

5 April 2019

OIA18-0380

Herve Thevenon  
fyi-request-7491-7d32f94c@requests.fyi.org.nz

Dear Herve Thevenon

### OFFICIAL INFORMATION ACT REQUEST

I refer to your official information request on 31 May 2018 relating to clarification of your previous requests (*OIA18-0305 and OIA18-0306*) regarding the Ministry for Primary Industries' (MPI's) verification and enforcement system for implementation of the Food Act 2014. On 29 June 2018, MPI extended the time limit to respond to your request to 26 July 2018. We apologise for the extended delay in our response.

Your request has been considered under the Official Information Act 1982 (OIA) and below are responses to each of your questions.

**1. Please confirm this is the document (*User Stories*) that was used for the decision process outlined in your response**

Our response to your previous requests, *OIA18-0305* and *OIA18-0306* dated 30 May 2018, outlined the areas of consideration relating to the recommendation and decision by MPI's ICT Architecture Governance Group to use Salesforce as the platform for the verification and enforcement system under the Food Act 2014.

Underpinning the decision was MPI's '*Information and Technology Strategy at a Glance – 2016*.' This provides the roadmap for how MPI's information and technology investments will support the delivery of MPI's strategic priorities. The strategy requires the re-use of existing technologies and promotes that, wherever possible, cloud services should be used. User stories were provided to you to give details of the functionality Titiro would provide to users. These did not form the basis of the decision making.

**Food Safety, Regulation & Assurance**

**Food Regulation**

Charles Fergusson Building, 34-38 Bowen Street

Wellington 6011, New Zealand

PO Box 2526

Wellington 6140, New Zealand

Telephone: 0800 00 83 33, Facsimile: +64-4-894 0300

[www.mpi.govt.nz](http://www.mpi.govt.nz)

**2. Please provide documents that can be authenticated**

This question expands on your request under OIA18-305 - 'Please outline the process that led to selecting Salesforce as the next best Lego block to build the verification and enforcement online system.' Our response to that request outlined the process followed by MPI in reaching a decision on Salesforce as the platform on which the new verification and enforcement system would be built.

You have now requested copies of 'documents that can be authenticated' in reaching the decision to use Salesforce as the platform for development of the new verification and enforcement system, and an example you have given is a 'functional requirement document.' MPI has interpreted this new request as relating to key documents that informed MPI's decision to use Salesforce and the below documents are released to you.

- **Information and Technology Strategy at a Glance, 2016**
- **FIP - IL/MAPS Data Integration Approach, Integration of RBM Data Within MAPS into IL - Approach Document, 1 November 2017**
- **Verification and Enforcement Monitoring System - Solution Options Paper, 29 November 2017**
- **Decision of MPI's Architecture Governance Group - Approval of Solution Options paper for Verification and Enforcement Monitoring System, 14 December 2017 (record held electronically)**

Some information is withheld under the following sections of the OIA and MPI is satisfied that in the circumstances of this case, the withholding of the information is not outweighed by other considerations which render it desirable in the public interest to make the information available.

- Section 9(2)(a) – to protect the privacy of natural persons, including that of deceased natural persons;
- Section 9(2)(b)(ii) – to protect information where the making available of the information would be likely unreasonably to prejudice the commercial position of the person who supplied or who is the subject of the information;
- Section 9(2)(k) – to prevent the disclosure or use of official information for improper gain or improper advantage.

**3. A full account of the dates for all the events mentioned in your latest response**

The dates for the events referred to in our response to OIA18-0305 and OIA18-0306 are set out below.

<b>Action</b>	<b>Date</b>
Decision by MPI that food business registration data should be selectable reference data rather than manual data entry	28 November 2017
Further consideration of integrity of the business data within Information Leader. Request made to MPI ICT Architecture Team to review whether a different technology (also already available within MPI) could be considered	28 November 2017

Review of Information Leader and the other technologies available within MPI for suitability completed	29 November 2017
Review findings presented to the MPI ICT Architecture governance group with a recommendation to use Salesforce	14 December 2017
MPI ICT Architecture governance group approved the use of Salesforce	14 December 2017

#### **4. A breakdown of the costs involved, for both developments**

You noted that you are *'still waiting on a breakdown of the costs involved, for both developments.'* As the matter of costs was not raised in your previous requests (OIA18-0305 and OIA18-0306), this was not addressed. However, your earlier request (OIA18-0213) did state *'please disclose all the costs associated with the project that led to the rejection of Information Leader as the verification and enforcement online system.'*

We have reviewed our response to request OIA18-0213. While we accurately described the nature of the internal costs and noted that most costs were internal, we omitted to advise why no dollar figure could be identified. We apologise that external costs were also omitted from our previous response and this information is provided below.

Costs relating to the development of Titiro on the Salesforce platform were not provided, as these costs were incurred following the decision to not proceed with using Information Leader, rather than through the work that *'led to the rejection of Information Leader,'* as was requested. Costs relating to Titiro were therefore outside the scope of your request.

Your request for *'a breakdown of the costs involved, for both developments'* has a broader scope than the question posed in OIA18-0213, as it seeks information about costs relating to both Information Leader and Salesforce/Titiro. This information is provided in sections 4.1 and 4.2 below. These sections also correct the two anomalies in our response to OIA18-0213, noted above, relating to costs for Information Leader.

#### **4.1 Information Leader**

##### Internal Costs

Your request is refused under section 18(e) of the OIA as the information requested does not exist. A number of MPI staff, primarily from the Business Technology and Information Services Directorate and from New Zealand Food Safety were variously involved in this project. The hours of involvement for each staff member were not specifically attributed and it is therefore not possible to provide an exact figure for the total cost and time spent by staff on this work.

### External Costs

External consultancy costs of \$47,360 were incurred through the use of a Senior Business Analyst and Junior Business Analyst between February and May 2017.

## **4.2 Salesforce/Titiro (Verification and Enforcement)**

### Internal Costs

Your request is refused under section 18(e) of the OIA as the information requested does not exist. A number of MPI staff, primarily from the Business Technology and Information Services Directorate and from New Zealand Food Safety were variously involved in this project. The hours of involvement for each staff member were not specifically attributed and it is therefore not possible to provide an exact figure for the total cost and time spent by staff on this work.

### External Costs

The projected external costs for the development of Titiro, including development of the detailed requirements; development of the functionality to meet the requirements; testing of the functionality and security testing the delivered solution were \$190,000 - \$250,000. The final external development costs totalled approximately \$285,000.

## **5. Other matters**

You have conveyed your expectations about how documents released to you under the OIA will be '*remediated in MPI's future responses.*' The OIA requires an agency subject to the OIA to release the information it holds that falls within the scope of a request, other than for the purposes of withholding certain information in accordance with the OIA.

You have the right under section 28(3) of the OIA to seek an investigation and review by the Ombudsman of this decision.

Yours sincerely

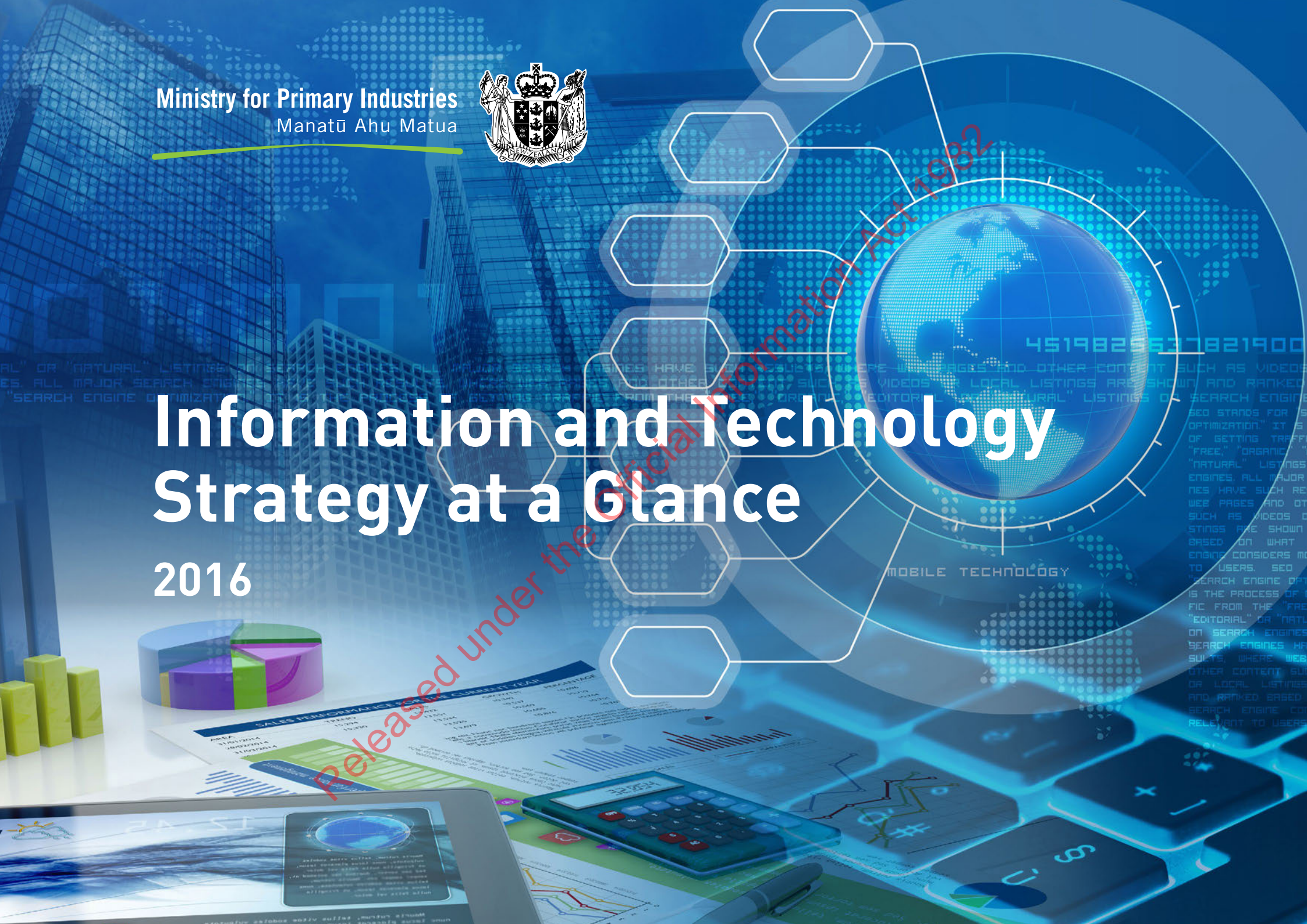


Paul Dansted  
**Director Food Regulation**



# Information and Technology Strategy at a Glance

2016



Released under the Official Information Act 1982

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Publications Logistics Officer  
Ministry for Primary Industries  
PO Box 2526, Wellington 6140

Email: brxxx@xxx.xxvt.nz  
Telephone: 0800 00 83 33

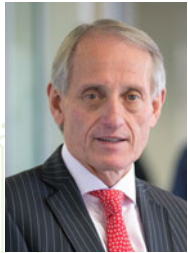
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# Forewords



**Martyn Dunne**  
Director-General

In June 2014, MPI senior leaders met to envisage the world in 2030, and what this would mean for the Ministry in 2019. Based on this, they developed a set of priorities for the organisation that would position us to grow and protect New Zealand's primary industries in the short, medium and long-term.

To deliver what is expected of MPI by New Zealanders, it's essential that we deliver our operational activities to the highest standards. Part of this means making it simpler for customers to use our services. It also means making it easier for staff to target, coordinate, and be consistent in what they do; and lifting our productivity through innovation.

As well as being excellent in an operational sense, we must also drive sound decision-making and share knowledge by enabling our staff and stakeholders to access the information they need, when they need it. This means aligning our data and information in a way that makes it available and useful – which includes making information about primary industries easily available to the public and industries.

The *Information and Technology Strategy* addresses many of these areas and provides the roadmap for how our information and technology investments will support the delivery of MPI's strategic priorities.



**Tracy Voice**  
Director Business Technology  
and Information Services

As the world continues to experience rapid information and technology change it is expected that government agencies will keep pace. Since 2012 MPI has undergone significant advancement in Information and Technology across our workplace.

MPI aims to continue at the forefront of the digital age, adapting our services and transforming in a way that utilises the right emerging technologies – technologies that will benefit our biosecurity, food safety, primary production, and trade systems, and will exploit our data to benefit our sectors and wider New Zealand.

The *Information and Technology Strategy* has been designed to provide a guiding pathway on how we will continually evolve our digital capabilities in this way and make our services easier to use by all MPI's internal and external customers. This includes enabling our science system and our people to operate at their best.

In this way the *Information and Technology Strategy* will help drive continuous improvement and effectiveness across our workplace, government and the primary industries.

# Our operating environment

New Zealand primary industries are facing some exciting opportunities for growth as overseas markets, in particular Asia, become increasingly industrialised and middle class wealth rises alongside of this. These growing markets will each bring their own unique consumer demands for premium food products. If we can meet these demands, this will bring opportunities for growers, suppliers and marketers of New Zealand food and fibre products.

Growth will present challenges to the capacity and capability of a number of MPI's operational systems and processes. A growing New Zealand and world economy will have more goods and people crossing our borders – a challenge for biosecurity. And as New Zealand companies grow a wider range of product forms and move their goods into an increasingly complex and demanding set of markets, this will challenge the capability and capacity of MPI's verification and assurance systems and processes. There may also be more requirements around traceability and authenticity for New Zealand products.

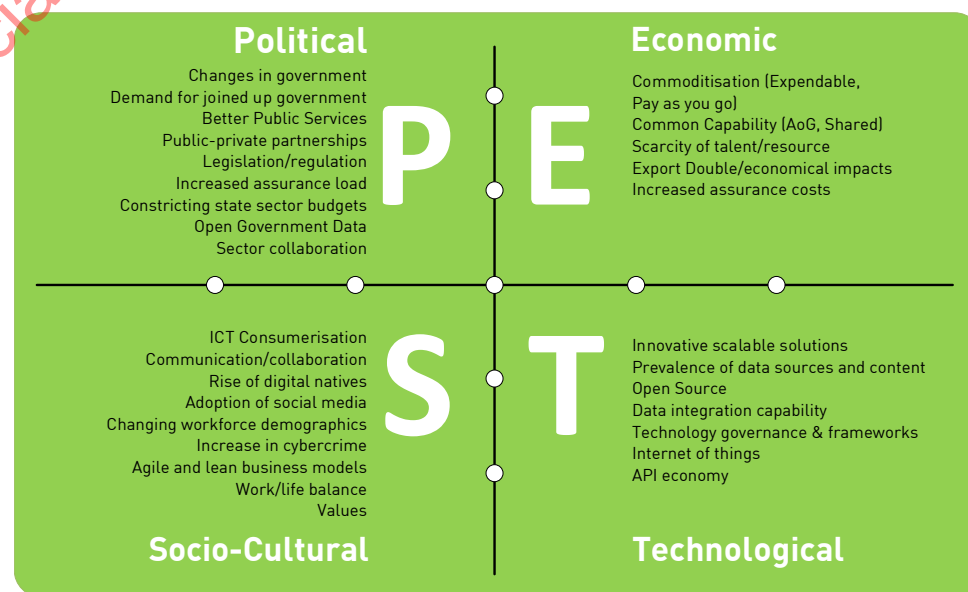
Within New Zealand, we need to ensure that producers and suppliers are meeting the standards needed to protect the natural advantage that New Zealand products currently enjoy. This means putting our energy in the right places when developing regulations, and aligning these with our investments in education and enforcement across our biosecurity, food and productions systems.

With the world becoming increasingly connected through the internet and social media, we must be equally vigilant to sustainable production standards as we are to food safety and biosecurity.

Also within New Zealand, MPI is supporting business development and growth in our regional economies. And we are supporting farming businesses and communities to make the most of their primary sector assets. This includes supporting them to develop and adopt production technologies that improve sustainability and profitability, and working with them to build the capability of our primary sector workforce. MPI has a range of programmes and funds that encourage different aspects of this development and growth.

MPI needs an Information and Technology strategy that supports the organisation in exploiting these opportunities, and provides an information and technology direction that is aligned to the overarching organisational strategies.

It must also reflect that we operate within a complex environment that influences our operational model and strategic direction, which is illustrated below:





# Strategic direction for Information and Technology

**Our Strategy 2030 recognises that Information and Technology is a core enabler in achieving our outcomes.**

In 2012, MPI launched its first Information Systems Strategic Plan, which provided the information and technology roadmap required to deliver to the prevalent organisational strategies of the time. Over the last three years we have used this strategic plan to guide our efforts and direction in lifting MPI capability.

In 2015, we undertook a consultative process to review our 2012 Information Systems Strategic Plan, to ensure its alignment to our overarching strategies. The outcome of this process is a reset of our directional pathway based on where our organisation is now placed. We must progress against specific “waypoints”

rather than against a set timeline and allow flexibility based on our system’s priorities – biosecurity, food safety, primary production and trade.

In order to deliver *Our Strategy 2030* and align our information and technology landscape from the infrastructure layer through to the presentation layer will still require a level of investment over a long period of time. The best manner in which to achieve this level of transformational change still requires planning based on the following three horizons.

## HORIZON 1: BASE FOUNDATION

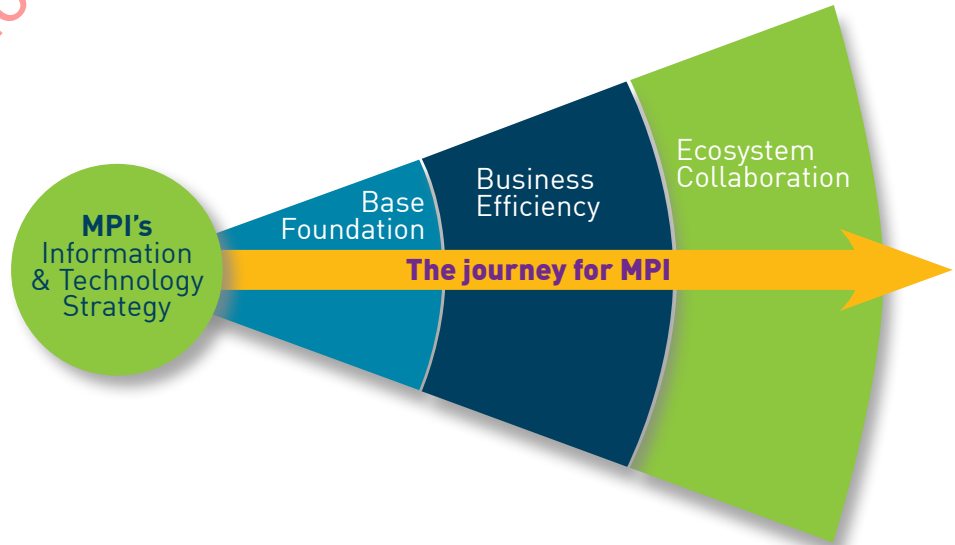
Where we continue to get our existing systems and applications fit-for-purpose while transitioning to new platforms or adopting all-of-government common capabilities.

## HORIZON 2: BUSINESS EFFICIENCY

Where we leverage automated processes and experiment with new IT innovations to enable our people to deliver operational activities and services to the highest standards.

## HORIZON 3: ECOSYSTEM COLLABORATION

Where we take a proactive and collaborative approach to systems evolution with internal and external consumers of data and information in mind. This will require us to integrate our systems and enable data so it can be leveraged and disseminated across our primary industry ecosystem.



# Our current state

Since the inception of our Information Systems Strategic Plan (ISSP), we have delivered a number of foundational capabilities which have stabilised our critical applications, as well as providing our staff with modern productivity tools and devices to assist with daily operations.

Around a third of the ISSP programme defined in 2012 has been completed. This has largely been in the Base Foundation work package; however, some waypoints have also been progressed in the Business Efficiency and Ecosystem Collaboration horizons.

In addition, a core focus has been around moving towards an ICT-as-a-Service model as we partner with seven key external suppliers to provide the

organisation with a range of operational services. The internal team have moved to a lean, valued-added service model that concentrates on information assurance, maintenance lifecycles, information intelligence, new platforms and technologies while working together with business owners so that we deliver on *Our Strategy in Action*.

## Base Foundation

Keeping the existing systems and applications stabilised, coordinated and fit-for-purpose.

- » Built partnerships for IT Managed Services, Information Security, Application and Mobile phone capabilities
- » IT service catalogue
- » Move to AoG IaaS
- » Upgraded critical border and frontline apps
- » Developed and implemented:
  - Information Security Framework
  - Data and Information Strategy
  - Application Strategy
- » Windows 8.1 upgrade
- » Microsoft Office productivity tool upgrades
- » Enterprise search implementation
- » Skype for Business implementation
- » Agile capability
- » Enterprise Data Warehouse and BI
- » Maintained the operational integrity of our business system environment

## Business Efficiency

Using innovative IT, new processes and technology leadership to enhance business performance.

- » Implementing a lean-IT operating model
- » Implement social media (Yammer)
- » Skype for Business (user presence, video, chat)
- » Commence Master Data platform
- » Leveraging all-of-government services
- » Utilising Cloud-based services

## Ecosystem Collaboration

Delivering efficiency by enabling partnerships and shared use of data across all stakeholders.

- » Piritahi (Enterprise Content Management)

# Our principles that will underpin Information and Technology

These principles align with *Our Strategy in Action* and enable maximising business value in the current investments as well as strategically realising value from any future investments.

## Maximise value

We aim to maximise value for all of MPI, by leveraging commodity (cloud first) and right-sourced solutions that are fit-for-purpose and support *Our Strategy in Action*.

## Relationship focused

Easy to engage with and understand the business context/drivers in a trusted partnership manner.

## Creating new ideas and ways of working

Explore multiple avenues for achieving an outcome. Be open to innovation and trying new things. Each initiative is an opportunity to learn in partnership.

## Leverage our assets and simplify

MPI's information, systems assets and capabilities are leveraged effectively – promoting reuse and integration.

## Portfolio based investment

Deliver our services as a co-ordinated portfolio and in partnership with our stakeholders (all-of-government, sector and commercial).

### SMART

in how we use intelligence, information and knowledge to reduce complexity across our business. For staff, this means more timely information and intelligence to inform regulatory interventions, operational co-ordination and decision-making.

### TRUSTED

by the public and consumers. For staff, this means we need to design our organisation to ensure we can react rapidly, respond consistently, and be transparent and connected in decision-making.

### ENABLING

so we are easy to do business with, and within. For staff, this means a strong focus on improving the experience of customers using our services through better technology, clearer communication and timely access to the right people.

### PRODUCTIVE

to meet demand growth within fixed baselines. For staff, this means freeing up time to focus on the highest-value activities, through the use of simpler and easier-to-use rules, tools and systems, and clearer decision rights at appropriate levels.

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# Our services approach to Information and Technology

Our internal team delivers MPI's Information and Technology Strategy, as well as providing the services that manage our information assets through their lifecycle, utilising a lean-IT model.

The evolution of the lean operating model is based around increasing internal strategic capabilities and leveraging external expertise in delivering operational services.

Business Technology and Information Services (BT&IS) plays a critical role as a support service and enabler for MPI across operator, steward, catalyst and strategist roles. The partnership model focuses on operational service delivery through external IT resources and delivering value added services to the business through increased internal strategic capabilities.

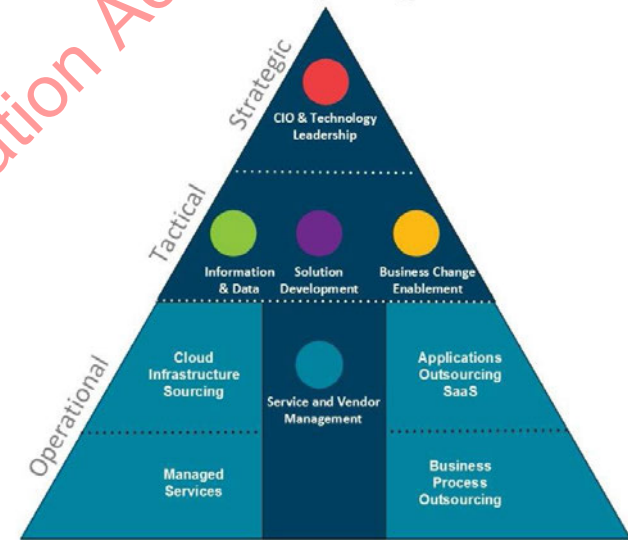
BT&IS' objective is to evolve with the MPI business and grow internal capability to provide high quality and consistent service. BT&IS is doing this by taking a customer-centric focus and moving towards becoming a trusted advisor to the business, enabling change and allowing MPI to innovate.

Core services are maintained to a high standard through management of vendors and utilisation of all-of-government services where possible.

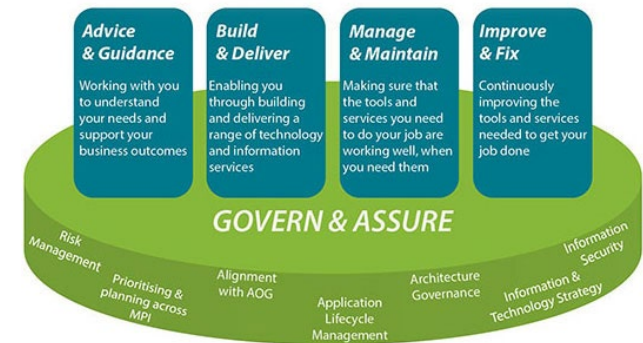
BT&IS operates across six teams to manage vendors, deliver services, provide advice and deliver transformation. Activity is currently 50 percent directed towards core services, and 50 percent towards transformation projects.

The business partnership model is central to delivering value-added services to MPI. Under this model, the team provides advice and guidance to stakeholders within the business; works alongside stakeholders to understand the business and ensure alignment with overall strategic direction; identifies common strategic technology needs; and helps to articulate and refine business requirements. Below highlights the current services provided.

**Business Technology and Information Services**  
*Functional Operating Model*



**Business Technology & Information Services**  
*Making Business Easier & Better*



# Future focus for the Information and Technology Strategy

In recognising what we have achieved since 2012, it is timely to ensure our future focus for information and technology continues to enable *Our Strategy 2030*, our system board priorities, sector and stakeholder expectations. We have identified the following four focus areas:



**Improving our Insight** – to date we have implemented key data platforms that enable us to transform our data into information and business intelligence. To continue to build MPI as an intelligence led organisation, we need to further develop and invest in these capabilities and enable our staff to access the information and advanced analytics they need to perform their jobs. In parallel to this we will also need to ensure we have effective stewardship established to manage and govern our information assets.

**Integrated Experience** – over the past years we have upgraded core critical systems that support the sector. We now need to create a digital experience for our people that enables easier and better responsiveness and service to our customers. We will do this by integrating more of our business systems, which will provide fewer touchpoints for our people to do their job. This will require further investment in the processes and IT systems that support the

Biosecurity, Food Safety, primary Production and Trade systems.

**Mobilisation** – our customers and staff are able to access our services through the devices they now use for their everyday activities. We must continue to make our information easily accessible through any digital channel so our customers and staff can consume anywhere and anytime. This will mean understanding our customers and staff working personas so we can invest in uplifting our system processes.

**Exploit emerging technologies** – we have focused on updating our base platforms. As the globe accelerates innovations with emerging technologies, we must look to exploit and target investment where newer technologies provide real system benefits. This will require us to research, conduct rapid prototype and procure the right technologies in a swift manner that will create system value.

A key influence on our strategy is the Government ICT Strategy and Action plan. The plan was revised in 2015 to ensure that, in a dynamic technology environment, it can achieve the government's aim of an ICT-enabled transformation of public services to New Zealanders. The key focus areas are Digital Services, Information, Technology, Investment and Leadership. MPI is committed to this strategy and our four focus areas are aligned to the action plan. The plan can be viewed here: <https://www.ict.govt.nz/strategy-and-action-plan/strategy/>



# Improving our Insight



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## Improving our insight

MPI has a large amount of data and information. It is central to our credibility and if we are to grow and protect New Zealand we need to improve how we manage information, how we analyse it and how we act on it to target our activities and interventions.

### We will:

- » Align our data and information so it is available and trusted and supports our ability to make informed decisions.
- » Enhance our understanding of consumer trends and expectations.
- » Ensure data and information enables growth and protection and that primary industries data is easily accessible to industry and citizens.
- » Build data partnerships with industry, government and citizens through effective sharing and use of data.
- » Work with other agencies to enable inter-operability.

### Initiatives to improve our insight

- » Complete the roll-out of Piritahi, our information management system, to increase collaboration and productivity.
- » Enhance MPI's platforms including Enterprise Business Intelligence and Data Warehouse, and the Geospatial platforms to get the most out of the data we hold.
- » Improve our current "reactive" based analysis to predictive analytics, enabling us to lift our situational awareness and decision-making capabilities.
- » Lift our capability to provide an operational function within our existing business intelligence investment.
- » Create primary industry data hub to enable data sharing by MPI and sectors (Primary, Border, Natural Resources, Trade, etc).

### Shifts

2015

Reactive analysis → Predictive analysis

Process focused data → System focused data

MPI Data → Wider primary industries data

Disparate and duplicated → Enriched and focused

Multiple data sources → Master data

Too much information → The right information

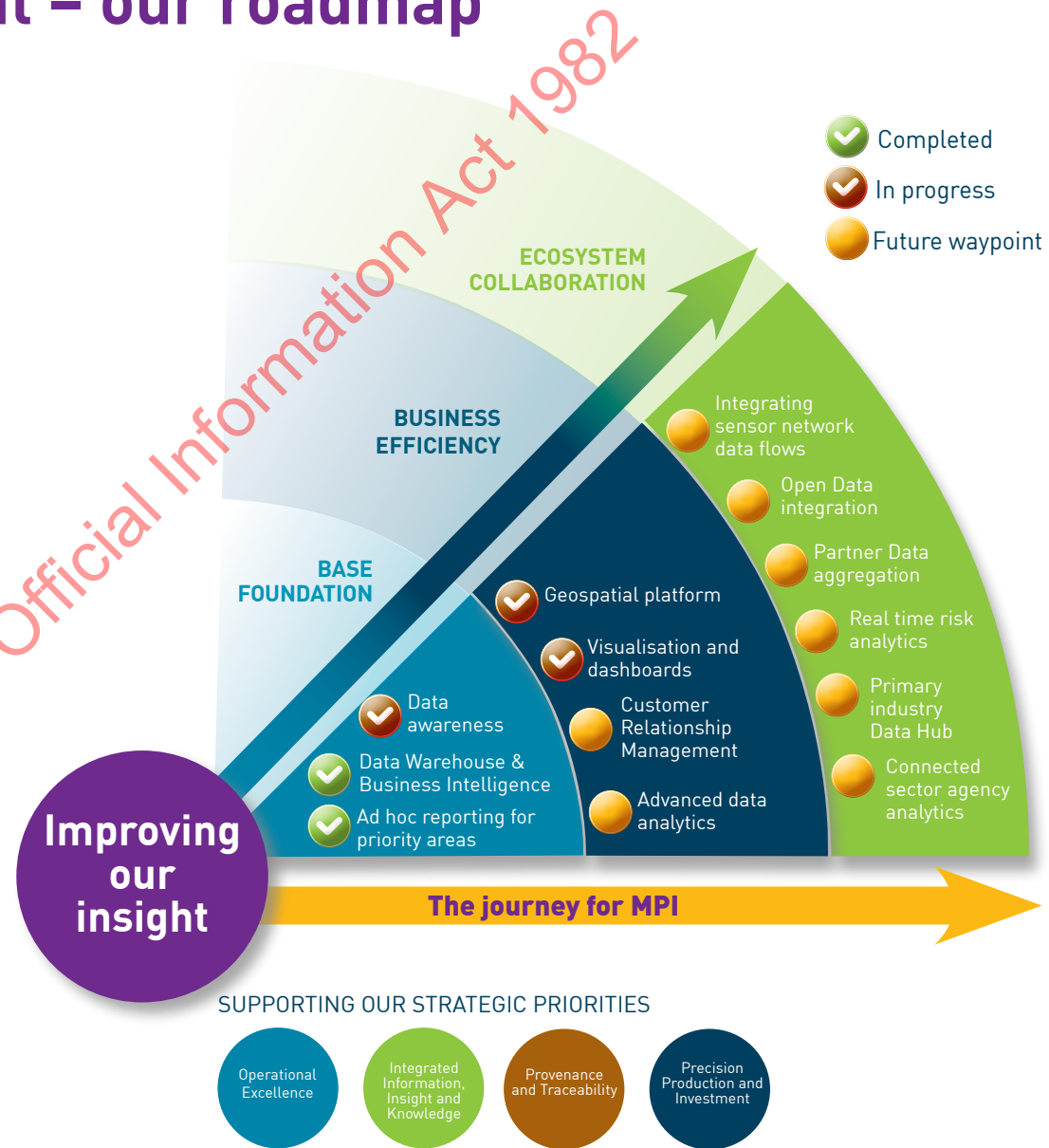
# Improving our insight – our roadmap

## Business Drivers

- » Better access to, and use of, all the data MPI has to support decision-making.
- » Linking data from external sources to enrich our own strategic data assets.
- » Enabling and supporting our primary industry partners by linking our data to external users.
- » Robust business intelligence capability supported by an integrated data warehouse – predefined reports and adhoc analysis/reporting.
- » Better management and sight of customers and our interactions with them.

## Characteristics

- » Deep understanding of Enterprise-wide and Domain-specific data/information.
- » Increase in BI people capability to support increased analytical function.
- » Analytics tools allowing transformation of “data to information and information into insight”
- » Data integration and dissemination for general (internal/external) consumption.
- » Data governance supported by behaviour changes introduced in respect of stewardship.
- » Greater sharing of data across MPI and the primary industries.







# Integrated Experience

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# Integrated Experience

To deliver what is expected of us by New Zealanders, it is essential we manage our services in an integrated and user-centric way. We will look for efficiencies in automating low value transactions, and provide channels that are relevant to the people and industries consuming our services.

## We will:

- » Develop and maintain application roadmaps for our system boards, enabling us to focus on improving our critical processes and systems.
- » Improve the experience of people using our systems by adopting a user-centric design approach.
- » Provide integrated and seamless tools that provide staff, the sector and stakeholders access to the information they need, when they need it.
- » Provide efficient and focused processes that enable us to spend more time on our core jobs, and less time processing information.

## Initiatives to improve our insight:

- » We will develop application portfolios based on systems to inform our application lifecycle decisions.
- » We will implement workflow to automate and streamline our processes.
- » We will grow and extend our current integration capabilities so that we can share information easier throughout MPI and the sector.
- » We will establish Master Data Management which will improve data accuracy and consistency.
- » We will simplify and reduce the number of touchpoints our people have with technology.

## Shifts

2015

Multiple system inputs	Single portals
Transaction centricity	User centricity
Manual processes	Automated processes
Disparate and duplicated	Enriched and focused
Data silos	Integrated information
Disparate systems	Integrated application roadmaps



# Integrated Experience – our roadmap

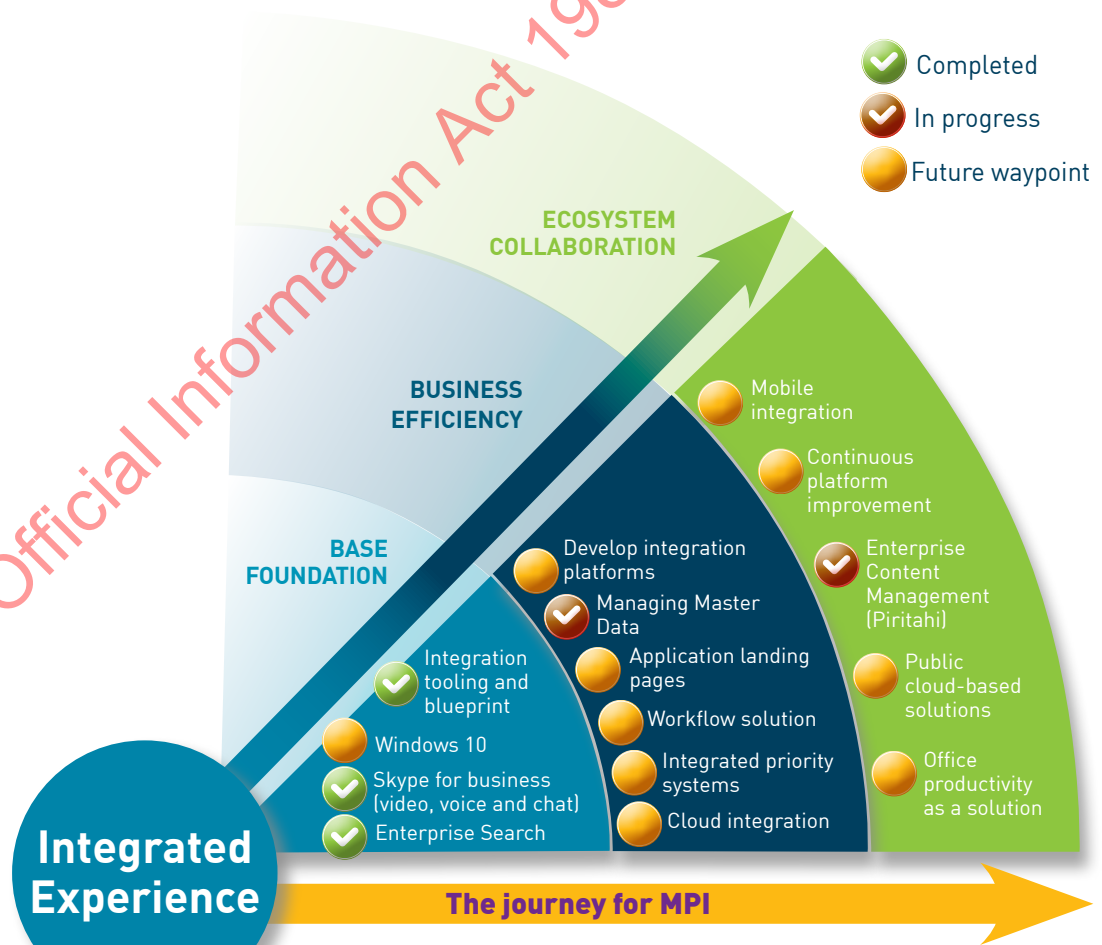
## Business Drivers

- » Everyone has access to the right tools to help them do their job effectively and efficiently.
- » Modern, easy to use applications which are user-centric and accessible from a range of settings/devices.
- » Systems that work together better requiring less manual processing/effort.
- » Lower cost of systems allowing for resources to be freed up to do more proactive, innovative things.

## Characteristics

- » Business applications that deliver business needs and demands.
- » Simple to use and rich user experience.
- » Process Automation and Approvals.
- » Stable and supported systems.
- » Standardised and rationalised application landscape.
- » Working in concert with all-of-government, sector and commercial initiatives/governance.

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### SUPPORTING OUR STRATEGIC PRIORITIES





# Mobilisation

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# Mobilisation

People expect our services to be available everywhere – our customers, stakeholders and staff need to be able to engage with the information they need, in a simple and easy way, using fit-for-purpose devices.

## We will:

- » Ensure information about primary industries is easily available to our staff, customers, stakeholders and citizens.
- » Give our customers and stakeholders access to mobile applications and other digital interfaces that allow them to carry out their interactions with MPI from a broad range of devices, in an efficient and effective manner.
- » Ensure our frontline staff have secure access to the information they need to do their jobs, when and where they need it using a device that will meet their needs.

## Initiatives to improve our insight:

- » We will develop our Mobility Strategy and related platforms to enable our data to be mobile, and presented in a manner that enables easy use.
- » We will implement the All-of-Government Telecommunication as a Service (TaaS), which provides network interoperability across subscribing agencies via the Government Network (GNET).
- » We will implement Application Program Interfaces that enable us to publish appropriate MPI and sector data to external parties.
- » We will leverage an appropriate Application Store to make MPI applications available to external parties where required.

## Shifts

2015

Multiple information sources	Single sources
Legacy applications	Web technologies
Enterprise applications	Mobile applications
Too much information	The right information

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# Mobilisation – our roadmap

## Business Drivers

- » Frontline staff have increased capability where they work.
- » Stakeholders and customers have more choice in the method they use to interact with us (i.e. mobile apps).
- » The right information is provided in the right place, at the right time.

## Characteristics

- » Internet based technologies, with rich applications functionality.
- » Web-oriented architecture.
- » Innovation framework that supports the identification and agile development of mobile applications/ opportunities.





# Exploit Emerging Technologies



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# Exploit Emerging Technologies

Innovative technology is bringing astonishing levels of precision to the primary sectors. Over time, what we now consider the leading edge of primary production will become the norm. The speed at which this occurs, will unlock increased productivity and forms a core part of value creation for primary products

Adoption of new technologies, prototyping, and customer-focused design activity will be an essential part of MPI's response to changing service demands as described in *Our Strategy in Action*. These new technologies need to be monitored to ensure that MPI identifies opportunities it can leverage off, such as increasing data collection to view trends impacting on the primary sector.

## We will:

- » Establish an innovation framework that enables us to swiftly prototype new technologies and capabilities, and adopt those that make sense.
- » Keep ourselves informed of emerging technologies that could add value and efficiencies to our core services, such as sensor and drone technologies.
- » Lift our productivity through innovation.

## Initiatives to improve our insight:

- » We will form appropriate partnerships to identify and prototype new technologies within MPI's environment.
- » We will build our capability to enable us to accelerate the development and uptake of appropriate emerging technologies.
- » We will build our relationships with vendors and suppliers enabling us to build our innovation and emerging technology practice.
- » We will actively research locally and globally on emerging opportunities (e.g. sensor technologies).

## Shifts

2015

Manual data collection	Automated collection
Human presence	Sensor presence
Manual detection	Automated detection
Health & Safety incidence	Reduced personal risk
Uncertainty	Opportunity



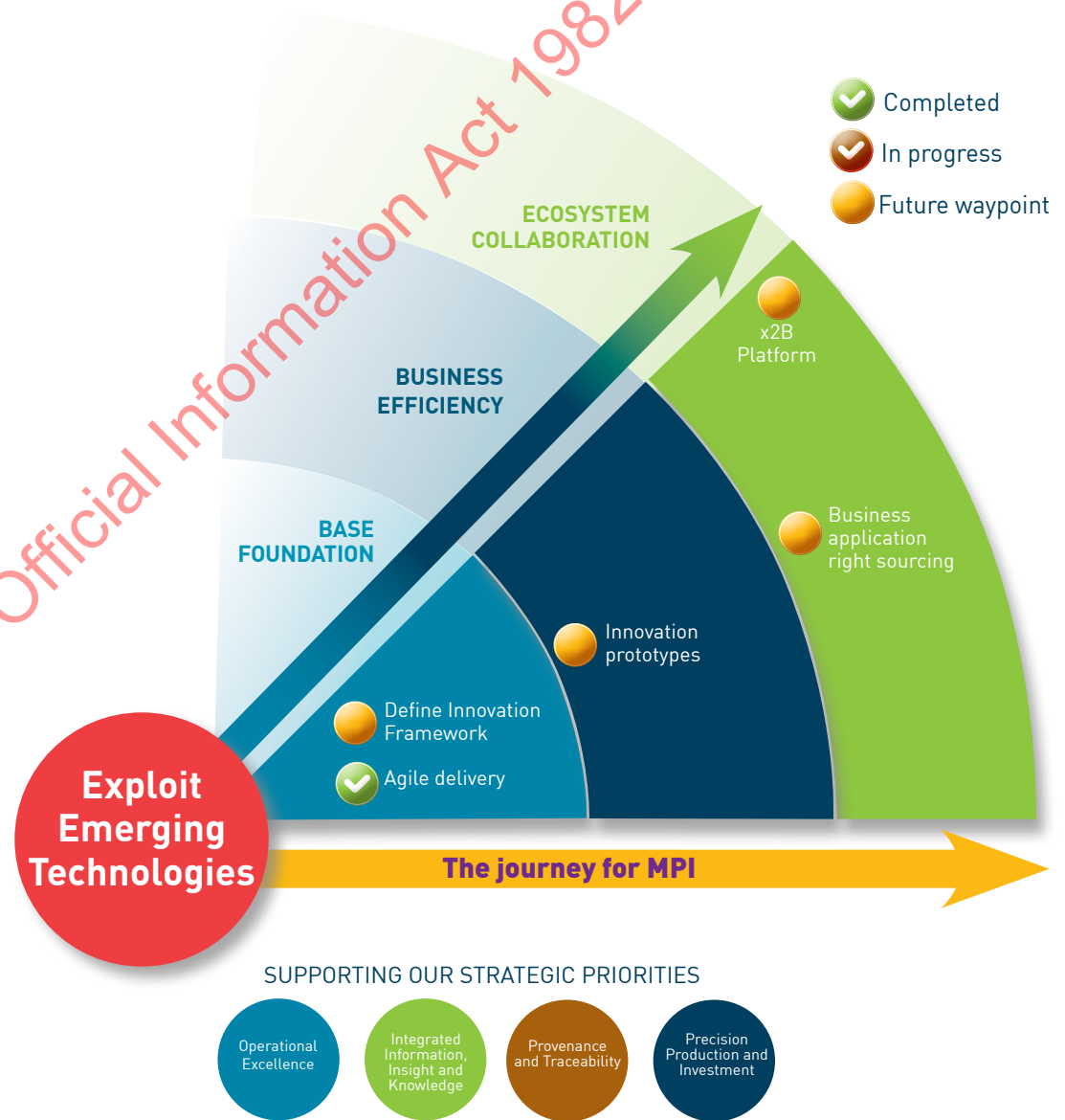
# Exploit Emerging Technologies – our roadmap

## Business Drivers

- » Leverage new technologies that provide efficiencies and insights.
- » Automate data collection.
- » Increase analytical capability by collecting precision data.
- » Free up our staff's time to do more proactive, innovative things, or redirected back into core business.

## Characteristics

- » Fast-cycle innovation framework that supports fast-paced delivery of innovation prototypes.
- » Increased used of sensor capability.
- » Easier and automated data collection.
- » Communications and expos with our community to share and identify ideas.
- » An awareness and willingness to experiment and learn.



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# Information Assurance



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# Information Assurance

Information Assurance activities provide confidence to the Ministry that our ICT investments are delivering the intended benefits. Our assurance activities are influenced by MPI's system boards, who drive the strategic portfolio of activities that support the organisation's seven strategic priorities.

We provide assurance activities by:

- » managing our catalogue of information strategic assets in the context of legal and legislative constraints, inclusive of a data stewardship model;
- » having appropriate information governance, led by the Information, Security and Infrastructure board;
- » applying a strong risk-base lens across our information assets to assess appropriate compliance and key mitigations;
- » implementing IT Operational Assurance and information security assurance activities, and embedding these into our information asset lifecycle processes; and
- » introducing Application Portfolio management which enables MPI to further categorise and manage its information systems and appropriately mitigate identified risks.

## Shifts

2015

Random Targeted

Reactive Proactive

General training Focused training

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# People Capability



MPI Project Mgmt Principles

- Sound estimate of combined resources, publications
- Set out & learn from previous experience
- Define of agreed products
- Planned, monitored & controlled on a stage-by-stage basis
- Tasked methodology to suit project scale & specific needs

Why projects fail

- Insufficient executive support
- Wrong project manager
- Not aligned to strategic priorities
- Insufficient resources
- Poorly defined needs
- Poor planning
- Lack of user involvement
- Unrealistic expectations
- Lack of project monitoring and control
- Poor communication
- Poor project management
- Poor location and timing

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# People Capability

It is imperative that as our technology advances and changes to meet the business requirements, we continue to grow our people to support an increasingly IT savvy organisation.

MPI's People Capability Strategy is to enable MPI to be an exemplar organisation as an employer of choice with a strong employment brand and a workforce that is cohesive, engaged and capable. It includes a strong forward-looking workforce development focus as well as strengthening the basics. It is currently being refreshed, and will continue to progress some of the key capability initiatives underway as well as addressing emerging capability needs.

## Organisationally we need to:

- » Align with MPI's People Capability Framework, and drive.
- » Uplift our training to ensure ICT capability is understood.
- » Increase our capability awareness programmes to drive uptake of solutions.
- » Develop and promote our data stewardship roles and responsibilities.
- » Embed the appropriate governance across ICT initiatives.

## BIG THEMES EMERGING

### Capable workforce

- » Our workforce is capable, they know how to grow their career at MPI and we are continually learning as individuals, and as an organisation.

### Successful leaders

- » Our leaders are well equipped to do their jobs in our busy, complex environment. They are resilient, clear on managing the basics, as well as how to lead an effective team to grow and protect NZ.

### Leverage Diversity

- » Our workforce reflects our customers/ stakeholders and appreciates their needs. They are highly engaged and motivated because we have developed them to do their role well.

### Connected

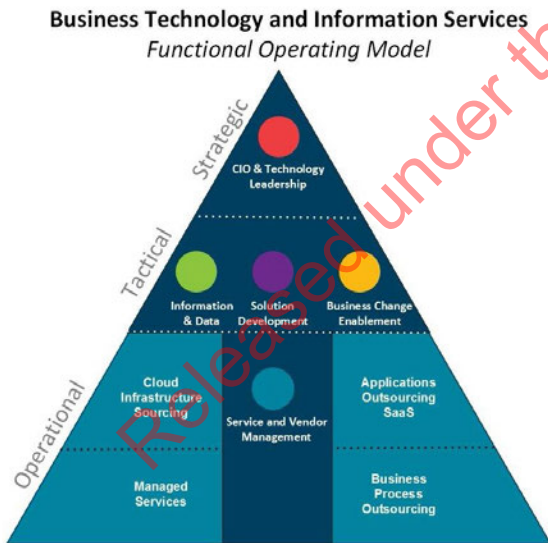
- » Our people truly partner with the community and each other – they put the customer at the centre, they collaborate widely and support GROWING & PROTECTING NZ. We encourage them to take appropriate risks to do this.

**Our internal team is investing in the following areas:**

**Our Career Pathway for ICT** has been created, which aligns with our Skills Framework for the Information Age (SFIA) and our lean operating model. This ensures we continue to develop our people in the areas required to support our technology roadmap.



**The evolution of the lean operating model is based around increasing internal strategic capabilities and leveraging external expertise in delivering operational services.** Our internal team plays a critical role as a support service and enabler for MPI across operator, steward, catalyst and strategist roles. The partnership model focuses on operational service delivery through external IT resources and delivering value-added services to the business through increased internal strategic capabilities.



**The Skills Framework for the Information Age (SFIA)** is a model we use for managing competencies for ICT professionals. It helps match the skills of our workforce to the needs of the business and drives development of capabilities.



**Adaptive IT:** As we evolve over the future years we will look at how we grow capability to manage and deliver an Adaptive IT approach. This includes:

- » **Adaptive strategy:** IT's role should shift between delivering, consulting, brokering and coaching to help the Ministry extract full value from technology regardless of where the ideas or money comes from.
- » **Adaptive governance and delivery:** Increase enterprise speed to market by accelerating governance and dynamically reallocating investments to free up resources.
- » **Adaptive workforce:** Continue to a customer-centric competency and behaviours, while enabling Information and Technology's technical edge.



# Information and Technology Strategy – Alignment to 2016 Strategic Priorities

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# Information and Technology Strategy – Alignment to 2016 Strategic Priorities

Strategic Priority	Strategic Portfolio Initiative	ICT enabling Theme
--------------------	--------------------------------	--------------------



International Access

- » Off-shore Footprint implementation.

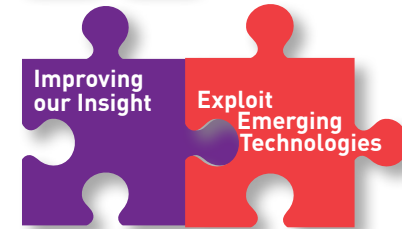


Mobilisation



Precision Production and Investment

- » Overseer – Improve efficiency of agriculture land.
- » Regional Economic Development Growth Programme.
- » Science Strategy Project.
- » Water and Irrigation.



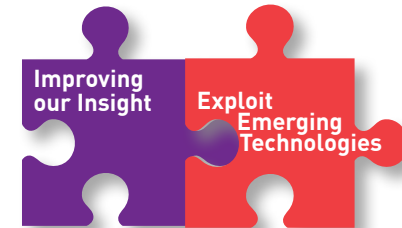
Improving our Insight

Exploit Emerging Technologies



Provenance and Traceability

- » Smartmark Project.
- » Strengthening Food Traceability.



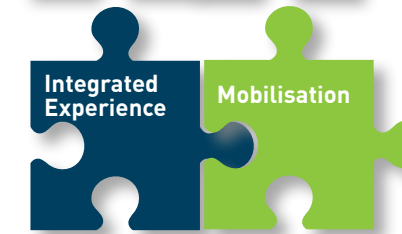
Improving our Insight

Exploit Emerging Technologies



Enduring Relationships

- » Workforce Planning.



Integrated Experience

Mobilisation

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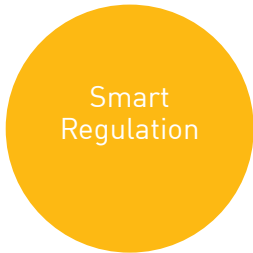


# Information and Technology Strategy – Alignment to 2016 Strategic Priorities (continued)

Strategic Priority	Strategic Portfolio Initiative	ICT enabling Theme
--------------------	--------------------------------	--------------------



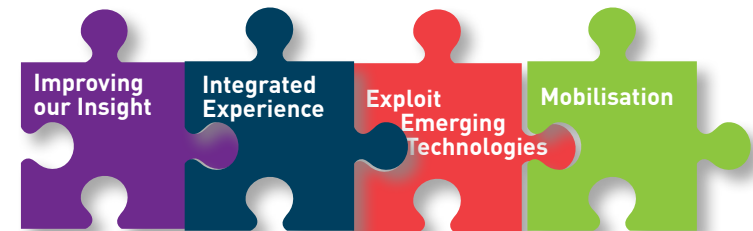
- » Research Technology and innovation.
- » Enhance Enterprise Business Intelligence, Data Warehouse and Geospatial Platform.
- » MPI Website Project.
- » Piritahi Project.
- » Scope work required to enhance MPI's core human resources and financial systems.



- » Food Act 2014 Implementation Programme.
- » End-to-end Regulatory Framework.



- » Biosecurity 2025: Updating the Biosecurity Strategy.
- » GIA Partnership for Biosecurity Readiness and Response.
- » JBMS Programme.
- » MPI Emerging Risks System.



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**Ministry for Primary Industries**  
Manatū Ahu Matua



# FIP – IL/MAPS Data Integration Approach

## Integration of RBM Data Within MAPS into IL – Approach Document

**Author:** s 9(2)(a) – Tech BA, BTIS  
**Version:** v1.0  
**Date Issued:** 1st November 2017  
**Status:** Final

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## 1. Document Overview

### 1.1. Document History

Version Number	Date Issued	Author	Description of Changes
v0.1	31/10/2017	s 9(2)(a)	Initial version issued
V1.0	01/11/2017	s 9(2)(a)	Final version published

### 1.2. Document Purpose

The purpose of this document is to provide background on the current state of MAPS/IL data integration in the context of providing reporting capabilities across the Registration and Verification/Enforcement process. It will describe the current issues meeting these requirements and provide the basis for a discussion on the resolution of these issues.

### 1.3. Document References

Document Name	Author	Details
<a href="#">FIP - IL-MAPS Detailed Reporting Requirements</a>	s 9(2)(a)	Consolidated requirements for both Verification/Enforcement and BI Reporting into one spreadsheet, with some mapping to the data from both source systems.
<a href="#">Verification and Monitoring – Business Requirements</a>	s 9(2)(a)	Defines the requirements to support Verification and Enforcement processes. Within the context of this document, it specifies the reporting capabilities required.
<a href="#">Food Assurance Theme – BI Requirements</a>	s 9(2)(a)	Defines the Business Intelligence (BI) Hub requirements for reporting on Registration/Verification/Enforcement from the BI Hub.
<a href="#">Food Assurance Theme – BI Requirements (Detailed)</a>	s 9(2)(a)	A spreadsheet in which the requirements detailed above are broken down by user stories.
<a href="#">Requirements for IL Use of MAPS Data.docx</a>	s 9(2)(a)	Requirements for the web service to return RBM data from MAPS to IL.
<a href="#">Tech Spec - MAPS Web Service.docx</a>	s 9(2)(a)	Technical specification for the web service which returns RBM data from MAPS to IL.
<a href="#">FIP - IL-MAPS Integration - IL Screenshots</a>	s 9(2)(a)	Screenshots illustrating the link between IL and MAPS.
<a href="#">MAPS Salesforce Functional Specification.docx</a>	s 9(2)(a)	Description of Salesforce objects containing RBM information.

## 2. Glossary

<b>Term</b>	<b>Definition</b>
IL	Information Leader: This system contains data specific to the detailed verification/enforcement standards applied to each Site operated by a Subject.
MAPS	Multiple Approval Processing System: This system contains data specific to the registration of businesses under the Food Act 2014.
RBM	See Risk Based Measure
Risk Based Measure	In the context of this document, Risk Based Measure (RBM) relates to data captured within MAPS specific to one of the five risk based measures defined under the Food Act 2014.
Site	A premises subject to Verification.
Subject	An individual or organisation on whom data is stored in IL. Within the context of this document, the data is stored for the purposes of logging Verifications against that subject.
Registration Authority	The local authority or national body managing the registration businesses under the Food Act. This data is captured in both MAPS and IL.
Verification	The process by which a Site is judged to meet/fail the appropriate measures under the Food Act 2014.
Verification Agency	The body responsible for ensuring and verifying that a Site has been inspected for compliance under the Food Act 2014. This data is captured in both MAPS and IL.
Verifier	The individual responsible for performing the Verification on a Site for a Verification Agency. Verifiers are authorised users of IL.

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### 3. Background

Two sets of reporting requirements have been developed related to the Food Act 2014. The Verification/Enforcement requirements and the Business Intelligence (BI) Hub requirements.

While these two sets of requirements are distinct, there are enough areas of overlap to explore both concurrently.

At present, there are issues in meeting both sets of requirements. This document will explore these issues as a basis for discussion on potential resolutions.

It should be acknowledged that analysis/design has already been undertaken to meet the requirements. This document will reference that work.

### 4. Current State

The sources for data for both sets of requirements are:

- MAPS (Multiple Approvals Processing System)  
This system contains Risk Based Measure (RBM) information on all businesses registered under the Food Act 2014, including the RBM and the name of the Verification Agency or Agencies performing verifications on all Site(s) registered under those businesses.
- IL (Information Leader)  
This system contains detailed information relating to the verifications and enforcement activities undertaken

The target for this source data is (currently):

- For Verification/Enforcement Reporting  
The solution proposed thus far is that reports should be generated from IL itself, enhanced with RBM data imported from MAPS at the time of creating a Subject – see Appendix A for a full list of the data currently imported from MAPS into IL on Subject creation)
- For Business Intelligence Reporting (BI Reporting)  
The proposed solution is that all data from IL and RBM data from MAPS be directed into the BI Hub for enhanced reporting.

Clearly, in order to enable successful reporting on both sets of requirements it is essential that the source data is successfully integrated.

## 5. Data Integration

### 5.1. IL Data Structure

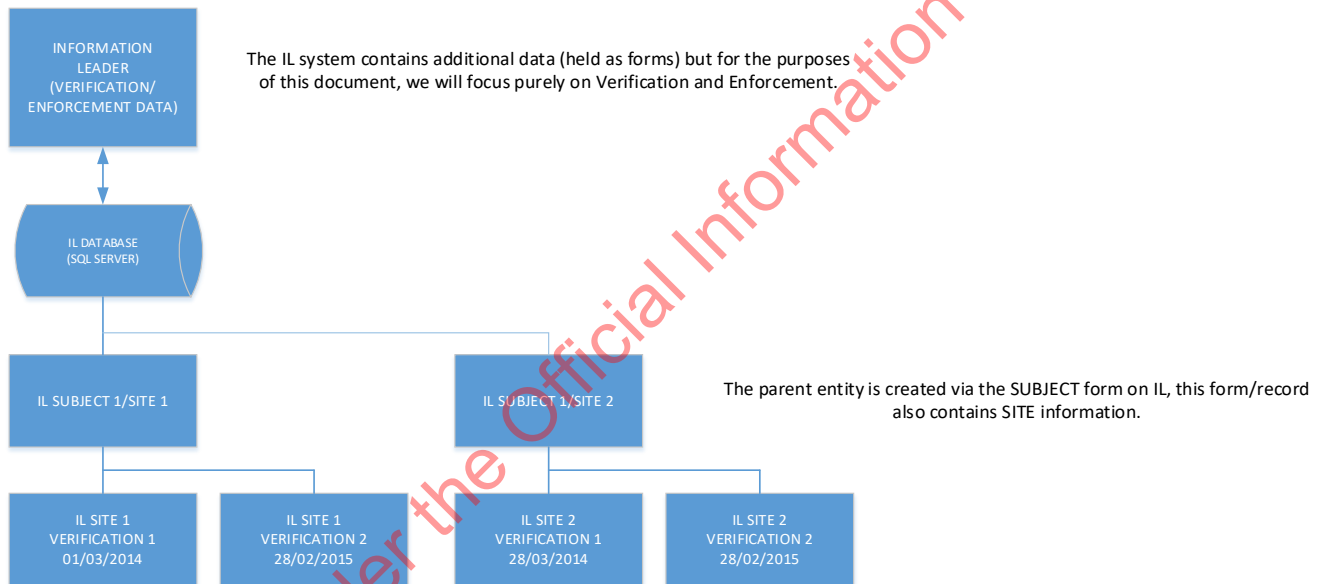
In order to understand the issues surrounding IL-MAPS integration, a brief overview of IL data structures is required.

Within IL, when a user creates a new Verification or Enforcement form, two levels of data are referenced.

- A Subject/Site level data structure, where the Subject is the individual or organisation name related to the verification or enforcement and the Site is the place of business operated by the subject. Note that a Subject may operate more than one Site.
- A Verification level structure (linked to the specific occurrence upon which the Site was verified).

In order to log Verification details, Subject/Site details must already exist in IL. If they do not then the IL user must first create the Subject/Site record.

Subsequent to the creation of Subject/Site, then the Verification detail may also be entered for each dated verification of the relevant Site.



Each dated Verification is held against each Site.

Fig 1: Subject/Site and Verification data structure, as created within IL

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### 5.2. IL-MAPS Integration

The first step toward successful implementation of both sets of reporting requirements is the integration of IL and RBM data from MAPS.

Theoretically this is straightforward as IL users can interrogate MAPs via the “Registered Organisation Search Lookup” screen, on the Subjects page. This invokes web service [getRegisteredSites](#) (see Appendix A for detail) using either of the following search criteria:

IL Field Name	Format	MAPS Field Label	MAPS Field Name	Example Value
Registration Number	Varchar (14)	Site Registration	Site__c.Site_Registration_Number__c	MPI000123
Organisation Name	Varchar (40)	Legal Name OR Trading Name	Site__c.Name OR Site__c.Trading_Name__c	s 9(2)(b)(ii)

Table 1: Search criteria used in the IL-MAPS integration service “getRegisteredSites”

These criteria are used to interrogate MAPS and the service will return all instances of Sites where:

- The Site Registration Number on MAPS contains “MPI000123” OR
- The Site Legal Name contains “s 9(2)(b)(ii)” OR
- The Site Trading Name contains “s 9(2)(b)(ii)”

**Registered Organisation Search Lookup**

Enter part of the Registration Number or part of the Organisation Name and click Lookup.

Registration Number:

Organisation Name:

RegistrationNumber	LegalName	TradingName	PhysicalLocation	TownCity
				Waiheke Island
				Milton
				Auckland 1026
				Ashburton
				Cambridge 3432
				Christchurch
				Auckland 0612
				Auckland
				Lower Hutt 5010
				Christchurch
				Featherston 5710
				Kumeu 0810
				Christchurch
				Masterton

Fig 2: Result set returned on the entered IL search criteria



The user can then select the appropriate Site (if more than one is returned) and the MAPS data from the result set is used to auto-populate fields within the form (see Appendix B). Subsequent to this, it will also create the resultant data structures within the IL database (see Fig 3 below).

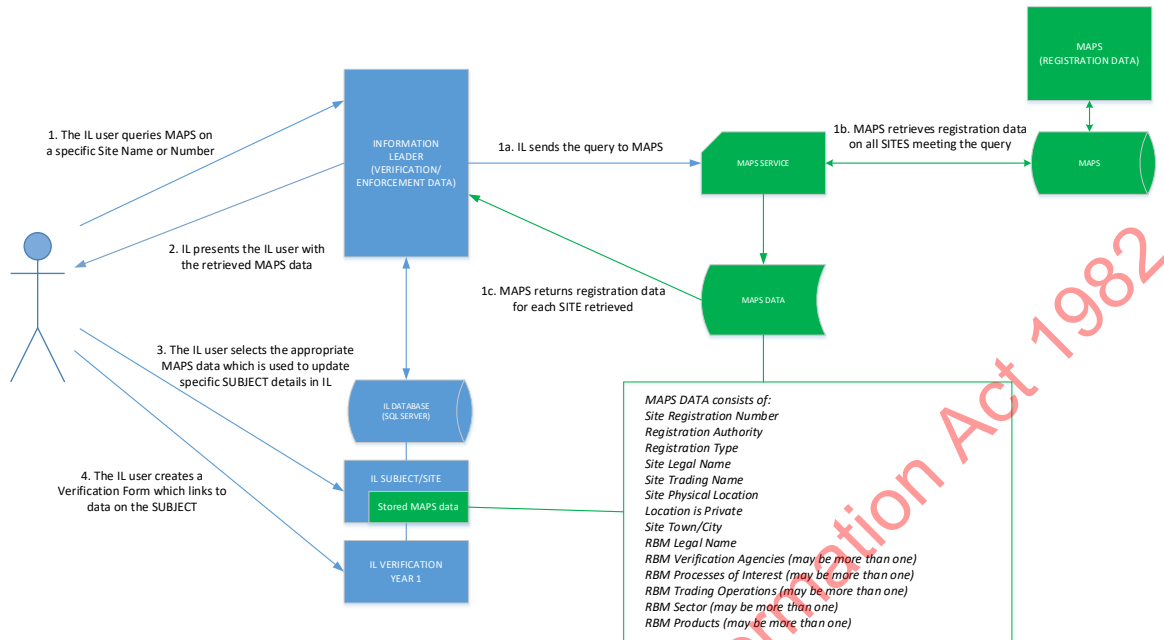


Fig 3: The interaction between an IL user, IL and MAPS

In this way, data consistency between IL and MAPS is enforced at the point in time at which the Subject is created.

The MAPS service illustrated above has been created and tested, and currently resides in the production IL environment. However, it does not resolve the issue of missing/incomplete/mismatched registration if the Subject already exists in IL, before the Food Act 2014 commenced or the MAPS service was introduced. See fig. 4 below:

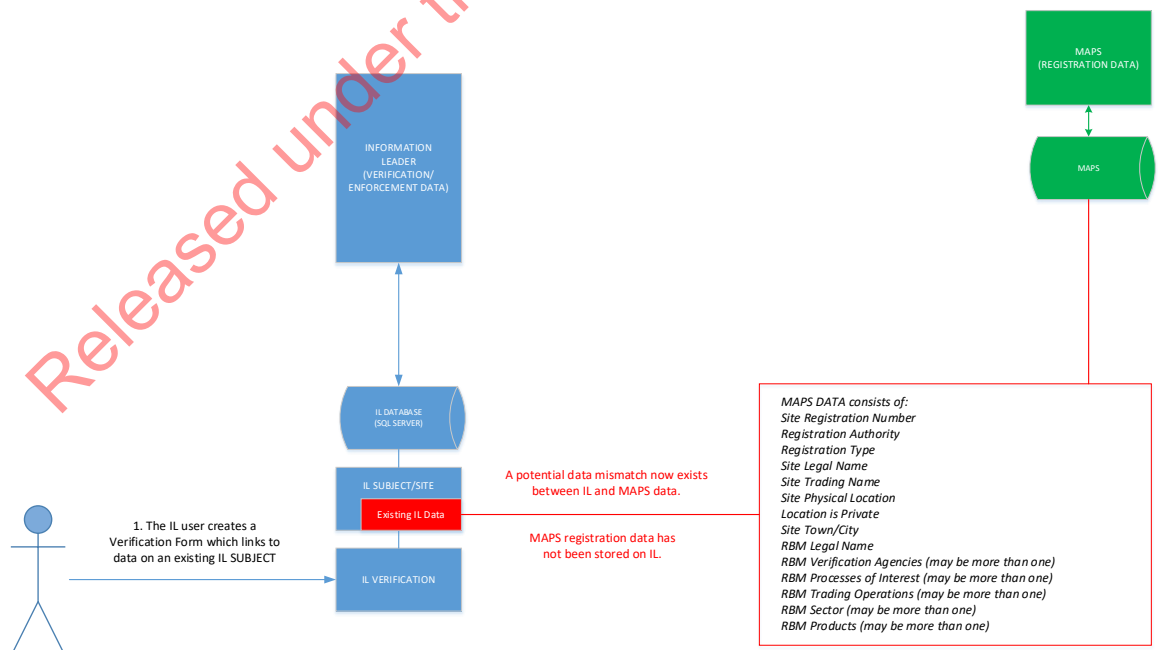


Fig 4: An IL creates a verification linked to an existing IL Subject/Site with no MAPS link.

5.2.1. IL-MAPS Integration Issues

The issues with IL-MAPS data integration are as follows:

1. Incorrect/Incomplete IL Data

As stated above, if an IL Subject/Site exists (was created prior to the Food Act 2014 and/or the introduction of the link to between IL and MAPS) then a verification/enforcement form can be created linked to a Site for that Subject. This will potentially result in incomplete/inaccurate IL data as the required RBM data will not be retrieved from MAPS.

2. MAPS/IL Reconciliation

If RBM registration data could be imported and used to update historic IL Subject/Site records, it would resolve issue 1 above. However, automated matching between the systems has proven problematic due to matching issues.

When RBM data from MAPS is used to create the “Full Subject Name” on IL, a concatenation of Site Legal Name and Site Trading Name is used. In the example below, the “Registered Organisation Search Lookup” has returned the following result set on a search on “s 9(2)(b)(ii)”



Fig 5: Result set returned on entry of IL Organisation Name “s 9(2)(b)(ii)”

If the IL user selects the third of the returned results, IL creates a Subject/Site record with the Full Subject Name of “s 9(2)(b)(ii)” + “t/a:” + “s 9(2)(b)(ii)”.

(Note: If the Trading Name is spaces then IL takes only the Legal Name and does not add the “t/a:”).



Fig 6: Concatenation of Site Legal Name and Site Trading Name

Due to the use contractions such as “Ltd”, “NZ” and “s 9(2)(b)(ii)” there are a number of ways this Subject/Site may already have been defined on IL and the IL/MAPS interface will be unable to detect such a duplicate. The result is that a new Subject/Site will be created, and not an update of the historic IL record.

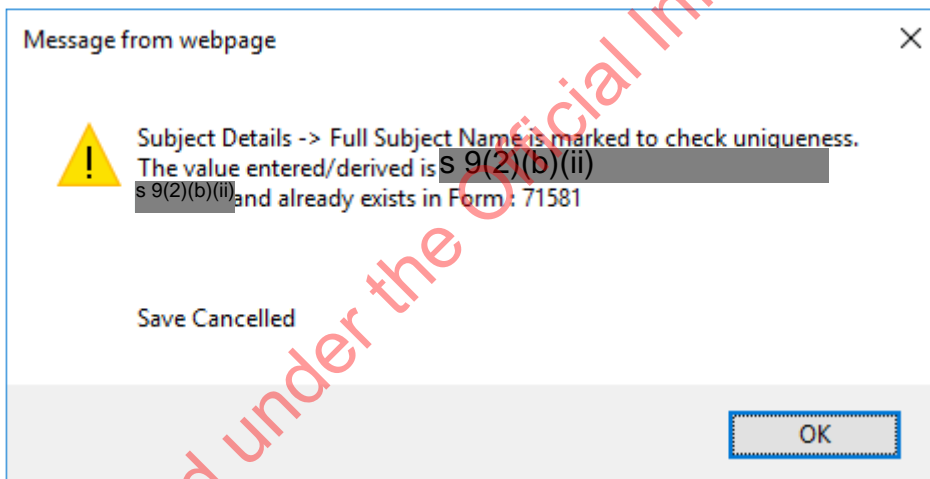
An attempt to manually resolve such issues has been attempted, but the volume of problems has proven this approach prohibitive.

3. Duplication of MAPS Data

In this example, if the user creates a Site/Subject on IL by selecting CCC000978/1, then a Site/Subject with the Full Organisation Name of "s 9(2)(b)(ii)" would be created.



However, if the IL user then attempts to create a Site/Subject by selecting Site Registration Number s 9(2)(b)(ii), then the following error message will be generated.



Obviously, this same error will be generated if a batch upload of MAPS RBM data is attempted into IL. From analysis of MAPS RBM data in the BI Hub, there appear to be approximately 260 out of 11,718 records affected in this way.

### 5.3. IL-MAPS-BI Hub Integration

#### 5.3.1. The MAPS RBM Registration Process

MAPS is the repository of all RBM information. This information is captured in one of two ways:

- Via registrations processed via MAPS
- Via registrations processed by one of the Territorial Authorities (TAs). Once approved, these registrations are sent to MPI in xml files and then stored in MAPS.

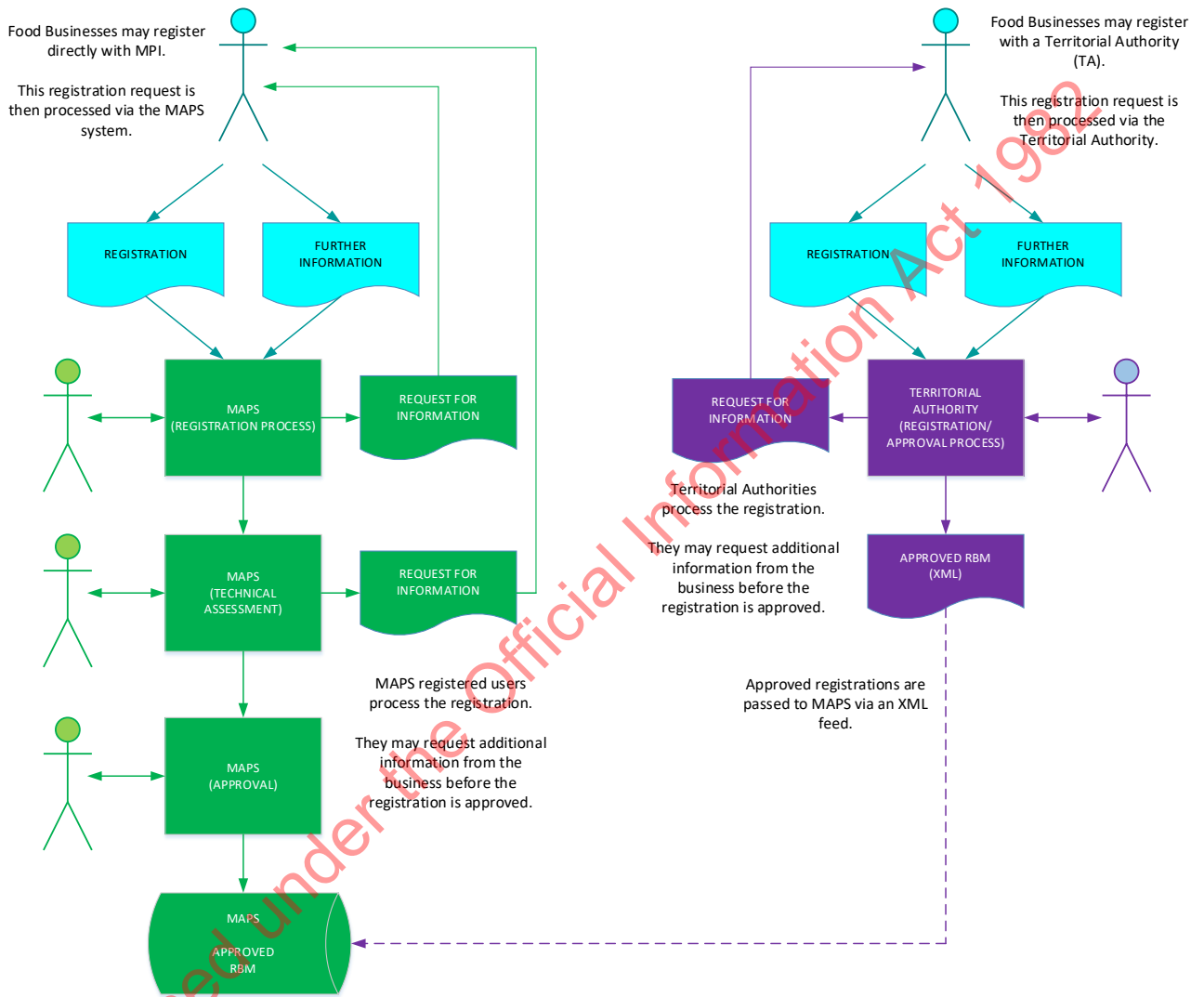


Fig 7: The Registration process

5.3.2. BI Reporting on MAPS and IL Data

The Business Intelligence (BI) Hub is a reporting portal into the MPI Enterprise Data Warehouse. It is designed to allow custom reporting of consolidated MPI data via the MicroStrategy tool.

All BI Hub Reporting requirements relevant to the Food Act are documented [here](#).

To meet the subset of requirements in the above document which are relevant only to the Food Act, data from both IL and MAPS must be directed into the EDW.

At present, only MAPS data is sent to the EDW via a nightly batch (name?) which executes at (???)

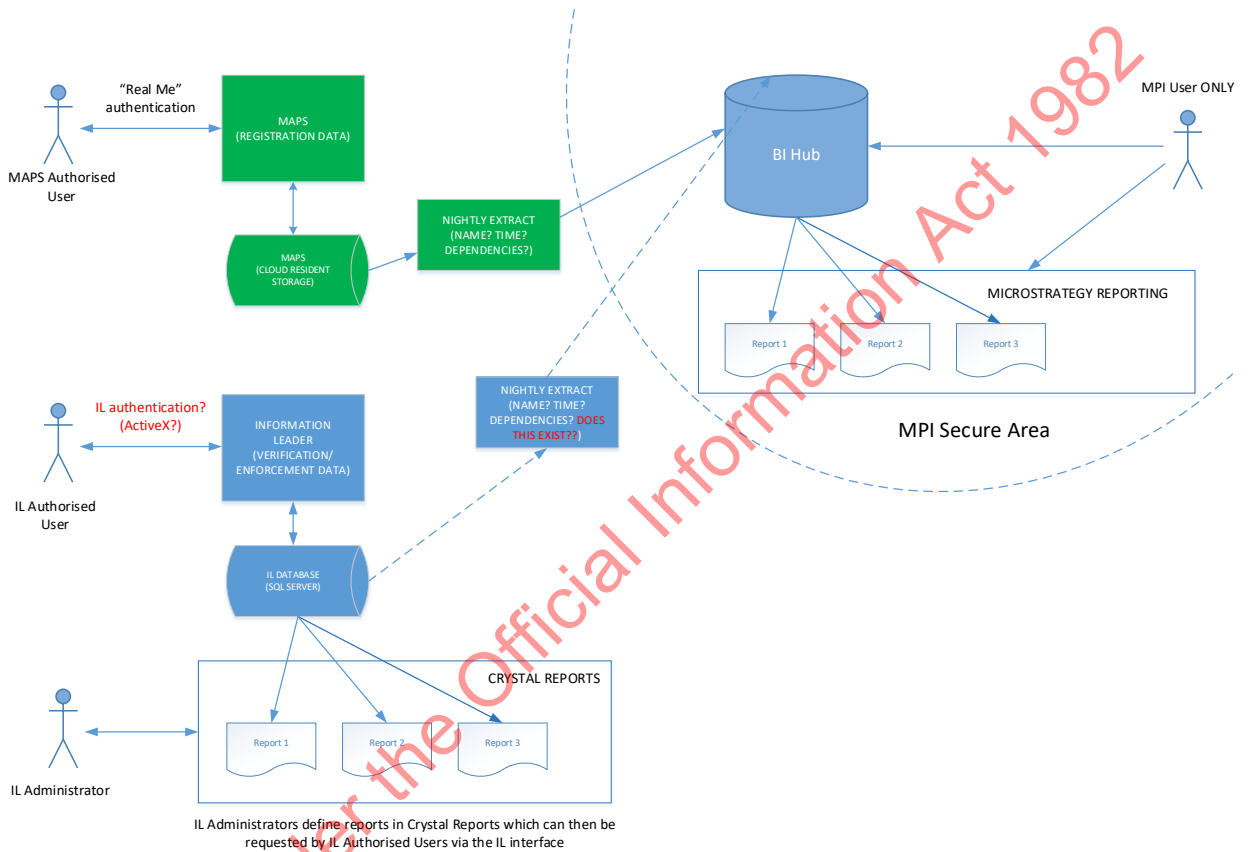


Fig 8: MAPS/IL/BI infrastructure

The BI Reporting requirements cannot currently be met because the IL required data is not being directed into the BI Hub. The issues currently preventing this are listed in section 5.2.1 of this document.

## Appendix A – RBM Data Passed to IL via getRegisteredSites

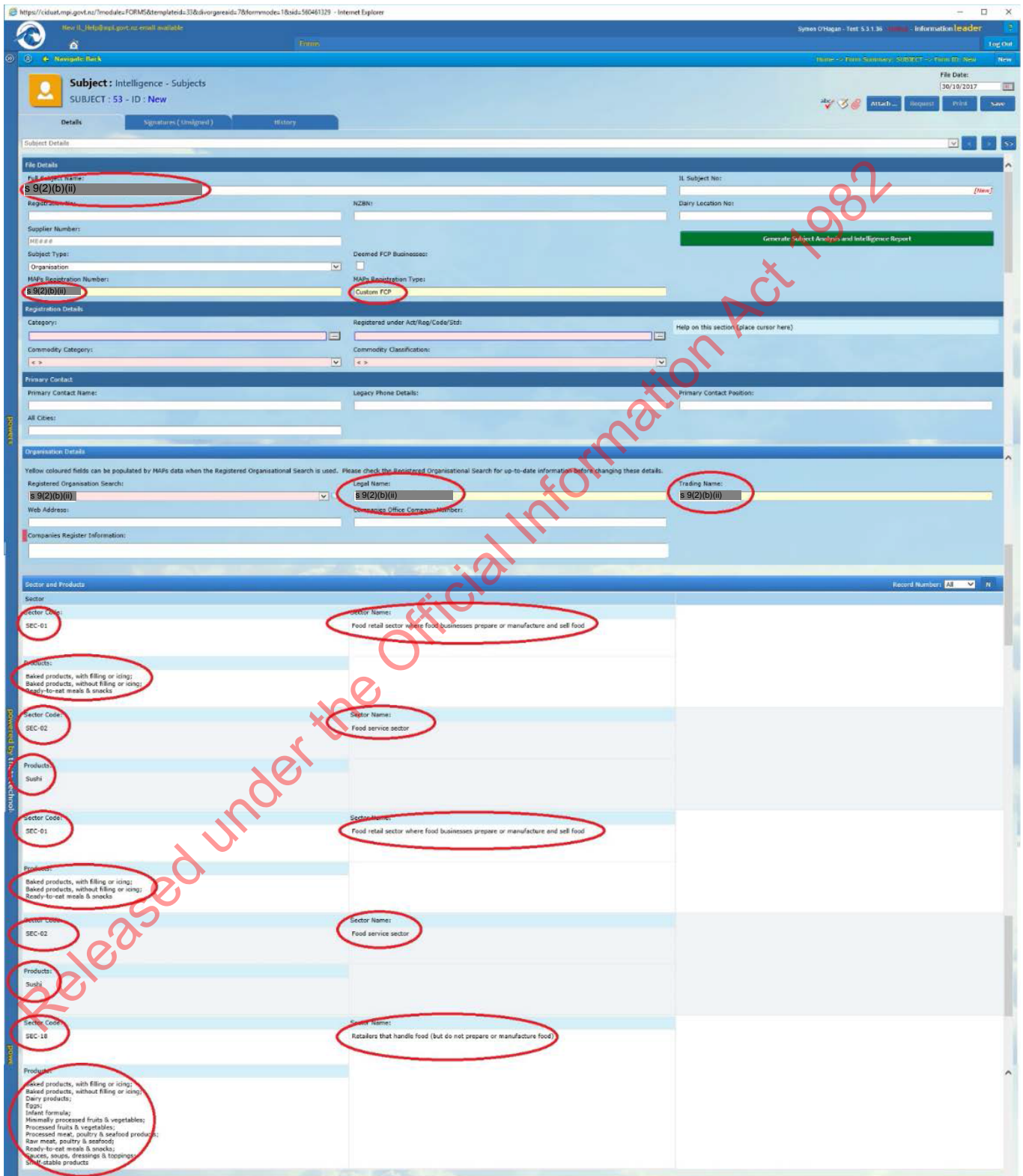
A service currently exists ([getRegisteredSites](#)) which will query MAPS RBM data using either of the key fields listed above and return a list of Registered Sites, which the user may select to complete specific fields within the IL subject. These fields are:

Name	MAPS Field Name	Occurrences
Site Registration Number	Site__c.Site_Registration_Number__c	1 per Site
Registration Authority	Risk_Based_Measure__c.RA_Name__c	1 per Site
Registration Type	Risk_Based_Measure__c.Registration_Type__c	1 per Site
Site Legal Name	Site__c.Name	1 per Site
Site Trading Name	Site__c.Trading_Name__c	1 per Site
Site Location	Site__c.Physical_Location__c	1 per Site
Site Location Confidential	Site__c.Address_Is_Private__c	1 per Site
Site Town/City	Site__c.Town_City__c	1 per Site
RBM Legal Name	Risk_Based_Measure__c.Legal_Name__c	1 per Site
Verification Agency	Risk_Based_Measure__c.Verification_Agency__c	1+ per Site
Process of Interest	Risk_Based_Measure__c.Process_of_Interest__c	1+ per Site
Trading Operations	Risk_Based_Measure__c.Trading_Operations__c	1+ per Site
RBM Sector Product	Sector_r.Name__c	1+ per Site
Product	RBM_Product_Sector__c.RBM_Product_Name__c	1+ per Site

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### Appendix B – Auto-Population of IL with MAPS RBM Data

This screenshot illustrates those fields pulled into IL from MAPS upon IL user selection of a Registered Site from the “Registered Organisation Search Lookup” screen (see section 4.2).



Appendix B (Continued)

The screenshot displays a software interface for managing contact information. It is divided into sections: 'General Details', 'Contact Addresses', and 'Contact Numbers'. The 'Contact Addresses' section is the primary focus, showing a table with columns for 'Address Detail', 'Details', 'Primary Address', and 'Notes'. The data row shows 'Main Road South' as the address line 1, 'Business Address' as the type, 'Yes' as the primary address, and 'Ashburton' as the town/city. The post code is '8012'. There are also fields for 'Address Line 2', 'Suburb', and 'Physical Location is Confidential' (unchecked). The 'Contact Numbers' section below is partially visible, showing a table with columns for 'Number', 'Details', 'Primary Number', and 'Notes'. A large red watermark is overlaid diagonally across the page.

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# Verification and Enforcement Monitoring System Solution Options Paper

**Prepared By:** s 9(2)(a)  
BT & IS, Strategy and Architecture

**Prepared For:** s 9(2)(a)  
Project Manager, ICT Transformation

**Version:** 1.0

**Status:** Final

**Created:** 29 November 2017

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# Document Information

## Version History

Date	Version	Author	Comments
29/11/2017	0.1	s 9(2)(a)	Initial draft.
12/06/2017	0.2	s 9(2)(a)	Updated draft.
8/12/2017	0.3	s 9(2)(a)	Incorporated feedback from peer review
11/12/2017	0.4	s 9(2)(a)	Formatting changes and feedback from s 9(2)(b)(iii)
12/12/2017	0.5	s 9(2)(a)	Feedback from s 9(2)(b)(ii)

## Consultation and peer review

Business	Stakeholders
BTIS Strategy and Architecture	s 9(2)(a) (Manager Strategy & Architecture, Strategy and Architecture)
Data and Information	s 9(2)(a) (Manager Information & Data Management)
Applications	s 9(2)(a) (Development Manager)
Business Engagement Partners	s 9(2)(a) (R&A) s 9(2)(a) (OPS)

## Architectural Approval

Name	Role	Signature/ Date	Agreement?
BTIS Architecture Forum	Approve if within normal MPI architecture	_____ / / _____	Yes/ No

## Associated documents

Document name	Link
Consolidated Requirements	s 9(2)(k) [Redacted] [Redacted] [Redacted]
SAD Verification and Enforcement IL Integration	s 9(2)(k) [Redacted] [Redacted] [Redacted] [Redacted]

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# 1 Introduction

## 1.1 Purpose of Document

This paper identifies the initial high level solution options to deliver an MPI verification and enforcement monitoring application to facilitate verification functions of the Food Act.

## 1.2 Intended Audience

This document is intended for BTIS Architects, the Architecture Forum, the Applications Group and the project team working on verification and enforcement monitoring solution.

## 1.3 Introduction

BT&IS architecture team has been tasked with proposing solution options to address the business need for a verification system that will support regulation of Food Act 2014. In order to effectively monitor performance of registered food businesses and recognised persons and agencies information concerning the Verification undertaken needs to be captured.

### 1.3.1 Background to project

On the 1st March 2016 the Food Act 2014 came into force. All operators of the Food Act 2014 registered food businesses in NZ are subject to verification, as set down by the legislation and may also be subject to complaint investigations.

The business had selected the InformationLeader application to manage the food related compliance data supplied from the Territorial Authorities (TAs) and the third party Verifiers for the purpose of:

- effectively monitoring the performance of recognised persons and agencies information
- capturing the details of auditing and investigations undertaken by them
- InformationLeader is currently used for the verification and MPI Compliance Case File Management system for a number of MPI regulatory systems.

The business requirements states that the compliance of food premises as demonstrated through audits and investigations, if captured and reported appropriately, will assist MPI in determining the following objectives:

- enables MPI, Territorial Authorities and Verifiers to better target regulatory efforts by focusing in areas where improvements are most needed
- identifies emerging trends and common issues and influences nationwide compliance approaches
- enables MPI, Territorial Authorities and Verifiers to benchmark their food regulatory activities by providing trends and averages
- encourages consistent application of the Act by Verifiers and Food Safety Officers
- builds a picture of how food regulation is performing in New Zealand and how it can be improved
- establishes the impact of the Food Act 2014 and whether the desired outcomes, with regards to food safety behaviours, are being achieved.

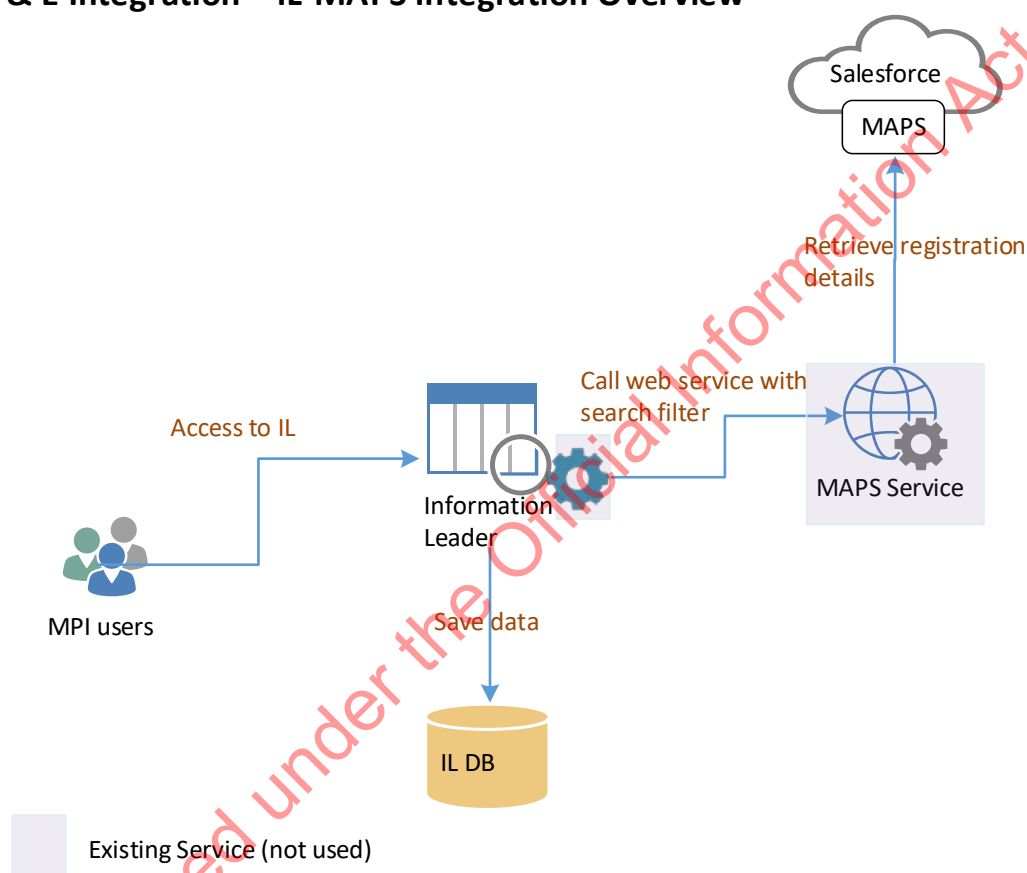
### 1.3.2 Current State

Currently the integration between Multiple Approval Processing System (MAPS) and InformationLeader is to have accurate information from the single source of truth i.e MAPS for Risk Based Measure (RBM) registrations and to make it available for users within InformationLeader.

MAPS Service is a service hosted in MPI to retrieve certain registration dataset based on given condition(s) from Salesforce MAPS.

The diagram below illustrates the overview of the integration between MAPS and IL.

#### V & E Integration – IL-MAPS Integration Overview



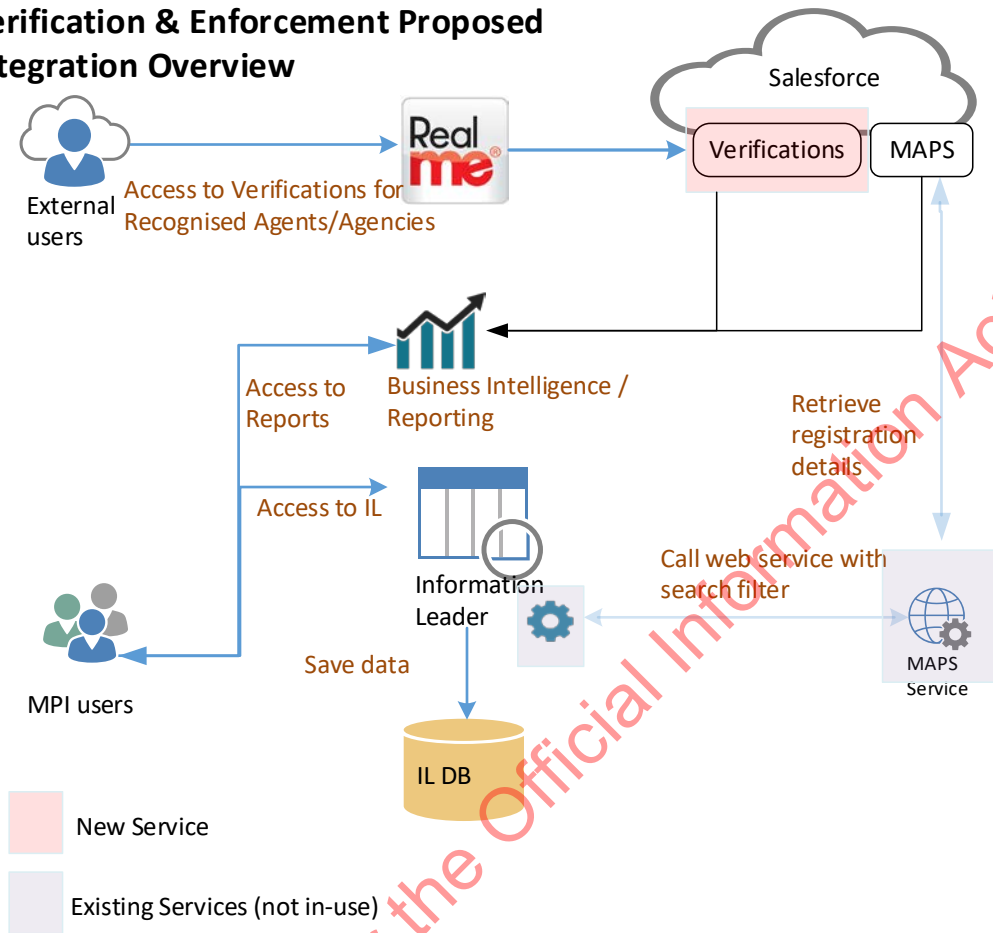
As shown in the above diagram, the MAPS service was added so that IL verification users could search for a registered site within MAPS from within InformationLeader. However, this functionality was never utilised. The Risk Based Measure site was introduced to verification records, however it did not create a 'subject' within InformationLeader. Where 'subject' within InformationLeader represents a food business. A relationship needed to be established between a food business i.e subject and verification record such that historical data about the subject could be visible. Due to changes in verification form, MAPS service did not satisfy the business requirement. Therefore, MAPS service was no longer used.

The workaround to making MAPS service redundant was to bulk upload Risk Based Measure data to subjects within Information Leader and then a new service (to be determined) would be responsible for keeping Risk Based Measure data up to date on monthly basis. An initial extract of Risk Based Measure data was taken from MAPS and uploaded to InformationLeader, which resulted in significant data integrity issues that required manual intervention to consolidate the data. This process is not feasible or viable going forward.

### 1.3.3 Proposed Future State

The future state will extend upon existing solution within Salesforce. The verifications module within Salesforce will enable agencies and recognised agents an ability to authenticate via RealMe and provide verification data.

#### Verification & Enforcement Proposed Integration Overview



### 1.4 High-level Requirements

High-level requirements below summarise recent discussions, and previous project artefacts. These requirements have been used to evaluate the different solutions.

#### 1 User Management & Authentication

User management functions such as permissions model, groups, access control etc. Such that users with appropriate privileges can do verification related functions. Discovery of members by the verifier will be controlled by user management function within the solution.

#### 2 Auditability & Traceability

The system audit needs must be met and comply with MPI's obligations under provisions such as the New Zealand Information Security manual (NZISM) and the Public Record Act (PRA) 2005. An audit will provide references that are traceable to individual member of the system.

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### 3 Forms

Paper based verification report will now be replaced by web based form that an authenticated user (verifier) can use to input verification data. As an extended feature, ability to bulk upload verification data will enhance interoperability of the solution.

### 4 Reporting

Reporting on sectors, clusters and percentage of registered premises would be required. Ability to run custom reports such as percentage of verifications that were scheduled / unannounced.

### 5 Scalability & Reliability

Support advanced predicative analytics to understand long-term trends and change work practices.

### 6 Integrations

Integration in to MAPS data to populate elements of verification data attributes such as RecognitionID and ExpiryDate.

Fetching site details will require integration with RBM registration data.

### 7 Security

The data being captured is in In-Confidence data.

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## 2 Options for Consideration

Two options are presented. The first option is based on using the current case management system i.e InformationLeader. The second option is to extend the verification recording function within Salesforce alongside MAPS solution.

The options provided are not exhaustive, other solutions and/or slight variations on the options provided are possible. The options presented represent distinct points in the broader possible solution range. The chosen design may be adjusted during design and implementation as knowledge of the domain and the details requirements increases.

### 2.1 Option 1: InformationLeader solution

This option reuses the InformationLeader system. This solution will not only require <sup>s 9(2)(b)(ii)</sup> but also Certificate and Accreditation (C&A). Due to business requirement of allowing external users (i.e. recognised and authorised agents /agencies) to be able to login.



Pros	Cons
Since MPI has an existing system it could potentially be quicker to implement subject to s 9(2)(b)(ii) being address.	s 9(2)(b)(ii)
Limited in-house experience, knowledge and resource available	InformationLeader solution s 9(2)(b)(ii)
Leveraging off existing architecture	Extending InformationLeader will require further <b>bespoke</b> development.
No further user training may be required, and users would be custom to the application workflow / interface.	s 9(2)(b)(ii)
There is a potential to re-use existing unused integration services that have previously been developed.	s 9(2)(b)(ii)
No additional user or server licensing will be required.	s 9(2)(b)(ii)
Existing knowledgebase and documentation available.	s 9(2)(b)(ii)
Aligned with MPI's Microsoft technologies.	s 9(2)(b)(ii)
	InformationLeader does not align with MPI's <b>mobilisation</b> of applications strategy.
	s 9(2)(b)(ii) s 9(2)(b)(ii)
	s 9(2)(b)(ii)
	s 9(2)(b)(ii)
	InformationLeader's s 9(2)(b)(ii) and does not interface with our enterprise reporting solutions such as Microsoft Business Intelligence.

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	<p>s 9(2)(b)(ii)</p> <p>MPI</p> <p>is heavily dependent upon vendor, which could impact time critical delivery of this solution.</p>
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## 2.2 Option 2: Salesforce solution

This solution builds on existing solution within Salesforce i.e MAPS. Salesforce out of the box and configuration driven capability can be used to support verification and enforcement monitoring system. Salesforce offers customer and partner portals with better cost / licensing model for users to login and provide verification data.

Pros	Cons
Cost effective licensing model as we currently already have additional licenses not in use, as well as ability to change our licensing plan allows MPI the flexibility to scale on-demand.	Product lock-in, however multiple vendors can provide support in terms of development and configuration.
Out of the box functionality to satisfy business requirements e.g. customer / partner portals, user access, auditability and reporting capability etc	No offline support, user must always have internet connectivity in order to interact with the system. However, this is currently not a requirement within business context.
No integration required with MAPS as verifications module will reside within same platform and technology. (Single source of truth)	Further user training may be required in order to support configuration functions, security permissions model.
Configuration first approach system.	Named user licencing costs
Better scalability and highly available.99.9+ Uptime (Proven Reliability)	Depending on the complexity of the solution development costs within Salesforce can vary significantly.
Existing reference implementations and MAAS and RealMe integration for external authentication (Single Sign On for MPI internal users)	
Allows custom dynamic reporting, which is highly configurable and will not impact the performance of the system.	
Better interoperability	
Improved and better usability in contrast to other options. The user interface is intuitive and align with accessibility standards.	
SalesForce mobile app is available and web pages are responsive to render on most recent browsers. However, this is currently not a requirement within business context.	
RESTFul APIs available for interoperability	
Low security risk profile, as solution is always kept up to date and maintained.	

### 2.3 *Other options considered*

Other options such as micro services and VA GEN2 were also considered, however due to delivery time constraint and restricted access (external users) these solutions did not qualify them as potential candidates for recommendations.

## 3 Recommended Next Steps

It is recommended, that business considers implementing verification and enforcement monitoring system within Salesforce, alongside current MAPS implementation.

It is evident by the pros and cons of each solution that Salesforce with its configuration driven approach will provide required platform to develop verification and enforcement monitoring system on.

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ID	Product/Service	Status	Status Date	Decision Type	Decision	Approval Authority	References	Logged By	Edit
16	Verification and Enforcement Monitoring System SOP	Approved	14 December, 2017	Application	Approval of Solution Options paper for Verification and Enforcement Monitoring System	AGB	AGB paper submission 006 - <a href="#">Verification and Enforcement Monitoring System - SOP</a>	s 9(2)(a)	

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