New Zealand Security Intelligence Service

Te Pā Whakamarumaru

NZSIS Data Strategy 2020

Now more than ever, actionable, unique insights rely on our ability to access, interpret, use and share data.

We need to transform the way our people and technology work with data to be effective at delivering insight in the modern digital environment.

This strategy provides a blueprint for the changes we need to make. Just like the NZSIS Strategy, our Data Strategy is not static but must be able to respond to change and organisational strategy shifts.

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Why Now? - The Case for Change

Strategy Overview

- Analytics
- Partnerships
- Trust
- Culture

Big Questions

Implementation Guide

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Why Now?
The Case For Change

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Our operating environment has changed
- The world is now awash with data; keeping up requires dedicated investment
- This is not a fad; any organisation that can't adapt will fail

Intelligence has changed too
- More and more, we need to employ data analysis and wider use of open source information alongside traditional methods of intelligence collection to discover intentions and activities of interest
- s6(a) ██

Technology moves very fast
- s6(a) ██
- We need our data to support technology-based innovation, rapid change and fast adoption; it can't do this if it's locked into aging, silo technologies

We can't succeed on our own
- s6(a) ██
- This requires new thinking about how we access, share and protect data

Our people are calling for it
- Intelligence officers know the importance of getting to grips with how we use data
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It's expected of us
- A modern intelligence agency needs world-class data management abilities, to underpin public trust
- Society expects their intelligence community to be one step ahead of those who seek to harm us

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Data Strategy overview

A competitive advantage over our adversaries through digital enablement and partner integration. Access to the right data, skills and technologies, with trusted data management practices.

Making NZSIS a data-driven intelligence agency that produces unique insight advantage

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> The NZSIS Strategy prioritises a series of objectives to improve how we access, manage and use data. To achieve these, we have defined a distinct *NZSIS Data Strategy* to guide our approach to data in the coming years

The Data Strategy is a response to a changed environment, and directly addresses data-related strategic objectives from the NZSIS Strategy. It addresses potential *value* and *risk* in data by balancing our need for *flexibility* in how we use data operationally, with our need for *control*.

The strategy has 3 main areas of focus:

- Grow and improve our **data and information analytics** capability

- Prioritise working with others through **data partnerships**

- Build **trust** through engagement, data management, ethics and governance

With one critical enabler:

- Shift our **culture** to allow for more innovation in creating new ways of working

NZSIS Data Strategy

NZSIS DATA STRATEGY **A competitive advantage over our adversaries through digital enablement and partner integration – making NZSIS a data driven intelligence agency. Access to the right data, skills and technologies, with trusted data management practices**

Analytics
GOAL – a digitally-aware workforce, equipped to make the most of the data we hold in support of national security intelligence priorities

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Partnerships
GOAL – relationships with traditional and new partners are crafted to maximise data sharing; NZSIS is more openly engaged in the public data debate

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Trust
GOAL – our data exploitation is demonstrably conducted in an ethical, legal, and compliant manner; we value good data and info management

- Refreshed data retention, records management and equity protection regimes
- Remedial and ongoing data quality work
- Data ethics principles for NZIC
- Proactive oversight engagement on data strategy

- Data management and accountability framework
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- Five-eyes engagement on data management and compliance

- Unclassified data releases
- Official history commissioned

Crawl

Walk

Run

Culture
GOAL – NZSIS is a data-driven intelligence agency, with a culture that is mission-focussed, agile and innovative

- Data literacy campaign for leadership and intelligence staff
- Downward delegation of innovation funding
- New data to strengthen performance measurement, programme evaluation and policy development
- Adjusted understanding of intelligence collection principles in the data age (proportionality, relevance)
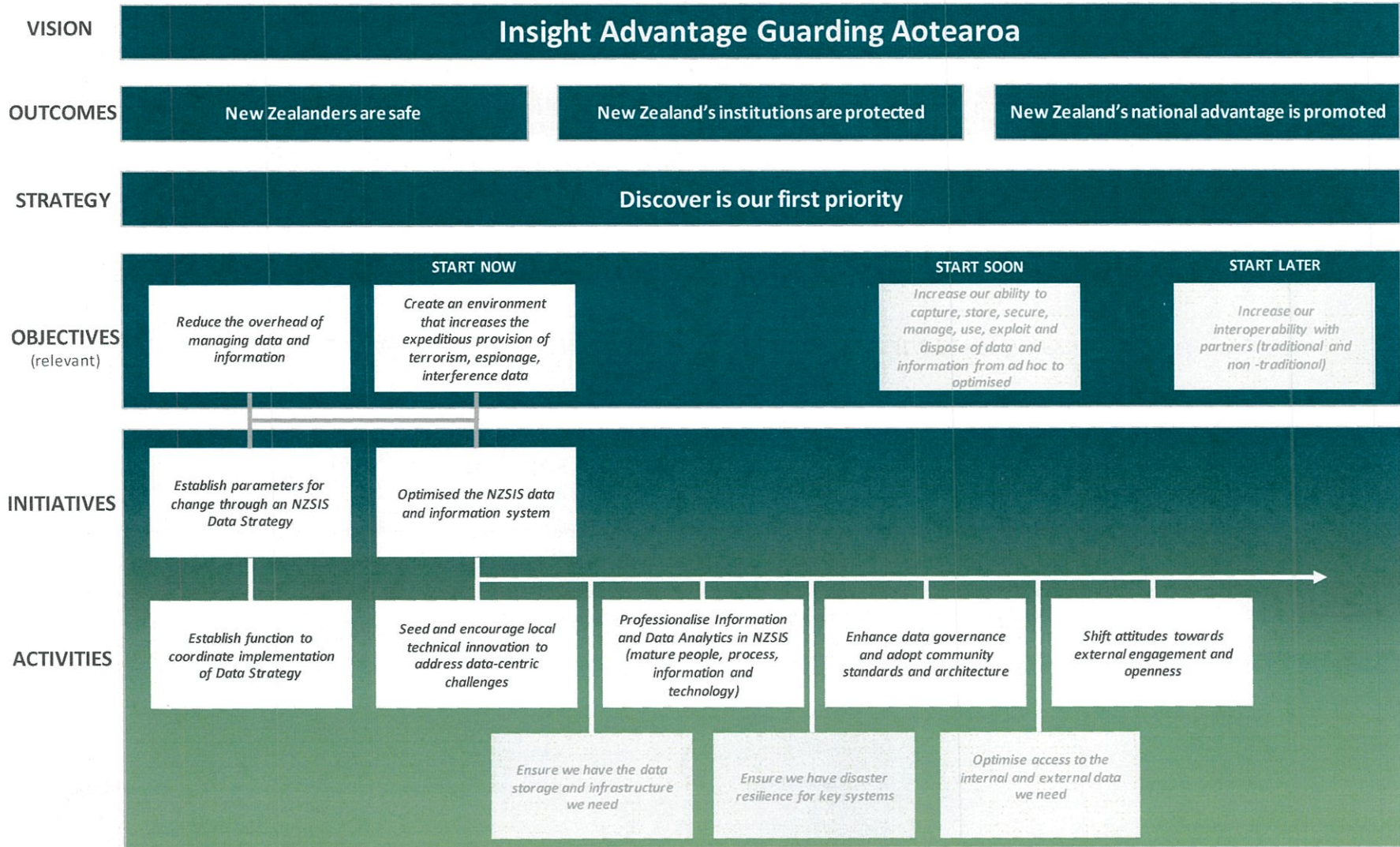
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Current Context and Strategic Alignment

The Data Strategy contributes directly to two prioritised objectives from the NZSIS Strategy:

1. *Reduce the overhead of managing data and information (efficiency focus)*

2. *Create an environment that increases the expeditious provision of:*

   - *terrorism related data*

   - *espionage and interference related data*

   Do this through engagement with business, community, Government and the Public

These drive the selection of <u>early activities</u>

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VISION	**Insight Advantage Guarding Aotearoa**

OUTCOMES	New Zealanders are safe	New Zealand's institutions are protected	New Zealand's national advantage is promoted

STRATEGY	**Discover is our first priority**

OBJECTIVES (relevant)

START NOW

Reduce the overhead of managing data and information

Create an environment that increases the expeditious provision of terrorism, espionage, interference data

START SOON

Increase our ability to capture, store, secure, manage, use, exploit and dispose of data and information from ad hoc to optimised

START LATER

Increase our interoperability with partners (traditional and non -traditional)

INITIATIVES

Establish parameters for change through an NZSIS Data Strategy

Optimised the NZSIS data and information system

ACTIVITIES

Establish function to coordinate implementation of Data Strategy

Seed and encourage local technical innovation to address data-centric challenges

Professionalise Information and Data Analytics in NZSIS (mature people, process, information and technology)

Enhance data governance and adopt community standards and architecture

Shift attitudes towards external engagement and openness

Ensure we have the data storage and infrastructure we need

Ensure we have disaster resilience for key systems

Optimise access to the internal and external data we need

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Analytics

A digitally-wise workforce, equipped to make the most of the data we hold in support of national security intelligence priorities

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Key messages

Data Analysis requires investment

we will be unable to effectively produce intelligence without it

Engineering and IT are integral parts of the capability (eg tools, platform)

Effective Data Analysis requires an Engineering and IT capability

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We need to value our relationships

we are, and always will be, too small to build all the 'bells and whistles' ourselves

we want to cast a wide net, but ensure the balance with proportionality and necessity is reasonable

Discovery needs to be easier

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it should be easy to authorise and transfer data between agencies

Data needs to flow easily across the NZIC and wider Government

NZSIS Data Strategy | Analytics Capability

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Key changes we'll make:

- Establish Data Analysis as a significant professional stream in our workforce, with associated career support, training and hiring strategies
- Get our Data Analysts working the hardest data challenges, but with all intelligence staff accessing more data than today
- Increase our data holdings
- Refresh our data storage, processing and analysis technologies to cope with future volumes and varieties of data.

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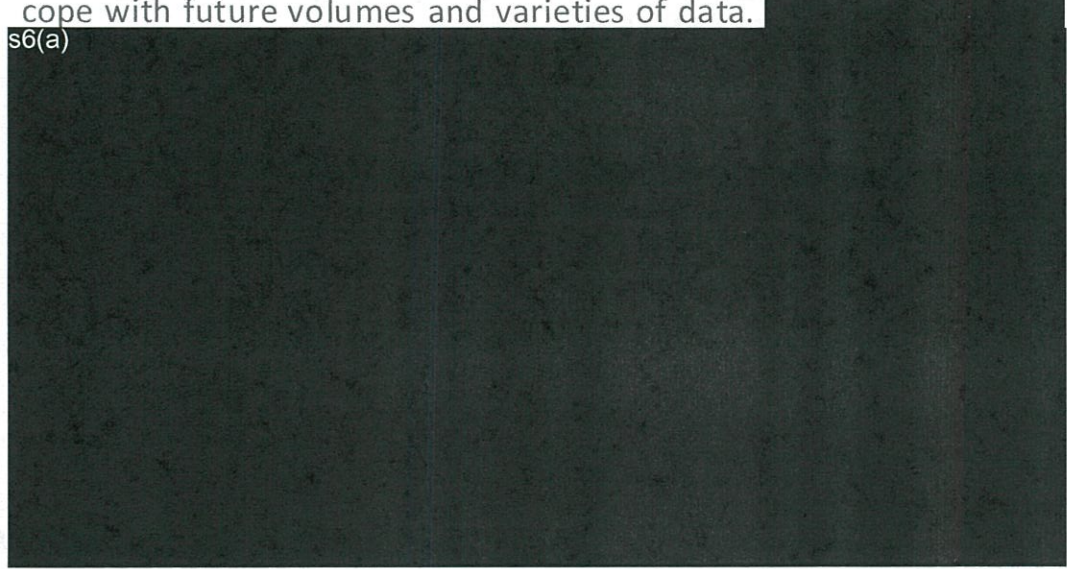
What does success feel like?

We recognise 'analysis' as a critical component of the intelligence cycle

Our approach to technology and evolving our workforce is geared around the needs of operating in a data-rich environment

We deliver faster, more impactful insights to our customers

NZSIS Data Strategy | Analytics Capability

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Data
partnerships

Relationships with traditional and new partners are crafted to maximise data sharing; NZSIS is more openly engaged in the public data debate

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Key changes we'll make:

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- Remove some of the technical and cultural barriers to exchanging meaningful, usable data with industry and governmental organisations we work with

- Adopt a more open stance when it comes to participating in governmental and societal discussions about advances in data science and technology

- Establish advisory contacts in industry and academia, to shape our own data practice and stay abreast of changes in the outside world

- Learn from organisations beyond traditional 5–eyes partners about addressing competing challenges of data exploitation and privacy, outsourcing analysis, or the increasing use of machine assistance in public decision making

What does success feel like?

We magnify our impact through joint working with counterpart organisations

We routinely exchange data and exploitable threat knowledge with domestic and overseas intelligence partners

We inform the national conversation about data privacy, security and ethics

NZSIS Data Strategy | Data Partnerships

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Trust

> Our data is trusted, and exploitation is demonstrably conducted in an ethical, legal, and compliant manner; we value good data management

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Key changes we'll make:

- Rejuvenate data and information management approaches to ensure they are aligned for good intelligence outcomes and a legal, ethical approach to using public data

- Demonstrate the operational value of good data and information management

- Document data ethics principles for the NZIC that inform all future data practice

- Proactively engage with IGIS on our development of increasingly sophisticated data-driven approaches to intelligence work s6(a) ██████████████

- Maintain a conversation with 5-eyes counterparts about data management as a feature of our respective compliance regimes

- Establish an explicit openness strategy for NZSIS, declassifying older public records about the Service to inform public attitudes about our changing role in society

What does success feel like?

We are trusted custodians of all the data we need to perform our function effectively

We have productive engagement regarding data with oversight

We value good data management

External parties are willing to share data with us

NZSIS Data Strategy | Trust

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Culture

NZSIS is a data-driven intelligence agency, with a culture that is mission-focussed, agile and innovative

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Key changes we'll make:

- Disrupt existing modes of thinking and ways of working through digital awareness campaigns, business intelligence insight and new technology to ensure we are constantly adapting
- View data as an organisational asset in its own right, quite separate from the technology that helps us use it. Re-using and re-purposing data will become the norm
- Push innovation funding through into more BAU teams to enable local continuous improvement and change to occur
- Ask "what is the risk of *not* doing this?" at least as often as we ask "what is the risk of doing this?"
- Influence our workforce strategy to ensure we are hiring people who will help NZSIS maintain an imaginative and expert edge over adversaries when it comes to data

What does success feel like?

We have confidence in our technology and compliance foundations, so innovation is exciting rather than scary

We can rapidly pivot our operational and investigative lenses to respond to emergent threats, opportunities and incidents

Our leaders share a 'digital NZSIS' vision

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Big
Questions

What are some of the things our leaders need to be thinking about?

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Now

- How will this strategy be governed, implemented and assured? Who is our 'chief data officer'?
- This strategy requires us to grow in-house/NZSIS-operated engineering and devops technology teams, and to significantly grow our analytical capability. What organisational changes are needed to support this shift?
- How well-prepared is SLT to lead an organisation undergoing a digital transformation? What support would be helpful?
- What immediate steps should we take to grow data literacy among our workforce?
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Later

- What should we do jointly with GCSB, and what should remain sovereign to NZSIS?
- How should this change NZIC's Technology strategy and the NZSIS relationship with TD?
- What analytical activities that we currently carry out should be targets for automation?
- What are the right technology systems to deliver this strategy, and when do these decisions need to be made? s6(a)
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NZSIS Data Strategy | Analytics Capability | Data Partnerships | Trust | Culture

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Implementation guide

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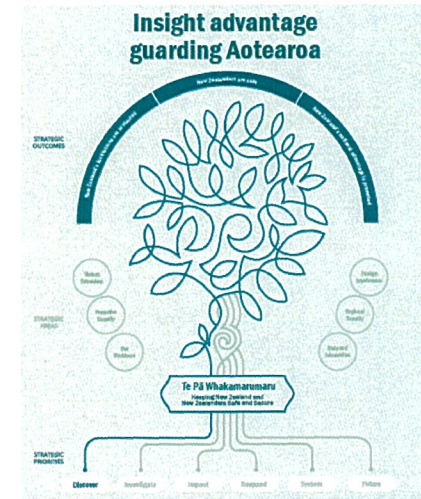
Where are we now?

- NZSIS has identified the need for a data strategy – through the NZSIS Strategy and a compelling case for change
- Data Strategy has been drafted, and is being shared for input
- Intent to baseline at SLT in late March 2020
- Data-related initiatives being identified to deliver the eight Strategic Objectives prioritised for the NZSIS strategy
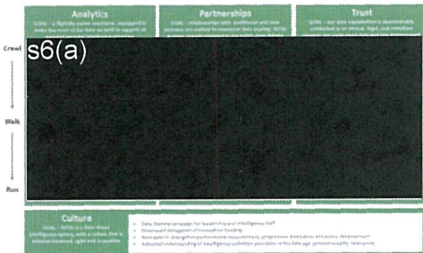
Delivery thoughts

- Data Strategy is not an 'addition' to the NZSIS Strategy
- Horizontal theme, cutting across numerous strategic objectives (see illustration on next page)
- Delivered by the business, as per other aspects of the main strategy
- Capability Directorate (through KM) provides coordination and oversight (and contributes to delivery where necessary)

NZSIS Data Strategy | Analytics Capability | Data Partnerships | Trust | Culture

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Insight advantage
guarding Aotearoa

The Data Strategy

Eight Strategic Objectives

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