

# **GUIDELINES FOR TECHNICAL EVALUATION OF DIA-CoE PROJECTS**

## **INTRODUCTION**

DFTM is the nodal directorate for handling 15 DIA-CoE having overall 65 technology verticals which are distributed among various centres based on local expertise and faculty working in these areas. Technical Evaluation Committee (TEC) is appointed for each vertical to steer the research for executing the projects in a systematic manner.

- TEC not only recommends the project based on utility of research ,relevance(merit) to DRDO labs & technical feasibility(capability) but also it has mandate of monitoring progress of each project to ensure its completion in definite timeline.
- TEC reports are very crucial being the feeder to Research Advisory Board(RAB) & Governing Council(GC).
- R&D in defence is very challenging and requires cohesive efforts by reviewer, academic institutes, Lab Scientists and industry towards a useful outcome. This would require TEC to analyze and address the issues that may be crucial to the realization of project deliverables.
- Technical Evaluation is closest to technical action and TEC as a body is mandated to own the project till it reaches its end point.

## **INITIAL STAGES**

Following points are to be verified by experts & chairman TEC of any specific technology vertical during the initial proposal.

- Technical feasibility (capability).
- Novelty(newness), merits, potential impact.
- Ensure that the project objective should be distinct and time specific.
- Dependence on raw material and long term sustainability.
- To assess whether it addresses a technology gap or new insight & approaches.
- Design aspect.
- Relevance of project to defence & overall roadmap of topic.
- Changes seen from original topic.
- Sources of supply of equipment , softwares, tools.
- Details of work already taken.
- Competence level in accomplishing the objective including the reference of previous work domain.
- Timelines of the project to be realistic & achievable.Delays to be minimized for planned task. Major technical demonstration to be linked to procurement actions & proposed financial outlay.
- TEC may do risk analysis based on envisaged challenges in the project converging on the tangible objectives and deliverables.It would be prudent to bring out the analysis of alternatives in the given areas.

- TEC to ensure that figure of merit (FOM) relevant to targeted area are defined for all the projects & measurements of the identified figures of merit to be documented and recorded by first TEC review after the sanction of the project. This concept needs to be promulgated to all researchers under the DIA projects.
- FOM to showcase the progress of technology in the parlance of long term directed research and to form a baseline for the next phase activities in the technology areas. Also FOM to reflect the scope of work accomplished by PI and the usefulness to the stake-holding lab and therefore be indicative of a consensus between PI and DRDO Scientists.

### **Continuous monitoring and Mentoring**

- TEC may suggest specific actions for overcoming the technical difficulties and help in plugging the delays which seems to be emerging.
- Necessary course correction in terms of alternative processes, methods, materials and recommendations for overcoming administrative bottlenecks during the execution phase of the project is expected from the TEC. Hence, attention to the minutest details towards the technical aspects of the project is imperative.
- TEC during its deliberations is to address the bottlenecks in cohesive manner linking the likely delays with respect to equipments, tools, raw materials on the goal and outcomes with financial ramifications.
- Comprehensive BOM indicating Indian content and availability constraints with cost benefit assessment.
- TEC may review the plans of sharing the costly equipments procured under the project with the labs, other PIs and industry if applicable for the maximum utilization of the investment.
  - a) Sufficient achievements has been made and same is needed to be protected , but significant risk still remains. If the risk fails after PDC extension the case may be processed for short closure.
  - b) Projects having no progress and high risk remaining unaddressed, PDC extension should be sought only if technology is critical and no other “Plan B” available at present.

### **End of the Project**

- TEC may discuss and suggest about the utilization of Artifacts produced as outcomes of projects by various types of stakeholders with in the ecosystem. Public utilization, licensing of the artifacts also may be debated and recommended if found viable and suitable. There could be models , data sets ,good quality information sharing documents, tools etc. The defence and confidentiality aspect will be assessed by the DFTM team in consultation with lab but identification of artifacts is important for clear outcomes of the project.
- TEC to assess the generation of IP, Innovation or commercialization opportunities resulting from the research project, evaluating the potential for technology transfer, licensing agreements or spin-off ventures.
- TEC to identify the new innovative approach that contributed towards the success of the project and suggest its applicability to other projects.

- TEC is expected to ensure the submission of technical progress reports, closure report as per milestones and outcomes. Quality of reports should be ensured for readability and assimilation by the scientists as well as for better management.

#### **Closure**

- With detailed reviews and due diligence through all phases of projects , TEC may review the quality of project closure documents , final artifacts of submission and their practical utility to the real life technology application scenarios.
- TEC can recommend the next phase projects where the technology needs merit and practically.

#### **Planning and Convening**

- DIA-CoE directors are expected to help the TECs undertake with detailed review and analysis by planning the convening of TECs and agenda at least a week in advance. Inputs of all members and stakeholders of TECs including the associated labs should be taken in advance.