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Process Engineering Group

Process Engineering Group (R&D - GIL)

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Organizational Processes' Needs

Objective :

PEG develop, maintain and institutionalize Organization's and projects' processes and metrics.

Scope :

This process is applicable to all activities under the purview of the R&D Division in Genus Innovation Ltd.

Vision :

- Development, maintenance and assimilation of processes to aid and support the organization's operations.
- Institutionalization of the aforesaid processes.
- Facilitation in adherence to the processes.
- To develop and maintain a quantitative insight into the organization's performance.

Roles and Responsibilities :

PEG was formed at Organizational level, Roles and Responsibilities also identified. *Project Team Section of PEG Plan in EinFrame.*

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Organization Processes' Needs

Goals of Current Year

- Strengthen the Project Management Processes
  - Example : EinFrame as tool implemented for Project Management activities..
- Organization's Metrics review & revise :
  - Business objectives revised according to Business priorities and Vison, MBRs made, reviewed the current measurement goals, Line Rejection Percentage goal revised.

Business objectives to Process objectives mapped on basis of these measurement:

- Line Rejection Percentage (Quality)
- Schedule Variance (Delivery)

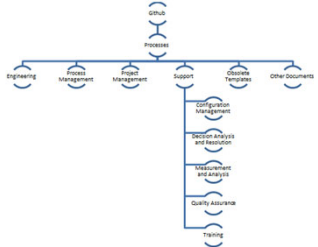BOTOPO

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Process

PEG Annual Plan was prepared for working of PEG, consists of

1. Budget Plan (IR and Benchmark Appraisal from KPMG, Stationery)
2. Resource Plan (SVN, EinFrame, MS Office etc.)
3. Roles & Responsibility Plan
4. Training Plan
5. Configuration Management Plan (This repository contains all artifacts of PEG working activities.)
6. Quality Plan (Consists of Audit, Senior Management Review)
7. Measurement & Analysis Plans
8. Monitor and Control
9. Action & Release Plan (Project Tasks)**.**

Structure of QMS

PRCD_CONFIG (Page No. 10)

Quality Management System (QMS)

Policy : A policy is a deliberate system of principles to guide decisions and achieve rational outcomes. A policy is a statement of intent, and is implemented as a procedure or protocol.
For example:
Genus Development Policy (POLC_DEVPOL)

Procedure : A fixed, step by step sequence of activities or course of action (with definite start and end points) that should be followed in the same order to correctly perform a task.
For example:
Project Planning Procedure (PRCD_PRJPLN)

Templates / Tools : A template is a form or pattern used as a guide to making something.
For example:
Hardware Design Template (TMPL_HDWDSN)

Checklist : A list of items to be noted, checked, or remembered.
For example:
Plan review checklist (CHKL_PLNREV)

Guidelines : A principle put forward to set standards or determine a course of action.
For example:
Firmware Coding Standards guidelines (GDLN_FRWSTD)

Logs : Project wise various review and testing defects available in Incident Management Report of EinFrame.
For example :
Incident Management

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QMS Release and Deploy

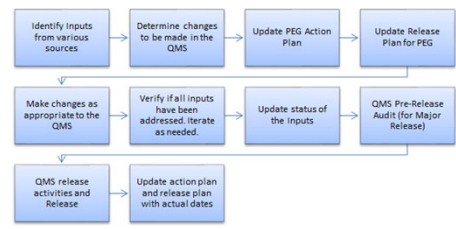**QMS Release Audit :** Pre-release audit is conducted with PQA Team member before Major release.
Incident Management Report for Audit NCs
QMS Release Note : It includes all necessary information related to QMS Release.
QMS 4.1_QMSREL
QMS Release Mail : New version of QMS is released for use and team is intimated via QMS Release Email which includes QMS release note.
QMS released mails
QMS Training : QMS release training is conducted by PEG. Venue and timings are intimated to team by Email.
QMS 4.0 Training

Typical workflow for QMS Revision

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Process Improvements

Identify Process Improvement Opportunities through the following **inputs :**

- **Process Improvement Proposals :** Process Practitioners log their suggestions related to process improvement. For example : Incident Management Report for Process Improvement Proposal

- **Audit Report :** Auditor sends the "Audit Report" to PEG for analysis and identification of candidate process improvement opportunities. For example : Audit Reports

- **Training Report :** Training Report in EinFrame. For example : Training Reports and Feedbacks via Mail

- **Project Learning's :** During the Project and after the project closure, Project Practitioners forward the learnings in Incident learnings of EinFrame. For example : Incident Learning

- **Project Repository :** Project Risks, Plan etc.
      For example : Projects Repository in EinFrame

- **Project Metric :** Metrics Reports

- **Process Appraisal :** IR done by KPMG in August 2022. For example : Process Appraisal

- **Tailoring Proposals :** From practitioners. For example : Tailoring Proposals

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Process Improvements Implementation

All improvement opportunities / inputs captured in single sheet called PEG_QMSREQ

Sr. No.	Input	Source of Input	Decision	Artefacts to be modified	Size	Remarks	Repository Rev
1	For new segment project effort estimation template need to more align .	Process Improvement Proposal via Einframe	Accepted	Efforts Estimation Template	Medium	size in terms of Complexity more clearly defined and to identify complexity guidelines added.	2e7743a70c945ae bc315fb7c8b0b270 613d02a22
2	Audit repitition in a phase : before and after Metrics report audit is time consuming for team, pls change to to once after metrics report preparation only.	Process Improvement Proposal via Einframe	Accepted	Project Plan Procedure	Small	Updated in planning procedure	547dbdc3cd09e7b 9ecad634eef0fc56 91115e6ea
3	Audit checklist to be sync with GIL ef : Category of NC is to be sync with term functional/non-functional	Process Improvement Proposal via Einframe	Accepted	Audit checklist	Small	Major and Minor words replaced by Functional & Non-Functional respectively	be4787ad0e20208 cfa1468e98429759 a70c40490
4	Designer itself do module testing by making module test cases, so to do this formally like log the defects and resolve by himself is extra burden, practically it is part of design & implementation and do in each projects. So see this and revise processes accordingly.	Process Improvement Proposal via Einframe	Rejected	Implementation Procedure, Module Test Cases	Large	Already mentioned that log the incidents if required	NA
5	Audit Chaecklist updation w.r.t. Einframe	External Review (IR)	Accepted	Audit checklist	Medium	Asset, knowledge, technology related points mentioned in checklist	13ef27ab8de43dec 6dd69d89d39a7c1 414861a46
6	Measurement Goals should have some relastic figures, should not zero	External Review (IR)	Accepted	Organization performance goal page of Einframe	Small	Line rejection ration goal changed to 2.5	

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Monitoring and Control

PEG Periodic Team Meetings : Minutes of Meeting (If Required).

Senior Management Review Plan : It includes plan of PEG activities review with Senior Management . During MBR release and Annual Plan release. PEG Senior Management Review Checklist and PEG Senior Management Review and Discussion MOM

Audit Plan : It includes audit plan of PEG activities. During major release of QMS and PEG audit in every 3 months. **PEG Annual Plan**

Incident Logged during PEG Audit :

Search Incidents
Enter search criteria and click 'Search' below

Id	Identification Date	Description	Reproduction Steps	Configuration Info	Logged On	Resolved On
58	Jul 27, 2022	PEG activities after december'22 can not seen in project plan	project tasks are missing for Q4	PEG plan	Jul 28, 2022	Jul 30, 2022
59	Jul 27, 2022	SCAMPI words is not appropriate. task name to be appropriate. task category should be	project task contains "SCAMPI. CPR is CPR execution, project task to be appropriate. project review task is shortly mentioned in task.	PEG plan	Jul 28, 2022	Jul 30, 2022

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Managing Performance & Measurement

- **To measure, identify and address performance issue:**
  In project plan ensure measurement and goals, tracked in project metric report.
Organization metric monitored for all projects**. PEG Annual Plan and Project GGE302 Plan**
- **Map org business objective to process objectives.**
  Keep updated, define ,measure, analyze performance. BOTOPO

- **Store measured data and analyze in project level and org level both.** MBR & Data

- **Follow set processes and keep updated. Project GGE302 Plan and PRCD_MEASUR**

- **Ensure data quality**
  For Example : 1. Einframe Project report used as source to collect and verify the schedule variance data. These data verified during each milestone audits by PQA.
Einframe_Project_Report
2. Google sheet maintained by production & quality for production quantities and line rejection quantities, used as tool to collect the data and the QA head verify the data. Production quantity can also be verified by SAP "MB51" transaction.
Production_Rejection_Google_sheet
- **Use org measurement repository**
  - Project actual efforts used during next similar project's efforts estimation activity. **Einframe_Project_Report**
- **Analyze org performance and identify improvement needs.** MBR

- **Periodic sharing of performance measurement data to organization.** MBR

Tailoring

One standard process often cannot be fit all of an organization's projects, the solution to this problem is usually to allow for tailoring of the standard process to accommodate the attributes and characteristics of individual projects.

Example:
- Tailoring Proposals received from GGE295 DC-DC Converter Project
  - Matrix Report combined for RD & Planning Phase due to project time is one month and matrix report making in first phase is not possible due to unavailability of EVMS data in 3-4 day in EinFrame.
- Tailoring Proposals received from GGS151 3KVA MPPT PCU Project
  - Audit merge of RD phase and Planning Phase.
  - Implementation part of (Design and implementation phase) need to merge with Integration Phase

Tailoring requests approved keeping in mind of Project workflow and duration (size) of project.

Tailoring guideline

Guidelines

Generic Work Environment

The generic work environment for the project must contain all of these:

1. A well-lit and litter free office space
2. At least 20SqFt of work area
3. Ergonomic standard issue chair and work platform
4. Temperature close to 27°C
5. A well-stocked canteen
6. Appropriate personal workstation
7. Quiet working conditions
8. Personalized Email address
9. Internet connectivity

Besides these, the software and Hardware environment needed is maintained by the IT function at the organization level and the list maintained and updated as needed.

Generic Work Environment

Generic work environment includes basic requirements for Projects' execution at Organization level.