



# **Transforming to a phygital world of capacity building**

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## Preface

### CBC's Accreditation Framework: National Standards for Civil Service Training Institutions

CBC has developed an accreditation framework known as the National Standards for Civil Service Training Institutions (NSCSTI), to benchmark the quality of all training institutes. The framework will introduce minimum standards as a means for continuous improvement of CSTIs.

Phygital is one of the key pillars of the framework<sup>1</sup>. This pillar captures the extent to which the CSTIs are equipped with blended learning infrastructure while ensuring the digital availability of the training material. The standards are based on a process maturity scale, rating institutions on the extent of the immersion and adoption of phygital training delivery. See Annexure 2 to learn about the maturity levels in phygital as defined by CBC.

The First Roundtable for Central Training Institutions (CTIs) was organized by Capacity Building Commission (CBC) on 12th October 2021<sup>2</sup>. The roundtable was attended by senior management of 25 CTIs. As an outcome of the roundtable, six dedicated sub-committees were formed to drive transformation across six key focus areas viz. (i) identification of training needs; (ii) promoting knowledge sharing and creating a common knowledge repository; **(iii) transformation to a phygital world of capacity building**; (iv) enhancing capacities of faculty; (v) embedding effective assessment of training; and (vi) overcoming challenges in governance.

The Committee on 'Transformation to a phygital (physical+digital) world of capacity building' aims to support all training institutions towards institutionalization of the blended mode of training delivery. To this effect, the committee members have created this guidance document that emphasizes the importance of digital training delivery through iGoT for all training institutions.

Current Sub-committee members:

1. D. C. Srivastava, Principal Director, National Academy of Defence Production (NADP)
2. Deepak Kumar Bist, Joint Director (Peripatetic Training), Institute of Secretariat Training and Management (ISTM)
3. Ankit Anand, Director (TER), National Institute of Communication Finance (NICF)
4. Mukesh Kumar, Dy. SP, CBI Academy
5. Manish Kumar, Director General, National Academy of Audit & Accounts (NAAA)
6. Neeta Lall Butalia, Principal Director General, National Academy of Customs, Indirect Taxes & Narcotics (NACIN)

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<sup>1</sup> Source: [https://www.nscsti.org/assets/pdf\\_doc/CBC\\_Approach%20Paper.pdf](https://www.nscsti.org/assets/pdf_doc/CBC_Approach%20Paper.pdf)

<sup>2</sup> Source: <https://pib.gov.in/PressReleaseDetailm.aspx?PRID=1763318>

7. Sanghamitra Bandyopadhyay, Director, Indian Statistical Institute (ISI)

Former sub-committee members:

1. Himanshu Gupta, Member, Customs, Central Excise and Service Tax Settlement Commission
2. Sunil S Dadhe, Deputy Comptroller & Auditor General (Railways)
3. Vikash Kumar Dubey, Director, DMEO, NITI Aayog
4. Manish Kumar Gupta, Joint Controller, Ministry of Communications, Haryana Telecom Circle

## Chapter 1. Introduction

### 1.1 Objective

The Capacity Building Commission (CBC) is facilitating digital transformation in the teaching and training ecosystem of civil services. To achieve this goal, the Commission is focused on strengthening the digital capabilities of Civil Service Training Institutions, including Central Training and Administrative training institutions. CBC has developed National Standards for Civil Service Training Institutions (NSCSTI) to baseline Central Training Institutions in their existing capacities. One of the key pillars of the framework is 'Digitalisation and Training Delivery' which aims to capture the utilisation of (i) different learning channels; (ii) usage of learning portals; and (iii) various features of iGOT; (iv.) In-house capabilities to cater e-learning content; (v) courses hosted on iGOT by CTIs.

The National Program for Civil Services Capacity Building - Mission Karmayogi aims at making India a leader in public sector HR development. Leveraging India's digital infrastructure -a phygital approach towards capacity building will allow us to leapfrog other countries in creating future-ready civil servants.

The word 'Phygital', is an amalgamation of Physical & Digital. The 'Phygital' world of capacity building refers to a hybrid mode of learning (or capacity building) wherein physical and virtual modes of learning & capacity building complement each other. It is pertinent that CSTIs leverage technologies to provide a seamless learning experience in this dynamic 21st-century world of learning.

The key rationale behind phygital learning is to encourage self-paced and need-based virtual learning that allows for better utilization of in-class time to engage in real world application of the content.

The objective of the subcommittee report is to guide the training institutes:

1. To define standard procedures and criteria for adopting phygital learning in the institute.
2. To deliver efficient phygital training at different stages and to enhance training effectiveness, and competency to prepare future civil servants.
3. To provide mechanisms for assessment of the program such that it improves training effectiveness. The guidelines will help the institute to achieve higher maturity levels (refer Annexure 2) framed under the National Standards for Civil Service Training Institutes (NSCSTI) for Digitalization & Training Delivery pillar.

### 1.2 What classifies as a phygital course?

<b>Proportion of content developed online</b>	<b>Type of course</b>	<b>Description</b>
0%	Traditional	Course with no virtual technology used – content is delivered only in writing or orally
1 to 29%	Web facilitated	Course which uses web-based technology to facilitate what is essentially a face-to-face course. Uses a course management system (CMS) or web pages to post the syllabus and assignments
30 to 79%	Phygital/blended	Course that blends online and physical (face-to-face) delivery. Substantial proportion of the content is delivered online, through e learning modules and has some face-to face interaction
80%+	Online	A course where most, or all the content is delivered online. Typically have no face-to-face meetings

Source: New York University

## Chapter 2. Current Ecosystem

'Transformation to a phygital world of capacity building' was highlighted as a key priority area at the first CTI roundtable held by CBC in October 2021.

Currently 17 CTIs (total 25) provide digital learning modules (training sessions/workshops), including foundation programs, management development programs, basic computer training courses, negotiating skills, soft skills, and other domain-specific courses. These 17 CTIs have a Learning Management System (LMS) in place.

While several institutions have adapted online/video conferencing platforms such as Teams, WebEx, etc. to deliver virtual lectures, there is a need for a holistic LMS & e-learning platform to enable access and allow sharing of learning and course content across institutions. Keeping this in mind, a key component of Mission Karmayogi was developed, the iGOT-Karmayogi platform.

## Chapter 3. iGoT-Karmayogi platform

iGOT (Integrated Government Online Training Platform) Karmayogi caters to the diverse learning needs, preferences, and interests of a variety of 21st-century learners, and is sufficiently exhaustive to cover the learning needs of the civil services – both for their professional development and personal learning interests. The content onboarded on the platform is learner-centred, action-oriented, and transformative catering to the current and emerging needs of civil servants.

To have robust capability development for civil service officials, National Training Policy (2012) mandates that all civil servants be provided with training to equip them with the competencies for their current or future jobs.

However, over the years, the following aspects pertaining to the learning and development of civil servants have come to light:

- Under the current structure, trainings for Government servants including domestic and foreign training are mostly available to a very small section of government servants. There is a requirement of similar processes for all including entry-level officers.
- A need for tracking the short-term and long-term impact of trainings imparted to officers.
- Continuous learning for civil service officers

To cater to the above-mentioned aspects, a dedicated learning platform iGOT was developed to provide training to all civil service officers.

### 3.1 Need for iGoT

Overcoming these structural and systemic barriers is critical for the success of any learning transformation initiative. Few of the barriers have been mentioned below:

- Training efforts are largely focused on the senior civil services and very little goes into training the middle and lower levels of government (Training programs presently cover ~2% of total civil services officials)
- No set pattern of induction training for non-Group A services, with some having the requirement of mandatory induction training and others learning directly 'on the job'
- Apart from a few of the Group A Services, there is no structured mid-career training for many Group A Services. There is also no structured mid-career training for any of the Group B, and C services.

To cater to these barriers, the ability of iGOT to gather and analyse data on competencies can be used to improve the learning processes, identify specific areas to strengthen and build a competency repository for all officers and staff of the Indian government.

### 3.2 iGoT's role in capacity building

The emerging ecosystem of capacity building iGOT is central to capacity building within the government – especially at scale (reaching ~3.4 million GoI employees).

iGoT platform caters to capacity building needs of public officials by combining six functional hubs:

- **Competency hub:** Enables individual officials to recognise competency gaps and close them.
- **Learning hub:** Facilitating competency building through online, face to face and/or blended approach.
- **Career hub:** Enabling lifelong learning and finding the right person for the right job.

- **Discussion hub:** Provide officials insights from previous discussions and trigger new conversations.
- **Event Hub:** Enable individual officials to improve knowledge while engaging with other officials through events.
- **Network hub:** Enable officials to discover others in the government with experience, recognised competencies may be able to solve a problem.

Further, iGoT plays a key role in capacity building of civil servants by taking into consideration, the supply side, and the demand side and by providing insights into the Health of Civil Services as well as identifying the HR and L&D best practices for CSTIs.

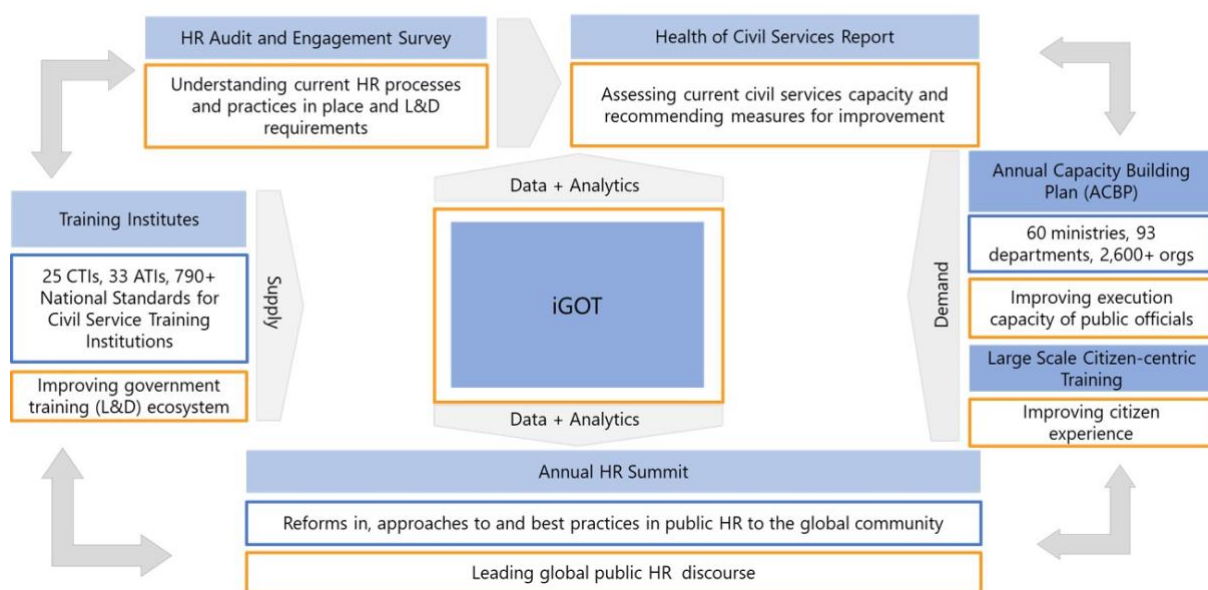


Figure 1: Role of iGoT

Additionally, large-scale citizen-centric training will focus on improving citizen service delivery and citizens' experience while engaging with the state (government).

On the supply-side, the focus will be on improving the government learning and development ecosystem, transforming the 1000+ civil service training institutions via the National Standards for Civil Service Training Institutions (NSCSTI) and other interventions.

The HR audit, and the engagement survey based on the data and analytics obtained from iGoT, will help in gathering an understanding of the current HR processes and practices, and employee's viewpoint on the present learning and development ecosystem and identify gaps that need to be addressed.

The data emanating from iGoT will enable annual HR summit, where best practices followed in public HR will be identified and approaches to enable the reforms will be disclosed to the global community.



### 3.3 Content Framework & Evaluation standards of iGoT

The Content Framework & Evaluation is a set of tools and recommendations that provides guidance and standards for the development of online learning products for iGOT Karmayogi.

It is a guide and toolkit for the learning community including CSTIs, content providers/external vendors, reviewers, learning managers and staff working or interested in creating online learning programmes, that can be used to:

- Guide the development and implementation of competency-based products (CBPs)
- Review online competency-based products (CBPs) being developed/onboarded on the platform
- Integrate cultural diversity and a gender perspective in all areas of online learning programmes
- Produce accessible digital content that all learners, regardless of disabilities, can navigate, understand, and interact with

The Framework is based on instructional design methods for developing and delivering learning programmes that seek to change behaviour and improve performance. Based on global transformative practices, iGOT Karmayogi will be adopting the Watch-Think-Do-Explore-Test model.

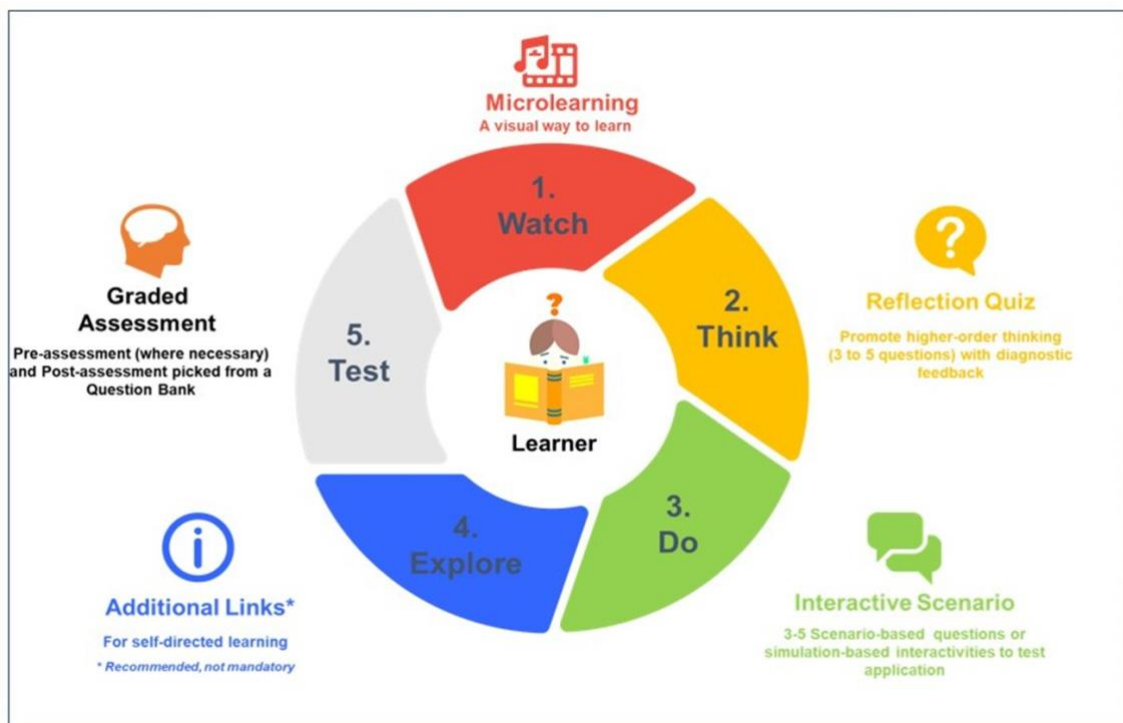


Figure 2: iGoT content Framework

1. **Watch:** Learning activities should present information through shorter bytes of content that can enable learners to absorb more information without feeling overwhelmed.
2. **Think:** Include simple questions that encourage critical thinking and reasoning skills, avoiding mechanical repetition (rote learning).
3. **Do:** Scenario-based questions or simulation-based interactivities that are action-oriented to test application.
4. **Explore:** Creating self-learning resources to make key information available to the learners to enhance their learning.
5. **Test:** Every course should have a graded assessment including a randomised, pre-determined set of questions from a pool (i.e., question bank).

## Chapter 4. Approach for creation of digital courses

Converting existing, and creating new digital/online courses can be done through one of the two following ways:

- A. Building in-house capabilities (Internal)**
- B. Through empanelment of expert agencies/consultants (External)**

CSTIs may consider the following factors before making a choice between either of the two above mentioned approaches:

- Availability of skilled manpower required to develop digital courses
- Location constraints (proximity to metro-cities implies ease & availability of skilled manpower)
- Current & future demand of courses
- Maintenance demand of courses (how often do courses need to be updated/upgraded)

### 4.1 Internal

To build internal mechanism for digitization of courses, CSTIs would need to develop the following capacities:

- i. Faculty Development:**
  - Build faculty capacities in digital training delivery through master trainers & Subject Matter Experts (SMEs)
  - Develop skills required for preparation, delivery, and assessment of digital/phygital courses
  - Develop skills for effective online communication and generate feedback loops
  - Create a standard template which the faculty can use to design their course (customization can be done thereafter depending on each course and its

content)

**ii. Organizational mechanism:**

- Set up a committee to conduct quality checks on courses being developed
- A panel of experts to review course content, flow, structure, length of the course and videos etc.

[CSTIs can set up inhouse Digital Learning Labs \(DLLs\)](#)

DLLs can be equipped with the requisite infrastructure and resources to design and develop high quality digital learning content for institutions. It will assist in creating new, as well as converting existing content into e-learning content.

[Suggested models for setting up Digital Learning Labs](#)

Use a hub-and-spoke model - Create clusters wherein the larger CSTIs (that are best placed through location, utilization levels, and budget) can set-up these labs. Surrounding CSTIs can use the facilities of these labs for their content creation

**Example:** Maharashtra has 3 CSTIs (NADT, NADP, NIDFM) and 1 ATI (YASHADA) in Pune & Nagpur. One of the CSTIs (NADT) could act as a hub for the other CSTIs in the region.

**Case study: ISTM's Karmayogi Digital Learning Lab (DLL)**

A workspace of 1000sq feet with 22 e-learning specialists with the capacity to deliver 100+ hours of content annually. Mission Karmayogi DLL is set up to develop contemporary e-learning courses and digital learning. The DLL has the capability to record live lectures and rapidly convert them to e-learning resources such as videos, animations, web-based learning mobile learning and many more will be produced to support capacity building programs. The KDLL will leverage iGOT Karmayogi in its capacity building initiatives.

[4.2 External](#)

CSTIs that do not have internal capabilities to develop e-learning courses can leverage external expert agencies. CBC can support CSTIs through empanelment of these agencies.

External agencies may be engaged at one of the four options depending on the availability of resources and existing capacities at CSTIs:

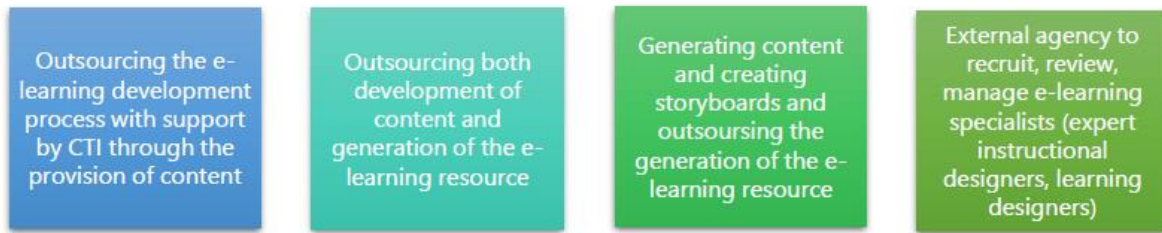


Figure 3: Options for engaging external agencies

The external agency could assist CSTIs in the development of e-learning content through following illustrative steps:

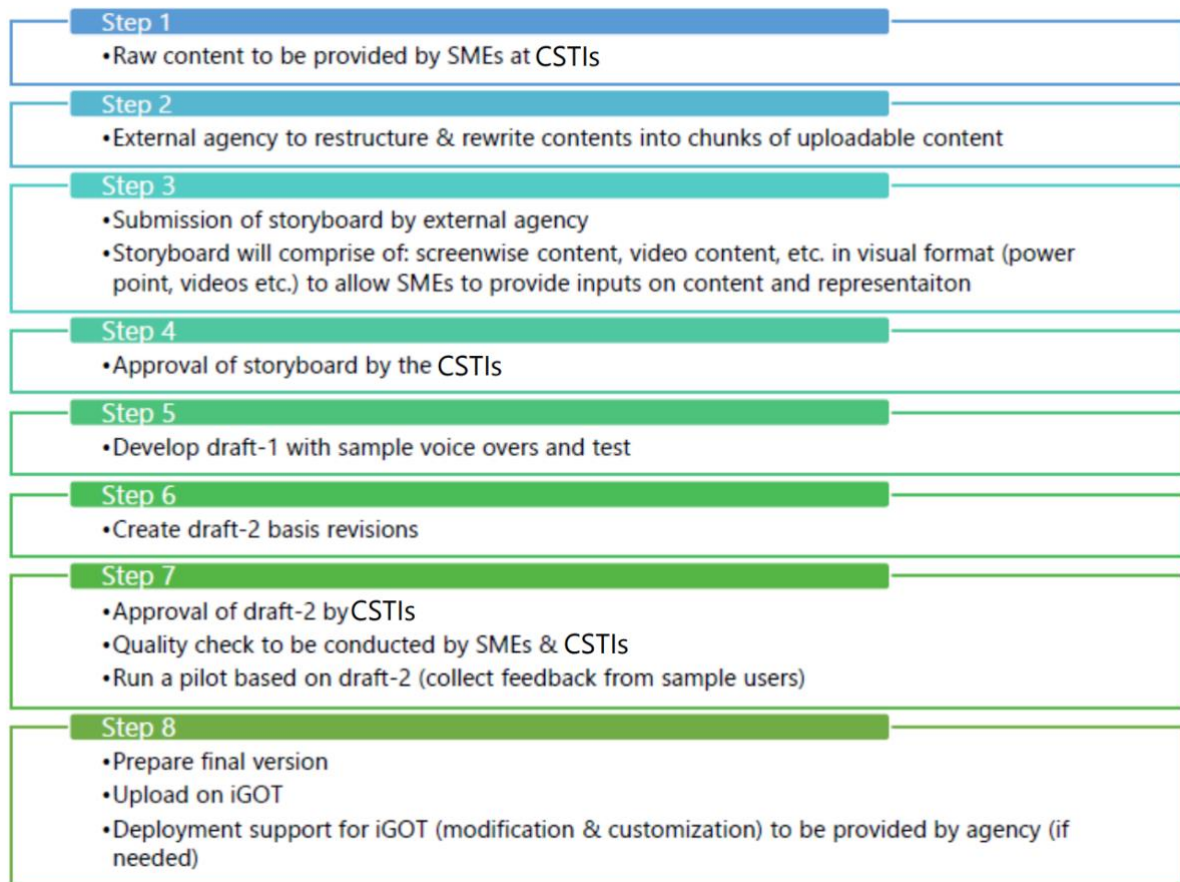


Figure 4: Illustrative steps for the e-learning content creation by external agency

CBC has developed a standard ToR for the empanelment of external agencies for course digitization.

Key components of the ToR:

- Define content development standards to help institutes in the digitalization of pre-existing courses as well as the development of new digital learning content. This e-learning content can be further hosted on iGoT. The e-learning content developed by

the institute can be of 3 levels as defined in Annexure 3.

- Define content development methodology (illustrative steps given in Figure 5)
- Define timelines for each of the steps in the content development methodology
- Payment terms for the content creation

Based on the ToR, CBC has empanelled the following 6 agencies for the development of e-learning content for various departments:

1. FCS Software Solutions Limited
2. Infonative Solutions Pvt Ltd
3. White House Business Solutions Pvt Ltd
4. Indian School of Business
5. Enthraltech Pvt. Ltd.
6. C & K Management Ltd.

## **Chapter 5. Designing a Phygital Course**

To design a phygital course, a feasibility study needs to be completed to identify the courses that can be converted into the blended learning format. This includes the classification of components of the training program that can be converted into digital/virtual modules vs. components that need to remain physical. This must be jointly done by subject matter experts and faculty members.

After the completion of the feasibility study, the following process involving 5 components should be followed:

### **A. Define outcomes and create a draft outline of the program:**

The outline of the program gives trainees a first impression of what to expect from the course and fosters their curiosity & interest. A comprehensive syllabus helps to structure and articulate the course expectations in support of trainee learning. The draft outline may contain (but is not limited to) the answers to the following mentioned questions:

- What are the learning targets for the trainees?
- How are they going to apply their learning?
- What are some essential components of the course?
- How should the course be structured?

### **B. Analyse Learners**

For the successful design of the course, it is important to understand the kind of audience the course will cater to. Some key pointers to be noted are:

- Who are the typical trainees – consider factors such as:
  - Number of trainees
  - Prior knowledge (Tested through TNA or a pre-course quiz)

- Years of relevant experience
- Assess what role this training program play in the overall training experience

### **C. Impact assessment of trainee learning**

Assessing the impact of the trainee learning will help in designing the course in a better format in terms of either content or the application of learning outcomes. The questions to be kept under consideration are:

- How would you know if the trainees achieved these outcomes?
- For each outcome specified above, what information can you gather that shows how well the outcome was achieved (for each trainee, and for the class as a whole)

### **D. Determine learning activities for the course**

The key actions would be to:

- Determine what activity would generate what kind of learning, e.g.: Reading, writing, discussing, reflecting, or some combination of activities to generate what sort of skills in the learner
- Develop a week-by-week schedule that outlines what kind of activity would you like to engage trainees in for each component of the course

### **E. Identify resource requirements**

The major component of the phygital course design will be to identify the resources required to develop a course for the blended mode of learning. On average, redesigning a course for phygital delivery requires ~150 hours of development plus additional support from instructional designers. The key action will be to:

- Identify what are the existing resources, and what additional resources are required for designing the course

## **Chapter 6. Development of Digital/E-learning content**

A step-by-step guide to creating e-learning modules:

1. Feasibility study:
  - Check the possibility of converting existing content
  - If required create new content
2. Determine Learning Objectives:
  - Create specific and measurable learning objectives
3. Create an Outline:

- Draft an outline for the pics to be covered. Creating an outline will help ensure a logical flow of information
4. Analyze content:
    - Categorization of content into three buckets: (i) Theoretical, (ii) Information & knowledge sharing, (iii) Hands-on learning
    - On the basis of categorization, Subject Matter Experts (SMEs) to decide what percentage of content should be digitized
  5. Course Introduction:
    - Expectations for trainee engagement
    - Special instructions related to assignments, quizzes etc.
    - How the course is organized, and what can the trainees expect
  6. Writing the Script:
    - A detailed version of the outline, including what voiceover needs to be recorded
    - Inclusion of visual tools for enhanced engagement
  7. Digital Course Creation:
    - Create a storyboard
    - Design team develops a prototype module
    - Develop course related multimedia (graphics, simulations, video/audio)
    - Complete V1 of draft online course
    - SMEs to provide initial feedback
    - Complete beta testing
    - Final modifications

## **Chapter 7. Utilizing Digital Learning Labs**

### **7.1 Approach for creation of DLL**

To facilitate digital innovation at training institutes, a hub-and-spoke model is proposed. 5 CSTIs (best placed in terms of location, utilisation levels, and budget) shall set-up world-class Digital Learning Labs (DLLs). For instance, ISTM, ICAR-NAARM, KILA etc. already have adequate in-house e-learning capabilities. Surrounding CSTIs shall leverage the facilities of these labs for the generation of interactive e-learning content.

## 12-Step Action Plan to set-up DLL

	HR	<p><b>1. Personnel Capacity Assessment</b></p> <p>Review of resources currently available to run the DLL including Subject Matter Experts, learning experts such as Instructional Designers, Project Managers, QA Tester, Technical Designers, Technical Expert, Visual UX designers etc.</p> <p>Estimate the total number of technical and non-technical + internal and external resources required.</p>
<p><b>2. Technical Capacity Assessment</b></p> <p>Conduct a feasibility study for identified CTIs to analyse current capacity and network configuration at CTIs and determine how much support is required vis a vis financials, resources, expert agencies etc. based on the number of users and training needs identified.</p> <p>Visit CTI premises to understand and analyse the existing soft and hard infra Capacities and identify potential hubs and spokes</p> <p>Conduct market benchmarking for infrastructure and required equipment</p>	INFRA	<p><b>3. List of required soft &amp; hard infrastructure</b></p> <p>Prepare a list of soft and hard infrastructure requirements to generate 80 to 100 hours of e-learning content annually and share with the shortlisted CTIs</p> <p><i>An indicative list is attached in Annexure E &amp; F</i></p> <p>Develop model RFPs to help CTIs procure the apt hardware and software agencies</p>
<p><b>4. Identification of partner agencies</b></p> <p>Support CTIs in identification of expert partner agencies which may help in setting up the hard and soft infrastructure based on estimated user database (i.e., how many people may access the server at a time) core processors, RAM for quick response time, appropriate hard disc etc.</p> <p>The agency to also be responsible for smooth operationalisation of the lab</p>	INFRA	<p><b>5. Define organisational structure for the DLL</b></p> <p>Define the organisational structure for the DLL.</p> <p><i>An indicative structure is attached in Annexure C.</i></p>
<p><b>6. Establish an IT support team to sustain the digital infrastructure</b></p> <p>Set-up a sound technical support team to administer, run, manage feedback, generate user analysis etc.</p> <p>The team can be sourced from the soft infrastructure provider agency or could be outsourced from a third-party agency (based on financial feasibility)</p>	HR	<p>In addition, an advisory committee may be established with faculty members from various CTIs to advise the Head on academic matters.</p> <p>Based on the final organisational structure, a resourcing strategy must be developed. Indicative 3-year strategy attached in annexure A.</p>



<p><b>8. SMEs, instructional designers, learning designers and other experts</b></p> <p>Each DLL will have a number of learning, instructional, technical, and non-technical experts as part of its overall organisational structure.</p> <p><i>An indicative list is attached in Annexure A.</i></p> <p>Repository of such experts may be created. In addition, CTIs may leverage CBC's knowledge partnerships.</p>	HR	<p><b>PARTNERS</b></p> <p><b>7. Building partnerships with experts</b></p> <p>Establishing partnerships with e-learning experts from across the globe will help DLLs at CTIs in creation of interactive modules.</p> <p>CBC can support CTIs in this process by sharing a list of e-learning experts.</p> <p>The partnerships are proposed to be collaborative in nature, where each partner contributes to capacity enhancement of the other. For instance, ISTM can provide e-learning experts in exchange for access to a few courses for its own platform.</p>
<p><b>10. Impact assessment committees</b></p> <p>Two impact assessment committees must be created where members change on a rotational basis.</p> <p><i>Technical:</i> Responsible for impact assessment of the DLL. Will comprise technical experts, faculty members and DG of the CTI.</p> <p><i>Non-technical:</i> Responsible for impact assessment of the e-learning modules. Will comprise faculty members, learning design experts, e-learning experts, faculty members of other CTIs.</p>	HR	<p><b>INFRA</b></p> <p><b>9. Creation of an iGOT integrated Learning Management System</b></p> <p>For CTIs that already have a functional LMS, CBC to help upgrade the platform</p> <p>For CTIs that do not have a functional LMS, CBC to facilitate the process of either development or procurement of an existing LMS from the market (based on financial feasibility)</p> <p>Creation of model RFPs for LMS providers</p>
<p><b>12. Launch of the Digital Learning Lab</b></p> <p>Organise an all-stakeholders workshop with invitees from the regional cluster to understand project impact and officially launch the lab</p>	INFRA	<p><b>INFRA</b></p> <p><b>11. Training and capacity building of Trainers</b></p> <p>Video toolkit may be created which guides the trainers on creation of effective e-learning modules. The toolkit may also have several functional templates. Such courses to be available on iGOT.</p> <p>Script writing, storyboarding etc. workshops for the trainers.</p> <p>Workshops where instructional designers and subject matter experts (faculty members) brainstorm together to create blueprints for required module</p>

## Chapter 8. Sub-committee Recommendations

The phygital subcommittee is of the view that with the advent of Mission Karmayogi and the Capacity Building Commission, this is the prime time to increase digital learning across training institutions. The committee is of the view that there is a need to enable a blended mode of learning across CSTIs. Accordingly, some of the recommendations of the sub-committee are:

### **1. Creation for Digital Learning Lab:**

Digital learning labs will be created in the hub & spoke model across suitable CSTIs. These DLLs will be used by CSTIs to increase digital learning across trainees.

For the creation of world-class digital learning labs, CBC will be providing financial aid to the CSTIs. The CSTIs will be selected based on the criteria defined by CBC.

### **2. Standardise e-learning content:**

E-learning content that will be created by CSTIs will follow the content framework and evaluation standards of iGoT. These standards will help in establishing uniformity across the training content that is being digitized.

To support this standardization, CBC will provide model RFPs for e-learning content creation.

### **3. Training of faculty & staff members for digitalization to build in-house capacity:**

To enable phygital mode of training delivery, the trainers should be able to use the digital platforms with ease. For this purpose, the trainers will need to be trained in digitization. This training will be provided to the faculty and staff members of all CSTIs by iGoT team. Hence, the in-house capabilities for digitalisation will increase in the institutes.

### **4. Maximization of learning outcomes & adoption:**

Digital courses need to have clear and defined learning outcomes so that trainees can have a summary of what can be expected out of the courses. This will help trainees in making the right selection based on their desired learnings and will maximize the learning outcomes achieved through the digital courses.

Additionally, courses will also contain testimonials from the previous trainees who have completed the course to increase the adoption rate among trainees.

### **5. Monitoring and evaluation:**

Regular monitoring and evaluation of the digital journey of trainees should take place in order to maximize the adoption and remove roadblocks, if any. This will help the institutes to understand when their courses require an update in terms of digital content as well as phygital delivery.

### **6. Onboarding external experts and vendors:**

Institutes should encourage smooth collaboration between subject matter experts and vendors during storyboarding and course creation. To facilitate this, institutes should onboard external experts and vendors based on the guidelines provided by CBC.

## Annexures

### Annexure 1: Additional guidelines and best practices for creating videos

#### **Guidelines:**

- A maximum length per video: three to five minutes (optimal)
- Longer modules could be broken up into small, stand-alone chunks

#### **Preparing your script:**

- Write it as conversational and friendly
- Think of the video as a story - with a beginning, middle, and end

#### **Best practices when selecting and integrating images with your text:**

- Selection of images relevant to the onscreen content
- Apply the contiguous principle by placing images close to the relevant text on the screen. This applies to explanations of graphics or images, directions or feedback for exercises, or directions or feedback for interactive activities
- Select images that help learners understand the text
- Use illustrative graphics for facts and concepts
- Use graphics and animation to teach processes, procedures, and principles that demonstrate the relationship between information
- Use graphs or interpretative illustrations to show relationships between variables
- Replace onscreen text and accompanying images or graphics with audio narration when possible. This will help reduce the cognitive load for processing the visual images and text, and it divides it among visual and aural channels
- Avoid using onscreen text that is identical to audio narration. The onscreen text should ideally be a summary of the audio narration
- Avoid using extraneous sounds, like background music or environmental sounds
- Remove non-essential text when using multimedia, presenting only the main point and concise texts

#### **Content delivery**

Written text and online videos are two consistently used methods for delivering course content to students. Below are other options to consider:

<b>Mode</b>	<b>Opportunities</b>	<b>Challenges</b>
Video	<ul style="list-style-type: none"> <li>• Create a personal connection</li> <li>• Explain complex material visually Take virtual field trips</li> <li>• Control playback</li> </ul>	<ul style="list-style-type: none"> <li>• Time-consuming to produce</li> <li>• Need to consider if content lends itself to visual medium</li> <li>• Need to consider accessibility</li> </ul>
Audio	<ul style="list-style-type: none"> <li>• Portable and easy to listen to while multi-tasking</li> <li>• Helps provide a personal connection with instructor</li> </ul>	<ul style="list-style-type: none"> <li>• No way to simultaneously show graphics or images to reinforce concepts</li> <li>• Must provide transcripts for accessibility</li> </ul>
Text	<ul style="list-style-type: none"> <li>• Efficient to create</li> <li>• Easy for users to access</li> </ul>	<ul style="list-style-type: none"> <li>• Low engagement</li> <li>• Limited ability to use graphics or visuals</li> </ul>
Graphics	<ul style="list-style-type: none"> <li>• Reinforce text-based content</li> <li>• Increase learning</li> <li>• Supported by multimedia theories of learning</li> </ul>	<ul style="list-style-type: none"> <li>• Distracting if not aligned with content Need to provide alternate text describing graphics for accessibility</li> </ul>
Synchronous Sessions	<ul style="list-style-type: none"> <li>• Promote instructor and learner presence</li> <li>• Allow for immediate feedback</li> <li>• Invite guest speakers</li> <li>• Host student presentations</li> </ul>	<ul style="list-style-type: none"> <li>• Require advanced planning</li> <li>• Dependent on high-speed internet connection</li> <li>• Can inhibit some students from participating</li> </ul>

## Annexure 2: Metrics and Stages of under Digitalization and Training Delivery Pillar of National Standards for Civil Service Training Institutions

<b>Metric</b>	<b>Descriptor - Stage I</b>	<b>Descriptor - Stage II</b>	<b>Descriptor - Stage III</b>	<b>Descriptor - Stage IV</b>	<b>Descriptor - Stage V</b>
<i>What learning channels are utilised for training delivery?</i>	<i>Only in-person or classroom trainings are available for training delivery.</i>	<i>The institute possesses the facilities to deliver live (synchronous) virtual training modules for selected programmes in addition to in-person or classroom training programmes.</i>	<i>The institute possesses the facilities to deliver live (synchronous) virtual training modules and interactive (asynchronous) virtual training modules for all programmes including utilising e-learning videos in addition to in-person or classroom training programmes.</i>	<i>The institute possesses the facilities to deliver live (synchronous), interactive (asynchronous) and has facilities for self-paced virtual training modules for all programmes in addition to in-person or classroom training programmes.</i>	<i>The institute possesses the facilities to deliver live (synchronous), interactive (asynchronous) and has facilities for self-paced virtual training modules for all programmes in addition to in-person or classroom training programmes. The institute hosts e-learning modules on iGOT.</i>
<i>What range of learning methods are used by the Institute for training delivery?</i>	<i>The institute has only instructor-led, presentation-based mode of training delivery.</i>	<i>The coursework of institute includes presentations, assigned readings and case studies, primarily led by instructors.</i>	<i>The institute encourages trainee-led and peer learning methods through GD, role-reversal, team exercises etc., in addition to instructor led learning methods (like presentation by instructor, Case discussions and books). The institute also includes co-curricular and extra-curricular activities for</i>	<i>The institute utilizes diversified methods including peer learning methods, instructor-led sessions, co-curricular and extra-curricular exercises to provide enriched learning experience to trainee officers. The institute also has established partnerships with governmental and non-</i>	<i>The institute utilizes diversified methods including peer learning methods, instructor-led sessions, co-curricular and extra-curricular exercises to provide enriched learning experience to trainee officers. The institute also has established partnerships with</i>

<b>Metric</b>	<b>Descriptor - Stage I</b>	<b>Descriptor - Stage II</b>	<b>Descriptor - Stage III</b>	<b>Descriptor - Stage IV</b>	<b>Descriptor - Stage V</b>
			<i>supporting the teaching &amp; learning during training programmes.</i>	<i>governmental entities in India for enabling on-site learning experience to trainees.</i>	<i>governmental and non-governmental entities in India and globally for enabling on-site learning experience to trainees.</i>
<i>What are the channels available for interaction among trainees &amp; faculty? Select all applicable (Emails, Informal networking opportunities, Dedicated pages / Chatrooms for trainings, Formal Virtual / in person Interaction after trainings, Not Available)</i>	<i>Not Available</i>	<i>Only one of the options</i>	<i>Only two of them</i>	<i>Only three of them</i>	<i>All of them</i>
<i>What mechanisms does the Institute have in place for converting offline (physical) content to online (digital) content?</i>	<i>The Institute does not host online (digital) content.</i>	<i>The Institute currently outsources the conversion of offline content or creation of digital content to third party providers.</i>	<i>The Institute currently designs the conversion of offline content or creation of digital content in-house but delegates the development of such content to third party providers.</i>	<i>The Institute has the in-house capability to convert existing offline content into a blended format (online+offline) and design and develop new content based on the blended mode of teaching and learning.</i>	<i>The Institute has the in-house capability to convert existing offline content into a blended format (online+offline) and design and develop new content based on the blended mode of teaching and learning; all content conversion, design, and development considers the content framework and quality assurance</i>

<b>Metric</b>	<b>Descriptor - Stage I</b>	<b>Descriptor - Stage II</b>	<b>Descriptor - Stage III</b>	<b>Descriptor - Stage IV</b>	<b>Descriptor - Stage V</b>
					<i>parameters (gate criteria, quality scorecard) put in place for iGOT Karmayogi.</i>
<i>What percentage of the Institute courses are digitised and hosted on iGOT?</i>	<i>The Institute does not use iGOT.</i>	<i>&lt;49 % of training modules are digitized and hosted on iGOT.</i>	<i>50-69% of training modules are digitized and hosted on iGOT.</i>	<i>70-89% of training modules are digitized and hosted on iGOT.</i>	<i>&gt;90% of training modules are digitized and hosted on iGOT.</i>
<i>What is the degree of utilisation of courses (% of iGOT courses used) hosted by the Institute on iGOT?</i>	<i>The Institute does not use iGOT.</i>	<i>&lt;49% utilisation of courses hosted by the Institute on iGOT</i>	<i>50%-69% utilisation of courses hosted by the Institute on iGOT</i>	<i>70-89% utilisation of courses hosted by the Institute on iGOT</i>	<i>&gt;90% utilisation of courses hosted by the Institute on iGOT</i>
<i>Does the Institute have norms for standardising best practices around phygital training delivery?</i>	<i>No formal process in place for identifying and standardising best practices around digital training delivery.</i>	<i>The Institute has well-defined norms for identifying and standardising best practices around digital training delivery that are drawn from comparable national institutions that deliver blended training content. However, these norms are not utilised for improving the training capacities of the Institute.</i>	<i>The Institute has well-defined norms for identifying and standardising best practices around digital training delivery that are drawn from comparable national institutions that deliver blended training content. These norms are used as benchmarks to check the Institute 's performance.</i>	<i>The Institute has well-defined norms that are drawn from comparable national and international institutions that deliver blended training content. These norms are used as benchmarks to check the Institute 's performance. Some corrective measures may be taken based on these assessments, but this is not systemised.</i>	<i>The Institute has a strong focus towards identifying and standardising best practices around digital training delivery. It has well-defined norms that are drawn from comparable national and international institutions that deliver blended training content. In addition, the Institute devises its own benchmarks for Phygital training and assesses its performance relative to these and undertakes corrective</i>



<b>Metric</b>	<b>Descriptor - Stage I</b>	<b>Descriptor - Stage II</b>	<b>Descriptor - Stage III</b>	<b>Descriptor - Stage IV</b>	<b>Descriptor - Stage V</b>
					actions as needed, such as training the trainers in more effectively delivering digital content.
<i>Does the Institute assess the impact and quality of its digital training relative to traditional training forms?</i>	<i>The Institute does not conduct any such impact assessment</i>	<i>The Institute solicits feedback from participants on perceived effectiveness, utility, and applicability of the Phygital courses.</i>	<i>The Institute solicits feedback from participants on perceived effectiveness, utility, and applicability of the Phygital courses. In addition, the Institute also assesses the impact of the training on trainees' short-term on-the-job performance enhancement.</i>	<i>The Institute solicits feedback from participants on perceived effectiveness, utility, and applicability of the Phygital courses. The feedback received is utilised to address main areas of concern. In addition, the Institute also assesses the impact of the training on trainees' short-term on-the-job performance enhancement.</i>	<i>The Institute solicits feedback from participants on perceived effectiveness, utility, and applicability of the Phygital courses. The feedback received is utilised to address main areas of concern. In addition, the Institute also assesses the impact of the training on trainees' short-term as well as long-term on-the-job performance enhancement.</i>

### Annexure 3: Levels of e-learning content creation

<b>LEVEL 1</b>	
Description	This will be a medium complex (functionally) course.
Highlights	<ul style="list-style-type: none"> <li>• Informational e-Lessons</li> <li>• Focus on awareness</li> </ul>

	<ul style="list-style-type: none"> <li>Linear content flow consisting of text &amp; static graphic</li> </ul>		
Splash/Intro screen	Static Screen		
Interactivity	<ul style="list-style-type: none"> <li>No interactivities</li> <li>Click-to-Reveal: (Optional, One template only)</li> <li>Hot spots (Tabs/Images)</li> <li>Roll-over text</li> </ul>		
Graphical User Interface	<ul style="list-style-type: none"> <li>3 options will be provided customized as per organisation's product/services (Select one)</li> </ul>		
Knowledge check/assessment	<ul style="list-style-type: none"> <li>Multiple Choice Single Select</li> <li>Multiple Choice Multiple Select</li> </ul>		
Graphics	<ul style="list-style-type: none"> <li>Stock Images/photographs/live videos provided by buyer, in case of purchase or specific photo bank/live video to be created, those will be charged separately.</li> <li>Simple 2D drawings such as flowcharts, diagrams only</li> <li>20% in the entire course</li> <li>No graphic avatar/mascot</li> </ul>		
Animation	<ul style="list-style-type: none"> <li>No Content effects (animated text, bullets, transitions etc.)</li> <li>No Audio sync with animated text</li> </ul>		
Audio	<ul style="list-style-type: none"> <li>Limited choice i.e., not more than 2 pre-fixed artistes for voice over</li> <li>No intro music</li> </ul>		
Navigation	<ul style="list-style-type: none"> <li>One level - Index / TOC / Menu structure</li> <li>Other Functionalities: Next, Back, Exit, Help Audio</li> <li>On/Off, Page counter, Glossary (optional)</li> </ul>		
Technical Features	<ul style="list-style-type: none"> <li>Development Tool – Flash / HTML5 / Rapid Authoring Tools</li> <li>SCORM Compliant – Yes, SCORM Versions 1.2, 2004, AICC</li> <li>Localisation friendly – Yes</li> </ul>		
Number of screens per hour	50 - 60 screens with minimal or no layering		
Screen bifurcation	Screen Type	Description	Count
	Total screens	Includes cover screens (introduction, objectives, and summary), content screens and inline/final assessments.	50
	Static screen	Includes non-interactive screens	28

		and screens presenting course content, Splash, Help, Assessment overview, Assessment result, Completion certificate, Menu	
	Animation	Includes screens that have simple animation viz. Flow charts & diagrams	1
	Interactive Screen	Includes content screens that have some simple form of interaction	1
	Knowledge checks/assessment	Includes inline/CYK and Final assessment screens	20

LEVEL 2	
Description	The courses at this level will be complex in terms of content, Animation and functionality.
Highlights	<ul style="list-style-type: none"> <li>• Procedural e-Lessons Focus on application of knowledge and skills</li> <li>• Non-linear content and synchronized visuals</li> <li>• Text effect animations</li> <li>• Software Application simulations</li> <li>• Simple scenario-based learning (offline case study)</li> <li>• Scored assessments</li> <li>• High degree of content layering</li> <li>• Logical and Conditional Branching of screens</li> <li>• Discovery learning</li> <li>• Non-linear flow of content, with a high degree of layering</li> </ul>
Splash/Intro screen	20-30 seconds animated screen
Interactivity	<ul style="list-style-type: none"> <li>• Click-to-Reveal:</li> <li>• Hot spots (Tabs/Images) (One template only)</li> <li>• Click-plus-Pop-up:</li> <li>• Hot spots (Tabs/Images) (One template only)</li> <li>• Roll-over text</li> <li>• Interactive timelines</li> </ul>
Graphical User Interface	<ul style="list-style-type: none"> <li>• 3 options will be provided customized as per organization's product/services (Select one)</li> </ul>

Knowledge check/assessment	<ul style="list-style-type: none"> <li>• Multiple Choice Single Select</li> <li>• Multiple Choice Multiple Select</li> <li>• Match the Following</li> <li>• Sequencing</li> <li>• Sorting</li> </ul>		
Graphics	<ul style="list-style-type: none"> <li>• Stock Images/photographs/live videos provided by buyer, in case of purchase or specific photo bank/live video to be created, those will be charged separately.</li> <li>• Double toned, semi-realistic 2D graphics</li> <li>• Graphic avatars with basic animation like eye blinks &amp; hand gestures</li> <li>• Backgrounds – Photographic</li> </ul>		
Animation	<ul style="list-style-type: none"> <li>• Content effects (animated text, bullets, transitions etc.)</li> <li>• Audio sync with animated text</li> <li>• Animation with semi complex effects</li> </ul>		
Audio	<ul style="list-style-type: none"> <li>• More than 2 pre-fixed artistes for voice over</li> <li>• Intro music</li> </ul>		
Navigation	<ul style="list-style-type: none"> <li>• One or two level - Index / TOC / Menu structure</li> <li>• Screen control functionality</li> <li>• Other Functionalities: Next, Back, Exit, Help Audio</li> <li>• On/Off, Page counter, Glossary, Progress Bar</li> </ul>		
Technical Features	<ul style="list-style-type: none"> <li>• Development Tool – Flash / HTML5 / Rapid Authoring Tools</li> <li>• SCORM Compliant – Yes, SCORM Versions 1.2, 2004, AICC</li> <li>• Localisation friendly – Yes</li> </ul>		
Number of screens per hour	40 - 45 screens with layered content		
Screen bifurcation	Screen Type	Description	Count
	Total screens	Includes cover screens (introduction, objectives, and summary), content screens and inline/final assessments.	45
	Static screen	Includes noninteractive screens and screens presenting course content, Splash, Help, Assessment overview, Assessment result, Completion certificate, Menu	15
	Animation	Includes screens that have simple animation viz. Flow charts & Diagrams	5

	Interactive Screen	Includes content screens that have some simple form of interaction	5
	Knowledge checks/assessment	Includes inline/CYK and Final assessment screens	20

LEVEL 3	
Description	These will be high-end courses in terms of content, animation and functionality. The content will be presented through life-like skill set of complex cues and responses, branched navigation, and games/simulations.
Highlights	<ul style="list-style-type: none"> <li>• Analytical content</li> <li>• Focus on Decision making</li> <li>• Offers a high degree of interaction and provides real life/ application-oriented training</li> <li>• Multiple paths to accomplish an objective, and fosters learning by doing and learning through making mistakes</li> <li>• The design comprises elements that enhance the learning experience and includes rich multimedia elements like illustrations and animations that are created specifically for the program</li> <li>• Multiple branches (two to three levels) and rapid response are provided to support remediation</li> <li>• Simulations can be presented via graphics, including complex images and animation</li> <li>• Instructional design techniques for engagement in a complex interaction include complex simulations where the learner must enter actual data into fields and experience consequence for errors and faulty data. In addition, scenario-based branching logic is introduced.</li> <li>• When using branching logic, learners experience jeopardy for incorrect responses, and their progress is determined by their decision</li> <li>• Non-linear flow, with a high degree of layering of content</li> </ul>
Splash/Intro screen	20-30 seconds animated screen
Interactivity	<ul style="list-style-type: none"> <li>• Click-to-Reveal:</li> <li>• Hot spots (Tabs/Images)</li> <li>• Click-plus-Pop-up:</li> <li>• Hot spots (Tabs/Images)</li> <li>• Slideshow:</li> <li>• Hot spots (Tabs/Images)</li> <li>• Roll-over text</li> </ul>

	<ul style="list-style-type: none"> <li>• Interactive timelines</li> <li>• Branching</li> <li>• Simple games such as hangman, tic-tac-toe, word search etc. (Gamelets)</li> </ul>
Graphical User Interface	<ul style="list-style-type: none"> <li>• 3 options will be provided customized as per organization's product/services (Select one)</li> </ul>
Knowledge check/assessment	<ul style="list-style-type: none"> <li>• Multiple Choice Single Select</li> <li>• Multiple Choice Multiple Select</li> <li>• Match the Following</li> <li>• Sequencing</li> <li>• Sorting</li> <li>• Crossword Puzzles</li> <li>• Scenario-based/game-based/simulation-based summative assessments</li> <li>• Tracked formative assessments</li> </ul>
Graphics	<ul style="list-style-type: none"> <li>• Stock Images/photographs/live videos provided by buyer, in case of purchase or specific photo bank/live video to be created, those will be charged separately.</li> <li>• Semi-realistic, realistic graphics created</li> <li>• 2D graphics (characters and scenarios)</li> <li>• 3D graphics (characters and scenarios)</li> <li>• Graphic avatars/mascot with smooth animation &amp; walk cycles</li> <li>• Backgrounds – Illustrated</li> </ul>
Animation	<ul style="list-style-type: none"> <li>• Content effects (animated text, bullets, transitions etc.)</li> <li>• Audio sync with animated text</li> <li>• Animation with semi complex effects</li> </ul>
Audio	<ul style="list-style-type: none"> <li>• More than 3 pre-fixed artistes for voice over</li> <li>• Intro music</li> </ul>
Navigation	<ul style="list-style-type: none"> <li>• Up to 3 level and highly custom - Index / TOC / Menu structure</li> <li>• Screen control functionality</li> <li>• Other Functionalities: Next, Back, Exit, Help Audio On/Off, Page counter,</li> <li>• Glossary, Progress Bar</li> <li>• Additional notes</li> </ul>
Technical Features	<ul style="list-style-type: none"> <li>• Development Tool – Flash / HTML5 / Rapid Authoring Tools</li> <li>• SCORM Compliant – Yes, SCORM Versions 1.2, 2004, AICC</li> <li>• Localisation friendly – Yes</li> </ul>
Number of screens	35 - 45 screens with layered content

per hour			
Screen bifurcation	Screen Type	Description	Count
	Total screens	Includes cover screens (introduction, objectives, and summary), content screens and inline/final assessments.	35
	Static screen	Includes non-interactive screens and screens presenting course content, Splash, Help, Assessment overview, Assessment result, Completion certificate, Menu	10
	Animation	Includes screens that have simple animation viz. Flow charts & Diagrams	5
	Interactive Screen	Includes content screens that have some simple form of interaction	5
	Knowledge checks/assessment	Includes inline/CYK and Final assessment screens	15