

**CHAPTER III**  
**PROCEDURE FOR PROCUREMENT UNDER ‘MAKE’ AND ‘INNOVATION’**  
**CATEGORIES**

**Background**

1. Self- reliance in defence manufacturing continues to be an important pillar of India’s strategic autonomy. In line with the Government’s ‘Make in India’ programme, several initiatives have been taken in the recent years to build a robust defence industrial ecosystem capable of meeting existing and future requirements of the Armed Forces. The emerging dynamism of the Indian industry needs to be gainfully utilised to build domestic capabilities for designing, developing and manufacturing state of the art defence equipment.
2. R&D and innovation remain important cornerstones of India’s defence production strategy. With the launch of ‘Start-Up India’ programme, India has become the hotspot of start-up activity in the world, having the third-largest start-up ecosystem globally. These strengths need to be leveraged to catapult India to next level of frontier defence technologies, both for domestic use as also to foster exports.
3. The indigenous ‘Make’, and ‘Innovation’ Categories outlined in this Chapter attempt to further build on these initiatives and provide a focussed, structured and significant thrust to development of defence design and production capabilities in the country. Projects under ‘Make’ or ‘Innovation’ category, except ‘Make III’ will essentially pertain to products involving indigenous design, development and manufacturing. To enable Indian industry to leap frog to higher or complex technology, cases where Indian companies either hold the IPR, including where it has been acquired from the foreign companies, or have the ownership of the design of the main system/equipment, will be deemed to be indigenously designed and developed. In such cases, the companies will have to furnish undertaking as detailed **at Appendix ‘A’ to Chapter I.**
4. Projects pursued under the category of Technology Development Fund (TDF) Scheme of DRDO will be progressed for acquisition under innovation Category. Procedure pertaining to TDF Schemes is enclosed as **Appendix ‘A’** to this Chapter.
5. The Chapter is divided in two sections; Section I pertains to indigenous ‘Make’ Categories, whereas, Section II refers to categories nurturing indigenous Innovation.

**Section I – ‘Make’ Categories**

6. The ‘Make’ Categories aim to achieve the objective of self-reliance by involving greater participation of Indian industrial eco-system including private sector through the following procedures: -
  - (a) **Make-I (Government Funded)**. Projects involving design and development of equipment, systems, major platforms or upgrades thereof by the industry. For Projects under Make-I sub-category, MoD will provide fund support maximum upto **70%** of the prototype

development cost, based on viability gap funding method. Funding would be released in a phased manner based on the progress of the scheme, as per terms agreed between MoD and the Development Agency(ies). The final percentage of funding to be provided would vary from case to case and would be dependent upon the fund support sought by the selected Development Agencies (DAs) for development of prototype.

(b) **Make-II (Industry Funded)**. Projects under Make-II category will include prototype development of equipment/system/ platform or their upgrades or their sub-systems/sub-assembly/assemblies /components/ materials/ammunition/software, primarily for import substitution/ innovative solutions by the Private industry, for which no Government funding will be provided. **In Make-II cases, where innovative solutions have been offered even by a single individual or a firm, the cases would be progressed as a Resultant Single Vendor.**

(c) **Make-III {Indigenously Manufactured (IM)}**. These would encompass sub-systems/ sub-assembly/ assemblies/ components/ materials/ammunition, etc, which although not designed/developed indigenously, but are being manufactured in India as import substitution for product support of weapon systems/equipment held in the inventory of the Services. Indian firms may manufacture these either in collaboration or with ToT from foreign OEMs.

7. Only Indian entity as per Par 16 of Chapter I, are eligible for participation under Make-I. In case of Make-III (IM), an Indian vendor can enter into a JV with OEM, however the management of the Company should be in Indian hands, with Indian citizens in majority on the board of directors.

8. Successful development under these schemes would result in acquisition, from successful Development Agency(ies) (DA/DAs), through the 'Buy (Indian-IDDM)' category with indigenous design and development and a minimum of **50%** IC. Schemes under Make III (IM) will be procured under the Buy 'Indian' route with a minimum IC of **60%**.

### **Innovation & Indigenisation Organisation (IIO)**

9. To provide impetus to indigenisation, each SHQ shall establish an Innovation & Indigenisation Organisation. The mandate of IIO will be mandated as follows:-

- (a) Be responsible for spearheading Innovation & indigenisation.
- (b) Identify projects for Indigenous Design and Development including import substitutions.
- (c) Undertake advance planning and consultations with stakeholders.
- (d) Facilitate conduct of Feasibility Study.
- (e) Monitor formulation of Preliminary Services Qualitative Requirements (PSQRs) in consultation with potential Development Agencies.
- (f) Facilitate fielding of SoC for Categorisation and accord of Acceptance of Necessity (AoN).

- (g) Assign responsibilities and hold task owners accountable for delivery.
- (h) Closely monitor and ensure periodic update on all 'Make' projects to AoN according authority by respective Project Facilitation Teams.
- (j) Employ project/programme implementation experts, as also latest execution/monitoring techniques and software to ensure timely development and implementation.

10. The acquisition process under the Categories mentioned at Para 6 above would involve the following common procedural activities, elucidated in succeeding paragraphs:-

- (a) Advance Planning and Consultations.
- (b) Feasibility Study.
- (c) Preliminary Services Qualitative Requirements (PSQRs).
- (d) Categorisation and accord of Acceptance of Necessity (AoN).
- (e) Constitution of PFT.

### **Advance Planning and Consultations**

11. **Identification of Projects.** SHQs, will identify the potential projects to be undertaken under each of the categories listed at Para 7 above in consultation with industry. The list of such projects will be hosted on MoD/SHQ website and also shared with the industry. SHQs will also hold extensive consultations with the stakeholders. **Industry can also forward Suo-moto proposals under Make-II, Make-III, as well as 'Open Competition' category.** These proposals will be examined by SHQs in a time-bound manner, preferably within two months and would be brought to Collegiate Committee headed by Secretary (DP), before accepting/rejecting the proposal.

12. **Annual Acquisition Plan (AAP).** Proposals under the 'Make-II', 'Make-III' and 'Innovation' categories with total prototype cost less than 100 crores will deem to be automatically included in AAP, after accord of AoN.

13. **'Approval-in-Principle (AIP)'**.

13.1. Potential projects identified under the 'Make' categories by SHQ, shall be deliberated and 'Approved-in-Principle' by a Collegiate Committee headed by Secretary (DP) with members from SHQ, Acqn Wing, DDP, DRDO, MoD (Fin) (for non-delegated cases) and IFA (for delegated cases). To widen the research base and encourage private industry participation, Projects where private sector has the ability to develop and manufacture, or has evinced interest in participating through the Innovation categories (iDEX/'Competition Route') or the Make-II route (including suo-moto proposals), shall preferably be assigned for Private Industry. Projects once identified and approved under 'Make' categories shall not be retracted due to technology being developed by DRDO/DPSU/OFB. Where applicable, public sector organisations may endeavour to tie-up with industry to participate in such projects within established timelines. During the process of AIP, HQ IDS shall examine

interoperability and wherever required convert the proposal into a joint proposal, and establish the lead service.

13.2. **Dissemination and Consultations with Industry.** Once AIP has been accorded, list of potential projects along with project briefs, questionnaire for industry, Contact Point details shall be uploaded on MoD and SHQ websites to seek Industry participation. Details would also be shared with Industry through the IBO-DPSU meetings conducted by HQ IDS. SHQs may also provide timely feedback to industry on Suo-moto proposals, which are either not accorded AIP or not accepted for further pursuance.

**Note - Incentives for MSMEs.**

(i) Projects under the Make-I sub-category, with estimated cost of prototype development phase not exceeding ₹10 Crores and cost of subsequent procurement not exceeding Rs 50 Cr/year based on delivery schedule at the time of seeking AoN will be earmarked for MSMEs. However, if at-least two MSMEs do not express interest for a Make-I programme earmarked for them, the same shall be opened up for all, under the condition that interested MSME(s), if any at that stage and meeting the eligibility criteria, will get preference over Non- MSMEs in selection of DAs.

(ii) Projects under the Make-II/Make-III sub-category, with estimated cost of prototype development phase not exceeding Rs 3 Crore and cost of subsequent procurement not exceeding Rs 50 Cr/year based on delivery schedule at the time of seeking AoN, will be earmarked for MSMEs. If no MSME expresses interest for these 'Make-II/Make-III' programme earmarked for them, the same may be opened up for all.

**Feasibility Studies**

14. For 'Make' projects, SHQ shall carry out the Feasibility study with the involvement of other stakeholders such as CEMILAC (for airborne equipment) and MoD (Finance)/IFA as applicable. Industry associations including MSME associations would also be consulted. SHQ may engage consultants/experts to assist in preparation of feasibility study report. Funding requirements for such experts shall be borne by SHQ.

15. The Feasibility Study shall look into the following aspects:-

(a) A preliminary assessment of enabling technologies to realise the requisite equipment/system/platform/components or their upgrades.

(b) A preliminary assessment of capability of Indian industry to undertake design and development of the requisite equipment/system/platform or their upgrades, and to list out probable vendors.

(c) A preliminary assessment to ascertain the 'Make' category under which the case shall be processed.

- (d) Estimated time period for development.
- (e) Estimated cost of prototype development and for subsequent procurement under 'Buy (Indian-IDDM)' category.
- (f) In case of Make-I sub-category, feasibility study shall also recommend number of DAs to be selected. (As Make-I entails Govt funding for prototype development, Feasibility Study will generally recommend not more than two DAs, however in exceptional case, with due justification, it can recommend three DAs for approval of DAC).
- (g) 'Foreclosure' criteria (only for Make-I cases).
- (h) Any other aspect considered important.

16. All stakeholders shall endeavour to complete Feasibility Study within three months from date of commencement for Make-II/Make-III Projects, and six months for Make-I cases. Studies not completed within the stipulated period are to be brought to the notice of authorities according AIP, with reasons for delay.

#### **Preliminary Services Qualitative Requirements (PSQRs)**

17. SHQs in consultation with other stakeholders would formulate the PSQRs, specifying essential and desirable parameters.

#### **Categorisation and Accord of AoN**

18. SHQs will prepare SoC and take AoN as per procedure outlined in Chapter II.

19. In case of 'Make-1' category (Govt Funded), if three DAs, instead of two are to be selected for the project, approval of DAC will be required. However, in case more than two vendors opt to fund the entire prototype development cost through their own resources, all such Vendors would be allowed to partake in the prototype development, as DAs. Such cases may either be migrated under 'Make-II' or processed under Make-I, with nil financial implications towards prototype development. In such cases, no additional approval of DAC will be required.

20. The SoC will also highlight the following:-

- (a) Recommended level of Indigenous Content (higher than the minimum prescribed for 'Buy (Indian-IDDM)' category), if applicable.
- (b) The design and development of the system is indigenous.
- (c) Minimum Order Quantity (MOQ) which will be procured, post the successful development of prototype. In case, SHQs have opted for two-stage PSQRs, SoC shall separately list out MOQ for each stage.
- (d) For Make-II, Quantities in 'Buy (Indian-IDDM)' phase preferably covering requirements of five years.

- (e) Envisaged 'Development Timeline' for prototype.
- (f) Estimated development cost of prototype.
- (g) Estimated production cost of orders under Buy (Indian-IDDM) category.
- (h) List of likely DAs (in case of Make-I projects only).
- (i) Tentative time frame of procurement (for Make-I category only).
- (j) Acceptability of multiple technical solutions and division of ordered quantity among successful DAs, where applicable.

21. **'Foreclosure Criteria'**. To ensure that development timelines do not inordinately deny the Services of critical capability, the SoC would also include mutually agreed 'Foreclosure Criteria' {provision for Service to seek foreclosure of the project in case the project does not progress in accordance with predicted developmental timelines, or if the equipment under development is overtaken by emergence of better technology(ies), etc}. Foreclosure clause would be exercised only with the approval of AoN according authority.

22. The cost of prototype development and the final procurement of developed product would be indicated separately in the SoC. For Make-I category, the AoN will be sought based on the combined estimated cost of prototype development and the cost of subsequent procurement under 'Buy (Indian-IDDM)' category. While for Make-II and Make-III categories, the AoN will be sought only for the cost of final procurement under 'Buy (Indian-IDDM)' category. In these cases, the cost of prototype development although indicated in the AoN, would be funded by the Development Agency(ies)/Industry.

23. **Multiple Technological/Source Solutions.** Cases involving large quantities, and where multiple technological/source solutions are acceptable, SHQ may seek approval of AoN granting authority for dividing specified quantities (in the appropriate ratio) between two vendors with lowest bids (referred to as L1 & L2), who have successfully developed the prototype/product, on the condition that the second (L2) vendor accepts the price and terms & conditions quoted by the L1 vendor. In case L2 vendor refuses to meet the price or the terms and conditions of L1 vendor, either the L3 vendor could be offered the same option to match L1 price and Terms/conditions, or the entire order could be placed on L1 vendor. This provision would need to be included in the SoC seeking AoN, and if approved, in the EoI/RFP, as applicable.

24. **Procedure for Accord of AoN - Low Value 'Make-II' Projects.** 'Low Value Projects' for import substitution under Make-II procedure will follow a different procedure, as elucidated below:-

- (a) Proposals meeting the following criteria will be considered as 'Low Value Projects' under Make-II procedure:-
  - (i) Technical specifications of the equipment/item and Last Purchase price (LPP) are known.

(ii) The estimated cost of prototype development phase does not exceed Rs 3 Crores and cost of subsequent procurement does not exceed Rs 50 Cr/year based on delivery schedule at the time of seeking AoN.

(b) After accord of AIP, SHQ will prepare detailed Questionnaire within two weeks and upload the same on the MoD website, seeking necessary inputs required for preparing feasibility study report within a period of four weeks. Feasibility report will be completed within two weeks from last date of submission of detailed response to Questionnaire. Feasibility report finalized by Project Facilitation Team (PFT) will be construed as concurrence by all stakeholders. PFT will prepare the SoC based on Feasibility report and field the proposal directly to relevant AoN according authority, without circulating the SoC as otherwise required as per Chapter II of DPP.

### **Validity of AoN**

25. In case of 'Make-I' category, the AoN will be valid for one year from the date of accord of AoN, whereas for Make-II/III categories, the AoN will be valid for and six months from the date of accord of AoN. In case where EoI is not issued within the stipulated period, SHQ would have to move a case for revalidation of AoN with due justification. For cases where the original EoI has been issued within the stipulated period and later retracted for any reason, the AoN would continue to remain valid, as long as the original decision and categorisation (sub-category) remain unchanged and the subsequent EoI is issued within six months from the date of retraction of original EoI.

### **Project Facilitation Team (PFT)**

26. SHQ will constitute a PFT under a two-star/one-star officer. PFT will consist of representatives from SHQ, DGQA/DGAQA/DGNAI, MoD(Finance)/IFA as required and other experts if considered necessary. PFT is to act as the primary interface between the SHQ and the industry during the design and development stage.

27. For Make-I projects which are more complex in nature, PFT may also include a trained programme/project manager. SHQ may also engage certified programme/project management experts from public/private sector if considered necessary. Funding for the same shall be borne by SHQ.

28. The PFT shall be inter-alia responsible for the following functions: -

- (a) Preparation of Project Definition Document (PDD) – **(Only for Make-I).**
- (b) Preparing EoI and obtaining approval thereof from the PSO concerned at SHQ and issue of EoI.
- (c) Analysis of EoI responses for shortlisting DAs (Indian companies/organisations) for preparation of DPRs.
- (d) Issue of RFP for preparation of DPR and solicitation of commercial offers – **(Only for Make-I).**

- (e) Evaluation of DPRs and shortlisting of DAs with regard to technical/other aspects as well as ability to deliver the project requirements – **(Only for Make-I)**.
- (f) Assist in selection of two/three DAs (as applicable, from the shortlisted panel, based on commercial offers – **(Only for Make-I)**).
- (g) Obtain CFA approval through DDP for **Make I cases**, as per financial powers detailed in **Appendix B** to this Chapter.
- (h) Preparation of draft Project Sanction Order, obtaining requisite approvals and issue of Project Sanction Order.
- (j) Assist/handhold DAs by providing clarifications related to functional or operational aspects of the equipment under development, as may be sought by the DAs from time to time, during the design and development of prototype.
- (k) Finalization of trial methodology.
- (l) Provision of trial range/test facilities/consumables, etc., as mentioned in the EoI.
- (m) Conversion of PSQRs to SQRs, prior to commencement of Users trials.
- (n) Solicitation of Commercial Offer in consultation with SHQ.
- (o) Coordinating user trials with the SHQs, based on the trial methodology. SHQ will formulate the Trial Directive and constitute the Trial Team. The Trial Directive must specify the fundamental points that need to be addressed for validating the 'essential' parameters.
- (p) Periodically assess the continual relevance of the project vis-à-vis contemporary technology, cost and time overruns, or any other relevant factor, and introduce timely correctives, as well as recommend invoking of the 'Foreclosure Clause', to AoN according authority, if considered necessary – **(Only for Make-I)**.
- (q) Any other responsibilities as may be entrusted by the AoN according authority/DPrB/PSO at SHQ.

29. **Progress Monitoring**. The progress of the 'Make' phase would be monitored by the PFT under overall guidance of respective Innovation & Indigenisation Organisation as defined in EoI responses. The Government may engage services of independent consultants/experts for assessing the physical and/or financial progress of the Make project. PFT, through respective 'Innovation & Indigenisation Organisation' will also periodically apprise the progress of the project to PSO concerned at SHQ or to DPrB through PSO concerned at SHQ, as the case may be.

### **Follow-on Procedures**

30. Post accord of AoN, the 'Follow-on' procedures, would vary for each category, and are therefore highlighted separately in succeeding paragraphs.

### **'Make-I' Category**



31. Under 'Make-I' category, post accord of AoN, the development & procurement process would involve the following functions: -

- (a) Expression of Interest (EoI).
- (b) Shortlisting of Development Agency (ies) (DAs).
- (c) Accord of AoN
- (d) Detailed Project Report (DPR)
- (e) Solicitation of limited commercial offer for Prototype costing.
- (f) Selection of Development Agency (ies) (DAs).
- (g) Approval of CFA as per **Appendix 'B'** for Funding Arrangements, where applicable.
- (j) Issue of Project Sanction Order (PSO).
- (k) Design and Development of Prototype (expected phases/ progression outlined at **Appendix 'C'**).
- (l) Solicitation of Commercial Offers.
- (m) User Trials by SHQ.
- (n) Staff Evaluation.
- (o) Commercial negotiations by Contract Negotiation Committee CNC).
- (p) Award of Contract.

32. **Project Definition Document and Expression of Interest.**

- (a) The PFT will prepare a Project Definition Document (PDD) in consultation with stakeholders as per the sample format given at **Appendix D** to this Chapter. The PDD shall be approved by PSO concerned at the SHQ and shall serve as the principal guidance document for preparation of DPR.
- (b) PFT will shortlist Indian vendors for issue of EoI based on the Feasibility Study. In addition, it will also host the AIP details on the MoD/SHQ website. Any vendor evincing interest in participating in the said project within a period of four weeks from the date of hosting the proposal, will also be issued with the EoI.
- (c) The EoI shall be approved by the PSO concerned at SHQ and may contain information as per sample format at **Appendix E** to this Chapter.
- (d) Indian vendors who are issued an EoI, shall have the choice to respond either in their individual capacity as EoI recipients, or as an AoP (i.e. consortium) of Indian companies/organisations, through an AoP Agreement led by an EoI recipient.
- (e) SHQs may, if required, engage Standing Consultancy firms to provide assistance in preparation of EoI, RFP for DPR, industry outreach programmes and evaluation of EoI etc. Expenses for engaging Standing Consultancy firm will be borne by SHQ.

33. **Shortlisting of Development Agency(ies) (DAs)**

(a) The PFT would undertake an assessment of EoI responses based on approved criteria and forward list of Indian vendors or consortium, who are found capable of undertaking design and development of the equipment to PSO concerned at SHQ, for shortlisting of vendors as per AoN. Illustrative evaluation criteria are contained in sample format at **Annexure I to Appendix E**. Where required, PFT reps may also visit vendor's premises.

(b) EoI response shall also be used to refine the Project Definition Document.

(c) As part of EoI response, the Indian vendors may also be asked to submit broad cost estimates. Based on the inputs received, SHQ may re-assess the AoN cost and if required, seek revision of the original AoN.

34. **Detailed Project Report (DPR).**

(a) The shortlisted vendors, shall then be required to submit a DPR, as per sample format at **Appendix F**, to PFT for their examination, along with commercial offers. In case of development by an AoP, RFP shall be issued to 'Lead Partner' who will submit an undertaking to supply the required quantities under Buy (Indian-IDDM) phase with life cycle support for the product.

(b) For this purpose, PSQRs and relevant extracts from the PDD will be shared by the PFT, with the short-listed DAs.

(c) The DPR will clearly include the list of trials/items/facilities/ consumables, which will be provided free of cost during trials. It will also specify the number of times free tests will be carried out. The liability against any collateral damages/third party, to the extent permitted under the Indian Insurance Act, occurring during the course of trials should be covered through insurance cover by the respective DA(s). The cost of such insurance cover may be included in the project under DPR.

(d) **Solicitation of limited Commercial Offer for Prototype Costing.**

Concurrent with submission of DPR, shortlisted vendors, shall also be required to submit their commercial offer for development of prototype(s). Solicitation of offer will be as per 'Single Stage - Two Bid System', and the commercial offer shall be submitted in a separate envelope. The commercial offer besides indicating the estimated cost of prototype development will also indicate amount (share) the vendor is seeking from the GoI for development of the prototype(s).

(e) On receipt of DPR and prior opening of commercial offers, the PFT will engage with the selected DA(s) for any clarifications/ modifications/refinements/amendments to DPR, if considered necessary. In case of any material change to the DPR, DA(s) may be allowed to revise their commercial bids, if required.

(f) DA(s) may collaborate with academic and/or research institutions and/or foreign companies/foreign research and academic institutions having required technologies for the development of project. DA(s) would be required to disclose the details of such collaborations in DPR. PFT will submit the finalised DPR to Secretary (DP).

35. **Evaluation of DPRs and shortlisting of Development Agency(ies) (DAs).** The PFT in consultation with DDP will evaluate the DPR and shortlist the potential DAs, which meet the laid down criteria.

36. **Selection of Development Agency(ies) (DAs).**

(a) Post evaluation of DPRs, the PFT will open the sealed commercial offers of the shortlisted vendors at a predetermined date and time under intimation to vendors, permitting such vendors or their authorised representatives to be present. The bids of the competing firms shall be read out to all members present and signed by all members of the PFT.

(b) The PFT shall prepare a Comparative Statement of Tenders (CST). Generally two vendors seeking the lowest amount (share) from GOI for prototype development, will be declared as the lowest two bidders.

(c) In case more than two vendors opt to fund the entire prototype development cost through their own resources, all such vendors would be allowed to partake in the prototype development, as DAs. In such situations, the case may be migrated under Make-II process keeping the AoN according authority informed. Cases which are migrated to Make-II, the follow-on process will start from issue of Project Sanction Order.

37. **Approval of Competent Financial Authority (CFA).** For cases being progressed under Make-I sub-category, the financial sanction for project development, taking the relevant prototype development costs into account, would be obtained by the DDP as per delegation of financial powers detailed in **Appendix B to this Chapter.** **[DDP to check original approval]**

38. **Funding.** Funds for development projects approved under this procedure shall be borne under the Account Head ‘**Make Procedure-Prototype Development Account**’ operated by respective SHQs.

39. **Funding for Projects under Make-I Sub-Category**

(a) The prototype development cost to be borne by the MoD will be decided based on the final cost-share agreed to by the selected DA(s) in the Project Sanction Order in accordance with **Appendix G.**

(b) For all projects where MoD is required to fund part of the prototype development cost, an advance of 20% of the agreed share of the prototype development cost, will be paid against a bank guarantee for the equivalent amount.

(c) Balance payment will be paid on completion of the stipulated stages/milestones. On completion of every stage against the milestones detailed in the DPR, DAs will submit claims for reimbursement to PFT. While submitting reimbursement claims, the Chief Executive

Officer/a suitable nominee along with an authorised auditor/licensed Chartered Accountant will certify the incurred expenditure linked to a particular development stage. Based on the recommendations of PFT, SHQ will reimburse the development cost within sixty days, which may extend up to another 30 days in exceptional cases. The advance will be adjusted proportionately in subsequent payments as per the payment terms prescribed in DPR and bank guarantees will be proportionately and automatically reduced until full extinction.

40. SHQs will generally procure the MOQ approved in the AoN, post successful completion of User Trials. However, in case for reasons beyond control of the SHQ, if no Commercial RFP for the equipment is issued within two years from the date of successful completion of prototype development, the DA(s) will be entitled for reimbursement of remaining cost of the prototype development cost. Where DAs had borne the entire cost of prototype development, the entire cost will be reimbursed within a period of twelve months. The same shall be written off with the approval of the Competent Authority.

41. **Time Overrun.** The approval of extension of timelines for any 'Make-I' project up to 25% of the timelines agreed upon in the approved DPR may be accorded by VCDS/VCOAS/VCNS/DCAS/DG ICG, based on the recommendations of Chairman Innovation & Indigenisation Organisation. For extension of time beyond 25%, the matter would be referred to DPrB.

42. **Solicitation of Commercial Offers.** Post development of prototype, the PSQRs will be converted to SQRs. Thereafter, a commercial Request for Proposal (RFP) for procurement of MOQ listed in the AoN under 'Buy (Indian-IDDMM)' category, will be issued to all Development Agencies for submission of their commercial offer prior to commencement of User Trials. The RFP will be duly vetted by Acquisition Wing (for non-delegated cases)/concerned SHQ (for delegated cases), prior issue. **The quantities in the 'Buy (Indian-IDDMM)' phase cannot be reduced from the quantities indicated in AoN.**

43. **User Trials.**

(a) User trials would be carried out by the SHQ in close consultation with PFT to validate the performance of the system against the parameters/specifications approved after the development of prototype. SHQ will formulate the Trial Directive and constitute the Trial Team. The Trial Directive must specify the fundamental points that need to be addressed for validating the 'essential' parameters.

(b) Although the SQRs of the equipment would be a part of the Trial Directives, only the essential parameters as detailed in the Trial directive will be tested. The validation of the support system and maintainability trials, would be held simultaneously, wherever feasible.

(c) To reduce trial duration, development agencies shall strive to obtain requisite certification from NABL accredited labs for parameters where Certificate of Conformance (CoC) is acceptable (to be clarified in DPR).

(d) At this stage, no changes should be suggested which require re-designing of the system/sub-system or technology upgrade. Such suggestions would only be considered and implemented in subsequent phases of development.

44. **Staff Evaluation.** Based on the User Trials, the SHQ would carry out a Staff Evaluation. The Staff Evaluation report will be accepted at the SHQs by the VCDS/VCOAS/VCNS/DCAS/DG ICG. Once the Staff Evaluation report is accepted and final instalment under prototype phase as per DPR has been released, no more funds would be released from 'Make Procedure- Prototype Development Account'.

45. **Benchmarking by Benchmarking Committee.** On receipt of User Trial report at SHQ, concurrent benchmarking will be carried out by a Benchmarking Committee headed by the Advisor (Cost) and reps of concerned SHQ Directorates, as per guidelines issued by Principal Advisor (Cost) and as amended from time to time. This process will be automatically undertaken once SHQ informs Advisor (Cost) about receipt of DPR. The benchmarking cost will be kept in a sealed cover.

46. **Commercial Negotiations by Contract Negotiation Committee (CNC).** For vendors declared successful in Staff Evaluation, follow-on stages including CNC and signing of Contract will be progressed as per provisions of Chapter II of DPP.

47. **Access to Books of Accounts.** The DAs shall maintain separate books of accounts with an independent bank account, for the project sanctioned under Make-I sub-category of prototype development; MoD or its authorised representative(s) shall have unfettered rights to access these books of account of DAs.

48. Intellectual Property Rights (IPRs) in the 'Make-I' projects undertaken under provisions of this Chapter shall vest as described **in Appendix H.**

49. **Foreclosure.**

(a) In case the project does not proceed according to the predetermined milestones and as agreed in the DPR and/or if there are undue time and cost overruns, or failure of the prototype(s) on staff evaluation or on account of any other reasons, the 'Make-I' project may be foreclosed in respect of the DA(s) concerned and proposal for foreclosure will be approved by the authority who had accorded AoN on the recommendation of PFT, through DPrB.

(b) In such cases, the total expenditure made by the DA(s) on the prototype development till foreclosure would be assessed and if excess funds have been paid to the DA(s), the same shall be recovered; if the expenditure is in excess of the amount paid, the balance shall be paid to the DA(s). The total amount paid to the DA(s) shall be written off with the approval of the competent authority.

50. **Disposal of Tangible Assets Created in Make-I Projects**

(a) The ownership of all tangible assets and the developed prototypes under the Make-I category shall vest with the MoD. These may be passed on to the DA at depreciated value as per the extant guidelines of the Government of India.

(b) In case of foreclosed Make-I sub category of projects, the tangible assets thus created may be disposed of as per the extant Government guidelines. Expenditure incurred on intangible assets as defined in the relevant Indian Accounting Standards will be written off with the approval of Secretary (DP).

51. **Deviations**. Any deviation from the prescribed procedure will be put up to DAC through DPrB for approval.

52. Typical expected timelines for undertaking 'Make-I' Projects are contained in **Appendix J**. All the formats given as Appendices and Annexures to this chapter are illustrative and may be amended / modified, as per the requirements of projects under consideration.

53. Any development process under Make-I procedure of previous DPPs, may be carried out as per procedures of old case or may be migrated to this new 'Make-I' procedure, after due consultation with the selected DAs and if it is found to be in the interest of the project.

54. Any clarification or difficulty arising during execution shall be referred to Secretary (Defence Production), who would either take a final decision or refer the case to the DAC for final decision.

### **'Make-II' Category**

55. After accord of AoN, the development & procurement process under Make-II sub-category would involve the following functions:-

- (a) Issue of Expression of Interest (EoI).
- (b) Evaluation of EoI responses.
- (c) Award of Project Sanction Order.
- (d) Design and Development of Prototype.
- (e) Conversion of PSQRs into SQRs.
- (f) Solicitation of Commercial Offer.
- (g) User Trials by SHQ.
- (h) Staff Evaluation.
- (j) Commercial negotiations by Contract Negotiation Committee (CNC).
- (k) Award of Contract.

56. Indian vendors as per criteria detailed in **Appendix K** to this chapter, will be eligible for participation for capital acquisition cases being progressed under 'Make-II' sub-category.

57. **Issue of EoI.** PFT shall publish 'EoI' on MoD/DDP Website inviting Company (ies) to participate into the 'Make-II' project. In addition, EoI shall also be issued to all companies which have shown interest to participate in the project during Feasibility Study. The EoI will contain the following:-

- (a) PSQRs.
- (b) Scope of the project including number of Prototypes required.
- (c) Time frames and critical activities.
- (d) Milestones.
- (e) List of trials/items/facilities/consumables that will be provided free of cost and also specify 'number of times' such free trials will be allowed.
- (f) Quantities in 'Buy (Indian-IDDM)' phase preferably covering requirements of five years.
- (g) Acceptability of Multiple Technological Solutions, if available.
- (h) Details of Evaluation Criteria for assessment of EOI.

58. **Evaluation of EoI Responses.** Responses to EoI shall be evaluated as per criteria given in EoI and shall be approved by VCDS/VCOAS/VCNS/DCAS/DG(ICG). All the shortlisted companies will be called Development Agencies (DAs). **Project shall be progressed ahead even if only one EoI respondent is found meeting the eligibility criteria.**

59. **Project Sanction Order.** PFT will obtain sanction for prototype development with 'Nil' financial implications from VCDS/VCOAS/VCNS/DCAS/DG(ICG) and issue a Project Sanction Order (PSO) to all the DAs. The quantities in the 'Buy (Indian-IDDM)' phase cannot be reduced from the quantities indicated once the PSO has been issued.

60. **Development of Prototype.** Post issuance of PSO, PFT will act as the primary interface between the SHQ and the industry during the design and development stage. After the prototype has been developed, the PFT would carry out user trial readiness review of the prototype before offering it for User Trials.

61. **Solicitation of Commercial Offers.** A commercial Request for Proposal (RFP) for 'Buy (Indian-IDDM) phase, duly vetted by Acquisition Wing (for non-delegated cases)/concerned SHQ (for delegated cases), will be issued to all Development Agencies for submission of their commercial offer prior to commencement of User trials.

62. **User Trial.** User trials would be carried out by the SHQ in close consultation with PFT and will be followed up by Staff Evaluation in accordance with Chapter II of DPP. At this stage no changes should be suggested, which require re-designing of the system/sub-system or technology upgrade. Such suggestions would only be considered and implemented in the subsequent/follow-on models, if required. The user may however recommend minor modifications with regard to ease of handling or maintainability.

63. **Commercial Negotiations by Contract Negotiation Committee (CNC)**. The AoN cost will be calculated on the basis of last purchase price (where available) of the imported item being substituted. The CNC will carry out all processes from opening of commercial bids till conclusion of contract.

64. Negotiations in case of multivendor projects having procurement cost less than ₹150 crore shall be carried out only in special circumstances with reasons to be recorded. However, CNC will carry out negotiations for all single vendor cases, other than resultant single vendor, irrespective of value of the project. For products which are being developed under 'Make-II' as an import substitute and their prices are known, no benchmarking & no negotiation will be carried out, even in single vendor cases, if the offered price is lower than AoN cost by 20% or more. However, in such cases, the CNC will satisfy itself that the price of the selected offer is reasonable with respect to the AoN cost and consistent with the quality required.

65. After CNC, the procurement procedure would thereafter be same as for 'Buy (Indian- IDDM)' category from the successful DA/DAs, in accordance with Chapter-II of DPP.

66. **Intellectual Property Rights (IPRs)**. DA shall retain title or ownership and all other rights in intellectual property generated during the development of project. However, the Government shall have 'March-in rights' under which the Government can require the contractor to grant, or may itself grant license for, inter alia, the following reasons:-

- (a) Where health and safety requirements so require the Government to act in public interest;
- (b) For National Security Reasons;
- (c) To meet requirements for public use not reasonably satisfied by the contractor;
- (d) For failure of the contractor to substantially manufacture the products embodying the subject invention in India; or
- (e) For failure of the contractor to comply with any of the requirements laid down under these guidelines.

67. **Foreclosure**. No Foreclosure of the Project will be done after issue of Project Sanction Order, other than for reasons of default/ non-adherence to Project Sanction Order by Vendors.

68. **Time Overrun**. Typical expected timelines for undertaking 'Make-II' Projects are contained in **Appendix L**. Based on the complexity of the equipment, AoN according authority may approve extended timelines at the time of according AoN".

69. Approval of extension of timelines for any 'Make-II' project may be accorded by VCDS/VCOAS/VCNS/DCAS/DG(ICG), based on the recommendations of PFT. In case of only single vendor having offered the prototype within timelines stipulated in the Project Sanction Order, not more than two time extensions will be accorded to other vendors and thereafter the case is to be progressed as resultant Single Vendor Case (SVC).



70. **Deviations**. Any deviation from the prescribed procedure will be put up to DAC through DPrB for approval.

71. Any DA developing an item under 'Make-I' procedure, if desires, would be allowed to migrate to Make-II procedure, after due consultations and if it is found to be in the interest of the project and if no payment/reimbursement has been made to the DA against the development cost.

72. In case SHQ wishes to migrate a Make-II case for which AoNs have been granted under DPP 2016, to provisions under Chapter III of DPP 2020, approval of Secy DP will be taken on file.

73. Any clarification or difficulty arising during execution of prototype development phase, shall be referred to Secretary (Defence Production) who may refer it to DPrB, for final decision, if required.

### **Make-III {Indigenously Manufactured (IM)}**

74. These would encompass sub-systems/ sub-assembly/ assemblies/ components/ materials, ammunition, etc, which although not designed/developed indigenously, but are being manufactured in India as import substitution for product support of weapon systems/equipment held in the inventory of the Services.

75. Indian firms may manufacture these either in collaboration or with ToT from foreign OEMs. Whilst such cases would generally be pursued under the Revenue route, SHQs could choose to process the initial contract under the Capital acquisition route.

76. In such cases, the procedure to be followed after accord of AoN, will be akin to Make-II, and will include the following:-

- (a) Issue of Expression of Interest (EoI).
- (b) Evaluation of EoI responses.
- (c) Award of Project Sanction Order.
- (d) Design and Development of Prototype.
- (e) Conversion of PSQRs into SQRs.
- (f) Solicitation of Commercial Offer.
- (g) User Trials by SHQ.
- (h) Staff Evaluation.
- (j) Commercial negotiations by Contract Negotiation Committee (CNC).
- (k) Award of Contract.

77. Schemes under Make III (IM) will be procured under the Buy 'Indian' route with a minimum IC of **60%**.

78. For products which are being developed as an import substitute and their prices are known, no benchmarking & no negotiation will be carried out, even in single vendor cases, if the offered price is lower than AoN cost by 20% or more. However, in such cases, the CNC will satisfy itself that the price of the selected offer is reasonable with respect to the AoN cost and consistent with the quality required.

## **SECTION II – INNOVATION**

### **Introduction**

79. In future, military advantage will depend significantly on the pace and outcomes of innovation. To achieve strategic edge, there is a need to transform the approach to innovation. The process of innovation may generate new concepts/IPs, with the potential to disrupt traditional capabilities by introducing new technologies for defence applications. Even small incremental innovations can collectively be as significant as technology breakthroughs.

80. Globally, Private Sector has taken the lead in driving the rapid pace of technological change. Greater emphasis will therefore, be laid on providing capital to the Private Sector, in order to encourage entrepreneurship and ingenuity, particularly in the area of dual-use technologies. Government of India has already initiated schemes like Start-up India, Atal Innovation Mission (AIM), etc. to encourage innovation and entrepreneurship in the Indian commercial ecosystem.

81. To extend its benefits to defence design, development and manufacturing, it is intended to create an ecosystem which fosters innovation and encourages technology development in Defence.

82. Defence is by far, one of the most complex enterprises. Innovation in defence therefore necessitates elaborate support and effective nurturing. The objective of this chapter therefore is to use a multi-pronged approach and reach out/engage a large pool of innovators/technocrats/professionals/academicians including amongst the smaller enterprises, start-ups and MSMEs, to foster innovation in a coherent, strategized, and integrated manner. This would be achieved through the following procedures:-

- (a) Innovations for Defence Excellence (iDEX).
- (b) ‘Open Competition’ approach.

83. Projects of Start-ups, MSMEs etc. with low capital investments and high innovation would be supported through grants and pursued under the iDEX category. The procurement of the final product will be processed under the Buy (Indian-IDDM) route.

84. Only projects where prototype development is possible within two years, and where the cost of prototype development of each unit does not exceed the enhanced powers of the VCDS/Vice Chiefs/Head of the organisation under the R&D Schedule of the DFPDS will be pursued under the

‘Open Competition’ category. Grants for prototype development in these categories will be sanctioned by the SHQs from the existing delegated powers in DFPDS for R&D/innovation. The procurement of the final product, however, will be processed under the Buy (Indian-IDDM) route.

85. Like the Make-II category, Innovators/Industry/academia/start-ups can also forward suo-moto proposals for innovation to SHQ/iDEX-DIO. These proposals will be examined by SHQs in a time-bound manner, preferably within two months.

### **Innovations for Defence Excellence (iDEX)**

86. Innovations for Defence Excellence (iDEX) initiative is primarily aimed at creation of an ecosystem to foster innovation and technology development in Defence and Aerospace by engaging Industries including MSMEs, start-ups, individual innovators, R&D institutes and academia and provide them grants/funding and other support to carry out R&D which has good potential for future adoption for Indian defence needs.

87. Prototypes that have been successfully developed through the iDEX framework will be taken up by the SHQs for grant of AoN after finalization of SQRs by the SHQs, as per procedure outlined in Paras 89 & 90 below.

### **Categorisation & Accord of AoN**

88. SHQ shall prepare the Statement of Case (SoC) with the involvement of important stakeholders such as HQ IDS, DRDO, DDP, Advisor (Cost) and MoD (Fin)/IFA and will refer the cases to the concerned AoN according authority. The respective AoN according authority will carry out categorisation, based on the recommendations of SHQ while according AoN. PSQRs and Draft EoI shall be enclosed with SoC. Following would be highlighted by the SHQ in the SoC seeking AoN:-

- (a) Estimated time period.
- (b) Estimated development cost.
- (c) Likely production cost.
- (d) Quantity of order, preferably covering the requirement of five years, post the successful development of prototype.
- (e) Acceptability of Multiple Technological Solutions, if any.
- (f) Single vendor situation for cases where an innovative solution has been offered by an individual or a firm.

89. While according AoN, it will be ensured that design and development of the system is indigenous. The AoN shall be sought based on the cost of subsequent procurement under ‘Buy (Indian – IDDM)’.

90. All such proposals granted AoN, will be processed for procurement. AoN for iDEX cases will be valid for six months. For cases where RFP is not issued within six months from accord of AON, SHQ will revalidate the AoN with due justification, as per the prescribed procedure.

91. Project, where prototype of only a single firm/individual clears the trials, will be progressed as resultant single vendor.

92. **Development of Prototype.** A Project Font Team (PFT) or nodal officer will be nominated by the SHQs for each iDEX case. PFT/Nodal officer will act as the primary interface between the SHQ and the industry during the design and development stage. After the prototype has been developed, the PFT would carry out user trial readiness review of the prototype before offering it for User Trials.

93. **Solicitation of Commercial Offers.** A commercial Request for Proposal (RFP) for 'Buy (Indian-IDDM) phase, duly vetted by Acquisition Wing (for non-delegated cases)/concerned SHQ (for delegated cases), will be issued to all Development Agencies (iDEX Winners who have successfully developed the prototypes) for submission of their commercial offer prior to commencement of User trials.

94. **User Trial.** User trials would be carried out by the SHQ in close consultation with PMT/Nodal officer and iDEX-DIO to validate the performance of the system against the parameters/specifications approved after the development of prototype. SHQ will formulate the trial directives and constitute the Trial Team. The 'trial directive' must specify the fundamental points that need to be addressed for validating the 'essential' parameters. Validation of the support system and maintainability trials, would be held simultaneously, wherever feasible. To reduce trial duration, development agencies shall be encouraged to obtain requisite certification from NABL accredited labs for parameters where Certificate of Conformance (CoC) is acceptable.

95. At this stage, no changes should be suggested, which require re-designing of the system/sub-system or technology upgrade. Such suggestions would only be considered and implemented in the subsequent/follow-on models, if required. The user may however recommend minor modifications with regard to ease of handling or maintainability.

96. **Follow-on Procedures.** Subsequent procedures for solicitation of Staff Evaluation, CNC and award of Contract will be same as for 'Buy (Indian- IDDM)' category, from the successful DA/DAs, in accordance with Chapter-II of DPP.

### **'Open Competition' Approach**

97. To support 'out-of-the-box thinking' and encourage wider participation of innovators/entrepreneurs, an '**Open Competition**' approach has been introduced to promote innovation. The process will be **User led** and will focus on known problems impacting the Services.

98. The procedure to be followed would be as follows:-

- (a) Defining of Problem Statement.
- (b) Feasibility Study.
- (c) 'Approval-in-Principle'.
- (d) Issue of Competition Document.
- (e) Phase I - Submission of Proposal/Presentation by participants for shortlisting DAs for Phase II (Limited scale Demonstration).
- (f) Accord of Acceptance of Necessity (AoN).
- (g) Solicitation of Commercial Offer.
- (j) Phase II - Demonstration and selection of final winners.

**Note.** For projects of technologically complex nature or where larger participation is envisaged, the SHQs may opt for an additional Phase. In such cases, Phase II may be introduced as Limited-scale Demonstration to shortlist potential DAs for Phase III (Full-scale Demonstration).

- (k) Staff Evaluation.
- (l) Commercial negotiations by Contract Negotiation Committee (CNC).
- (m) Award of Contract.

99. **Identification of Projects.** SHQs will identify the potential projects to be undertaken under 'Open Competition', and host problem statement on MoD/SHQ website. SHQs will also hold consultations with the stakeholders.

100. **Project Facilitation Team (PFT).** PFT will be constituted with representatives from SHQ and other experts as applicable. IFA may also be consulted, where required. The PFT shall inter-alia be responsible for the following functions: -

- (a) Conduct of Feasibility Study.
- (b) Preparation of draft Competition Document.
- (c) Finalising the amount of funding and the methodology (stage payment/reimbursement) for shortlisted DAs for Demonstration Phase.
- (d) Obtain CFA approval, as per extant delegation of financial powers detailed in DFPDS for Indigenisation.
- (e) Issuance of Competition Document.
- (f) Assist/handhold potential DAs by providing requisite technical information.
- (g) Assist 'Committee of Experts' in shortlisting DAs for Phase II/ Phase III Demonstration based on analysis of responses and the Presentations.

- (h) Solicitation of commercial offers from the DAs shortlisted for Phase II/ Phase III.
- (j) Coordinate conduct of Phase II/ Phase III Demonstration and assist 'Committee of Experts' in evaluation of prototypes/selection of final DA(s).
- (k) Prepare Staff Evaluation report based on results of Phase II Demonstration.
- (l) Identify potential issues that will impact project cost or delivery and bring it to the notice of PSO concerned.
- (m) Any other responsibilities as may be entrusted by the AoN according authority/PSO at SHQ.

101. **Project Monitoring.** PFT will periodically appraise the progress of the Competition as follows:-

- (a) To PSO concerned at SHQ - every three months.
- (b) AoN according authority - every six months.

102. **Feasibility Study.** SHQ will carry out Feasibility study with the involvement of other stakeholders such as HQ IDS, IFA, industry, academia, innovators, etc, as applicable. SHQ may engage consultants/experts to assist in preparation of feasibility study report. Funding requirements for preparation of feasibility studies shall be borne by SHQ. The Feasibility Study shall look into the following aspects:-

- (a) Assessment of capability of Indian industry to undertake design and development of the requisite equipment/system or their upgrades.
- (b) Estimated time period for development.
- (c) Estimated cost of prototype development and for subsequent procurement under 'Buy (Indian-IDDM)' category.
- (d) Number of DAs to be shortlisted for limited and full-scale demonstrations. (As 'Open Competition' entails part Govt funding for prototype development, not more than five DAs are to be shortlisted for Phase II Demonstration. (In case an additional limited scale demonstration is planned by the PFT, not more than fifteen DAs will be shortlisted for the interim demonstration phase).
- (e) 'Foreclosure' criteria.
- (f) Any other aspect considered important.

103. **'Approval-in-Principle (AIP)'**. Once preliminary feasibility has been established by the SHQ, 'Approval-in-Principle' will be sought from Secy DP.

104. **Approval of Competent Financial Authority (CFA) and Funding Arrangement CFA Approval.** The financial sanction for project development, taking the relevant prototype

development costs into account, would be obtained by the PFT from VCDS/Vice Chiefs/DG ICG for respective cases, as per delegation of financial powers detailed in DFPDS for indigenisation.

105. **Preparation and Release of Competition Document**. Post completion of Feasibility study, PFT in consultation with other stakeholders will prepare a detailed Competition Document which would list out the following:-

- (c) Problem Statement.
- (d) Vision Statement - specifying final/desired output.
- (e) Broad specifications – laying out essential and desirable parameters. Higher specifications for a particular attribute(s) may also be included and incentivised, with approval of the concerned PSO. Document must clearly list out the Incentivisation Model, wherever applicable.
- (f) Planned Phases of the competition, such as Submission Phase, Presentation Phase, Limited Scale Demonstration Phase, Full scale Demonstration Phase etc. Each Phase is to list out detailed requirements/objectives.
- (g) Suggested Timelines for each activity.
- (h) Mechanism and share of funding for the prototype development for various phases. No funding will be provided for Phase I.
- (i) Eligibility Criteria.
- (j) Issues to be covered in the initial technical Submission and presentation by the participants.
- (j) Details of Evaluation Criteria for assessment at each Phase.
- (k) Composition of Committee of Experts.
- (l) Acceptability of Multiple Technological Solutions, if any.
- (m) Terms and Conditions including legal aspects. (Illustrative ‘Terms and Conditions’ for participation in open competitions are laid out at **Appendix M**).
- (n) Any other aspect deemed necessary by the PFT.

106. The Competition Document will be widely advertised besides hosting on the SHQ website. Post issuance of Competition Document, participants are to be given adequate time (not less than six weeks) to submit their responses for Phase-I.

107. **‘Committee of Experts’**. SHQ, with approval of CFA, will setup a ‘Committee of Experts’ to adjudge each phase of the competition. The ‘Committee of Experts’ will generally comprise of:-

- (a) Two Subject Matter experts from within the Service with relevant background and operational experience.

- (b) Two eminent Professors/Technical Experts from academia/reputed science/technical institutions.
- (c) Two Industry Reps with expert knowledge and experience in the specified field.
- (d) Any other domain expert on case to case basis.

108. The details of the members of the 'Committee of Experts' shall be kept confidential. The composition of the committee may be changed for different phases based on the specific requirement of skill, expertise and background.

109. This 'Committee of Experts' will evolve and list out the stage-wise evaluation criteria, besides adjudging the competition. The stage-wise evaluation criteria will be approved by the CFA and included in the Competition Document. The committee will mark each participant based on the level of compliance with the objectives earmarked for each phase. It will also shortlist the participants for the next stage based on the evaluation criteria. The committee will also recommend any extra marks/weightage to be accorded for achieving any higher parameter/specifications, which will thereafter be specified in the challenge document. The 'Committee of Experts' will submit its recommendation to the PFT, which will take approval of the same from the CFA. The decision of the CFA shall be final and binding on all participants.

110. **Phase I – Submission of Responses**. The participants will be required to submit a detailed technical proposal as per Competition Document. Once responses from participants by the last date are submitted, the PFT would assemble the 'Committee of Experts' to assess the submitted responses. Adequate time should be allocated for this purpose. Those submissions shortlisted, would be invited for the presentation phase. Based on the Presentation and interaction with the participants, the 'Committee of Experts' would recommend not more than five participants to be shortlisted for the Phase II (Demonstration Phase). In cases, where the PFT have opted for an additional phase in the project, due technological complexity, not more than fifteen DAs will be shortlisted for the interim demonstration phase (preliminary trials), and five for the final Demonstration Phase.

111. **Accord of AoN**. On completion of the Submission and the Presentation Phase, and once SHQ has prima-facie established capability of innovators to develop a prototype, the SHQ would prepare the SoC for grant of AoN and take AoN as per procedure given in Chapter II. The SoC will highlight the following:-

- (a) Envisaged 'Development Timeline' for prototype.
- (b) Estimated development cost of prototype.
- (c) Minimum Order Quantity (MOQ) to be procured post successful development of the prototype.
- (d) Estimated production cost of orders under Buy (Indian-IDDM) category.
- (e) 'Foreclosure Criteria', if any.



(f) Acceptability of multiple technical solutions and division of ordered quantity among successful DAs, where applicable.

112. **AoN Validity.** The AoN will be valid for six months from the date of accord of AoN. In case where RFP is not issued within the stipulated period, SHQ will seek revalidation of AoN with due justification for not processing the case on time.

113. **Solicitation of Commercial Offers.** A commercial Request for Proposal (RFP) for 'Buy (Indian-IDDM) phase, duly vetted by Acquisition Wing (for non-delegated cases)/concerned SHQ (for delegated cases), will be issued to all Development Agencies for submission of their commercial offer prior to commencement of Phase II/ Phase III (Demonstration Phase).

114. **Phase II – Demonstration Phase.** Phase II will be akin to User Trials. In Phase II, the participants will be required to give a full scale demonstration of the prototype as per the laid down objectives and specifications in the Competition Document. Based on the performance, the 'Committee of Experts' will recommend a maximum of two winners. In case the SHQ has opted for an additional phase of demonstration, the 'Committee of Experts' will shortlist a maximum of five potential DAs at this stage for the final Demonstration phase.

115. **Staff Evaluation.** Based on the results of Demonstration Phase, the PFT would carry out a Staff Evaluation. The Staff Evaluation report will be accepted at the SHQs by the VCDS/VCOAS/VCNS/DCAS/DG ICG, as applicable. Once the Staff Evaluation report is accepted and final instalment under prototype phase as per DPR has been released, no more funds would be released. The quantities in the 'Buy (Indian-IDDM)' phase cannot be reduced from the quantities indicated in AoN.

116. **Funding.** Funding for the prototype development would be provided both for the Interim Demonstration Phase (where applicable) and the Final Demonstration Phase. Funding could be done through two modes; either as a grant or as reimbursement. The amount and mode of funding will be decided by the CFA beforehand and approved during the AoN stage, as well as included in the Competition Document. If grants are being given beforehand, an undertaking would be signed by the participant that a detailed expenditure statement would be submitted for assessment. If reimbursement is preferred, then those teams performing beyond the laid down benchmark during the Demonstration Phase(s), would be considered for reimbursement. This would cover the expenses of the cost incurred during the Demonstration Phases. Funds would be allocated for the same

117. For disbursement of funds a Grant / Re-Imbursement Committee (GRC) will be constituted from within the PFT and would verify the proposed expenditure (in case of a grant) or expenditure incurred by each team (in case of reimbursement) on the basis of Bill of Materials (BoM), technology development expenses, etc, based on the estimate by the Committee of Experts and a signed statement by the participant.

118. **Follow-on Procedures.** Subsequent procedures for CNC and award of Contract will be same as for 'Buy (Indian- IDDM)' category, from the successful DA/DAs, in accordance with Chapter-II of DPP.

119. **Deviations**. Any deviation from the prescribed procedure will be put up to AoN according authority .

**Aspects Common to ‘Make-III’ and all ‘Innovation’ Categories**

120. **Intellectual Property Rights (IPRs)**. IPR provisions will remain same as Make-II category. Where the innovation is achieved within the Services, the concerned personnel/organisation may be allowed to file and hold the patent.

121. In ‘Innovation’ Categories, even if a single individual or a firm develops the prototype, it would not be considered as a Single Vendor case.

122. **Time Overrun**. Approval of extension of timelines for any project under innovation categories may be accorded by VCDS/VCOAS/VCNS/DCAS/DG (ICG), based on the recommendations of PFT/nodal point.

123. **Multiple Technological Solutions**. Cases involving large quantities, and where multiple technological solutions are acceptable, SHQ may seek approval of AoN granting authority for dividing specified quantities (in the appropriate ratio) between two vendors with lowest bids (referred to as L1 & L2), who have successfully developed the prototype/product, on the condition that the second (L2) vendor accepts the price and terms & conditions quoted by the L1 vendor. In case L2 vendor refuses to meet the price or the terms and conditions of L1 vendor, either the L3 vendor could be offered the same option to match L1 price and Terms/conditions, or the entire order could be placed on L1 vendor. This provision would need to be included in the SoC seeking AoN, and if approved, in the EoI/RFP, as applicable.

124. **Buyer Nominated Equipment/Buyer Furnished Equipment (BNE/BFE)**. SHQs will have the option to procure or incorporate products that have matured through the aforesaid innovative processes as BNE/BFE in future procurement cases, where applicable. These would not be considered as Single Vendor Cases.

125. **Pre-Contract Integrity Pact (PCIP)**. The Pre-Contract Integrity Pact (PCIP), listed as detailed at Chapter II of DPP 2016, shall apply mutatis mutandis, to 'Buy (Indian - IDDM)' phase of 'Make-II/III' projects. Depending upon the sensitivity/secretcy of the information related to the Project, participating vendors may be asked to sign a Non-Disclosure Agreement at the time of sharing the QRs/other sensitive information for certain projects as deemed necessary by SHQ.

**Appendix A to Chapter III**  
(Refers to Para 5 of Chapter III)

**TECHNOLOGY DEVELOPMENT FUND (TDF) SCHEME**

1. Technology development Fund Schemes aim at creation of an Eco-system for enhancing cutting edge technology capability for Defence application through leveraging the domestic capabilities available with Indian Industries especially MSMEs including Start-ups and provide them funding through grants for development of defence and dual use technologies that are currently not available with the Indian defence industry or have not been developed so far.
2. Cases in which prototype have been developed under the ‘Technology Development Fund Schemes’, procurement will be made under the ‘Buy (Indian- IDDM)’ Category, with assurance of orders, and no dilution of quantities. However, in such cases, the product should be indigenously designed, developed and manufactured with minimum 50% IC.
3. Selection of problem statement and development of prototype through technology development Fund Schemes will be undertaken in accordance with procedures promulgated by DRDO, as amended from time to time. These, inter-alia will include:-
  - (a) Advance planning and consultations
  - (b) Feasibility studies
  - (c) Drawing of Technology Parameters requirement (TPR)
  - (d) Accord of AoN under the TDF Scheme
  - (e) Project Monitoring and Mentoring
  - (f) Issue of EoI and soliciting response
  - (g) Selection of development Agencies (DAs)
  - (h) Development and Testing of Porotype
4. A nodal officer from the Services will be nominated by the SHQs for each requirement under TDF Schemes who will be the member of the Project Monitoring and Mentioning Group (PMMG).

**Categorisation and Accord of AoN.**

5. Once the prototype(s) have been successfully developed through TDF Scheme, the SHQ would finalise the SQRs and prepare the SoC for grant of AoN in consultation with other stakeholders . In case procurement from more than one DA is envisaged, the same may be included in the SoC with justification. AoN will be taken by SHQ as per procedure given in Chapter II. The AoN will be sought based on the cost of the final product under ‘Buy (Indian- IDDM)’ Category.
6. The AoN will be valid for six months from the date of accord of AoN. In case where RFP is not issued within the stipulated period, SHQ will seek revalidation of AoN with due justification for not processing the case in time.
7. **Solicitation of Commercial Offers.** A commercial Request For Proposal (RFP) for ‘Buy (Indian – IDDM) phase, duly vetted by Acquisition Wing (for non- delegated cases)/ concerned SHQ (for delegated cases), will be issued to all successful DA(s) for submission of their commercial offer prior to commencement of User trials. Cases where prototype has been developed by a single DA, would not be treated as Single Vendor Case.

8. **User Trials.** User trials would be carried out by the SHQ in close consultation with PMMG and Dte of TDF, DRDO to validate the performance of the system against the Parameters/ Specification approved after the development of prototype. SHQ will formulate the Trial Directives and constitute the Trial Team. The 'Trial Directives' must specify the fundamental points that need to be addressed for validating the 'essential' parameters. Validation of the support system and maintainability trials would be held simultaneously, wherever feasible. To reduce duration of trials, development agencies shall be encouraged to obtain requisite certification from NABL accredited labs for parameters where Certificate of Conformance (CoC) by DRDO is not acceptable (the same is to be clarified in the RFP).
9. Projects, where prototype of only a single DA clears the Testing/ Trials, it will not be treated as Single Vendor Case.
10. At this stage no changes should be suggested, which require re-designing of the systems/ sub-systems or technology upgrade. Such suggestions would only be considered and implemented in the subsequent/ follow-on models, if required. The user may however recommend minor modification with regard to ease of handling or maintainability.
11. **Follow-on Procedures.** Subsequent procedures for Staff Evaluation, CNC and award of contract to the successful DA (s) will be same as that for ' Buy (Indian- IDDM)' category, in accordance with Chapter-II of DPP.

**Appendix B to Chapter III**

(Refers to Para 29(g) &amp; 32(g) of Chapter III)

**DELEGATED FINANCIAL POWERS OF CFA FOR 'D&D' AND 'INNOVATION'  
CATEGORIES**

<b>Description</b>	<b>CFA</b>
Project Cost for Prototype Development Phase upto ₹ 50 Crores	Vice Chiefs and VCDS
Project Cost for Prototype Development Phase above ₹ 50 Crores and upto ₹ 150 Crores	Secretary (DP)
Project Cost for Prototype Development Phase above ₹ 150 Crores and upto ₹ 300 Crores	RM
Project Cost for Prototype Development Phase above ₹ 300 Crores and upto ₹ 500 Crores	RM & FM
Project Cost for Prototype Development Phase above ₹ 500 Crores	CCS

**Appendix C to Chapter III**

(Refers to Para 32(k) of Chapter III)

**PHASES IN DESIGN AND DEVELOPMENT OF PROTOTYPE  
FOR MAKE-I SUB-CATEGORY**

The Design and Development stage under Make-I projects is expected to undergo the following phases:-

<b>Phase</b>		<b>Activities</b>	<b>Remarks</b>
(a)	Project Definition	<ul style="list-style-type: none"> <li>• Mobilisation of initial start-up resources, including development laboratories</li> </ul>	<ul style="list-style-type: none"> <li>• As specified in the DPR</li> </ul>
(b)	Preliminary Design	<ul style="list-style-type: none"> <li>• Establishment of design parameters for configuration, performance in compliance with user requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Tests and studies to be conducted must be specified</li> </ul>
(c)	Detailed Design	<ul style="list-style-type: none"> <li>• Detailed design of systems and sub-systems down to all components</li> <li>• Finalisation of specifications of various equipment, systems, sub-systems</li> <li>• Freezing and ratification of PSQRs by SHQs</li> <li>• Firming up of engineering design drawings/documents and process plan</li> </ul>	<ul style="list-style-type: none"> <li>• Acceptable variances in parameters may be indicated as % or range.</li> <li>• Several critical design reviews may be needed to fine-tune the designs.</li> <li>• Concerned SHQ/PFT is to provide platform/ equipment/ interface details as approved at the DPR stage.</li> </ul>
(d)	Fabrication/ Development	<ul style="list-style-type: none"> <li>• Manufacture of sub-assemblies in limited numbers as agreed to in DPR against total numbers required for subsequent stages.</li> </ul>	<ul style="list-style-type: none"> <li>• Fabrication to be based on final specifications arrived at in Phase III (Detailed Design)</li> </ul>
(e)	Test and Analysis	<ul style="list-style-type: none"> <li>• Testing of several components, systems and sub-systems is to be undertaken concurrent with design</li> </ul>	<ul style="list-style-type: none"> <li>• Software is also to be included in tests/analyses</li> <li>• Design testing through simulation can also be undertaken</li> <li>• Testing may require specialised facilities such as firing ranges for proof firing, etc. Laboratory and other in-house</li> </ul>

Phase		Activities	Remarks
			facilities are to be made available to the DA as approved in the DPR.
(f)	Integration	<ul style="list-style-type: none"> <li>• Integration of systems/sub-systems</li> <li>• Finalisation of interface details and performance and assembly of modules/sub-systems</li> </ul>	<ul style="list-style-type: none"> <li>• System integration testing in accordance with approved test procedures is to be progressed concurrently</li> </ul>
(g)	Performance Evaluation	<ul style="list-style-type: none"> <li>• Technical and limited field trials of the prototype</li> <li>• Changes in design may be needed until final proving and meeting of essential SQRs</li> </ul>	<ul style="list-style-type: none"> <li>• DA and PFT are to assess performance against stated SQRs</li> <li>• Subject to time limits approved in DPR.</li> </ul>

**Appendix D to Chapter III**  
(Refers to Para 33(a) of Chapter III)

**PROJECT DEFINITION DOCUMENT (PDD): AN ILLUSTRATIVE FORMAT**

The PDD would be prepared by the JPMT/PFT in consultation with DAs. It could contain the following:-

- (a) Brief description of the project.
- (b) PSQRs.
- (c) System requirements and functionalities.
- (d) Major components of the proposed system.
- (e) Maintenance and operational philosophy.
- (f) Testing.
- (g) Documentation.
- (h) Life cycle management.
- (j) Feasibility study details.
- (k) Milestones.
- (l) Phases of implementation.
- (m) Technology demonstrators, if any.
- (n) BFE required for development/Testing.
- (o) Foreclosure Criteria/Risk management.
- (p) Safety and security aspects.
- (q) Phase wise induction schedule.
- (r) Time frames for execution of the project.



**Appendix E to Chapter III**  
(Refers to Para 33(c) of Chapter III)

**EXPRESSION OF INTEREST (EoI): AN ILLUSTRATIVE FORMAT**

1. General information about the product/equipment/system, number of systems required (for the prototype development phase and Buy (Indian-IDD) phase), Life span, estimated financial aspects, performance/capabilities sought, security features, IPR aspects, payment aspects with linkage to milestones, grounds on which EoI respondent can be disqualified, grounds for blacklisting by any Indian government agency (of domestic/foreign technology partner), and product audit by nominated agencies of government etc.
2. Technical requirements of the project with proposed specifications and expected tolerance limits of various parameters.
3. Guidelines in vogue for formation of Association of Persons (AoP) i.e. consortium.
4. **Financial Eligibility Criteria:-**
  - (a) The entity needs to be registered for minimum five years; three years in the case of MSMEs.
  - (b) The entity shall have long-term issuer credit rating equivalent to Credit Rating Information Services of India Limited (CRISIL) or ICRA Limited **“BBB”** accorded by Reserve Bank of India (RBI) / Securities Exchange Board of India (SEBI) approved agencies. In case of MSMEs, the minimum rating should be ‘SME-4’. Rating report should not be older than 12 (twelve) months and be the latest available rating.
  - (c) The entity needs to be profitable for at least three out of the last five years; in case of MSME, it needs to be profitable (Profit after tax (PAT)) for at least one out of the last three years.
  - (d) The entity should have a positive minimum ‘Net Worth’, as described below:-
    - (i) For ‘MAKE’ projects having AoN cost (combined estimated cost of prototype development phase and cost of subsequent procurement) >₹ 5000 Crore, a minimum ‘Net Worth’ equivalent to 5% of the development cost indicated at the time of AoN, subject to maximum of ₹ 1000 Crore.
    - (ii) For ‘MAKE’ projects having AoN cost (combined estimated cost of prototype development phase and cost of subsequent procurement) ≤₹ 5000 Crore, a positive **‘Net Worth’** for all companies including MSMEs.

5. In case the Net Worth criteria and/or credit rating is considered high or low for the purposes of adequate EoI responses, the Feasibility Study will bring out an alternate specific recommendation for consideration of the AoN according authority at the time of seeking AoN.

**Notes:**

(i) *In case of wholly owned subsidiary/subsidiary of a company, the strengths of its holding company may be taken into account for the criteria referred at **Para 4**, if the holding company provides the 'Holding Company Guarantee' as per the format prescribed at **Annexure-I of Appendix A**.*

(ii) *Guidelines for Putting on Hold, Suspension, Debarment and any other penal action on the Entities dealing with Ministry of Defence, as promulgated by Government from time to time, will be applicable on procurement process and bidders.*

6. All aforesaid data relating to eligibility of companies for issue of an EoI shall need to be demonstrated at the close of the financial year preceding the accord of AoN, except the requirement for profitable financial record as specified under Para 4 (c) above, which needs to show profits in at least three years of the last five years preceding the accord of AoN.

7. **Technical Eligibility Criteria.**

(a) **Integration Capability.** For large and complex projects (particularly under Make-I category), only companies with demonstrated technical capability of integration of "System of Systems", which refers to any system with multiple technologies of major systems in aerospace (including aircraft, helicopter, remotely piloted aircraft, spacecraft), ships and crafts, submarine, weapon systems (including command & control systems), chemical plants, power plants, steel plants, automobiles manufacturing plants, etc, may be considered. To establish the same, the company should have:

(i) Successfully commissioned at least one project in power plant/ chemical plant/ steel plant/ automobile manufacturing plant, with a capital expenditure of not less than INR 500 Crore (Five Hundred Crore only) on each such plant/project.

OR

(ii) Successfully signed at least one contract in the product or related domain (ex. Aerospace/ shipbuilding/ armoured fighting vehicles/weapon systems / command & control systems, as the case may be) of value not less than INR 300 Cr (Three Hundred Crores), during the last seven (07) financial years.

(b) **Domain-Specific Criteria.** The minimum acceptable technical criteria in the product/solution domain are to be decided by SHQ in consultation with DDP. These could include, inter alia, the following:-

(i) Special static facilities necessary for development, fabrication or assembly of the product.

(ii) Design and manufacturing capabilities such as design simulators/software, tempering and machining, specialised welding technology, high-end control systems, etc.

8. Illustrative Details to be sought from EoI respondents:-

- (a) Outline features of the proposal.
- (b) Estimated Capital expenditure.
- (c) Roles, responsibilities and expertise details of consortium members, if any.
- (d) Role of foreign technology provider, if any.
- (e) Recommended stages/phases of development with priorities and time schedules.
- (f) Requirement of specialised testing assistance where facilities are available only with DRDO/DGQA/DGAQA/DGNAI.
- (g) Cost-sharing Aspects.
- (h) Undertaking to furnish the cost of the final product during evaluation stage itself, once the final configuration of the end product under development is frozen.

9. Documents to be submitted by EoI respondents:-

- (a) Information Performa (by all partners/collaborators) as per **Annexure-I to Appendix-E**.
- (b) Documents as per **Annexure-II to Appendix-E**.
- (c) Copy of MoUs with consortium partners, if applicable.

**Annexure I to Appendix E**  
(Refers to Para 9(a) of Appendix E)

**INFORMATION PROFORMA: AN ILLUSTRATIVE LIST OF ELEMENTS**

1. **General Information:-**
  - (a) Name of the Company.
  - (b) Address of the Registered Office.
  - (c) Category of Industry (Large Scale/Medium Scale/Small Scale).
  - (d) Nature of Company (Public Limited/Private Limited).
  - (e) CIN.
  - (f) Shareholding pattern.
  
2. **Business Information:-**
  - (a) Type/Description of current products.
  - (b) Products already supplied to Services/PSUs/DRDO/OFB/any other defence organisations
  - (c) Details of ISO, Quality Assurance and other Certification.
  
3. **Technical Information:-**
  - (a) Availability of area for factory (including covered, uncovered and bonded space).
  - (b) Details of Developmental Facilities:-
    - (i) Manpower.
    - (ii) Inspection and Quality Control.
    - (iii) Laboratory and Drawing Office Facility.
  - (c) Integration capabilities for system-of-systems projects.
  - (d) Capability criteria specific to the product/solution/technology being offered. (To be decided by SHQ in consultation with Acqn Wing)
  
4. **Financial Information:-**
  - (a) Revenue and Net Profit during the last three Financial Years.
  - (b) Present Net Worth of the Company.
  - (c) Credit Ratings from RBI/SEBI approved agencies.

**Annexure II to Appendix E**

(Refers to Para 9(b) of Appendix E)

**DOCUMENTS/INFORMATION TO BE SUBMITTED AS PART OF RESPONSES TO EoI :**  
**AN ILLUSTRATIVE LIST**

1. Latest Certificate of Incorporation by the Registrar of Companies (RoC).
2. Latest Memorandum of Association and Articles of Association of the Company.
3. Auditor certified data of company for:-
  - (a) Share holding pattern including details of FDI.
  - (b) Net worth
  - (c) Annual Consolidated Turnover.
4. Credit Rating Certificate.
5. Copy of Association of Persons (AoP) Agreement.
6. Certificate for Technical Eligibility criteria.
7. Any other undertaking/affidavit as required by the MoD.

**Note.** The company/organisation is to certify the correctness of reply (ies) to this EoI on an undertaking signed by the authorised signatory.

**Appendix F to Chapter III**

(Refers to Para 35(a) of Chapter III)

**DETAILED PROJECT REPORT (DPR): AN ILLUSTRATIVE LIST OF DPR ELEMENTS**

1. The PMT would order preparation of Detailed Project Report and provide following inputs to the nominated DA(s):-
  - (a) Provisional Service Qualitative Requirements (PSQRs).
  - (b) Time frames and critical activities.
  - (c) Milestones.
  - (d) Evaluation process and acceptance criteria
  - (e) Selection criteria including weightages for possible enhancement of SQRs and cost-effectiveness.
  - (f) List of trials/items/facilities/consumables that will be provided free of cost, and the 'number of times' such free trials will be allowed.
  - (g) Commercial Negotiation aspects.
  - (h) Project Monitoring Methodology.
  
2. The DPR would stipulate the scope of the work in terms of the following:-
  - (a) PSQRs and compliance for eligibility.
  - (b) Envelope along with weightages for enhancing SQRs.
  - (c) Overview of the project.
  - (d) Scope of the project.
  - (e) Infrastructure requirements.
  - (f) Operational requirements.
  - (g) Integration requirements.
  - (h) Estimated Bill of Material/Phase-Wise Cost Break-up and critical phases susceptible to cost over-runs.
  - (j) Technical specifications of equipment to be used for the project.
  - (k) Sources of Raw Materials for the project:-
    - (i) Imported/Indigenous.
    - (ii) Brief Description.
    - (iii) Estimated CIF Value.
    - (iv) Percentage FE Content in Final Product.
  - (l) Source and quantum of sanctioned, installed and back-up power supply.
  - (m) Details of important facilities that will be employed in the project, including but not limited to:-
    - (i) Production (including Heat Treatment, jigs and fixtures).
    - (ii) CAD, CAM, robotics and other advanced technology tools.
    - (iii) Environmental Test Facilities.
    - (iv) Tool Room, Metrology and Test Equipment and Facilities.
    - (v) Types of Instruments, Make and Model, Date of Purchase,
  - (n) Indigenisation Criteria.

- (i) Indigenous design capability.
  - (ii) Indigenous manufacturing capability.
  - (iii) Indigenous content in percentage of total cost.
  - (iv) %age of proprietary items.
  - (v) Components to be manufactured indigenously.
  - (vi) Components designed indigenously but likely to be manufactured abroad.
  - (vii) Components likely to be procured from abroad along with country of origin.
  - (viii) Methodology to build up on technologies and experience from current project for new deliverables/upgrades.
- 
- (p) Estimated timelines for various phases of prototype development, total timeframe for implementation of the project and critical phases most susceptible to slippages.
  - (q) Critical activities and milestones.
  - (r) Estimated expenditure for various phases of prototype development inclusive of all taxes & duties to be incurred by DA, estimated total capital expenditure.
  - (s) Detailed risk analysis and risk management plan.
  - (t) Funding for development of prototype and carrying out research activities.
  - (u) Role of technology provider, if any.
  - (v) Upfront disclosure of details of foreign collaboration, if any.
  - (w) Requirement and employment plan of proof firing and other specialised testing assistance where facilities are available only with DRDO/DGQA/DGAQA/DGNAL.
  - (x) Evaluation process and acceptance criteria.
  - (y) Sharing of development cost.
  - (z) Premium for insurance cover against collateral/third party damages.
  - (aa) Estimates numbers for prototype development and for Mark-I procurement under “Buy (Indian-IDDMM)” phase.
  - (ab) Requirement of minimum order quantity to be placed on the successful developer.
  - (ac) Methodology for life-cycle support, mid-life upgrades or life extensions, if applicable.
  - (ad) Any other detail as required such as Project Management Plan, QA Plan, detailed project validation of simulators if used, configuration management plan (CMP), Verification and Validation Plan, etc.

**Appendix G to Chapter III**  
(Refers to Para 40(a) of Chapter III)

**GUIDELINES FOR APPROVAL AND ACCEPTANCE OF COST-SHARING  
ARRANGEMENTS**

**Procedures**

1. The cost estimates shall be prepared by the finally shortlisted DA(s) and shall be submitted to the PMT within the required date and time as part of the DPR.
2. The DA(s) shall prepare the cost estimates in accordance with the general principles outlined in this Appendix and shall record a certificate to that effect as part of the documentation submitted.
3. These cost estimates shall be examined by the PMT as part of the DPR. The PMT shall hold consultations with the DA as required and shall submit its final recommendations to the DDP for approval. Depending upon individual requirements of DA(s) in terms of development of technology and indigenous content, the PMT could consider and recommend a cost variation up to 25% amongst the DPRs submitted by the two DA(s), as compared to the lower of the two.
4. The approved cost estimates shall then be communicated by the PMT to the DA(s) as part of the Project Sanction Order (development contract); and shall form the basis for design and development of prototype and claiming of costs by the DA(s).
5. Claims for reimbursement of MoD share shall be made by the DA(s) upon completion of different phases at **Para 32(k) and Appendix C** to Chapter-III, as finalised in the DPR. The cost to be reimbursed shall be restricted to actual cost.  
General Principles.
6. Indian Accounting Standard 7 (AS7) shall be followed for accounting procedure.
7. The following criteria shall be used by the Ministry of Defence for determining whether, what and upto what extent the costs incurred by DA shall be paid out of public funds:-
  - (a) Costs Allowability;
  - (b) Cost Allocability;
  - (c) Cost Reasonableness; and
  - (d) Terms of the Contract.
8. The DA shall not charge any unallowable costs; and shall segregate the same from any proposal, billing, indirect cost pool or claim submitted to the Ministry. The following costs are specifically considered unallowable for the purpose of these guidelines:-
  - (a) Bad Debts;
  - (b) Interest;
  - (c) Land;



- (d) Permanent Building;
- (e) Entertainment;
- (f) Contributions or donations;
- (g) Fines, legal expenses and penalties;
- (h) Advocacy and business development;
- (j) Losses on other contracts;
- (k) Alcoholic beverages; and
- (l) Business organisation costs such as costs of incorporation, re-organisation and merger.

9. A cost shall not be presumed to be allowable merely because the DA actually incurred the costs, unless meets the test of relevancy, financial prudence, reasonability and relationship.

10. **Allocability of the Cost.** A cost is allocable if it is assignable or chargeable to one or more cost objectives on the basis of relative benefits received or other equitable relationship. Subject to the foregoing, a cost is allocable to a Government contract if it: (a) is incurred specifically for the contract; (b) benefits both the contract and other work and can be distributed to them in reasonable proportion to the benefits received; and (c) is necessary to the overall operation of the business, although a direct relationship to any particular cost objective cannot be shown. In any case, indirect costs shall not exceed 10% of the total approved cost for prototype development.

11. A cost is reasonable if it would have been incurred by prudent entity in the conduct of competitive business. To be reasonable, the cost must be: (i) generally recognised as an ordinary or necessary cost of business; (ii) follow sound business practices; (iii) comply with Central, State, local laws; and (iv) be consistent with the Development Agency's established business practices. The determination of reasonableness of a particular cost shall depend on all relevant facts and circumstances concerning the costs; and the decision of the Ministry of Defence in this regard shall be final. Miscellaneous

12. The Development Agency shall submit a break-up of cost estimates for each stage outlined **Appendix C** to Chapter III. These stages shall also form specific potential exit points for the Ministry of Defence without any further liability, if the Ministry of Defence is of the considered opinion that requisite and timely progress has not been made by the DA for successful completion of that phase.

13. The Ministry of Defence shall not, under any circumstances, entertain or consider any revisions, submissions or arguments for inclusion of un-allowable costs as specified in these Guidelines.

**Appendix H to Chapter III**

(Refers to Para 49 of Chapter III)

**INTELLECTUAL PROPERTY RIGHTS OF GOVERNMENT  
IN “MAKE” PROJECTS****Guiding Principles**

5. The Government shall retain only a license in the Intellectual Property<sup>1</sup> being generated under contract; and the contractor retains title or ownership and all other rights in intellectual property that are not granted to the Government, subject to conditions prescribed herein.

6. During the development of prototype, if any technology/product is developed, which the Government considers to be sensitive or classified and needs to be restricted for use in other purposes or for export, the Government through PMT or any other expert or body may identify such technology/product. The provisions for IPRs in respect of such technology/product will be separately negotiated in compliance with the laws and regulations on the subject.

7. All technology licensing is divided up between two mutually exclusive categories of deliverables:

- (a) Technical Data (TD)<sup>2</sup>; and
- (b) Computer Software (CS)<sup>3</sup>. The Government shall also have certain rights to subject inventions and patents generated under the “Make” contract.

4. The EoI shall contain details of:-

- (a) the delivery requirements, storage formats and storage medium; and
- (b) The associated data rights, in all technologies required to be developed or delivered under the “Make” contract. Officials connected with award of “Make” projects shall ensure that all such delivery requirements are clearly stated in the EoI and the “Make” contract signed, if any, including delivery and form in which source code is required as a contract deliverable.

5. The Government’s standard license rights in:-

<sup>1</sup> The term ‘Intellectual property’ shall refer to all categories of intellectual property as provided in TRIPS Agreement.

<sup>2</sup> “Technical data” means recorded information, regardless of the form or method of the recording, of a scientific or technical nature (including computer software documentation). The term does not include computer software or data incidental to contract administration, such as financial and/or management information.

<sup>3</sup> (a) “Computer software” means computer programs, source code, source code listings, object code listings, design details algorithms, processes, flow charts, formulae and related material that would enable the software to be reproduced, recreated or recompiled. Computer software does not include computer data bases or computer software documentation. (b) “Computer program” means a set of instructions, rules, or routines recorded in a form that is capable of causing a computer to perform a specific operation or series of operations. (c) “Computer software documentation” means owner’s manuals, user’s manuals, installation instructions, operating instructions, and other similar items, regardless of storage medium, that explain the capabilities of the computer software or provide instructions for using the software. (d) “Computer data base” means a collection of data recorded in a form capable of being processed by a computer. The term does not include computer software.

- (a) subject inventions and associated data; and
- (b) all other data generated under the “Make” contract, including technical data and computer software whether associated with such subject inventions or otherwise, shall be “Government-Purpose Rights” (GPR). In respect of subject inventions, the Government shall hold a non-exclusive, non-transferable, irrevocable, paid up (royalty-free) license to practise, or have practiced for on its behalf, the subject invention throughout the world.

6. These guiding principles shall apply at both the prime and subcontract levels; i.e., the prime DA(s) shall incorporate the rights of the Government as prescribed in this Annexure in all their subsequent sub-contracts and agreements insofar as technology development under “Make” projects is concerned.

### **Government Rights**

7. The Government shall have “Government-Purpose Rights” and “Unlimited Rights” as explained in succeeding paragraphs.

8. For all subject inventions<sup>4</sup> under the “Make” Contract, including technical data and computer software associated with such subject inventions, the Government shall hold “Government-Purpose Rights” (GPRs), in that it shall hold a non-exclusive, non-transferable, irrevocable, paid up (royalty-free) license to practice, or have practiced for on its behalf, the subject invention throughout the world. These GPRs shall automatically convert to “Unlimited Rights” as defined under this section upon the expiry of ten years.

9. For the purpose of all technical data and computer software, whether related to subject inventions or otherwise, GPRs shall imply the right to use such technical data and computer software within the Government without restriction and the right to authorise any other entity for any government purpose including re-procurement. More specifically, “Government-Purpose Rights” includes the rights to:-

- (a) Use, modify, reproduce, release, perform, display, or disclose technical data within the Government without restriction; and
- (b) Release or disclose technical data outside the Government and authorise persons to whom release or disclosure has been made to use, modify, reproduce, release, perform, display, or disclose that data for Government purposes.
- (c) Form, Fit and Function data and Manuals or instructional and training materials for installation, operation, or routine maintenance and repair;

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<sup>4</sup>“Subject Invention” implies any invention of the contractor conceived or first actually reduced to practice in the performance of work under a Government Contract. “Invention” implies any invention or discovery that is or may be patentable or otherwise protectable under the Patent Laws in force in India.

- (d) Computer software documentation required to be delivered under the “Make” contract;
- (e) Corrections or changes to computer software or computer software documentation furnished to the contractor by the Government;
- (f) Computer software or computer software documentation that is otherwise publicly available or has been released or disclosed by the contractor or subcontractor without restrictions on further use, release or disclosure other than a release or disclosure resulting from the sale, transfer, or other assignment of interest in the software to another party or the sale or transfer of some or all of a business entity or its assets to another party;

10. For the purposes of these guidelines, “Government Purpose” means an activity in which the Government of India is a party, including cooperative agreements with international or multi-national defence organisations, or sales or transfers by the Government of India to foreign Government or international organisations. Government purposes include competitive procurement, but do not include the rights to use, modify, reproduce, release, perform, display, or disclose technical data for commercial purposes or authorise others to do so. 11. In addition to standard GPRs, Government rights in computer software to be delivered under contract shall also include the right to:-

- (a) Use of a computer program with government computer(s);
- (b) Transfer to another Government computer;
- (c) Make copies of computer software for safekeeping; backup or modification purposes;
- (d) Modify computer software;
- (e) Disclose to service contractors;
- (f) Permit service contractors to use computer software to diagnose/correct deficiencies, or to modify to respond to urgent or tactical situations; and
- (g) Disclose to contractors or any other third-parties for proposes of emergency repair and overhaul.

### **March-In Rights**

12. The Government shall have “March-In” rights for all items covered under its “Government-Purpose Rights”. “March-In” Rights shall include the right to work the patent, either by itself, or by another entity on behalf of the Government, in case the contractor fails to work the patent on its own within a specified and reasonable period of time.

13. Under its march-in rights, the Government can require the contractor to grant, or may itself grant license for, inter alia, the following reasons:-

- (a) The contractor fails to work the patent towards practical application within a reasonable time; or
- (b) Where health and safety requirements so require the Government to act in public interest; or
- (c) For National Security Reasons; or
- (d) To meet requirements for public use not reasonably satisfied by the contractor; or
- (e) For failure of the contractor to substantially manufacture the products embodying the subject invention in India; or
- (f) For failure of the contractor to comply with any of the requirements laid down under these guidelines.

#### **Miscellaneous**

14. The contractor is required to have a timely and efficient disclosure system in place for reporting of intellectual property generation under the “Make” contract to the Ministry of Defence. Failure to disclose in timely manner, or failure on part of the contractor to invoke his/her default right of ownership, shall imply that all IPRs shall ab-initio vest in the Government of India. The contractor may elect to retain title of any invention made in the performance of work under a contract. If the contractor does not elect to retain title, the title shall ab-initio vest in the Government as stated above and the contractor shall only be entitled to a license on such terms and conditions that the Government may deem it fit. Such license to the contractor shall usually be (a) revocable, non-exclusive and royalty-free; (b) extend to its domestic subsidiaries and affiliates; and (c) include the right to sublicense; but (d) shall not be transferable without prior approval of the Government.

15. The contractor shall also be required to submit periodic reports about commercialization and manufacturing activities undertaken for products embodying the subject invention under “Make” contracts.

16. The Government’s IPRs shall flow down from the prime contractor to all sub-contractors at all tiers; that is, every sub-contractor will have the same obligations vis-à-vis the Government as applicable to the prime contractor under the main procurement contract. To this end, the sub-contractors shall have limited contractual privity with the Government solely for the purposes of their IPR obligations to the Government.

17. The ownership of any rights by the contractor does not include an absolute right to transfer of any software, product or documentation; and such transfer, including export thereof, shall continue to

be governed by and be subject to the Export Policy, Export Guidelines and all applicable laws, rules, regulations, orders and instructions of the Government of India. All such transfers and exports shall require prior and explicit approval of the Ministry of Defence.

18. Where the DA is not a consortium, ownership rights in intellectual property being generated under the “Make” contract shall vest with the Government upon dissolution of such DA. Where the DA is a consortium, the ownership rights in the IP generated under the “Make” contract, upon dissolution of the consortium, shall vest amongst the partners as per their agreement on the subject contained in the joint partnership agreement of the consortium, without government rights as licensee being adversely affected in any manner.

**Appendix J to Chapter III**  
(Refers to Para 53 of Chapter III)

**ESTIMATED TIMELINES FOR “MAKE-I” PROJECTS**

MAKE Phases	Timeline in Weeks from AoN
<b>Phase I</b>	
Formation of PMT and shortlisting of potential EoI recipients (parallel activities)	6
Issue of EoI	12
Pre-EoI Submission Meeting with EoI Recipients	4
EoI Response Submission	12
EoI Response Evaluation	16
Shortlisting of Development Agencies (DA(s))	12
Detailed Project Report Receipt and Finalisation	16
CFA Approval	8
Placement of Prototype Development Contract on DA(s)	6
<b>Total Timeline for Phase I</b>	<b>92</b>
<b>Phase II</b> (Refer <b>Appendix C</b> to Chapter III)	
Prototype Development & Evaluation	As per DPR
<b>Total Timeline for Phase I &amp; II</b>	<b>92 + as per DPR</b>

**Appendix K to Chapter III**  
(Refers to Para 57 of Chapter III)

**INDICATIVE EVALUATION CRITERIA FOR SHORTLISTING OF DEVELOPMENT  
AGENCIES FOR MAKE-II**

For start-ups recognized by Department of Industrial Policy & Promotion (DIPP), Financial, Technical and Commercial criteria shall be spelt out separately in the EoI. In respect of other vendors, the entities satisfying all of the following criteria shall be considered as an eligible 'Indian Vendor' for issue of EoI by PFT:-

- (a) Public limited company, private limited company, partnership firms, limited liability partnership, one Person Company, sole proprietorship registered as per applicable Indian laws. In addition, such entity shall also possess or be in the process of acquiring a license/development of products if the product under project requires license as per DIPP's licencing policy.
- (b) The entity has to be owned and controlled by resident Indian citizens; entity with excess of 49% foreign investment will not be eligible to take part in Make category of acquisition.
- (c) Other Financial, Technical and Commercial criteria will be spelt out by concerned SHQ based on the project requirement.

*Note: Guidelines for penalties in business dealings with entities as promulgated by Government from time to time, will be applicable on procurement process & bidders.*



**Appendix L to Chapter III**

(Refers to Para 69 of Chapter III)

**TENTATIVE TIME LINES FOR MAKE-II PROJECTS**

<b>Ser. No</b>	<b>Activity</b>	<b>Time in weeks from collegiate discussions (To)</b>
1.	Approval of proposals as <b>POTENTIAL</b> 'Make-II' projects by Collegiate to be headed by Secretary (DP) and uploading on MoD/DDP website	To
2.	Completion of Feasibility study	8
3.	Preparation of PSQRs	4
4.	Preparation of SoC + Constitution of PFT	4
5.	Categorisation and Accord of AoN	8
6.	Issue of Eol	8
7.	Eol Response submission	6
8.	Eol response evaluation	5
9.	Issue of Project Sanction Order	2
10.	Design & development of prototype	12-30
11.	Conversion of PSQRs to SQRs/ Solicitation of Commercial offer	4
12.	User trials & Staff evaluation	8-26
	<b>Total</b>	<b>69-105 weeks</b>

**Appendix M to Chapter III**

(Refers to Para 105(m) of Chapter III)

**ILLUSTRATIVE TERMS AND CONDITIONS FOR PARTICIPATION IN  
'OPEN COMPETITION'**

1. Only Indian citizens/ entities/ educational institutions/ registered organizations/ companies are allowed to participate.
2. All participants need to register by filling up the registration form given on the site with requisite documents. Incomplete form will not be accepted and the team will not be allowed to participate.
3. A write-up elaborating the proposed solution along with supporting media (video/ presentation) is a mandatory for joining the selection process.
8. All participants shall abide by the timelines given in the completion document. Non-adherence would entail disqualification of the team.
9. The teams would be solely responsible for the safety and security of their equipment.
10. The expenditure on travel, boarding and lodging rests on individual teams.
11. The organisers are not liable for any breakages/ damages to equipment or hazard/injury to any persons during the complete course of the participation. Participants will be liable for any damage/ collateral damage/ injuries that would occur to any third party/ team members/ participants/ public at large during the completion.
12. The Organisers/SHQ reserves the exclusive right to select for negotiation all, some, one or none of the proposals received in response to their solicitation, and to make awards without discussions with any participants.
13. In case there is more than one winner, the prize amount would be divided amongst the joint winners. Each participant/ team would be reimbursed towards their development cost as specified in the Competition Document for each phase.
14. Selection of winning team and award of prize to winning team will be subject to their acceptance of co-production order.
15. Participants shall not publish any research paper without prior permission and vetting from the Service HQ, resulting from the proposed effort as the same is likely to disclose the performance characteristics of military systems or manufacturing technologies that are unique, critical to defense and have bearing on security of the state.

16. The decision of CFA based on the recommendation of the Committee of Experts for selecting the winner and on the selection of participant for co-production order will be final and binding. It will not be subject to any dispute.
17. All suits and legal proceedings of any kind against the decision shall be instituted in the appropriate court(s) in Delhi or New Delhi notwithstanding the location of the competition, which may be subject matter of the dispute.
18. No suits or legal proceedings of any kind shall be instituted against the decision unless a notice in writing has been delivered to the Service stipulating the nature of claim, cause of action, relief sought, name, registration number and address of the person, and a period of two months has expired thereafter.
19. The participants will strictly adhere to all security norms/restrictions as instructed by the Service HQ from time to time.
20. Service HQ reserves the right to accept proposals in their entirety or to select only portions of proposals for award and subsequent co-production with the Service.
21. The Service HQ reserves the right to request further and/or additional, documentation as it makes the award determination.
22. The Service HQ reserves the right to remove proposals from award consideration, should the teams fails to reach agreement on award terms, conditions, and or cost/price within a reasonable time, or the if they fail to provide requested additional information in the specified timelines provided by the Service.
23. The winning prototype may be given a procurement contract, co-production agreement or other transaction, depending on the requirements.
24. For the publicity/ advertising of the given competition the Service might use the provided documentation. The applications can opt out of the above but shall need to state the same at the time of providing the information to the Service.
25. The Service reserves the right to cancel or postpone the event without any notification, if the Service HQ is satisfied that due to circumstances the proposed event cannot be held. Under such circumstances, the prospective participants are not entitled for any compensation or relief for the loss of any kind they may suffer.
26. The Service holds the right to make any changes and amendments to these terms and conditions at any time without giving any prior knowledge whatsoever.

27. Details of resources employed, bills/ invoices of equipment, sub-assemblies and proprietary algorithms need to be provided to the Service towards calculating the indigenous content and financial outlay.