

PROJECT IMPLEMENTATION GUIDELINE

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1.0 INTRODUCTION

As part of the SNC-Lavalin Oil and Gas (O&G) Business Sector Integrated Management System (IMS), a Project Delivery Roadmap has been developed to ensure that there is consistency in project execution while maintaining organizational agility. This O&G Project Delivery Roadmap facilitates the coordination and interfacing of various project functions during all stages of project execution and streamlines the implementation of project delivery processes.

A Project Implementation Guideline for the O&G Project Delivery Roadmap is required on selected projects during the first year of the IMS launch to ensure that the O&G IMS, and in particular the Project Delivery Roadmap, is successful.

1.1 Purpose

This guideline addresses the requirements that should be put in place in order to ensure that the O&G Project Delivery Roadmap is successfully implemented. This guideline, therefore, establishes some steps and responsibilities for the Implementation Team and the Project Team.

The purpose of the guideline is to:

- > Outline the requirements of the Implementation Team
- > Outline the requirements of the Project Team
- > Facilitate the Project team so there is consistency in project execution
- Facilitate the Project Team so the O&G Project Delivery Roadmap is intuitive and easy to adopt

It is expected that as the O&G IMS matures, and the project delivery elements of it become part of the business sector culture, this guideline will no longer be required to assist in the setup of a project and implementation of O&G systems.

1.2 Scope

This guideline applies to selected projects where O&G provides either full or partial services.

1.3 Responsibility

Senior Vice President Project Delivery: Responsible for making the final selection of the project(s) for this guideline; responsible for the content, administration, maintenance and implementation of this guideline; and, responsible for assigning a Project Implementation Leader and Project Implementation Team.

Director of Project Management Processes: Responsible for ensuring the Project Delivery Roadmap elements of the IMS are implemented.

Project Implementation Leader: Responsible to oversee the Implementation Plan as described in this guideline; and, responsible for Lessons Learned and a final report as described in this guideline.

Functional Champions: Responsible for the Implementation Plan as described in this guideline.





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Director, Systems and Information: Responsible to ensure that the O&G – IMS Web Portal is functional, accessible, and maintained.

Global Senior Director, Quality Assurance: Responsible to ensure the IMS Web Portal contains all published Global process flowcharts and supporting documents; responsible to ensure that instructions on navigation of the O&G IMS Web Portal is available for use for the Project Team and the Project Implementation Team.

Global Functional Leads: Responsible for appointing Functional champions on the project; responsible for reviewing and approving any project specific process flowcharts/ supporting documents (and ensuring these are aligned with contractual, legal and corporate requirements).

Project Delivery Custodian: Responsible to ensure any project specific process flowcharts and supporting documents (with the Global Functional Leads and Functional champions) are published on a Project Specific Website and/or Project EDMS.

Project Manager and Project Functional Champions: Responsible to coordinate and participate in the Implementation Plan as described in this guideline.

2.0 GUIDELINE

This guideline assumes the IMS and related Project Delivery Process Flowcharts have been finalized, approved and published on the O&G IMS Website as per the IMS development plan. Where an IMS Support document is still in draft, or not available, a project specific version will be created as per the activities in the following section.

2.1 Identify the Project

The Senior Vice President Project Delivery and the Global Functional Leads review a list of new projects starting in the IMS launch year that have the potential to act as pilots for the Project Delivery Roadmap. This list will be obtained from the Business Development Group.

The list will be reviewed and the Senior Vice President Project Delivery will select a project(s) based on options presented. All project scopes (Studies, FEED, Detailed Engineering, EPC, etc.) are to be considered as well as different global office locations for project execution.

Once a project(s) have been selected, preparation for implementation of the IMS and Project Delivery processes will commence.

2.2 Project Delivery Roadmap Preparation

The following activities are to be carried out in preparation of the Project Delivery Roadmap Implementation:

- > The Senior Vice President Project Delivery in conjunction with the Director of Project Management Processes and the Global Functional Leads select the required process flowcharts and supporting documents for the project. The Senior Vice President Project Delivery selects a Project Implementation Leader.
- > The Global Functional Leads appoint Project Functional Champions.
- > The Director of Project Management reviews the selected Process Flowcharts with the Global Functional Leads to ensure that all selected process flowcharts have been approved





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for use, and identifies which may need to be modified for project use. The functions include Project Management, Engineering, Procurement, Project Controls, Construction, SSHE, Quality and Risk.

- > The Project Functional Champions reviews the IMS Website to ensure all identified support documents are available / published. The functions include Project Management, Engineering, Procurement, Project Controls, Construction, SSHE, Quality and Risk. If there are any gaps, they will work with the Project QA/QC Manager and Global Functional Leads to create project specific IMS documents.
- > The Global Senior Director, Quality Assurance, with the Regional/Country Manager appoints a Project QA/QC Manager who acts as the Project Quality Functional Champion.
- The Project QA/QC Manager creates an IMS/QMS Induction (including the role of the Project Delivery Roadmap within the IMS) and conducts the inductions for all staff.
- > The Director of Project Management Processes prepares a PowerPoint presentation describing the objectives, overview and pertinent details on how the O&G Project Delivery Roadmap is used. This presentation is geared for both the Project Team and the Project Implementation Team.

2.3 Define the Implementation Team

Once steps in section 2.2 have been completed, the members of the Project Implementation Team are finalized. Typically, the team will consist of the Project Implementation Leader, Project Functional Champions, Project QA/QC Manager and support personnel as necessary.

It should be noted that the Functional Champions are expected to be well versed in the process flowcharts and supporting documents. Should the project require additional personnel to assist in the implementation effort, the respective Functional Champion will obtain these additional resources.

The Project Implementation Leader is responsible to nominate a Project Delivery Custodian for the O&G Project Delivery Roadmap system. This is typically the project Document Controller. The Project Delivery Custodian will keep the Project IMS, including all Project specific processes published on the Project SharePoint site (or EDMS).

The following outlines the organizational chart for the Project Implementation Team.

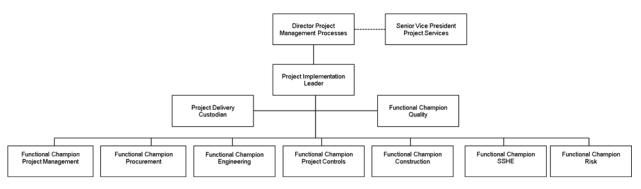


Figure 1 – Organizational Chart for the Project Implementation Team



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Some of the roles outlined above may be carried out by the same person depending on the size, nature and complexity of the project scope; this will be agreed by the Senior Vice President Project Services and the Project Delivery Implementation Leader.

2.4 Learn the Project

Once steps in section 2.3 are complete, then the next set of tasks involves the Project Implementation Team to become familiar with the project.

The following activities are followed:

- > The Project Implementation Leader contacts the Business Develop Group to obtain the Proposal for the project and is informed of the start date of the project.
- The Project Implementation Leader provides the Proposal to the Project Implementation Team.
- > The Project Implementation Leader meets/contacts the designated Project Manager for the project to gather the following additional information:
 - > Detailed understanding of the scope of the project
 - Size of the project
 - Location of the project
 - Schedule of the project
 - > Organizational Breakdown Structure of the Project Team
- > The Project Implementation Leader provides information above to the Project Implementation Team and arranges to have a meeting to digress the necessary information.

The Project Implementation Leader should meet with the Project Manager as early as possible before the start-date of the project.

2.5 Implementation Plan

Once steps in section 2.4 are complete, then the next set of tasks involves implementing the O&G Project Delivery Roadmap on the project. The following activities are followed:

2.5.1 Preparation

The Project Implementation Leader meets with the Project Manager to discuss the requirements for implementing the Oil & Gas Project Delivery Roadmap. This meeting can be either a continuation of the meeting described in section 2.4 above or immediately following this meeting. This meeting needs to take place as early as possible before the start-date of the project, where practical.

The Project Implementation Leader and the Project Manager agree on the schedule to initiate the O&G Project Delivery Roadmap with the Project Team. This training should start prior to the Internal Kick-Off Meeting of the Project, where practical. The Project Implementation Leader and the Project Manager agree on the start date of the training and the duration of the training.

The Project Implementation Leader identifies to the Project Manager the Project Implementation Team. Likewise, the Project Manager advises the Project Implementation Leader of the Project Team that will execute the project.



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2.5.2 Training Preparation

The Project Implementation Leader updates the standard PowerPoint presentation, as required, describing the objectives, overview and pertinent details on how the O&G Project Delivery Roadmaps system is used.

The Functional Champions prepare functional specific training material that is geared towards full details of the process flowcharts and supporting documentation for their particular function. This training material is for the complete project function; therefore, the participants would include the Functional Lead and any other personnel reporting to the Functional Lead.

The Functional Champions also prepare training material that would address pertinent key interface points, as required, with other functions.

The Project Implementation Leader prepares a full agenda of the O&G Project Delivery Roadmap Training and sends this to the Project Manager who in turns sends this to the Project Team.

2.5.3 Training

The Project Implementation Leader, in conjunction with the Project Manager, sets up a Kick-Off Meeting for the training. During this Kick-Off, the a presentation describing the objectives, overview and pertinent details on how the O&G Project Delivery Roadmap system is used and shared with both the Project Implementation Team and the Project Team. This Kick-Off Meeting also highlights the detailed agendas for each function. It is during this meeting that the Functional Champions and the Functional Leads from the Project Team are introduced/get acquainted. Objectives of the training are shared within the functions. It is suggested that the Kick-Off Meeting for the training will last half a day.

After the Kick-Off Meeting for the training, the Functional groups then conduct training specific to their function with the Project Team's member for that function. This is the case for each of the functions (Project Management, Engineering, Procurement, Project Controls, Construction, SSHE, Quality and Risk). Participants for each function include the Functional Champion from the Project Implementation Team, the Functional Lead for the Project Team as well as personnel who directly report to the Functional Lead on the Project Team.

The Functional group training includes, but is not limited to:

- Walking the Project Team through all the process flowcharts relevant to their specific function
- Walking the Project Team through all the supporting documents relevant to their specific function
- Familiarizing the Project Team with the location of the process flowcharts and supporting documents on the IMS SharePoint site
- Identifying key interface points between other functions

It is suggested that the Functional group training start immediately after the Training Kick-Off Meeting and last approximately half a day subject to the quantity of process flowcharts and supporting documents that need to be covered. The Functional group training should be highlighted as an activity on the Project Schedule and take place prior to the Project Internal Kick-Off meeting, where practical.

2.5.4 Implementation Monitoring

Once the O&G Project Delivery Roadmap Training is complete, the Project Implementation Team remains active during project execution. The Project Implementation Leader remains the main point of contact for the Project Manager should there be any questions/concerns in implementing the





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O&G Project Delivery Roadmap during project execution.

Once the O&G Project Delivery Roadmap Training is complete, the Functional Champions remain available by phone/e-mail for contact for each Functional Lead as questions may come up. The Functional Champion needs to respond back to the Functional Lead as quickly as possible when posed with queries. A response should be provided as quickly as possible; for more urgent enquiries, a response should be provided within 24 hours.

The Project Implementation Leader in conjunction with the Functional Champions will establish KPIs to gauge the performance of the O&G Project Delivery Roadmap Training based on the project schedule and established milestones. These KPIs should be established no more than 4 weeks after the Roadmap training is complete; the KPIs will be agreed to with the Senior Vice President Project Delivery. At the conclusion of the project execution, a report will be provided to highlight the performance based on the KPIs.

In addition, the Project Implementation Leader and the Functional Champion Quality in conjunction with the Project Manager, will set-up specific Project Delivery Roadmap Implementation reviews during the project lifecycle. These reviews will serve the purpose of determining how well the O&G Roadmap is being followed during project execution and also obtaining feedback from the Functional Leads and Project Manager.

In order to obtain the feedback in a structured manner, the Project Implementation Leader and the Functional Champion Quality will prepare a questionnaire for each review. These questionnaires will contain both general and specific questions and will be prepared in an objective manner so constructive responses can be received from the Functional Leads and Project Manager. The Project Implementation Team is responsible to provide input to the framework of the questionnaires.

These reviews will be in addition to Project Quality Audits, Project Management Indices (PMI) reporting, that also provide feedback on the effectiveness of processes, procedures, guidelines and other IMS support documents.

Based on responses received in the questionnaires above, the Project Implementation Leader will address these with the Director of Project Management Processes, the Global Senior Director, Quality Assurance and the Senior Vice President Project Services. This will be a continuous live process to address/improve the O&G Project Delivery Roadmap.

2.6 Lessons Learned

At pre-defined stage gates and at project close-out, specific Lessons Learned sessions will be held with the Project Team for Project Delivery Roadmap pilot projects. This will take place at the office in which the project was executed. These Lessons Learned and the Roadmap review questionnaires will be used as a basis to update Project Delivery processes and related IMS Support Documents. A final report will be issued to the Senior Vice President, Project Delivery and all Global Functional Leads.



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3.0 DEFINITIONS

O&G Project Delivery Roadmap

The roadmap is part of the O&G IMS and consists of a standardized set of processes that ensures consistency, allows for organizational agility and facilitates coordination of various functions in project execution. The roadmap applies to all projects in all service lines and minimizes cost and bureaucracy through streamlining processes. See Appendix 2 for a list of all process flowcharts and supporting documents for the O&G Project Delivery Roadmap.

IMS Support Documents

For the O&G IMS and Project Delivery Roadmap, these are a subset of documents which are referenced on the process flowcharts and can include procedures, guidelines, work instructions, forms, templates and other documentation.





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4.0 ABBREVIATIONS

| Abbreviation | Description |
|--------------|--|
| EDMS | Electronic Document Management System |
| EPC | Engineering, Procurement, Construction |
| FEED | Front End Engineering Design |
| IMS | Integrated Management System |
| KPI | Key Performance Indicator |
| O&G | SNC-Lavalin Oil & Gas Business Sector |
| QA/QC | Quality Assurance / Quality Control |
| QMS | Quality Management System |
| SSHE | Security, Safety, Health, Environment |

5.0 REVISION HISTORY

| REVISION | COMMENTS/NOTES | | | | | |
|----------|--|--|--|--|--|--|
| A1 | Issued for Internal Review | | | | | |
| A2 | Issued for Internal Review | | | | | |
| B1 | Issued for Compliance / Consistency Review | | | | | |
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APPENDIX 1 – PROJECT DELIVERY APPLICABILITY

| | Proposals | \boxtimes | EPC | \boxtimes | Construction |
|-------------|-------------------------|-------------|-------------------------|-------------|---------------------|
| \boxtimes | Studies | | Project Management | | Commissioning |
| \boxtimes | Preliminary Engineering | | Technical Services | | Site Services |
| \boxtimes | FEED | | Procurement | | Ops and Maintenance |
| \boxtimes | Detailed Design | | Construction Management | | |





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APPENDIX 2 – OIL & GAS PROJECT DELIVERY ROADMAP – LIST OF PROCESS FLOWCHARTS AND SUPPORTING DOCUMENTS

