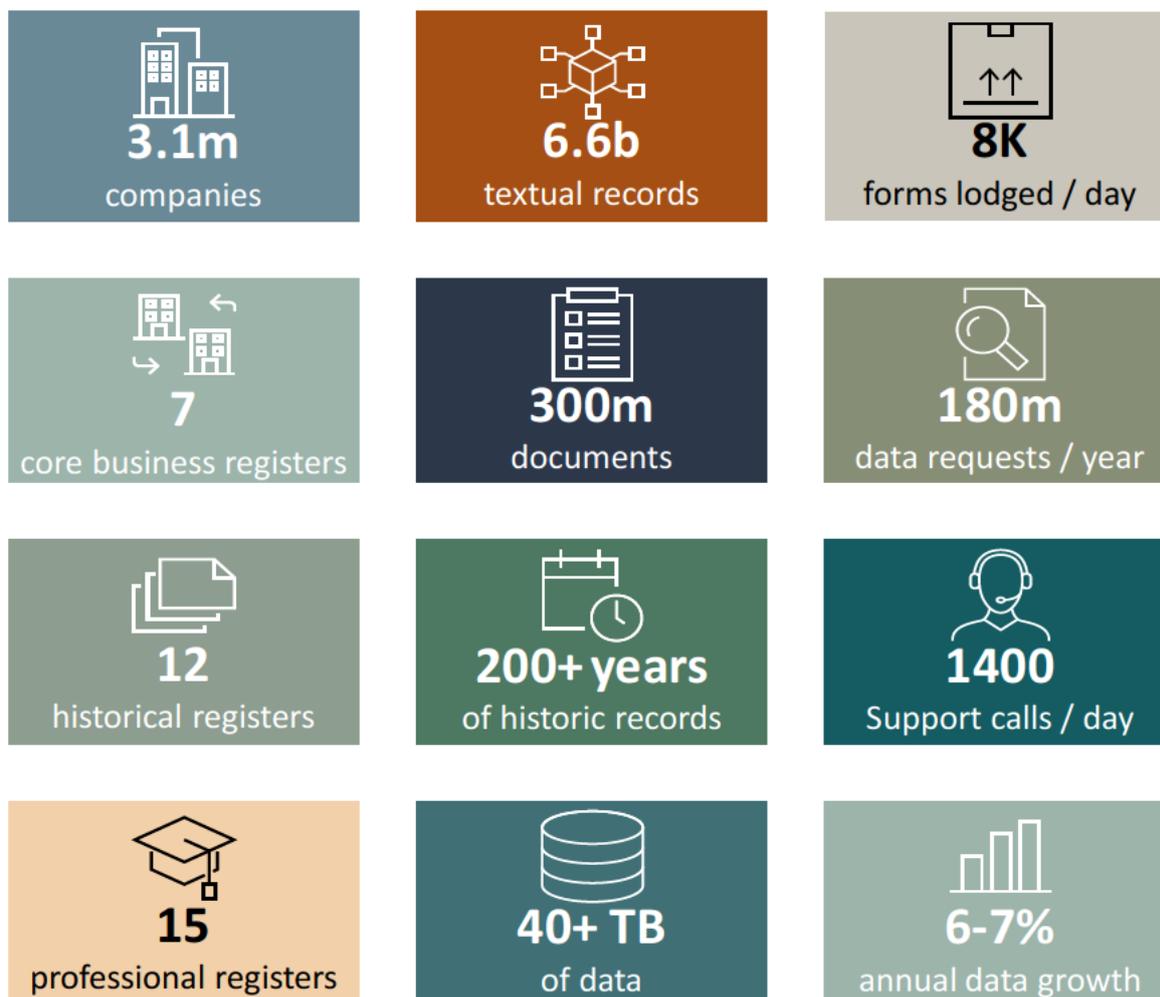
The MBR Program seeks to modernise over 30 registers operated by ASIC and the ATO, improve the quality and integrity of register data, and unlock a broad set of benefits for business, the government, and the wider economy. These benefits include improved service delivery, time savings for business, reduced IT costs, enhanced revenue via the ATO's Phoenix Taskforce, and the broader economic benefits that flow from greater counterparty trust in the market.

The MBR Program brings 4 core elements together:

- Modernisation of the underlying technology environments

- Transformation of the experience for the users of registers

- Regulatory reform, including new legislation such as the *Commonwealth Registers Act 2020*

- MoG changes, including the movement of 220 staff from ASIC to ABRS

To date, the MBR Program has delivered the first of 5 Tranches, including Director ID backed by strong digital identity. Linking directors to companies will provide transparency into the relationships that exist between entities. As of Q1 2023, more than 2.1 million directors have obtained Director IDs.

The MBR Program is off track. It was originally expected to cost $480.5 million with value delivery by 2024. In the most recent reckoning the costs had escalated to $1.5 billion and the timeline extended with value delivery between 2026 and 2029. For this reason, in February 2023, the government announced the Review, of which this appendix represents a part. It focuses on the data management aspects of the MBR Program.

What is data management?

This appendix addresses the data management approach of the MBR Program. Data management as a concept is quite broad and can mean different things to different people. As such, the Review has adopted the following definition of data management for the purpose of this analysis.

Data management refers to the systematic handling and control of data throughout its lifecycle. It involves processes and strategies for collecting, organising, storing, securing, and analysing data to ensure its quality, integrity, and availability.

Data management encompasses activities such as data acquisition, integration, governance, and analysis, while addressing concerns of privacy, security, and compliance. By implementing effective data management practices, organisations can make better-informed decisions, improve operational efficiency, drive innovation, and leverage the full potential of their data assets.

It is important to note that the analysis applies 2 apertures:

How does data management support the delivery of the MBR Program, including topics like data architecture, data model, and data migration?

How does data management support the operation of registers, including a view on what a steady-state data management capability looks like?

Proposed options of the Review

The 5 options proposed by the Review are:

Figure 3: Options for government

1	2	3	4	5
Stop Stabilise Cease MBR; stabilise & uplift ASIC's aged registry systems where it is critical to do so	**Proceed** Full scope Continue to deliver the full scope of MBR as currently planned	**Proceed** Narrow to companies only MBR Program to deliver Companies Register only & other registers stay with ASIC	**Stop** Revisit transformation options Stop MBR Program, reset & re-start in new registry agency	**Stop** Stabilise and targeted uplift Cease the MBR program, return registry functions to ASIC, mitigate system risks & deliver targeted modernisations

A full description of each option and its inclusions is provided in the Report.

Methodology

Approach to the data management component of the Review

To support the analyses included in this appendix, the Review conducted interviews and workshops, and reviewed documents provided by the MBR Program. 10+ workshops were conducted on various topics involving 25+ subject matter experts from agencies including ATO, ABRS, ASIC, the DTA, and Treasury. Additional interviews were conducted with a variety of stakeholders including software vendors and members of the business community.

Figure A8.2 Key facts about the data management component of the Review

150+ documents and reports	**10+** cross-agency workshops	**25+** participants across ATO and ASIC	**33** Second pass business case documents	**27** external progress status reports

Over 100+ documents were leveraged in the course of developing this appendix, including:

- First and Second Pass Business Cases

- MBR Platform and product design technical outlines

- ABRS strategic program design documents

- DTA assurance reports

-          monthly reports

- Gateway Reviews

- Independent technical Reviews

- ATO and ASIC meeting and interview minutes.

Assessment framework

The MBR Program's approach to data management was assessed in 2 ways:

The extent to which the recommended option enables the MBR Program's benefits to be realised.

Alignment to contemporary best practice across 7 technical evaluation dimensions.

How will the MBR Program benefits be realised?

The MBR Program has committed to government to deliver 6 key benefits. Of these 6 benefits, 3 deliver direct financial benefits, one delivers indirect financial benefits, and 3 deliver non-financial benefits.

Table A8.2 MBR Program benefits realisation

Benefit	Measures & metrics	Financial benefit
1. Improved service delivery to reduce complexity for business	Regulatory savings for businesses – time/effort to interact with registers	▮▮▮▮▮
	Reduction in the number of paper-based interactions	
	Reduction in the number of access points and authentication methods	
	Non-government users – increased satisfaction in registry services	
	Improved performance to service standards (including helpdesk)	
	Reduction in negative stakeholder	
2. Increased availability of trusted data to facilitate greater use and innovation	Increased data integrity	N/A
	Increased range and consumption of APIs and data services	
3a. Reduced long-term costs of business registry services and increasing satisfaction,	Increased availability of business registry data/systems	▮▮▮▮▮
	Reduced long-term cost of business registry services	
3b. Delivered benefits for government by reducing the long-term costs of business registry services and increasing satisfaction	Reduction in the number of agencies offering registry services	
	Government users – increased satisfaction in registry services	
4. Increased trust in the government's digital and data initiatives	Increased trust in registry services	N/A
5. Increased revenue outcome through the ▮▮▮▮▮	Increased revenue outcome – Director ID Wider revenue effects	▮▮▮▮▮
6. Foster economic activity and mitigate economic loss for businesses	Regulatory savings (p.a.) for business community attributed to wider benefits of MBR	▮▮▮▮▮

Technical evaluation dimensions

The MBR Program was assessed against 7 technical evaluation dimensions. These dimensions are not intended to be an exhaustive set of all possible considerations that should be addressed by a data management approach. Rather, these should be taken as the core priority areas that must be effectively addressed, given the context and objectives of the MBR Program.

Figure A8.3 7 technical evaluation dimensions

Data architecture

Data architecture refers to the overall design and structure of how data is managed, stored, and accessed. This includes all phases of the data lifecycle including ingestion, storage, processing, consumption, and disposal. Consideration is given to the extent to which the data architecture is 'fit-for-purpose' to deliver the target capability for a modernised register system. Further, weight is given to the extent to which the architecture is flexible to accommodate future (unknown) changes in requirements and technologies (e.g. scalability and modularity).

Data model

Data model refers conceptually to the organisation of data entities, associated attributes, relationships, and standards. The design of the data model is critical to ensuring data integrity, relationship cardinality, and data consistency – among other attributes. Key considerations for a data model centre on the extent to which the data model will enable accurate, usable data through a standards-based data model that is interoperable across multiple user types.

Data migration

Data migration is the technical challenge of shifting data from between systems while preserving integrity, data richness and usability in a way that can be readily verified. There is no single approach to data migration, however there are key characteristics that are typically present in successful data migration. These include cross-functional collaboration, comprehensive end-to-end planning, protection of critical assets, safeguarding of data integrity, and robust migration governance structures.

Government-to-government integration

Government-to-government data integration refers to the secure and efficient exchange of data between registers and entities across government. The approach to data sharing between government entities is assessed against the extent to which the MBR Program's integration mechanisms will deliver against the key requirements and use cases. For example, the capacity of ASIC-ABRS data interface to meet the needs of ASIC to perform its regulatory functions.

Government-to-external integration

Government-to-external integration refers to the secure and efficient exchange of data between registers and entities outside government. This includes both those providing data (e.g. updating records) and those consuming data (e.g. search, analysis) via third-party integrations. Typically, this refers to data brokers and DSPs. A core functionality of a registry should be to ensure that its external integrations meet the needs of consumers and provides the most usable data.

Data security

Data security is necessary to ensure protection from unauthorised access, disclosure, alteration, or destruction. While conceptually very broad, particular weight is given to those data security risks identified in previous technical Reviews, and the extent to which the data architecture resolves them.

Data operating model

The data operating model refers to how governance, teams and processes combine to inform how data is managed as a strategic asset. While an operating model is not static, 4 key areas are useful for assessing maturity: a clear data vision, defined roles and responsibilities, clearly defined processes and mechanisms for continuous improvement. Further, consideration is given to how the operating model will be resourced with adequate personnel to ensure long-term sustainability.

Detailed assessment

Benefits realisation

Registers that support trust and fairness in the economy are underpinned by high integrity data. By improving the quality, integrity, and accessibility of register data, the MBR Program will create direct economic benefits for Australians, businesses, and the government.

The MBR Program's benefits realisation plan highlights 6 benefits which each deliver value over different time horizons. All quantified benefits are tightly linked to the data management approach and the delivery of a high integrity data spine of business and company data. There are program benefits that are not quantified. This includes increased economic activity because of a more transparent business environment and enhanced counterparty trust and improved regulatory and compliance outcomes outside of illegal phoenixing behaviour.

Table A8.3 Benefits plan for the MBR Program[173]

	Beneficiary			
	Business		**Government**	
Type of benefit				
Financial	Benefit 1: Improved service delivery to reduce complexity for business Regulatory savings due to simplification, experience uplift, and better service delivery	▓ ▓	Benefit 3: Increased reliability and more efficient registry systems Savings due to improved available and reduced cost to run registers	▓
	Benefit 6: Foster economic activity and mitigate economic loss for business Reflects time savings for business derived from improved registers	▓ ▓	Benefit 5: Increased revenue outcome through the ▓▓▓ ▓▓▓▓ Via wider revenue effects from ▓	▓▓
Public	Benefit 4: Build trust and confidence in the government's digital and data transformation initiatives	Non-financial		
Economic	Benefit 2: Increased availability of trusted data to facilitate greater use and innovation	Non-financial		

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Benefit 1: Better business services, ████████████

This benefit assumes that improved service delivery and decreased complexity for business will create material time savings. The benefit considers a reduction in the number of paper-based interactions, a reduction in the number of login points across registers, improved customer service levels, and an increase in client satisfaction of register services. The benefit assumes a 20% improvement off a baseline annual regulatory cost to businesses of ████████████ [74]. It was not clear to the Review how the baseline number was calculated in the MBR Program's benefits realisation plan or associated documentation.

Implications for the MBR Program:

- This benefit was calculated on the basis that the MBR Program would continue as originally planned.

- This benefit will start to be realised following the release of Tranche 2.

- This benefit is unlocked by a modernised register platform with all registers migrated onto a single digital platform and most paper forms are eliminated.

- It is not clear if this benefit considers individuals and companies who interact with registers via intermediaries (in which case they may never login into to retail digital portals and benefit from an uplifted user experience).

Benefit 2: Increased availability of trusted data to facilitate greater use and innovation

The benefits case recognises that high integrity data will improve trust in government and ultimately drive broader economic and social benefits. The MBR Program has not attempted to quantify the economic impact of this benefit but assumes that participants in the economy will be more likely to engage in business if they have a reasonable level of trust in the counterparties they are dealing with. The realisation of these broader economic benefits will be accelerated if data is treated as a strategic asset and data products developed in partnership with an ecosystem of data consumers in the private sector.

Implications for the MBR Program:

This benefit will be unlocked by improved quality and integrity of register data and modernised APIs that encourage third parties to develop innovate and value-creating products with register data.

To ensure this benefit is realised, the MBR Program needs to provide certainty to the market with respect to API definitions, costs, change implications for users of deprecated APIs, and clarity on delivery timelines.

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[74]   2023 May MBR Program Benefits Overview

Benefit 3: Increased reliability and more efficient register systems,

▓▓▓▓▓▓▓▓

This benefit comprises 2 parts:

• Increased reliability of registry systems, with a target of 99.5% availability

• Efficient register service delivery, assuming a 10% reduction in the cost of operating registers of a base of ▓▓▓▓▓▓▓▓ leading to a benefit of ▓▓▓▓▓▓ to government.

Implications for the MBR Program:

It is unlikely that the MBR Program can reduce the cost of operating register systems until legacy platforms are decommissioned in Tranche 5. This is because, at the conclusion of Tranche 2, there will be more register systems in operation than at the time of authoring this Report. The MBR Program has not established a critical path or implementation plan past Tranche 2, and therefore it is a matter of conjecture when Tranche 5 might occur enabling legacy systems to be decommissioned. As a result, this benefit is not likely to be realised for many years.

Benefit 4: Build trust and confidence in the government's digital and data transformation initiatives

Modernised business registers providing high integrity business and company data will increase trust and transparency between participants in the economy. It is reasonable to assume that a consequence of this outcome will be increased trust and confidence in the government, even if it is very difficult to quantify this benefit in dollar terms.

Implications for the MBR Program:

The business community has been aware of the MBR Program for many years, due to ongoing business engagement, reporting in the media, and due to the requirement for all directors to obtain a Director ID. Consequently, expectations for the MBR Program are very high. Continued delays and negative media reports are likely to undermine the extent to which the MBR Program can build trust and confidence in the government's digital agenda.

As of Q1 2023, approximately 2.1 million Director IDs had been issued. However, directors do not get any value from Director IDs at present, and many rightly ask why they were forced to obtain a Director ID if it is not supported by any of the registers. If Director IDs continue to lack a concrete purpose, then it is likely that the extent to which the program can build trust and confidence in the government's digital agenda will be undermined.

Benefit 5: Increased revenue outcome through the ▓▓▓▓▓▓▓▓

▓▓▓▓▓▓▓▓▓▓▓▓

The largest quantified financial benefit of the MBR Program relates to increased revenue from improved Phoenix compliance outcomes. Benefit 5 of the MBR Benefits Realisation Program is a component of a new measure to combat illegal phoenixing activity – funding was part of the 2019/20 MYEFO. The ▓▓▓▓▓ benefit is realised ▓▓▓▓▓▓▓▓▓▓

⬛⬛⬛⬛⬛ in cash collections). This relates to the increased revenue outcomes associated with the delivery of Director ID and the proposed new Companies Register, which would increase the benefits from linking directors to companies.

In addition to this, the measure is intended to realise another $686 million in liabilities and $467 million in cash collections over 10 years through compliance activity. 70 to 80% of the total revenue outcomes between 2023 and 2030 is based on the assumption that once Director IDs are linked to companies and director appointments, protected by strong identities, and the systems associated with registers are modernised and analytics capabilities are uplifted, the ability of the Phoenix Taskforce to conduct compliance activities will be enhanced. There is substantial value at stake. The ATO has identified up to $5.13 billion p.a. [175] in losses to employees, businesses, and government due to illegal phoenixing behaviour, though not all of this relates to lost government revenue.

The Phoenix Taskforce was established in 2014 on the recommendation of the Productivity Commission to detect, deter and disrupt illegal phoenixing. Its mandate was further strengthened by the law reforms implemented by *Treasury Laws Amendment (Combating Illegal Phoenixing) Bill 2019*, and by the funding under the measure. The measure established the ATO/ASIC Data Fusion program, which enables the matching individuals to data from ASIC's registers to enable risk-based processes for the selection of matters for compliance and enforcement activities. The matching and selection process is supported by improved analytics capabilities. The measure also provides for additional compliance activity based on the insights from the Data Fusion program. Offsets from the measure have been part of the funding mix for the MBR Program.

The measure also established the ATO/ASIC Data Fusion program, which enables the transfer of ASIC data to the ATO, integration of ASIC and ATO data sets, execution of analytical models and formation of resultant candidate pools for compliance action. The integration of the data and improved analytics supports case selection. The measure also provides additional resources for compliance activity using cases selected from the Data Fusion program. Offsets from the measure have been part of the funding mix for the MBR Program.

This financial benefits under the measure are perhaps understated. Other benefits that are expected to be unlocked by the Phoenix Taskforce include:

- Other related, but as-yet unquantified compliance benefits that will flow from using ASIC and ATO data with Director IDs and register data.

- Broader economic benefits due to enhanced transparency and trust in the economy.

- Benefits associated with combating unscrupulous labour high operators who use complex corporate structures and straw directors to avoid paying PAYG withholdings, GST, and Superannuation (as recommended by the Migrant Workers' Taskforce).

- Benefits associated with combating other types of tax mischief, including GST fraud.

Implications for the MBR Program:
Director IDs and strong digital identities were delivered via Tranche 1, and approximately 2.1 million

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directors have obtained a Director ID as of Q1 2023. However, at this stage, Director IDs are not linked company records within the ASIC Companies Register nor is the current system able to unlock the wider revenue effects that have been identified. The delivery of Director IDs has already created opportunities for the ATO to improve compliance outcomes (e.g. initial efforts to fuse ASIC and ATO data to Director IDs via the data fusion capability described above) but the benefit generated to-date has not been disclosed to the Review.

The timeline is a critical factor here. The Phoenix Taskforce has committed to realising benefits before 2030 and is dependent on the MBR Program to do so. At current estimates, the MBR Program is unlikely to deliver the required dependencies (Tranche 2 release) until 2026 at the earliest, which reduces the window in which benefits can be realised.

Given the scale of this benefit and given the underpinning technology has been developed and widely adopted, the MBR Program should consider how to bring forward the realisation of this benefit by integrating Director IDs into existing registers and supporting enhanced data fusion outcomes.

Benefit 6: Foster economic activity and mitigate economic loss for business,

This benefit is calculated as the dollar value of reduced time spent by businesses to interact with registers, resulting in a figure of ▮▮▮▮▮▮▮▮ when averaged over a period of ten years (due to the ramp-up profile of benefit realisation). A modernised platform with an enhanced user experience is expected to reduce the time spent by businesses interacting with registers. In 2020/21 the top 3 most commonly lodged transactions ("*484 – Changes to company details*", "*362 – Notification by a company to nominate or cease a registered agent*", and "*Application for registration – business name*")[176] were submitted approximately 2 million times by businesses and agents. A modest reduction of ten minutes of time spent on each of these transactions would release 333 thousand hours of productivity back to businesses. This is a simplistic example of the logic that underpins the benefits model. The actual approach employed by the ATO quantifies the potential time saved across different transactions and based on the size and type of company.

Implications for the MBR Program:
- This benefit is calculated on the basis that the MBR Program would continue as originally planned.

- This benefit has a ramp-up period of 2 years following the release of Tranche 2.

- It is possible that the calculation does not sufficiently reflect the proportion of businesses that interact with registers via intermediaries.

- This benefit is unlocked by a modernised register platform with all registers migrated onto a single digital platform, a high-quality user experience, and modernised APIs.

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176   2021 –2022 ASIC on a page

The realisation schedule for most program benefits is forecast to begin at the completion of Tranche 2 (companies), and in some cases with a ramp-up assumed. Based on current speculation Tranche 2 is unlikely to be completed until 2026 at the earliest. As a result, the program will require substantial ongoing investment from government over several years before it will realise the identified benefits. Given the scale of the benefits at stake, bringing forward a small percentage of benefits realisation earlier in the program (concurrently with the work to implement Tranche 2) will result in a significantly more attractive net present value (NVP) for the MBR Program.

The MBR Program supports the Government's data and digital strategy

In additional to the quantified financial and non-financial benefits, the MBR Program is backed by a strong mandate from government. The government has outlined a vision for a modern, data-centric capabilities by 2030 in the *Data and Digital Government Strategy.* A core component of this strategy is to deliver "simple, secure and connected public service for all people and business through world class data and digital capabilities."[177] The core ambition of the MBR Program, to create a high integrity data spine of business and company data, is therefore centrally critical as an enabler of the government's strategy.

Each of the MBR Program's objectives and benefits directly ladder-up to the government's broader strategy (non-exhaustive):

• Improved services for Australians and businesses that are reliable, intuitive, inclusive and accessible.

• Increased reuse of government IT capabilities, resulting in cost efficiencies.

• Increased interoperability between government services.

• Improved ways to manage, share, integrate and analyse data to support better service delivery, long term policy development and responses to crises.

• Reduced cyber risk, including by reducing the threat surface by storing data on fewer systems.

• Improved digital capabilities within the APS.

The level of ambition and speed of benefits realisation differ between the MBR Program options provided to Government

Option 1 ("*Stop – stabilise*") represents a cease of the MBR Program and the government's ambitions. By discontinuing all work on the MBR Program and only performing the minimum effort required to ensure register systems continue to operate, Option 1 represents a material descoping of the government's ambition to deliver a national high integrity data spine. Key outcomes, such as a reduced number of Registrars, entry points, and authentication methods will not be addressed. Furthermore, under this option the Director ID program will likely remain with the ATO, meaning that the register landscape becomes more complex rather than less complex. As a result, this option will

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not deliver the intended benefits of the MBR Program as detailed in the SPBC and in subsequent documents.

Under Option 2 ("*Proceed – full scope*"), the MBR Program will continue its current trajectory with an unchanged level of ambition. As such, this option will deliver the most expansive modernisation and transformation outcome and will be likely to realise the most benefits of all options. However, under this option, material benefits realisation is not likely to start until 2026 at the earliest. The government will need to invest heavily in the MBR Program over several years before it sees a return, even though some of the core enabling infrastructure such as Director IDs has already been delivered. As a result, even though more benefits may ultimately be realised under this option, the substantial cost and delay in realising benefits diminish the NPV of the option.

Options 3, 4, and 5 reflect a largely unchanged level of ambition but represent substantially different approaches for realising the intended benefits of the MBR Program. For example, these options differ across core aspects such as which entities perform the role of Registrar and operate registers, which entities deliver components of the MBR Program, and the underlying supporting technologies. Most significantly, these options vary in the speed at which benefits are realised – specifically benefits associated with uplift in the integrity and quality of register data – which account for the majority of quantified program benefits.

Figure A8.4 The level of ambition and speed of benefits realisation differ between options

Impact of options relative to Option 2

● Full scope → Equal or better ↘ Slightly reduced ↓ Severely reduced

Program Benefits	Financial benefit	Benefit metrics	2: Full scope	3: Narrow to companies only	4: Revisit transformation options	5: Stabilise & targeted uplift	1: Stabilise
1. Improved service delivery to reduce complexity for business	(grey)	Reduction in the time / cost for businesses to interact with registers	●	→	→	↓	↓
		Reduction in # of paper-based interactions	●	→	→	↓	↓
		Reduction in # of access points and authentication methods	●	↘	→	↘	↓
		Non-government users – increased satisfaction in registry services	●	→	→	↓	↓
		Improved performance to service standards (including helpdesk)	●	→	→	↓	↓
		Reduction in negative stakeholder feedback	●	→	→	↓	↓
2. Increased availability of trusted data to facilitate greater use and innovation	N/A	Increased range and consumption of APIs and data services	●	↘	→	↓	↓
		Increased data integrity	●	↘	→	↘	↓
3a. Increase reliability of registry systems	N/A	Improved availability of business register systems	●	→	→	↘	↓
3b. Delivered benefits to government by reducing the long-term costs of registry services and increasing satisfaction	(grey)	Reduced long-term cost of business registry systems.	●	↘	→	→	↓
		Reduction in # of agencies offering registry services	●	↘	→	↘	↘
		Government users – increased satisfaction in registry services	●	→	→	↘	↘
4. Increased trust and confidence in government's digital and data transformation initiatives	N/A	Increased trust in registry services	●	→	→	↘	↓
5. Increased revenue outcome (Director ID wider revenue effects) through Phoenix Program	(grey)	Increased revenue outcome – Director ID Wider revenue effects	●	→	→	→	↘
6. Foster economic activity and mitigate economic loss for businesses	(grey)	Regulatory savings (p.a.) for business community attributed to wider benefits of MBR	●	↘	→	↓	↓
Benefits realisation timeline			2026-29	2025-27	TBD	~2024-26	N/A

Source: 2nd Pass Business Case; MBR Program Benefits Overview March 2023; Agency workshops

Recommendation 3: Focus the Modernising Business Registers Program on achieving the benefits of the business data spine

3a. Recut the benefits so that they are linked to individual features

The benefits case was constructed in a way that assumed realisation of all benefits would start upon delivery of Tranche 2 (in its entirety which is likely to be in 2026). Benefits are not disaggregated and linked to specific features.

As a result, the MBR Program is not able to make prioritisation decisions based solely on the extent to which features contribute towards a particular benefit – noting that some features are mandatory to meet legislative requirements and cannot be deprioritised. Rather, the inverse seems true, that is, every feature is considered to be high priority and mandatory for inclusion in Tranche 2, because all features are assumed to contribute towards all benefits.

The MBR Program should recut the benefits model and realisation schedule so that benefits are linked to specific features, thereby enabling the MBR Program to make prioritisation decisions by weighing the cost and complexity of a feature against the extent to which it will unlock program benefits. Benefits that deliver a material and direct financial benefit (e.g. increase government revenue) should be prioritised over benefits that are more qualitative in nature (improve customer satisfaction scores).

Consequently, it would become clear that linking Director IDs to company records is mandatory to enable Outcome 5 to be realised (increased revenue from improved Phoenix compliance outcomes) whereas a feature like "business inbox" may not have any direct relationship to an identified program benefit.

Recommendation 3: Focus the Modernising Business Registers Program on achieving the benefits of the business data spine

3b. Integrate Director IDs into the Companies Register in the immediate term to accelerate benefits realisation

A large proportion of the ▮▮▮▮▮▮ benefit associated with increased revenue through the Phoenix Compliance Program is unlocked by linking Director IDs with companies and director appointments. Since Director IDs were launched in November 2021, approximately 80% of all directors have obtained one. The MBR Program should consider the following actions:

- Integrate Director IDs into the existing Companies Register managed by ASIC as soon as possible. While there is risk involved in doing this due to the legacy risk associated with the ASCOT mainframe and related systems, the scale of the benefits case is substantial. This piece of work should be delivered independently of the MBR Program and in a way that avoids resource contention with the MBR Program.

- Amend form 484 to support the entry of Director IDs. Companies are required to Review the details on their statement as part of the annual Review process that occurs each year on the date that the company was registered. The form *484 – Change to company details* enables officeholders to be updated. As a result, within a year of launching this capability, it is reasonable to expect that most companies will have linked the Director IDs of their officeholders. This approach may increase customer service call volume in the short term. For companies who use a registered agent, in many cases the registered agent will already track the Director IDs of each officeholder, making it simple to provide this information.

- Integrate Director IDs into professional registers and the existing company registration process in order to prevent banned and disqualified directors from registering new companies.

Recommendation 3: Focus the Modernising Business Registers Program on achieving the benefits of the business data spine

3c. Reduce program scope by de-prioritising features that have an unclear link to the benefits case, including low priority/low volume elements of the Companies Register

Based on the recommendation above, (concretely link individual features to program benefits) it is likely that opportunities will emerge to simplify the committed scope for delivery. In addition to deprioritising features that are not core enablers of program benefits, the MBR Program can also consider deprioritising features that have a low transaction volume in favour of features that have a high transaction volume.

The MBR Program should explore the following 2 areas:

- **Most** clients choose to interact with registers via wholesale channels (approximately 55% for lodgement services and 85% for information services[178]). The program should consider prioritising the delivery of modern and well-documented APIs over developing complex user interface elements that would benefit fewer clients overall.

- Of the 3.1 million online lodgements in 2021/22, the top 3 forms accounted for approximately 70% of the total volume, the top 10 forms accounted for approximately 92% of the total volume, and approximately 100 forms haven't been lodged at all since 2020[179]. This demonstrates that **most** lodgements relate to a small number of forms – and highlights the opportunity to defer migration of low volume forms to a later date and adopt manual workarounds as an interim measure.

Technical approach to data management

The MBR Program was assessed against 7 technical evaluation dimensions via document Review, interviews, and workshops.

Data architecture

Business registers as they exist today are not fundamentally broken. Key tasks such as registering a company, lodging a form, or updating details can be performed reasonably effectively. While the user experience is not ideal, most interactions with registers are discrete and infrequent, and thus are not excessively time consuming for users over the course of a year.

The technical environments that support Australia's registers have evolved over many years in response to new requirements and legislation changes. This has resulted in a heterogenous and fragmented landscape of systems operated by multiple agencies across all levels of government, but concentrated within ASIC (e.g. Companies and Business Names Registers) and ATO (ABR).

The registry systems operated by ASIC are ageing and many are approaching or have reached end-of-life. Many of these systems were developed in the 1990s and the underlying infrastructure and software are approaching hard capacity and support limits[180]. There are ongoing efforts by ASIC to stabilise register infrastructure by adding capacity and extending support agreements (including funding of $25.3 million over 4 years in the October 2022 budget)[181] but significant residual risk remains, at both the infrastructure and application layers. Furthermore, the expectation of the delivery of a modernised register system in the near term has reduced the attractiveness of performing essential system upgrades in favour of tactical fixes to extend lifespans. Examples of existing risks include:

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178   2021 −2022 ASIC on a page

179   Ibid

180   ████████████████████

181   October 2022 Federal budget

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There has been substantial growth in demand for register services, as well as a fundamental shift in how data is being provided and consumed which was not envisaged by the original system design. Machine to machine (M2M) has been growing in usage and now accounts for more than half (55%)[182] of all lodgements, and this trend is expected to continue. In addition to request volumes, usage patterns are also changing –information brokers increasingly run overnight batch processes that result in intense spikes of demand on ASIC systems. Increases in demand for register services are likely to continue. This highlights the need for a target architecture that can support the capacity demands of a variety of workloads, including batch extractions for data processing, real-time API queries, event streaming (for example, pub/sub architecture), and read/write via traditional web user interfaces.

The target architecture is complex. No single architecture choice appears unreasonable at face value but, when viewed collectively, the choices add up to target state that is highly complex with multiple integration points and ownership layers. There are several factors at play here:

1. The adoption of a COTS platform, the "*Verne Registry Aware Platform*". Verne was selected on the basis that it offers advantages for the MBR Program, including (but not limited to):

   – an initial register data model, supporting versioning, to accelerate register development

   – the concept of a natural person registry record

   – a "cascading updates" capability

   – a modern data architecture based on a document database solution

   – an advanced, low-code business rules engines for modelling legislation

   – document management capabilities to support filings

   – an interface for administrators to "correct the register" to maintain data integrity

   – an advanced search engine powered by Elastic

   – wholesale APIs for DSPS

   – a contemporary user interface including form builders.

   Collectively these capabilities represent a substantial part of the overall ambition for registers that was articulated in the SPBC. However, the MBR Program is the largest and most complex implementation of the Verne product to-date, and as a result, has exposed gaps within the underlying product ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
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2. The decision to leverage existing capabilities of the ATO instead of the native capabilities of the Verne platform has compounded the complexity of the build. These capabilities include document storage, workflow management, correspondence, and API management. At face value, these choices make sense. The ATO has built mature, reusable capabilities which present many benefits to the MBR Program such as stability and the ability to leverage existing skills within the ATO, existing software licenses, and existing service management capacity. On the other hand, this choice has resulted in the MBR Program needing to develop more than 70 discrete integrations[183]. It is not clear if the benefits of using internal ATO capabilities have outweighed the complexity this choice has added to the target architecture. This factor is addressed in more detail within *Appendix 7 Analysis of Technical Solutions*.

Recommendation 19: Maintain target architecture with strengthened guardrails against the Verne roadmap

19a. Maintain the MBR Program's target architecture to support the breadth of intended data-enabled outcomes

The target data architecture of the MBR Program appears suited to meet the program's objectives. As noted, the MBR Program has made a set of choices that have resulted in a highly complex architecture with a high degree of implementation risk. This recommendation is addressed in more detail within *Appendix 7 Analysis of Technical Solutions*.

Recommendation 2: ASIC to deliver the professional registers independently of the Modernising Business Registers Program

2a. Continue to invest in ASIC's registers to reduce risk and extend life

While it can be attractive to reduce investment in maintaining legacy systems that are due to be decommissioned, this can result in a high level of technical risk if the decommissioning process is delayed.

The volume and nature of demand for register services has increased substantially in recent years and will undoubtedly continue to do so. At the same time, the delivery of Tranche 2 has been delayed, meaning that existing ASIC applications and infrastructure will need to support higher demand for longer than originally anticipated.

The *ASIC Technical Risk Review*[184] from December 2021 provides advice to ASIC on how to reduce the risk associated with operating legacy applications and infrastructure. The document identifies 4 key risks and a set of mitigations to address these risks, including the modernisation of infrastructure and updates to licensing.

Data model

The economy relies on a variety or registers that are used in different ways and span different domains and jurisdictions. Many registers are mandated by the *Corporations Act*, but other legislation and regulation can be relevant depending on the register. For example, the Companies Register contains different information to the Liquidators Register, although the existence of both is required by the *Corporations Act*. On the other hand, the Register of Foreign Ownership of Water Entitlements (commonly referred to as the Water Register and is managed by the ATO) is clearly

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different in structure, utility, and legal standing to the Spatial Services Address Database in NSW. This naturally leads to a few key questions with respect to the MBR Program's data model:

- Should registers be consolidated?

- Out of the numerous registers that exist across jurisdictions, which ones should be in-scope for the MBR Program?

- To what extent are there commonalities between registers, such as entities like people, companies, and addresses, and how should these entities be linked across registers?

Several classes of register exist within the scope of the program, including the Register of Director ID Numbers (implemented in Tranche 1), Core Business Registers, professional registers, banned and disqualified registers, and historical registers. Consolidation of registers as a principle makes sense, as it is likely to promote data integrity, reduce duplication of information, and unlock cost efficiencies in maintaining and supporting registers. However, the purpose and operation of each of class of register is different enough that a federated model is also feasible, as long as the relationship between entities on disparate registers can be maintained (such as a link between Director IDs and the Disqualified Persons Register).

Under *Option 3 Narrow to companies only*, the intent is to consolidate Director ID, and Core Business Registers within the ABRS, while leaving professional registers and historical registers with ASIC. The intent is to reduce implementation complexity within the program. This approach is broadly reasonable; however the program should ensure that Director ID and strong digital identity is implemented within both the ABRS and ASIC environments as soon as possible to ensure effective data linking between registers and improved security. Ultimately, the uplift of data integrity can be achieved both in consolidated and federated models, as long as data linkages are established and maintained between registers via Director ID.

Unlike most other databases, when information is submitted by a client to a register, it generally needs to be preserved in the form that it was provided in. The Registrar ultimately acts as a faithful custodian of the information provided to it by clients and may be required to provide proof of the integrity of a record. This is because the accuracy of information, time of lodgement, and other characteristics of the information can have broad legal implications. For example, making a false or misleading statement on a company registration can result in prosecution, while updating information outside a set timeframe can result in a fine being issued. Furthermore, registers can also confer rights and obligations to the entities listed, such as the right of a company to limited liability.

These requirements have implications for the design of the register data model that compound implementation complexity (non-exhaustive):

1. A register must be the authoritative, single source of truth for the information it holds. Entities like directors and companies only exist in law if they have valid entries on the relevant register. Registers may at times be required to prove the integrity of a record.

2. The history of a record must be preserved, such that its state at any point in time can be reconstructed.

3. Records should be immutable, i.e. the system should prevent direct changes to records that are not tracked. Metadata about changes should be auditable, such who made a change, what was changed, and why the change was made.

Records have a lifecycle that needs to be reflected in the register. For example, a company is registered, it is periodically updated, it is subject to an annual Review process, and it may in the future be de-registered and reregistered (deregistered companies are maintained in the register to cater for this eventuality). Directors have an obligation to update information on an ongoing basis, for example, when the registered office and/or office hours change –failure to do so within a set timeframe can result in a fine.

4. Registers are governed by a disclosure framework which specifies who should be able to access register data and on what basis. Disclosure frameworks are applied in conjunction with privacy and data sharing legislation. Registers may also need to support other requirements, such as supressing information on the basis of a court order.

The *Verne Registry Aware Platform* is purpose-built for registers and designed to support these requirements. However, it represents a substantial shift in data architecture. The registers currently maintained by ASIC are in large part structured around the concept of a form. That is, records are added to or changed in the register via the lodgement of a form, such as *Form 489 – Notification of change of registered office or office hours of a registered body* or *Form 484 – Changes to company details'*. When a director or agent makes a change to a record, they submit a form – either as a fillable PDF or a digital form via ASIC retail portal. The ASIC system extracts the key information from the form (or an ASIC staff member in the case of a paper form) and stores It as structured information within the ASCOT mainframe. The original form (or a generated representation of it in the case of a fully digital submission) is also stored in ASIC's document management system as a record of the lodgement.

Under the new platform, the concept of a form is retired and instead all transactions are enabled by digital forms within the Verne user interface, and the full contents of each lodgement is stored as structured data within the underlying database. As part of this process, existing PDF forms have been mapped to new digital forms in a way that substantially reduced the overall number of forms and simplifies the experience for directors and agents, while complicating the migration of fee models and penalties associated with particular types of updates. The shift to storing all register information as structured data (compared to the existing approach of storing some register information as structured data and some register information in PDFs) represents a substantial improvement to the data management approach.

Figure A8.5 transition from a form-centric model to a data-centric model (illustrative example)
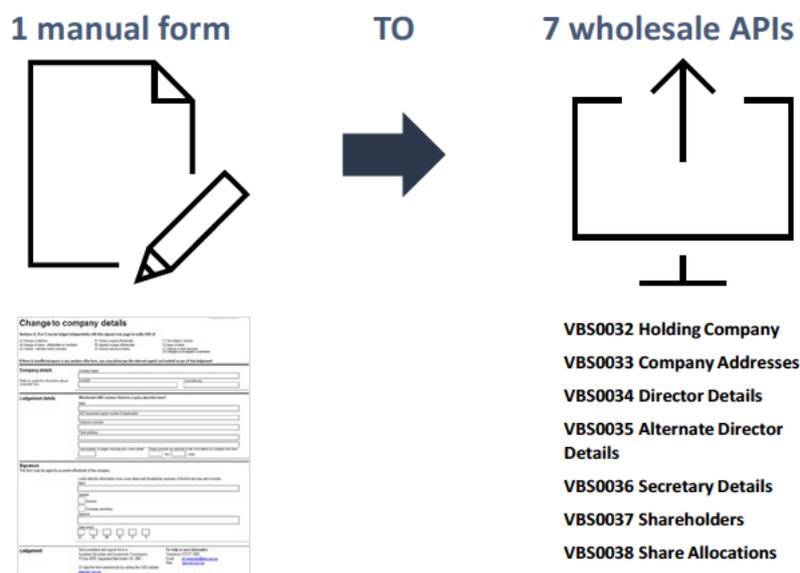
Interoperability is a critical consideration to ensure that register data can be effectively and efficiently leveraged within the economy. The program has adopted the SBR Taxonomy for APIs that expose or receive register information. The SBR Taxonomy is a standardised dictionary of data elements and attributes used in interactions between government and business that can streamline these interactions and improve overall data integrity. This standard is not directly supported by the underlying data model implemented in the Verne platform but is instead implemented via a translation layer within the public-facing API gateway.

The program should also prioritise implementation of the Beneficial Ownership Data Standard (BODS) (a common data format for managing information about beneficial ownership and increasing transparency of who owns, controls or benefits from companies). Integration of beneficial ownership is a key government policy priority. While it is not currently in scope for the MBR Program, it is likely to be an enhancement priority following the release of Tranche 2, and therefore the MBR Program should develop the data model and APIs in a way that is consistent with ultimately incorporating the data standards and integrations required to support beneficial ownership.

The MBR Program's target data model which is anchored on the underlying data model within Verne represents a best practice approach that is aligned to the government's ambition for Core Business Registers. As such, the Review does not have any specific recommendations with respect to the data model.

Data migration

Data migration will be challenging and risky for the MBR Program. The migration approach requires a shift from the current architecture, which is underpinned by a relational database (Natural/Adabas), to a non-relational target architecture (Verne). This difference requires, translation of data from a table structure into a document structure over the course of the data migration.

Further, the way in which historical data is represented in the target architecture is fundamentally different to the existing legacy system. For example, each table row currently has attributes for a

start date and end date, enabling the application layer to construct a timeline view of a particular entity, such as a public company. As such, the data migration process will likely need to generate linked lists of documents for a particular entity where each document reflects the state of the entity at a point-in-time. In some cases, companies have tens of thousands of historical updates stretching back decades. This means that tens of thousands of linked documents will be generated during the migration process for a single company.

Several factors contribute to the overall complexity of the data migration:

- A large volume of data is planned to be migrated, including approximately 762 million records, 300 million PDF documents (approximately 40TB of data), and approximately 370 million records of transactional data (relating to fees and payments)[185].

- Data is stored across multiple systems and formats, including structured data, payment data, and binary data. For example, certain data attributes are only stored within PDF filings, rather than as structured data in ASCOT. This means meaning that all PDFs need to be incorporated into the data migration.

- A large volume of many-to-many relationships exist between entities such as agents, directors, shareholders, and companies of different types. All are subject to the requirement to maintain historical associations.

That said, the data migration requirements for the MBR Program are not uniquely complex. The volume of data is large, but in line with other major enterprise data migrations. The data itself, once written, does not change very often, and the overall growth rate in transaction is relatively low (in the order of 5 to 7% per year)[186] when compared to core system migrations in banking or retail. By comparison, data migrations of core systems in banking and retail typically need to proceed without disrupting production workloads of thousands of read/write operations per minute.

Migration planning work to date indicate that there are data quality issues with Companies Register data on ASIC systems. These quality issues are understood to stem from historic data management tasks. For example, a legislation change requiring an end date to be set for all shareholdings in public companies. In some cases, data management tasks may have resulted in inconsistent data, such as end dates that occur after start dates, missing metadata, and inconsistent data mappings (e.g. outdated codes attached to current records).

While data issues are to be expected and should not cause undue alarm, it is critical for the MBR Program to implement robust data cleansing mechanisms. For example, a guiding principle for the data migration approach to be to remediate data quality issues "at source" (that is, within ASIC systems) prior to data migration, rather than "in-flight" or "at target".

3 critical considerations emerge with respect to the data migration approach:

1. Data harmonisation helps to resolve conflicts in data through merging duplicate records and attributes. In some cases, the same data is held in multiple locations – such as company address

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185   MBR T2 Data Migration inputs

186   MBR Second pass business case

information that is recorded for a company in both the Companies Register and the ABR. This is significant as companies that appear on both registers will be merged as part of the Tranche 2 data migration. To address this consideration, the MBR Program has developed a set of rules to determine which data take precedence in each situation.

2. Data matching identifies relationships between entities that are not represented in the source data. The ATO has historically used data matching in a range of contexts in the administration of the tax system – and as such, are well placed to implement this requirement. Nevertheless, data matching is inherently risky – both incorrect and missed matches represent material risks – and should correspondingly be carefully managed.

3. Company directors will be matched to Director IDs during the migration process where possible, so that directors will be automatically linked to companies. To address data matching risk, company directors will be asked to manually validate director mappings as part of a review process following the data migration.

    — Agents will be matched to the companies they have previously been authorised to act on behalf of. To facilitate this matching process, agents will be asked to input their ASIC identifier into the new platform during the registration process, and this identifier will be used to form the link between agent and company during the data migration. There is a clear risk that agents may input the wrong ASIC identifier and be linked to the wrong companies. This risk is understood by the MBR Program and a manual Review process (of approximately 25,000 records[187]) will be conducted to ensure that agents are correctly mapped.

• Data reconciliation and validation ensures that all records are migrated, and data integrity is preserved during the data migration. The MBR Program has specified approaches for both reconciliation and validation. The reconciliation process involves performing analyses like row counts, statistical analysis of data, key field comparison, and, where appropriate, full raw comparison. The MBR Program has planned a verification process that employs a sampling approach to select and test the success of the migration during mock migrations, dress rehearsals, and the final migration.

Overall, the data migration approach appears sound based on the analysis conducted by the Review. The data migration implements best practice by bringing forward the majority of data migration earlier into the implementation process so that there is only a requirement to migrate the "delta" (i.e. records that have recently been added or changed) during production cut-over. An incremental migration creates more opportunities to reconcile and validate data prior to the production release. This is particularly useful with respect to migrating the large volume of unstructured data (such as PDFs and images stored in DocImage) which will inevitably be a slower process.

More broadly, data migration should be considered an opportunity to improve the aggregate quality of data held by the system. As a verification step during the data migration, record owners should be prompted to Review their data for accuracy and integrity. While this process is intended to identify issues that occurred during the migration process itself, it will undoubtedly result in record owners

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187   Companies Release Strategy

identifying integrity issues that pre-existed the migration. Additionally, in doing a field mapping exercise to specify how attributes flow from source systems to target systems, the MBR Program team will also be well positioned to identify latent integrity issues caused by underlying defects with the current registers' schema or application logic. As a result, the MBR Program should prioritise effort to quantify how the integrity and quality of data is improved via the migration, and then on an ongoing basis once the new platform is in operation.

Recommendation 16: Progressively uplift the integrity of registry data

16a. Consider simplifying the multi-step migration approach to reduce complexity and minimise potential failure points

The migration approach involves multiple steps, multiple translations, multiple technical products, and different owners at each step.

- Data is extracted from ASIC systems including structured data (e.g. raw data files from ASCOT and ETM via tcVision) as well as unstructured data from DocImage (e.g. documents and images).

- The data is replicated into an ASIC AWS environment where it is transformed into a relational model and stored in AWS products including RDS for structured data and S3 for unstructured data.

- The data is then replicated from the ASIC AWS environment to a conjugate ATO AWS environment using AWS Data Migration Services.

- Finally, the data is transformed and loaded into the target systems, including Verne and SAP finance.

As a result, data is moved multiple times and translated in in various stages, by different parties – resulting in a complex process where it will be difficult to identify the root cause of data integrity issues that occur during the migration process.

While it is likely that all reasonable approaches will comprise multiple steps, the MBR Program should nevertheless evaluate opportunities to reduce the complexity of the migration process, for instance, by reducing the number of translations and migrating data directly into the ATO AWS environment from source systems.

Recommendation 16: Progressively uplift the integrity of registry data

16b. Collaborate with DSPs to improve the quality and integrity of register data

Over 55% of lodgements in 2021/22 were made via machine-to-machine channels using DSP software[188]. In many cases, DSPs hold rich company data that is much broader than the data held in registers, including Director IDs linked to companies. The program should consider how DSPs can be used to support the data migration process. There are several potential scenarios for consideration:

- ASIC can collaborate with DSPs in the short term to identify opportunities to partner to uplift register data.

- DSP data can be directly lodged onto the new platform by the authorised director or agent to ensure that, at the Release of Tranche 2, the data held in the platform is up to date.

- DSP data on the link between Director IDs and companies could be used to support the ATO's matching approach.

- DSP data can be used to validate that data integrity was maintained in the migration process.

- Further thought is required to establish what can be done within the bounds of the *Corporations Act* and other legislation, but the recommend still stands, that is, to partner with DSPs closely and leverage DSP data before, during, and after the data migration.

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Recommendation 16: Progressively uplift the integrity of registry data

16c. Conduct data quality remediation within ASIC environments prior to data migration to mitigate integrity issues at cut-over

To reduce risk in the data migration approach, the program should prioritise efforts to remediate data quality issues at source, rather than in-flight or at target. Solving data quality issues at source is preferred for several reasons (not exhaustive):

- Reduce the risk that existing data quality issues are propagated into the new systems.

- Reduce cost and time overruns occurring during the migration process to identify the source of data quality issues.

- Bring forward elements of the data migration approach so that they no longer sit on the critical path of the MBR Program.

Government-to-government integration

Over 500 agencies[189] at all levels of government currently use register data for a variety of reasons. A small snapshot of some of these uses are below:

- The Australian Bureau of Statistics uses register data to maintain counts of actively trading businesses, rates of entry to and exit, and rates of business survival.

- ASIC uses register data to regulate and improve the performance of the financial system.

- The ATO uses register data to improve how businesses comply with the tax system.

- Commonwealth law enforcement agencies use register data to enforce the law, including to addressing money laundering, terrorism, and contravention of sanctions.

- State and local disaster response agencies use register data to better understand how buildings are used and whether they are likely to be inhabited during emergencies like bushfires.

- While these use cases are highly diverse, they all share the common requirement for high integrity register data to be readily accessible. For example, a regulator can only make decisions on the basis of information they have, which means that, to be effective they need access to information that is complete, current, and accurate.

- There is no one-size-fits-all model for integration and, in the target state, many mechanisms will need to work in unison to support government use cases.

Table A8.4 The target state for government-to-government integration will need to support a variety of mechanisms (not exhaustive)

Integration mechanisms	Timeliness of exchange
APIs	Realtime or near real time
ETL (extract, transform, and load)	Periodic scheduled batch
Database replication	On-demand
Asynchronous messaging (e.g. pub/sub architecture)	
Web user interface (direct access)	

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189   Agency workshop – Government-to-government integration

Data exchange between ATO/ABRS and ASIC is a critical use case that needs to be enabled by the MBR Program. ASIC is an independent Australian government body established under the *ASIC Act*. ASIC administers and enforces a range of legislation but conducts most of its work under the *Corporations Act*. ASIC is responsible for promoting a fair, transparent and efficient financial system by regulating the conduct of companies, financial markets, financial services organisations, and professionals associated with these sectors.

ASIC has maintained registers since 1991. However, on 15 April 2021, the Registrar of the ABRS was appointed to assist ASIC to perform its role in relation to the Core Business Registers that are in-scope to be transferred to the Registrar. This delegated model is described in the Modernising Business Registers Program Operational Memorandum of Understanding. Under this agreement, ASIC maintains ownership of register data, but the Registrar (ABRS) is responsible for carrying-out duties on behalf of ASIC, such as collecting, using, and disclosing company registration data in accordance with the primary law. Once registers have been fully migrated to ABRS, then the delegated model will end, and ABRS will assume ownership of register data.

In the current environment, ASIC has full access to registry data to support its regulatory work. However, under the legislative framework implemented to support the MBR Program, ASIC will not have an express right to access registry data. As it currently stands, the Registrar (in the future) could choose to limit or change the amount of data or the mechanism for accessing data made available to ASIC. This will impact ASIC's ability to perform regulatory functions. Furthermore, ASIC shared concerns that in the legislation as amended under the MBR Program, ABRS would become obligated to oversee ASIC's use of register data including publicly available data. Similarly, ASIC would have an obligation to notify ABRS on an ongoing basis about the outcome of regulatory decisions that impact people on the registers.

Due to the ambiguity over exact requirements, the MBR Program has not defined, costed, or performed implementation planning for a fit-for-purpose data exchange between ASIC and ABRS. As a result, the effort required to implement the data exchange is not fully understood or reflected on the critical path.

> **Recommendation 17: Ensure the Australian Taxation Office provides the Australian Securities and Investments Commission with timely access to company and business data**
>
> **17a. Ensure that ASIC continues to have timely access to the data it needs to fulfil its regulatory obligation**
>
> - Amend the legislation as per the decision made by the MBR Program's Law and Policy Authority:
>   - Ensure that ASIC is entitled under the legislation to access all register data maintained by the Registrar, at a minimum assumed to be information lodged under a requirement of legislation administered by ASIC.
>   - Remove barriers to ASIC accessing register data, such as the need for the Registrar to oversee and be accountable for ASIC's use of register data. ASIC use of data should be governed by existing laws, and third parties should not be able to challenge ASIC's access to register data.
>   - Ensure that any requirement for ASIC to provide the Registrar with data is reflected in the legislation.
> - Prioritise the establishment a formal agreement on the mechanism by which data is shared, including the timeliness of data sharing (e.g. real time, periodic scheduled batch, and on-demand).
> - Prioritise requirements gathering, detailed technical design, and implementation planning for the data exchange mechanism between ASIC and ABRS. Ensure that the effort required to implement the data exchange is fully understood and is reflected on the critical path. Until the data exchange requirement is fully captured in program planning, track this as critical risk against the MBR Program.

Government-to-external integration

Registers sit at the heart of an ecosystem of data owners, data consumers, and intermediaries who use data in different ways and with different objectives. In simple terms, a register acts as an authoritative repository of information within a given domain, managed by a Registrar. The data held by the register is a unique and valuable asset that can generate a return in different ways; however, the key to unlocking this value is to enable third parties to use the data in innovative ways. As such, the MBR Program needs a clear strategy for building and monetising an ecosystem of partners that puts an appropriate value on the data and is underpinned by an API strategy aligned to FAIR principles (i.e. making data Findable, Accessible, Interoperable, and Reusable). When viewed through this lens, a few use case archetypes emerge. These are described at Table A8.5.

Table A8.5 Ecosystem participants who derive value from registry data

Ecosystem participant	What they do	What they need
Registered agent	Act with authorisation on behalf of other entities like directors and companies, through lodgements, searches, and other types of interaction. Most registered agents use DSP software to interact with registers, while others use the retail portal.	High quality service delivery Value-added DSP products supported by high integrity data
Information Broker	Use registry data to augment data products to enable a range of use cases, including advanced company search, market and business intelligence, trust services, creditworthiness, KYC (know your customer) and so on.	Real-time, low latency search Bulk data extracts Advice and services
DSP	Provide software solutions that enable a broad range of registry-enabled features, such as end-to-end management of the company lifecycle.	Read / write access across the full lifecycle of entities Advice and services

Third parties have historically played a critical role in Australia's business registry landscape, driving a large proportion of current demand and accounting for most of the demand growth.

Interactions with Core Business Registers represent a small part of the overall lifecycle of managing a company. These interactions, while critical, are not substantially time consuming for businesses. Register interactions can instead by thought of as a glowing thread in a richer tapestry. The DSP ecosystem recognises this and has developed a class of value-added software solutions. Company directors and registered agents can use these to manage the full company lifecycle, including registration, tax, payroll, trusts, register updates, and so on. These tools are often aligned to sector or industry verticals, such as accounting and law. It is therefore critical for the program to recognise that, for most clients, registers are not the centre of the universe but rather important enabling infrastructure for their chosen enterprise software.

The MBR Program should consider a mindset shift to put the ecosystem at the centre of the program, by evolving the existing Modernising Business Registers Design Working Group to become a more strategic consultative body. Registers are critical economic infrastructure that underpin a broad set

of interactions across the economy, so consideration should be given to the optimal way to surface trusted data and services and accelerate innovation. Close collaboration with the private sector is a proven model for accelerating innovation and improving service delivery, but has potentially not been sufficiently exploited by the program.

Recommendation 18: Ensure design prioritises wholesale services

18a. Provide certainty to ecosystem participants on the target state, API definitions and data standards, the intermediaries release, and future fee models

The MBR Program needs to recognise that ecosystem participants are centrally critical and represent the most significant category of user. Ecosystem participants require certainty across several dimensions of the MBR Program:

Communicate exactly what will be delivered and on what timeline. If this Review results in a pivot of the MBR Program, then it will be critical to engage early and meaningfully with the ecosystem to cocreate a new target state. Whatever the outcome of the Review, the ecosystem needs a high degree of certainty on what will be delivered, when it will be delivered, and what the associated timelines and obligations for different types of participant (e.g. agents, DSPs, and information brokers).

To action this, the MBR Program should build on the existing Modernising Business Registers Design Working Group and ensure that frequent, meaningful, and bi-directional dialogue is facilitated. More broadly, recognise that the ecosystem has an important voice in guiding the strategy and direction of the program – including the identification and prioritisation of innovative use cases. Ecosystem engagement should pivot from a focus on providing updates about the program, to a richer, two-way exchange of ideas.

Ensure the target state of APIs, including schemas and data standards are communicated to the ecosystem as soon as possible.

To action this, prioritise the finalisation and publishing of API specifications as soon as possible, and publish "stub" or test endpoints to the ATO API portal to enable early testing by the ecosystem.

What will it cost for the ecosystem to use register services in the future? The data held by registers has a material economic value, and it is reasonable to expect that in certain situation the government would choose to monetise this data (especially as a strategy to help fund the MBR Program). There are currently 4 types of register fees:

- search and certifications fees

- registration, review, and renewal fees relating to company registrations

- late fees relating to documents not lodged on time

- lifecycle fees incurred during the operation of a company.

This recommendation relates to the first fee type. Some searches are free at present, however fees are imposed in certain cases:

- current companies extract
- current and historical companies extract
- the lodging of documents
- there are additional fee models that apply in the case of information brokers and DSPs.

To action this, Treasury to ensure transparency and early dialogue about potential changes in fee structures. The ecosystem needs certainty on whether the fee model will change and what the implications are for their business model.

Recommendation 18: Ensure design prioritises wholesale services

18b. Provide more certainty around the intermediaries release

The intermediaries release will occur midway through Tranche 2. The intent is to deploy an "agents only" version of the new register portal to enable Registered Agents to create profiles within the Verne system well ahead of the data migration.

The proposed process is as follows:

- Registered agents will be asked to access the new portal and create a new agent account using strong digital identity (e.g. a Trusted Digital Identity Framework (TDIF) accredited Identity Provider (IP) such as myGovID).

- During this process, they will be asked to input their identifier from the ASIC system

- During the data migration, the MBR Program will extract the existing mapping of Registered Agents to companies from within the ASIC environment. Noting that as there are 27,000 agents currently, there will be a large volume of relationships.

- These relationships will be re-wired in the "Verne Registry Aware Platform" based on the ASIC identifiers inputted by the Registered Agents.

- A manual Review process will be conducted by the MBR Program across 25,000–50,000 relationships to ensure the accuracy and integrity of the established relationships.

This proposed approach is certainly risky and will require a substantial manual check component, on the balance, given the context and requirements, it is a reasonable approach.

More importantly, based on the interviews conducted by the Review with ecosystem participants, there is a high degree of concern about how this process will work and whether it will impact business continuity. It is therefore critical for the MBR Program to expand on business engagement activities and ensure that there is a high degree of co-design in risky cutover processes like the intermediaries release. For example, a substantial amount of "stare and compare" data validation will be required by registered agents both in relation to their own data, but also in relation to the data they manage on behalf of their clients. It is critical that the scale and nature of this effort is understood by the registered agents well in advance of the intermediaries release. It is also critical that the DSPs are part of the design, cutover, and testing process given that a majority of records on the registers are managed through DSP software.

Data security

The approach to data security is expected to provide robust protections in line with the government's key pillars of data security. However, further effort should be invested in ensuring full alignment with the ISM's best practices for database management.

A 2021 independent technical Review of the existing registry system identified 5 major vulnerabilities within the existing data architecture and systems

In 2021, ASIC engaged an independent external party to undertake a risk review of ASIC's technical environment for registers. As part of this, the independent third party assessed cyber risks associated with the current register environment.

The report noted that ASIC's register systems are ageing, and many are approaching or have reached end of life.

This cyber risk is compounded by growing workforce shortages in key areas of technical skill and expertise required to maintain the legacy registry systems. Specifically, there is a shortage of experience with ASIC's legacy mainframe infrastructure and applications, and there is growing risk of institutional knowledge erosion through retirements.

The approach to data security is expected align with WofG standards, frameworks, and policies

Per the current MBR technical architecture outline, the future-state is planned to integrate the new registry system with the broader ATO IT security infrastructure. Under this technical solution, the registry will be managed as an extension of the ATO's existing ICT operating environment with the same security control framework. In effect, the ATO's existing security architecture will be extended to incorporate the new registry.

The surrounding technology infrastructure is beyond the scope of this appendix, however it is important to note that the ATO has reached full compliance with the Australian Signals Directorate's minimum cyber security requirements.

Under the current planned data architecture, the plan will deliver against each of the 5 key principles identified in ACSC's ISM.

Further, the current planned architecture addresses the key risk identified in *Appendix 7 Analysis of Technical Solutions:*

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While integrating the broader ATO information security framework is likely to provide robust layers of security, the Australian Securities Directorate has provided specific guidance for registries and large databases. The ISM represents an overarching strategic guidance on best practice cyber security for both government and non-government organisations. While compliance with the ISM is typically not legally required, the ISM represents the considered advice of the ACSC within the Australian Signals Directorate (ASD) for safeguarding information systems and data from cyberattacks.

The ISM outlines 5 key principles for data security relevant to database management:

- Develop, implement and maintain a comprehensive record of all data assets. Without full knowledge of all data assets, an organisation will be unable to appropriately protect all assets (ISM-1243).

- Implement file-based access control to protect data from unauthorized copying, and subsequent offline analysis, by applying file-based access controls to database files. File access control mechanisms are a key component to mitigate potential exploits that can result in external parties assuming full control of a network (ISM-1256).

- Restrict user ability to access, insert or modify content to protect database contents and reflect data classifications. Implementing access controls for database users based on their job responsibilities reduces the risk of unauthorized access, alteration, or deletion of database content. Moreover, the need-to-know principle can be effectively enforced by employing minimum privileges and database roles in a more granular manner (ISM-0393; ISM-1255; ISM-1268).

- Filter and restrict external application interactions with databases, including query syntax and error messaging. Injection attacks can allow an adversary to access, modify and/or delete database contents or even access underlying database servers. Detailed error information should be avoided as they can provide information about the structure of databases that can be used by an adversary to further tailor their attack methods (ISM-1275; ISM-1276; ISM-1278).

- Capture and store database event logs centrally. Database event logs serve as a valuable source of information for detecting malicious activities (e.g. data manipulation, unauthorized changes to schema, and attempts to exploit vulnerabilities). Further, database event logs are crucial for conducting forensic investigations as a chronological record of activities to both trace the origin of an attack and estimate the extent of the breach (ISM-1537; ISM-1578).

Data operating model

The MBR Program has extensively outlined a target data operating model for the future-state ABRS. However, further action could be taken to understand the resourcing and skill implication of the proposed model.

The MBR Program has conducted extensive planning to outline a future-state data operating model across governance and policies

Data governance and strategy are outlined in significant detail across a range of key policies developed through the MBR Program. These provide clear guidance on the goals and guardrails to support effective data lifecycle management.

The future-state operating model design is informed by key ABRS policy frameworks, including:

- ABRS Governance Framework: a high level overview of control and authority over the management of data assets, including roles and responsibilities, data access and security, metadata management, and data quality.

- Inter-agency Data Operations Framework: an overview of how ASIC and ABRS will ensure appropriate access, control and quality assurance of data between both agencies.

- ABRS Data Ethics approach: a broader integration of the ATO's data ethics standards with the unique characteristics of the ABRS operating environment.

- ABRS Data Strategy: a definition of the key strategic data objectives of the ABRS.

- Director ID Operational Protocol: formalise arrangements relating to data sharing, referral processes, reporting and liaison for the Director ID regime.

Overall, the approach to the steady state data operating model for the ABRS is consistent with best practice

The current plan exhibits mature planning across 4 key areas of a best practice data operating: a clear data vision, defined roles and responsibilities, clearly defined processes and mechanisms for continuous improvement.

The MBR Program has defined a clear data vision for the ABRS' future-state, across 4 key pillars. The ABRS Data Strategy outlines clear goal to shift to 1) managing data as a trusted corporate asset, 2) integrating of registry operations for simplified service, 3) uplifting staff data use and management capability, and 4) leveraging data insights to improve data quality and services.

The ABRS has clearly defined operational responsibilities, in line with the ATO Data Stewardship Framework, with roles allocated across an actionable RACI framework.

Further, the ABRS Governance Framework provides clear and actionable guidance on how data stakeholders make and enforce decisions. Policies, standards and processes are detailed in 10+ data governance policies including stewardship, ethics, disclosure and data quality.

Similarly, the MBR Program has a defined maturity assessment criteria for both data governance and data capability. Explicit and measurable metrics will be leveraged to track performance and inform continuous improvement.

However, due to the stage of the program, MBR does not yet have clarity on how steady state capabilities will be resourced or structured. There has not yet been an effort to estimate the ongoing sustainment costs at the conclusion of the MBR Program. Moreover, it is unclear both how workload will be allocated between agencies (i.e. ATO, ASIC, etc.) and the extent to which existing business as usual teams will absorb additional workload, versus new teams/resources will have to be required.

Recommendation 13: Reset program workforce to align with revised scope and implement strategic workforce planning

13a. Proactively identify resourcing and capabilities required to implement a steady state operating model and define a strategy to ensure adequate skill capabilities

It is unclear what the total net new FTE requirement will be to sustain the new registry systems and to what extent this has been estimated by the MBR Program. Further it is unclear how existing and new teams will collaborate within a new operating model.

Critically, The MBR Program could improve the talent strategy for ensuring sufficient resources are available to manage the new systems – including a defined strategy for attracting, developing and retaining the necessary skillsets. This risk has been previously flagged, including in a 2021 technical Review noting "the program is unable to secure appropriately skilled resources to meet delivery timelines" and 2022 Gateway Review reporting "low confidence in the training approach proposed by Foster Moore and its ability to support necessary capability uplift that the program requires". Similarly, a 2022 Gateway Review recommended that the program "develop an attraction and retention action plan." [190]

To enhance the program sustainability and de-risk steady-state, the MBR Program should consider proactively addressing resourcing and capability required to implement the operating model.

Recommendation 7: Focus leadership on strategic decisions and ensure decision-making accountabilities are clear

7a. Consider shifting towards a simplified steady state data governance model, enabling greater agility and leveraging broader ATO forums as needed

The ABRS Governance Framework is largely defined by the ATO's enterprise framework and policies. This helps to reduce duplication and ensure broader alignment within the ATO. However, the MBR Program could explore building a more robust and simplified self-governance capability within the ABRS (limiting the reliance on the broader ATO) with escalations outside of ABRS on an 'as needed' basis.

Simpler decision-making pathways require fewer touchpoints and sign-offs, enabling teams to act dynamically and iteratively (in line with agile best practices). It is common for a number of decision "swim-lanes" are to be adopted. For example, retaining functional decisions within the ABRS working teams and the highest impact decisions requiring the input of the MBR Program steering committee.

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190   MBR Gateway Review Report (Mid-State) Review, 2022

Appendix 9 Broader Learnings for government

July 2023

Introduction

There is a range of learnings and insights from the MBR Program that provide government with the opportunity to enhance its approach to digital and ICT-related investment. Applying these learnings can lead to improving outcomes and reducing the risks for other projects.

In particular, the MBR Program experience highlights the inherent risks in undertaking large, complex, monolithic programs of work. It also emphasizes the need for government to evolve its approach to investment, mobilisation, capability, and delivery of value for digitally enabled transformation programs.

Broad observations on digital and ICT investment

Many of the issues that this Review has identified with the MBR Program are not unique to this program but reflect broader, systemic, issues associated with digital and ICT investments.

This appendix sets out observations for government that are likely relevant to other ICT investments (both those currently underway and into the future).

The importance of ongoing investment in digital and ICT assets and capabilities

As with physical infrastructure, a proactive approach to asset management and maintenance for digital and ICT capabilities is critical to both the quality and lifetime cost of ownership. A failure to invest in ongoing maintenance and continuous improvement over time not only reduces the effectiveness, quality and safety of digital services but creates pre-conditions to justify high-cost, high-risk transformation projects like the MBR Program.

Degraded digital and ICT infrastructures that have been long neglected produce critical risks which are then used as the catalyst to force wholesale, systems-focused, transformation at the expense of investment in change that drives meaningful value. Compounding the issue, consistent under-investment in digital asset management and iterative improvements erodes the expertise and capabilities that are crucial to success when attempting significant change.

Bigger is not better

Large digital and ICT projects are inherently challenging to deliver successfully. A temptation to load single programs up with greater scope than necessary generates complexity that reduces the likelihood of success.

As digital and ICT projects increase in size, they become progressively less manageable, increasing the risk that the cognitive load on individuals delivering the project becomes overwhelming. In addition, communication and the productive alignment of effort across teams becomes more

challenging, resulting in a loss of cohesion and concentrated, focused effort on achieving the core objectives.

Moreover, the significant expenditure run-rate of large programs (estimated to be around $12 million per month in the case of the MBR Program) means that any delay in the delivery of a large program will have a substantial financial impact.

Complex operating models add to risk

The environment in which a project is operating has a material impact on the likelihood of its success. Digital and ICT transformations in government are often combined with other initiatives, including policy reform, legislative changes, business process re-engineering, and organisational realignment. However, the difficulty of effectively implementing a digital and ICT transformation project increases exponentially with each additional layer of complexity. External dependencies, competing organisational priorities, and overlapping change initiatives all degrade the ability of a project to optimally align and sequence efforts. This adversely impacts project schedule and financial risk.

The MBR Program highlights the critical importance of having both tacit and explicit knowledge available to successfully deliver digital and ICT transformation programs. Projects will often struggle to access and secure the breadth and depth of domain knowledge required, particularly in organisational areas and technology domains where there has been minimal ongoing maintenance. In the case of the MBR Program, the need to combine deep expertise in multiple knowledge domains (registry, regulation, policy, corporations law, ATO systems environment, Verne product) compounded this issue creating significant challenges to decision-making and the flow of value. The MBR Program also provides valuable insight into the difference in speed and certainty of changing legislation and the challenges of attempting this in parallel with the design and delivery of new technology.

Digital and ICT transformations are inherently uncertain

Digital and ICT transformation initiatives face a higher degree of uncertainty than other types of government investments. Digital and ICT transformations are inherently knowledge-based, with the full scope of work often not evident at the start of the project, but instead revealed through a progressive process of discovery of scale.

While a decision to proceed with an investment is effectively based on a cost-benefit analysis at a point in time, the MBR Program highlights that the information on which an investment decision was made could change materially during the implementation of the project.

One significant source of uncertainty is the market pricing of digital and ICT capability. The level of government ICT investment means that it can materially affect market pricing. Without careful coordination, government ICT investments could end up competing against each other for the same scarce resources. On the other hand, the scale of government ICT investment should provide it with significant market power to negotiate better terms from vendors.

Approaches that have a long lead-time until they reach tangible learnings and prove assumptions in the real world with their intended audience (i.e. the true value of a minimum viable product) are inherently high-risk. Similarly, the rapid and significant scaling of a project's workforce (especially off a low capability and capacity base) is an indicator of project risk and un-productive investment.

The need to optimally align incentives

The challenges the government faces with digital and ICT investments highlight the importance of the alignment of incentives, and the allocation of risk, with project performance.

The rigorous process of evaluation of digital and ICT investments can present agencies with the incentive to make projects more complex, by seeking to add as many elements as possible to a proposal that is perceived to have strong support (to avoid missing the boat), with the perverse effect of increasing the likelihood of project failure.

Similarly, the perceived consequences of being associated with a project "failure" means that individuals and agencies have the incentive to spend time (and money) exhausting all possible alternatives – rather than "biting the bullet" and recommending project cancellation promptly when required by a material change in the expected cost or benefits.

While it would usually be much more economical to have APS staff undertake functions rather than specialist providers, several elements of the government's funding model (such as the previous APS staffing cap) could have provided agencies with the incentive to instead engage external providers.

Programs leveraging significant external workforce at higher rates of labour without adequate incentive alignment and risk management can experience more rapid and material cost overruns when they become distressed, amplifying project risk for government.

Conclusion: Learnings from the MBR Program for Government's approach to Digital and ICT transformations

The MBR Program attempted to deliver a significant undertaking within a complex operating environment. The challenges faced by MBR provide insight into a range of key indicators that can help highlight current or future digital and ICT projects within government that are likely to struggle. These indicators are interrelated and together compound the likelihood of project failure.

This appendix sets out some learnings from the Review of the MBR Program concerning the government's approach to digital and ICT transformations.

A more proactive approach to asset management and maintenance and a focus on continuous improvement would reduce the need for costly and risky digital and ICT transformations. Moreover, to the extent that such transformations are still needed, this approach would enable them to be smaller and more manageable to implement on a timely basis and push back against the "big bang" ICT project ethos.

Where large-scale digital and ICT transformations are still needed then, to the extent possible, they should de-compose the large program into small, digestible pieces that independently add value. Transformations should start small and not scale up the funding or team size until critical proof points and learnings have been achieved. The temptation to build large program teams and the rapid scaling of the workforce should be resisted, as it introduces inherent complexity, overhead, and productivity drain.

The operating environment for the digital and ICT transformations should be simplified as much as possible, with external hard dependencies minimised. While transformations often highlight complex and potentially inefficient business processes, opening the opportunity for business process reform, experience shows that this reform process is most effectively driven by business owners.

In government decision-making, there is usually a strong emphasis on a single figure. However, the nature of digital and ICT transformation projects means the costs can be very uncertain from the outset, regardless of the amount of effort put into the business case.

This points to the need for detailed sensitivity analysis on both project costs and benefits, with a strong focus on the main factors (particularly those that are market-driven) that could materially change estimates of cost, timing, and benefits realisation.

The degree of uncertainty when digital and ICT transformation investments are made also highlights the critical importance of regularly monitoring the cost-benefit calculus, rather than assuming that, once started, they should automatically be completed. To achieve this, projects should be designed to deliver value early and progressively provide (better) information on the total cost to completion and likely benefits. This will allow governments to regularly ask the questions: "Should we stop now?" "are we still getting enough value from this initiative" and/or "are we better re-directing our resources to something more important?".