CANADIAN ARMED FORCES

FORCES ARMÉES CANADIENNES

CANADIAN ARMED FORCES DIGITAL CAMPAIGN PLAN

01100100 01101001 01100111 01101001 01110100 01100001 01101100 00100000 01100011 01100001
01101101 01110000 01100001 01101001 01100111 01101110 00100000 01110000 01101100 01100001 01101110

Canada

Chief of the Defence Staff Foreword

We live in the digital age and are undergoing a period of significant, rapid change. Unfortunately, the transformative changes that we are experiencing in our private lives are not yet reflected in our professional lives serving Canada; we simply have not kept pace. There are many initiatives already underway across the Canadian Armed Forces (CAF), but they are not yet coherent in unity of thought, purpose, and action. My direction in the CAF Digital Campaign Plan serves to coordinate CAF efforts towards delivering on my vision for the CAF to become digitally transformed by 2030 in order to provide operational advantage in the Battle Space, improved stewardship in the Corporate Space, and re-imagine our workforce.

The drivers for digital transformation are everywhere and they are immediate: Canadian government, society, and industry are transforming around us; our allies are rapidly modernizing and implementing their own digital efforts; and our adversaries are employing digital tools to great effect across the matrix of competition. CAF digital transformation is fundamentally a culture change that is enabled by digital technology to ensure that we can conceive of future concepts, develop new processes, and prepare the workforce for the digital age. Digital transformation will improve our ability to sense, make sense, decide, and act.
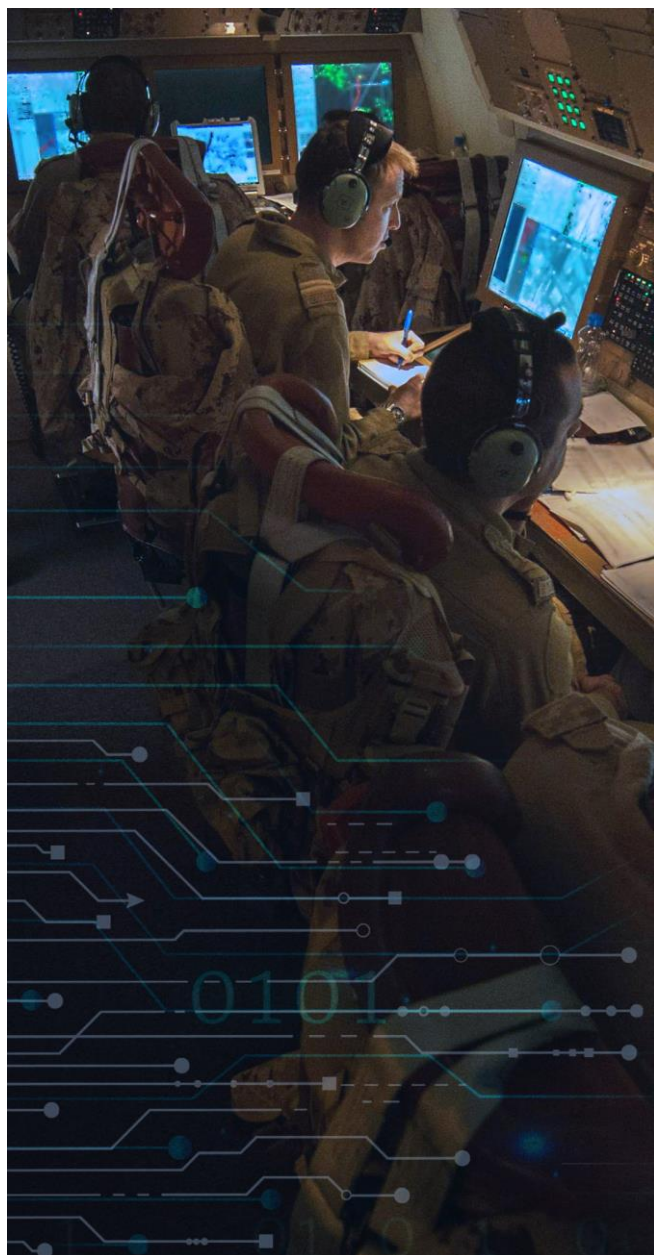
The imperatives for digital transformation are clear. The benefits are as evident as the threat is real, and the impact of failure is high. Failure to undergo a digital transformation will threaten our ability to work with allies and partners, and our ability to counter evolving threats to the nation. We will also fail to fully enable our greatest source of strength – our people. The CAF must transform to ensure that we enable decision makers to deliver at the speed of operations in both the battle space and the corporate space. It will ensure that the CAF can provide suitable military options to the Government of Canada.

The CAF cannot undertake digital transformation alone, and we will rely on support from the dedicated team of uniformed members, public servants, contractors, academia, and industry that comprise the broader Defence Team. The entire defence community is necessary to succeed in this change initiative and realize the vision of a digitally transformed CAF. My Digital Campaign Plan will align CAF efforts to support broader Department of National Defence and Government of Canada digital initiatives and drive change. More significantly, however, it outlines the key objectives that the CAF must achieve on our journey through the stages of digital maturity.

The CAF must transform. And transform we shall. We will not simply incorporate Digital – we will become Digital. I know that you are all ready to rise to this challenge.

EYRE, WAYNE 786
Digitally signed by EYRE, WAYNE 786
Date: 2022.06.10 04:17:02 -04'00'

General Wayne Eyre
Chief of the Defence Staff

Table of Contents

1.   Context and Imperatives

The 2020 Nagorno-Karabakh war between Azerbaijan and Armenia provided a window into the potential of digital technologies in warfare.
This conflict demonstrated how sensors, drones, and long-range artillery could be integrated against static forces to lethal effect. Non-kinetic activities in the information domain also revealed how social media and open-source information can influence operations.

Much of the world is undergoing a fourth industrial revolution, powered by data availability and growing computing capacity. As a result of these innovations, the CAF must keep pace or risk obsolescence. From the institutional perspective, the imperative is to deliver our corporate requirements in an accurate and transparent manner, supporting data-informed decision-making and allowing us to provide military advice that supports national priorities. Operationally, the digital imperative is about gaining a decision advantage over our adversaries and maintaining interoperability with our closest allies.

A successful transformation will enhance the speed, relevance, and effectiveness of decision-making in both the corporate space and the battle space. Digital transformation will help us better understand ourselves by analysing and assessing our processes and augmenting or automating them whenever feasible. This clarity will lead to enhanced operational relevance, increases in productivity, enhanced supply chain management, better-informed analyses, and improvements in stewardship of our resources. These factors provide the urgency required to undertake the digital transformation of the CAF.

Recent conflicts in Nagorno-Karabakh, Syria, and Ukraine provide a window into how even a modest overlay of digital capabilities can disrupt decades-old operational concepts and change the **character of war**. The prevalence of cyber activities, drone technology, sensor-to-effectors linkages and autonomous systems has changed the battlefield into a more digital space. In all cases, the ability to exploit a technological advantage exposed the critical vulnerabilities of forces that were static, massed, or lacked defensive countermeasures.

These changes to the character of war compel us to examine our own capabilities and consider how the CAF can achieve an operational advantage over our adversaries, in all phases of conflict. We must update our concepts of conflict to effectively compete, contest, confront, or if necessary combat a range of opponents that are diverse, dispersed, digitally enabled, and increasingly sophisticated.

A deep understanding of these recent conflicts, and respect for the preceding millennia of conflict, reminds us that the **nature of war** remains unchanged and that the CAF must retain the capacity to fight and win at the most intimate, human level of conflict. We cannot be seduced by the illusion of technology making conflict sterile or easy, but neither can we afford to retain defunct paradigms based on our aspiration to fight the type of conflict that we desire; the world is changing around us and we must be prepared to fight within it.

Adversaries - Our adversaries are already in the race for technological advantage. Because of digital technology's agility and iterative delivery, states that were once decades behind in capabilities and technology have made dramatic progress, in some cases leapfrogging competitors. Digital technologies that have been developed by an adversary are easily scaled and shared with other states and non-state actors, and the proliferation of digital technologies is widespread. This means that possible competitors - supported by or aligned with our adversaries - can gain a decisive advantage that previously would have been denied to them.

Allies – Our partners and allies are all undergoing rapid digital transformation. We must do so as well. Most CAF operations are conducted as part of an alliance or coalition, in concert with partners and allies, or in support of domestic civil authorities. This fact continues to drive our imperative to remain interoperable with the United States (US), Five Eyes (FVEY), North Atlantic Treaty Organization (NATO), domestic Departments and Agencies, and civilian authorities. Moreover, the CAF faces a considerable opportunity and the potential to demonstrate leadership within NORAD, among our allies, and in NATO. The CAF has comparative advantages in leading and coordinating multi-national and Pan-Domain operations, and unleashing these capacities through the adoption of a digital approach will afford us the opportunity to provide digital operational leadership where we enable allies to plug-in. If we do not capitalize on this opportunity, or if we fail to remain interoperable, we may find ourselves unable to make viable and valued contributions to collective efforts to counter our adversaries

The Australian Army launched the Workforce Digital Potential Impact Assessment to analyze 44,000 job functions that could be augmented or automated.
The study showed that 50% of the entire Army workforce will be impacted by augmentation and automation up to 2035. More than 20% of all roles will spend time with augmented technologies providing a 30% capacity gain for the workforce.

Our people – Canadians expect, and increasingly demand, that the CAF become digital. The Canadians who choose to serve in the CAF live in a digital world: they interact with all levels of government, conduct their personal affairs, and build and maintain relationships digitally. There is a growing expectation that Canadians will also interact with their employers digitally. An increasingly diverse workforce must leverage digital to augment inclusivity. Optimizing and transforming our business practices - from recruiting to training to postings to retention to personal administration - are all critical to meeting the expectations of our members.
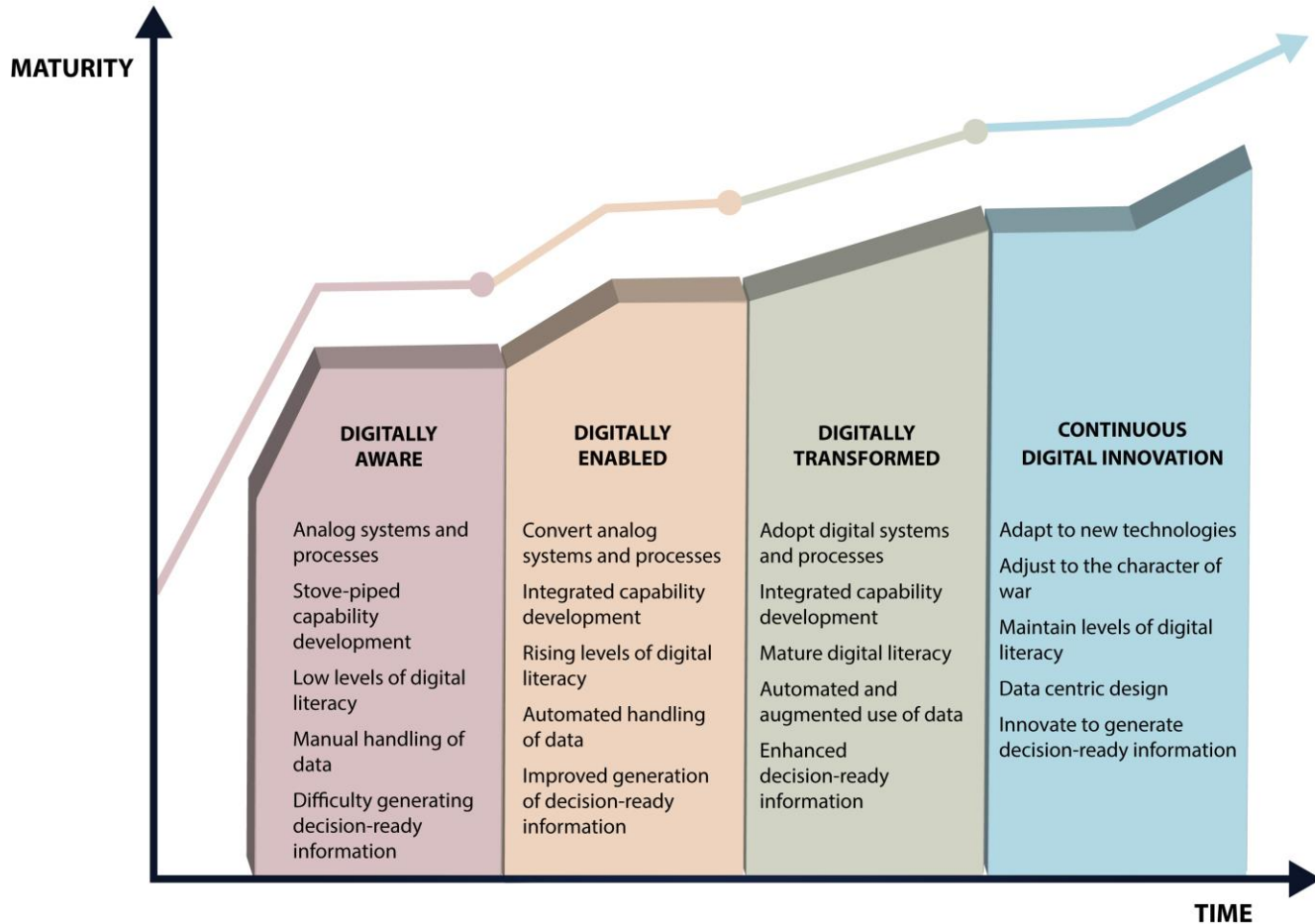
Canada is a digital society. As CAF members are drawn from that society they come to us already digitally aware. We must leverage these skills, expectations, and mindsets to accelerate our digital transformation. The CAF must also enable members to increase their digital and data literacy, ensuring accessibility for all, and leverage the tools and capabilities that digital offers across the operational and corporate spheres. CAF members expect to be digitally empowered in their workplace.

The rate and pace of change both within society and the realm of defence and security is unprecedented, as the Digital Revolution continues at breakneck speed. It is evident that the CAF must adapt to these changes, and must do so quickly.

At the strategic level, work continues on the development of a broader Department of National Defence (DND)/CAF Digital Strategy, and the evolution of structures and processes that will accelerate our enterprise-wide digital transformation. Equally, the DND/CAF Data Strategy, the Artificial Intelligence Strategy currently under development, the CAF Reconstitution Directive and other strategic policy guidance are shaping our organizational response to the digital challenge. This Digital Campaign Plan must be read with a deep understanding of the body of knowledge of the profession of arms and an awareness of the broad array of policy and direction that guides the Defence Team.

2.　Digital Maturity Model

The Digital Maturity Model provides the framework for digital transformation, enables monitoring of progress, and ensures that we see ourselves and our potential accurately. The CAF will use this framework to consolidate successful change across all lines of effort, to illuminate areas where change must be initiated, and to reinvigorate or adjust areas where we struggle to change. The digital maturity model draws upon existing DND/CAF direction for envisioning the future, including the future of data literacy and data culture contained in the DND/CAF Data Strategy.

The CAF is not starting at zero; indeed, we have pockets of progress and decentralized initiatives sparking change. Therefore, the CAF is currently **Digitally Aware**, which is reflected by legacy analog systems and processes, stove-piped capability development, and generally low levels of digital literacy. Members of the CAF struggle to access data, analyse the data, and to generate decision-ready information supported by descriptive analytics. Data manipulation is predominantly done manually. Users adjust their behaviour and actions to existing systems and processes. At this stage, we see many decentralized efforts across the CAF towards digitization; we are beginning to deepen our understanding of digital and the start of change.

Coordinated efforts towards digital optimization will propel the CAF toward the intermediate objective of becoming **Digitally Enabled**. A digitally enabled CAF will undertake digital optimization and convert analog systems and processes to digital, integrate capability development efforts, and raise digital literacy levels. Members of the CAF will have better access to data that has been purposefully generated and stored, reducing the time, effort, and resources necessary to generate decision-

ready information supported by predictive analytics. Data handling is increasingly done through augmentation and some automation. Systems and processes will be adapted to diverse user requirements and preferences. Decentralized CAF digital optimization efforts will not be constrained; however, all efforts across the CAF will be guided by and support the common vision for transformation.

A **Digitally Transformed** CAF will reimagine our processes and culture for the digital age, develop integrated, joint capabilities by design, and have mature digital literacy throughout the CAF. CAF data will be shared, accessible, secure, trusted, managed ethically and with robust bias mitigation, and autonomous and augmented systems will enhance the production of decision-ready information supported by prescriptive analytics. Data handling is predominately automated, with some augmentation. Systems and processes will be developed with the individual user as the driving force. Once Digitally Transformed, CAF digital transformation efforts will be coordinated, coherent, and comprehensive to achieve enhanced operational advantage in the battle space and improved stewardship in the corporate space.

The Digital Maturity Model is a spectrum of change that recognizes there will be asymmetry across the CAF and between lines of effort, and that becoming Digitally Transformed is the objective but not the final end state. Once Digitally Transformed, the CAF will enter a period of **Continuous Digital Innovation.** We will incorporate new technologies, adapt and refine processes,

Definitions

Digitization: The conversion of analog information and data to digital.

Digital Optimization: The use of digital technology to improve current processes and practices.

Digital Transformation: The process of using digital technologies to create or modify culture, user experiences and processes.

experiment constantly, innovate and iterate. While the driving technologies of the future are currently unknown, we must be ready to adapt and undertake the changes demanded by the situation.

3.   Elements of Digital Transformation

The elements of Digital Transformation represent the means by which the CAF will change. The five elements can be viewed as the levers of change, and they provide the lens through which to view every challenge and opportunity. This Campaign Plan will not prescribe the changes that need to take place within each of these elements; rather, the change agents and implementers must align their efforts and changes within these elements to the vision for the CAF and the digital maturity model, informed by approaches that reflect the CAF's diversity and commitment to inclusion.

People – Place people at the forefront of the transformation

Any successful transformation effort requires people – to act, to enable, to lead. Leadership at all levels must be empowered to act on clear and sufficient mandates, and work toward a common objective that is communicated routinely from the most senior levels. Equally important, we must select, upskill, re-structure, and employ our workforce to unlock potential and allow talent to flourish.
- People-centric
- Fulfilment / workforce expectations
- Digital literacy development
- Workforce management

Data – Establish the Centrality of data

The generation and harnessing of significant amounts of data offers a wealth of opportunity to power decisions, enabled by technology. Data must be considered an asset by leaders and decision makers, who are willing to expend effort to gather, protect, and analyse it. Our data must be accessible, interpretable, and trusted in order to be readily converted into decision-quality information.
- Data is governed, catalogued, standardized, democratized, with measures to mitigate for bias
- Data is valued, accessible and trusted
- Data is leaders business, and must be embraced and integrated at all levels in all organizations

Process – Unified plan for CAF

Digital transformation is not a technocratic solution; rather, it is informed by technology. To ensure that we realize the benefits of digital, we cannot simply port existing processes. We need to re-examine how technology can improve and enable process; what structures, organizations, and authorities are required to drive transformation; and how to best communicate, collaborate, and execute horizontally rather than vertically, with all efforts supporting the vision for the digital CAF.
- A coherent approach that integrates the operational and institutional aspects of business processes.
- Adopt processes demanded by digital technologies, such as User Story and Journey Mapping
- Support adaptive procurement

Technology – Invest in the foundation

Technology is an enabler to digital transformation. Technologies such as Cloud enabled data-accessibility lay the foundations for AI and smart process automation. They enable more informed decisions and free up capacity to higher-priority or more knowledge-intensive functions. We must ensure that we resource technologies as the connective tissue of our operational and corporate systems, and that we look forward and scan the horizon for new opportunities to adopt, adapt, and continuously improve.
- Open and interoperable by design
- Adopt secure and classified cloud and related infrastructure
- Invest in the foundation while developing technologies
- Shift from a platform-centric to a system-centric design

Culture – Build an agile and nimble organizational culture

Culture is often referred to as the key element of transformation, but is seldom defined. Culture can be viewed as the aggregate of our shared norms, values, expectations, and practices. Equally important, it is the consistent, observable patterns of behaviour in organizations; essentially the collection of traits that make us what we are. The CAF today can be characterized as linear, vertical, static, and process driven. In order to truly transform, our culture must become organic, horizontal, adaptive, and driven by outcomes. That will not happen by virtue of adopting digital technologies and processes – it must be a deliberate process that is leader-led at every level.
- Digital is a core competency
- Being digital is supported from the centre but happens at the tactical edge
- Leverage digital to enhance and improve operational outputs and outcomes
- Includes a GBA Plus lens to eliminate unintended barriers
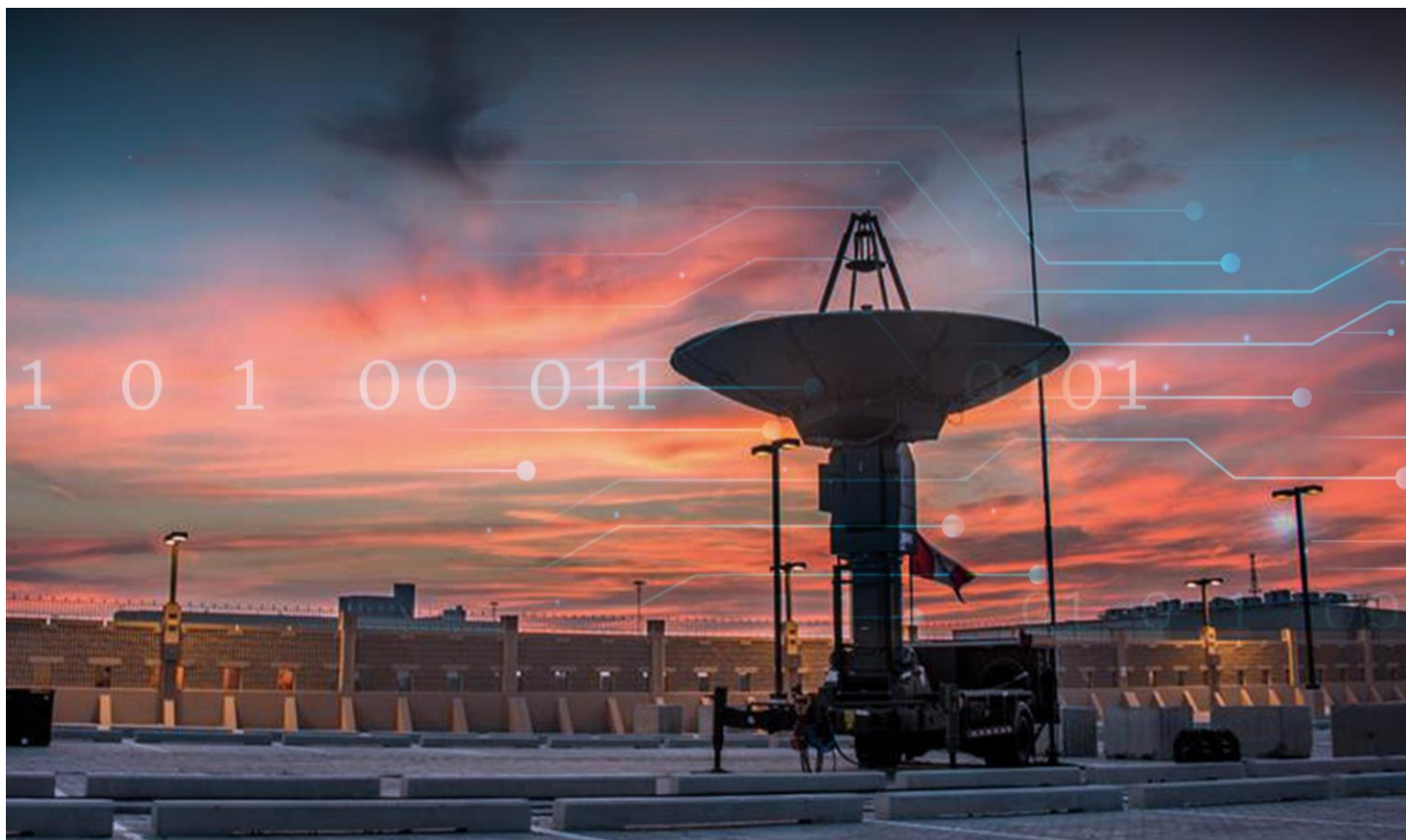
4. Digital Campaign Plan Principles

An undertaking of this magnitude must be guided by some foundational precepts or principles to guide our thinking and actions. Careful consideration of the principles defined below will ensure that our efforts are comprehensive, realistic, and designed to achieve our vision of a digital CAF. Neglecting any of these principles will cause friction that will imperil our transformation and prevent the realization of our digital potential. Our objectives and actions must be measured against the following principles:

- We must **empower leaders** at all levels with the decision-making authority and resources to support the CAF vision and unlock the potential of digital transformation.

- We must place **people at the forefront** of digital transformation. Continuous engagement with a diversity of stakeholders and adoption of human-centric design will enable modern interfaces that provide the level of service demanded by our members.

- We must establish the **centrality of data** in the CAF. Data must be shared, accessible, secure, trusted, managed ethically, and democratized to support and inform decision making. Better data will help provide decision makers with a more equitable understanding of how different projects, policies, or programs may impact various groups of people differently.

- We must adopt **processes demanded by digital technologies**. Much of CAF business is not unique; we must avoid customization and acknowledge that many of our challenges have already been resolved by others.

- We must embrace the benefits that **technology** offers, while being aware of the risks. While technology may enable change, true transformation is a human, cultural, and conceptual endeavour.

- We must leverage the **innovative and agile culture** we routinely display on operations. We are not starting from scratch. This culture will challenge orthodoxies where necessary, and actively seek new ways to achieve end-states.

- We must be **action oriented**. We will seek early wins to overcome bias to the status quo and institutional skepticism. Minimum viable products should be fielded quickly, adjusted based on feedback, and then scaled across the CAF.

- We must continuously **test and adjust** all aspects of this transformation. The dynamic implementation of the Digital Campaign Plan needs to reflect and be informed by feedback from all levels of the CAF.

- We must **communicate and engage widely** to ensure that all members of the CAF are aware of why this is important, and that we have the knowledge and the ability to make these changes. We must clearly identify the benefits of transformation, and openly share both successes and failures.

- We must ensure that **effective command and control of forces** in the Pan-Domain environment remains the primary driver for our transformation.

5.   Vision

*The CAF will become digitally transformed by 2030. The **digitally transformed** CAF will be relevant, resilient, interoperable, integrated, and efficient. Through a stable, resilient and adaptive technology and security backbone and with a mature, common and accessible **data mesh**, we will establish a digital foundation for the application layer that will revolutionize the way we process, analyse, present and deliver the insights garnered from data to better **inform decision-makers**. These digital capabilities will be secure, integrated, accessible, intuitive, and delivered at the **speed of operations**. Our enhanced decision-making will provide an operational advantage in the **Battle Space**, and improved stewardship in the **Corporate Space**.*
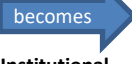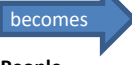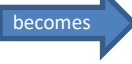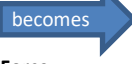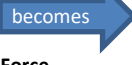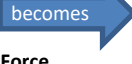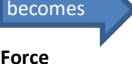
6. Strategic Outcomes

Seeing ourselves as we are now is critical to the digital change initiative and for envisioning what we aspire to become. Analysing ourselves through multiple lenses ensures that we have a complete appreciation for the magnitude of change that we are undertaking. It also ensures that we are realistic in assessing the benefits that becoming digital will bring to the CAF, and that we understand the risks of failure. The operational, institutional, and people lenses guide the five other strategic outcomes, which will become the lines of effort of this Digital Campaign Plan.

Mission

The CAF will digitally transform by 2030 in order to provide operational advantage in the Battle Space, improved stewardship in the Corporate Space, and re-imagine our workforce.

The way we have been operating so far…		…where the Digital Campaign Plan will take us.
Excellence in single-domain operations, human-centric processes, ad hoc multinational interoperability…	becomes **Operational**	…Excellence in Pan-Domain Operations powered by automated and augmented processes; multinational interoperability by design.
Labour intensive governance, management and administration, opaque data and information…	becomes **Institutional**	…Transparent data and information generates augmented and automated decision support.
CAF members driven away by a workplace less digital than their personal lives …	becomes **People**	…CAF members work in a digital environment that mirrors Canadian society, which attracts and retains them.
CAF Digital Transformation decentralized, uncoordinated, and lacking dedicated resources…	becomes **Force Management**	…CAF Digital Transformation is centrally-led, coordinated across commands, and leverages dedicated resources.
Single-Domain operations by design, joint operations by exception…	becomes **Force Employment**	…Conceptual, technological, and cultural foundation exist to conduct Pan-Domain Operations by design.
Industrial age organizational design, fragmented and rigid capability development process…	becomes **Force Development**	…Organizational design that places digital at the core, dynamic and integrated capability development process.
Limited use of digital skills in the workplace, digital literacy of members wasted...	becomes **Force Generation**	…Digital skills power the workforce; CAF leverages existing digital skills of members and builds new ones.
Fragile stove-piped legacy systems, unreliable data, obscure information for decision support …	becomes **Force Sustainment**	…Robust enterprise systems, trusted data and transparent information enable evidence-based decision-making.

7. Obstacles and Benefits

7.1 Obstacles to Digital Transformation

Delivering digital transformation is a complex endeavor and we can anticipate obstacles to change. Change management is difficult and the CAF recognizes that this plan demands fundamental change across the organization. All CAF members must demonstrate an understanding of the vision and objectives, and promote the culture change necessary to support digital transformation.

- If the CAF becomes enamoured with technology and forgets that war and conflict are human endeavours we risk forgetting that digital transformation is about people. The CAF must remember that technology enables capabilities, but does not comprise them.

- If internal bias favours the status quo and does not support the change initiative we will squander resources on unnecessary or lower priority activities and not know it. The CAF must build a guiding coalition of commanders at all levels to lead change.

- If we do not match ambition to resources, or perhaps more importantly assign resources necessary to achieve our level of ambition, we will certainly fail to transform. Existing resources must be re-prioritized to enable and sustain digital transformation. CAF leaders must be ready to make hard decisions about priorities and trade-offs to enable digital transformation.

- If we are overly programmatic and process-driven, we can easily plan and consider ourselves into stasis. We must embrace the risk of failure, learn to move based on best available information rather than all information, and leverage alignment across the CAF to achieve success within every organization.

- If we do not make meaningful change quickly then our vision risks being viewed as hollow. We must demonstrate the necessity for change through action, not through words.

- Change means that there are certain things we are doing today that we might not do anymore tomorrow (e.g. evolve from a network-centric to a data-centric model); this will inevitably impact our people. The impact of change will be felt at the individual level as much as at the organizational level – in fact, it is certain that change will need to be managed at the individual level through effective and invested leadership. It is essential that we respond not only to organizational concerns, but that we actively and sincerely listen to and address the concerns of our people.
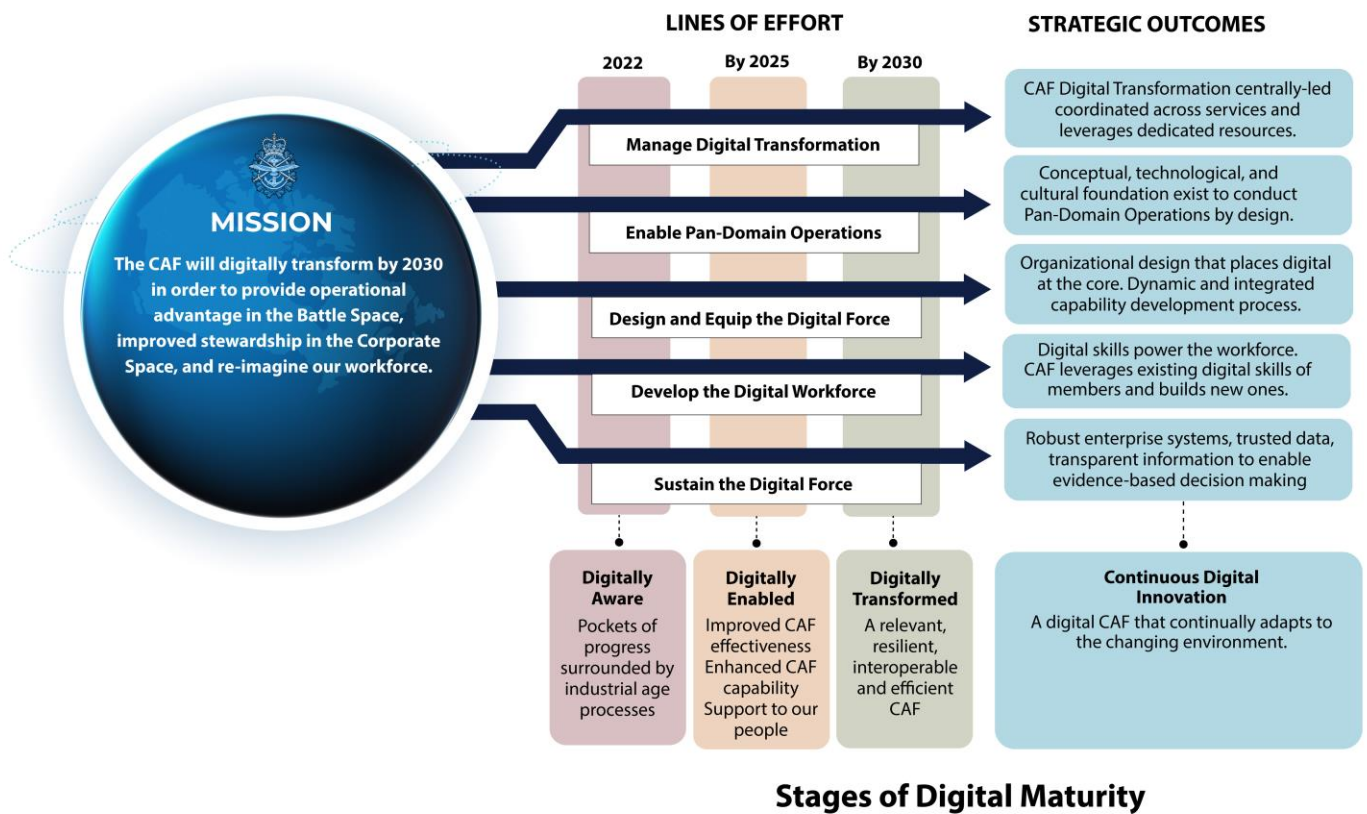
7.2 Benefits of Digital Transformation

This initiative to transform at scale offers some extraordinary benefits to improve or enhance our delivery of the DND/CAF Core Responsibilities of: Operations; Ready Forces; The Defence Team; Future Force Design; Procurement of Capabilities; and Information Technology Services, Infrastructure, and Sustainable Bases. Ultimately, these benefits will manifest as an operational advantage in the Battle Space, improved stewardship in the Corporate Space, and the ability to re-imagine our workforce for the digital age.

- Becoming digital will enable the CAF to better sense, make sense, decide, and act at the speed of operations within Canada, North America, and abroad. Enhanced situational awareness informed by trusted data that is accessed from a cyber-secure technical foundation will improve both the effectiveness and the efficiency of our conduct of operations, ranging from Search and Rescue operations, support to domestic operations, and continental defence to international operations across all domains. The digital CAF will remain interoperable with our key partners and alliances, and maintain an operational decision advantage over our potential adversaries.

- Becoming digital will enable the CAF to meet Government of Canada requirements for ready forces more efficiently. The digital CAF will be better able to understand and communicate all aspects of readiness, including equipment status, personnel levels, training states, and sustainment capacities. This will lead to refinements in our force generation approaches that will deliver better trained and prepared forces more efficiently.

- Becoming digital will create the capacity to realign our workforce. The members of the Defence Team live in a digital world in their personal lives, and increasingly they expect to do so in their workplace as well. Embracing the potential of digital in the workplace will help us retain more of our people, and make us more competitive in our efforts to attract talent by ensuring a more accessible and inclusive workplace. We have the right people – we need to give them the right tasks. The digital CAF will automate tasks where sensible, and augment tasks whenever feasible to release our trapped capacity and meet the pent up demand in our workforce to work and operate in the digital age.

- Becoming digital will ensure the development of a force that is joint and integrated by design, and based off of digital design principles such as open architecture, a user focus, and a data-driven culture. It will permit a force design process that encourages a shift from hardware-defined capabilities to software-defined capabilities. This will increase our ability to rapidly adapt, and to adopt new technologies outright or augment existing platforms, increasing our competitive edge and allowing us to keep apace of our allies.

- Becoming digital will allow the CAF to leverage an agile procurement approach that focuses on outcomes. In keeping with Government of Canada direction, agile procurement will encourage collaboration with industry to design procurement in an iterative manner to achieve results. It will enable the CAF to test and course correct through shorter project delivery timeframes and to identify quickly the challenges and successes in order to achieve best value.

- Becoming digital will promote improved resource stewardship and link resource commitments to outputs. The digital CAF will be able to more effectively communicate the impacts of resource decisions on operational outputs and readiness.

8.   Operational Design

The operational design provides the conceptual framework for the Digital Campaign Plan, and is a visualization of the lines of efforts that will connect the larger DND/CAF Digital Strategy to the tactical level activities that will be directed in the Implementation Plan. This operational design allows us to understand how a series of dispersed activities, grouped amongst five lines of effort, will enable the CAF to achieve the digital mission. The vision provides the north-star that all efforts are designed to support across the digital maturity model, the strategic outcomes define what we need to become, and the lines of effort group activities to permit tasking and monitoring of progress.

This operational design uses the Objective and Key Results (OKR) method to set goals, and measure our progress. Objectives will be assigned for each of the lines of effort to clarify the approach – the Key Results for each of those Objectives will be issued in the Implementation Plan. Each objective will describe our current state, and outline the path to become Digitally Transformed. Objectives are meant to define where you want to go: they should be achievable, short, inspirational, and ambitious.

9. Line of Effort 1: Manage Digital Transformation

Managing Digital Transformation is about planning, directing, monitoring and coordinating the Digital Campaign Plan lines of effort across the CAF. It provides the blueprint for transformation, and lays the foundation for change management upon which to build.

Objective 1.1: Align existing governance structures to enable deeper integration of disparate efforts across the CAF.

Aware: Digital governance is applied ad-hoc across existing operational and business processes.

Enabled: Digital governance is explicitly incorporated into operational and business processes. Governance oversight will help share best practices across the CAF, reduce duplication, and align local initiatives towards enterprise requirements. Priorities will be set, and resources will be sought accordingly.

Transformed: Digital governance is an integral part of CAF governance processes, supporting and guiding decision makers at every gateway. CAF prioritization of digital efforts is based on operational imperatives, business value, and risk. Local initiatives are developed within the enterprise architecture and enable pan-CAF activities whenever possible. Common standards, processes, roles and metrics are implemented across the CAF.

Objective 1.2: Achieve unity of effort through increased horizontal alignment and a coherent CAF Digital Campaign Plan.

Aware: Many digital initiatives are taking place across the CAF, often with little pan-CAF visibility or support.

Enabled: Monitoring of digital initiatives ensures visibility, coordination, and prioritization. Local initiatives will be fostered, and solutions with enterprise-wide applications will be supported by central resources. Demand signals will be coherent, and CAF initiatives will be aligned with and supportive of Departmental efforts.

Transformed: CAF has a clearly defined organizational digital strategy that provides unifying direction for initiatives to align with. Cross-cutting requirements are addressed through renewed governance structures that appropriately set and deliver on enterprise-wide policies, priorities, and resourcing.

Objective 1.3: Produce and monitor the Implementation Plan to achieve continuous improvement.

Aware: Produce an Implementation Plan to define tasks and key results that support each Objective. The Digital Campaign Plan in and of itself will not bring about Digital Transformation. The plan must be implemented.
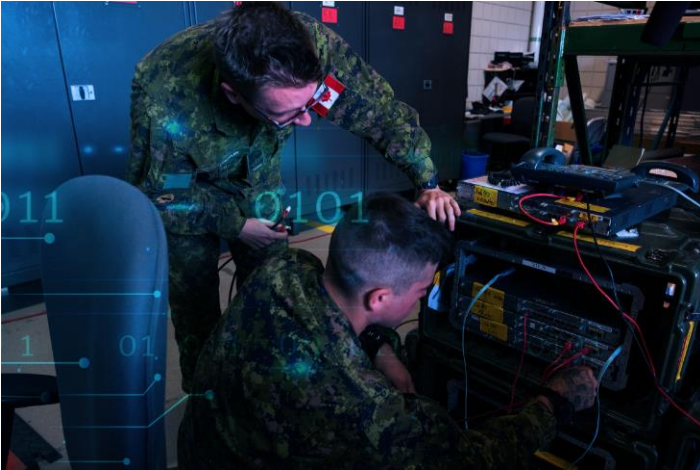
Enabled: Refine and adjust the Implementation Plan as required. Monitor implementation with both Key Results and Key Performance Indicators, to measure both effectiveness and performance. A robust communications effort ensures that all elements of the CAF can see the value of the effort, and the importance of their role in its success.

Transformed: Refine and adjust the Implementation Plan as required. The implementation of the Campaign Plan is adaptive and agile, the entire CAF is seized of the imperative, and the digital transformation landscape is monitored to ensure continuous process improvement. A deliberate horizon-scanning capability is established to identify new challenges and opportunities, and to continue the iterative development of CAF digital culture.

10. Line of Effort 2: Enable Pan-Domain Operations

Enabling Pan-Domain Operations is about leveraging digital capabilities to enhance the planning, coordinating, and direction of the conduct of military operations. It provides commanders and leaders at all levels with an operational advantage through quicker, more precise, and more nuanced decision making.

Objective 2.1: Align CAF capability projects and program requirements for data and the technical foundation into a coherent demand signal for Departmental partners.

Aware: Projects and programs do not always take into full account the demands they will make on the data mesh and the technical foundation, and in some cases simply assume that this digital foundation will be provided by another organization. Information technology is seen as a commodity rather than a key enabler to the exercise of command and control of forces.

Enabled: The existing demand signal for support from the digital foundation is mapped and tracked, in order to provide a coherent demand signal to Departmental partners, in particular ADMs Mat, DIA, IE, and IM. This facilitates the prioritization of support at the DND/CAF level to develop stand-alone demand signals of both the data mesh and the technical foundation.

Transformed: All projects, initiatives, and programs must develop a clear statement of the support required in the data and technical realm, and senior leadership is fully involved in the assignment of CAF-wide priorities and the allocation of resources.

Objective 2.2: Design, build, and field Pan-Domain Situational Awareness (PDSA) tools and concepts that integrate all domains.

Aware: Operational concepts and delivery of effects are domain-centric, creating seams that generate vulnerabilities that require significant coordination of efforts. Information is stove-piped by domain.

Enabled: Operational concepts and delivery of effects consider Pan-Domain implications in all processes and at all stages. Seams are closed by planned coordination. Our footprint of CAF operations centers is rationalized and optimized.

Transformed: Operational concepts and orchestration of activities transcends domains, promotes pan-domain thinking, and integrates the overlap amongst domains to promote integration by design. The National Defence Operations and Intelligence Center becomes the fusion hub that enables relevant and accurate PDSA. Seams are eliminated and coordination integrated by design. CAF operates in a single Pan-Domain information environment.

Objective 2.3: Ensure continued interoperability with US, FVEY, and NATO. Promote close alignment with the US Mission Partner Environment and NATO Federated Mission Networking.

Aware: Organizational integration based on rigid, historical force structures that does not anticipate future force development initiatives. Technological integration with allies is not coherent and is pursued in a patchwork, platform-centric manner.

Enabled: Initiate organizational changes required to generate more flexible structures to integrate with changes underway by key allies. Pursue technological integration with key allies and accelerate the adoption of data-centric solutions.

Transformed: Organizational integration with key allies is a fundamental capability development requirement.

Technological integration with key allies is embedded as a central element of force modernization

Designing and equipping the digital force is about identifying, prioritizing, and monitoring the introduction of new capabilities and structures into the CAF. Being digital must be integrated into force development and acquisition processes.

11. Line of Effort 3: Design and Equip the Digital Force

Objective 3.1: Adopt a Digital-First design approach in all elements of Force Design and Development to ensure that the CAF is digitally capable.

Aware: Force

Design and Development currently considers digital design as an adjunct to the Force Design and Development process.

Enabled: The Force Design and Development process applies digital design principles to both the Force Mix Structure Design process as well as the Objective Force 2030 program, in order to align with and more readily incorporate the evolving technological and innovation changes, increasing the adaptability of the Force.

Transformed: The complete and mandatory adoption of digital design principles in the design and development of force capabilities and structures delivers a Force that is digitally capable, and fully interoperable with our allies and partners.

Objective 3.2: Develop the capabilities and processes that enable the digitally capable CAF.

Aware: Service-specific and platform-defined capabilities lack the ability to adapt to evolving technological advances, and existing processes are optimized for waterfall development of capabilities that have a fixed and immutable configuration at time of delivery.

Enabled: Capability development and project management adopts an agile development process that assumes an iterative fielding of capability that will allow evolving configurations and outputs based on the developing technology. A shift from hardware-defined capabilities to include software-defined capabilities accelerates our ability to adapt.

Transformed: The Force is able to rapidly adapt to and adopt new technologies into existing platforms, increasing our competitive edge and allowing us to keep apace of our allies and maintain an advantage over our adversaries.

Digital Design Principles

- Design with the user(s)
- Understand the existing Ecosystem
- Design for scale
- Build for accessibility and sustainability
- Be data driven
- Use open standards, data, and architecture
- Reuse and improve
- Address privacy, ethics, and security
- Be collaborative
- Be good data stewards

Objective 3.3: Design the Digital Workforce that will form the core of the digitally capable CAF.

Aware: The workforce structure is rooted in the traditional domains, designed to crew hardware rather than leverage software, and is stove-piped or sectionalized, inhibiting informed decision-making, and limiting flexibility in employment of that workforce.

Enabled: Workforce structure shifts from the need to crew and maintain hardware to a more fluid and agile model that enables the re-skilling, re-assignment and re-design of the workforce to meet the evolving software-defined capabilities. The solution will be hybrid to reflect both the demands of the hardware and the organizational cultures related to Force Generators and Force Employers. It must manifest as a system of systems that

reflects both institutional and operational activities. Process automation will free trapped human capacity and redirect our

Transformed: A stable and robust Digital Workforce which is responsive to rapidly evolving technology, processes, and

Developing the digital force is about the planning, directing, coordinating, and assessing the recruiting and training of the Force. It is as much about evolving mind-sets and approaches as it is about preparing the Force with the required skill-sets and competencies to meet the demands of the digital era.

personnel to new areas.

culture that maintains institutional capabilities while enhancing the agility and adaptability of operational outputs.

12. Line of Effort 4: Develop the Digital Force

Objective 4.1: Deliver a digitally empowered CAF recruiting experience that places recruits at the centre of the process.

Aware: The CAF recruiting system is staffed by dedicated and motivated personnel who lack modern tools to effectively deliver   recruiting

services to Canadians who want to join; the system is struggling to meet CAF requirements.

Enabled: The CAF recruiting system evolves to offer a streamlined, seamless, and secure digital recruiting experience with enhanced client interface.

Transformed: The CAF recruiting system provides a digitized, seamless candidate experience at all stages of the process that meets defined measures of effectiveness/performance for timeliness, personalization, and recruit expectations.

Objective 4.2: Develop the digital literacy knowledge, skills, and attitudes necessary for CAF members to successfully interact in the current digital world and to shape the CAF of the future.

Aware: The CAF generates digital skills primarily to serve technical functions, but is absent from general specifications. Pursuing these digital skills is often viewed as career-breaking.

Enabled: The CAF generates technical digital skills, and integrates digital literacy into the professional development framework in priority areas. Digital skills are provided to diverse groups of members with a range of baseline abilities; new digital skills are valued and recognized.

Transformed: The CAF generates technical digital skills, and delivers digital literacy across the workforce with all elements of

the professional development framework. The CAF utilizes digital skills of member effectively and by design. Digital skills are sought after, by practitioners and leaders alike.

Objective 4.3: Deliver inclusive, human-centred personnel support services, informed by GBA Plus, designed to improve

Digital literacy encompasses an individual's skills for successfully using data, information and communications technologies, and interacting with digital information ecosystems.

It is about understanding ethics, responsibilities, and rights surrounding technology, acknowledging digital trends and their relevance, discerning data and information in a digital environment, and communicating effectively within it.

Digital literacy cannot be assumed and because it is concerned with interactions, it is perishable. It demands skills, knowledge and attitudes to interact in the present, while relying on a more general set of intellectual skills to evolve in the future.

retention of CAF members.

Aware: Current personnel support services, including benefits, career management, morale and welfare services, and medical services, rely on outdated policies, processes, and systems that are cumbersome to manage and deliver sub-optimal results.

Many manual processes create inefficiencies, impair visibility, and hamper decision-making.

Enabled: Design processes, solutions and services around member needs, vice the requirements of legacy systems and outdated practices. Transition to augmented service delivery within a redefined service and benefits construct.

Transformed: Personnel support services are re-designed to meet the needs and expectations of CAF members. Processes are automated wherever possible and shifted to digital instruments. Data and analytics frameworks are designed to support decision-making, manage risk, and better communicate with CAF members.

13. Line of Effort 5: Sustain the Digital Force

Sustaining the digital force is about unlocking the power of our data, embracing digital processes and technologies, and modernizing Operational Sustainment (OS) to close the gap with the Defence Supply Chain (DSC), enhance the planning, direction, and delivery of operational support to an optimized Digital Force.

Objective 5.1: Maximize the value of our data to improve the stewardship of resources and fully enable operations.

Aware: Data is the CAF's most powerful digital asset, however there is a widespread lack of data confidence in the sustainment enterprise systems, which has resulted in work-around processes. Current systems of record are mostly limited to being employed for record-keeping rather than as decision-support systems for managing the performance of the CAF sustainment value chain.

Enabled: Improvements to data access, stewardship, governance and frameworks will greatly enhance data quality, and foster a data-driven culture within the CAF. This will increase data confidence and enable data-driven decision-making that is executed within the system(s) of record, and support strategic analytics by designated business/process owners.

Transformed: Enhanced applications that are supported by Artificial Intelligence and Machine Learning to enable resilience, forecasting and planning. Continuous improvement to data integrity, accuracy, and quality enable timely and evidence-based decision-making. As confidence in the data and maturity in its application grows, we will evolve from simple descriptive and diagnostic analytics to predictive and prescriptive analytics, revolutionizing the sustainment of the CAF.

Objective 5.2: Transform Enterprise Resource Planning (ERP) through the adoption of modern technologies and processes.

Aware: Some of the existing ERPs have, over time, become severely compromised by high levels of customization and a lack of confidence in both the data and the business processes. Moreover, many of the existing ERP tools will soon be replaced as directed by the government digital template solution for ERP modernization.

Enabled: The necessary upgrade of DND/CAF ERP enables a complete business transformation that will be demanded by the technology and the processes it enables. By improving data quality, simplifying user experience at the transactional layer, and enabling data analytics, CAF materiel readiness and performance will be significantly improved.

Transformed: ERP modernization will see process benchmarking, mapping, optimization, and automation. Through this and increased trust in master and transactional data within the modernized ERP, and standard use of analytics, the gap between the DSC and operational support will be closed.

Objective 5.3: Modernize the planning, direction, and delivery of Operational Sustainment.

Aware: The design and delivery of the sustainment enterprise is fractured, and there are clear gaps between institutional sustainment and downstream operational support activities. The lack of a coherent alignment of people, process and technology hampers the development of a cohesive sustainment capability for the CAF, and reduces CAF readiness and resilience.
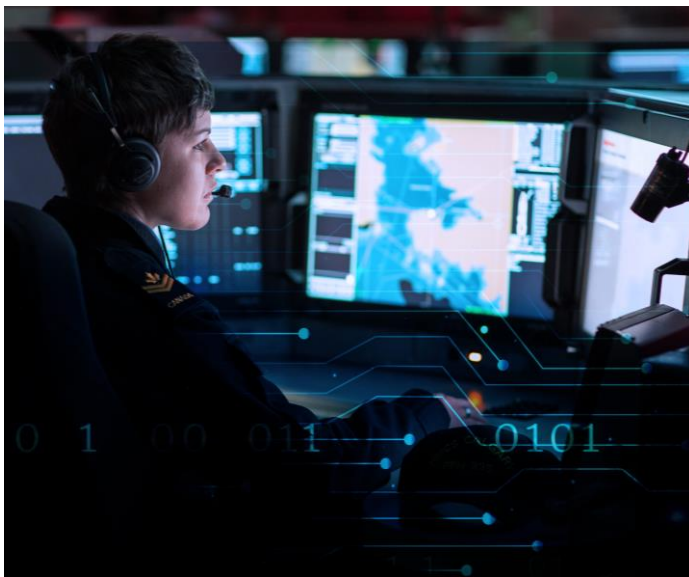
Enabled: The development of an OS Modernization Strategy recognizes OS as a capability, and updates policies, doctrine and processes to reduce the gap between OS and DSC. Simplified OS governance through realignment of authorities and integrated sustainment C2, and an up-skilled OS workforce, who can bridge technology and requirements, when enabled by the fielding of the connective fabric of digital sustainment networks delivers increased operational readiness and resiliency.

Transformed: CAF is sustained by a fully integrated and modernized capability that generates decisive military advantages and maintains operational readiness and resiliency across all domains and enables operational support activities. The CAF leverages data and applications to drive decisions, material and financial management, enhance resource utilization and the planning of Force Generation, Force Management, Force Employment and Force Support activities.

14. Conclusion

The CAF must be ready and able to meet the policy demands of the Government of Canada and deliver defence operations at home and abroad to support and protect Canadians. The global defence and security environment will continue to evolve around us, and we must be prepared to defend Canada and promote Canadian values and interests abroad. Externally, we must ensure that we can field a digital and credible fighting force, as we've seen examples on the battlefield of how an integrated, digitally-enabled adversary has the advantage over larger, but analog, forces. To remain a trusted partner with our key allies, we must ensure we present a modern, capable, interoperable force; failure to keep pace limits our ability to be a credible, relevant partner. Internally, we must both match societal demands for a modern employer, and leverage the power of digital to do business better, faster, smarter, and with more transparency.

This Digital Campaign Plan identifies the conditions required to enable a digital force, and describes the efforts that must be made – technologically, procedurally, professionally, and culturally – to progress along the digital maturity model to achieve a steady state of digital innovation and iteration. To succeed, we must become agile and hone our ability to adopt, embed, and integrate capabilities such as Artificial Intelligence, Machine Learning to leverage our own Big Data. This will enable us not only to sense and make sense more rapidly for success in the Battle Space, but also permit us to "show our work" in data- and evidence-based decision-making, representing best value-for-dollar and transparency to our Government and the citizens we serve.

Enabling technologies, such as process automation, will also permit us to free human capacity up for more critical tasks – a huge organizational benefit where resources are pulled in many directions.

However, digital transformation is not primarily about technology – digital technology is a necessary but insufficient condition for digital transformation. It is fundamentally about our people and culture – the backbone of our organization. We must be able to creatively rethink and rejuvenate our processes rather than simply porting or transferring them to digital mechanisms. We must ensure that we harness the expertise already resident in our workforce, and that we meet the digital expectations of those who we're competing to attract. We must identify the skills required to build and enable the modern force we need, and hire, select for, employ, and up-skill accordingly.

It is of little utility to have exquisite platforms without the ability to successfully integrate them on the battlefield – with ourselves or our allies. It is of limited use to be able to collect terabytes of data without being able to fuse it, trust it, share it, and transform it – at speed – into something actionable. In the modern era, the connective tissue that allows us to leverage this is a capability – no different than planes, ships or tanks – and it has been under-considered and under-resourced. All of this is why, at its heart, the success of a CAF Digital Transformation is **core commanders' business**.

This document lays out the vision, outcomes, principles, and objectives underpinning our Digital Transformation – indeed, it makes clear the conditions, both internal and external, that **demand** change. This Digital Campaign Plan articulates the CAF vision to become digital and should be considered as the CDS intent that guides all action and effort. It should be read in concert with the supporting Implementation Plans that will provide specific direction and tasks that support the intent, but CAF leaders are expected to lean-in and take action toward becoming digital without delay.

Digital Transformation is not an end-state – while there are signposts along the way, we must internalize a culture of continuous improvement in the digital space. Leadership at all levels will be needed – to identify talent, remove roadblocks, reimagine our business better, scan the horizon for disruptors, invigorate our workforce. Through Digital Transformation, we can assure our edge in the Battle Space, ensure maximal efficiency in the Corporate Space, and re-imagine our workforce for the digital age.