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New Zealand Customs Service Joint Border Management System Lessons Learned November 2017 | V1.0

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Disclaimer

The statements and comments captured in this document are based on feedback gathered through interviews and workshops, as well as through document analysis and review. While we have made efforts to verify these statements, these may or may not be factually correct.

It is important to note that interviewee opinions need to be interpreted as "perceived reality" in the context of the objectives of the Lessons Learned review. i.e. the sentiment conveyed in these statements is more important than the factual correctness of comments / opinions.

The main focus for this review was on identifying the challenges encountered through the JBMS delivery lifecycle and to elicit the lessons learned from encountering those challenges as far as they are applicable to the future delivery of large implementation and change programmes in the public sector.

Background and Purpose JBMS Lessons Learned

Background

The Joint Border Management System (hereafter 'JBMS') was a joint delivery programme between the New Zealand Customs Service (Customs) and the then Ministry of Forestry and Agriculture (MAF), now Ministry of Primary Industries (MPI). The programme was put in place to deliver technology to modernise ageing computerised border systems, including Customs' CusMod and MAF's Quantum and to modernise Customs' and MPI's activities managing goods and craft at the New Zealand border.

At inception, the first phase ('tranche one') of JBMS had four core objectives:

- Implement a Trade Single Window (TSW) an e-commerce platform for trade which allows border requirements for goods and craft to be met primarily in one place.
- Improve risk management and intelligence (R&I) tools a suite of tools to help Customs and MPI staff to target and mitigate risks at the border.
- Introduce MPI passenger processes into CusMod the extension of CusMod to support MPI biosecurity passenger clearance.
- **Reduce the risk of CusMod failure** replace CusMod components and infrastructure that generate the largest risk of failure.

Subject to a second business case, a second phase ('tranche two') was envisaged to deliver further functions and to retire part, or all, of Customs and MAF's respective border management systems, CusMod and Quantum. A decision was taken in late 2012 not to pursue a tranche two in its original form, but to add functionality to border systems in a modular way.

Purpose

This document summarises the recent Joint Border Management System ('JBMS') Lessons Learned Review conducted by Deloitte during May - July 2017. This document sets out the findings and lessons learned throughout the JBMS programme and is presented in a way as to help Customs, MPI and public sector organisations to successfully structure, procure and run programmes of a similar structure and complexity in future.

Overview

JBMS timeline (2009 – 2012)

- In November, the JBMS Business Case is approved, noting that the drivers for change are the increasing risk of legacy systems, a changing border environment and that existing systems both did not meet industry needs and did not support New Zealand's international trade opportunities.
- 2010 Customs and the (then) Ministry of Agriculture and Forestry (MAF) received \$75.9m in funding in Budget 2010 to develop the first tranche of JBMS.
- Following a procurement process and lengthy negotiations, a prime vendor was appointed in June 2011 to design and build the core elements of Tranche 1. As a result of the lengthy negotiations, the go-live date was pushed back nine months.

In November the required work to introduce MAF processes into CusMod was completed with the delivery of MAFPAX and MAFCRAFT.

The replacement of failing technology in CusMod to reduce risk of its failure was completed in 2012 with the introduction of new EDI translator technology, as well as supporting infrastructure risk and data storage risk mitigations completed.

In April, the Ministry of Agriculture and Forestry (MAF), the Ministry of Fisheries (MFish) and New Zealand Food Safety Authority (NZFSA) merged to create the Ministry of Primary Industries (MPI).

In June, a decision was taken to de-risk the project. This changed how the system was being delivered, moving to rolling out functionality in phases rather than all at once.

As development of JBMS continued, two major change requests were raised, including one to incorporate the latest version of the World Customs Organisation's data model (WCO3), and one to effectively deliver the trade single window concept.

In November, the decision was taken to not pursue tranche two in its original form, but to add functionality to border systems in a modular way.

Overview

JBMS timeline (2013 – 2017)

- In August, the first phase of Trade Single Window went live, delivering four of the five main transaction types as well as partial, manual Risk and Intelligence (R&I) functionality for food safety.
 - Customs and MPI enter into negotiations with their vendor to agree the best way to complete remaining elements of the project
- Following a number of unexpected delays and related cost increases, commercial arrangements with the vendor were renegotiated in September 2014. A new Master Services Agreement (MSA) strengthened the Crown's position should the vendor not deliver functionality on time or to an acceptable quality.
- In July, Release 8 of TSW is delivered, providing online self-service registration and management of certain required information in TSW.
- In February, the vendor failed a meet a major commercial milestone to deliver release 10, the final major release that was expected to deliver remaining TSW functionality and R&I tools. Following this failure, the vendor advised it would not complete testing of the fully built Trade Single Window within the agreed timeframe, and was unable to provide a completion date for the R&I component.
 - A decision was taken to de-couple R&I from the next release to focus on completing TSW. Customs and MPI subsequently negotiated a commercial settlement with the vendor to reflect the change in scope.
 - In October, Customs and MPI officially accepted Trade Single Window from the vendor and started User Acceptance Testing.
- In April, Release 10 went live, and following this, JBMS was considered to be complete and formally closed as a programme on the 30th April 2017. This was later than planned due to the impact of the November 2016 earthquake.
 - Customs and MPI, along with border partner MBIE (Immigration) are planning to complete implementation of the remaining R&I functionality over the next two years. No additional funding is being sought to complete this work.

Overview JBMS timeline

June Vendor appointed to design and build JBMS tranche one. Original golive date delayed to 1 Mav April 2013 Customs and November Ministry of Agriculture MAF and Forestry November passenger and **Business** receive craft processes case for \$75.9 introduced Joint Border million in into CusMod. Management Budget to This now links develop the agencies' System **JBMS** systems approved

Early 2012 Risk of CusMod failure mitigated through new EDI translator technology and associated infrastructure June

Decision made to de-risk project + create phases

September

Major Change Requests identified - to incorporate latest WCO data model and fix TSW technical issue

November

Decision to not pursue original form of Tranche two

TSW go-live date shifted to July, then August

March

Capital Budget increased by \$13.8m. **Budget now** \$89.7m

August

Trade Single Window launched

June

Further expenditure increase -**Budget now** \$104.1m

September

Commercial reset, strengthening Crown's position

February

Vendor fails to deliver release 10 on time

April

Vendor's six week grace period ends

July

Commercial settlement and refund negotiated. Crown retain ΤP

September

Vendor completes Systems Integration Testing for TSW

April

Release 10 goes live successfully and JBMS programme is formally closed

2009

2010

2011

2012

2013

2014

2015

July

eight

Release

launched

online self-

November

Upgrade to

Intelligence

analytics

deployed

allowing

services

Risk +

2016

2017

Our approach

Using interviews and document review to gather lessons

Over the past six weeks, we have formed a view of the JBMS programme lessons learned through:



Interviews

We ran nine group interview sessions with representatives from Customs, MPI, Central Agencies and the JBMS vendor. A full list of those we spoke with is in Appendix A.



Limited document review

We reviewed some key programme documentation to understand key programme events, methodology and lifecycle.

Throughout this process, we have assessed the JBMS programme through seven focus areas:

- · Business case, funding and initiation
- Governance and programme management approach
- Change management and stakeholder engagement
- QA approach and roles

- Engagement with Central Agencies
- · Working with multinational suppliers
- Commercials

Further information about these focus areas is provided on slide 19.

Our approach Context and structure

As a programme that ran for over seven years, there are many insights, observations and lessons that could be drawn from points throughout that time. Some of those would be useful for broader consideration and application in programmes across government, whilst some would mainly be applicable in the JBMS context at that point in time.

This report presents lessons learned in a way that is practical and useful for those running projects and programmes similar to the scale and complexity of JBMS – a large, complex, multi-agency programme. Some of these lessons are things that the programme was doing well from the beginning, whereas some are lessons learned by the JBMS team in responding to the challenges presented through the whole programme process – from inception, through business case development, procurement and delivery.

In order to structure the findings for different audiences, the findings in this report are presented as follows:

Overarching themes

Summary of lessons by Programme stage

Detailed observations and lessons *by Focus areas*

The overarching themes from this JBMS lessons learned review, and recommendations about actions that Agencies should consider in response.

Intended for: Agency executives and Central Agencies

A summary of the lessons learned from the JBMS review, as applied to different key stages of programme execution.

Intended for: Programme executives

Observations and lessons that relate directly to the seven key focus areas of this JBMS Lessons Learned report.

Intended for: Programme executives and delivery teams.

In addition to this, Customs will make tools and artefacts developed through the programme available to other agencies. The programme SRO and Joint Executive Board members are also available to share their experiences with others.

Overarching themes

Overarching themes Summary of the four themes

In considering the overall timeline and history of the JBMS programme there are a range of detailed observations and lessons, which are explored later in this report.

In assessing all of these lessons, we have defined the four overarching themes that cut across the JBMS programme experience. These themes, and their associated recommendations, are intended to represent the core takeaways for future success for complex, large, multi-agency programmes of public sector change, as well as being applicable to smaller and less complex programmes of work.

Set up your programme properly

On embarking on large, complex, multi-agency delivery programmes like JBMS it is essential to get set up properly. Understand what you're trying to deliver, plan, agree how progress will be measured and how the work will be controlled and assured.

Practice open leadership & build trusted relationships

Following challenging times, the programme and agency leadership took accountability for programme delivery and were open and honest about progress. This helped them to build and use relationships with key individuals and ultimately resolve critical issues.

3 Get the right team

Complex delivery programmes require specialist skills and experience not widely available in the market. At times, JBMS and its vendor(s) underestimated its core capability for delivery and this led to critical issues, both for the programme and the delivery team.

4 Use effective assurance

Programme assurance needs to add value to the programme through having an experienced provider make a forward looking assessment as to the risks to programme outcomes rather than focusing on compliance and "box ticking" exercises.

Overarching theme

Set up your programme properly

1

SET UP YOUR PROGRAMME PROPERLY

Observations

JBMS was a complex undertaking - a large, multi-agency delivery programme, to be delivered over years in partnership with a multinational software vendor. Faced with time pressure due to a protracted business case and procurement phase, JBMS moved straight into delivery without sufficient focus on effective programme setup. This disproportionately affected the programme's ability to successfully manage issues at later stages.

Lessons

On embarking on large, complex, multi-agency delivery programmes it is vital to take an appropriate amount of time to set the programme up effectively. Key areas you must get right include:

- **Governance** take the time to set up effective governance. A single joint governance structure, overseen by an independent voice, is vital for a multi-agency delivery programme.
- **Assurance** plan and monitor effectiveness of your assurance, ensuring a mix of 'backward' and 'forward' looking activities with providers who have the necessary 'real-life' experience. On technology-enabled projects, appropriate technical assurance activities are vital.
- **Lifecycle planning** plan for how your methods, processes, skills and resources need to change as you move through programme phases. You should plan to constantly enhance your programme capability when different skills are needed.
- **Commercials** agree a contract that allows you to regularly monitor real progress against business outcomes. Recognise that risk profiles will vary, and that some risk cannot be outsourced and thus can't be controlled commercially.
- **Requirements** it is vital to fully understand the scope across every agency, and agree business outcomes and requirements before you both procure, and subsequently design and build the solution.
- **Delivery methodology** a phased delivery approach should be considered to effectively mitigate scope and delivery risks. A suitable methodology should then be agreed with your vendor(s), as well as quality standards and metrics.

Overarching theme

Practice open leadership and build trusted relationships

2

PRACTICE OPEN LEADERSHIP AND BUILD TRUSTED RELATIONSHIPS

Observations

Over its history JBMS faced a number of significant challenges. In the earliest phase of the programme these were mostly shielded from view. However, when the programme was seriously challenged in 2012, leaders across Customs and MPI did not shy away, led from the Chief Executive down. They took accountability for resolving these issues and took a transparent, open and honest approach with stakeholders - from Ministers through to industry. This transparency helped the programme to build and retain trusted relationships, which they were then able to draw on to get cross-government skills to help resolve issues. The leadership took accountability, and personally committed to doing their best to resolve the issues.

Lessons

- **Leadership commitment** it is vital for strategic transformation efforts to be actively led from the top. The role of the Chief Executive(s) should be to oversee and understand the programme, and to build and maintain relationships with related agencies and vendors. This makes it easier to make quick and impactful interventions should the need arise.
- **Accountability culture** it is impossible to transfer overall accountability for large programmes of work outside of the lead agency/agencies. Recognising this and making it explicit will help programmes build an internal culture of taking accountability, with the appropriate structures and behaviors to enable that.
- **Sector partnership** the broader public sector ecosystem has relevant skills and experience to support the successful delivery of complex programmes being clear and open about progress and issues will help teams and agencies to acquire the advice and assistance that may help to resolve issues and get back on track.
- **Vendor executive relationships** it is important that you build and maintain the relationship with counterpart(s) within your multinational vendor, particularly at the Executive level. This provides a route to openly discuss overall programme progress as well as escalation of critical issues should that be necessary.

Overarching theme Get the right team

3

GET THE RIGHT TEAM

Observations

A complex programme like JBMS is often a once in 20 year event for agencies like Customs. It requires skills and experience not widely available in NZ public sector agencies or the broader labour market in NZ, including vendors. At a number of points, both Customs and MPI underestimated the skills and experience they required internally, particularly during programme establishment. Instead of acquiring the experience needed, they provided the opportunities to internal team members, who were not experienced with setting up and delivering a programme of JBMS' size and complexity. This is an issue also faced by JBMS' vendor – with many feeling that their team did not have sufficient experience of programme delivery with the vendor's delivery methodology.

Lessons

In the the management and delivery of large, multi-agency programmes agencies should consider the following:

- **Bring in the skills** you cannot outsource accountability and need to bring in people with the skills and experience to deliver large, complex programmes of change. These people are scarce within the public sector workforce, so be prepared to bring in the skills needed from the start.
- **Balance the team** an effective transformation requires an effective balance between those with a programme/project delivery specialism and business subject matter experts. Deliberately recognise and maintain this linkage.
- **Empower your team** the 'business' representation on transformation programmes should be able to be empowered to make effective decisions and therefore at the appropriate level, with the right experience for your programme of work.
- **Challenge vendors** challenge vendors to make sure they are bringing a team with the level of skills and experience to be able to effectively deliver their commitments.
- **Match vendor experience** holding your vendor to account requires your agency to have the necessary capability in each of the programme disciplines (e.g. programme management, architecture, solution design etc.) to effectively assure their delivery to contractual and commercial expectations.

Overarching theme Use effective assurance



USE EFFECTIVE ASSURANCE

Observations

For the initial years of JBMS many felt that both internal and external assurance activity was of little value to the programme. These processes were not identifying real delivery risks within the programme, and instead these were primarily compliance activities. They were focused on process assurance and not on seeking to understand whether the programme was on track to deliver its intended outcome, and, if not, what it might do to remediate risks. In short, assurance was missing a view of whether it is "doing the right things" rather than whether it is "doing things right". In some cases, many felt that the assurance teams did not have the necessary experience and skills to effectively assure a programme of JBMS' complexity and effectively raise issues with senior leaders in the agencies and programme.

Lessons

- Assurance planning appoint a manager responsible for assurance activities and ensure planning takes place during
 programme setup and is monitored and iterated regularly throughout delivery. Plan for early technical assurance where
 necessary.
- **Risk and outcome based assurance** focus your assurance on forward-looking activities that assess risks to delivery of programme / organisational outcomes, rather than solely on compliance activities.
- **Level of assurance** it is vital not to undertake excessive amounts of assurance, particularly on challenged programmes. There is little direct evidence that an increased level of programme assurance increases the chance of programme success, instead it often limits the ability of the programme delivery team to maintain or increase progress.
- **Assurance experience** engage independent assurance providers who have the experience to effectively assure a programme of your scale and complexity. This experience means they are able to provide valuable, actionable recommendations to programme leadership.

Summary of lessons *By programme stage*

Starting on the right path

JBMS was challenged from the start by a complex business case process. The compressed time to setup and structure the programme led to a rapid start that was not well planned. This impacted the programme's ability to deliver later on.

Commercials to deliver

The JBMS programme went through a lengthy procurement process, as well as a commercial renegotiation and contractual reset.

Delivering with others

The JBMS programme was challenged to deliver complex change across multiple agencies and through a multinational vendor.

Be realistic about your business case

Some business cases won't have a positive NPV. Be realistic with your outcomes and benefits. Allow business cases to progressively develop as facts become known.

Break it down

The delivery risk for a complex set of outcomes can be controlled by breaking delivery into chunks.

Put in the checks and balances

We recommend that large multiagency programmes must have a joint governance structure with an independent chair and that structure is reflected internally within agencies to manage input as required.

Get the right team

Complex delivery requires specialist skills that are often not available within an agency. You need to have capability as strong as your vendor.

Measure business value

Set up a contract that easily allows for regular measurement of quality and value delivered against cost and sets clear steps to resolve issues.

Ongoing management

Commercial relationships require ongoing and permanent oversight from experienced commercial managers.

Use outcome based milestones

Commercial arrangements should put in place regular milestones that deliver real, measurable business outcomes, not just project documentation.

Partner where it makes sense

Ensure that you and your partner agencies are aligned – not just on outcomes, but culture and values.

Mirror capability

Make sure you have the internal capability to challenge vendors across key disciplines like programme management, architecture and and solution design.

Structure for transparency & challenge

An environment where everyone feels able to constructively challenge and raise concerns helps identify risks and issues before they become commercial.

Keep accountability

You cannot outsource accountability. Structure your commercials and programme accordingly.

Keeping on track

On a tight timescale, JBMS employed a number of processes and tools to try and maintain progress and delivery of programme outcomes.

If things go wrong

When delivery was challenged in 2012, it was vital to understand what was wrong and resolve. At this point Customs and MPI were open about their challenges, seeking advice and support to help with this.

Closing & looking ahead

On closing a long running programme, JBMS delivered a significant chunk of the envisioned functionality, has started to realise benefits and has a plan for subsequent phases.

Look forward & get technical

Use assurance driven by risk/outcomes and not "tick boxes"/compliance with processes. Engage independent technical assurance early.

Monitor and track progress

Use appropriate tools to monitor delivery progress and measure delivery confidence.

Assurance from experience

Ensure your assurance organisation(s) are skilled and experienced in delivery of a programme of your scale.

Change it up

Programmes need different skills at different times. Plan for this and review governance and delivery teams as things change.

Understand your vendors

Multinational vendors are complex, and often not governed as a single entity. It's vital to understand motivations and clarify routes of escalation early in the programme.

Be open

Transparency goes a long way. Ensure stakeholders are always well informed about progress, including issues as they arise and proposed resolutions.

Draw on sector experience

Don't internalise problem solving. Make use of the skills and experience in Central Agencies and the wider sector to help resolve programme issues.

Practice active executive leadership

Make use of vendor relationships at every level, escalate critical issues when they arise and bring the right people together to resolve.

Use your contract

When other routes fail, don't be reluctant to use the contractual mechanisms to escalate issues within your vendor(s) organisation.

Know when to close down

Long-running programmes become stigmatised, making them less likely to be able to deliver as time goes on.

Reinvigorate for outcomes

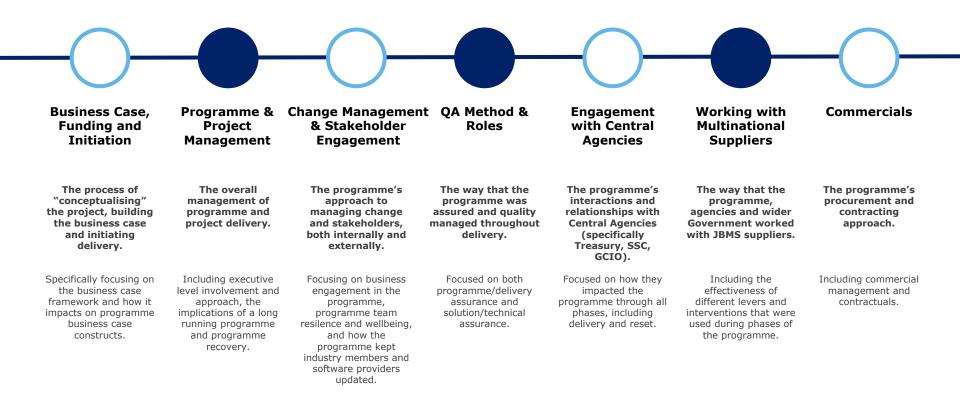
The formal close of a programme is an opportunity to review benefits realisation and put plans in place to deliver subsequent phases.

Detailed observations & lessonsBy focus area

JBMS Lessons Learned

Overview of the seven focus areas

We agreed with Customs to focus the scope of our review on the following seven areas. In doing so, we shaped our interview questions, document review and subsequent findings on these areas:



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JBMS Lessons Learned

Business Case, Funding and Initiation (I)

	Theme	Observations	Lessons
Q	Size and complexity driven by business case process	JBMS had a large and complex scope owing to the diverse range of outcomes it committed to achieving. It is our observation that this was driven by the need to size the business case according to the expected level of funding. It is fair to note that this is representative of the general business case process across government at the time and that this process has changed since JBMS' went through the process in 2009.	A complex set of outcomes can be achieved in a more risk effective manner through breaking them down into smaller increments. Smaller increments tend to be simpler to focus on and deliver, allowing value to be delivered more frequently, and for progress to be measured more effectively.
	Alignment of key outcomes	While related, the two core streams of JBMS (TSW and R&I) were delivering differing outcomes that required a different mindset and method to explore and deliver them effectively. To add further complexity, the risk workstream was trying to reconcile differing risk approaches between Customs (managing deliberate acts) and MPI (managing accidental acts).	When setting up large programme work streams, especially those that span agencies, consider the diversity of objectives, and how to best structure the solution, team, and methodologies to give the greatest chance of success.
Q	Shared importance and value	While it was a multi-agency programme, the value and importance of JBMS differed between Customs and MPI. For Customs, JBMS was a hugely strategically and operationally important programme at the heart of the way the whole organisation worked. Whereas at MPI, while important, it was only of interest to a small group from Operations.	When setting up and structuring a multi-agency programme like JBMS it is important to define a shared understanding of its the value it delivers across all agencies. While it is important for each agency to ensure they achieve their benefits from the programme, these should be positioned within this shared value of the overall benefit of the programme.



JBMS Lessons Learned Business Case, Funding and Initiation (II)

Theme	Observations	Lessons
Ownership	Within agencies JBMS was led by the technology teams and it was primarily seen as an IT programme driven by the need to replace aging legacy technologies rather than as a fundamental business transformation. At some stages, the programme struggled to get effective business involvement, primarily in the critical phases in conceiving the business case and setting up the programme.	Large scale and fundamental business transformations like JBMS need to have a strong linkage between the business expertise and the change delivery capability.
		This will challenge organisations to consider whether they have the transformation and delivery skills and capability in their teams to set up and lead complex transformations with significant technology elements.
Business case practice	The business case process was focused as much on "getting through the machinery" as it was on how best to achieve the vision and desired outcomes. This is perhaps representative of the time, and led to a "scramble" to extend scope for benefits that could be	The business case process should be used to help shape and challenge the viability of an idea.
	claimed against this work.	The business case for the whole programme should clearly identify what is known vs. what is assumed, and allow for change as more becomes known throughout the programme.



JBMS Lessons Learned Project and Programme Management (I)

	Theme	Observations	Lessons
Q	Cross agency governance structures	In the early stages, JBMS was governed more like separate Customs and MAF projects. At times this led to some confusion and a sense of competitiveness that was not always constructive.	Cross agency programmes and projects need to be led by a single body, with representation from all applicable agencies.
		This improved once the joint governance structure was refreshed, and a separation created between commercial governance (JEB) and delivery governance (PDB).	This will help agencies to focus on the outcomes the Programme is set to achieve for the business, how the programme is tracking and how to resolve issues
			If required on larger or more complex projects, this could be augmented by mirrored governance within the agencies, used to govern each's contributing activity.
	Governance by phase	Within Customs, it was important that Governance and oversight varied by the project phase. For example, the skills and attributes required by an SRO during the set up and establishment phase of a	Plan how a programme's governance and oversight needs to change during the programme lifecycle.
		programme are not the same as those required to deliver.	Recognise that the proper execution of key governance roles like SRO changes significantly across the lifecycle, and that it may be appropriate to move these responsibilities to others within the agency or to hire in the required skills.
Q	Machinery of government changes	When the Ministry of Agriculture and Forestry (MAF), the Ministry of Fisheries (MFish) and New Zealand Food Safety Authority (NZFSA) merged to create the Ministry of Primary Industries (MPI) in April 2012 this was a huge impact on the JBMS project. It was recognised that more should have been done at this time to review and reset the business case in light of the additional scope and complexity, for example, with food and safety now in scope.	Recognise the impact of machinery of government changes and take the appropriate time to impact those against programme business case, scope and delivery plans.

JBMS Lessons Learned



Project and Programme Management (II)

	Theme	Observations	Lessons
Q	Programme delivery approach	JBMS had a large and complex scope despite multiple recommendations to split it up. The vendor's reassurance of their ability to deliver a project of this size led to the adoption of their methodologies, which many felt were not suited to this type of programme.	Splitting a programme into smaller more manageable parts allows faster identification, escalation and mitigation of risks and potentially faster delivery of solutions, value and outcomes.
			Pick appropriate methodologies based on the complexity of your programme and that parties you are working with. Once chosen, ensure that all parties understand the methodologies and how the use them effectively.
	Delivery capability	It was recognised that there are very few people in New Zealand with the ability to manage and deliver a project as complex as JBMS. In the early stages, the programme was not willing to pay the rates required to attract the right capability in NZ or from offshore. This led to many instances of individuals not ideally matched to roles, and this compromised the health of both those individuals and the programme. Later, where it did invest in the right delivery capability, the programme got better outcomes.	Complex business transformation programmes need highly skilled and experienced individuals through all phases. Invest appropriately in the required level of skill to support the programme, particularly in programme establishment.
Q	Environment management /	At some periods of the programme, JBMS had many environments that were not actively managed or controlled.	Where possible, look to automate effort to create standardised, scalable environments
	lifecycle procedures	This affected the release cycle, and resulted in difficulties defining and following release processes. As a result questions about quality remained during release cycles.	Invest time in defining effective environment management responsibilities, processes and controls.
		This improved dramatically in later phases of the programme, following significant investment in automation and containerisation.	Define processes for how code is tested and deployed through environments for release, and check these are being followed by your vendor(s).



JBMS Lessons Learned

Change Management & Stakeholder Engagement

	Theme	Observations	Lessons
Q	Support from industry	JBMS represented a large amount of business critical change for a number of large organisations that play a critical role in the NZ economy.	Commit to transparency with your stakeholders and customers, keeping them updated on programme progress, and involved where appropriate.
		The programme maintained good relationships with these organisations throughout the programme. Through excellent stakeholder engagement, rooted in honesty and transparency, JBMS was able to keep the industry actively engaged and supportive of it's mission.	Take time to understand and communicate the quantifiable benefits with your stakeholders. JBMS was of huge benefit to many organisations in the community, and emphasising this benefit in real terms helps to maintain support.
	Internal change management	Over its seven years, JBMS took its toll on the teams and broader agencies that it was delivering into. Over time, the perception in Customs was that JBMS was "why we weren't doing anything else" and this impacted JBMS' ability to get broader organisational input and support. This shifted when Customs were proactive about not allowing JBMS to become a "black hole" of resources and made it clear that other projects would also receive funding and priority.	Long running, challenged programmes will struggle to fight the perception of starving the wider organisation of resources. Keep the business teams engaged through structuring your programme to deliver value regularly. Use a mixed portfolio of other valuable business initiatives also delivering value regularly.



JBMS Lessons Learned Quality Assurance Approach and Roles

	Theme	Observations	Lessons
Q	Technical assurance	The assurance structure in place for JBMS for the majority of its delivery phase was not adequately able to assess the quality of the technical work being performed. Later technical assurance activities (e.g. code reviews) had a significant positive impact in helping the	Technical assurance is hugely valuable and should be a key part of a programme's assurance from as early as possible in the lifecycle.
		programme hold suppliers to account.	Effective technical assurance is a vital step in assessing a programme's progress and quality. It often requires the use of specialist providers, who should be consulted and engaged as early as possible into the assurance planning and execution phases.
	Proactive and forward looking assurance activity	Many on the programme felt that for some time during delivery, assurance felt like a "tickbox" and "compliance" activity. Thus, it was primarily tasked with assessing whether the team was doing the things they said they would rather than being a fresh, independent perspective challenging the programme direction and plan.	Assurance activities should balance backward looking reflection with forward looking analysis to assess the likely future performance of the programme. Programme assurance should be effectively planned and monitored for effectiveness. Every part of assurance activity should be targeted to a specific audience/s and have a clearly defined purpose of what it is setting out to achieve for the programme.

JBMS Lessons Learned

Engagement with Central Agencies

Theme

Nature of central

agency relationship

Observations

There was a clear model of engagement with GCIO and Treasury, resulting in interesting and pragmatic conversations about how to troubleshoot this programme. However, in the earlier phases of the programme there were differing views about the role of the central agencies and on what was required from JBMS, leading to some some duplication.

The central agency relationship was primarily about reporting and monitoring, rather than guidance and strategic advice. However, this did change during the programme reset when JBMS was able to successfully make use of the broad skillsets available in Central Agencies to guide the direction of the reset process.

Lessons

Clarify the roles of the Central Agencies in overseeing the delivery of strategically important programmes like JBMS - including their assurance responsibilities (if any).

Recognise and make use of the broader skills available across the system when needed.

Programmes should seek to manage Central Agencies as stakeholders, not involved in the programme delivery like a vendor.

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JBMS Lessons Learned Working with Multinational Suppliers

Observations	Lessons
When delivery was challenged, the programme team were not able to quickly escalate this within the large, multinational vendor. This led to delays in appropriate action being taken.	Make sure you understand the structure of the vendor organisation so as to best be able to take action to escalate issues should that
Once the JBMS executive were able to build the right relationships within the vendor organisation they were then able to use these to partner effectively, and escalate issues.	Take an early focus on building relationships at the appropriate levels across the agency and vendor
Later action to activate strike clauses within the contract also acted as a catalyst for the yendor's senior management team to take	organisations and actively maintain them through good times and challenges.
immediate remedial action.	Formalise escalation routes across the programme and related agencies.
JBMS was a large project competing for resource from New Zealand's small pool of talent. When dealing with multinational vendors, they also need to augment capability from the same pool of talent. Since the vendor did not have resources globally or in NZ, they aligned with a local vendor to deliver material levels of development.	Ensure you have appropriate oversight of sub-contracting relationships and arrangements within your suppliers.
The vendor didn't bring their delivery and sales teams together early enough in the process, leading to an unrealistic commitment of what was possible to be delivered. As the programme progressed, the vendor did not commit the resources required to the programme. The level of commitment only raised once the Minister of Finance raised attention to the vendor executive that they were not delivering.	Skilled programme and specialist commercial management is required throughout a programme to continuously challenge vendors to deliver what was sold. When this doesn't occur, then contractual mechanisms should be used to quickly resolve
	When delivery was challenged, the programme team were not able to quickly escalate this within the large, multinational vendor. This led to delays in appropriate action being taken. Once the JBMS executive were able to build the right relationships within the vendor organisation they were then able to use these to partner effectively, and escalate issues. Later action to activate strike clauses within the contract also acted as a catalyst for the vendor's senior management team to take immediate remedial action. JBMS was a large project competing for resource from New Zealand's small pool of talent. When dealing with multinational vendors, they also need to augment capability from the same pool of talent. Since the vendor did not have resources globally or in NZ, they aligned with a local vendor to deliver material levels of development. The vendor didn't bring their delivery and sales teams together early enough in the process, leading to an unrealistic commitment of what was possible to be delivered. As the programme progressed, the vendor did not commit the resources required to the programme. The level of commitment only raised once the

JBMS Lessons Learned





Commercials

	Theme	Observations	Lessons
Q	Contractual construct	The original prime vendor contract was a solid legal contract, but it did not provide for easy measurement of the outputs against cost and what the contract set out to deliver. As a result, when the	Contractual arrangements should leave you able to effectively monitor and manage legal and programme delivery risk.
		programme did experience delivery challenges, the true impact of these challenges and the commercial implications took longer to be realised and escalated to the level where the appropriate action could be considered.	Programme documentation is not an effective proxy for business value. Contractual milestones should be based on the delivery of real business value, against which progress or outcomes can be measured.
			Ensure contracts are effectively socialised with and shaped by those with the appropriate practical programme delivery experience as well as those with more traditional procurement, commercial and legal backgrounds.
	Deliverable structure	As defined, the JBMS deliverables were dependent upon each other. If the vendor failed to meet one, there was no way of holding them accountable and recovering the cost of delay. The construct of the contract meant the contrary, where if Customs did not continue to	Deliverables need to be independent and measureable in terms of their business value. In turn this will make business acceptance easier.
		additional phases, it would cost them more.	With value focused deliverables, it is then possible to structure commercial arrangements to tie the release of payments to the delivery of equivalent value.
O	Risk management	In earlier phases of JBMS, the programme placed their trust in their vendor to monitor and manage risks.	Regardless of the size of the project or the quality of the contract, a government agency
		However, following the challenges faced in 2012 – 2014, the programme took a proactive approach to monitoring and managing delivery risks to ensure the eventual delivery of a high quality solution.	cannot outsource the overall risks of programme delivery. Structure your programme so that you are able to effectively monitor and manage delivery risks across all aspects of the programme – from internal activity to any vendor arrangements.

Appendices

Appendix A Interviewees

We conducted nine separate interview sessions to gather insights and experience from those involved in the JBMS programme. These were conducted as small group interviews.

The following individuals were interviewed:

Name	Position	Name	Position
Carolyn Tremain	Chief Executive, Customs	Claire Linskill	GCIO representative
Ian Fitzgerald	Independent Chair, JBMS	Wayne Pincott	Treasury representative
Murray Young	CIO, Customs	Kobus Dippenaar	Delivery Manager, JBMS
Tracy Voice	CIO, MPI	Debbie Whiteside	Stakeholder Transition Manager, Customs
Robert Lake	Programme Sponsor, Customs	George Findlay	Business Transition Manager, MPI
Ron Peake	Programme Director, JBMS	Dave Grummitt	
Derek Lyons	Commercial Manager, JBMS		Business Transition Manager, Customs
Bob Walton	IS Operations, Customs	John Ryan	DDG, Corporate Services, MPI
Richard Bargh	Business Owner, Customs	Roger Smith	Chief Operations Officer, MPI
_	,	Lisa Tyrell	Vendor representative
Maurice O'Brien	Manager, Service Delivery		Acting Head of Information Services,
Clint Owens	Senior Advisor, Customs	Andy Badrick	Customs

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