

# Guidelines on Operational Model for Implementation of MMPs

**Department of Information Technology**

# Background

- Conceptualisation, design, development and implementation of State MMPs is a **complex exercise**.
- In a Federal Structure, for State MMPs:
  - Centre responsible for providing core scope, guidelines and funds
  - States primarily responsible for implementation with necessary local variations, rules and procedures.
- Balance between standardisation at National level and flexibility at the State level
- Ensure **interoperability** both **vertically** across States & line Ministries and also **horizontally** across all Departments within a State.
- An **Approach** to define
  - Clear Roles and responsibilities
  - Authorization enablement
  - Implementation Structure

## CONSIDERATIONS AT CENTRAL LEVEL

- Prevent **'Re-invention of the Wheel'** to save time and cost
- Ensure vertical and horizontal **interoperability across State**
- Promote customisation in **application usage to meet** requirements of local support and language
- Ensure **Strategic Control** of the Government
- **Define Standards** for all critical components and interfaces.
- Promote use of core and support infrastructure
- **Emphasis on service outcome**
- **Discourage 'buy hardware first' approach**
- **Application testing and certification**

## Scope of the Guidelines

- Describe the **processes** to be followed **at various activity stages** – both at Central and State level
- Describe the **roles, responsibilities and deliverables** of various stakeholders and agencies.
- Provide **options** – for setting up governance structures and engaging external agencies like Consultants / System Integrators – **at various activity stages** of MMP implementation.
- Achieve alignment to following Strategic Control Objectives,
  - Control over Governance Process and Information
  - Control and ownership of data
  - Control over necessary changes, on need basis
  - Control and understanding of Audit trails

## Activity Stages of MMP & Corresponding Responsibility



Responsibility	Stage of MMP	
	#	Name
Line Ministry	0	Opportunity Identification & Programme Initiation
	1	Project Initiation and Conceptualisation
	2	Project Design and Development
	3	Application Design & Development (Core)
State Department	4	Application Customisation / Development
	5	State-wide Implementation & Roll-out

# Operational Structure: Stages, Entities & Options

Level	#	Stage			
Line Ministry	0	Opportunity Identification & Programme Initiation	Programme Steering Comm.	EG	
	1	Project Initiation & Conceptualisation		CPeMT	Project Consultant
	2	Project Design & Development	PAC	CTT	PMG
	3	Application Design & Development <b>Testing &amp; Certification</b>	Technical Agency (TA)	Empanelled Agencies	
State	4	Application Customisation / Development <b>Testing &amp; Certification</b>	Apex Committee	State PeMT	Application Customisation Agency
	5	State-wide Implementation & Roll-out	Implementation Agency		

## Stage 0: Opportunity Identification & Programme Initiation



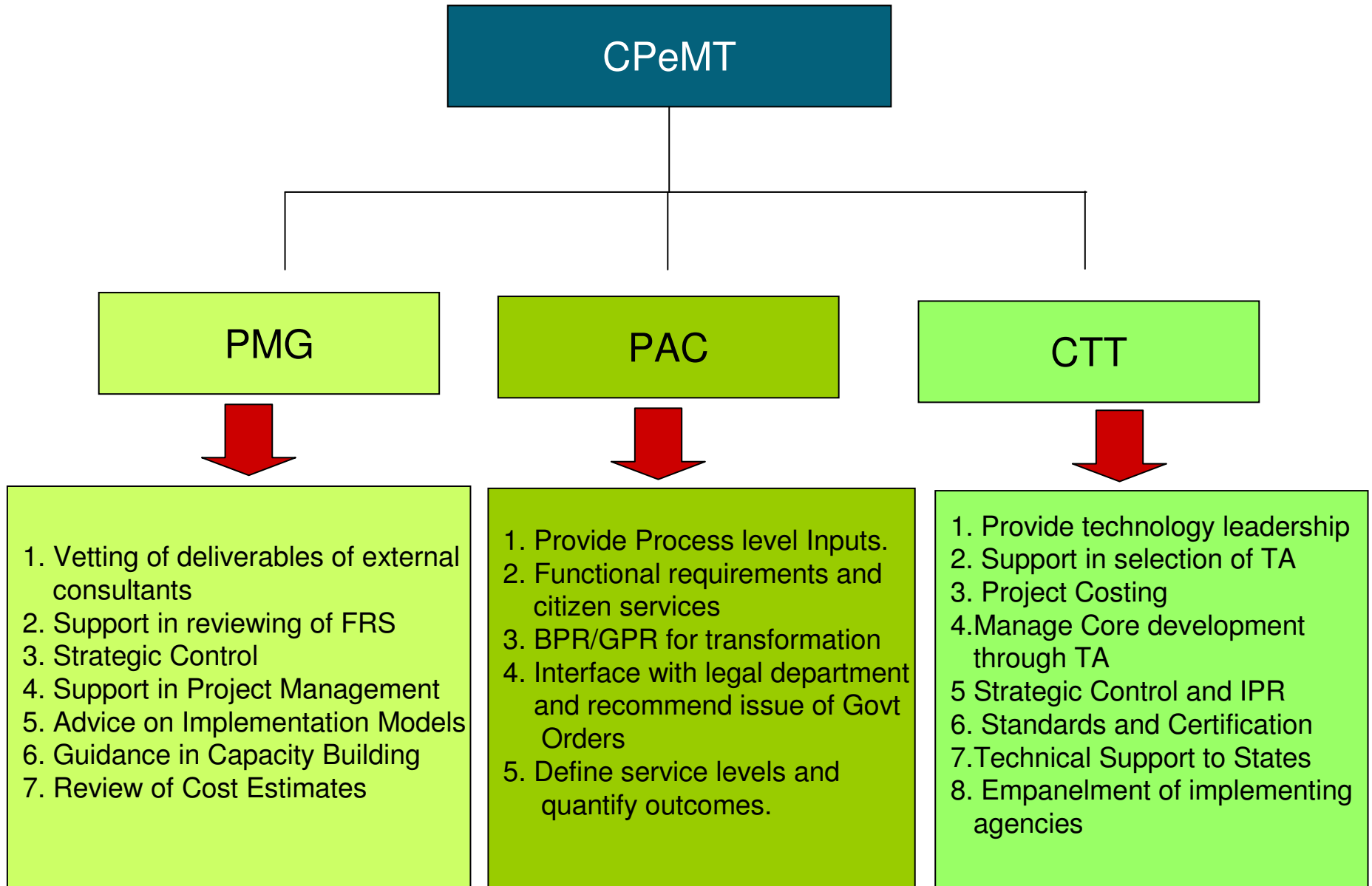
Line Ministry	Sets-up
	<ol style="list-style-type: none"><li>1. Empowered Committee (EC)</li><li>2. Project Steering Committee (PSC)</li></ol>
<b>EC</b>	<ol style="list-style-type: none"><li>1. Chaired by Secretary of the Line Ministry</li><li>2. Members – AS, JS concerned, JS&amp;FA, HODs, DIT &amp; NIC Representative(s).</li><li>3. Provide overall guidance and deal with policy level matters.</li><li>4. Approve all projects and deliverables by various agencies.</li><li>5. Have financial powers</li></ol>
<b>PSC</b>	<ol style="list-style-type: none"><li>1. Headed by Secretary / Additional Secretary.</li><li>2. All Joint Secretaries, HODs, Representatives from lead States, DIT and NIC representative(s).</li><li>3. Opportunity Identification.</li><li>4. Conceptualisation of the Project.</li><li>5. Initial design of the team with benefits and timelines.</li><li>6. Preparation of <b>Project Concept Note</b>.</li></ol>

## Stage 1: Project Initiation and Conceptualisation...



Line Ministry	Sets-up
<b>CPeMT</b>	<ol style="list-style-type: none"><li>1. Central Project e-Mission Team (CPeMT)</li></ol> <ol style="list-style-type: none"><li>1. Headed by Project Mission Leader.</li><li>2. Dedicated Full time Director/DS/HOD</li><li>3. Full-time members: Domain/Process and Technical experts</li><li>4. Provide project leadership and take full ownership of the project design, development, change management, BPR etc.</li><li>5. Provide guidance and support to the State teams.</li><li>6. Appoint Technical Agency, External Consultant, empanel implementing agencies for core application framework design, development, implementation &amp; roll-out.</li><li>7. Ensure Strategic Control &amp; IPR of the Application.<ul style="list-style-type: none"><li>▪ Extent and Contours of Strategic Control</li><li>▪ Identify Strategically Critical Modules and Data</li></ul></li></ol>

# Stage 1: Project Initiation and Conceptualisation...



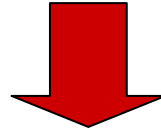
# Stage 1: Project Initiation and Conceptualisation



CPeMT	Shall ARTICULATE / CRYSTALLISE Broad MMP Concept
Deliverable	<ol style="list-style-type: none"><li>1. Need</li><li>2. Key Stakeholders</li><li>3. Requirements of Citizen Services</li><li>4. Services and Service levels</li><li>5. Functional Requirements</li><li>6. Process flows (BPR) including As-Is &amp; To-Be</li><li>7. Outcome Indicators</li><li>8. Module criticality analysis</li></ol>

## Stage 2: Project Design and Development...

CPeMT to Select a Technical Agency (TA)



### OPTIONS to select a Technical Agency (TA)

1. Designates NIC as a Technical Agency (TA). NIC could hire an External Agency as an internal arrangement.
2. Selects IT Agency through an appropriate process with assistance from NIC or Project Consultant.
3. Selects the Technical Agency (TA) out of a panel of agencies created by DIT or a body under DIT.

## Stage 2: Project Design and Development...

<b>CPeMT</b>	Through TA prepares a <b>PROCESS and TECHNOLOGY MODEL</b> , which covers
	<ol style="list-style-type: none"><li>1. High level requirements</li><li>2. Core functionality</li><li>3. Application architecture</li><li>4. Network requirements</li><li>5. Project Costing</li></ol>

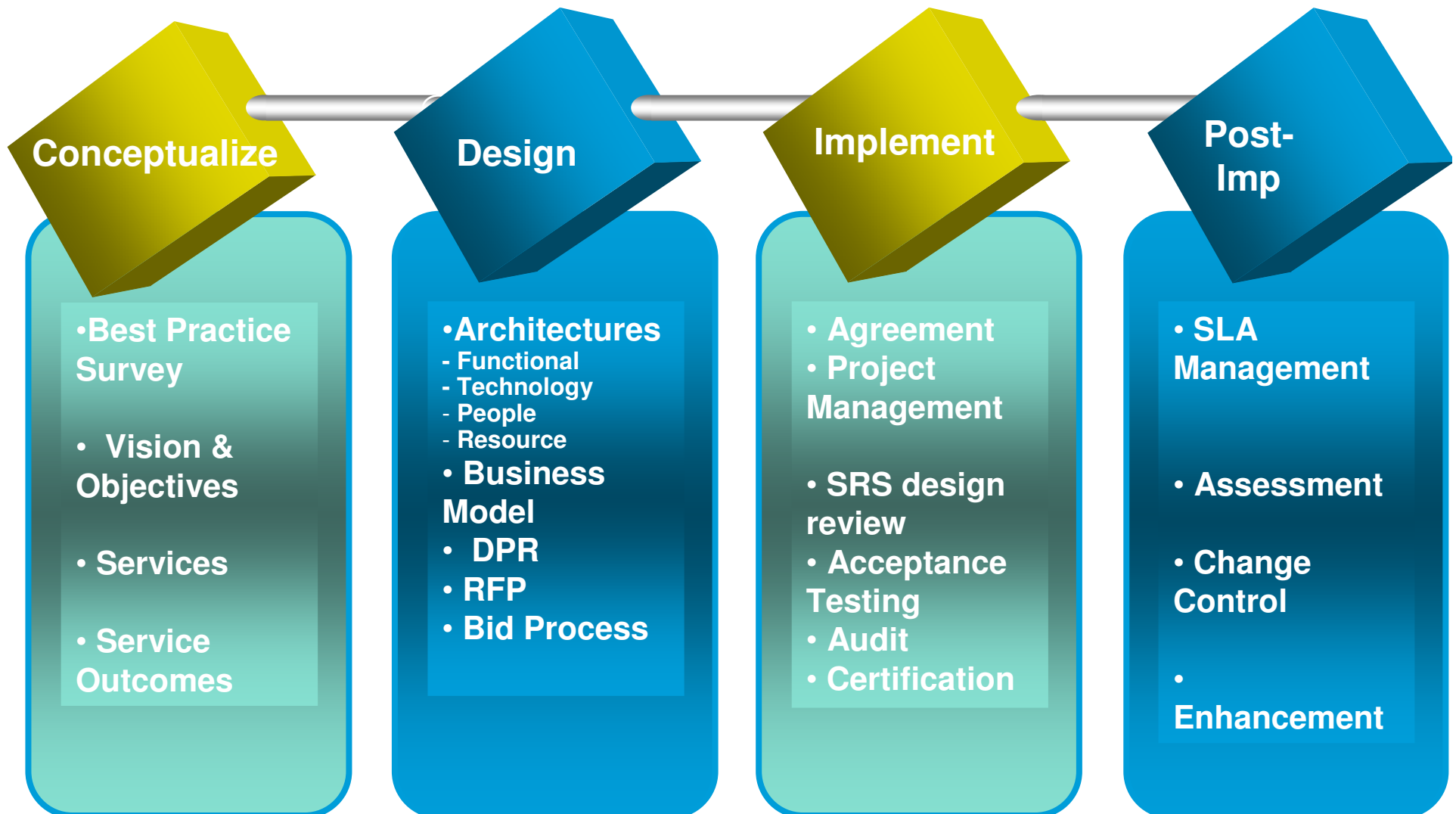


<b>CPeMT</b>	Prepares <b>SCHEME</b> , which covers
	<ol style="list-style-type: none"><li>1. Objectives</li><li>2. Services and Service levels</li><li>3. Project Design and Development methodology</li><li>4. Implementation framework including Capacity Building &amp; Training</li></ol>



<b>Deliverable</b>	<b>Obtains APPROVAL from Competent Authority (EFC / Cabinet) along with financial delegation to EC</b>
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# SCOPE & DELIVERABLES OF CONSULTANTS



## Stage 3: Core Application Design & Development...



CPeMT/CTT through selected Technical Agency will develop a CORE Application Framework / Product

Should cover	Should be
<ol style="list-style-type: none"> <li>1. Core SRS</li> <li>2. Core System Process Design</li> <li>3. Data Architecture</li> <li>4. Enterprise Architecture</li> <li>5. Standards for Application Development</li> <li>6. Network Requirement</li> <li>7. Basic MMI</li> </ol>	<ol style="list-style-type: none"> <li>1. Technology agnostic</li> <li>2. Not specific to any one State</li> <li>3. Not limited to just automating the operations</li> <li>4. Address the requirements of Citizen services</li> <li>5. Define Service levels and Outcome Indicators</li> </ol>

<b>Deliverables</b>	<ol style="list-style-type: none"> <li>1. <b>Core Application certified by certifying agency</b></li> <li>2. <b>Pilot implementation as POC</b></li> <li>3. <b>Empanelment of IT Agencies for customization and implementation at State level</b></li> <li>4. <b>Knowledge transfer through documentation and training</b></li> </ol>
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## Stage 4: Application Customisation / Development...



State Dept.	Sets-up
<b>State AC</b>	<ol style="list-style-type: none"> <li>1. State Apex Committee (State AC)</li> <li>2. State Project e-Mission Team (State PeMT)</li> </ol>
<b>State PeMT</b>	<ol style="list-style-type: none"> <li>1. Chaired by Chief Secretary.</li> <li>2. Overall guidance, policy level matters and approval of all issues related to project implementation.</li> </ol>
	<ol style="list-style-type: none"> <li>1. Headed by Secretary –in charge</li> <li>2. Dedicated full-time HOD/Director</li> <li>3. Internal domain / process and technical experts.</li> <li>4. Prepare DPR in line with the approved Scheme</li> <li>5. Select Application Development / Implementation Agency as per CPeMT's framework.</li> <li>6. Provide project leadership and take full ownership of the project implementation including BPR, change management &amp; training</li> <li>7. Selection of development/implementing agency</li> <li>8. Ensure Strategic Control and IPR of the Application at State level.</li> </ol>

## Stage 4: Application Customisation / Development...



State Dept.	OPTIONS to Set-up State PeMT
	<ol style="list-style-type: none"><li><b>1. Identify full-time technical resources with adequate skills from within the State Department.</b></li><li><b>2. Recruit / Hire:</b><ul style="list-style-type: none"><li>■ against existing posts OR</li><li>■ create additional posts OR</li><li>■ professionals on long-term (3-5 years contracts);</li></ul></li><li><b>3. Take technical resources from NIC and domain experts / specialists from the State Department;</b><ul style="list-style-type: none"><li>■ if required, transfer existing posts to NIC to facilitate hiring by NIC as a part of its own Cadre.</li></ul></li></ol>

## Stage 4: Application Customisation / Development...



State PeMT	OPTIONS to select a Application Customisation or Development Agency
	<ol style="list-style-type: none"><li>1. Designate NIC as Agency for Application customisation / development. NIC could hire an external agency as an internal arrangement.</li><li>2. Select an agency from a panel of agencies created by CPeMT</li><li>3. Select an Agency through an appropriate process subject to conformance to standards /framework laid down by CPeMT. .</li></ol>
Deliverable	<ol style="list-style-type: none"><li>1. Customisation/development certified by certifying authority</li><li>2. Implementation at Pilot level (Optional)</li></ol>

## Stage 5: Implementation & Roll-out...



Essential	Roll-out should take place only after necessary certification by the Certifying Authority
Recommended	<ul style="list-style-type: none"><li>• State roll out only after successful completion of Pilot</li><li>• Activities (supply of equipment, application customisation or development, installation, commissioning, handholding maintenance etc.) should be BUNDLED together as a SERVICE DELIVERY MODEL</li></ul>
Desirable	<ul style="list-style-type: none"><li>• Application Customisation / Development Agency should be the SAME as the Implementing Agency .</li></ul>

# Stage 5: State-wide Implementation and Roll-out



State PeMT	APPROACHES for Implementation
	<ol style="list-style-type: none"> <li> <b>1. Where Application Development / Customisation Agency is not the Implementation Agency (IA):</b> <ul style="list-style-type: none"> <li> <input type="checkbox"/> Appoint IA through an appropriate process, preferably on a Service Delivery model                 </li> </ul> </li> <li> <b>2. Where Application Development / Customisation Agency is also the Implementation Agency (IA):</b> <ul style="list-style-type: none"> <li> <input type="checkbox"/> Bundle application development / customisation and implementation in same contract on service delivery / PPP model                 </li> </ul> </li> </ol> <p>Necessary SLAs to be incorporated in the contract</p>
Deliverable	<ul style="list-style-type: none"> <li> <input type="bullet"/> Complete roll-out of certified Application and Project at the state level.                 </li> </ul>

# Strategic Control Ready Reckoner

	<b>RFP &amp; Scope Dev</b>	<b>SRS Dev</b>	<b>Design + Coding</b>	<b>Testing</b>	<b>O&amp;M &amp; Exit Mgmt</b>
<b>CPeMT</b>	<ul style="list-style-type: none"> <li>- Governance Structure</li> <li>- Objectives &amp; Extent of Control</li> <li>- Identify Module impact</li> </ul>	<ul style="list-style-type: none"> <li>- Training needs analysis</li> </ul>	<ul style="list-style-type: none"> <li>-Monitoring</li> </ul>	<ul style="list-style-type: none"> <li>-Monitoring</li> </ul>	<ul style="list-style-type: none"> <li>- Monitoring</li> </ul>
<b>CTT</b>	<ul style="list-style-type: none"> <li>-Select Architectural Requirements</li> <li>- Select TA (or NIC for critical components)</li> </ul>	<ul style="list-style-type: none"> <li>-Architecture knowledge development</li> </ul>	<ul style="list-style-type: none"> <li>Competency development for O&amp;M stage</li> <li>- Knowledge of Coding rules</li> </ul>	<ul style="list-style-type: none"> <li>-Corrective / Rework stats</li> <li>- Source code &amp; documentation acceptance</li> </ul>	<ul style="list-style-type: none"> <li>-Restrict TA access</li> <li>- Competency development</li> <li>-Tech transfer</li> <li>- Knowledge preservation</li> </ul>
<b>Tools to help owner achieve goals</b>	<ul style="list-style-type: none"> <li>-Traceability matrix</li> <li>- Standards</li> <li>- Impact Analysis</li> </ul>	<ul style="list-style-type: none"> <li>- T-Matrix</li> <li>- Review Participation</li> </ul>	<ul style="list-style-type: none"> <li>- T-Matrix</li> <li>- Reviews</li> <li>-Config Mgmt</li> <li>- Backups</li> </ul>	<ul style="list-style-type: none"> <li>- T-Matrix</li> <li>- Review and Status Meetings</li> <li>-Certification from STQC</li> </ul>	<ul style="list-style-type: none"> <li>- Status Reviews</li> <li>- Authentication</li> <li>- Continuous Trng</li> <li>- Escalation mechanisms</li> </ul>

# Thank You

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