Project Management

Approaches, Templates and small Project examples

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Canada



Outline

- Overview of the **Project Management Approaches** Federal Government of Canada uses.
- Review Departmental INAC **Templates** for large projects that are tailored for Regional uses on small projects.
- Provide small project Examples of Information Technology (IT) and Geographical Information Systems (GIS) in Saskatchewan by INAC and First Nations.
 - Field Tablet project for INAC-SK Lands and Economic Development division
 - Drone Program project for INAC-SK Lands and Economic Development division
 - Whitecap Dakota First Nation GIS Program via Lands and Economic Development Services Program (LEDSP)
- Discussion on First Nation Project Management



Project Management Approaches

- PMBOK (an acronym for Project Management Body of Knowledge) is a set of standard terminology and guidelines for project management used in US and Canadian government.
 - Project Management Institute (PMI) is a US organization that has developed and published a number of management standards such as PMBOK
 - PMP stands for Project Management Professional certificate from PMI
- PRINCE2 (an acronym for Projects IN Controlled Environments) is a process based project management method used by the UK government.
 - AXELOS is the UK organization that owns PRINCE2 project management methodology.
 - There are three levels of certification with PRINCE2, Foundation, Practitioner and Professional

Both approaches are different and can be used together for effective project management



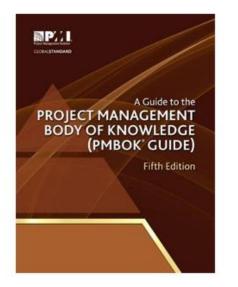
PMBOK Guide

Knowledge (explains what you should know)

Descriptive (explains the good practices)

Answers HOW questions

USA, Canada, Middle East, Australia



PRINCE2

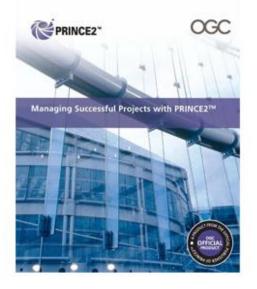
VS

Methodology (explains what you should do)

Prescriptive (tells you what to do)

Answers WHAT, WHEN and WHOM questions

ia UK, Europe, Australia





PMBOK Guide - What is a Project?

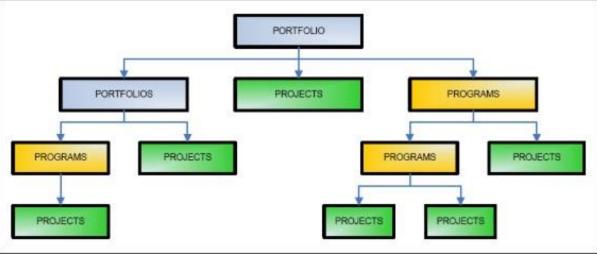
- "A project is a temporary endeavor undertaken to create a unique product, service or result."
- *Temporary* means that every project has a defined beginning and end in time, and therefore defined scope and resources.
- Unique means that the product, service or result is different in some distinguishing way from any similar products or service. It is not a routine operation, but a specific set of operations designed to accomplish a singular goal. So a project team often includes people who don't usually work together – sometimes from different organizations and across multiple geographies.
- It is important to distinguish between projects and planned operations planned operations are ongoing and repetitive, while projects are temporary and unique. Projects often bring about changes to planned operations, making them more effective or efficient.

Project Management: is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements.



PMBOK Guide - Project / Program / Portfolio Relationship

- **Program:** A group of related projects managed in a coordinated way to obtain benefits and control not available from managing them individually. Programs may include elements of related work outside of the scope of the discrete projects in the program.
- **Portfolio:** A collection of projects and/or programs and other work that are grouped together to facilitate effective management of that work to meet strategic business objectives. The projects or programs of the portfolio may not necessarily be interdependent or directly related.
- **Program Management:** The centralized coordinated management of a program to achieve the program's strategic objectives and benefits.
- **Portfolio Management:** The centralized management of one or more portfolios, which includes identifying, prioritizing, authorizing, managing, and controlling projects, programs, and other related work, to achieve specific strategic business objectives



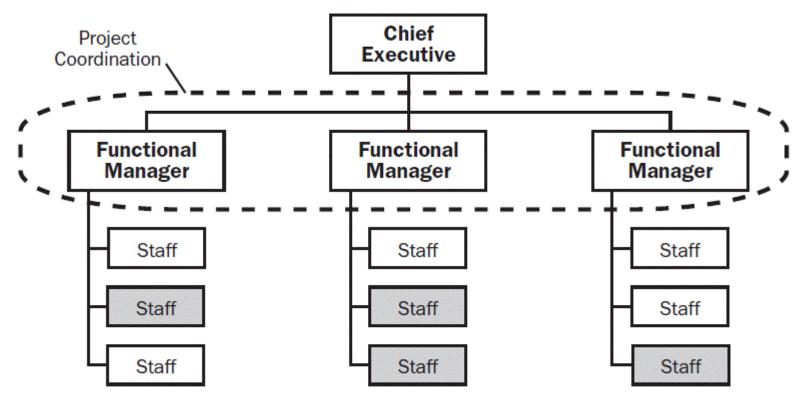
PMBOK – Project Organization Structure

Organization Structure			Matrix		
Project Characteristics	Functional	Weak Matrix	Balanced Matrix	Strong Matrix	Projectized
Project Manager's Authority	Little or None	Limited	Low to Moderate	Moderate to High	High to Almost Total
Resource Availability	Little or None	Limited	Low to Moderate	Moderate to High	High to Almost Total
Who controls the project budget	Functional Manager	Functional Manager	Mixed	Project Manager	Project Manager
Project Manager's Role	Part-time	Part-time	Full-time	Full-time	Full-time
Project Management Administrative Staff	Part-time	Part-time	Part-time	Full-time	Full-time





PMBOK Guide - Functional Organization

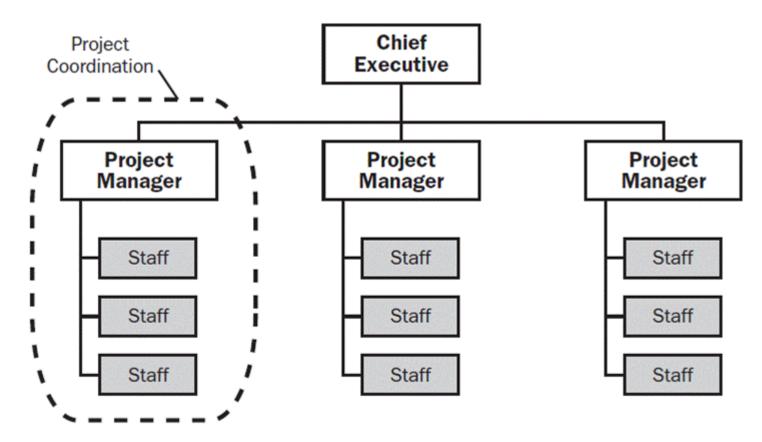


(Gray boxes represent staff engaged in project activities)





PMBOK Guide - Projectized Organization

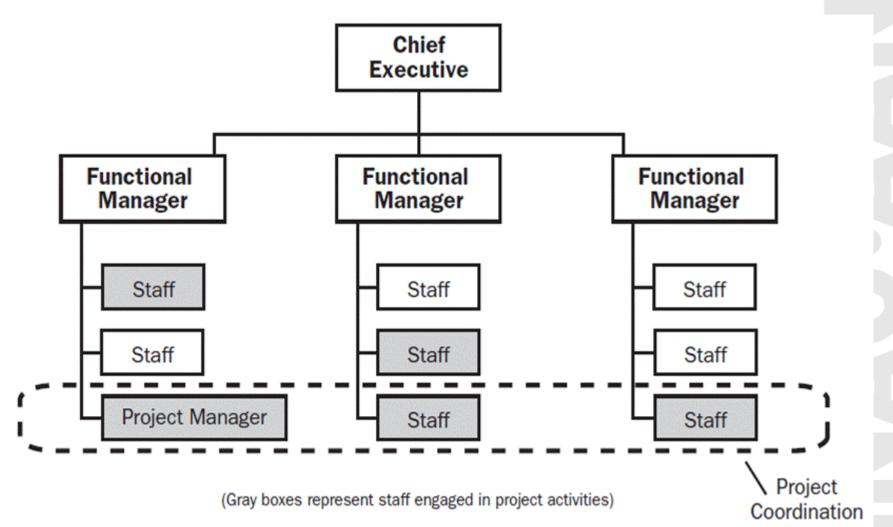


(Gray boxes represent staff engaged in project activities)





PMBOK Guide - Balanced Matrix Organization





PMBOK Guide - Project Management Structure

		Project N	Aanagement Process	Groups	
Knowledge Areas	Initiating Process Group	Planning Process Group	Executing Process Group	Monitoring and Controlling Process Group	Closing Process Group
4. Project Integration Management	4.1 Develop Project Charter	4.2 Develop Project Management Plan	4.3 Direct and Manage Project Work	4.4 Monitor and Control Project Work 4.5 Perform Integrated Change Control	4.6 Close Project or Phase
5. Project Scope Management		5.1 Plan Scope Management 5.2 Collect Requirements 5.3 Define Scope 5.4 Create WBS		5.5 Validate Scope 5.6 Control Scope	
6. Project Time Management		6.1 Plan Schedule Management 6.2 Define Activities 6.3 Sequence Activities 6.4 Estimate Activity Resources 6.5 Estimate Activity Durations 6.6 Develop Schedule		6.7 Control Schedule	
7. Project Cost Management		7.1 Plan Cost Management 7.2 Estimate Costs 7.3 Determine Budget		7.4 Control Costs	
8. Project Quality Management		8.1 Plan Quality Management	8.2 Perform Quality Assurance	8.3 Control Quality	
9. Project Human Resource Management		9.1 Plan Human Resource Management	9.2 Acquire Project Team 9.3 Develop Project Team 9.4 Manage Project Team		
10. Project Communications Management		10.1 Plan Communications Management	10.2 Manage Communications	10.3 Control Communications	
11. Project Risk Management		11.1 Plan Risk Management 11.2 Identify Risks 11.3 Perform Qualitative Risk Analysis 11.4 Perform Quantitative Risk Analysis 11.5 Plan Risk Responses		11.6 Control Risks	
12. Project Procurement Management		12.1 Plan Procurement Management	12.2 Conduct Procurements	12.3 Control Procurements	12.4 Close Procurements
13. Project Stakeholder Management	13.1 Identify Stakeholders	13.2 Plan Stakeholder Management	13.3 Manage Stakeholder Engagement	13.4 Control Stakeholder Engagement	

Table 3-1. Project Management Process Group and Knowledge Area Mapping

A Guide to the Project Management Body of Knowledge (PMBOK® Guide) – Fifth Edition. ©2013 Project Management Institute, Inc. All rights reserved.



PMBOK – Stakeholder Communication

Influence/Power of Stakeholder

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Meet Their Needs	Key Player
Engage and Consult Increase/maintain level of interest Aim is to move them to the right Could be a risk to your idea	Manage closely Involve in projects and decisions Engage on a regular basis and work to maintain the relationship
Low	Кеер
Priority	Informed

Interest of Stakeholder

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PRINCE2- What is a Project?

- "A project is a temporary organization that is created for the purpose of delivering one or more business products to an agreed business case."
- Projects are the means by which we introduce change.
- A key challenge for organizations is to succeed in balancing two parallel competing imperatives
 - To maintain current business operations
 - To transform business operations in order to survive and compete in the future
- There are a number of characteristics that distinguish a project from business as usual
 - Change
 - Temporary
 - Cross-functional
 - Unique
 - Uncertainty



PRINCE2- Project Management Structure

Project Management: is the planning, delegating, monitoring and control of all aspects of the project and the motivation of those involved to achieve the project objectives within the expected performance targets/tolerances for time, cost, quality, scope, benefits and risk.

There are 7 principles, 7 themes and 7 processes

Principle	Definition
Continued business justification	A PRINCE2 project has continued business justification
Learn from experience	PRINCE2 project teams learn from previous experience (lessons are sought, recorded and acted upon throughout the life of the project)
Defined roles and responsibilities	A PRINCE2 project has defined and agreed roles and responsibilities with an organizational structure that engages the business, user and supplier stakeholder interests
Manage by stages	A PRINCE2 project is planned, monitored and controlled on a stage-by-stage basis
Manage by exception	A PRINCE2 project has defined tolerances for each project objective to establish limits of delegated authority
Focus on products	A PRINCE2 project focuses on the definition and delivery of products, in particular their quality requirements
Tailor to suit the project environment	PRINCE2 is tailored to suit the project's size, environment, complexity, importance, capability and risk



PRINCE2 – Processes

Theme	Questions answered by the theme		
Business Case	Why?		
Organization	Who?		
Quality	What?		
Plans	How? How much? When?		
Risk	What if?		
Change	What's the impact?		
Progress	Where are we now? Where are we going? Should we carry on?		

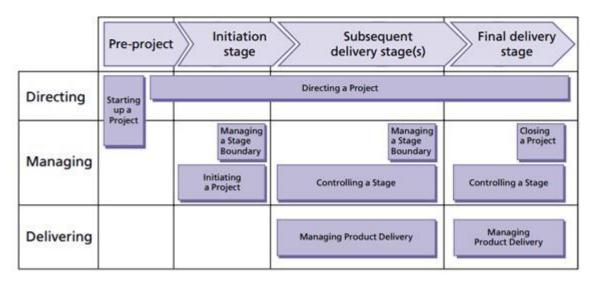


Figure 2 PRINCE2 process model



PRINCE2 – Four Levels of Management

- Corporate or programme management
- Directing
 - Approve all major plans and resources
 - Authorize any deviation that exceeds or is forecast to exceed stage tolerance
 - Approve the completion of each stage and authorize the start of the next
 - Communicate with the other stakeholders
- Managing
 - Day-to-day management of the project
 - Within the constraints set out by the project board
 - Produce the required products in accordance with the performance goals
- Delivering
 - Delivering the projects products
 - Appropriate quality and specified timescale and cost
 - Optionally planning product delivery and managing the specialists



PRINCE2 – Three Project Interests

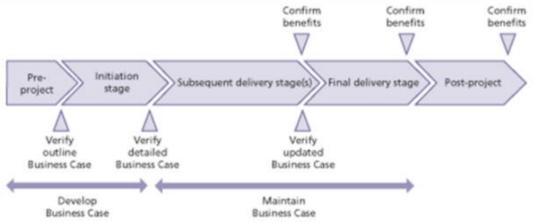
- Business
 - Products of the project should meet a business need
 - Project should provide value for money
 - Executive role is defined to look after the business interest
- User
 - Specifies the desired outputs
 - Uses the outputs to realize benefits
 - Operates, maintains or supports the project's outputs
 - The outputs of the project will impact them
 - The Senior User role represents these interests
- Supplier
 - Provides resources with the necessary skills
 - Produces the project product
 - The Senior Supplier role represents these interests



PRINCE2 – Development Path of the Business Case

The purpose of the Business Case is to establish a mechanisms to judge whether the project is (and remains) desirable, viable and achievable as a means to support decision making in its (continued) investment. The Executive is responsible for the Business Case.

- **Outline Business Case** is developed at the beginning of the project and derived from the project mandate.
- Detailed/Updated Business Case is maintained throughout the life of the project and formally verified by the project board at each key decision point and confirmed throughout the period that the benefits accrue. It is derived from the outline Business Case, the Project Plan (costs, timescale, products) and the risk register.





Government of Canada Project Management

Treasury Board Secretariat:

https://www.canada.ca/en/treasury-board-secretariat/services/informationtechnology-project-management/project-management.html

- Business Case template: <u>https://www.canada.ca/en/treasury-board-</u> <u>secretariat/services/information-technology-project-management/project-</u> <u>management/business-case-template.html</u>
- Project Charter template: <u>https://www.canada.ca/en/treasury-board-</u> <u>secretariat/services/information-technology-project-management/project-management/project-charter-template.html</u>



INAC IM/IT Project Management Office (PMO)

Project Portfolio Management Framework (PPMF)

Full Gating - Deliverables

Lite Gating

Full Gating - Deliverables

Full Gating - Deliverables

Projects employ the seven-gate model when the project complexity and risk are greater than the department's Project Authority. The TBS <u>Standard Project Complexity and Risk Assessment</u> (PCRA) is used to conduct the assessment.

The Master List of Gate Deliverables - FULL Gating shows the required deliverables for each Gate.

▼ Stage / Gate 1: Strategic Assessment

Purpose: Confirmation of the project's objectives - both what is to be done and why - and the identification of key stakeholders validation of the proposed opportunity's alignment with corporate goals.

Contact Us

IM/IT Project Management Office (PMO)

Deliverables	Template	Guide
Business Opportunity Proposal	2496909	built-in
Project Complexity and Risk Assessment (preliminary)5250257	3458987

v Stage / Gate 2: Project Approach

Purpose: Confirmation of how the project's objectives will be achieved and that the general approach is feasible and appropriate.

Deliverables	TemplateGuide
High Level Requirements (preliminar	ry) <u>3063849</u> built-in
Project Approach Document	3067749 built-in

▼ Stage / Gate 3: Business Case

Purpose: Confirmation of funding and business outcomes, and provides more detail on how a proposed project will be done.

Deliverables	Template	Guide
Business Case	<u>2447440</u>	<u>33126878</u>



INAC IM/IT Project Management Office (PMO) cont.

▼ Stage / Gate 4: Project Charter

Purpose: Confirmation of resources, support and governance, focuses on expanding on the information in the Business Case to build the Project Charter and develop the Preliminary Project Plan.

Deliverables	TemplateGuide
Project Complexity and Risk Assessment (fi	inal) <u>5250257</u> 3458987
Project Charter	<u>1471005</u> <u>1470999</u>
High Level Requirements (final)	3063849 built-in
Project Plan (preliminary)	9405455 built-in

▼ Stage / Gate 5: Detailed Plan and Project Specifications

Purpose: Confirmation of readiness to proceed with construction, results in many of the core management products used during project execution including the final Project Plan and the baseline schedule.

Template	Guide
9405455	built-in
2018933	built-in
ATIP	
IT Security	l
	<u>9405455</u> 2018933 ATIP

Stage / Gate 7: Utilize-Retire

Project Management - Supporting Documents

Project management documents should be produced using the following standard PPMF templates:

- Project Change Request Template
- Project Issues Register Template
- Project Risk Register Template
- · Project Status Reporting Guide
- · Project Status Reporting Template
- · Project Meeting Agenda Template
- Project Meeting Minutes Template
- · Project Steering Committee Guide
- Project Steering Committee Terms of Reference Template
- · Project Steering Committee Agenda Template
- Project Steering Committee Minutes Template



Templates

- 1.- Business Proposal
- 2.- Business Case
- 3.- Project Charter
- 4.- Project Plan





Small Project Examples

- 1.- Environmental Monitoring Technological Advancement project (Tablet)
- 2.- Paperless Field Work Initiative project (Drone)
- 3.- Whitecap Dakota First Nation GIS Lands and Economic Development Program (LEDSP) proposal



First Nation Project Management

<u>https://www.afoa.ca/afoadocs/L3/L3a%20-%20Project_Management.pdf</u>

Aboriginal Financial Officers Association of Canada – A Practical Guide for Aboriginal Management

http://www.ildii.ca/

Indigenous Leadership Development Institute, Inc. – Indigenous Project Management training

Course description: To provide tools, techniques, and practical skills for initiating, planning, tracking, controlling and evaluating any kind or size of project. This is a highly interactive workshop where participants will work on live projects and focus on technical/people aspects of successful project management.

- Introduction to the field of Project Management
- Understanding the project life cycle and the role & responsibility of a Project Manager
- Determining why projects fail, performing a risk analysis





Discussion on First Nation Project Management

