



WHAKARATONGA IWI

FIRE
EMERGENCY

NEW ZEALAND

Data and Analytics Directorate

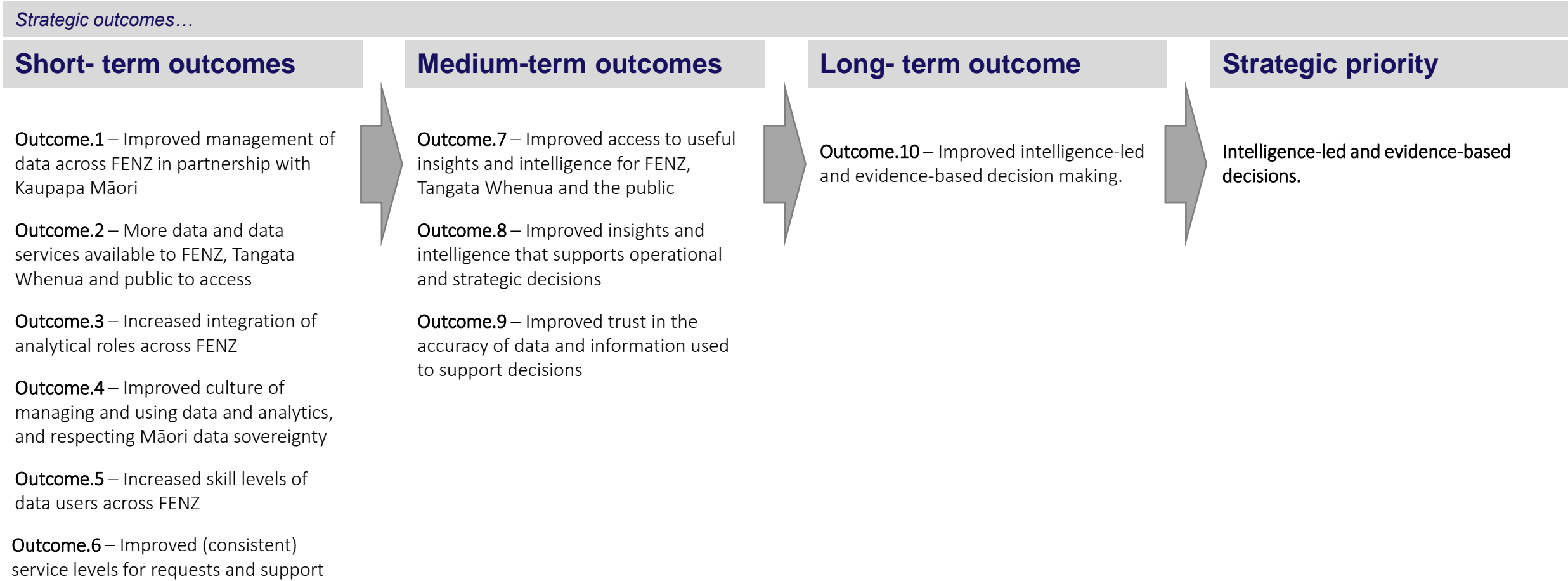
Direction FY24-27

Vision:
Fire and Emergency uses data to design, develop and deliver a globally leading emergency service.

Purpose of D&AD:
To lead and build the capability of Fire and Emergency to deliver trusted and meaningful insights from data.

D&AD = Data & Analytics Directorate

The Data and Analytics Strategy, set in 2022, has series of outcomes that the FY24/27 Direction is aligned to deliver to...



Over the next three year D&AD will focus on five themes to deliver on the vision and strategy

<p><i>Theme 1:</i></p> <p>Analytical Excellence</p>	<p><i>Theme 2:</i></p> <p>Self-Service & Data Accessibility</p>	<p><i>Theme 3:</i></p> <p>Data Management & Governance</p>	<p><i>Theme 4:</i></p> <p>Enterprise Products</p>	<p><i>Theme 5:</i></p> <p>Capability & Data Culture</p>
<p>What it means:</p> <p>“Gold-standard” products that are trusted products and “go-to” source of truth on product subject.</p>	<p>What it means:</p> <p>Improvements in the ability of users to get the information they need for decision making and removing barriers to access.</p>	<p>What it means:</p> <p>Frameworks within which data is managed and utilised across the organisation are established to ensure that data is valued as a critical business asset.</p>	<p>What it means:</p> <p>The development and maintenance of an organisational set of data, analytics, geospatial and intelligence products and tools that are used consistently across New Zealand.</p>	<p>What it means:</p> <p>Training and support provided across FENZ, with learning resources and promoting engagement with tools and products.</p>
<p>What’s in it for me?:</p> <ul style="list-style-type: none">•Cost savings from evidence-based outcomes,•Reduced manual workload through data solutions•Consistent approach to decision making across FENZ when using tools	<p>What’s in it for me?:</p> <ul style="list-style-type: none">•Faster access to information.•Less time spent on simpler data request as “do-it-yourself” and automation possible.•More time for higher priority projects.	<p>What’s in it for me?:</p> <ul style="list-style-type: none">•Clear understanding of what data you can access and how to use it.•Acknowledgement and support in your role capturing and looking after our valuable data.	<p>What’s in it for me?:</p> <ul style="list-style-type: none">•Products to help create consistent business cases.•The right product/ process for the right question across all regions and NHQ.• Comprehensive geospatial suite of tools supporting the frontline.	<p>What’s in it for me?:</p> <ul style="list-style-type: none">•Increased data literacy.•Competent and skilled staff.•Education on how data and analytics can support operational knowledge and experience.

Theme 1: Analytical excellence

What it means?

“Excellent” analytical products that are trusted and the “go-to” source of truth on product subject.

What are we focusing on?:

“Asking the questions that no-one else will ask” to answer the big strategic priority issues for FENZ

What’s in it for me?

- Cost savings from evidence-based outcomes,
- Reduced manual workload through data solutions
- Consistent approach to decision making across FENZ when using tools

How are we working towards delivering the work?

- Focusing capacity on prioritised projects
- Working with trusted and highly usable data assets
- Improving product management and ownership roles and processes
- Embrace emerging technologies like artificial intelligence and machine learning.

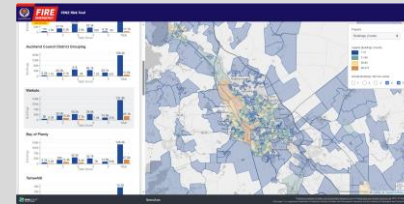
What D&AD outcomes does this support?

- Outcome.7 – Improved access to useful insights and intelligence for FENZ and the public.
- Outcome.8 – Improved insights and intelligence that supports operational and strategic decisions.

What are we producing?

Risk Modelling

Modelling which supports FENZ’s ability to review risk as it relates to our different legislative functions and emergency response role. E.g. Building fire, hazardous substances, wildfire, motor vehicle, etc...



Modern Data Platform

A cloud-based data management system built to establish tooling and processes to build FENZ’s capacity to inventory, align, govern, secure, and leverage data from across the organisation.



Allocation modelling

Location allocation models are used to strategize placing services in areas where they will be most beneficial and cost-effective. It analyses factors such as distance, demand, and cost to find the most efficient locations.



International benchmarking

A project to compare FENZ’s key financial and operation metrics against comparable International Fire & Emergency services. This will allow FENZ to better understand our current performance and help identify areas for improvement. Currently we are working with the Scottish Fire and Rescue Service and plan to include other services in the future.

Theme 2: Self-Service and Data Accessibility

What it means?

Improvements in the ability of users to get the information they need for decision making and removing barriers to access.

What are we focusing on?:

Set expectations with business on the level of service provided, support and training, templates for future consistency, improving Self-service reporting across FENZ.

What's in it for me?

- Faster access to information
- Less time spent on simpler data request as “do-it-yourself” and automation possible.
- More time for higher priority projects

How are we working towards delivering the work?

- All FENZ data products running on the MDP
- Cognos Analytics reporting and SQL Server datamarts decommissioned
- Use of Machine Learning ML and AI for document and data insights e.g. Evacs - Potential AI assistance for data requests in future
- Make it easy for users to get support and training
- Align our support model with ICTS (ITIL)

What D&AD outcomes does this support?

- Outcome.2 – More data and data services available to FENZ and public to access
- Outcome.6 – Improved (consistent) service levels for requests and support

What are we producing?

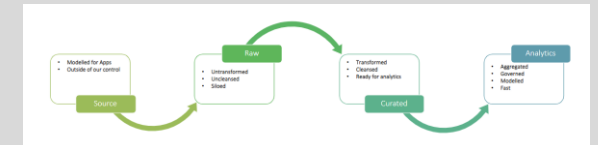
Data request form

A digital form to gather information and ensure request details and timeframes are clarified up front.



Modern Data Platform data zones

The data held in the cloud-based data management system will be transformed by applied business rules. The data will become more organised as it goes from the Source zone through to the final Analytics zone.



Power BI templates & dashboards

Power BI is the chosen future reporting tool which will connect to the Modern Data Platform. Power BI standard templates available for FENZ Power Users to create consistent dashboards.



Theme 3: Data Management & Governance

What it means?

Frameworks within which data is managed and utilised across the organisation are established to ensure that data is valued as a critical business asset.

What are we focusing on?:

Implementing data management and governance practices to manage FENZ's valuable data assets.

What's in it for me?

- Clear understanding of what data you can access and how to use it.
- Acknowledgement and support in your role capturing and looking after our valuable data.

How are we working towards delivering the work?

- Data Governance steering group established 2024
- Develop stronger partnerships with internal and external stakeholders to co-create value and drive innovation.
- Evaluating current data practices and processes.
- Supporting privacy and records management processes, and wider FENZ information strategy.

What D&AD outcomes does this support?

- Outcome.1 – Improved management of operational data across FENZ.
- Outcome.4 – Improved culture of managing and using data and analytics.
- Outcome.9 – Improved trust in the accuracy of data and information used to support decisions.

What are we producing?

Data Governance Steering Group – Te Kahui Raraunga

Provide governance oversight of the implementation of the FENZ Data Culture and Governance approach.
Ensure the work programme reflects our commitment to working with Māori as tangata whenua and encapsulates Māori data sovereignty.



Data policies and guidelines

A resource of documents for how the FENZ's data assets are consistently governed, managed, protected and used.

Training and support in data management

Creating training resources based on data governance policies and guidelines to assist implementation of data management and governance practices.
Identifying system/product owners to ensure structured management of data.
Establishing data stewards to assist in engagement and support for FENZ personnel.

Theme 4: Enterprise products

What it means?

The development and maintenance of an organisational set of data, analytics, geospatial and intelligence products and tools that are used consistently across New Zealand.

What are we focusing on?:

Aligning enterprise product development with prioritization for greatest benefit, while leveraging existing capability and tools (avoiding point solutions).

What's in it for me?

- Products to help create consistent business cases.
- The right product/ process for the right question across all regions and NHQ.
- Comprehensive geospatial suite of tools supporting the frontline.

How are we working towards delivering the work?

- Defined criteria framework for agreeing solution type (e.g. local, regional, national).
- Defined development plan and framework for new solutions (how and when does a solution become part of the enterprise set of data, analytics, and intelligence products and tools).
- Maintenance plan for enterprise set of data, products, and tools.
- Prioritisation of development.

What D&AD outcomes does this support?

- Outcome.2 – More data and data services available to FENZ and public to access
- Outcome.7 – Improved access to useful insights and intelligence for FENZ and the public

What are we producing?

Te Kāpahu (SmartMap)

A web-based mapping application for navigating and discovering geospatial data and insights.

E.g. CAD Events, SMS Incidents, FENZ Operational and Administrative boundaries, Common Place Names, Fire Weather stations and areas, Parcel and property information, Hydrants, and Watermains.



Common Operating Platform

A comprehensive mapping platform to provide users with crucial insights into ground conditions and infrastructure damage assessments.



FENZ Risk Model

A model which enables FENZ to review risk as it relates to our different legislative functions and emergency response role. E.g. Building fire, hazardous substances, wildfire, motor vehicle, etc...



Geospatial tools for frontline

A range of mobile and desktop tools to support staff across a wide range of functions.

- Wide Area Assessment (WAA) tool
- Rapid Disaster Assessment (RDA)
- Digital Site Plans tool
- Weather Station monitoring tool

Theme 5: Capability and Data Culture

What it means?

Training and support provided across FENZ, with learning resources and promoting engagement with tools and products.

What are we focusing on?:

Enhancing FENZ's capacity to effectively use data for informed decision making through training, building a force of skilled data specialists, and fostering a culture of data and analytics organisation wide. Establish mechanisms for monitoring progress, evaluating performance, and adapting strategies based on feedback and lessons learned.

What's in it for me?

- Increased data literacy.
- Competent and skilled staff.
- Education on how data and analytics can support operational knowledge and experience.

How are we working towards delivering the work?

- Data User Community (DUC) with news articles and live educational sessions.
- Data Literacy Survey to baseline learning outcomes.
- Active community of practice members & management.
- Creating learning resources and provide training.

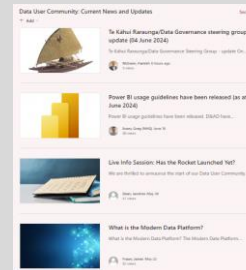
What D&AD outcomes does this support?

- Outcome.3 – Increased integration of analytical roles across FENZ.
- Outcome.4 – Improved culture of managing and using data and analytics.
- Outcome.5 – Increased skill levels of analysts across FENZ.

What are we producing?

Data User Community (DUC)

A SharePoint hosted group for publishing articles and key updates with community members. A platform for hosting webinars on Data and Analytics Directorate work projects.



Data Literacy Framework

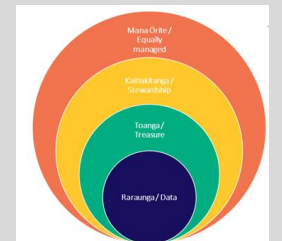
Established data capabilities for foundational, skilled operational, specialist and lead. Competencies identified as part of FENZ approach to Data Culture and Governance.

Communities of Practice (GIS & Analytics/BI)

An online space for a group of skilled practitioners to share current problems, passions and regularly interact on developing better solutions.

Data governance

Training and support for FENZ to develop its competencies in effectively handling and nurturing data, plus building workforce capability around culture-centric data governance.



A prioritised work programme for FY24/25 is critical in order to deliver the vision

Prioritised work programme by theme...

Theme 1: Analytical Excellence

1. Finalising and operating a FENZ Risk Model
2. International benchmarking
3. Census 2023 update to data systems

Theme 2: Self-Service & Data Accessibility

1. Modern Data Platform (MDP) data zones
2. New data request management process
3. Initial Power BI templates and dashboards
4. Initial data products from the MDP – Firewise and Finance dashboards.
5. Power BI implementation

Theme 3: Data Management & Governance

1. Data Governance Phase 1-2 (Discovery + Creation)
2. Finalising Modern Data Platform (MDP) build
3. Develop and prioritise reporting roadmap
4. HRIS/Payroll programme reporting and data management initiated

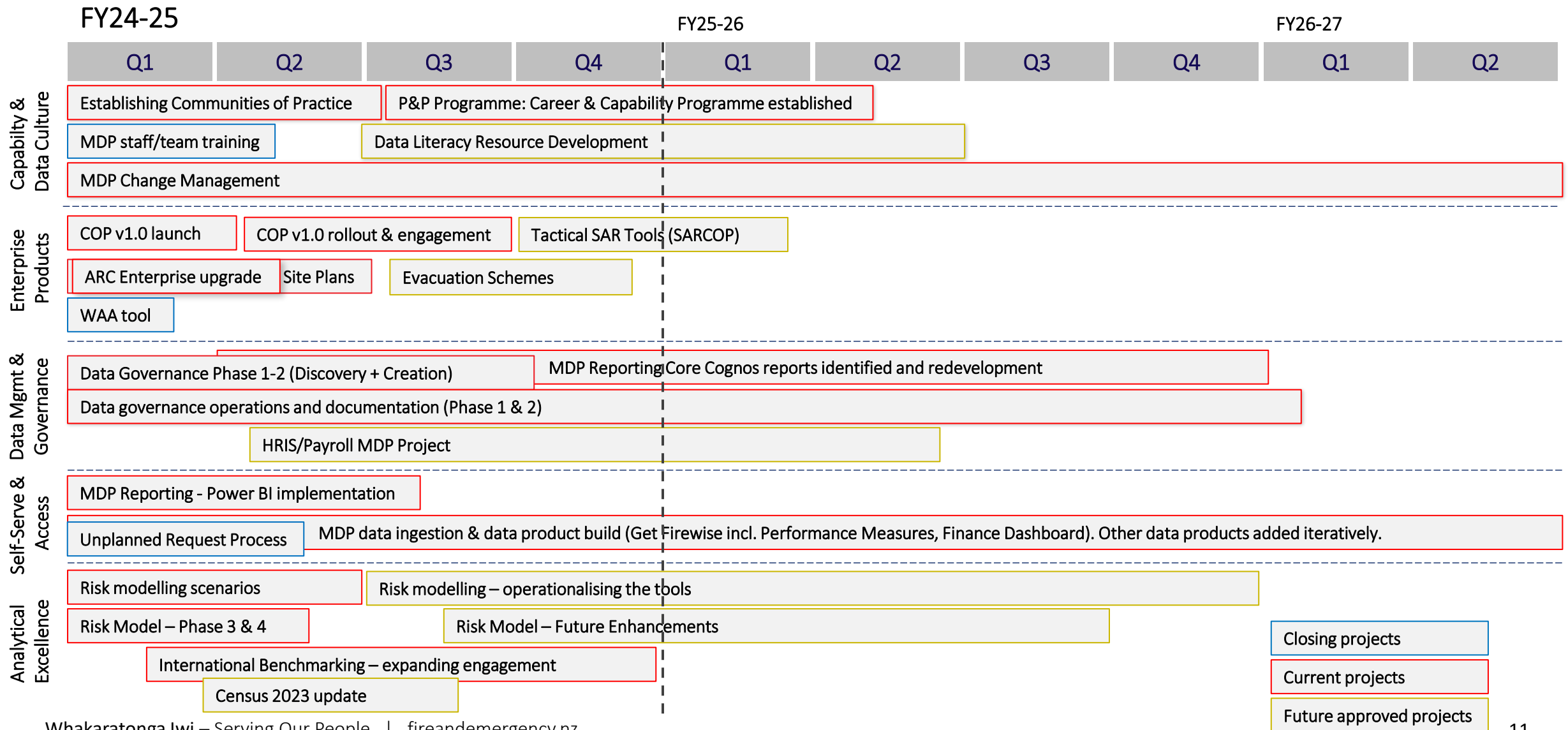
Theme 4: Enterprise Products

1. Geospatial platform upgrade
2. Common Operating Platform v1.0 build and release (+ SARCOP)
3. Wide Area Assessment tool
4. Digital Site Plan tool development
5. FireMapper integration to COP
6. Evacuation Schemes

Theme 5: Capability & Data Culture

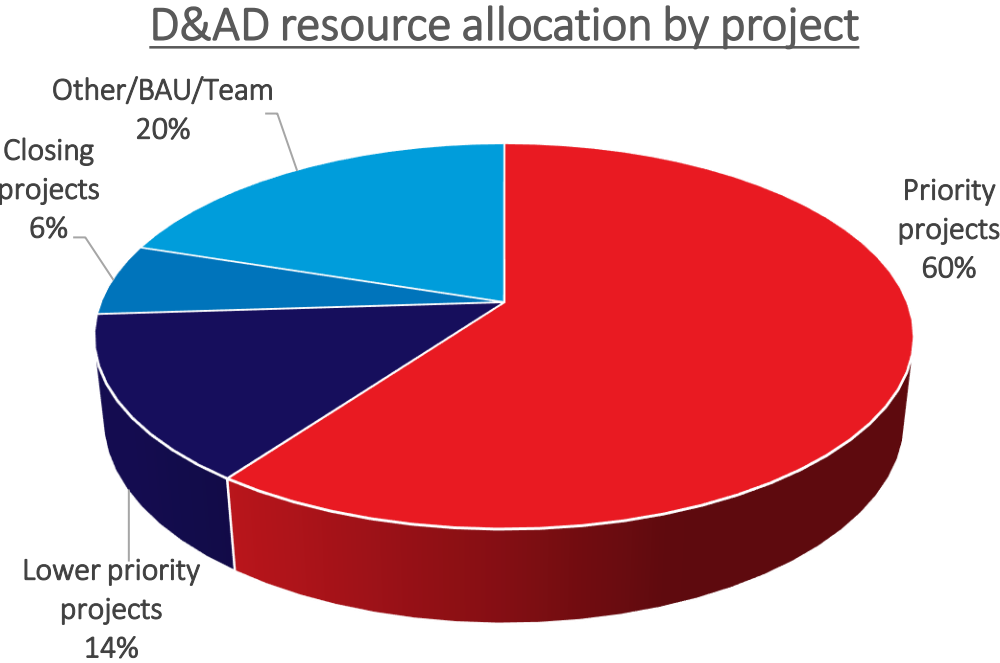
1. Communities of Practice launch
2. Career and Capability Programme
3. Data Literacy Resource development (Programme launch)
4. MDP Change Management and Staff training

GANTT chart for priority projects FY24/25 and beyond



**Across current work programme
80% of resource capacity is
consumed, with 20% for other BAU
and Team development**

**The team will endeavour to
accommodate new and urgent
work, but will work on the
principle of one-in one-out**



Outside of general BAU support we know that new projects and opportunities will occur throughout the year. The D&AD Team will be flexible in how it responds to these requests, as long as they do not impact the delivery of priority projects.

If a new project is requested and capacity does not exist then an existing project will need to be either stopped or deferred. Agreement will need to be reached amongst all parties if this is to occur.

All approved projects will be captured, and will be completed in order of priority and/or when they are received and scoping completed.

FY24/25 work programme by D&AD business unit

Business unit	ANALYTICS	CAPABILITY	DATA MANAGEMENT	GEOSPATIAL
Priority projects	<ul style="list-style-type: none"> Risk Based Resourcing project (Risk Model/Scenarios) MDP Reporting - Power BI implementation MDP Reporting - Core Cognos reports identified & redevelopment International Benchmarking (Scope TBC) 	<ul style="list-style-type: none"> Establishing Communities of Practice Career and Capability Programme Data Governance Phase 2 (Creation) Data Literacy Resource development (Programme launch) MDP Change Management and Staff training 	<ul style="list-style-type: none"> MDP data ingestion & data product build (Get Firewise including Performance Measures, Finance Dashboard) Data Governance Phase 2 (Creation) HRIS/Payroll MDP project 	<ul style="list-style-type: none"> Common Operating Platform v1.0 Launch Evacuation Schemes ARC Enterprise upgrade Site Plan upgrade Census 2023 update Tactical SAR Tools (SARCOP?)
Lower priority projects	<ul style="list-style-type: none"> Local Planning (Scope TBC) Vehicle working party analysis Leave analysis Fire Engineering AI document analysis (Scope TBC) Develop Self-Service Assets Investigate Analytics Platform Station Performance Metric 	<ul style="list-style-type: none"> P&P Programme Management Investigate learning modules for D&AD tools/products D&AD processes & engagement model D&AD Team Performance metrics DataCamp planning and management 	<ul style="list-style-type: none"> Info product canvases for Data Products Scoping P&P Programme: Product, Service and Process Design 	<ul style="list-style-type: none"> Fire Mapper Data Architecture and integration to the COP Product Development Processes Scoping P&P Programme: Product, Service and Process Design
Closing and recently closed projects	<ul style="list-style-type: none"> Unplanned request process improvement Cognos BI Licensing New levy reporting structure from Awhina Fire fighter establishment analysis 	<ul style="list-style-type: none"> Data Community launch Planning and Performance recommendation – 7 Data Governance Phase 1 (Discovery) P&P and D&AD hui 	<ul style="list-style-type: none"> Initial users MDP training Data Governance Phase 1 (Discovery) MDP Phases 1-3 	<ul style="list-style-type: none"> Wide Area Assessment (WAA) tool Weather station inspection tool Landslide hazard layer ArcGIS licensing policy



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