The
Canadian Satellite Design Challenge

Project Management Plan Template

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Table of Contents

Table of Figures

1 Introduction

1.1 Document Overview

This document (sometimes called a "Data Item Description", or "DID") presents a description and partial template for a Project Management Plan (PMP) which each participating team must submit for the Canadian Satellite Design Challenge ("CSDC", or "the Challenge").

The Project Management Plan describes how your team will be structured and managed throughout the competition.

Teams are welcome to include additional information in their PMP, beyond what is outlined in this template.

1.2 Mission Overview

Include a brief introduction to your team, the departments and faculties represented, and the mission you have decided upon (if known).

1.3 Reference Documents

Include a list of any reference documents used.

[RD-1]   *Document title, authors, publishers, etc., or web-page link.*

[RD-2]

2 Project Organisation & Management

The following sections are suggested as a minimum set to be addressed in this section.

2.1 Team Member List

Please include a list of each team member, their department, and their year of study. For graduate students, please state whether they are in Master's or PhD level.

2.2 Internal Project Organisation

The PMP shall give a description and diagram which reflects the internal organisation of your team (an "org chart"), i.e., the organisation of team members, as well as stakeholders, within your university.

Identify designated roles and internal sub-team leaders for significant areas of responsibility. Such areas of responsibility might include:

- Faculty or university administration
- Management
- Design engineering & support
- Financial
- Public Relations, Media, Education
- University labs, facilities, or workshops

An example organisation chart is shown in Figure 2-1. Other layout formats are also acceptable.
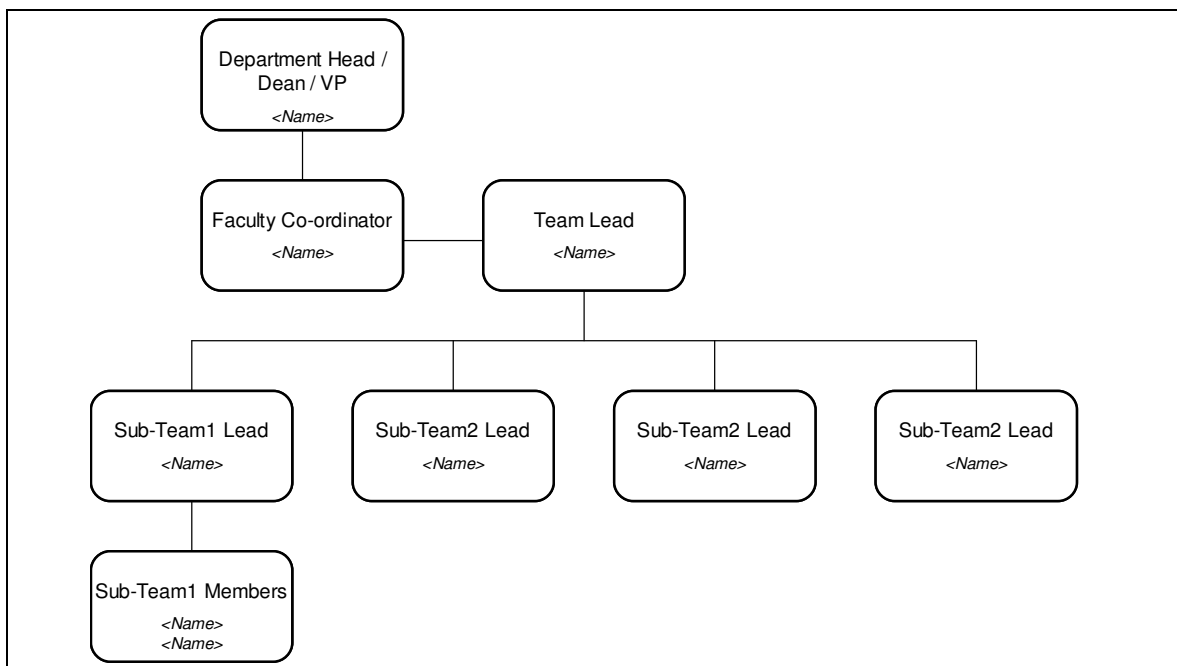

Figure 2-1. Example Internal Organisation Chart.

2.2.1 Description of Internal Responsibilities

For the Team Lead and each Sub-Team Lead identified in the internal organisation, give a brief description of their role and responsibilities.

2.3 External Project Organisation

The PMP shall give a description and diagram of the relationships between your team and any external stakeholders, i.e., people or organisations outside of your university.

Examples of external stakeholders include:

- CSDC Management
- Funding sources (sponsors, grant organisations)
- External advisors
- Sub-contractors (e.g., if your team is working with a company which is supplying a payload, you may consider them a sub-contractor to your team).

An example relationship diagram for external stakeholders is shown in Figure 2-2. Note that in the it is permissible/possible to have overlap between different categories of external stakeholders. I.e., one stakeholder may belong in more than one category.
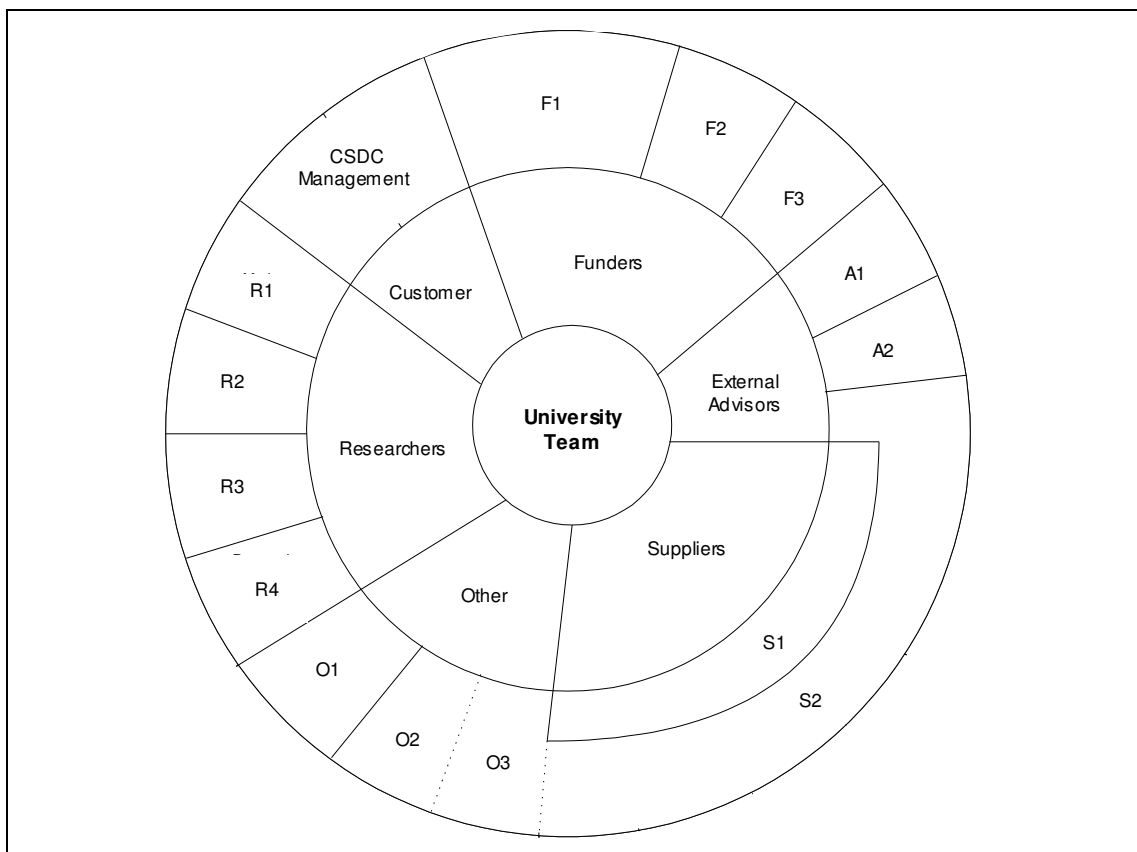

Figure 2-2. External Stakeholder Relationship Diagram.

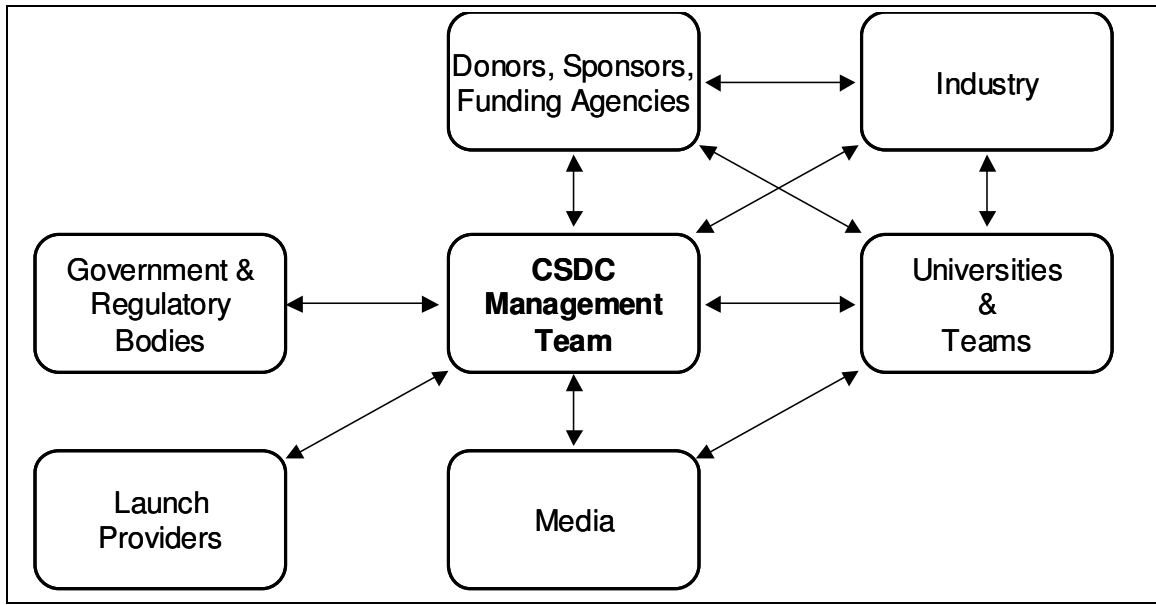An alternative representation is a context diagram as shown in Figure 2-3.

Figure 2-3. External Stakeholder Context Diagram.

Other formats are also acceptable, as long as they indicate category type and name of the major stakeholders.

2.3.1 Description of External Responsibilities

Give a brief description of each external stakeholder and their relationship with your team and mission. A bulleted list item for each one is sufficient.

2.4 Internal Schedule

Give a summary diagram (one page maximum) of your team's internal schedule of major activities and milestones, and how they match with the CSDC schedule. Please provide brief descriptions (one- or two-line bullets) of your major internal activities and milestones.

The CSDC Programme Schedule, with the specific milestones, is shown in Figure 2-4. Your team's schedule can be given as an image, table, or a Gantt Chart.
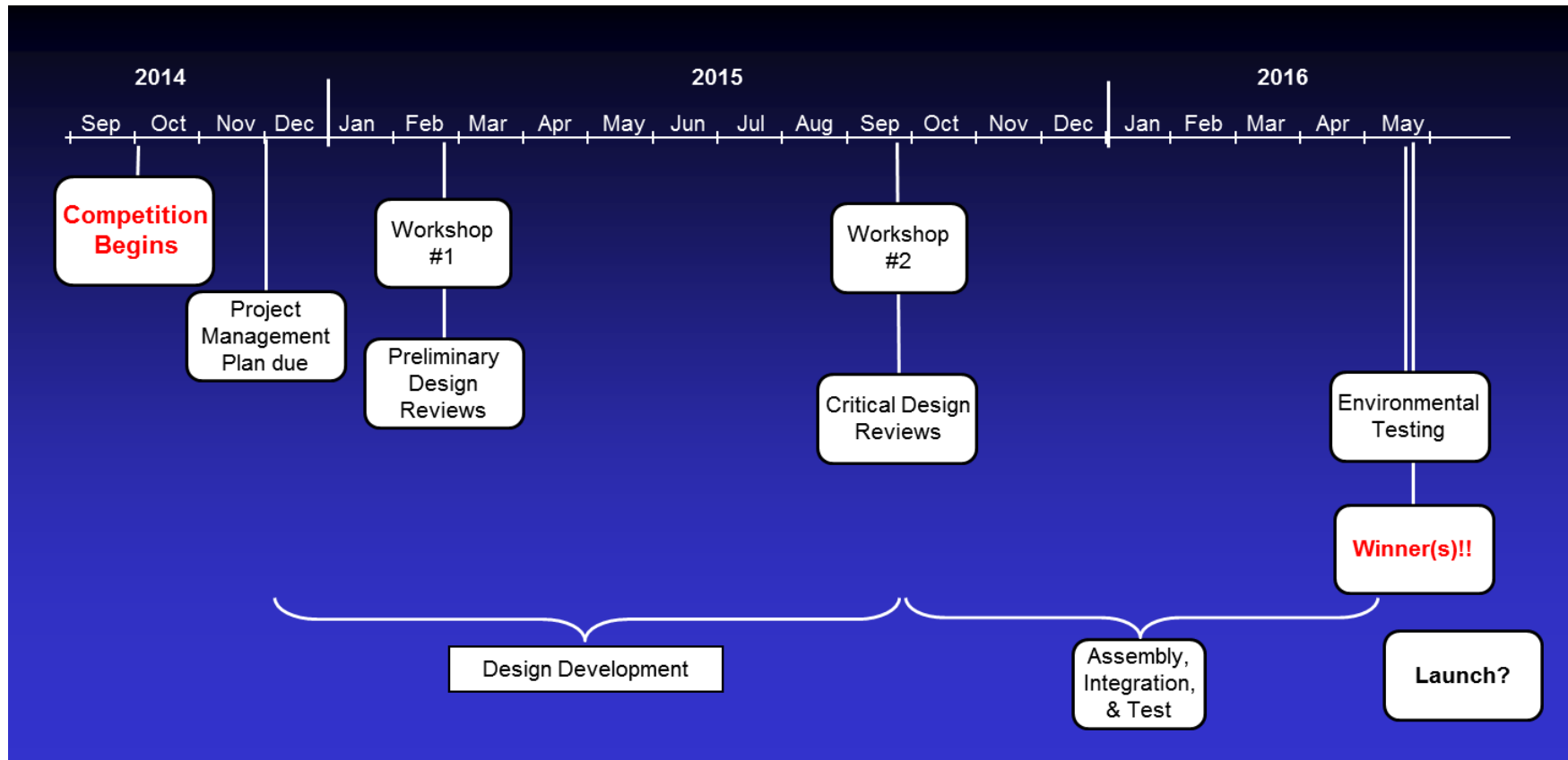
Figure 2-4. CSDC Programme Schedule.

3 Operations and Resources

The "Operations and Resources" section outlines how the project team will be supported at the university. Include details on the need and provision of such things as the following sections.

Please note that CSDC-provided resources which are common for all teams (e.g., Satellite Toolkit, technical support from Maya HTT on the use of the FEMAP software) do not need to be included.

3.1 Personnel Resources

In this section please address any issues regarding the team members, such as:

- Team composition: how many departments are represented in the team?
- How often does the team meet?
- How will you keep your team cohesive, interested, and contributing to the project?
- Do you have the capabilities needed for each role?
- Do you have a plan in case a team member goes out on a co-op work term, graduates and leaves, gets crushed by a meteorite, etc.?

3.2 Offices and Lab Space

A description of the rooms used for project computer(s), spacecraft assembly and testing, team meetings, design work. Are the rooms dedicated or shared? Is access controlled? Does your team have access to labs and equipment to machine parts or create custom electronics?

3.3 Computing Resources

A description of the computer(s) secured, dedicated or shared, security issues, backup capabilities.

3.4 Operations Plan

The CSDC winner will be selected in the late Spring of 2014. It is currently not known what the launch date would be – even if one were currently secured, launch delays are likely, and a launch date in 2015 is easily possible.

What is your plan for operations and support if your team's spacecraft is launched?

3.5 Communications Plan

Please briefly describe your plans for promoting your project, on-campus, off-campus, and for meeting the Educational Outreach requirement.

4 Risk Management Plan

Risk management is an essential component of program and technical management and is an important complement to cost, schedule, and requirement management activities.

The general definition of risk management is the continuous identification and control of events in a project life cycle that have the potential for causing unwanted cost, schedule, design, or process changes. Examples of risk categories include:

- technical
- management
- personnel
- financial
- political

Each team shall identify a process by which they will identify, prioritise, and manage risks to their project.

Realistic limitations to managerial attention generally mean that only a small number of all possible risks can be carried and addressed by a program. For the CSDC, teams may limit themselves to the top five major risks at any one time.

For each risk, give a brief description of the risk, its probability of occurring, the impact if it does occur, and possible avoidance or mitigation strategies. The list which contains all this information about each risk is sometimes called a "Risk Register."

Risk summaries may be summarised in tabular or graphical format. There is more than one way to summarise risks, and each team may choose a format with which they are familiar or comfortable.