HANDBOOK OF SUPPLEMENTARY PROCEDURES TO DPFM 2021



30 April 2021

Directorate of Planning & Coordination

Defence Research and Development Organisation

DRDO Bhawan, Rajaji Marg

New Delhi-110011

PREFACE

The 'Handbook of Supplementary Procedures to DPFM 2021' contains Guidelines, Forms, Formats, Templates, Checklists & Abbreviations which have to be referred in conjunction with the 'Directives for Project Formulation and Management in DRDO (DPFM 2021)'.

Handbook Contents are denoted as DRDO.DPFM.GL.SN for Supplementary DRDO.DPFM.FF.SN for Guidelines; Forms, Formats and Templates; DRDO.DPFM.CL.SN for Checklists and DRDO.DPFM.AL.SN for Abbreviation Lists. SN stands for corresponding serial number.

This document i.e. 'Handbook of Supplementary Procedures to DPFM 2021' is being issued with the approval of DG (R&M). Contents of the Handbook are indicative and amendment to this document, if required shall be promulgated by Directorate of Planning and Coordination (DP&C) with the approval of DG (R&M).

New Delhi 30 April 2021 Director Planning & Coordination DRDO HQ, New Delhi

CONTENTS

| SI. No | Guideline No. | SUPPLEMENTARY GUIDELINES | |
|-----------|-----------------|--------------------------------------------------------------|------------|
| 1. | DRDO.DPFM.GL.01 | Draft Project Proposal | 1 |
| 2. | DRDO.DPFM.GL.02 | Methodology for TRLs, PRI and TRA Roadmap | 6 |
| 3. | DRDO.DPFM.GL.03 | Conduct of Peer Review | 11 |
| 4. | DRDO.DPFM.GL.04 | Detailed Project Statement of Case | 19 |
| 5. | DRDO.DPFM.GL.05 | Scheme For Allotment of Project and Sub- Project No. | 22 |
| 6. | DRDO.DPFM.GL.06 | Indicated Timeline and Roles for Sanctioning of the Project | 23 |
| 7. | DRDO.DPFM.GL.07 | Roles and Accountability in Project Monitoring | 24 |
| 8. | DRDO.DPFM.GL.08 | Limited Series Production (LSP) | 26 |
| 9. | DRDO.DPFM.GL.09 | Revenue Debt Remittance (RDR) Works | 28 |
| 10. | DRDO.DPFM.GL.10 | Independent DRDO Committee for Evaluation of Project Success | 30 |
| 11. | DRDO.DPFM.GL.11 | Preparation of Technical Closure Report | 33 |
| SI. No | Form No. | FORMS, FORMATS & TEMPLATES | Page No |
| 1. | DRDO.DPFM.FF.01 | Format for Cost Estimation Module | 38 |
| 2. | DRDO.DPFM.FF.02 | Format For TRA and PRI Verification / Vetting | 39 |
| 3. | DRDO.DPFM.FF.03 | DMC Presentation Format | 40 |
| 4. | DRDO.DPFM.FF.04 | Statement of Case for Sanction of Project / Programme | 45 |
| 5. | DRDO.DPFM.FF.05 | CCS Format (Specimen Format of the Main Note) | 56 |
| 6. | DRDO.DPFM.FF.06 | Specimen Format for Project Sanction Letter | 62 |
| 7. | DRDO.DPFM.FF.07 | Appointment of Programme / Project Director | 67 |
| 8. | DRDO.DPFM.FF.08 | Annual Audited Statement of Expenditure | 68 |

| 9. | DRDO.DPFM.FF.09 | Briefing Papers Format for Review Meetings | |
|-----------|-----------------|----------------------------------------------------------------------------------------------------------------|------------|
| 10. | DRDO.DPFM.FF.10 | Format for Recording Minutes of Meeting of Review | 76 |
| 11. | DRDO.DPFM.FF.11 | Statement of Case for PDC Extension | 78 |
| 12. | DRDO.DPFM.FF.12 | Statement of case for Cost Revision and Re-allocation of Funds in Project | 80 |
| 13. | DRDO.DPFM.FF.13 | Statement of Case For Project/Programme Completed with Partial Success, Stage Closure Project and Cancellation | 82 |
| 14. | DRDO.DPFM.FF.14 | Audit of Statement of Accounts (Expenditure) and Administrative closure of Project/Programme | 84 |
| 15. | DRDO.DPFM.FF.15 | Specimen Govt. Letter Format for PDC extension | 87 |
| 16. | DRDO.DPFM.FF.16 | Specimen Govt. Letter format for Cost revision / Reallocation of funds | 88 |
| 17. | DRDO.DPFM.FF.17 | Specimen Govt Letter format for Project Closure | 89 |
| 18. | DRDO.DPFM.FF.18 | Specimen Format for Change of Project From Nodal Lab to New Lab | 90 |
| 19. | DRDO.DPFM.FF.19 | Specimen Format for Change of Project Category During Project Currency | 93 |
| SI. No | Checklist No. | CHECKLISTS | Page No |
| 1. | DRDO.DPFM.CL.01 | Checklist for New Project Sanction | 96 |
| 2. | DRDO.DPFM.CL.02 | Checklist for PDC extension of a Project/Programme | 98 |
| 3. | DRDO.DPFM.CL.03 | Checklist for Project Cost Revision and Re-allocation of funds | 99 |
| SI. No | List No. | ABBREVIATIONS | Page No |
| 1. | DRDO.DPFM.AL.01 | Lab Name Abbreviations for Project No. Allotment | 101 |
| 2. | DRDO.DPFM.AL.02 | Abbreviations General Terminology | 103 |

DRAFT PROJECT PROPOSAL

- 1. The Designated Project Director will prepare a Draft Project Proposal containing details of pre-project activities and Project attributes. The proposal shall be submitted to Cluster Council for seeking in-principle approval and thereafter to the Peer Review Committee (PRC) / PDR Committee (for MM & TD(S) projects / programme PDR should be conducted in lieu of PRC). The document has to therefore amply address Feasibility studies, Literature Surveys, alignment of the project with the DRDO Plan Documents, DRDO vision Document (D-ViDOC), Road Map of DRDO (D-RdMAP), DRDO Five year Plan (D-FYP) and DRDO LTTPP (D-LTTPP), Design analysis, Realisation and Testing Plans, availability of test facility, Technology Readiness Levels (TRLs) assessments, Resource assessment, Risk assessment and management plan, Milestones. The proposal should contain following sections -
 - Need of the project
 - Objective of the project: Objectives should be measurable and achievable. It has to be framed carefully as they are driver for the Project.
 - **Category of the Project**
 - Cost Estimate of Project
 - **PDC** of the Project
 - Linkage of Project Goal with Thrust Areas laid down in DRDO internal plan documents viz., D-FYP/ D-LTTPP/ D-ViDOC/ D-RdMAP .
 - Literature Survey: Literature Survey should bring out the relationship between the project goal and the state of the art technological accomplishment w.r.t global benchmark.

Targeted indigenous content: For MM and TD(S) and projects, it should address two important aspects (i) How will the project improve industry capability (ii) Uniqueness in this project that industry can not do.

Systems and Technology Analysis

System Analysis should be carried out for all MM & TD(s) projects. Other categories of the projects can also employ the system analysis activities if desirable. Labs may carry out detailed analysis using standard practices. Detailed guidelines formulated by the Directorate of Systems and Technology Analysis (DSTA) as amended from time to time may be considered.

- Competence level: Technological competence available with the lab and preliminary work done by the lab.
- **Details of pre-project work** already undertaken
- **Preliminary TRL Assessment:** Methodology for arriving at TRLs is given at DRDO.DPFM.GL.02. Assumptions if any should be stated.
- Critical factors/technologies involved in the project and pre-emptive measures to minimize the criticality.
- Risks Management Plan: A risk management document which will identify risks and possible strategies to manage the risks may be prepared and attached in accordance with Chapter 2, DPFM 2021.
- Preliminary Design and Analysis should be mandatory completed before project sanction of MM and TD (s) project.
- Confidence Level in accomplishing the Project through chosen design approach

Final specification/Scope of Work (SoW)

In case of MM Projects, specifications (essential and desirable) must be discussed with User which will culminate into Qualitative Requirements (QRs). Firm QRs should be expedited / sought by the Labs in consultation with DISB, DRDO HQ as early as possible.

Project Execution Plan: Project execution plan should specify major milestones of the project including Project Evaluation and Review Technique (PERT)/ Gantt chart and detailed Work Breakdown Structure (WBS) as indicated in following Table:

Activity Plan/WBS/MS Project Chart w.r.t. Product Tree

| Sub system | | Activity | | Timeline (months) |
|----------------------|----|--------------------------|---|----------------------|
| SS1-S1 | S1 | Detailed design analysis | & | T0+3 |
| | | Realisation | | |
| | | Testing | | |
| SS1-S2 | S2 | Design | | T0+3 |
| | | Realisation | | |
| | | Testing | | |
| | | | | |
| | | | | |
| SS1-S3 | S3 | | | |
| | | | | |
| Assembly/Integration | | | | |
| Testing | | | | |

Realisation Plan: A macro level realization plan with six monthly technical milestones along with financial outlay should be formulated as per following format :-

| SI. | Six Monthly Technical Milestone | Time (Months) | Financial Outlay (Rs. Lakhs/Cr.) |
|-----|---------------------------------------|---------------|----------------------------------|
| | | | |
| | | | |
| | | | |
| | Total | | |

As further details evolve during project execution stages, the milestones should be updated. These milestones will be reviewed by Project Monitoring & Review Committees during project execution stages.

Sub-Projects/ Work-Packages/CARS/CAPSI/Consultancy Contracts etc.

- Lead System Integrator (LSI)/ Development cum Production Partner (DcPP)/ Production Agency (PA): Selection of LSI/DcPP/PA shall be a mandatory milestone for the MM and TD(S) projects which envisage deliverable systems/ products. Project Director has to certify that Industry/DcPP is not in the negative list of vendors as promulgated by the DRDO HQ from time to time.
- Testing Plan: It should contain assessment of existing facilities and its suitability to meet the test requirements proposed in the projects. Project proposal must include tests required, test equipments / facilities, test methodologies to meet the performance as envisaged in the project. The project proposal should document whether the requirement test facilities are available or being created. A project may be taken only if the required test facilities are either available or being created as part of the current project / build up. In case such facilities are not available with DRDO, a long term Contract / Inter Govt Agreement (IGA) / Memorandum of Understanding (MOU) with agencies or a plan / way ahead mutually agreed by DRDO and User will be considered for sanction of project. If test facilities of a foreign country is proposed, to be used, the possibilities of government permission /availability need to be reviewed and indicated.

Required resources

- Manpower availability and additional / dedicated requirements should be indicated with reason, if any. For example - Design team, Documentation team, Manufacturing and Testing team, Procurement in-Charge, Quality Officer, User Rep etc.
- Infrastructure requirements (if applicable) with approximate estimate of items costing more than Rs. 25 Lakh furnished/ vetted by DCW&E/CCE(R&Ds).
- Techno-managerial constraints and mitigation plan.
- Cost Benefit Analysis: Cost benefit analysis of the proposed system/Technology should be supported with comparative study of indigenous system development vis-à-vis contemporary technologies and products available worldwide, their development period and cost. It should also amplify on economic

benefit, capacity building, capability building enhancement of technical knowledge and potential for job creation.

Other relevant issues (If any).

METHODOLOGY FOR TRLs, PRI AND TRA ROADMAP

1. TRL ASSESSMENT AT PROJECT SANCTION STAGE

The **Designated Project Director** has to take the following steps for establishing TRLs of the Sub-systems/ Components/ Technologies during new project sanction stage -

- (a) Draw the sub-system block diagrams detailed to component level. The sub-systems can be further deconstructed into process. At least two levels of breakdown should be undertaken for better clarity on the present level of expertise/capability and the quantum of work involved in the project execution. In case where the level is not easily decipherable, a third level of breakdown may be resorted to for greater clarity. It is to be noted that the levels of breakdown is dependent on the confidence of the team to provide requisite documents as proof.
- The deconstructed structure may not necessarily lead to a hierarchical breakdown structure, but could create a mesh structure when they are linked between the sub-systems/ components across different modules.
- The sub-systems and components may also be grouped into relevant modules for understanding the amount of integration required in the system which would require suitable skills, processes and infrastructure.
- Identify readiness level index in accordance with the criteria defined for TRL indices for DRDO context. Once TRL of each sub-system has been determined, the necessary documentation has to be collated with supporting documents, as stated at Table 1, Chapter 1 of DPFM 2021.
- Evolve PRI as lowest value of all sub systems TRLs i.e.

PRI = min of sub-systems/ components TRLs.

- (f) Draw the anticipated roadmap of TRL and PRI with project timeline. A preliminary Project timeline/PDC and Cost estimation commensurate with the **TRA Roadmap** has to be drawn by the project team.
- The TRL report comprising of supporting documents and TRA Roadmap should be forwarded to the verifying authority.
- Illustration of TRA & PRI of Road Map for a typical system is given in Para 7 to this guideline.

2. TRL AND PRI VERIFYING AND VETTING AUTHORITY

Designated Project Director has the responsibility of carrying out self-assessment of TRLs. However, there is a need for an independent verification of requisite documents to authenticate the professed PRI. These will be carried out as follows:

- The Technology Council of the lab will carry out verification of the proposed PRI based on required documentation. Chairman, Technology Council can nominate subject experts external to the project teams.
- The Peer Review Committee/PDR Committee will then carry out a thorough vetting of the proposed TRLs/ PRI. PRC will also recommend the final PRI, category of the project and directions for indigenous development of COTS/ Imported subsystems.
- Director PM, O/o Cluster DG will ensure presentation/ assessment of TRL/PRI during PRC/PDR meeting and will obtain vetting from Chairman PRC/PDR. Chairman PRC/PDR may be explained about the process of TRL/PRI in advance.
- 3. Format of the TRA and PRI to be used by Technology Council for verifying and Chairman PRC/PDR for vetting is given at DRDO.DPFM.FF.02 in Handbook of Supplementary Procedures to DPFM 2021.

4. TRL ASSESSMENT DURING PROJECT EXECUTION STAGES

The Technology Readiness Level (TRL) will serve as a benchmarking tool. It will be beneficial to track progress of development of a specific technology/sub-system during the each stage of the development chain, from basic research (TRL 1) to actual system demonstration (TRL 9). It is essential to define Technology Readiness Assessment (TRA) values at six months/yearly intervals. This TRA Roadmap will aid in systematic assessment of how far technology/sub-system development has progressed during the execution of a project. It is recommended that assessment of TRLs should be done mandatorily during Preliminary Design Review (PDR) and Critical Design Review (CDR).

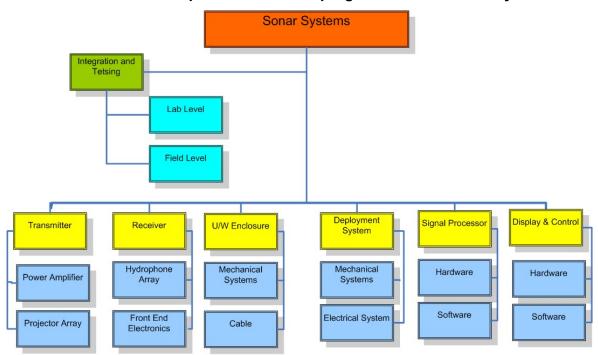
The Executive Board should ensure that the technology/sub-system have advanced to the targeted maturity before start of testing and operational readiness reviews phase. The Project Director/Programme Director is responsible for presenting the current status of TRLs and ensuring planned transitions to next higher stage during the PRC /PDR and thereafter during the periodic review meetings such as PMRCs/ PJMBs and PMBs / EBs.

5. TRL ASSESSMENT AT PROJECT CLOSURE STAGE

The TRLs and PRI assessment report at project completion stage should be used as a certificate of having achieved project scope by analyzing each of the modules/ subsystems readiness at the completion of project activities. An assessment of the final TRLs of each sub-system and the resulting PRI along with requisite proof documents should be recorded in the report. Project/Programme Director will certify the TRLs status at closure stage and the same will be ratified by the nodal Lab Director. There may be instances of not achieving planned TRL at completion for which justification/explanation can be recorded in the report and duly authenticated by Cluster DGs.

6. Illustration of Roadmap for TRA and PRI for a typical system is given below:-

Illustration of Roadmap for TRL and PRI progression for SONAR System



| Sub-Sub- System (SSS) | Sub- System (SS) | PRC/PDR (sanction) | | ystem (sanction) months | | | After 24 months / CDR | | After 36 months | | After 48 months | |
|--------------------------|------------------------|-----------------------|----|-------------------------|----|-----|-----------------------------|-----|-----------------|-----|--------------------|--|
| | | | | | | TRL | | | | 1 | | |
| | | SSS | SS | SSS | SS | SSS | SS | SSS | SS | SSS | SS | |
| Power amplifier | Transmitter | 3 | 3 | 3 | 3 | 5 | 5 | 6 | 6 | 7 | 7 | |
| Projector Array | | 4 | | 4 | | 5 | | 7 | | 7 | | |
| Hydrophone Array | _ | 3 | | 3 | | 5 | _ | 6 | | 8 | _ | |
| Front End Electronics | Receiver | 4 | 3 | 4 | 3 | 5 | 5 | 7 | 6 | 7 | 7 | |
| Mechanical Systems | U/W | 4 | 3 | 4 | 3 | 5 | 5 | 7 | 7 | 7 | 7 | |
| Cable | Enclosure | 3 | | 4 | 3 | 5 | 3 | 7 | ' | 7 | ' | |
| Mechanical Systems | Deployment | 3 | | 4 | | 6 | | 7 | | 7 | | |
| Electrical Systems | System | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 7 | 7 | 7 | |
| Hardware | Signal | 3 | 3 | 3 | 3 | 5 | 5 | 7 | 7 | 7 | 7 | |
| Software | Processor | 3 | 3 | 3 | 3 | 5 | 3 | 7 | ' | 7 | ' | |
| Hardware | Diaplay and | 3 | | 3 | | 5 | | 7 | | 7 | | |
| Software | Display and Control | 3 | 3 | 3 | 3 | 5 | 5 | 7 | 7 | 7 | 7 | |
| PRI = Min of TRL | | | 3 | | 3 | | 5 | | 6 | | 7 | |

7. PRI FOR PROGRAMME

A Programme involves many projects and each project may be independent of each other. Since each Project/System is an independent system, assigning a PRI to the Programme may not be justified. Each individual Project/System should be independently assigned a PRI based on TRL of its constituent sub-systems. However, for a Programme consisting of interrelated projects it may not be out of context to indicate an overall PRI of Programme.

CONDUCT OF PEER REVIEW

- 1. All TD(T) and S&T projects shall be mandatorily peer reviewed by an expert committee i.e Peer Review Committee (PRC) for assessment of viability and technical adequacy of the proposal. For MM and TD(S) projects / programme, PDR should be conducted in lieu of PRC review. For all such MM / TD(S) projects where PRC is not applicable but TRA and PRI are applicable, TRA and PRI will also be reviewed by PDR Committee and be vetted by Chairman PDR Committee. Peer Review Committee will assess project feasibility by taking into consideration the design aspect, realisation methodology, projected timelines, realisability / achievability and assessment of validation of TRLs.
 - (a) The Chairman of the PRC should be an eminent person (preferably from outside DRDO) having domain expertise related to the project. He may either be from a premier research organization, academic institution or from industry. In exceptional cases, if from within DRDO, he should be from a different laboratory working in similar area. It is desirable that the Chairman should have experience of managing/coordinating/directing projects of similar costs and technological complexities.
 - (b) The PRC should have a mix of members from within and outside DRDO. Members should be eminent personalities from R&D institutions, academic institutions and industry. The expert should not be nominated from the groups/industry, which is likely to be contracted for CARS or development contract in the same project.
 - (c) SHQ/DISB representatives should be mandatory members of the PRC, if it is a specific SHQ driven project.
 - (d) Representative of DP&C, DRDO HQ would be nominated as a member for PRC. DRDO experts and Integrated Finance (R&D) would be nominated on need basis in the PRC.

- While processing the cases for conducting PRC, the Designated (e) Project Director will send a copy of Draft Project Proposal and TRLs assessment report duly verified by Technology Council. Recommendations made by Technology Council regarding PRI & TRL values should be deliberated in detail in the Peer Review Committee.
- (f) Relevant deliberations and recommendations of the PRC/PDR Committee will be minuted and issued after due approval/signature of the Chairman.
- The Minutes of the PRC/PDR will be appended to the project proposal. (g)

PLANNING PEER REVIEW

- 2.1 **Documents for PRC.** The following documents have to be prepared by Labs/Estts and must be forwarded to Director (PM), O/o of cluster DG for conducting PRC, who will further forward them to the PRC Chairman and members well in advance:
 - (a) Draft Project Proposal
 - (b) **Executive Summary**
 - (c) TRL assessment report & PRI duly verified by Technology Council
 - (d) Suggested composition of PRC committee
 - Roles of External constituents of PRC (e)
- 2.2 Director (PM), O/o cluster DG should undertake the following steps on receipt of proposal from the Labs/Estts.
 - (a) To examine Draft Project Proposal and Executive Summary submitted by the lab.
 - (b) To initiate file for seeking approval of the competent authority for constitution of the PRC. The file needs to be routed through respective Cluster DGs, as may be the requirement.

- (c) After approval, PD Designate in consultation with the Director (PM), O/o Cluster DG should schedule the peer review meeting and forward relevant documents along with a copy of roles of Constituents of PRC to all members.
- (d) PD Designate should circulate draft minutes for views/concurrence of all members. The views and comments of members should be incorporated before drawing the final recommendations.
- 2.3 Agenda of PRC. To deliberate upon following aspects and give recommendations:
 - (a) Adequacy of pre-project activities.
 - (b) Comparison w.r.t global scenario and contemporary systems/ technologies.

(c) **Design Aspects**

- Available design alternatives.
- Selection of a suitable design option.
- Reasons for adopting a specific approach.
- Analysis of requirement vs. design
- **Realization methodology**: Identification of optimum method of product (d) realisation.
- (e) Risk Factors/Grey Areas: Risk factors and grey areas which are likely to pose challenges for successful execution of the project/programme and their mitigation strategy.
- **Project Schedule**: To examine project schedule i.e whether realistic (f) and achievable timelines are projected considering possible contingencies.
- (g) Category of the Project/Programme: Category under which proposed project should be undertaken be deliberated and recommended.

- (h) Realisability/Achievability of major milestones linking financial outlay and timelines of the project as per schedule indicated in the PERT/Critical Path Method (CPM) charts.
- (i) PRC will assess Global benchmarking as indicating in Literature survey.
- QA Plan: Quality assurance (QA) plan should be deliberated with (j) nominated QA member of the Lab and should cover all aspects viz. design, manufacturing and testing. It shall examine Quality & Reliability requirements, QFD analysis, Failure Mode Effect Analysis (FMEA)/Failure Mode Effect & Critical Analyses (FMECA) analysis and plans to achieve QR goals.
- (k) Testing Plan: Testing Plan of Lab model or prototype should be deliberated together with acceptance criteria.
- (l) Available infrastructure for system/sub-system realization and adequacy of Infrastructure facility for planned test.
- (m) Cost Estimation: Rough order of cost estimates may be provided based on budgetary quote/e-mail quotes etc to assess the approximate cost of the project. However, estimated cost of the project should be finalized as per the recommendation of Project Cost Estimation Committee (CEC).
- TRL levels/ PRI indices at the beginning of project (at sub-system level and overall project level) and expected increase in these indices at the time of project closure should be discussed in detail and final values expected to arrive shall be documented.
- For 'Basic S&T' and 'Applied S&T' projects, Chairman PRC with help of (o) the experts should also evaluate technical competency of the Lab to meet the objectives and check the viability of methodology selected for design/manufacturing.
- (p) If the purpose of the 'Basic S&T' and 'Applied S&T' projects is to generate new knowledge in the area of the core activity of the laboratory, then

PRC should clearly bring out whether creation of such knowledge will result in an incremental increase or a significant gain in the contemporary understanding in national and global context.

ROLE OF CONSTITUENTS OF PRC

3.1 PROJECT DIRECTOR

- (a) Prepare project documents for Peer Review as per DPFM 2021 guidelines.
- (b) Apprise PRC about availability of required development expertise and infrastructure for development/production partners for targeted system/subsystems

3.2 DISB

Provide inputs about the SHQs perceptions/perspective plans which may have direct impact on the proposed project activities

3.3 **DSTA**

To provide inputs on identification of emerging technologies that are likely to have high impact in the short and mid-term on Defence and Security and about the appropriateness of the project vis-à-vis the technology trends elsewhere.

3.4 SHQ REPRESENTATIVE

- (a) Clarify issues related to Staff Qualitative Requirement (GSQR)/Air Staff Requirement (ASQR)/Naval Staff Qualitative Requirement Qualitative (NSQR)/Joint Staff Qualitative Requirement (JSQR), etc.
- (b) Provide necessary inputs in absence of any formal Qualitative Requirements (QRs).
- (c) Provide details operational scenario expected evaluation on and methodology.

- (d) Details about the existing systems in use with services and elsewhere in the world and other details about the operation, maintenance and use of the product.
- (e) Views regarding scope and time estimates etc.

Note: for MM & TD(S) project SHQ Rep. will cover these issues in PDR meeting.

3.5 DP&C, DRDO HQ

- (a) Ensure that the project being undertaken is as per core competence of laboratory and there is no duplication of work.
- (b) Suggest allocation of work share to other labs for modules requiring specific technical expertise.
- (c) Ensure compliance and adequacy of the Draft Project Proposal vis-à-vis prevailing policies and guidelines.
- (d) Assess TRLs and PRI of the proposal. Offer comments on technological gaps, grey areas, critical technologies and strategy to mitigate the same.

3.6 DIRECTOR (PM), O/o CLUSTER DG

- (a) Ensure that the project undertaken is as per core competence of laboratory and there is no duplication of work. Assure that AIP is accorded to the project by DMC. Recommendation of CCM approval of Nodal and participating lab have been incorporated.
- (b) Assist Lab, Cluster DG and DRDO HQ in finalizing PRC constitution.
- (c) Ensure compliance and adequacy of the Draft Project Proposal vis-à-vis prevailing policies and guidelines.
- (d) Ensure that Chairman and all members receive necessary documents (Draft Project Proposal, Executive Summary, TRLs assessment report duly verified

- by Technology Council including details of 'what is expected from the PRC' etc.) in advance.
- (e) Ensure that comments from experts are solicited, and forwarded to PRC Chairman.
- (f) Ensure that comments from work centers are obtained and documented regarding identified sub-projects and resources allocated.
- (g) Ensure that draft Minutes incorporating important comments of the members are approved by the Chairman and issued at the earliest (within two weeks of the conduct of the review).

3.7 **EXTERNAL TECHNICAL EXPERTS**

- (a) Closely examine system configuration, technologies and sub-technologies and import options, if any.
- (b) Ensure that wherever necessary, alternative technologies have been examined and given due consideration.
- (c) Look for the technological gaps/grey-areas and to examine how these are proposed to be overcome and to suggest alternate/suitable approaches for the same. Check that resources projected are adequate to meet the objective/scope of the project.

3.8 **CHAIRMAN**

- (a) Examination of the documents submitted to the PRC and to call for additional information, if required.
- (b) Ensure that design, realisation and testing aspects are adequately addressed in the documents.
- (c) To Ascertain TRLs and PRI of proposed project while discussing TRA analysis report. PD/Dir (PM) should provide details of TRA in advance.
- (d) Examine the necessity to co-opt additional members.

- (e) Ensure that the peer review is conducted as per the document made available to the PRC and all issues highlighted in the Executive summary be addressed.
- (f) Comment on project viability in view of TRL levels, adequacy of pre-project work, realization plan and Test & Evaluation capacity.
- (g) Any other issue not discussed but considered necessary by the Chairman in the interest of the project can be addressed and documented.
- (h) Approve the minutes of the meeting of PRC after ensuring that the important comments of all the members have been incorporated.

RECOMMENDATIONS OF THE PRC

Relevant deliberations and recommendations of the PRC on topics stated in PRC agenda need to be minuted for consideration/implementation, and should be a part of the final project proposal. Articulated recommendations (Minutes of Meeting /Review) of the PRC specifying project Category, PDC & indicative cost duly approved by the Chairman should be appended with project proposal. Recommendations of PRC must be presented to DMC for accord of AoN, which will take place after PRC. For MM and TD(S) Projects recommendations / highlights of PDR be submitted / presented to DMC for accord of AON, as PRC review is not applicable to MM & TD(S) projects.

DETAILED PROJECT STATEMENT OF CASE

- After DMC approval for AoN, a basic core team/ documentation team should be provided to the designate PD by the Lab Director. The team should incorporate PRC/PDR and DMC recommendations and further details to preliminary time and cost estimations in the Draft Project Proposal. The team will thus formulate a **Detailed Project SoC** containing following details –
 - (a) Detailed Project Execution Plan. It is the operational document of the project. It is owned, maintained and summarised by the Project Director and project team to support delivery of agreed project outputs. The document shall contain following details -
 - (i) Detailed description of project outputs which have been envisaged at the start of the project. Detailed scope of work is to be brought out.
 - (ii) Create a WBS. The overall task is to be broken down into sub-systems and each sub-system is to be split up into various phases viz. design, configuration finalization, analysis & review, manufacturing, test & evaluation and trials. These activities are to be placed in timeline map and critical activities are to be identified.
 - (b) **Project Management Plan** consisting of -
 - (i) Creation of cross functional team for design, manufacturing, QA, Test and Evaluation- all overseen by the Project Director.
 - (ii) Number of design iterations at component/sub-systems level in a TD(T) project. Number of design iterations at overall systems/project level in TD(S) & MM project. Time penalty for each design iteration should be given.
 - (iii) Risk Management plan encompassing risk assessment & strategies to overcome risk

- (iv) Resource Plan i.e. availability and utilisation of resources (HR, funds & infrastructure)
- (v) Project Evaluation and Review Techniques (PERT) / GANT
- (vi) Procurement Plan is to be given in following format

| No | Name of the item/ Service | Brief description/ Purpose | Source of supply | Mode of tendering | Expected cost | Expected Date of Tendering/ Placing of SO | Expected Date of Delivery |
|----|---------------------------------|----------------------------------|------------------------|----------------------|---------------|-------------------------------------------|---------------------------------|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

- An overall procurement plan should be prepared, detailing all products, components to be procured with their estimated timelines for different procedural actions, cost and source of supply.
- Demand approval can be sought along with the processing for project sanction as per Procurement Manual 2020 as amended from time to time.
- Labs may initiate procurement actions for projects submitted for approvals/ PDC extension/ cost enhancement as per Procurement Manual 2020 as amended from time to time.
- Project proposals which do not seek concurrent Demand approval for major stores must give detailed justification for the same.
- (vii) Detailed Cost Estimation Report
- (viii) TRA report
- (ix) Preliminary Design Review
- Quality Plan (Guidelines and Standards issued by DQR&S from time (x) to time may be utilized).

- (xi) **Development plan.** Design and Development activities, Design methodology, Design input and output, manufacturing, software formulation, integration, test & evaluation, inspection and review. Software Development Life Cycle (SDLC) Guidelines as per the guidelines issued by DQRS to be adhered.
- (xii) Stakeholder management (internal & external).
- (xiii) Vendor Search & Evaluation Plan Selection of LSI/ DcPP/PA
- (xiv) Documentation & Record Keeping Documentation Team
- (xv) Configuration Management
- (xvi) Testing Plan
- (c) Responsibilities/roles and functions of cross functional teams
 - i. **Project Director**
 - ii. Design & Analysis Team
 - iii. Team responsible for Manufacture of Hardware
 - ίV. Software Team
 - ٧. Quality Assurance/ Inspection Team
 - Individual Verification & Validation Team νi.
 - Test & Evaluation Team vii.
- (d) Specific Information
 - i. Artificial Intelligence (AI) systems and related contents in the project.
 - ii. % indigenous content.
 - iii. List of imported components / sub-systems.
 - iv. Attempt being made to indigenise the imported (through TDF, start- ups, entrepreneurs etc.)
 - v. Timelines for DcPP/PA/LSI indicating start of process for selection, and start of work by DcPP/PA/LSI along with project team.
 - vi. Complete List of countries in the world who have similar system/technologies (India's ranking in the world).
 - viii. Detail of project based manpower.
 - No. of Industries involved & No. of Academic Institution ix. involved.
 - Employment generation. Χ.

SCHEME FOR ALLOTMENT OF PROJECT & SUB-PROJECT NUMBER

The project number has to be in the form of "XX/YY-ZZ/ABC_ _123". Where, XX defines the category of the project, YY-ZZ financial year of the sanction of project and ABC_ is the abbreviated initials of the name of the lab to which the project is sanctioned (DRDO.DPFM.AL.01). The number should be obtained from the lab.

| XX Cate | gory | YY-ZZ Financial Year of Sanction |
|----------|-------------------------------------------|-------------------------------------|
| MM | Mission Mode | Only the last two digits of |
| TD | Technology Demonstration | the financial year need to be |
| | (TD(S) &TD(T)) | given |
| S&T | Science & Technology | |
| | (TD(A) and TD(B)) | |
| IF | Infrastructure & Facilities | |
| PS | Product Support | |
| UT | User Trials | |
| LSP | Limited Series Production | |
| ABCD | | 123 – Digit |
| Abbrevia | ted name of the laboratory/establishment. | (SI. No. of the project to be |
| | • | obtained from the lab) |

Note: Technology Demonstration (TD) projects have been sub-categorized as 'Technology Level TD projects i.e TD(T)' and 'Systems level TD projects i.e TD(S)' projects. Similarly, Science & Technology (S&T) projects have been categorized as 'Applied S&T projects i.e. S&T(A)' and 'Basic S&T i.e. S&T(B)'. Sub category of project will be used for allotment of project number.

Illustrative example of assigning Project/ Programme Number for nodal Lab

| TD(S)/YY-ZZ | This reflects TD(S) category of project sanctioned to |
|-------------|----------------------------------------------------------|
| /ARDE-215 | Armament Research & Development Establishment (ARDE) |
| | in the financial year 20YY-ZZ and SI. No. of the project |
| | sanctioned to the lab is 215 |

In case of multi-lab project, the participating Labs executing sub-projects will be assigned separate project numbers as per the scheme mentioned below:

Illustrative example of assigning sub-project numbers to participating Labs

| TD(S)/YY-ZZ/ARDE-215.01 | First sub-project given to TBRL (.01) which is |
|-------------------------|-------------------------------------------------------------------|
| (TBRL-25) | 25 th running project of the participating lab. |
| TD(S)/YY-ZZ /ARD-215.02 | ➤ Second sub-project given to HEMRL (.02) which |
| (HEMRL-36) | is the 36 th running project of the participating lab. |

INDICATED TIME LINE AND ROLES FOR SANCTIONING OF THE PROJECT

| Indicative duration for processing Project sanction files | | | | |
|-----------------------------------------------------------|----------------------------------------|--------------------|--|--|
| Authority | Role | Indicated | | |
| | | Max. Time | | |
| Project Director | Formulation of integrated project | 2 months | | |
| | proposal with detailed costing and | | | |
| | procurement plan | | | |
| Lab Director | First level of approval | 1 week | | |
| Director (PM) of | Scrutiny of proposal for check list of | 3 days | | |
| cluster DG | documents | | | |
| IFA (R&D) | Financial vetting & DGL vetting | 1 week | | |
| Cluster DG | Recommendation / sanction of project | 1 week | | |
| | proposal (as applicable) | | | |
| DP&C | Check for DMC-AON / DPFM | 3 days | | |
| | compliance | | | |
| DFMM | Ensure financial guidelines, vet DGL | 3 days | | |
| DG (R&M) | Recommendations | 2 days | | |
| Addl. FA (R&D) | Financial vetting & DGL vetting | 1 week | | |
| Secretary DD | Sanction & approval | 2 days | | |
| R&D | | | | |
| Under Secretary , | Issue of GSL | 1 week | | |
| MOD | | | | |
| Approximate | 07-08 weeks from Lab Director to Sec | retary Defence R&D | | |
| time for Sanction | | | | |

ROLES & ACCOUNTABILITY IN PROJECT MONITORING

Major Roles & Accountabilities (but not limited to) of Members of Review Committees/ Stake-holders is detailed below:

| Dte/ Agency | Roles & Accountability | | | | |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| DP&C | Facilitate labs for obtaining approvals (beyond Cluster DG power) related to Project sanction, scope revision, PDC extension, fund reallocation and issue of sanction letters/ corrigendum. | | | | |
| | Participate in review meetings and assess overall project progress w.r.t reference/original timeline (Milestone linked with financial outlay & timeline). Liaise with cluster DGs to track status of action points deliberated during review meetings. | | | | |
| | ■ Ensure online updates on PMIS and provide periodic updates to Secretary DDR&D related to all critical issues/ activities. | | | | |
| | Arrange special reviews by Secretary, DDR&D (if required) to resolve major issues. | | | | |
| DISB | Assist lab to resolve QRs/AoN related issues with SHQs. | | | | |
| | Resolve trial related issues with SHQs (trial directives, platform/test range availability etc). | | | | |
| | Procedures related to Lead System Integrator LSI/DcPP/PA. | | | | |
| | Resolve any other issues between DRDO & SHQs. | | | | |
| DFMM | Update status of procurement cases pending at DRDO Hqr, reason for pendency, way ahead and action required for expeditious disposal and issue of sanction letter. | | | | |
| | Examine expenditure report as per Govt sanction letter to obviate re- allocation of funds at later stage. | | | | |
| | Resolve issues related with CDA/IFA/CGDA/ financial authorities. | | | | |
| | ■ Issues related to Development Contract. | | | | |
| DSTA | ■ Implementation of system analysis guidelines for MM/TD projects. | | | | |
| DQRS | Suggestions/Inputs to labs on project quality and safety related issues. | | | | |
| | ■ Implementation of DRDO Quality and Reliability Policy Guidelines. | | | | |
| | Co-ordinate and resolve any other issues with external QA agencies. | | | | |
| Rep MMG of lab | Maintain and provide project expenditure details during review meetings. | | | | |

| | Assist project team in procurement related issues. |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Responsibility for timely processing of procurement cases. |
| | Procurement plan and monitoring of status. |
| | ■ Inventory management of projects etc. |
| Project Director (PD) | Assure project progress as per the milestone linked financial outlay & timeline. |
| | Update online project status on PMIS. Present current status/ progress as per review format during review of project. |
| | Highlight the critical issues / Risk associated & mitigation plan in project execution. |
| | Monitor financial status of the project. |
| | Record minutes with action points along with responsibility to concerned agency/Individual with timeline. |
| | Obtain audited Statement of Expenditure from concerned audit authority after project completion |
| Director PM of Cluster | Issue AB / EB/ PMRC calendar in the beginning of the year and ensure compliance. |
| | Track forthcoming project Reviews Get meeting notice issued by Member Secretaries of projects to all concerned at least one week in advance and also to assure that briefing papers are forwarded in specified format by Member secretary. |
| | Provide quarterly status / update of the project to DP&C and assure follow up broad action points deliberated during reviews. |
| | Confirm during EBs that project status has been updated online on PMIS, DRONA. |
| Lab Director | Assign cross functional teams and allocate adequate manpower. |
| | Expedite allotment of sub projects to participating lab (if any). |
| | Seek special review for resolving important issue, if required. |
| | Timely conduct of technical/progress monitoring reviews meeting. |
| | Ensure online updating of project status. |
| Cluster DG | Monitor progress vis-à-vis milestones. Suggest corrective actions to mitigate milestones slippages. |
| | Resolve inter lab related issues. |
| | Risk Mitigations. |
| | Update HQrs regarding delays in projects under the powers of Secretary DDR&D and beyond. |

LIMITED SERIES PRODUCTION (LSP)

(In absence of ToT to a production agency)

1. As opposed to an R&D project which is essentially an in-house activity financed by DRDO budget, LSP projects are undertaken as a follow-up project of TD/MM/UT projects where the requirement is to produce limited quantity not viable for commercial production or to establish production agency. LSP projects can be undertaken for those systems which have already been accepted for induction. LSP projects would be funded by the Services. It is time bound (typically 24-36 months) and entails contractual obligations having time and cost implications. It may necessitate co-opting industry partners and ToT to such entities. All procurements shall be processed as per DRDO Procurement Manual 2020, as amended from time to time. Standing CNC would be constituted for expeditious processing of procurement cases.

2. Objectives of LSP

- (i) To meet specific and small requirements of Services.
- (ii) To incorporate General Staff (GS) and trial observations.
- (iii) To establish Production Agency.
- (iv) To generate documents and drawings for Authorized Holder of Sealed Particulars (AHSP) & Transfer of Technology (ToT).
- (v) To transfer AHSP and ToT

3. Detailed guidelines

DIITM procedures for limited **Series Production** (**LSP**), deals in details covering Objectives, scope, preparation of proposal based on services requirement, Cost Estimation, Testing / Quality aspects, Processing of LSP Proposal for sanction, Fund Allocation, Execution, Completion and closure. DIITM will be the Nodal agency at DRDO HQ for LSP. Help of DISB may be taken for Interaction / needful with SHQ.

A copy of the approval letter should be forwarded to DP&C for record.

DIITM, DRDO HQ will project total fund requirements for the projects being executed by DRDO laboratories at the time of preparation of Budget Estimates (BE)/Revised Estimates (RE) each year, to the concerned SHQs for necessary allocation of fund. SHQs will ensure that adequate funds are allocated for each of these projects and allocation letters are sent to DFMM, DRDO HQ, concerned laboratories and PCDA (R&D)/CDA (R&D) in the beginning of the financial year.

As soon as the project is completed, concerned Lab should intimate total expenditure duly vetted by respective IFA (R&D)/PCDA (R&D)/CDA (R&D) to DRDO HQ and concerned SHQs. A closure report incorporating statement of audited accounts and a summary of achievements against agreed milestones must be forwarded to DIITM, DRDO HQ and Service HQ. Necessary action be taken to close the LSP project. A copy of the same should be sent to DP&C for record.

Any revisions of time/cost will follow the same process as for LSP sanction.

Note: For detailed 'Procedure for 'Limited Service Production,' refer DIITM portal on DRONA as amended from time to time.

REVENUE DEBT REMMITANCE (RDR) WORKS

Purpose: RDR Works are taken up by DRDO labs to meet following objectives:

- Provide design consultancy service.
- Development of prototypes for technology demonstration to agencies other than Services.
- Manufacture of limited number of prototypes for a developed system in the absence of ToT to a Production Agency - for agencies other than Services.
- Provide testing and support for testing.

Funding: By agencies other than DRDO and Defence Services.

Competent Authority for sanction/closure: The competent authority for sanction/closure of RDR Works will be the same as in case of financial powers vested with the CFAs for project sanction/closure as per DFP.

Steps for undertaking RDR Works

- RDR Works can be undertaken by DRDO at the request of external agencies , such as OFBs, ADA, ISRO, BARC, DPSUs/PSUs, Central / State government Agencies and Private Industries etc, on the basis of their requirements. The agency framing out the RDR Works will send the requirement directly to Lab/office of cluster DG.
- Cluster DG will scrutinize the requirement and may assign the job to concerned Lab. Lab will prepare the proposal outlining estimated cost (under various heads and cash outgo plan- duly vetted by Finance), PDC, terms and conditions etc. and submit it back to the office of cluster DG who will review the necessity. The proposal will, thereafter, be submitted to the concerned agency after the approval of cluster DG.
- On the grant of RWR Works by the Agency, a unique Activity Code Number (ACN) will be assigned by DFMM, DRDO HQ to the Lab for all future reporting to

the higher authorities. A copy of the sanction will be uploaded in the sanction data base on DRONA / forwarded to DP&C for record.

- The concerned CDA (R&D) of the Lab will open a RDR Works account to operate the funds.
- The agency will transfer the funds to the CDA in the RDR Works account as per the mutually agreed terms.
- The RDR Works will be executed by the Lab as per the policies and procedures for project execution in vogue in DRDO. Cluster DG shall monitor the progress of the RDR Works.
- Lab shall ensure submission of financial statement of accounts under RDR Works, duly vetted by respective CDA (R&D), to the concerned agency after completion of the job and payments. A copy of the same shall invariably be endorsed to the office of cluster DG and DFMM.
- Lab shall also submit a technical completion report to all concerned highlighting the work done as against stated objectives and achievements (including patents, publications etc if any.) after obtaining the approval of cluster DG. A copy of the report shall also be endorsed to DP&C, DFMM and DIITM. Copy may also be forwarded to DER&IPR, if applicable.
- All work undertaken and done will remain under the ambit of audit (internal and CAG) by the concerned agencies.

Note: Detailed guidelines as circulated by DFMM w.r.t RDR Works as amended from time to time be referred.

INDEPENDENT DRDO COMMITTEE FOR EVALUATION OF PROJECT SUCCESS

- 1. Once the last task is completed, the project has to be evaluated for measuring achieved outcome vis-à-vis defined success criteria. The project should also be analyzed to find out reasons for positive and negative deviations.
- 2. Success evaluation of SHQ **AoN based MM projects** will be in accordance with the provisions under Chapter 4 of DAP 2020. For **other MM, TD(S) and UT projects**, PSQR validation trial outcome will be regarded as success determinant by the highest monitoring body while recommending project closure.
- 3. For TD(T), S&T, IF and PS projects, an Independent DRDO Committee for Evaluation of Project Success, drawn from outside project will be constituted by Competent Authority before three months of expiry of PDC of the Project. The Committee will evaluate project outcome and certify successful completion based on the success criteria / expected outcome defined for the project.
- 4. Criteria for Evaluating Successful Completion of TD(T), S&T (B/A), IF and PS Projects
- **TD(T) Projects:** Successful completion of the project scope i.e design & development of prototypes; tests/ evaluations and demonstration in lab/ intended test environment; technical reports etc; listing accomplishments vis-a-vis project scope and objective. In case of SHQs requirement based projects, views of SHQs Rep may be recorded in Minutes of Review Committee Meetings / EBs while recommending closure of project. Deviation in any technical parameter may be clearly brought out.

S&T (B/A) **Projects:** Successful completion of the scope i.e research, prototype development, simulations, trials and findings, research reports/ publications etc. Compilation of technical closure report listing accomplishments vis-a-vis project scope and objective. Due consideration to be given while assessing the success as research under S&T projects at completion may not always exactly result in envisaged objectives.

IF Projects: Completion of installation & commissioning, acceptance test of the facility based on specifications. Acceptance test report listing successful completion of the scope i.e, completion of FATs, equipment delivery, completion of civil works, acceptance test approved/ endorsed by end user.

PS Projects: Demonstration of intended upgradation as per agreed QRs / satisfactory technical support. User acceptance/ satisfaction certificate to be obtained.

5. Competent Authority For Constitution of Committee: Nodal Lab Directors will constitute the committee for projects within their powers. For projects beyond Lab Director powers, Cluster DG will constitute the committee. The Committee will be constituted before minimum three months of expiry of the PDC of Project. The Competent Authority will also decide time frame for submission of the report in such a way that the final report is available to Highest Monitoring Body of Project during review of project for recommendations of Project Closure.

6. Constitution of Independent DRDO Committee for Evaluation of Project Success:

| Chairman | Scientist 'H' / Scientist 'G' |
|----------|-------------------------------------------------------------|
| | (Non project member) |
| Members | Two Expert Member(s) with domain knowledge from other labs/ |
| | outside project (nominated by DG Cluster) |
| | SHQs Rep / Rep PMT (if applicable) |
| | Member from nodal lab |
| | Academia expert (as applicable) |
| | Director PM for Projects upto Cluster DG Power |

| | Director DP&C for projects beyond Cluster DG power | |
|-----------------------------------------------|----------------------------------------------------|--|
| Member Secretary | Project Director | |
| Any other members may be co-opted by Chairman | | |

Terms of reference:

- The committee will independently assess and ratify project success as per criteria laid in the project proposal.
- A report to that extent has to be prepared by the committee, duly ratifying compliance of the project achievements with the success criteria and submit the report to competent authority for approval and acceptance of the report within allotted time.

7. Competent Authority for approval and Acceptance of Evaluation Report for Project Success

| Project CFA | Competent Authority |
|----------------------|-------------------------------------------------------------------|
| Lab Dir | Lab Director in consultation with Director (PM) of O/o cluster DG |
| Cluster DG or beyond | Cluster DG |

The 'Independent DRDO Committee Evaluation Report for Project Success' has to be forwarded to Cluster DG through Lab Director for approval and acceptance (applicable cases).

Note: This report will be submitted to the highest monitoring body of the project, while reviewing the project for recommendation of project closure.

DRDO.DPFM.GL.11

PREPARATION OF TECHNICAL CLOSURE REPORT

1. **Executive Summary:** It should contain following:

- Background scope of the project.
- Reason for Closing the Project.
- Major Trials/Experiments
- Major achievements compared to Global Scenario & Nos of ToTs generated, IPR generations, no of papers published related to project, details of Infrastructure created, details of LSI / DcPP/ PA.
- Outcome of CARS Project.
- % delay in the project as compared to original PDC, % increase in cost as compared to original cost.
- Name and designation of PDs in the lifetime of the project
- No of industries (Tier I,II,III), start ups and institutes involved, % indigenization, Imported components that have been indigenized.
- List of countries those already have this system.
- Export potential that have already been explored for the product till now, give status

2. **Project Performance**

Summarize the actual performance of the project against the planned performance. All projects may vary to some extent from the original plan, these variations (if any) should be identified and the reasons for the variation be described.

Performance against Objectives

Describe the actual performance of the project in relation to the achievement of the planned project objectives.

- Performance against Outcomes (Infrastructure & Competence Building)

Describe the actual performance of the project in relation to the achievement of targeted outcomes.

- Performance against Outputs

Describe the actual performance of the project in relation to the delivery of the outputs. Were all planned outputs delivered, Were they all accepted? Did the quality of the outputs meet expectations?

Performance against Schedule –

Describe the actual performance of the project against the project schedule.

Performance against Budget –

Describe the actual performance of the project against the project budget.

3. Lessons Learnt

Describe technology up-gradation details (achievements) including expertise developed in sub-domains. Mention TRLs calculated at the time of sanction of the project as well as the level of TRLs reached at the time of closure of the project with suitable justification.

4. Summary of Recommendations

- List all the recommendations.
- One of the recommendations should be from the project highest monitoring body that the project can be deemed closed. The project has fulfilled all of the requirements as documented in the relevant project plan, or the steering committee is satisfied that all outstanding items have been satisfactorily addressed or there is some other reason to close the project.
- Recommendations may include such things as the transfer of responsibility for the outcomes to the user, how outstanding outputs and issues should be addressed, any recommendations for the continued operation by the users.

The committee should also recommend the way forward

5. **Documents for Technical Closure Report**

Technical Closure report should essentially **contain** the following documents

- Details of objectives envisaged vis-à-vis achieved.
- Detailed justification/reasons for shortfalls
- > TRA reports
- Lessons Learnt
- Proposed utilization of developed technology in subsequent projects
- > ToT / Production Order details etc.
- Suggestions for Way Forward

6. **Appendices to Technical Closure Report**

- References to Project technical documents (report/document no & location) such as PRC/PDR/DDR/CDR and Minutes of technical review meetings, Project definition documents, System definition documents, Technical / developmental / ATP documents / UATT/UET trials reports, PSQR validation Trial etc.
- A copy of the signed declaration of acceptance by the relevant users for each of the deliverables.
- A copy of minutes of highest monitoring body recommending the technical closure of the project

7. **Way Forward**

Plans for further use of the prototypes/technologies developed in the project may be stated. Product development plans for Mk-II, SHQs acceptance or any other related future roadmap for the product may be mentioned.

8. **Accepting Authority**

Technical Closure Report should be endorsed by Lab Director & accepting authority will be DG cluster. The Technical Closure Reports and supporting documents cited therein should go into a central repository of the lab and O/o Cluster DGs for future reference. Lab Director and Director, PM of Cluster DG will endorse /certify the same in the Technical Closure Report.

Distribution List

Report(s) to be submitted to the following:

- Director (PM) of cluster DG
- Participating laboratories (if required)
- DP&C, DRDO HQ

FORMS, FORMATS & TEMPLATES

FORMAT FOR COST ESTIMATION MODULE

| Lab Name: | | |
|---------------|--|--|
| Project Name: | | |

Cost in ₹ Cr / Lakh

| Major Head | Sub Head | Items Des | LPP/SO/ BE/OWN COST | Qty | Cost Per Unit | Currency Rate | Year of Ref | Year of Realization | Total Without Taxes | Cost Esc % Amount (Rs in lakhs) | Import Duty % Amount (Rs in lakhs) | GST % Amount (Rs in lakhs) | Total Cost (Rs in lakhs) | Copy of Enclosure |
|---------------|-------------|--------------|---------------------------|-----|---------------------|------------------|-------------------|------------------------|---------------------------|---------------------------------------------|------------------------------------|-------------------------------------|-----------------------------------|-------------------|
| | | | | | | | | | | | | | | |

| Total Capital ₹ Cr (FE_ |) |
|-------------------------|----------|
| Total Revenue ₹ Cr (FE | <u> </u> |
| Grand Total ₹Cr (FE |) |

Note :For details please refer Cost Estimation Module (CEM) on DRONA Services

FORMAT FOR TRA AND PRI VERIFICATION / VETTING

| Activity / Parameters | Verifying Authority Remarks |
|-------------------------------------------------------------|--------------------------------|
| System breakdown chart with levels submitted | Yes/No |
| All sub-systems/ components TRLs indicated | Yes/No |
| Support documents provided | Yes/No |
| TRA/ PRI roadmap provided for Project PDC | Yes/No |
| Final PRI | |
| Assessment of project Timelines | |
| Suggested category of Project (Table 2 on PRI of DPFM 2021) | |
| Any other details | |

Verified

(Chairman, Technology Council)

Vetted

(Chairman, PRC/PDR COMMITTEE)

Note: Vetting by Chairman PRC, where PRC is applicable. Vetting by Chairman PDR Committee for MM and TD (S) Projects.

DMC PRESENTATION FORMAT

Presentation Format for Annual Selection of Projects for accord of AIP, new project proposal for accord of AON and PDC extension and Additional funds are given below:

Format 'FF.03A' for Annual Selection of Projects for Accord of AIP

| | An | nualS | election | of Projec | ts for FY | 202x-2y | |
|------------|------|-------------------|-------------------------|-------------------------|------------------------|---------------------------|---------------------|
| | | | La | ab Name: | | | |
| Manpower | On | going | Pro | jects likely | to be com | oleted in FY 20 | 2x-2y |
| [DRDS] | | ojects ctical] | Apr 202x to Jun 202x | Jul 202x to Sep 202x | Oct 202x to Dec 202 | Jan 202y x to Mar 202y | Total FY 202x-2y |
| Nos | 1 | Vos | Nos | Nos | Nos | Nos | Nos |
| | Tota | al Cost | Cost | Cost | Cost | Cost | Total Cost |
| | Pr | ojects Pr | oposed to l | oe undertak | en during | FY 2021-22 | |
| NUMBER | t | CCS | FM/RM | SECY | DG | DIR | Total |
| Applied S& | ķΤ | | | | | | Cost |
| TD (T) | | | | | | | Cost |
| TD (S) | | | | | | | Cost |
| MM | | | | | | | Cost |
| IF | | | | | | | Cost |
| Total | | | | | | | |
| | | Cost | Cost | Cost | Cost | Cost | Cost |

| S.No | Project | Cost [Rs in Cr] | Category | Duration [Months] | Remarks (FYP/Vision |
|----------|---------|--------------------|----------|----------------------|--------------------------|
| | | [| - | [months] | Doc/RoadMap/ Non-Plan |
| Projects | | | | | |
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |

Format 'FF.03B' for New Project Proposal (10 slides) for Accord of AON

- Brief of proposed Project / Over view
 - Title of the project
 - Cost in ₹ Cr. (INR /FE)
 - Duration / PDC
 - Category: MM/UT/TD(S/T)/S&T(A/B)/PS/IF/LSP
 - Security classification of project (Top Secret /Secret /Confidential /Restricted /Unclassified)
 - Plan/Non Plan :Link to D-FYP /D-LTTPP/D-ViDOC/D-RdMAP/ PSQR etc
 - PRC/PDR Recommendations. PRC recommendations that are not agreed to/agreed with qualification (if any) have to be highlighted during presentation to DMC.
 - Participating labs/agencies with work share: Summary of work share, Project Director intends to assign participating labs be brought out in tabular form with funds and time required for the same.
 - 2. Objectives / Scope of the project: Scope of the project should be clearly defined in quantifiable and measurable terms.
 - 3. Infrastructure planned in the project
 - 4. Deliverables/Output: Likely deliverables/output be mentioned after thorough discussion/consultation with User (If user involved).
 - 5. TRL of various sub-systems, PRI of Project and proposed development strategy.
 - 6. Brief of earlier work done: Similar work undertaken in the past by the project team having direct bearing on the present project may be brought out.
 - 7. Technology challenges/issues foreseen: Technology challenges (grey areas) likely to crop up during execution of project be highlighted adequately and possible way out to overcome the same
 - Cost breakdown
 - 9. Details of project team and project Documentation Group
 - 10. Artificial Intelligence Group

- 11.Demand approval and other approvals which will be sought along with Project sanction
- 12. Status of demands that would be initiated immediately after DMC approval and brought upto TPC / CNC stage prior to project sanction.
- 13. Plan for DcPP/LSI/PA involvement.
- 14. Details of interaction/Recommendation of services for MM/UT/TD(S) projects.
- 15.DRDO will work on advanced and critical technologies. Where industry has the capability, such projects will not be undertaken by the Labs. All the systems/components which can be done by industry will be procured/taken from industry on brought out/ BTS basis. A list of such critical technologies as amended from time to time by DG(PC&SI)/ DISB shall be referred in each case.
- 16. Assurance from Lab that similar technology is not available with industry & being attempted first time. The same will be certified by the Project Director and Lab Director while seeking project sanction.
- 17.Ongoing commitment of lab in terms of number of ongoing projects and availability of manpower along with the detail of documentation group manpower.
- 18. Realistic PERT/Gantt chart with projected milestones.
- 19. Recommendation / approved sought from DMC
- 20. Other relevant information (if any)

Note :AON of DMC will be valid for 6, 4 & 2 months respectively for Secretary DD R&D, Cluster DG and Lab Director as CFA for Projects.

Format 'FF.03 C' for PDC Extension, Additional Funds and Reallocation of Funds

- Brief of proposed Project / Over view
 - Title of the project/Goal
 - Cost in ₹ Cr. (INR /FE)
 - Duration /PDC
 - Category: MM/UT/TD(S/T)/S&T(A/B)/PS/IF/LSP
- 2. Introduction / Objective / Scope /Specs & deliverables
- 3. Present Status of Projects with details of major sub systems, reason for delay, achievement till date / infrastructure established.
- 4. Reason for not meeting the targets/ Bring out necessity of the project extension and what if PDC not extended.
- 5. Additional funds required / Reallocation of funds with justification.
- 6. Technology challenges / Risk factors and mitigation plan / Action plan to avoid further delay.
- 7. Six monthly mile stone with financial out lay.
- 8. Activities to be carried out / additional infrastructure needed to be established / Revised Project schedule/Activity/PERT/GANT/BAR chart with mile stones/ Confidence level to realise.
- 9. Decision required from DMC:

PDC Extension / Revised Cost / Cost Share / Reallocation of Funds/ Input from User required / pending, trial platforms requirements, LSI/DcPP/PA issue, help from Inspection agency etc.

9. Other relevant points (if any).

Note: Minutes of DMC (recommendations/directions) shall be forwarded to the cluster DG. Director PM O/o cluster DG shall forward the relevant extract to the nodal lab. Extract of DMC minutes, quoting DMC minutes no. & date should be placed in case file while forwarding the project proposal for sanction by CFA. DMC minutes should be referred in noting sheet of case file and directions / recommendations of DMC must be addressed adequately. Director (PM) of the cluster will ensure the compliance of DMC directives before forwarding the case to CFA for sanction.

STATEMENT OF CASE FOR SANCTION OF PROJECT/PROGRAMME

| 1. | Name of laboratory: | |
|-------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2. | Title of the Project/Programm | e: |
| 3. | Category of Project (Please tio | k in appropriate box): |
| | () | Mission Mode (MM) |
| | () | Technology Demonstration (TD) |
| | | (TD (T) / TD(S)) |
| | () | Science & Technology (S&T) |
| | | (S&T (B) / S&T(A)) |
| | () | Infrastructure & Facilities (IF) |
| | () | Product Support (PS) |
| | () | User Trials (UT) |
| | () | Limited Series Production (LSP) |
| 'Tecl proje 'Basi | hnology Level TD projects i.e TL ects. Similarly, Science & Techno | TD) projects have been sub-categorized as D(T)' and 'Systems level TD projects i.e TD(S)' plogy (S&T) projects have been categorized as S&T i.e S&T (A)'. These sub-categorizations are son basic and applied R&D. |
| 4. | Security classification of Proj | ect/Programme |
| | () | Top Secret |
| | () | Secret |
| | () | Confidential |
| | () | Restricted |
| | () | Unclassified |
| 5. | PSQR/GSQR/NSQR/ASQR/JS | QR No: |
| | (for MM/ TD(S) Projects) | |
| 6. | Trial Directive No: | |
| | (for UT Projects) | |
| | | |

| 7. | Cost (₹ in Cr): | Total (FE) |
|-----|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8. | Duration (in months): | |
| 9. | Is it a FYP/LTTPP/DRDO Vision D | ocument / Roadmap of DRDO Plan |
| | Project? | Yes / No |
| | a) If yes, please give Referen | ce |
| | (please quote Page No., Tab document/ Roadmap of DRD | le No., SI.No. of FYP/LTTPP/DRDO Vision O document) |
| | b) If No, please give Justifica | tion for undertaking the project |
| 10. | Is Detailed System Analysis Repo | ort enclosed? Yes / No |
| 11. | Recommendation of Cluster Cou (please attach the Minutes) | ncil? Yes / No |
| 12. | Recommendation of Peer Review (please attach the Minutes) | Committee? Yes / No |
| 13. | Recommendation of PDR commit Projects) | ttee (for MM & TD(S) |
| 14. | Recommendation of DMC-AoN (please attach the minutes) | Yes / No |
| 15. | Is TRL Analysis Report enclosed (Not mandatory for IF, PS, UT & LSF | |
| 16. | Is Project Execution Plan attache | ed? Yes / No |
| 17. | Project Deliverables/Output: (Please tick in appropriate box) | () Prototype () Limited Series Production () Technology () Assembly or sub-assembly () Process () Others |
| 18. | Competent Authority) : | r/Programme Director (for approval of appr |

Macro and Micro Details of Project / Programme

CONTENTS

Part-I (Macro Details)

| Number | |
|--------|------|
| | |
| | |

Part-II (Micro Details)

| Serial Number | Description | Page No. |
|------------------|-------------|----------|
| | | |
| | | |
| | | |

Part - I

Macro Details of Project / Programme

| a. | Title | of the Project | |
|-----|--------------------|---------------------------------------|-----------------------|
| b. | Shoi | rt Name or Acronym | |
| | | Programme ect is part of a Programme) | |
| • | ective ase elab | orate essential objectives and de | Essential / Desirable |
| Sco | | orate obsernation objectives and de- | sirable objectives; |
| Sco | pe | project deliverables: | sirable objectives) |
| Sco | pe | · | |
| Sco | pe posed | project deliverables: | |

- 7. Specify the User(s) :(Army/Air Force/Navy/
 (Please attach the GSQR/NSQR/ASQR/SQR Inter-services/DRDO)
 for MM / TD(S) Projects)
- 8. Specify the proposed LSI / DcPP/ PA or selection methodology
- 9. Breakup of Cost (₹ in Cr.):
 - (a) For MM, TD, UT & IF projects:

| Minor Head | Major Head 4076 – Capital Sub Major Head – 05 | Nodal Lab | Parti- cipating Lab, if any | Tota |
|--------------|--------------------------------------------------|---------------|-----------------------------------|------|
| | Heads of Expenditure | Total (FE) | Total (FE) | (FE) |
| | Transportation | | | |
| | (Movement of Stores) | | | |
| | Equipment/Stores | | | |
| 052 | CARS/CAPSI | | | |
| 1 | Consultancy Contracts | | | |
| (Code Head - | Job Work/Contracts/Technical | | | |
| 929/25*) | Services | | | |
| | Hiring of Transport | | | |
| | FOL for Project Vehicles | | | |
| | Contingency & Miscellaneous | | | |
| | Plant & Machinery | | | |
| | Project related Vehicles | | | |
| 111 | Works | | | |
| | TOTAL | | | |

* Total project expenditure related to MM, TD, IF and UT projects including equipment, hardware, consultancy, project related contingency, purchase/hiring of transport, freight, contracts for "Acquisition of Research Services (CARS)" under the project etc will be compiled to this head.

(b) For S&T & PS projects:

| Minor Head | Major Head 2080 - Revenue | Nodal Lab | Participating Lab, if any | Total |
|--------------------------|-------------------------------------|---------------|------------------------------|-------|
| Willior Head | Heads of Expenditure | Total (FE) | Total (FE) | (FE) |
| 105 | Transportation (Movement of Stores) | | | |
| | Equipment/Stores CARS | | | |
| 110 | CAPSI | | | |
| | Consultancy Contracts | | | |
| (code Head- 856/01)** | Job Work/Contracts/Hiring of | | | |
| 030/01) | Technical Services | | | |
| | Hiring of Transport, FOL for | | | |
| | Project Vehicles | | | |
| | Contingency & Miscellaneous | | | |
| 111 | Works | | | |
| | TOTAL (REVENUE) | | | |
| | Major Head 4076 - Capital | | | |
| 052 | Plant & Machinery | | | |
| (code Head- | Project related Vehicles | | | |
| 929/24)*** | Works | | | |
| | | | | |
| | TOTAL (CAPITAL) | | | |
| GRAN | D TOTAL(REVENUE & CAPITAL) | | | |

^{**}Expenditure under Product Support (PS) and Science & Technology (S&T) on Project, Hardware on the basis of items less than Rs. 10 Lakhs and with less than 7 years expected life will be compiled to this Head, Consultancy, Transport, Freight, CARS and other Project related contingencies which do not create tangible assets related to Science & Technology (S&T) and Product Support (PS) Projects.

*** Cost of any upgrades/ improvements in the existing product and creation of permanent infrastructure (such as testing facilities) for PS projects; and all expenditures resulting in creation of tangible assets such as testing equipment, testing infrastructure, permanent facilities such as ranges/ buildings etc, which remain after project closure, for S&T projects.

Note:

- (i) In case, project is jointly funded by DRDO, Services, PSUs or any other agencies, details of funds along with relevant budget heads of Services. PSUs or any other agencies be given in tabular form and grand total be mentioned accordingly.
- (ii) The details of the equipment, machinery and store costing more than ₹ 50 lakh or 10% of project cost- whichever is less to be provided as Annexure, giving cost, FE (if any), and the month/year of procurement during implementation of the project.
- (iii) Project sanction file will not move for vehicle sanction to DHRD. However, the case will be processed separately only after project approval is accorded.
- Additional requirement of mechanical transport vehicles specific to the project, for equipment/developed systems and stores (with justifications):
- 11. Proposed Six monthly milestones along-with financial outlay (₹ in Cr):

| SI. No. | Time (Months) | Six Monthly Technical Milestone | Financial Outlay (₹ Cr.) |
|------------|---------------|---------------------------------------|-----------------------------|
| | | | |
| | | | |
| | | Total | |

12. **Procurement Plan**

An overall procurement plan should be prepared, detailing all items / services products, components to be procured with their estimated timelines for different procedural actions, cost and source of supply.

| SI. No | Name of the item/ Service | Brief description/ Purpose | Source of supply | Mode of tendering | Expected cost | Expected Date of Tendering/ Placing of SO | Expected Date of Delivery |
|-----------|------------------------------------|----------------------------------|------------------------|-------------------|---------------|-------------------------------------------|---------------------------------|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

13. Details of Demand approvals required

- Demand approval can be sought along with the processing for project sanction as per Procurement Manual 2020 as amended from time to time.
- ➤ Labs may initiate procurement actions for projects submitted for approvals / PDC extension / cost enhancement as per Procurement Manual 2020 as amended from time to time.
- Demand approval along with project sanction is recommended in MM projects as part of the main sanction file. For other categories of projects, the file for Demand approval may move in parallel with the project sanction file and demand can be approved once project is sanctioned.

| 14. | Any other information: |
|-----|------------------------|
| 15. | List of enclosures: |
| | (a) |
| | (b) |

16. PD AND Lab Director have to give certificate that this technology is not available in India and also mention that selected Industry/DcPP is not in negative list of vendors.

Part – II

Macro Details of Project / Programme

- **1. Brief technical appreciation** (To include objective, scope, relevance of the project to Lab/Estt charter. and Mission in maximum 1 or 2 pages only).
 - Justification (need) for undertaking the project/programme along with the recommendation of the cluster council/DMC.
 - What will be achieved by taking this project.
 - Competence level/preliminary work done to acquire the same.
 - ❖ DRDO will work only on advanced and critical technologies where industry does not have the capability. Where industry has the capability, such projects will not be undertaken by the Labs. The same will be certified by the Project Director and Lab Director while seeking project sanction. All

the systems/components which can be done by industry will be procured/taken from industry on bought out / BTS. A list of such critical technologies as amended from time to time by DG(PC&SI)/ DISB shall be referred in each case.

- ❖ Brief of TRL analysis. Initial TRL indices at the time of undertaking the project and likely TRL levels at the time of closure of the project as accepted by Peer Review Committee.
- Peer Review Committee recommendations (please enclose the copy of approved Minutes of the Peer Review Committee meeting).
- ❖ For MM and TD(S) project, PDR should be conducted in lieu of PRC. Enclose the copy of PDR and major recommendations in case of MM and TD(S) projects.
- Action Plan for prototype development.
- ❖ The proposal should contain the number of design iterations required at the component / sub-system level in a TD(T) project and number of design iterations required at the overall system / project level in TD(S) and MM projects. Time penalty for each design iteration should be given.
- Realisation Plan
- Testing Plan Should include a Para on tests required, tests equipments / facilities, tests methodology to meet the performance as envisaged in the project (refer DPFM 2021).
- Six monthly technical milestones linking financial outlay and timelines.
- Critical factors/technology involved.
- ❖ High development risk areas and remedial actions proposed.
- Responsibility Matrix
- Development Partners/DcPP/LSI.
- Production agencies proposed.
- Costs benefit analysis/spin-off benefits.
- Project management and monitoring structure proposed.
- ❖ PERT/Gantt Charts.

2. If the project is to be executed by multiple laboratories, please outline the agreed work-packages among the various labs/estts.

| S. No | Title of Sub- Project | Objectives & Scope of Work | Lab/Estt. | Cost (₹ in Cr) | PDC (in months) |
|----------|--------------------------|-------------------------------|-----------|-------------------|--------------------|
| | | | | | |
| | | | | | |

| 3. | List of ma | ıjor add | itional fa | cilities (| capital) i | requi | red | for the pr | oje | ct | | |
|--------|-------------|----------|------------|------------|------------|-------|-----|------------|-----|------|----|-------|
| (Pleas | e highlight | status o | of similar | facilities | existing | with | the | laboratory | as | well | as | other |
| DRDO | labs/Estts | . and wh | ny they ca | annot be | utilized) | | | | | | | |

| (a) | |
|-----|--|
| (h) | |

Major training requirements 4.

| S. No | Discipline/ area for training | Agency contacted | No of Personnel proposed to be trained | Duration | Cost | Remarks |
|----------|-------------------------------------|---------------------|-------------------------------------------------|----------|------|---------|
| | | | | | | |
| | | | | | | |

Note: Correspondence established with the agencies contacted for imparting the training and their willingness should be enclosed.

5. **Details of Work Packages**

| S. No. | Name of Govt agencies | Work Package | Objectives& Scope of Work | Cost (Rs in Cr) | PDC (in months) |
|-----------|-----------------------------|-----------------|------------------------------|--------------------|--------------------|
| | | | | | |
| | | | | | |

Note: Sub-Projects can be given to DRDO labs only. However, work packages can be given to other Govt. agencies like DAE, Deptt of Science & Technology and ISRO etc.

Details of CARS 6.

| S. No | Name of Institute/ Agency | Name of the identified professor | Area where R&D is required | Cost | PDC | Confidence level of the agency |
|----------|---------------------------------|----------------------------------|----------------------------------|------|-----|--------------------------------------|
| | | | | | | |

| | ote: | | | | | | | |
|------------------|------|-------------------------------------------------------|---------------------------------------------|---------------------------------------|-----------------------------------|-------------------------------------|------------------------------------------------------------------------|------|
| | ote: | - | | | | | | |
| • | dert | Correspond taking the resolutions tails of CAPS | earch activity | | | | titutes contacte be enclosed. | ∋d |
| | De | tails of Cons | ultancy req | uirements | S | | | |
| S. No | | Discipline/ Area | Agency | Name o | f person | Cost | Process that will be followed | |
| | | | | | | | | |
| . S. I | No. | Designation Rank | | | | eriod | Remarks | |
| | | | | | | | | |
|) . | • | (Capital)/Sub Major Head-4 | nstruction of Head-111(W 076 (Capital | building s /orks) for)/Sub Hea | hould be MM, TD (d 052 for | booked u S/T), UT & S&T (B/A) | nder Major Head IF Projects and & PS projects. and appended w | l ur |
| 1. | Ad | ditional info | rmation (Any | y other imp | oortant inf | ormation v | vhich is not cove | erec |
| | | | | | signature | | | |

Following details need to be certified by Lab Director

13.

- (a) Manpower of Lab: DRDS -DRTC -
- (b) Availability of manpower for this project
- Details of the ongoing Projects/Programmes of the lab: (c)

| - 1 | SI. No. | Title of Project | Project No. | Cost (₹ in Cr) Original/Current | Date of Sanction | PDC Original/ Current | Name of Project Director | Status (Design/Realisation/Testing Stage) |
|-----|------------|---------------------|----------------|------------------------------------|---------------------|-----------------------------|--------------------------------|-------------------------------------------|
| | | | | | | | | |
| | | | | | | | | |

| Re | ecommendations of Lab Director with signature and date. |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dir be ne bu | te: Lab Director will provide his recommendations on the proposal submitted by Project rector. He will also certify that manpower requirement for the proposed project/programme will allocated from existing lab strength. Availability of building space, if required, for housing the wequipments likely to be purchased under the project will be made available from the existing ilding space. In case additional manpower/building space is needed, the details may be given per S.No. 8 & 9. |
| 14 | Recommendations of Cluster DG with signature and date. |

Note: Cluster DG will offer his comments/recommendations taking a holistic view on necessity, availability of technology/expertise, manpower, resource availability and overall possibility of successful execution of the Project/Programme within timelines.

CCS FORMAT

(SPECIMEN FORMAT OF THE MAIN NOTE)

SECRET

| SECKET | |
|----------------------------------------|-----------------------------------|
| | Copy No |
| No | |
| MINISTRY OF | |
| DEPARTMENT OF | ············ |
| | New Delhi, the (date of the note) |
| NOTE FOR THE CABIN | <u>ET</u> |
| OR | |
| NOTE FOR THE CABINET COMMITTEE | <u> </u> |
| OR | |
| NOTE FOR THE EMPOWERED GROUP OF MINIST | TERS/ GROUP OF MINISTERS |
| <u>ON</u> | |
| Subject: | |
| **** | |

1. INTRODUCTION

A snapshot of the proposal in 3 or 4 sentences.

2. BACKGROUND

A brief background of the proposal to understand its genesis. This would include consideration of the matter earlier by Cabinet/ Cabinet Committees/ EGoM / GoM or Commissions/High level Committees etc. if relevant and other pertinent details.

3. PROPOSAL

The proposal may be stated with clarity and precision so that there is no ambiguity in what the Ministry/Department aims to achieve by implementing the proposal. The time-lines for completion of different stages of the projects/scheme/plan etc, where relevant, need to be clearly spelt out.

4. JUSTIFICATION

Rationale of the proposal may be brought out in this part of the note.

5. INTER-MINISTERIAL CONSULTATIONS

Details of all inter-ministerial consultations and their views/comments as elaborated in the consolidated instructions should be brought out in this section.

This should also give details of the appraisal of the proposal by any appraisals bodies or financial institutions.

6. FINANCIAL IMPLICATIONS

The financial implications of the proposal may be worked out as accurately as possible and should be detailed in this section. Further, the manner in which the expenditure is proposed to be borne may also be clearly indicated.

7. ATMA NIRBHAR BHARAT

How this proposal will help in realising the goal by encouraging Defence manufacturing, reducing import dependence, increasing exports etc.

8. EMPLOYMENT GENERATION

The Employment Generation Potential of the proposal should be worked out and be reflected clearly in this Paragraph.

9. APPROVAL PARGRAPH

The approval paragraph is the most crucial paragraph containing the proposal on which consideration and approval of the Cabinet/Cabinet Committee is solicited. It should be a self-contained paragraph and drafted with clarity and precision leaving no scope for ambiguity or differing interpretations.

10. STATEMENT OF IMPLEMENTATION SCHEDULE (APPENDIX-I)

As per prescribed formed and conforming to the approval paragraph.

11. STATEMENT OF EQUITY, INNOVATION AND PUBLIC ACCOUNTABILITY (APPENDIX-II)

As per prescribed format, brief details of how the proposal will serve the three criteria to be included in the main body of the note.

12. STATEMENT ON MAJOR MILESTIONES AND CORRESPONDING TARGET DATES (APPENDIX-III)

In the format prescribed for the purpose. (This is required only for infrastructure Project related proposals)

13. APPROVAL OF THE MINISTER-IN CHARGE

The last paragraph should indicate about the approval of the Minister-in-charge to the proposal(s) contained in the note.

| Signature |
|-----------------------------------|
| Name |
| Designation |
| (Joint Secretary or higher in the |
| Sponsoring Ministry/Department |
| Telephone No. |

| _ | _ | _ | | | _ | | |
|---|---|---|---|---|---|----|-----|
| | п | п | _ | | _ | w | (-I |
| ш | _ | _ | _ | N | | ıx | _1 |
| _ | | | _ | • | _ | | |

| | | | ALLENE |
|------------------|----------|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| | | SECRI No Ministry of Department of | |
| | <u>s</u> | TATEMENT OF IMPLEME | ENTATION SCHEDULE |
| Subject: | | *** | |
| Gist of requited | decision | Project benefits/results | Time-frame and manner of implementation/reporting to Cabinet Secretariat. |
| | | | Signature Name Designation (Joint Secretary or higher in the Sponsoring Ministry/Department) Telephone No |

APPENDIX-II

| | | SECRET |
|--------|----------------------------|-----------------------------------------------------------------------|
| | Minis | etry ofartment of |
| | | NNOVATION AND PUBLIC ACCOUNTABILITY |
| Subjec | t: | *** |
| S.No. | The required goal | How does the proposal advance this goal? |
| 1. | Equity or Inclusiveness | |
| 2. | Innovation | |
| 3. | Public Accountability | |
| | | Signature Name Designation (Joint Secretary or higher in the |
| | | Sponsoring Ministry/Department) Telephone No |

SECRET

APPENDIX-III

| | | Ministry of Department of | |
|---------|---------------------|---------------------------------------------------------|------------------------------------------|
| | | Boparamont of | |
| | STATEMENT O | N MAJOR MILESTONES AND TA | RGET DATES |
| Subject | : | *** | |
| | | **** | |
| S.No. | Major milestones | Time frame for completion/target date | Financial Outflow |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| | | Name Designation (Joint Secretar Sponsoring Mi | y or higher in the nistry/Department) |

Annexure of CCS format

SPECIMEN FORMAT FOR THE PRESS BRIEF

Ministry name

Date of decision

Subject of the Note for the Cabinet/Cabinet committees

- 1. <u>Decision</u>
- 2. Point-wise details
- 3. <u>Background</u>
- 4. <u>Implementation strategy and targets</u>
- 5. Major impact
- 6. Expenditure involved
- 7. No. of beneficiaries
- 8. States/districts covered
- 9. Details and progress of scheme if already running

SPECIMEN FORMAT FOR PROJECT SANCTION LETTER

| | | | No//D(R&D) Government of India Ministry of Defence Deptt. of Defence Res &Dev DRDO HQ, New Delhi – 110 011 Date Month, Year | , a ; , |
|-----|-----------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------|------------------|
| _ | | | Workin, Four | |
| To, | The Chairman Defence Research & Developme Min. of Defence, DRDO HQ, New Delhi – 110 011 | nt Organisation | | |
| | ojects, where CFA is Lab Director / Clustonnding entries will be change accordingly | | will be Lab Director / cluster DG ar | nd |
| | lirected to convey the sanction of following details. | the President of Ir | ndia for undertaking the Proje | ct |
| 1. | Title of the project | : | | |
| 2. | Nodal Lab | : | - | |
| 3. | Other Participating Labs, if any (with name & title of subproject) | : i) | | |
| 4. | Project No. : | | | |
| | (i) For Nodal Lab: (ii) For Participating Lab 1: (iii) For Participating Lab 2: | | | |
| 5. | Plan/Non-Plan Project | : | | |
| 6. | Total estimated cost (Rupees in words) Break-up of Share in case of Jo | | _Cr (FE: ₹Cr) | |

| 7. | Start Date | (DD: MM: YYYY) | • |
|----|------------|----------------|---|
|----|------------|----------------|---|

8. PDC (Months & Date)

9. Objectives

: (i) _____ (ii) ____ (iii) ____

10. Scope

11. Deliverables/Output

12. Break-up of Estimated Funds (₹ Cr.)

For MM, TD, UT and IF projects: a)

| Minor Head | Major Head 4076 – Capital Sub Major Head – 05 | Nodal Lab | Participating Lab, if any | Total |
|--------------|--------------------------------------------------|---------------|------------------------------|-------|
| Williof Head | Heads of Expenditure | Total (FE) | Total (FE) | (FE) |
| | Transportation (Movement of Stores) | | | |
| | Equipment/Stores | | | |
| | CARS/CAPSI | | | |
| 052 | Consultancy Contracts | | | |
| (Code Head- | Job Work/Contracts/ | | | |
| 929/25)* | Technical Services | | | |
| | Hiring of Transport | | | |
| | FOL for Project Vehicles | | | |
| | Contingency & | | | |
| | Miscellaneous | | | |
| | Plant & Machinery | | | |
| | Project related Vehicles | | | |
| 111 | Works | | | |
| | TOTAL | | | |

^{*} Total project expenditure related to MM, TD, IF and UT projects including equipment, hardware, consultancy, project related contingency, purchase/hiring of transport, freight, contracts for "Acquisition of Research Services (CARS)" under the project etc will be compiled to this head.

b) For S&T and PS Projects:

| Minor Head | Major Head 2080 - Revenue | Nodal Lab | Participating Lab, if any | Total (FE) |
|---------------------------|-------------------------------------------------|--------------|------------------------------|---------------|
| | Heads of Expenditure | Total (FE) | Total (FE) | (ГС) |
| 105 | Transportation | | | |
| 100 | (Movement of Stores) | | | |
| 110 | Equipment/Stores | | | |
| | CARS | | | |
| (Code Head- | CAPSI | | | |
| 856/01)** | Consultancy Contracts | | | |
| | Job Work/Contracts/Hiring of Technical Services | | | |
| | Hiring of Transport, FOL for | | | |
| | Project Vehicles | | | |
| | Contingency & Miscellaneous | | | |
| 111 | Works | | | |
| | TOTAL (REVENUE) | | | |
| | Major Head 4076 - Capital | | | |
| 052 | Plant & Machinery | | | |
| (O a da Haad | Project related Vehicles | | | |
| (Code Head- 929/24)*** | Works | | | |
| | TOTAL (CAPITAL) | | | |
| GRAND TO | OTAL (REVENUE & CAPITAL) | | | |

^{**}Expenditure under Product Support (PS) and Science & Technology (S&T) on Project, Hardware on the basis of items less than Rs. 10 Lakhs and with less than 7 years expected life will be compiled to this Head, Consultancy, Transport, Freight, CARS and other Project related contingencies which do not create tangible assets related to Science & Technology (S&T) and Product Support (PS) Project.

*** Cost of any upgrades / improvements in the existing product and creation of permanent infrastructure (such as testing facilities) for PS projects; and all expenditures resulting in creation of tangible assets such as testing equipment, testing infrastructure, permanent facilities such as ranges/ buildings etc, which remain after project closure, for S&T projects.

Note: In case of project jointly funded by DRDO, Services, PSUs etc; details of funds of Services, PSUs etc along with budget heads be given and grand total be mentioned accordingly.

- 13. Add para **If Required/Applicable. If** Demand approval is accorded along with project sanction, additional information viz. name of equipment(s), estimated cost, probable source of supply, mode of tendering, wherever applicable be mentioned.
- 14. Director, Nodal Lab is authorized to allot sub-projects to other Defence R&D Labs/Estts for development / manufacture of sub-systems / sub-assemblies required for the project within the sanctioned funds under specific budget heads and likely date of completion.
- 15. **If Required/ Applicable -----** Director(s) / PD(s) of Nodal Lab and participating Labs (if applicable) are also authorized to place supply orders for development, consultancy, or research contracts with other Govt./public/private sector organizations, academic institutions etc. restricting it within the total sanctioned funds (within the budget sanctioned under the relevant heads subject to financial powers authorized vide Government of India, Min of Defence letter no DRDO/DFMM/PL/83226/M/01/1976/D(R&D) dated 18 Dec 2019 as amended from time to time.
- 15. Authority letter for appointment of Programme / Project Director will be issued separately to concerned CDA (R&D)/Agency by the Competent Authority as per DPFM 2021.
- 16. Procurement of stores will be made in accordance with the rules and procedures for procurement of Equipment/Stores and services within the available powers and in terms of DRDO "Procurement Manual- 2020", as amended from time to time.
- 17. Director (Nodal Lab) is authorized to change the FE element as given in the Gol letter which can be converted to IC, subject to the overall sanctioned cost of the project not being exceeded.
- 18. The project monitoring committee structures as applicable may be brought out as Annexure to this Govt. Letter.
- 19. Para on Special Powers (as applicable) & other specific issues, if any: should be mentioned (if approved on file).
- 20. The expenditure will be debited to the relevant Minor Heads, under Major Head 2080 "Revenue" and Major Head 4076 "Capital" (as the case may be), of Defence Services Estimates, Research & Development.
- 21. **Add:** Para on Debit of Expenditure /Flow of funds in case of Joint Projects with Services/PSUs and other agencies.

| 22. Unique Sanction Code (USC) | • |
|--------------------------------|---|
|--------------------------------|---|

(Please refer guidelines issued vide letter No- DBFA/FA/83301/M/01 dated 31st Mar 2014, available on DRONA portal of DFMM, DRDO HQ)

| 23. | This issues with th | e concurrence d | of IFA (R&D) or | Addl FA | (R&D) (as | s the | case |
|-----|-----------------------|-----------------|-----------------|---------------|-----------|-------|------|
| may | be) vide their Dy. No | /MoD(Fir | n)/R&D dated | - | | | |
| | | | | | | | |

(Authorised Signatory)

Note: The circulation of the sanction letter of the project will be as per the table given below:

| Mandatory Ink Signed copy | Copy to |
|--------------------------------|------------------------------------------|
| Cluster DG | DGADS/PDA(AF)/PDA(Navy) as per case |
| Lab Director | • DFMM |
| • DP&C | User (Services), if any |
| CDA (R&D) of concerned lab | |
| CDA (R&D) of participating lab | |
| PCDA (R&D), New Delhi | IFA (Cluster) |
| Labs Holding sub-projects. | Controller General of Defence Accounts |
| • CDA (Services) – for jointly | (CGDA) |
| funded projects | DCW&E – if provision for Rev/Cap (Works) |
| | |

SPECIMEN FORMAT FOR APPOINTMENT OF PROGRAMME / PROJECT / DIRECTOR

| | | | | | | | D: | (| Soverr Minist | nment of India try of Defence nce Res &Dev Lab (Name) |
|------|----------------|--------------------|------------------------|--------------------|-----------|----------------|--------|-------|------------------|----------------------------------------------------------------|
| | | | | | | | | Date | | Month, Year |
| To, | LAO// | | D)/CDA(R | • | • |)) | | | | |
| Sub: | Appoi | ntment | of Progr | amme / | Project | : Director | | | | |
| 1. | Refer | ence | | | | | | | | |
| | (a) | Projec | t Sanction | n letter l | No. | | | | | |
| | (b) | Preva | iling Dele | gation o | of Financ | ial Power | s as a | mende | d from | n time to time |
| 2. | | ls./Dr ct Direc | tor for the | followi | ng Progr | amme / F | | | d as | Programme / |
| | Progr Progr | amme / | Project N Project N | lame : _ lumber | : | | | | - | |
| 3. | His / I | her sign | ature is a | ttested | below: | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | Attested | by Lab | Directo | or | | | | |
| Сору | To, | | | | | | | | | |

Directorate of Planning & Coordination (DP&C), DRDO HQ, Rajaji Marg, New Delhi - 110011 Page 67

Director PM , O/o Cluster DG

Programme/Project Director, DFMM, DP&C

ANNUAL AUDITED STATEMENT OF EXPENPENDITURE

As a project progresses, expenditure record is maintained by the Lab BFA section and also by AO(R&D)/CDA/PCDA. Interim progressive expenditure figures/ monthly expenditure reports for each project are being promulgated by the labs. These progressive expenditures have to be rolled up each Financial Year (FY) and an Annual Audited Statement of Expenditure of each project under approved budget heads has to be sought by the Nodal/Participating labs from respective AO(R&D)s/CDAs/PCDAs. The statement will be vetted by the Accounts Officer. A format is given below. The audited statement of expenditure has to be sought for each financial year right from year of sanction till formal completion. Participating labs will provide the respective substatement duly audited and vetted project expenditure by respective AO(R&D)s/CDAs/PCDAs. At the project closure stage all the vetted statements should be enclosed with the Administrative Closure Report in support of total expenditure incurred under the project. This will obviate the tedious exercise of complete project expenditure audit at project closure stage.

ANNUAL AUDITED EXPENDITURE STATEMENT

(a) Project Name & No:

(b) Date of Sanction: DD/MM/YYYY (c) Latest PDC: DD/MM/YYYY

(d) Project Cost (Original & Revised): Rs. Total(FE) (e) Unit Code:

(f) Project/ Programme annual expenditure details:

For MM, TD, UT & IF projects

| | Major Head 4076 – Capital | Expenditure during FY, YYYY-YY | | | | |
|--------------------|------------------------------------------------------|--------------------------------|----------------------|--|--|--|
| Minor Head | Sub Major Head – 05 | Funds Allocated | Expenditure Incurred | | | |
| | Heads of Expenditure | Total (FE) | Total (FE) | | | |
| 052 (Code Head- | Transportation (Movement of Stores) Equipment/Stores | | | | | |
| 929/25)* | CARS/CAPSI Consultancy Contracts | | | | | |

| 111 | Project related Vehicles Works | |
|-----|--------------------------------|--|
| | Plant & Machinery | |
| | Contingency & Miscellaneous | |
| | FOL for Project Vehicles | |
| | Hiring of Transport | |
| | Technical Services | |
| | Job Work/Contracts/ | |

^{*} Total project expenditure related to MM, TD, IF and UT projects including equipment, hardware, consultancy, project related contingency, purchase/hiring of transport, freight, contracts for "Acquisition of Research Services (CARS)" under the project etc will be compiled to this head.

For S&T & PS projects

| | | Expenditure | during FY, YYYY-YY |
|-------------|-----------------------------------------------|--------------------|----------------------|
| Minor Head | Major Head 2080 - Revenue | Funds Allocated | Expenditure Incurred |
| | Heads of Expenditure | Total (FE) | Total (FE) |
| 105 | Transportation (Movement of Stores) | | |
| | Equipment/Stores | | |
| | CARS | | |
| | CAPSI | | |
| 110 | Consultancy Contracts | | |
| (Code Head- | Job Work/Contracts/ Hiring of | | |
| 856/01)** | Technical Services | | |
| | Hiring of Transport, FOL for Project Vehicles | | |
| | Contingency & Miscellaneous | | |
| 111 | Works | | |
| | TOTAL (REVENUE) | | |
| | Major Head 4076 - Capital | | |
| 052 | Plant & Machinery | | |
| (Code Head- | Project related Vehicles | | |
| 929/24)*** | Works | | |
| | TOTAL (CAPITAL) | | |
| GRAND T | OTAL (REVENUE & CAPITAL) | | |

^{**}Expenditure under Product Support (PS) and Science & Technology (S&T) on Project, Hardware on the basis of items less than Rs. 10 Lakhs and with less than 7 years expected life will be compile to this Head, Consultancy, Transport, Freight, CARS and

other Project related contingencies which do not create tangible assets related to Science & Technology (S&T) and Product Support (PS) Projects.

*** Cost of any upgrades/ improvements in the existing product and creation of permanent infrastructure (such as testing facilities) for PS projects; and all expenditures resulting in creation of tangible assets such as testing equipment, testing infrastructure, permanent facilities such as ranges/ buildings etc, which remain after project closure, for S&T projects.

Audited Statement of Expenditure

| It is certified that an expenditure of Rsthe project " (No.)" against an a | including FE allocation of Rs | was incurred under including |
|-----------------------------------------------------------------------------|----------------------------------|---------------------------------|
| FE during the FY, YYYY - YY | | |
| | | (Accounts Officer) with stamp |
| To – Lab Director | | · |
| Copy to – DFMM/ DRDO HQ - Cluster DG | | |

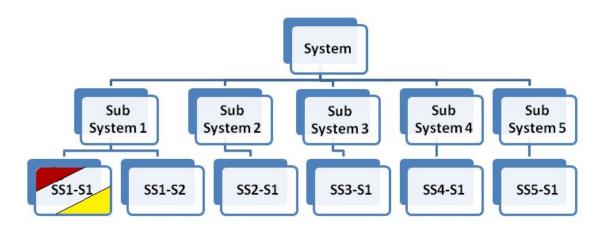
BRIEFING PAPERS FORMAT FOR REVIEW MEETINGS

(This is specific to EB, for other reviews this may be customized based on Agenda Points, **Chapter 5, Project Monitoring & Review)**

1. Project Attributes:

| j. | Current Status of Project | Design | Realisation | Testing & Evaluation | Ready for Closure |
|----|-----------------------------------------|-----------|-------------|-------------------------|-------------------|
| i. | No. of EBs and PMRCs held in last 2 yrs | ĒВ | | PMRC | |
| | | 211911121 | | 110112111 | 0 011 0111 |
| h. | Cost breakup(including FE) | Original | Rev.1 | Rev.2 | Current |
| g. | PDC | Original | Rev.1 | Rev.2 | Current |
| f. | Deliverables | | | | |
| e. | Objective | | | | |
| d. | Nodal & Participating Labs | | | | |
| C. | Date of Sanction | | | | |
| b. | Category | | | | |
| a. | Project Title | | | | |

- 2. Schematic configuration:
- 3. Overall Product Tree / WBS:



Please colour code each module/subsystem/algorithm/process as per scheme given below.

| Stage (Upper corner) | Design | Realisation | Testing & Evaluation | | Ready for Cl | osure |
|----------------------|--------|-----------------|----------------------|----|--------------|-------|
| Module (Lowe corner) | In-H | louse developme | nt BTP | ВТ | COTS | |

4. Particulars of Meetings:

- (a) Ratification of **recommendations** of last PMRC (if any).
- (b) Last EB action points with Expected Date of completion (EDC) & current status.
- (c) Technical / User Reviews (if any).

| SI. No. | Action point | Expected Date of completion | Actual date of completion | Responsible agency/person | Status/Remarks |
|------------|--------------|-----------------------------|---------------------------------|------------------------------|----------------|
| | | | | PD/MMG/Finance/O/o DG/HQr | |

- 5. Milestones achieved prior to this EB period.
- 6. Details of work and current status of sub system with major milestones (since last EB)

- (a) Work carried, achievements, test results etc.
- (b) TRL table with TRL at sanction stage and current stage indicating overall PRI.

| SI. No | TRL | | | | |
|-----------------|----------|---------|---------|--|--|
| Sub System (SS) | Sanction | Last EB | Current | | |
| SS-1 | | | | | |
| SS-2 etc | | | | | |

- (c) Risk Matrix/Mitigation Plan/Status.
- 7. Details of Procurement plan (Major Items):

| SI. | Name | Cost | Туре | Demand | Approval | RFP | TEC | TPC | Supply | Delivery/ | Current |
|-----|---------|------|--------|------------|----------|------------|-----------|-----------|--------|------------|----------|
| No | of item | | of | Initiation | date | floated on | conducted | conducted | order | Inspection | status / |
| | | | tender | date | | | | | placed | (ATP) | Remarks |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Note: Any other stages of procurement may be chosen for better appreciation.

8. Overall Financial status:

For MM, TD, UT & IF projects -

| Minor | Major Head 4076 – Capital | Sanctioned | Expenditure | Commitme nt | In-Pipeline | Balance |
|----------|-------------------------------------|------------|-------------|-------------|-------------|---------------|
| Head | Sub Major Head – 05 | | | (Rs in Cr) | | |
| | Heads of Expenditure | Total (FE) | Total (FE) | Total (FE) | Total (FE) | Total (FE) |
| | Transportation (Movement of Stores) | | | | | |
| | Equipment/Stores | | | | | |
| | CARS/CAPSI | | | | | |
| 052 | Consultancy Contracts | | | | | |
| (code | Job Work/Contracts/ | | | | | |
| head – | Technical Services | | | | | |
| 929/25)* | Hiring of Transport | | | | | |
| 323/20) | FOL for ProjectVehicles | | | | | |
| | Contingency & Miscellaneous | | | | | |
| | Plant & Machinery | | | | | |
| | Project related Vehicles | | | | | |
| 111 | Works | | | | | |
| | TOTAL | | | | | |

^{*} Total project expenditure related to MM, TD, IF and UT projects including equipment, hardware, consultancy, project related contingency, purchase/hiring of transport, freight,

contracts for "Acquisition of Research Services (CARS)" under the project etc will be compiled to this head.

For S&T & PS projects-

| | Major Head 2080 - | Sanctione d | Expenditure | Commitment | In-Pipeline | Balance |
|-----------------------------|--------------------------------------------------------|----------------|-------------|------------|-------------|---------------|
| Minor Head | Revenue | | | (Rs in Cr) | | |
| Tieau | Heads of Expenditure | Total (FE) | Total (FE) | Total (FE) | Total (FE) | Total (FE) |
| 105 | Transportation (Movement of Stores) | | | | | |
| | Equipment/Stores | | | | | |
| | CARS | | | | | |
| | CAPSI | | | | | |
| 110 | Consultancy Contracts | | | | | |
| (code head- 929/25)** | Job Work/Contracts/ Hiring of Technical Services | | | | | |
| 929123) | Hiring of Transport, FOL for Project Vehicles | | | | | |
| | Contingency & Miscellaneous | | | | | |
| 111 | Works | | | | | |
| | TOTAL (REVENUE) | | | | | |
| | Major Head 4076 - Capital | | | | | |
| 052 | Plant & Machinery | | | | | |
| (code | Project related | | | | | |
| Head- | Vehicles | | | | | |
| 929/24)*** | Works | | | | | |
| | TOTAL (CAPITAL) | | | | | |
| (| GRAND TOTAL REVENUE & CAPITAL) | | | | | |

^{**}Expenditure under Product Support (PS) and Science & Technology (S&T) on Project, Hardware on the basis of items less than Rs. 10 Lakhs and with less than 7 years expected life will be compiled to this Head, Consultancy, Transport, Freight, CARS and other Project related contingencies which do not create tangible assets related to Science & Technology (S&T) and Product Support (PS) Projects.

*** Cost of any upgrades/ improvements in the existing product and creation of permanent infrastructure (such as testing facilities) for PS projects; and all expenditures resulting in creation of tangible assets such as testing equipment, testing infrastructure, permanent facilities such as ranges/ buildings etc, which remain after project closure, for S&T projects.

9. Action plan for next six months-Technical Milestones with financial outlay:

| SI. No | Time (Months) | Six Monthly Technical Milestone | Financial Outlay (₹ Cr.) |
|-----------|---------------|------------------------------------|-----------------------------|
| | | | |
| | | | |

- 10. PERT/GANTT chart of overall project schedule (Original & Current):
- 11. Issues:
- 12. Other Relevant points (if any).
- 13. Decision/Recommendations sought from EB:

Note:

- Agenda mentioned in Chapter 5 on 'Project Monitoring and Review' be referred while making briefing papers.
- Action plan as mentioned at SI. No. 9 should mandatorily form part of EB minutes which should be released within two weeks of meeting. If the minutes of meeting to be vetted by outside offices cut off dates should be given beyond which minutes would be assumed to be approved.
- Apex Board format may be similar to EB format modified to cover Agenda of Apex Board (refer Chapter 5 on 'Project Monitoring and Review)'.
- Detailed technical discussions on each sub systems to be deliberated and recorded during PMRC. Ratification points from the higher monitoring body to be clearly mentioned in the minutes.
- For PDC extension cases, the defendable reason why PDC could not be adhered & remedial steps to be taken to avoid further PDC extension may also be presented as per the table given below & recorded in minutes.

| SI. | Reason for time | Responsible agency | Remedial Steps / |
|-----|-----------------|--------------------|------------------|
| No. | over run | | Remarks |
| - | - | - | - |

• Slides for presentation to be numbered 1 of n.

FORMAT FOR RECORDING MINUTES OF MEETING OF REVIEW (AB/EB/PMRC)

| C Meeting for Project titled I-YYYY at "Venue' |
|---------------------------------------------------|
| eting: |
| Estt./Agency |
| |
| |
| |

- 2. Opening/ Introductory remarks (If any).
- 3. Record of discussions and action points of Previous Review -

Item Codes:- A: Action, C: Comment, D:- Decision, R:- Recommendation

| SI. No | Description | Item Code | Expected Date of Completion | Responsibility (Agency/ Individual Name) |
|-----------|-------------|-----------|-----------------------------------|---------------------------------------------------|
| | | | | |
| | | | | |
| | | | | |

- 4. Status of major sub system and sub projects
- 5. Details of procurements items envisaged in the projects along with status.
- 6. Financial Status presented during the review

| Major H | Major Head Rs in Cr (FE in brackets) | | | | | | | |
|---------|--------------------------------------|------------|-------|--------------------------|---------|-------|--|--|
| Minor | Budget Head | Sanctioned | | Expend | Balance | | | |
| Heads | Description | Funds | Spent | Commitments In -Pipeline | | Funds | | |
| | | | | | | | | |
| | | | | | | | | |
| Total ₹ | FE ₹ Cr) | | | | | | | |

7. Major milestones proposed to be completed in next 06 months along with the financial outlay.

| S. No. | Name of Project/ Progra | Date of Sanctio n, Cost | Revised Cost & PDC | milestone | onthly es timelines for | Achievements in last 6 months w.r.t. | | Financial mplicatio | ns |
|-----------|-------------------------------|-------------------------------|--------------------------|----------------------------|-------------------------------|--------------------------------------------|-------------------------|------------------------|----------------|
| | mme | & PDC | | <u>Oct</u> | Sep & :-Mar | milestones | Expendi ture till | Planne | Actual Cash |
| | | | | Actual Date of Complet ion | Revised Date of Completi on | | date Spent: Committ ed: | Cash Outgo | Outgo |
| 1. | | | | | | | | | |
| 2. | | | | | | | | | |
| | | | | | | | | | |

- Other relevant points 8.
- 9. Recommendations
- Concluding remarks (If any) 10.
- These minutes are being issued with the approval of Chairman AB /EB/ PMRC. 11.

(Member Secretary)

Addressees

STATEMENT OF CASE FOR PDC EXTENSION

| 1. | Title of the Project | |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| 2. | Project/Programme No. | : |
| 3. | Name of Lab | <u>:</u> |
| 4. | Sponsoring Agency | <u>;</u> |
| 5. | Sanction Cost (₹ Cr) | :Total (FE) |
| 6. | Date of Sanction | : |
| 7. | Amount spent so far (in ₹Cr) | : Spent - Total (FE) : Committed - Total (FE) : In Pipeline - Total (FE) |
| 8. | PDC Original (revised PDC, if any) | :(i) DD:MM:YYYY)& Months :(ii) DD:MM:YYYY)& Months |
| 9. | Revised PDC proposed with financial or any other implica | n : DD:MM:YYYY)& Months ations |
| 10. 11. | Details of Additional funds re (if any) Minutes of the Monitoring Co Meetings held so far and red of the highest monitoring con for PDC extension of the pro- | commendations mmittee |
| 12. | Defendable reasons (point w PDC could not be adhered (attachment) | vise) why : |
| 13. | Work done so far with milestones achieved (attachment) | <u>:</u> |
| 14. | Work to be carried out with re Six monthly milestones along outlay for the extended period | ı with financial |

| 15. | DMC Direction (if applicable) | : |
|-----|-----------------------------------------------------------------------------------------------------------|---------|
| 16. | Revised PERT/Gantt Chart | : |
| 17. | New Monitoring mechanism propos to avoid further PDC slippage | sed : |
| 18. | Check list for submission of case for PDC Extension duly signed by comauthority (enclosed / not enclosed) | npetent |

Programme / Project Director

Recommended

(Laboratory Director)

Approved

(Competent Authority)

STATEMENT OF CASE FOR COST REVISION AND RE-ALLOCATION OF **FUNDS IN PROJECT**

| 1. | Name of Lab | <u></u> |
|-----|-------------------------------------------------------------------------|--------------------------------------------------------------------------|
| 2. | Project/Programme No | : |
| 3. | Title of the Project | : |
| 4. | Sponsoring Agency | : |
| 5. | Sanction Cost (₹ Cr) | : Total (FE) |
| 6. | Date of Sanction | : |
| 7. | Amount spent so far (₹ Cr) | : Spent - Total (FE) : Committed - Total (FE) : In Pipeline - Total (FE) |
| 8. | PDC original given and Subsequent amendments, if any | :(i) DD:MM:YYYY)& Months :(ii) DD:MM:YYYY)& Months |
| 9. | Work done so far with milestones achieved | <u>:</u> |
| 10. | Re-allocation of funds | |
| | i) Details of head-wise funds to | be re-allocated |
| | ii) Reasons/Justification for re-al (Point-wise justifiable and defe | location of funds endable reasons may be highlighted) |
| | iii) Recommendations of highest | monitoring committee for re-allocation of funds |
| | iv) Details of project monitoring letter vis-a-vis actually held. | committees meetings planned as per the Govt |
| 11. | Cost revision | |
| | i) Proposed Project cost (₹ Cr) | |
| | ii) Head-wise details of revised | / proposed project cost (₹ Cr) |

- iii) Reasons/justification for cost revision (Point-wise justifiable and defendable reasons may be highlighted)
- iv) Recommendations of highest monitoring committee for cost revision (please append the minutes)
- v) Supporting documents (budgetary quotes, e-mail quotes etc) for cost revision
- vi) Details of project monitoring committees meetings planned vis-à-vis held as per the Govt. letter (please append the minutes)
- 12. General Assessment of Status (health) of Project (views of the project leader/project Director may be brought out)
- 13. Check list for submission of case for Re-allocation of funds / Cost Revision Duly signed by competent Authority (enclosed / not enclosed)
- 14. Certification from Project Director on availability of funds

Programme / Project Director

Recommended

(Laboratory Director)

Approved

(Competent Authority)

STATEMENT OF CASE FOR PROJECT COMPLETED WITH PARTIAL SUCCESS, STAGE CLOSURE AND CANCELLATION

| 1. | Name of Lab/Est | <u>:</u> |
|-----|--------------------------------------------------------|-------------------------------------------------------------------------------------------|
| 2. | Title of the Project/Programme | <u>;</u> |
| 3. | Project/Programme No. | <u>:</u> |
| 4. | Category of Project | <u>;</u> |
| 5. | Sponsoring Agency and QR No. | <u>;</u> |
| 6. | Date of Sanction | <u>;</u> |
| 7. | PDC original given and Subsequent amendment, if any | : DD:MM:YYYY)& Months : DD:MM:YYYY)& Months |
| 8. | Sanctioned Cost (₹ Cr) | : Total (FE) |
| 9. | Statement of Accounts (as on) | : Expenditure incurred ₹ Cr : Total(FE) (duly vetted by local audit officer/CDA (R&D)) |
| 10 | Present Status | · <u>·</u> ······ |
| | (Give details of work done so progressed). | far and stage upto which project has been |
| 11. | | for Project Completed successfully, project success / Stage Closure/Cancellation: |
| 12 | .Recommendation of Review Cor | nmittee for Project success (as applicable): |
| 13. | | Meetings held so far and recommendations ee for closure of the project/programme: |
| 14 | . Direction of DMC : | |

| 15.Lessons Learnt : | |
|-----------------------------|------------------------------|
| 16. Other relevant details. | |
| | |
| | Programme / Project Director |
| | |
| | |
| Recommended | |
| (Laboratory Director) | |
| | |
| | |
| Approved | |
| (O 1 1 A - 1 b 21 A | |
| (Competent Authority) | |
| | |
| Note: | |

Statement of expenditure vetted by local audit officer/CDA (R&D) and a certificate to that effect should be obtained with signature, name and office

seal. It should be enclosed with the SoC.

AUDIT OF STATEMENT OF ACCOUNTS (EXPENDITURE) AND ADMINISTRATIVE CLOSURE OF PROJECT / PROGRAMME Part - I

| 1. | Name of the Lab : | | | | | | |
|-----|------------------------------------------------------------------------------------------|-------------------------------------|--------------|--------|---------|-----------------|--|
| 2. | Title of | f the Project/Pro | ogramme : | | | | |
| 3. | Date o | f Sanction | : | : | | | |
| 4. | | ory of the Project D/S&T/IF/PS/U | | : | | | |
| 5. | Cost in ₹ (Cr) / FE ₹ Cr (original & revised): | | | | | | |
| | | Cost | ₹ (Cr) | Origin | al | Revised | |
| | | F | RE | | | | |
| | | - | E | | | | |
| | | Total (F | E) | | | | |
| 6. | PDC o | f the Project (m | onths & date | e) : | | | |
| | | | Original | R | Revised | No of Revisions | |
| | | | | | | | |
| | | | | | | | |
| 7. | Expen | diture (as on d | ate) | : Tota | al ₹ (| FE) | |
| 8. | Aim & Objectives : | | | | | | |
| 9. | No of Prototypes (type approved/qualified) deliverables as brought out in Govt. Letter : | | | | | | |
| 10. | List of | sub-projects | | | | | |
| | SI. No | Sub Projects, Name & No. | Agency | Cost | Status | Achievement | |
| | | | | | | | |

| | 11 | | List | of | CARS | / | CAPS | I |
|--|----|--|------|----|------|---|------|---|
|--|----|--|------|----|------|---|------|---|

| SI. No | CARS/CAPSI Name & No. | Agency | Cost | Status | Achievement |
|-----------|--------------------------|--------|------|--------|-------------|
| | | | | | |

12. List of Consultancies

| SI. No | Aim | Agency | Amount | Date |
|--------|-----|--------|--------|------|
| | | | | |

- 13. Details of Facilities created (as proposed in the programme)
- 14. Trial Results (In brief) - Attach copies of final trial reports issued by Users/lab (as applicable)
- 15. Achievements (based on aim & objectives):

| S. No. | Targets as Envisaged | Targets as Achieved | Remark |
|--------|-------------------------|------------------------|--------|
| | Targets Technology/ | Targets Technology/ | |
| | Deliverables/Products | Deliverables/Products/ | |
| | /Learnings/ | Learnings/ Knowledge | |
| | Knowledge | etc. as achieved | |
| | as envisaged | against each objective | |
| | in the project proposal | | |
| | | | |

| 16. | Recommendation of highest Monitoring Committee Meeting for Administrative |
|-----|---------------------------------------------------------------------------|
| | Closure of the Project (enclose Minutes of the meeting) |

17 Certificate from Lab MMG/Store Section stating no outstanding commitment, no live supply order or contracts & warranty is enclosed. List of payments, to be made due to contractual obligation be enclosed.

| 18. | Certified | that | objectives | set | for | the | project | have | been | met | as | per | Technical |
|--------|-----------|------|------------|-----|-----|-----|---------|------|------|-----|----|-----|-----------|
| Report | No | | | | | | | | | | | | |

(Programme / Project Director)

Part-II

Statement of Accounts (Expenditure)

| 17. | It is certified that the project "" No. has incurred the expenditure of |
|-------------|-----------------------------------------------------------------------------------------------------|
| | against the sanctioned cost of |
| ₹ | including F.E as per the enclosed Audited Statement of |
| Expe | enditure. |
| | All the stores/equipment undertaken in the project has been accounted for. |
| | (Lab Accounts Officer or equivalent) (Signature with name and office seal) |
| | Part - III The Statement of Accounts (Expenditure) of the project has been audited and reconciled. |
| | Audit Authorities (Local Audit Officer / CDA R&D) (Signature with name and office seal) |
| | Recommendation of the Lab Director |
| | Approval of Cluster DG |
| | (Cluster DG) |

Note:

- (i) Audited Statement of expenditure duly vetted by audit authorities (Local Audit Officer/CDA (R&D) must be appended with the proposal
- (ii) Distribution of Administrative/Technical Project Closure Report will be to (a) Participating Labs(b) Concerned DGs (if applicable) and (c) Director PM, O/o Cluster DG

SPECIMEN FORMAT OF GOVT. LETTER FOR PDC EXTENSION

| | No//D(R&D) Government of India Ministry of Defence Deptt. of Defence Res & Dev DRDO HQ, New Delhi – 110 011 Date Month, Year |
|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| To, | |
| The Chairman Defence Research & Development (Min. of Defence, DRDO HQ, New Delhi – 110 011 | Organisation |
| • | Cluster DG, addressee will be Lab Director / be change accordingly). |
| Subject: PDC extension of Project (Nam | e)(No) |
| Project (Name) (No) sanction vidence | ne competent authority for PDC extension of e Govt. letter no dated as dated, from months /YYYY) . (List all amendments) |
| 2. All other entries remain same. | |
| 3. Unique sanction code: | |
| 4. This issues with the concurrence of their Dy. No/MoD(Fin)/R&D dated _ | of Ministry of Defence (Finance / R&D) vide |
| | Yours faithfully, |
| | () Authorized signatory of CFA |
| Ink Signed Copy to : | Copy to |
| DG (Cluster) Director Lab | The Director of Audit, Defence Services, New Delhi |
| Director P&C | |
| CGDA, New Delhi | Addl FA & JS or IFA (R&D), Concerned (as the case may be) |
| PCDA (R&D), New Delhi | , , |
| CDA (R&D), Concerned | Director FMM |
| File copy | Director CW&E |

| SPECIMEN GOVT. LETTER FORMAT FOR COST REV | /ISION / RE- | ALLOCATION OF |
|-------------------------------------------|--------------|---------------|
| FUNDS | | |
| | No | //D (R&D) |

| | | FUNDS | | |
|---------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------|-----------------------------------------------------------------------------------------------------------|
| To | | | G Neptt. Of I | //D (R&D) overnment of India Ministry of Defence Defence Res &Dev DRDO HQ, ew Delhi – 110 011 Month, Year |
| То, | The Chairman Defence Research & Deve Min. of Defence, DRDO HQ, New Delhi – 1 | 10 011 | - d du | uill ba Lab Dinastan / |
| | projects, where CFA is Lab er DG and corresponding er | | | vIII be Lab Director / |
| | Subject: Re-allocation of Fun | nds/Cost Revision under P | roject (Name) | (No) |
| letter from | I am directed to convey revision/ reallocatoin of Pr no dated a Rs (FE Cr) to Rendments): | roject (Name) as amended vide corrig s Cr (FE | (No) gendum no.) as per follo | vide Govt. sanction dated, |
| Read | l: 'Revised cost break-up tal | ble for cost-revision or | re-allocation | of funds' |
| 2. | All other entries remain sa | ame. | | |
| 3. | Unique sanction code: | | | |
| 4. their | This issues with the cond Dy. No/ MoD(Fin)/R | | f Defence (F | inance / R&D) vide Yours faithfully, |
| | | | A415 ai | • |
| Ink Sigi DG (Clu Director Director | r Lab [°] | Copy to The Director of Audit, Defence S Addl FA (R&D) & JS or IFA (R&I (as applicable) | Services, New Delhi | ed signatory of CFA |

CGDA, New Delhi PCDA (R&D), New Delhi CDA/JCDA (R&D), Concerned Director FMM Director CW&E File copy

SPECIMEN GOVT. LETTER FORMAT FOR PROJECT CLOSURE

| | No//D(R&D) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| To | Government of India Ministry of Defence Deptt. of Defence Res &Dev DRDO HQ, New Delhi – 110 011 Date Month, Year |
| To, The Chairman Defence Research & Development (Min. of Defence, DRDO HQ, New Delhi – 110 011 | Organisation |
| | Cluster DG, addressee will be Lab Director / be change accordingly). |
| Subject: <u>Closure of Project "Project (Na</u> | me) " (Project No) |
| Project " Name of Project" (Project No India, Ministry of Defence letter no. <i>(Origir</i> dated Month Year, as amended vide co dated Month Year, with effect from Mon | |
| | e said project is Rs Cr (₹ |
| | Cr (₹) against the) including FE Rs |
| | |
| 3. Unique Sanction Code (USC): | of Ministry of Defence (Finance / R&D) vide |
| | Authorized signatory of CFA |
| Ink Signed Copy to: DG (Cluster) Director Lab Director P&C CGDA, New Delhi PCDA (R&D), New Delhi CDA (R&D), Concerned | Copy to The Director of Audit, Defence Services, New Delhi Addl FA & JS or IFA (R&D), Concerned (as the case may be) Director FMM Director CW&E |

| TO NEW LAB |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No//D(R&D) Government of India Ministry of Defence Deptt. of Defence Res &Dev, DRDO HQ |
| New Delhi – 110 011 |
| Date Month, Year |
| To The Chairman |
| Defence Research & Development Organisation Ministry of Defence, |
| DRDO Bhawan, New Delhi – 110 011 (For projects, where CFA is Lab Director / Cluster DG, addressee will be Lab Director / cluster DG and corresponding entries will be change accordingly). |
| Sub: Change of nodal lab for Project (name) From (nodal lab name) to (new lab name) |
| Ref: Letter no(previous GOI sanctioned letter no) dated |
| Sir, I am directed to refer to Government of India, Ministry of Defence letter no. |
| dated and convey the sanction of the President of India for |
| change of nodal lab for project (name) from (nodal lab) to (Name of |
| new lab) with effect from dated The changed details are as follows: |
| Project No. : New Lab project No : |
| 2. Project no. of nodal lab: and participating lab (Sub-project no). |
| shall stands cancelled with effect from (Date) |
| 2. Nedel leb will ensure that expanditure incurred till out off data |
| 3. Nodal lab will ensure that expenditure incurred till cut-off date |
| will be vetted by concerned CDA (R&D) and stores will be transferred to (new lab |
| name). |

- 4. All other authorization and responsibilities as in referred Govt. letters are also transferred to (new lab name).
- 5. All other contents of the original project sanction letter and subsequent revisions to the sanction if any, will remain unchanged, except for the change in name of the lab.
- 6. All outstanding liabilities and observations of Audit shall stand transferred to (Lab name).... with effect from (date)......
- 7. Unique Sanction Code (USC):
- This issues with the concurrence of Ministry of Defence (Finance / R&D) vide 8. their Dy. No _____/MoD(Fin)/R&D dated ____.

Yours faithfully,

Under Secretary to the Govt. of India

| Ink Signed Copy to : | Copy to |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| DG (Cluster of nodal lab) DG (Cluster of new lab) Director nodal Lab Director of new lab Director P&C Director of participating lab CGDA, New Delhi PCDA (R&D), New Delhi CDA (R&D), Concerned File copy | The Director of Audit, Defence Services, New Delhi Addl FA (R&D) & JS IFA (R&D), Concerned (as the case may be) Director FMM Director CW&E |

Annexure

- (a) Transfer of original Project Sanction file.
- (b) Statement of Expenditure signed by concerned CDA till cut off date.
- (c) List of all procurement cases/files to new Lab/Estt.
- (d) Finalisation of all audit observations/ issues till cut-off date with status and details of replies.
- (e) Transfer of Record/Project inventory to new establishment along-with outstanding Supply Orders for all procurement cases.

| SPECIMEN FORMAT FOR CHANGE OF PROJECT CATEGORY |
|---------------------------------------------------------------------------------------------|
| DURING PROJECT CURRENCY |
| No//D(R&D) |
| Government of India |
| Ministry of Defence |
| Deptt. of Defence Res &Dev, DRDO HQ New Delhi – 110 011 |
| |
| To Date Month, Year |
| The Chairman |
| Defence Research & Development Organisation |
| Ministry of Defence, |
| DRDO Bhawan, New Delhi – 110 011 |
| (For projects, where CFA is Lab Director / Cluster DG, addressee will be Lab Director |
| cluster DG and corresponding entries will be change accordingly). |
| 1 0 0 77 |
| Sub: Change of category of project (name) of nodal lab (name) from (old |
| category) to (new category) |
| Ref: Letter no(previous GOI sanctioned letter no) dated |
| |
| Sir, |
| I am directed to refer to Government of India, Ministry of Defence letter no |
| dated and amendments (if any) and convey the sanction of the |
| President of India for change of category for project (name) from (old |
| |
| category) to (new category) with effect from dated The changed details |
| are as follows: |
| Project No. : Nodal lab new category project No : |
| Project No. : Nodal lab new category project No : |
| Faiticipating Lab new category Sub-project No |
| |
| 2. Project no. of nodal lab: and participating lab (Sub-project no) |
| shall stand cancelled with effect from (Date) |
| , , |
| |
| (The Scope/Cost/Deliverable of project in new category to be specified as |

approved).

| Ink Signed Copy to : | | Copy to | | |
|----------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------|--|--|
| | | Sinds Societary to the Covt. of India | | |
| | | Under Secretary to the Govt. of India | | |
| | | Yours faithfully, | | |
| 7. | their Dy. No/MoD(Fin)/R&D | f Ministry of Defence (Finance / R&D) vide dated | | |
| - | TI: : : : : : : : : : : : : : : : : : : | (M : : (D (| | |
| 6. | Unique Sanction Code (USC): | | | |
| project. | | | | |
| to the | to the sanction, if any, will remain unchanged, except for the change in category of the | | | |
| 5. | All other contents of the project orig | inal sanction letter and subsequent revisions | | |
| _ | | | | |
| new category of project of (lab name). | | | | |
| (Date) |) will be vetted by concerned | I CDA (R&D) and stores will be transferred in | | |
| 4. | Nodal lab will ensure t | hat expenditure incurred till cut-off date | | |
| | | | | |

| Ink Signed Copy to: DG (Cluster of nodal lab) Director nodal Lab Director P&C CGDA, New Delhi PCDA (R&D), New Delhi CDA (R&D), Concerned File copy | Copy to The Director of Audit, Defence Services, New Delhi Addl FA (R&D) & JS DG (Cluster of participating lab) Director of participating lab IFA (R&D), Concerned (as the case may be) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Director FMM Director CW&E |

CHECKLISTS

DRDO.DPFM.CL.01

CHECKLIST FOR NEW PROJECT SANCTION

This check-list should be placed on the file on top of Detailed Project Proposal

- 1 Draft project proposal and TRL report with Executive Summary (Yes/No)
- 2 SHQ commitment for MM, TD(S), UT & PS projects

(Yes/No)

3 i) Recommendation of the Cluster Council for taking project (please append the minutes) along with the In-principle approval of CCM of all sub-project lab

(Yes/No)

ii) Minutes of the Peer Review Committee Meeting

(Yes/No)

Recommendation of PRC on TRL & PRI indices for taking project (Initial TRL indices at the time of undertaking the project and likely TRL levels at the time of closure of the project) (please append the minutes)

- In case PRC has not been conducted details of approval of waiver of PRC. (PRC is not essential for MM & TD(S)
- iii) Whether the recommendations of Peer Review Committee have been implemented and proposal has been modified accordingly?

(Yes/No)

iv) PDR Report for MM / TD(S) projects.

(Yes/No)

v) Recommendation of the DMC (AoN) to undertake the project (the minutes to be enclosed)

(Yes/No)

4 Project estimated cost is vetted by cost estimation committee/local finance authorities?

(Yes/No)

5 Six monthly milestones along-with financial outlay upto PDC of project

(Yes/No)

6 PERT/GANTT charts

(Yes/No)

7 Monitoring mechanism as per laid down guidelines of PPFM

(Yes/No)

8 Manpower, Building space and Vehicle requirement if any

(Yes/No)

| 9 | Details of sub-projects indicating scope, cost and PDC enclosed | (Yes/No) |
|----|----------------------------------------------------------------------|----------|
| 10 | Details of CARS, CAPSI, Consultancy Training etc if proposed | (Yes/No) |
| 11 | Procurement plan (Neecessary documents for EPC approval enclosed) | (Yes/No) |
| 12 | Risk Identification and mitigation plan | (Yes/No) |
| 13 | Comments of Lab Director on ongoing project commitmentts | (Yes/No) |
| 14 | SoC for sanction of project flagged for signature of cluster DG | (Yes/No) |
| 15 | Draft Govt. Letter (DGL) Placed in File | (Yes/No) |
| 16 | PMIS data base updated on DRONA | (Yes/No) |

(Signature of Director PM O/o of Cluster DG)

DRDO.DPFM.CL.02

CHECKLIST FOR PDC EXTENSION OF THE PROJECT/PROGRAMME

| 1 | Expenditure Details enclosure | |
|----|--------------------------------------------------------------------------------------------------------------------------------|----------------------|
| 2 | Reasons for not adhering to PDC enclosure | (Yes/No) |
| 3 | List of activities to be carried out with revised milestones for the period of PDC enclosure | (Yes/No) extended |
| | | (Yes/No) |
| 4 | Revised PERT/Gantt Chart for extended period of PDC enclosure | |
| | | (Yes/No) |
| 5 | Recommendations of highest monitoring committee for extension enclosure | n of PDC |
| | | (Yes/No) |
| 6 | Details of project monitoring committees meetings planned as per letter vis-a-vis held with their respective minutes enclosure | the Govt. |
| | | (Yes/No) |
| 7 | Remedial steps undertaken to avoid further PDC extension is enclo | sure (Yes/No) |
| 8 | General Assessment of Status (health) of Project enclosure | (Yes/No) |
| 9. | DGL placed in file | (Yes/No) |
| 10 | PMIS data base updated on DRONA | (Yes/No) |
| | | |

It is certified that points raised in check list has been taken into consideration and necessary information / papers have been placed in file.

(Signature of Director PM, O/o Cluster DG)

DRDO.DPFM.CL.03

CHECKLIST FOR PROJECT COST REVISION & RE-ALLOCATION OF FUNDS

| 2 | Re-allocation | (Yes/No) |
|----|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| | (i) Details of re-allocation of funds enclosure | |
| | (ii) Reasons (Justification) for re-allocation of funds enclosure | (Yes/No) (Yes/No) |
| | (iii) Recommendations of highest monitoring committee for re-all funds enclosure | ocation of (Yes/No) |
| | (iv) Details of project monitoring committees meetings held | |
| 3 | Cost Revision | (Yes/No) |
| | i) Details of cost revision enclosure | () (() () |
| | ii) Reasons for cost revision enclosure | (Yes/No) |
| | iii) Recommendations of highest monitoring committee for cost renclosure | (Yes/No) evision |
| | iv) Supporting documents (budgetary quotes, e-mail quotes et revision enclosure | (Yes/No) c) for cost |
| | v). Details of project monitoring committees' meetings hold | (Yes/No) |
| | v) Details of project monitoring committees' meetings held | (Yes/No) |
| 4 | General Assessment of Status (health) of Project enclosure | (Yes/No) |
| 5. | DGL placed in File | (Yes/No) |
| 6 | PMIS data base updated on DRONA | (Yes/No) |
| | It is certified that points raised in check list has been taken into cor and necessary information / papers have been placed in file. | nsideration |

(Signature of Director PM, O/o Cluster DG)

ABBREVIATIONS

DRDO.DPFM.AL.01

LAB NAME ABBREVIATIONS FOR PROJECT NO. ALLOTMENT

(Full abbreviation of Lab name will be used for allotment of Project No.)

ADA Aeronautical Development Agency

ADE Aeronautical Development Establishment

ADRDE Aerial Delivery Research and Development Establishment

ARDE Armament Research & Development Establishment

ASL Advanced Systems Laboratory

CABS Centre for Air Borne System

CAIR Centre for Artificial Intelligence & Robotics

CFEES Centre for Fire, Explosive and Environment Safety

CHESS Center for High Energy Systems and Sciences

CVRDE Combat Vehicles Research & Development Establishment

DEAL Defence Electronics Application Laboratory

DEBEL Defence Bioengineering and Electro-medical Laboratory

DFRL Defence Food Research Laboratory

DGRE Defence Geo-Informatics Laboratory

DIBER Defence Institute of Bio-Energy Research

DIHAR Defence Institute of High Altitude Research

DIPAS Defence Institute of Physiology & Allied Science

DIPR Defence Institute of Psychological Research

DLJ Defence Laboratory Jodhpur

DLRL Defence Electronics Research Laboratory

DMRL Defence Metallurgical Research Laboratory

DMSRDE Defence Materials & Stores Res. & Dev. Establishment

DRDE Defence Research & Development Establishment

DRDL Defence Research & Development Laboratory

DRL Defence Research Laboratory

DSP Directorate of Strategic Projects

GTRE Gas Turbine Research Establishment

HEMRL High Energy Materials Research Laboratory

INMAS Institute of Nuclear Medicine & Allied Sciences

IRDE Instruments Research & Development Establishment

ITR Integrated Test Range

JCB Joint Cipher Bureau

LRDE Electronics & Radar Development Establishment

MTRDC Microwave Tube Research & Development Centre

NMRL Naval Materials Research Laboratory

NPOL Naval Physical Oceanographic Laboratory NSTL Naval Science & Technological Laboratory

PXE Proof & Experimental Establishment

RDEE Research & Development Establishment (Engineers)

RCI Research Centre Imarat

SAG Scientific Analysis Group

SSPL Solid State Physics Laboratory

TBRL Terminal Ballistics Research Laboratory

VRDE Vehicles Research and Development Establishment

Note:

In case of any ambiguity arising due to similar or same abbreviation for two or more labs, DP&C will clarify and assign proper abbreviation to each lab for allotment of Project No.

DRDO.DPFM.AL.02

ABBREVIATIONS GENERAL TERMINOLOGY

ACE Armaments & Combat Engineering

AHSP Authorised Holder of Sealed Particulars

AIP Acceptance –in-Principle

ASQR Air Staff Qualitative Requirement

ATP Acceptance Test Procedure

BARC Bhabha Atomic Research Centre

BE Budget Estimate

BTS Build to Specification

CARS Contract for Acquiring Research Services

CCS Cabinet Committee on Security

CDA Controller of Defence Accounts

CDR Critical Design Review

CFA Competent Financial Authority

CGDA Controller General of Defence Accounts

CPM Critical Path Method

CSIR Council of Scientific and Industrial Research

DAE Department of Atomic Energy

DcPP Development cum Production Partner

DDR Detailed Design Review

D-FYP DRDO Five Year Plan

D-LTTPP DRDO-Long Term Technology Perspective Plan

D-RdMAP Roadmap of DRDO

D-ViDoC DRDO-Vision Documents

DFS Detailed Feasibility Studies

DG Director General

DHRD Directorate of Human Resource Development

DIITM Directorate of Industry Interface & Technology Management

DMC DRDO Management Council

DoS **Date of Sanction**

DP Development Partner

DP&C Directorate of Planning & Coordination

DPSU Defence Public Sector Undertaking

DPP **Draft Project Proposal**

DQRS Directorate of Quality, Reliability & Safety

DRDO Defence Research & Development Organisation

DRDS Defence Research Development Service

DRONA **DRDO Rapid Online Network Access**

DRTC Defence Research Technical Cadre

DST Department of Science & Technology

Executive Board ΕB

EOI **Expression of Interest**

ETD **Expected Date of Completion**

FADS Finance Advisor Defence Services

FF Foreign Exchange

FIMs Free Issue Materials

FΜ **Finance Minister**

FMEA Failure Mode Effect Analysis

FMECA Failure Mode Effect Critical Analysis

GSQR General Staff Qualitative Requirement

HR Human Resource

IDS Integrated Defence Staff

IF Infrastructure Facility

ISRO Indian Space Research Organisation

JSQR Joint Staff Qualitative Requirement

LATOT License Agreement for Transfer of Technology

LP Local Purchase

LS Life Sciences

LSP **Limited Series Production** LTIPP Long Term Integrated Perspective Plan

LTTPP Long Term Technology Perspective Plan

MM Mission Mode

MOD Ministry of Defence

MOU Memorandum of Undertaking

MSS Missiles & Strategic Systems

MTBF Mean Time between Failures

NS&M Naval Systems & Materials

NSQR Naval Staff Qualitative Requirements

OF Ordinance Factory

OFB Ordinance Factories Board

P&C Planning & Coordination

PA **Production Agency**

PBS Product Breakdown Structure

PCDA Principal Controller of Defence Accounts

PDC Probable Date of Completion

PDR Preliminary Design Review

PEP **Project Execution Plan**

PERT Project Evaluation and Review Technique

PJMB **Project Management Board**

PMB Programme Management Board

PMRC Project Monitoring and Review Committee

DPFM Directives for Project Formulation and Management

PRC Peer Review Committee

PRI Project Readiness Index

PS Product Support

PSU Public Sector Undertaking

QA **Quality Assurance**

QR Qualitative Requirement

QR&S Quality Reliability &Safety R&D Research & Development

RE Revised Estimate

RFP Request for proposal

RMRaksha Mantri

Service Head Quarters SHQs

SDLC Software Development Life Cycle

SI. No. Serial Number

SoW Scope of Work

S&T Science & Technology

TD **Technology Demonstration**

TEC Technical Evaluation Committee

ToT Transfer of Technology

TRA **Technology Readiness Assessment**

UATT **User Assisted Technical Trials**

USC Unique Sanction Code

UT **User Trials**

UW **Under Water**

VCAS Vice Chief of Air Staff

VCNS Vice Chief of Naval Staff

VCOAS Vice Chief of Army Staff

WBS Work Breakdown Structure