



CANADIAN DEPARTMENT OF NATIONAL DEFENCE

PROVIDING WEAPONS INFORMATION

QUICK FACTS

Industry

Defense and security

Budget

CAD 18.9 billion (US\$18.9 billion)

Employees

87,000

Headquarters

Ottawa, Ontario, Canada

Web Site

www.forces.gc.ca

SAP® Solutions and Services

SAP® ERP application, SAP NetWeaver® Business Intelligence component

Implementation Partner

IBM Corporation

Key Challenges

- Provide better support for major military operations in troubled regions like Afghanistan
- Maximize the effectiveness of new and existing weaponry
- Create a single source of the truth for all materiel acquisition and maintenance information
- Fulfill promise of better tools for personnel
- Speed military campaign planning
- Aid decision makers at all levels

Implementation Best Practices

- Standardized business processes and policies
- Employed integrated project team concept with co-location of key resources
- Used IBM standard method of system integration and implementation
- Used an accelerated ERP implementation program to realize benefits and leverage global best practices
- Monitored and enforced compliance

Financial and Strategic Benefits¹

- Improved support by providing appropriate materiel in the right amounts at the right times
- Provided performance data earlier in the planning process
- Linked strategic objectives to transactional data for integrated performance management
- Attained complete maintenance life-cycle cost visibility
- Reduced expenditures for unnecessary equipment through better estimates of needs
- Introduced automation into procurement, reducing cycle times and redundant buying
- Provided the automated tools that personnel were promised when their ranks were reduced

1. These benefits currently apply to the navy but will be extended to the army and air force following implementation.

2. KPIs are for MASIS Phase 5.

Program Goals

- Develop capability to access up-to-date operational status of equipment
- Improve data accuracy and accessibility
- Eliminate duplication of effort
- Improve part tracking to reduce discrepancies and increase accountability
- Standardize formats for budgeting, reporting, and information sharing across branches
- Improve accountability for funds deployed

Low Total Cost of Ownership

- Will replace more than 200 legacy systems that had unsustainable total cost of ownership
- Will avoid hundreds of millions of dollars in costs to develop and maintain new fleet-specific logistics systems by equipping the Materiel Acquisition and Support Information System (MASIS) to perform their functions instead
- Will leverage the MASIS navy implementation experiences to reduce expense of army and air force implementations

Operational Benefits

Key Performance Indicator ²	Impact
Time needed to determine readiness for military action	Substantially reduced
Availability of the right resource at the right place and at the right time	Substantially improved
Asset visibility and part tracking	Substantially improved
Understanding of cost by weapon system	Substantially improved
Auditability and accountability	Substantially improved
Data accuracy and consistency	Substantially improved
Availability of reliability and maintenance information	Substantially improved

To provide better materiel support for Canada's armed forces, enhance materiel accountability, and support the Canada First Defence Strategy, the Canadian Department of National Defence needed a comprehensive system to track and manage its weapon systems and equipment assets more effectively. The Materiel Acquisition and Support Information System, which is based on the SAP® ERP application, fulfills this need by providing the business continuum for weapon system management and engineering and maintenance information wherever it is needed, from the highest levels of government to maintenance personnel on the front lines.



“DND will be managing tens of billions in new equipment over the next decade or two. MASIS will be the business continuum to allow us to do the job effectively.”

Kevin Radford, Director, Materiel Policy and Procedures, Canadian Department of National Defence

The Canadian Department of National Defence (DND) provides military forces to protect Canada and contribute to international peace and security. DND administers all three branches of the country's armed forces – the army, navy, and air force. It oversees US\$21 billion in capital assets and \$18.9 billion in inventory, comprised largely of weapons and their supporting equipment. In addition, the department plans to procure between \$20 and \$30 billion in new weapon systems over the next 10 to 20 years.

Despite the large sums DND spends on weaponry, and despite its importance to Canada's military efforts in world trouble spots like Afghanistan, until recently there has never been a comprehensive, uniform, and integrated information management system for providing support for this equipment and making new acquisitions. With the limited, disparate systems in place, management had a very difficult time accessing and managing information, linking engineering support decision making to data, and pinpointing value returned for money spent, greatly hindering accountability. Finding vital information such as the maintenance records for weapons and their parts was an arduous process, and too often the results were inaccurate. The three branches all used their own unique and incompatible combinations of systems, making it challenging to compare and combine information from them – which impacted everything from budgeting to ascertaining readiness for combat. The department's workforce, depleted by budget cutbacks in the 1990s, had been promised better solutions but instead had to struggle with the same inefficient tools.

Integrating Materiel Acquisition and Support Information

To address all these issues and more, DND created a solution called the Materiel Acquisition and Support Information System (MASIS), which is based on the SAP® ERP application and the SAP NetWeaver® Business Intelligence component and is being implemented by the IBM Corporation. MASIS provides timely and reliable equipment data to support the acquisitions process, as well as operational tasks, and to cost-effectively optimize weapons and equipment availability throughout their life cycle. The system supports approximately 50 DND enterprise processes, including constructing equipment plans, acquiring equipment, making engineering changes, and maintaining, deploying, and disposing equipment.

MASIS is already in full production for the navy, which has decommissioned many legacy systems and avoided millions in new costs as a result – while delivering the consistent, accurate, and timely information that Canada needs to run naval operations effectively. Now when the navy procures a weapons fleet from a new vendor, it incorporates the configuration management data into MASIS rather than funding the development of a new logistics application – at 5% to 10% of its cost.

Unifying Logistics for All of Canada's Armed Forces

Soon the army and air force will fall under the MASIS umbrella as well, bringing the even higher-level benefits of totally unified armed forces logistics – a first in the world for a project this aggressive. Today's user base of 3,000 will swell to nearly 20,000. With all three branches operating for the first time on the same logistics page, Canada's military might will be able to efficiently mount a unified, joint response when conflicts arise. Operations that have required months to develop equipment support plans will take mere weeks or even days, depending on complexity. Each branch will be able to easily share its best practices with the others. Accurate, consistent information will be available to decision makers at all levels – from government officials allocating budgets to technicians repairing weapon systems. Accountability, which was no more than a concept with information so hard to find, will become a reality.

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