



National
Defence

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Implementing DND/CAF Data Strategy

26 September 2021

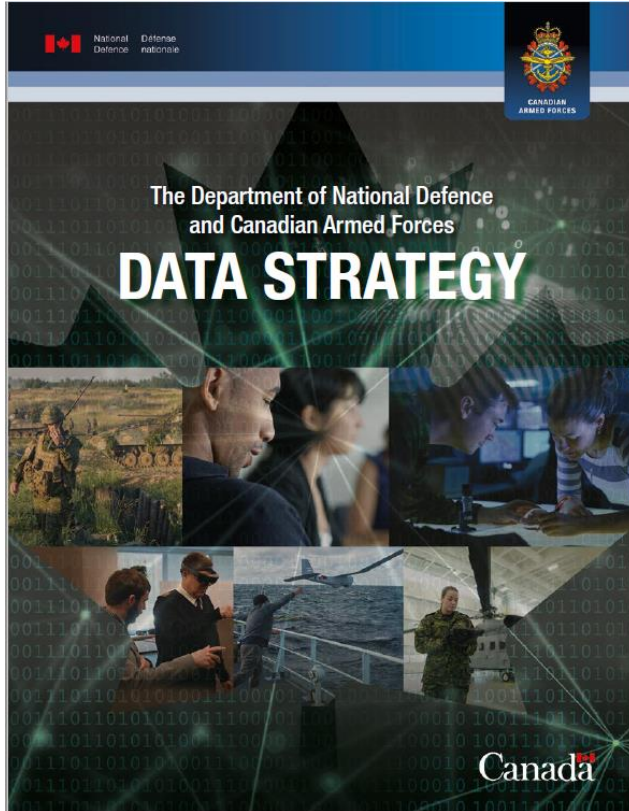
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Canada

Overview



1. Data Strategy
2. Where we are at with our Data Strategy
3. Building the Foundation
4. Data Capability
5. Sample Use Cases
6. Policy Suite



- CDS/DM Joint Directive on Defence Data Management;
- The DND/CAF Data Strategy was released in September 2019; and
- Includes a commitment to develop an implementation plan, and report on progress.

DND/CAF Data Strategy – Lines of Effort

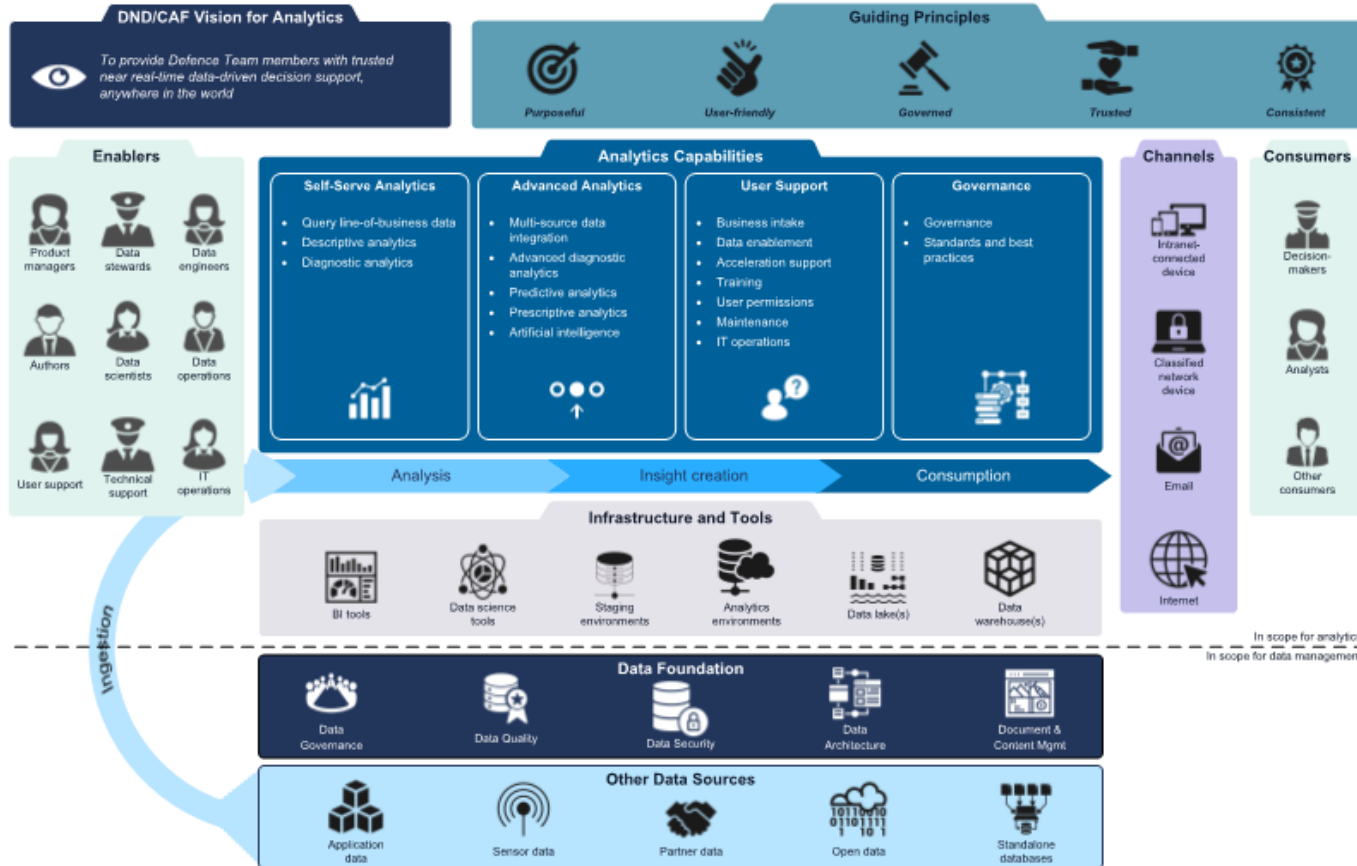


- The Implementation Action Plan will include all 25 Activities listed in the Data Strategy Roadmap.
- ADM(DIA) is the sponsor for 15 activities, and accountable for the overall implementation plan, coordinate with L1s, and monitor and report on progress.
- ADM(IM) is the sponsor for 5 activities, and ADM-HR-Civ & CMP each sponsor 3.
- All L1s are sponsors for supporting implementation through standing up ASCs and for transforming DND/CAF data culture.

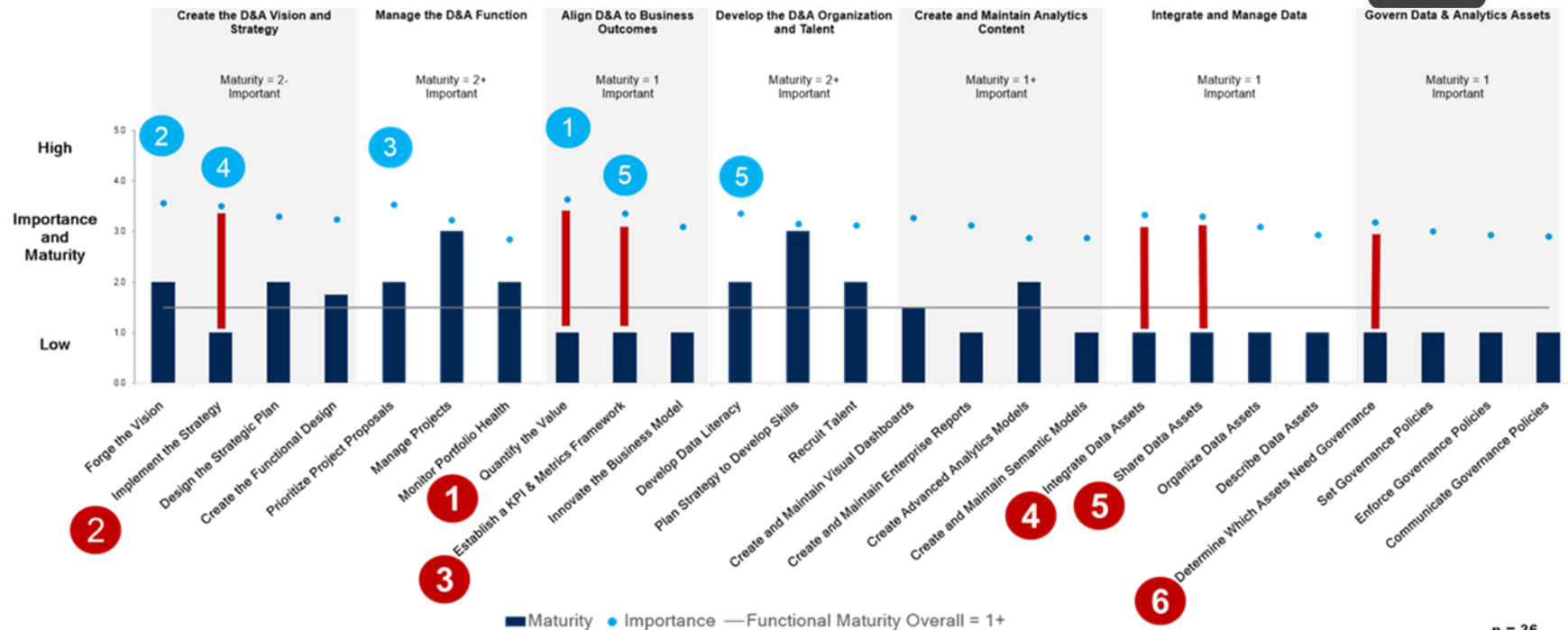
Activity / Initiative	Sponsor	LOE
Data Management		
Implement data governance	ADM (DIA)	L
Implement data quality approach	ADM (DIA)	L
Evaluate data impacts	ADM (IM)	L
Model DND/CAF data	ADM (DIA)	M
Implement a master data approach	ADM (DIA)	M
Implement a metadata approach	ADM (DIA)	H
Appropriately secure data	ADM (IM)	H
Provide integrated data	ADM (IM)	M
Data Tools and Environment		
Implement data policies	ADM (DIA)	M
Develop data management tools roadmap	ADM (DIA)	L
Provide data environments	ADM (IM)	M
Resolve policy conflicts	ADM (DIA)	H
Implement data management tools	ADM (IM)	M
Data Literacy and skills		
Define data literacy	ADM (DIA)	L
Evaluate data literacy	ADM (DIA)	L
Develop data literacy plan	ADM (DIA)	L
Develop data literacy training	ADM (DIA)	L
Develop data literacy staffing plan	ADM (HR-Civ)/CMP	M
Develop HR strategy	ADM (HR-Civ)/CMP	M
Data Culture		
Develop change management approach	ADM (DIA)	L
Perform stakeholder analyses	All L1s	M
Prepare communications	ADM (DIA)	L
Create accountability for data	ADM (HR-Civ)/CMP	M
Reinforce data culture	All L1s	H
Experiment with data	ADM (DIA)	M



Analytics Vision & Guiding Principles



Data Maturity



Lowest Maturity

- Communicate Governance Policies
- Enforce Governance Policies
- Set Governance Policies
- Determine Which Assets Need Governance

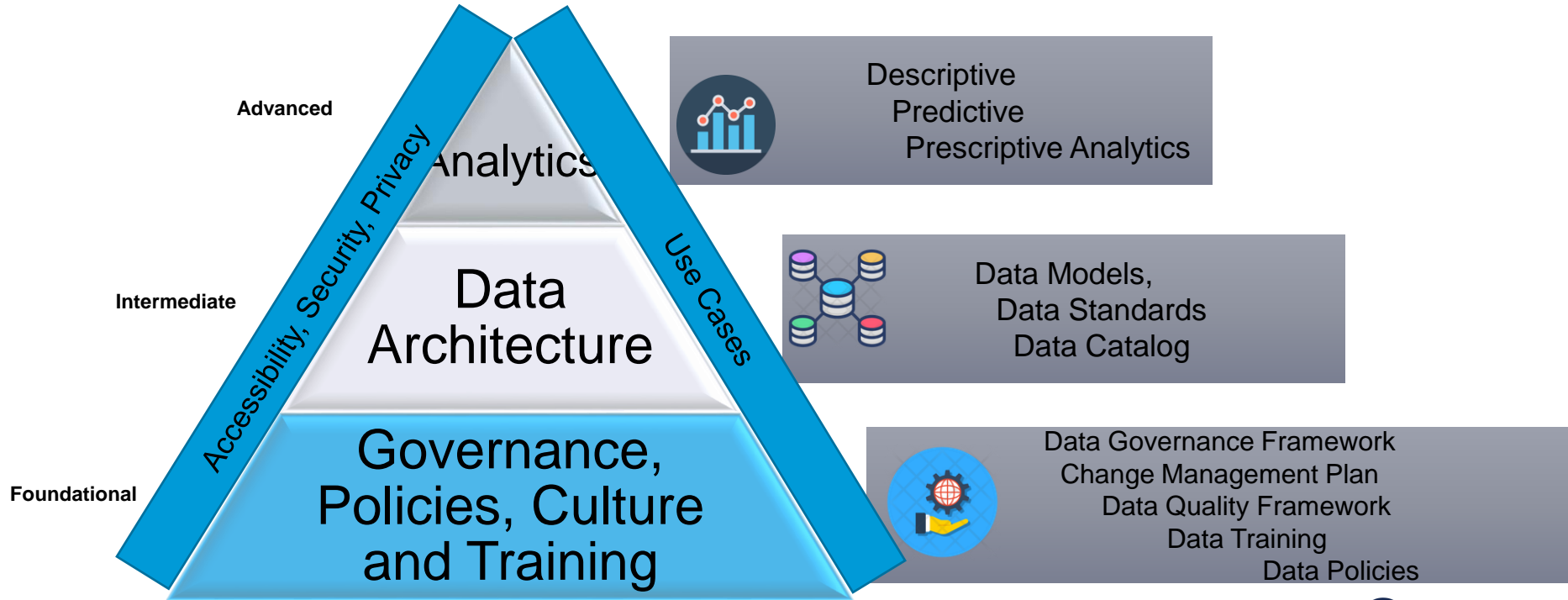
Highest Importance

- Quantify the Value
- Forge the Vision
- Prioritize Project Proposals
- Implement the Strategy

Importance: Measured on a scale ranging from 1 (Not Important) to 5 (Most Important), Importance measures how important each functional activity is to the overall effectiveness of your function in meeting its business objectives. Please refer to appendix section for scores.

Road Map to Implementation

In order to achieve meaningful analytics capacity, DIA is working to build strong foundations on key areas like governance, policies, data management, culture and training



Core DND/CAF Data Capabilities



DND/CAF CORE DATA CAPABILITIES

KEY OBJECTIVES

Provide strategic operational advantage to DND/CAF war fighters

Improve the management of the business of Defence

Support DND/CAF senior leader decision making

In order to leverage data to achieve these three critical tasks, the Defence Team must pursue eight Core Data Capabilities:



Governance and Stewardship

Be good stewards and govern data assets effectively



Access and Trust

Ensure data are findable, interoperable, accessible, trusted, secure, useable and reusable (FIATSUR)



Interoperability through Standards

Enable data interoperability through recognized standards



Data Management

Break down silos through effective data management practices



Leverage Analytics for Decision Making

Use analytics tools for improved decision making and to achieve self-service analytics



Operations and User Support

Work in the open, use digital tools, build multidisciplinary teams [using agile approach] and partnerships to support users



Literacy and Skills

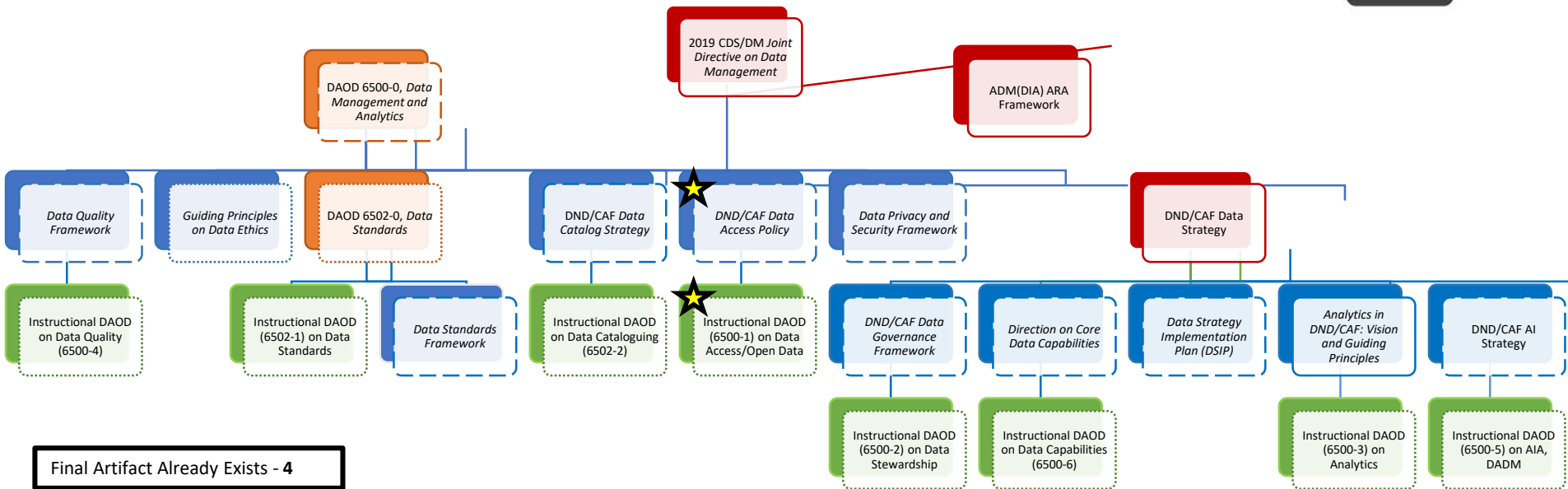
Drive data-centric decision making and empower staff by giving them access to the tools, training and technology



Culture and Change Management

Invest in a data culture and support change management

ADM(DIA) Policy Suite (Draft)



Final Artifact Already Exists - 4

Artifact in Progress – FY 21/22 - 10

Artifact Planned - 10

Policy Document or Framework (Soft Policy) - 11

Policy DAOD (Hard Policy) - 2

Instructional DAOD (Teacher Policy) - 8

Core Document - 3

Further possible products to come regarding:

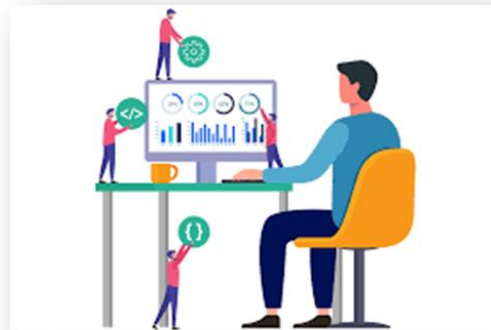
- Data Literacy
- Culture
- Talent Acquisition
- Official Reporting
- Predictive and Prescriptive Modelling
- Peer and Institutional review
- Use of Third-party data



The Data Science team consists of experienced data scientists from Defence Research and Development Canada (DRDC) embedded within DG DASI to work on solidifying our current analytics capabilities, and continue to move the Department's business insight into the future.

They focus on delivering advanced data and analytics use cases using the autonomous or semi-autonomous examination of data or content using sophisticated techniques and tools, to discover deeper insights, make predictions or generate recommendations.

They use advanced analytic techniques including data/text mining, machine learning, pattern matching, forecasting, visualization, semantic analysis, sentiment analysis, network and cluster analysis, multivariate statistics, graph analysis, simulation, complex event processing, neural networks.





- Currently, we have **49** BI use cases underway to support L1s.
- **9** of them are priority use cases (Tier 1).
- These include some of the following:
 - ATIP Dashboard
 - DND Data Warehouse
 - Health Dashboard
 - COVID-19 Dashboard Project
 - L1 Financial Status Dashboard
 - L0 Dashboard

Questions?



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