TERMS OF REFERENCE

Design and Implementation of Technology Centre Systems Programme (TCSP) – Enhancing the Global Competitiveness of MSMEs

A. Context

The Micro, Small and Medium Enterprises (MSME) sector plays an important role in India’s economic development and in the creation of productive jobs, especially in rural areas. According to the fourth All India Census of MSMEs, the number of enterprises and employment opportunities in this sector has grown by more than 25% in the period 2006-07 to 2011-12 compared to the period 2001-02 to 2006-07, compounded annually. Of this, rural areas accounted for more than half the share of total MSME growth in India. As evidenced by these figures, strengthening the MSME ecosystem is essential for achieving balanced economic development and creating productive jobs called for by India’s demographic dividend.

It is also interesting to note that whereas the fourth All India Census data shows growth, the figures as evidenced by the registration of MSME in the last 5 years, in fact, further strengthen the impression that MSME in India are doing well, indeed, thriving. The last five years growth of registered MSMEs at the All India level is given in the following table:

<table>
<thead>
<tr>
<th>Year to Year</th>
<th>Growth Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-08 to 2008-09</td>
<td>10.76</td>
</tr>
<tr>
<td>2008-09 to 2009-10</td>
<td>10.78</td>
</tr>
<tr>
<td>2009-10 to 2010-11</td>
<td>10.93</td>
</tr>
<tr>
<td>2010-11 to 2011-12</td>
<td>19.06</td>
</tr>
</tbody>
</table>

It would be seen that the numbers have grown by not less than 10% and have, in fact, touched a high of 19% in the year 2011-12.
At present, the Office of Development Commissioner, Ministry of Micro, Small and Medium Enterprises (hereby referred as O/o DC, MSME), operates **10 Tool Rooms (TRs) and 8 Technology Development Centres (TDCs) (both hereinafter called as Technology Centres (TCs))**. Several of these are set up through collaborations with German and Danish agencies as well as with the United Nations Industrial Development Organization (UNIDO). These Technology Centres are to a large extent self sustaining centres that have been providing technical and vocational training programs to more than 1,00,000 trainees annually including All India Council for Technical Education (AICTE) and National Council for Vocational Training (NCVT) approved certification. They also provide design and manufacturing support to entrepreneurs alongside technical consultancies. The Technology Centres’ primary focus is on improving access to advanced technologies & providing technical advisory support for entrepreneurs and workers, and offering opportunities for technical skill development to the youth at varying levels. The variance in levels of training itself is demonstrative of a wide spectrum of technical sophistication in training inputs (Annexure 1).

Recent evaluation studies of TCs have found a strong need to replicate them at more places. They have also suggested technological upgradation, improved training output and innovation in the business models of the Technology Centres and to increase the capacities to train youth in India and strengthen workforce supply. By improving the competitiveness of these facilities, the MSME Technology Centres can be better utilized and expected to produce a bigger footprint in the Indian manufacturing sector. To achieve the mandate of optimizing their potential and enhancing their output to meet international standards, O/o DC, MSME is looking to upgrade and expand the current network of TCs.
The present techno-economic model of the TCs was lauded by Hon’ble Finance Minister in his Budget Speech 2013-14. He announced:

“Tool Rooms and Technology Development Centres set up by the Ministry of Micro, Small & Medium Enterprises have done well in extending Technology and Design support to small businesses. I propose to provide, with World Bank assistance, a sum of Rs. 2200 crore during the XII Plan period to set up 15 additional Centres”.

With the support from the World Bank, 15 new TCs will be established in the next 5 years & existing TCs strengthened. The initial expansion activities will focus on priority industries, including Tooling, Electronic System Design & Manufacturing (ESDM), Fragrances & Flavours, Glass and Footwear, among others.

B. Programme Objective

The Ministry of MSME, through the O/o DC, MSME has taken an initiative to set up a Programme Management Unit (PMU) that will design and establish 15 new TCs and upgrade the existing facilities under the Mission-mode Programme namely Technology Centre Systems Programme (TCSP). These facilities will focus on improving access to technology, providing skill upgradation and offering advocacy support for specific industries with high growth potential. The long term vision of this Programme is to ensure competitiveness of the MSME ecosystem by strengthening further their linkage to the mainstream manufacturing sector in the country.

It is also envisioned that these existing TCs will act as mother units and thought leaders to the sectors and space in which they operate.
Terms of Reference

To prepare the roadmap for this Programme, O/o DC, MSME seeks to engage the services of a reputed professional consulting firm that will establish Programme Management Unit (PMU) to develop a Detailed Project Report (DPR) for this Programme and then, after the approval of the World Bank Board and Government of India provide programme implementation support for a period of 5 years.

As a first step towards undertaking this exercise, an Identification Mission has been carried out by the World Bank. The key findings of the study that will need to be addressed by the consultant through this Programme are summarized below:

i. Technical Assistance to improve coordination between research and industry (public and private, domestic and international) – e.g. development of the Tooling Technological Development Center inspired by proven and relevant international models entailing a network of specialized tool rooms with strong participation of the private sector and research institutes.

ii. Scaling-up of training activities of MSME Tool Rooms (as per the recommendations of the evaluation reports), possibly through a change in their organizational set-up to reflect this new core business. Developing, with the support of other World Bank projects, linkages with ITIs and Polytechnics (e.g. training of trainers, adapting the curriculum to local conditions, improving the apprenticeship program) at the State level on a case by case basis – building on the initiatives currently underway.
iii. Developing the provision of technical, operational and business advisory services to private sector tool rooms (including facilitating their access to other relevant government support programs).

iv. Scaling-up/development of schemes to facilitate access to finance to private tool rooms.

v. Adapting/replicating the most successful public good features of the Technological Development Centres – e.g. replicating for other important products the successful case of the development of the mint oil industry by the Fragrance and Flavors Development Center (Kannauj) by, for instance, the development of a new successful variety, development of planting materials, related extension services, development of standard product requirements, certification and successful introduction to the Multi Commodity Exchange of India).

The ultimate goal is to ensure easy access to high quality technology and holistic skill development and training across the industry value chain, geographies and functionalities. These activities will enable the strengthening of India’s MSME ecosystem and improve its competitiveness in the global market.

C. Scope of work of the Consultant

The consultant’s scope of work is mentioned in the following phases:

Phase 1 (4 +2 months):

Programme Design Activities i.e. (a) designing of this Programme. (b) conducting the start-up activities for launching of this Programme.

The designing of this Programme will entail:

(i) preparation of Inception Plan,
Terms of Reference

(ii) conduct an in-depth assessment of the Technology and Skill Development needs of the selected sectors and articulate the development objective for the Programme,

(iii) identify global and domestic leading practices with respect to meeting the Technology and Skill Development needs and evaluate relevant successful (and unsuccessful) cases,

(iv) develop the social and environmental impact safeguard frameworks in undertaking the upgrade and expansion activities (concurrent to Programme designing),

(v) develop the Monitoring & Evaluation (M&E) framework for the Programme, provide the baselines and design a robust Management Information System (MIS),

(vi) prepare the Detailed Project Report (DPR) (including Economic Analysis) and the Implementation Operational Manual for presentation to World Bank Board, and

(vii) assist the O/o DC, MSME with and during the World Bank Appraisal Mission.

(viii) assist the O/o DC, MSME in presentation of the DPR to the World Bank.

The duration of this activity is likely to be four months till the completion of Activity (vi) and two more months for remaining Activities.

Phase 2 (60 months):

After the approval of the World Bank Board for the Programme, the consultancy firm shall be expected to provide the back office support for manning of the Programme Management Unit anchored in the O/o DC, MSME. This phase would consist of, but not be limited to, the following activities:-
Terms of Reference

(i) Procurement of Long Term Technology Partner/s and Cluster Network Manager/s.

(ii) Procurement Management.

(iii) Coordination & Monitoring of the construction works.

(iv) Coordination with Technology Partner/s and Cluster Network Manager/s for stabilization of TCs and developing ecosystems in geographical / domain clusters.

(v) Contract Management.

(vi) Monitoring & Evaluation (M&E), reporting requirements as per the guidelines (including Environmental & Social).

(vii) Programme completion and handover.

The duration of this phase is likely to be five years.
Terms of Reference

The **detailed scope and timeframe** under each phase is summarized below:

<table>
<thead>
<tr>
<th>Scope and timelines</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
<th>Year 6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase 1: Designing of DPR</strong></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
<td></td>
<td>Q1 Q2</td>
</tr>
<tr>
<td>M1: Inception plan</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>M2: Need assessment</td>
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<tr>
<td>M3: Review of leading practices</td>
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<tr>
<td>M4: Establishment of social &amp; environmental safeguard frameworks</td>
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<tr>
<td>M5: Design of M&amp;E and MIS</td>
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<tr>
<td>M6: Preparation of DPR</td>
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<tr>
<td>M7: Assistance during Appraisal Mission</td>
<td></td>
<td></td>
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<tr>
<td>M8: Assistance during presentation of DPR to World Bank</td>
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</tbody>
</table>

| **Phase 2: Project Development and Implementation** |        |        |        |        |        |        |
| M1: Empanelment of Technology Partner/s and Cluster Network Manager/s | Q1     |        |        |        |        |        |
| M2: Procurement management |        |        |        |        |        |        |
| M3: Monitoring and reporting on construction programme |        |        |        |        |        |        |
| M4: Coordination with stakeholders |        |        |        |        |        |        |
| M5: Contract management |        |        |        |        |        |        |
| M6: Monitoring & evaluation including Reporting Management |        |        |        |        |        |        |
| M7: Programme completion & handover |        |        |        |        |        |        |
Programme Governance Framework

- This is a national programme under Ministry of MSME, anchored in the O/o DC, MSME. The Programme shall be implemented in a mission-mode with each activity clearly earmarked for time bound achievement. The Chairman of the Programme shall be Secretary, MSME.

- A Programme Steering Committee (PSC) will be constituted under the chairmanship of Secretary, MSME, who will be National Programme Chairman for the steering of the programme. It would be a Governing Body consisting of all the stakeholders including concerned Ministries/Departments, State Government Representatives, Industry Associations and Academia for supervising and guiding the Technology Centre Systems Programme. An indicative list of the proposed membership of the PSC is available at Annexure-II.

- For the execution of the programme, an Implementation Committee (IC) under the chairmanship of Development Commissioner (MSME) will be constituted. The Development Commissioner (MSME) will also function as Ex-officio National Programme Director (NPD) and Vice Chairman of Programme Steering Committee. For the expeditious and smooth implementation of the programme, the Implementation Committee will take day-to-day decisions, as per the policy framework and guidelines laid down by the Programme Steering Committee.

- A Programme Advisory Committee (PAC) will be set up, which will comprise of the Thought Leaders from Industry, Academia and Industry Associations to provide strategic inputs on strengthening the Indian MSME ecosystem through this programme. This Committee will work closely with National Programme Director / Chairman, Implementation Committee through the design and execution phases of the programme and ensure continuity.
Terms of Reference

- Industry-specific Joint Working Groups (JWGs) will also be constituted to provide domain expertise and advisory inputs. The JWGs will comprise of Industry Leaders, Key Association Representatives and concerned Academic Representatives and would concentrate on the sectors and their sub-sectors for specific inputs to make the Technology Centre Systems Programme more relevant to the Industry.

- Development Commissioner (MSME) will designate a Programme Coordinator (PC) in the O/o DC, MSME. The role of the Programme Coordinator would be to assist and support National Programme Director and Chairman, Implementation Committee for necessary decision making and also to coordinate with other implementing partners and entities for seamless execution of the programme.

- A Technical Appraisal Committee (TAC) comprising of representatives from Government and relevant Academia / Industry representatives would assist in critical procurements relating to goods and services.

- During the implementation phase, it is also proposed to appoint a National Programme Manager (NPM) supported with Financial Management Expert and Procurement Expert, who shall interface with the Programme Coordinator in the O/o DC, MSME on the one hand and PMU on the other.

- For handling the day-to-day back office work relating to, in the first phase, designing of the project and undertaking the pre-project activities, and after the approval of Government of India and World Bank, the actual implementation on ground, a PMU would be constituted. This would be a professional firm recruited following the processes of competitive bidding. The PMU would also assist the O/o DC, MSME, in appointing Long Term Technical Advisor/s through a competitive bidding to provide advocacy support on technology requirements for each identified industry sector. The PMU will work closely with the Technical
Terms of Reference

Advisor/s on identifying the technological needs and upgrades for both new and existing TCs. In addition, the PMU will support O/o DC, MSME, in recruiting Cluster Manager/s to promote the activities of industry-specific TCs with the ultimate goal of improving their ecosystem by enhancing market linkages and business potential.

- The detailed scope of work for the PMU is provided in succeeding pages.

The Governance Framework for the various stakeholder agencies is depicted in the succeeding diagram:
Government, relevant representation from Academia and Industry Associations

Critical Procurements: evaluation & recommendation

National Programme Chairman, Programme Steering Committee (Secretary, MSME)

Programme Coordinator

National Programme Director/Chairman, Implementation Committee (DC, MSME)

Programme Advisory Committee

Industry-specific Joint Working Groups

Domain Expertise & Advisory Inputs

National Programme Coordinator

New & Upgraded TCs

Cluster Network Manager/s

Technology Centre Systems Programme: Governance Framework

Governing Body consisting of all stakeholders

Thought Leaders from Industry, Academia & Associations

Strategy Inputs

National Programme Director/Chairman, Implementation Committee (DC, MSME)

Industry Leaders, Key Association Representatives & concerned Academic Representatives

PMU

National Programme Manager

- Financial Management Expert
- Procurement Expert

National Programme Coordinator

PMU

Decision making
Advisory
Evaluation
Implementation
Beneficiaries

Technology need Assessment
Mentoring the establishment & stabilization of new/upgraded TCs.

Creating & managing the ecosystem related to a TC in geographical/ domain cluster/s

Each autonomous TC with its own Governing Council of stakeholders
D. Detailed scope of work

PHASE 1 (4 months):
In this phase, the PMU will be mandated to develop a DPR for upgrading the existing TCs and expanding their reach by setting up new MSME TCs for priority industries, including tooling, ESDM, flavours & fragrances, footwear etc., with the objective of enhancing MSME’s global competitiveness. This would entail the following key activities:

I. Preparation of Inception Plan
   - Outline the methodology, action plan, timeline and key milestones to be undertaken for executing the engagement.
   - Define the communication plan for coordinating with multiple stakeholders.

*Deliverable:* Programme kick-off presentation and Inception Report (T1+10 days)

II. Conduct an in-depth assessment of the Technology and Skill Development needs of the selected sectors and articulate the development objective for the Programme.
   - Engage with relevant stakeholders, including leading end product manufacturers, private tool room operators, existing public tool rooms and skill imparting agencies in the identified focus industries, entrepreneurs and potential trainees / students to assess the need of Technology and Skill Development and their expectations from MSME Technology Centres.
   - Review evaluation studies undertaken on the current set up of MSME TCs for the priority industries.
   - Work closely with the JWGs and O/o DC, MSME in evaluating the current scenario across industries.
Terms of Reference

- Conduct SWOT analysis through primary and secondary review to identify potential sectors and to evaluate business potential of the same.
- Establish the business case for strengthening existing and establishing new TCs to enhance the competitiveness of MSMEs by identifying the expected measurable outcomes.

**Deliverable:** Report on need assessment and expected impact of the project (T1+2 months)

### III. Identify global and domestic leading practices with respect to meeting the Technology & Skill Development needs and evaluate relevant successful (and unsuccessful) cases

- Review successful (and unsuccessful) models adopted globally & locally to select the most relevant cases in the given context.
- Document and analyze the selected cases to tailor them to address the needs of the Indian MSME ecosystem.

**Deliverable:** Report on key findings of review of leading practices (T1+2 months)

### IV. Develop the Social and Environmental Management Frameworks in undertaking the upgrade and expansion activities (concurrent to Programme Designing)

- Formulate and upgrade the Environmental and Social Management Frameworks through review of current arrangements and set up the monitoring and reporting framework for TCs based on identified requirements.
Terms of Reference

- Share international best practices and recommend actions for a more effective public awareness and public participation programmes for environmental and social safeguards.
- Prepare progress reporting formats, including reporting in accordance with the Result Frameworks, identifying responsibilities within TCs for reporting.
- Preparation of policies, manuals & guidelines.
- Plan, implement and monitor the training programmes for identified staff at various levels for implementation of policies as per the environment and social management frameworks.

**Deliverable:** Policies, Manuals & Guidelines for Environmental and Social Management Frameworks, reporting formats & capacity building for the TCs (T1+3 months)

V. Develop the Monitoring & Evaluation (M&E) framework for the Programme, provide the baselines and design a robust Management Information System (MIS),

- Develop the MIS system design and architecture that will connect all existing and new TCs with O/o DC, MSME. This will include detailing the system specifications and developing a procurement strategy to appoint a system integrator in Phase 2 of the Programme who will implement this system.
- The MIS will address the following areas, but not limited to:
  - Financial progress of the Programme as per World Bank accepted formats
  - Report on performance against agreed timelines & KPIs
  - Online and real time reporting of timelines & KPIs
Terms of Reference

- Provide alert system on non compliance of timelines & KPIs
- The system must also have feature to generate reports at defined periodicity for multiple stakeholders

**Deliverable:** MIS System Design and Architecture (T1+3 months)

VI. Prepare the Detailed Project Report (DPR) (including Economic Analysis) and the Implementation Operational Manual for presentation to World Bank Board, and

- Evaluate the demand & supply of technology needs, design & development services, resources and technical skills required in the identified sectors that can be catered to by TCs.
- Assess the potential for private players in promoting the MSME ecosystem and the necessary support required for enhancing their competitiveness.
- Analyze capacity building needs to identify the necessary technical, financial and advisory support required.
- Develop the strategic positioning and governance model/s of the TCs that caters to the needs identified above, including description of the implementation arrangements of the Programme.
- Develop ToRs for engaging Technology Partner/s and Cluster Network Manager/s.
- Prepare business models to enable the self sustainability of TCs incorporating the best practices.
- Develop the cost projections, implementation arrangements and procurement plans for the first 18 months for implementing the activities identified for TCs.
Terms of Reference

- Prepare the timeline for launching and phasing the identified activities as part of the broader Programme Implementation; identify the resource requirements and the necessary procurement processes.
- Conduct the Economic Analysis assessing the Economic Rate of Return of the Programme based on qualitative and quantitative assessments.
- Prepare the Key Performance Indicators (KPIs) for building the Monitoring & Evaluation (M&E) framework for the Programme.
- Provide the baselines for the Performance Indicators for Programme.
- Prepare the Detailed Project Report (DPR) incorporating the above for the Technology Centre Systems Programme (TCSP), as per World Bank guidelines.

**Deliverable:** (i) *First draft Detailed Project Report (DPR) (T1+ 3 months)*,

(ii) *Final draft Detailed Project Report (DPR) (T1+ 4 months)*.

VII. Assist the O/o DC, MSME with and during the World Bank Appraisal Mission.

- Assist O/o DC, MSME in coordinating with World Bank Appraisal Mission and other stakeholders for various activities related to appraisal of the DPR.
- Incorporation of interim feedback from World Bank, Programme Steering Committee and other stakeholders for finalization of DPR.

**Deliverable:** *Finalization of Detailed Project Report (DPR) (T1+ 5 months)*,
VIII. Assist the O/o DC, MSME in presentation of the DPR to the World Bank.

- Assist O/o DC, MSME in submitting the final Detailed Project Report (DPR) of the Programme.
- Support to O/o DC, MSME in presentation of DPR to the World Bank for appraisal.
- Prepare the Implementation Operational Manual as per World Bank guidelines.

PHASE 2 (60 months):

After the approval of the Programme by the World Bank Board, the consulting firm shall be expected to provide the back office support for manning of the Programme Management Unit anchored in the O/o DC, MSME. This phase would consist of, but not be limited to, the following activities:

I. Procurement of Long Term Technology Partner/s and Cluster Network Manager/s:

- Develop the procurement strategy for new TCs:
  - Appointing focus industry specific Technology Partner/s and Cluster Network Manager/s, catering to new & existing TCs.
  - This entails finalization of bid documents including the Terms of References (scope of work to include business development, promotion & sale, output monitoring, coordination etc.), expected outcome, timelines, service level agreements, minimum specifications, deliverables etc., developing qualifying criteria and selection methodology for consultants for TCs in consultation with O/o DC, MSME and in accordance with the World Bank guidelines.
Terms of Reference

- Invitation of bids, their evaluation and recommendation for selection of Technology Partner/s and Cluster Network Manager/s.

**Deliverable:** Bid documents, bid management & evaluation support, procurement and selection of Technology Partner/s and Cluster Network Manager/s. \((T2+5\ months)\)

II. Procurement Management

- Coordinate with selected Technology Partner/s for technical specifications of procurements such as EPCs and other procurement packages identified for new & existing TCs.
- Review and finalize the procurement plans with key stakeholders and develop the bidding documents for all procurement activities required under the project in accordance with the World Bank guidelines.
- Preparation of bid documents, invitation of bids, their evaluation and recommendation for selection of contracts for executing the identified procurement activities.
- Monitoring of procurement activities for successful execution.

**Deliverable:** Bid documents, bid management & evaluation support, procurement of various goods and services including EPCs \((T2+3\ months\ onwards\ ongoing\ support)\)

III. Coordination & Monitoring of the construction works

- Coordination & monitor of the construction works with appointed agency/ies for the new and existing TCs against agreed Terms & Conditions for construction works including details on activities of sub-contractors/ vendors engaged by appointed agency/ies. The Consultant will also update Office of
DC, (MSME) on the progress and raise any issues impacting the construction to the Programme Coordinator in the O/o DC, MSME.

**Deliverable:** Monthly Progress Report (starting T2+3 months till completion certificate provided by for all TCs)

### IV. Coordination with Technology Partner/s and Cluster Network Manager/s for stabilization of TCs and developing ecosystems in geographical / domain clusters

- Coordinate with Technology Partner/s for establishment and stabilization of new and upgraded TCs in order to make them Thought Leaders in their respective sectors and the space of operation.
- Coordinate with Cluster Network Manager/s to promote the activities of industry specific TCs with the ultimate goal of improving their ecosystem by enhancing competitiveness of the MSMEs.
- Coordination amongst Technology Partner/s, Cluster Network Managers, Joint Working Groups, National Programme Manager, Programme Coordinator, O/o DC, MSME and other stakeholders, such that the feedback and output of each Cluster is documented and presented to National Programme Director for attainment of objective of the Programme.
- Submit a quarterly progress report that will provide status update, challenges and issues that need to be resolved. The PMU will also track performance against the detailed roadmap.
- Execution of these activities would entail making site visits, attending all progress review meetings, preparing notes on proceedings, highlighting the action points and following-up with concerned stakeholders in execution of all above functions.
**Terms of Reference**

**Deliverable:** Coordination with Technology Partner/s and Cluster Network Manager/s and other stakeholders of the Programme, submission of Quarterly Progress Report and documentation of achievements, progress and success stories on quarterly basis for dissemination amongst various stakeholders. (Starting T2+5 months onwards)

V. **Contract Management**

- Design the monitoring mechanism and the format for quarterly reporting to the reviewing stakeholders on the activities of the Technology Partner/s, Cluster Network Managers. For the same, the PMU will be required to articulate a reporting framework and templates for dashboards as monitoring tools to O/o DC, MSME. The monitoring mechanism should also include reporting and escalation levels and procedures in case there are non-compliance to contracted terms including non delivery on deliverables, deployment of proposed resources, achievement of KPIs, meeting service levels, specifications, standards and timelines etc.

  **Deliverable:** Monthly / Quarterly progress reports (starting T2+5 months onwards)

VI. **Monitoring & Evaluation (M&E), reporting requirements as per the guidelines (including Environmental & Social).**

- Develop in-house or procure MIS system requirements in line with architecture designed as part of Phase 1 for monitoring and evaluation.

- Use appropriate methodology for illustrating task dependencies of various Technology Partner/s and Cluster Network Manager/s, establishing their relevant performance KPIs and the baselines.
• Prepare a detailed activity chart using Gantt charts or other appropriate format to see where remedial action needs to be taken to get a project back on course.

• Regularly track performance of the Programme in terms of the pre-defined KPI for impact assessment.

• Monitor and evaluate the performance with reference to Environmental & Social Frameworks.

• Overall programme management in line with the defined roadmap and expected outcomes, overseeing coordination amongst facilities in different locations and various stakeholders.

• Risk identification and mitigation strategy: identify possible political, environmental, social, technical, financial, contractual and force majeure risks and suggest mitigation measures with responsible stakeholders.

**Deliverable:** Periodic M&E reports against predefined KPIs (starting T2+12 months)

VII. Programme completion and handover

The final activity in this phase is integrating the Programme’s operational outcomes into the core activities of O/o DC, MSME. For this purpose, the role of the PMU is defined as below:

• Assist O/o DC, MSME in getting the trial runs and commissioning of all the services provided, conduct inspections of the works on completion and before taking over by O/o DC, MSME and report to O/o DC, MSME for any rectification required.

• A ‘snag list’ will be prepared and steps taken to ensure that defects are rectified at the earliest. It will coordinate the integrated testing and
commissioning of plant & equipment and provide detailed commissioning report to O/o of DC, MSME for approval prior to occupation.

- Assist in closure of all contracts including clearance of all due payments, handover of all documents, reports, drawings and physical handover of site along with trainings for operation & maintenance staff.

- Submit a **Programme Completion Report** covering the overall information of the project; various contract packages, status of all the contact packages in terms of period and cost, time and cost over runs, if any, and quality controls carried out.

- Conduct a handover workshop with all stakeholders to update on activities identified and executed through the course of project designing and implementation stages.

- It is expected that the firm performs continuous capacity building activities within the MSME Ministry over the course of the Programme with respect to the management and implementation of such Programmes in the future.

**Deliverable:** *Project Completion Report (T2+60 months)*
## E. Man-month requirement

<table>
<thead>
<tr>
<th>Suggested position</th>
<th>#</th>
<th>Educational qualification</th>
<th>Professional experience</th>
<th>Desirable qualifications</th>
<th>FT/PT</th>
<th>Job Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase 1 (4 + 2 months)</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
| Project Director   | 1 | • Postgraduate degree in Project Management and/or IT or any related discipline | • At least 15 years experience in handling State/ National level projects | • Should have been a Project Leader in at least 1 project and Dy. Project Leader in 2 (Project details to be provided) | FT | • Team Leader  
• Quality Control  
• Client Relations  
• Programme Design Delivery (DPR & Implementation Operational Manual and Environmental & Social Frameworks) |
| Project Manager    | 1 | • Postgraduate degree in Project Management | • At least 10 years experience in handling State/ National level projects | • Should have been Project Leader in a small project (USD 5-20 mn) or Dy. Project | FT | • Day-to-day Management  
• Overall coordination  
• Drafting the DPR & Implementation Operational Manual  
• Assist Office of DC, MSME in Programme Appraisal |
<table>
<thead>
<tr>
<th>Role</th>
<th>No.</th>
<th>Qualifications</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social &amp; Environmental Safeguard Specialists (with 2 days a week on site presence)</td>
<td>2</td>
<td>• Masters degree in Environment Policy/ Planning, Environment &amp; Social Management • At least 10 years of relevant experience</td>
<td>• Experience in Environmental / Social Impact Assessment and development of safeguard frameworks • Experience in foreign aided projects • Develop environmental &amp; social frameworks ○ Review of existing frameworks and capacity ○ Site visits and surveys</td>
</tr>
<tr>
<td>Procurement Specialist</td>
<td>1</td>
<td>• Graduate • At least 10 years relevant experience including at least 5 years in World Bank/ ADB/ foreign aided projects</td>
<td>• Should have handled procurement in World Bank projects. • Develop procurement plans for first 18 months of the Programme • Develop bidding documents</td>
</tr>
<tr>
<td>M&amp;E specialist (With 3 days a week on site presence)</td>
<td>1</td>
<td>• Postgraduate degree in relevant field of economics, public policy • At least 10 years relevant experience in monitoring and evaluation</td>
<td>• Should have handled M&amp;E activities in World Bank projects. • Develop M&amp;E framework for the Programme • Provide baselines • Develop KPI for the Programme</td>
</tr>
</tbody>
</table>
## Terms of Reference

<table>
<thead>
<tr>
<th>Role</th>
<th>Level</th>
<th>Experience</th>
<th>Project Experience</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology Architecture Expert</td>
<td>1</td>
<td>BE/MCA</td>
<td>At least 10 years relevant experience</td>
<td>Develop MIS design for the Programme, Setting up a monitoring system based on Activity Chart, Setting up an upscalable alert system</td>
</tr>
<tr>
<td>Consultants</td>
<td>3</td>
<td>Postgraduate degree in management</td>
<td>At least 5 years relevant experience</td>
<td>Experience in designing &amp; implementation of MIS for a State/ National level project. Support M&amp;E Specialist in designing MIS, Need assessments, Study of best practices, Assist Project Manager in drafting of DPR</td>
</tr>
<tr>
<td><strong>Total man-month requirement (48 man-month)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Phase 2 (60 months)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Director</td>
<td>1</td>
<td>Postgraduate degree in Project Management and/or IT</td>
<td>At least 15 years experience in handling State/ National level projects</td>
<td>Team Leader, Quality Control, Client Relations, Programme Delivery</td>
</tr>
</tbody>
</table>

```
## Terms of Reference

<table>
<thead>
<tr>
<th>Role</th>
<th>Number</th>
<th>Required Qualifications</th>
<th>Ongoing Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Senior Project Manager</strong></td>
<td>1</td>
<td>• Postgraduate degree in Project Management and/or IT</td>
<td>• Day-to-day Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• At least 12 years experience in handling State/ National level projects</td>
<td>• Coordination with all stakeholders</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Should have been Project Leader in a small project (USD 5-20 mn) or Dy. Project Leader in 2 projects.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 4 years experience in foreign aided projects</td>
<td>• Monitor and evaluate the Programme performance</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Preparation, processing, submission and execution of decisions of Implementation Committee/NPD</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Assist Office of DC, MSME in Programme Implementation</td>
</tr>
<tr>
<td><strong>Project Managers</strong></td>
<td>5</td>
<td>• Postgraduate degree in Project Management and/or IT</td>
<td>For their respective set of TCs:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• At least 10 years experience in handling State/ National level projects</td>
<td>• Day-to-day Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Should have been Project Leader/Dy. Project Leader in a project</td>
<td>• Coordination with all stakeholders</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 2 years experience in foreign aided projects</td>
<td>• Monitor and evaluate the Programme performance</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Preparation, processing, submission and execution of decisions of Implementation Committee/NPD</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Assist Sr. Project Manager in Programme Implementation</td>
</tr>
<tr>
<td>Position</td>
<td>No.</td>
<td>Qualifications</td>
<td>Experience</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-----</td>
<td>--------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Senior M&E Specialist                        | 1   | • Postgraduate degree in relevant field of economics, public policy              | • At least 12 years experience in monitoring and evaluation of projects    | FT     | • Implementation of M&E and MIS  
• Identify issues  
• Conduct impact analysis  
• Propose mitigating actions                                                                                                               |
| M&E Specialist                               | 2   | • Graduate/MBA                                                                  | • At least 7 years experience in monitoring and evaluation of projects     | FT     | • Assist Senior M&E Specialist in implementation of M&E and MIS related activities.                                                                                                                                  |
| Senior Financial Management Specialist        | 1   | • M.Com/MBA with Accounting background/or professional accounting qualification such as Chartered Accountant/Cost Accountant | • Minimum 12 years of experience in area of financial management, preferably in Govt/public sector/Foreign aided projects. | FT     | • Managing all accounting and finance related matters pertaining to Programme including Annual Budget Estimates, Financial Sanctions, timely release of funds, settlement of advances, monitoring of expenditure and claiming expenditure from Aiding Agency.  
• Maintenance of financial documents as per the GoI and Bank requirements.  
• Preparation and submission of periodical interim financial reports  
• Preparation and submission of Annual financial statements of the Programme  
• Assist in Audit and settling the
## Terms of Reference

<table>
<thead>
<tr>
<th>Role</th>
<th>No.</th>
<th>Education/Experience Requirements</th>
<th>Audit objections</th>
</tr>
</thead>
</table>
| Financial Management Specialist          | 2   | • B.Com/MBA with Accounting background/or professional accounting qualification such as Chartered Accountant/Cost Accountant  
• Minimum 7 years experience in area of financial management, preferably in Govt/public sector/Foreign aided projects.  
• Experience in handling and providing support in accounting & financial related matters pertaining to Foreign aided Project. | • Assist Senior Financial Management Specialist in undertaking financial management of the Programme |
| Senior Procurement Specialist            | 1   | • MBA or relevant Masters degree  
• At least 12 years experience in procurement including EPC bid management and contract management  
• Experience in handling and providing support in procurement related matters pertaining to World Bank aided Projects | • Prepare, review and implement procurement plans  
• Prepare, review, seek approval, advertise, evaluate and finalise bidding documents including ToRs.  
• Participate in negotiations  
• Prepare periodical procurement reports |
| Procurement Specialist (1 with EPC expertise) | 2   | • Graduate/MBA  
• At least 7 years experience in procurement including EPC bid management and contract management  
• Experience in handling and providing support in procurement related matters pertaining to World Bank aided Projects | • Assist Senior Procurement Specialist in undertaking procurement related activities. |
# Terms of Reference

<table>
<thead>
<tr>
<th>Role</th>
<th>Required Qualifications</th>
<th>Status</th>
<th>Additional Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social &amp; Environmental Specialists</td>
<td>• Masters degree in Environmental Policy/Planning, Environmental and Social Management or other related fields</td>
<td>2</td>
<td>• Minimum 12 years of experience with at least 5 years on direct project development and management activity, experience in the environmental/social sector</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Experience in Environmental Impact Assessments (EIA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Legal experience</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Conducting Environmental Impact Assessments</td>
</tr>
<tr>
<td>Consultants (to be allocated to the Program Managers)</td>
<td>• Postgraduate degree in management</td>
<td>5</td>
<td>• At least 5 years relevant experience</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Relevant working experience</td>
</tr>
<tr>
<td>Application Manager</td>
<td>• BE/MCA</td>
<td>1</td>
<td>• At least 10 years relevant experience in implementing Management Information System (MIS) projects</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Experience in Management Information System (MIS) of State/National level projects</td>
</tr>
</tbody>
</table>

**Total man-month requirement (1356)**

**Total man-month requirement for Phase-1 & Phase-2 = 1404**
Annexure I

MSME Tool Rooms - Training Capacity for various Category of Candidates

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Tool Room</th>
<th>School dropout</th>
<th>High School (10th standard)</th>
<th>Intermediate (10+2)</th>
<th>ITI</th>
<th>Diploma</th>
<th>Graduate (Technical)</th>
<th>Graduate (Non-technical)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CTTC, Bhubaneswar</td>
<td>20</td>
<td>200</td>
<td>140</td>
<td>3450</td>
<td>5800</td>
<td>11000</td>
<td>110</td>
<td>20720</td>
</tr>
<tr>
<td>2</td>
<td>IGTR, Aurangabad</td>
<td>80</td>
<td>800</td>
<td>160</td>
<td>2000</td>
<td>2800</td>
<td>2900</td>
<td>60</td>
<td>8800</td>
</tr>
<tr>
<td>3</td>
<td>IGTR, Ahmedabad</td>
<td>1120</td>
<td>1000</td>
<td>0</td>
<td>1160</td>
<td>1340</td>
<td>900</td>
<td>80</td>
<td>5600</td>
</tr>
<tr>
<td>4</td>
<td>IGTR, Indore</td>
<td>260</td>
<td>280</td>
<td>80</td>
<td>2140</td>
<td>2160</td>
<td>1710</td>
<td>100</td>
<td>6730</td>
</tr>
<tr>
<td>5</td>
<td>IDTR, Jamshedpur</td>
<td>450</td>
<td>1950</td>
<td>310</td>
<td>620</td>
<td>3450</td>
<td>3550</td>
<td>120</td>
<td>10450</td>
</tr>
<tr>
<td>6</td>
<td>CTR, Ludhiana</td>
<td>670</td>
<td>1000</td>
<td>180</td>
<td>1860</td>
<td>920</td>
<td>270</td>
<td>60</td>
<td>4960</td>
</tr>
<tr>
<td>7</td>
<td>CTTC, Kolkata</td>
<td>80</td>
<td>1300</td>
<td>0</td>
<td>1050</td>
<td>960</td>
<td>1120</td>
<td>30</td>
<td>4540</td>
</tr>
<tr>
<td>8</td>
<td>CITD, Hyderabad</td>
<td>0</td>
<td>240</td>
<td>0</td>
<td>190</td>
<td>2600</td>
<td>6500</td>
<td>0</td>
<td>9530</td>
</tr>
<tr>
<td>9</td>
<td>CIHT, Jalandhar</td>
<td>600</td>
<td>2000</td>
<td>300</td>
<td>1250</td>
<td>1100</td>
<td>300</td>
<td>300</td>
<td>5850</td>
</tr>
<tr>
<td>10</td>
<td>TRTC, Guwahati</td>
<td>360</td>
<td>460</td>
<td>0</td>
<td>140</td>
<td>300</td>
<td>280</td>
<td>100</td>
<td>1640</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>3640</td>
<td>9230</td>
<td>1170</td>
<td>13860</td>
<td>21430</td>
<td>28530</td>
<td>960</td>
<td>78820</td>
</tr>
</tbody>
</table>

%age of total trainees

<table>
<thead>
<tr>
<th></th>
<th>5</th>
<th>12</th>
<th>1</th>
<th>18</th>
<th>27</th>
<th>36</th>
<th>1</th>
</tr>
</thead>
</table>


Annexure II

Constitution of Programme Steering Committee (PSC)

The constitution of PSC is as mentioned below, however, the PSC may invite persons of eminence, representatives from different sectors in Public / Private field with the approval of Chairman PSC.

1. Secretary, Micro, Small & Medium Enterprises (MSME) - Chairman

2. Additional Secretary & Development Commissioner, MSME - Vice Chairman / National Programme Director

3. Additional Secretary & Financial Advisor, MSME - Member

4. Additional Secretary, Technical Education, Ministry of HRD - Member

5. Shri Harkesh Kumar Mittal Adviser & Member Secretary National Science & Technology Entrepreneurship Development Board (NSTEDB) - Member

6. Dr. Sudeep Kumar, Head, Planning & Performance Division (PPD) Council of Scientific and Industrial Research (CSIR) - Member

7. Dr. Ajay Kumar, Joint Secretary, Department of Electronics - Member

8. Director General of Employment & Training (DGE&T), Ministry of Labour & Employment - Member

9. Representative of National Skill Development Agency (NSDA) (not below the rank of Joint Secretary / Sr. Adviser) - Member

10. Representative of Department of Heavy Industry (not below the rank of Joint Secretary) - Member

11. Shri Deep Kapuria, Chairman, National MSME Council, Confederation of Indian Industry (CII) - Member
<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Title/Title</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Shri Sanjay Bhatia</td>
<td>Chairman, MSME Committee, Federation of Indian Chambers of Commerce and Industry (FICCI)</td>
<td>Member</td>
</tr>
<tr>
<td>13</td>
<td>Shri Surendra C. Kalyanpur</td>
<td>President, Tool and Gauge Manufacturer's Association of India (TAGMA)</td>
<td>Member</td>
</tr>
<tr>
<td>14</td>
<td>Shri Sanjeev Keskar</td>
<td>Chairman, Indian Electronics &amp; Semiconductors Association (IESA)</td>
<td>Member</td>
</tr>
<tr>
<td>15</td>
<td>Shri Anand Jhunjunwala</td>
<td>President, Fragrance &amp; Flavour Association of India</td>
<td>Member</td>
</tr>
<tr>
<td>16</td>
<td>Shri Rajendra K. Jalan</td>
<td>Chairman, Council for Leather Export</td>
<td>Member</td>
</tr>
<tr>
<td>17</td>
<td>Shri Aman Chadha</td>
<td>Chairman, EEPC</td>
<td>Member</td>
</tr>
<tr>
<td>18</td>
<td>Ms. Uma Reddy</td>
<td>President, ESDM Cluster, Bangalore</td>
<td>Member</td>
</tr>
<tr>
<td>19</td>
<td>Shri Yogesh Dubey</td>
<td>Ex-president, Essential Oil Association of India</td>
<td>Member</td>
</tr>
<tr>
<td>20</td>
<td>Shri Rafeeqe Ahmed</td>
<td>President, Federation of Indian Exports Organisation (FIEO)</td>
<td>Member</td>
</tr>
<tr>
<td>21</td>
<td>Shri Puran Dawar</td>
<td>Member, CDA, Council of Leather Export &amp; President Agra Footwear Manufacturers and Exporters Chamber</td>
<td>Member</td>
</tr>
<tr>
<td>22</td>
<td>Shri Deepak Bhardwaj</td>
<td>representing India Smart Grid Forum (ISGF)</td>
<td>Member</td>
</tr>
<tr>
<td>23</td>
<td>Prof. Vinay Nangia</td>
<td>Department of Management Studies, Indian Institute of Technology, Roorkee</td>
<td>Member</td>
</tr>
<tr>
<td>24</td>
<td>Prof. H.S. Jamadagni</td>
<td>Centre for Electronics Design and Technology (CEDT), IISc, Bangalore</td>
<td>Members</td>
</tr>
<tr>
<td>25</td>
<td>Principal Secretary of Industry / MSME of States where TCs are being set up.</td>
<td>Special Invitee</td>
<td></td>
</tr>
</tbody>
</table>
Terms of Reference

26  Country Director, World Bank India or his representative (not below the rank of Project Lead) - Special Invitee

27  Representative of World Bank Washington, SASFP (not below the rank of Project Lead) - Special Invitee

28  Programme Coordinator / National Programme Manager - Member Convenor