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Ministry of Housing and Urban Affairs
Government of India

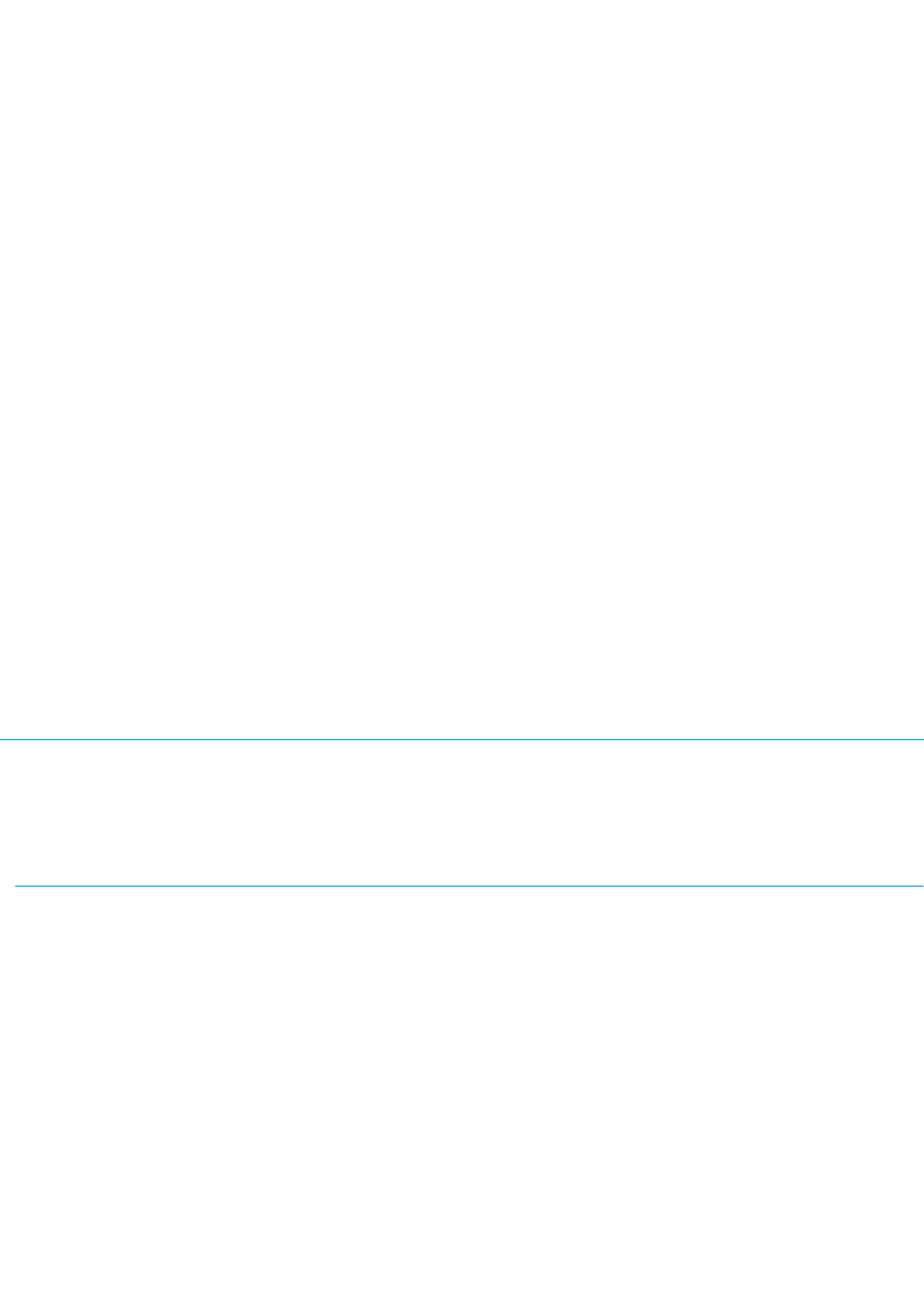


UK Government

Strategic Approach to Empower Urban India's Capacity Building Communities

**National Urban
Learning Platform (NULP)**

An Ecosystem Approach
to Capacity Building





Strategic Approach to Empower Urban India's Capacity Building Communities

National Urban Learning Platform (NULP)
An Ecosystems Approach to Capacity Building

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Foreword

Secretary, MoHUA

By 2030, India's urban population is expected to grow to 600 million or 40% of the national population. This population chooses urban life because cities provide opportunities for growth and self-actualisation. This is particularly true of the post-industrial city and Indian cities are particularly representative of the new economy because industrialisation was only concentrated in a few of the bigger metropolitan centres and older industrial townships, whereas most of urban India is engaged with other forms of economic activity. Because of the concentration of trade and commerce, knowledge-based industries and a vast informal sector, urban India has become the fulcrum of India's growth, with 70% of National GDP expected to come from urban areas. It is expected that if current growth trends prevail, India will become at least a 7 trillion-dollar economy by 2030.

While Indian cities are the location of its financial institutions and economic drivers, they are also centres of learning and creativity, offering a rich matrix of life to their citizens. While rural India has had a long history of innovation, enterprise has been uniquely associated with urban India. It is predicted that the next generation of urban enterprises will be most likely dependent on digital technologies, data sciences, human ecologies mediated by advanced knowledge systems, new material sciences and new ways of managing resources and doing business. Enterprises require appropriate and vibrant ecosystems to flourish, and ecosystems require a variety of human actors, supportive environments and enabling technologies and catalysing knowledge resources.

In order to ensure that city governments and urban ecosystems are well equipped to drive urban transformation, NUIS has proposed to anchor the capacity building efforts of MoHUA missions and other stakeholders of the quadruple helix through a National Urban Learning Platform that will address the training and skill development needs of different ecosystem actors. The NULP team will work with various stakeholders to ensure that the knowledge they possess can be digitised and made available to ecosystem actors to access in a streamlined manner.

The NULP will also enable the delivery of training programs and certification courses in a targeted manner. Over time, the NULP will host content from a large variety of stakeholders, making it the primary source for urban training and development for government employees, civil society, business and industry actors.

I would like to take this opportunity to appreciate the efforts of the officers of the National Institute of Urban Affairs and their supporting partners in designing a comprehensive strategy for operationalising the National Urban Learning Platform.

Preface

Joint Secretary, MoHUA

Urban India needs a variety of key skills and capacities to be developed speedily in the ecosystem in order to urgently address urban challenges, improve service delivery and unlock urban potential. These include skills like data driven decision making, urban planning, financial management, project management, resilience management and geographical information systems among others.

However, these capacities and skills are scarce in the ecosystem with traditional channels of education, training and capacity building. All urban actors need to develop new skills and capacities in a time bound and on-demand manner to meet mission critical goals. New methods and strategies will need to be employed and new modes of training and capacity building will need to be made available to the urban ecosystem.

The National Urban Learning Platform is envisioned as a means of digitally consolidating key skills and knowledge required by urban stakeholders and making these available to all actors on the channel of their choice. The NULP will enable users to discover relevant materials and content on topics of interest and relevance and enrol in benchmarked and certified courses of varying durations and levels of effort to develop the related skills and capacities.

Due to the dynamic nature of learning demand, the NULP will place agency and control over training in the hands of the users by making available a variety of options for self-directed learning and training. This will ensure that users are able to engage in lifelong learning and can access training and knowledge at a time that is most useful and relevant to them.

The NULP will also enable the creation of certification programs and will assist in the digital issuance and verification of certificates needed by functionaries in their respective roles. This will drive transparency on the skill levels and capacities available in the urban ecosystem and assist in matching functionaries to the roles that they are qualified to perform.

The NULP will actively engage with and enrol training institutions, schools, civil society and other knowledge creators in India and abroad to ensure that there is a variety of content on a wide range of topics available on demand. The NULP team will also work closely with these stakeholders to help align their programs with and scale their reach. Over time, the NULP will host content from a large variety of stakeholders, making it the primary source for urban training and development for government employees, civil society, business and industry actors.

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(To be updated in designed version)

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Executive Summary

In India, there are over 4000 cities and towns. The diversity and complexity of the unique challenges they face cannot be overstated—every one of our cities and citizens must navigate these every day. It is also amply clear that solving these challenges requires innovation that is driven by the participation of all actors in the urban ecosystem – Citizens, Governments, Civil-Society, Enterprises, Local Entrepreneurs and Academia. Over the past several years many state and central government initiatives have been attempting to strengthen the capacity of the urban ecosystem so that they are better able to deliver relevant solutions to improve ease-of-living in the cities and make our cities sustainable. It is now time to consider implementing solutions, initiatives and innovations at scale to positively impact the quality of life of all Citizens in Urban India.

The Ministry of Housing and Urban Affairs (MoHUA) in association with the National Institute of Urban Affairs (NIUA) has introduced the National Urban Learning Platform (NULP) – a means of digitally consolidating key skills and knowledge required by urban stakeholders and making these available to all actors on the channel of their choice. The platform shall be available for use by all citizens, entrepreneurs, academicians, administrators, governments, NGOs and other urban actors across the country. The NULP would be a knowledge sharing platform that would be “built as a common public good” to avoid duplication of efforts, provide equitable access and successfully achieve convergence. This will propagate solutions and innovations that are underway, and act as an enabler of the rapid development of diverse new solutions by cities and states.

This NULP Learning Strategy document aims to create a coordinated, coherent and high-quality approach and standards for learning and training to contribute to the creation of a workforce of excellence. The strategy adopts a competency-based approach to learning and uses two interconnected learning pathways for leadership and operational streams that can be crisscrossed by personnel.

The strategy reinforces and builds on the reality that learning occurs through three main avenues: formal training or education, relationships (mentoring, coaching and buddying) or exchange, and on-the-job experience. Personnel will be offered a mix of these three main strategies to plot their selected learning pathway.

The strategy introduces standards for learning and training, requires the use of a learning management system to track learning, certification and achievement of competencies, and is accompanied by a training framework and the specifications for a functioning training resource centre that can be used across the Organisation for planning and delivering learning events. It will lead to the development of an engagement strategy for thousands of trained personnel across the country.

Learning delivery will include the use of low-bandwidth massive open online courses to reach up to millions of responders regardless of their geographical locations, supplemented by face-to-face training delivery. To ensure implementation and increase efficient use of human and financial resources, the strategy further defines governance and management systems for implementation that involve novel ways of working across the organisation, regular updating of the strategy, as well as evaluation of its impact.

The strategy has been developed by NIUA, with the support of a group of external consultants, and in collaboration with lighthouse cities. It outlines the roles and responsibilities of the members of the quadruple helix of government, academia, citizens and industry while also describing the intended benefits for each of these stakeholders.

Program Perspective

1. Context

Urban India needs a variety of key skills and capacities to be developed speedily in the ecosystem in order to urgently address urban challenges, improve service delivery and unlock urban potential. These include skills like data driven decision making, urban planning, financial management, project management, resilience management and geographical information systems among others. However, these capacities and skills are scarce in the ecosystem with traditional channels of education, training and capacity building.

All urban actors need to develop new skills and capacities in a time bound and on-demand manner to meet mission critical goals. New methods and strategies will need to be employed and new modes of training and capacity building will need to be made available to the urban ecosystem.

The National Urban Learning Platform (NULP) is envisioned by the Ministry of Housing and Urban Development (MoHUA) and the National Institute of Urban Affairs (NIUA) as a means of digitally consolidating key skills and knowledge required by urban stakeholders and making these available to all actors on the channel of their choice. The NULP will include tools to enable and streamline content creation, content organisation and management, course building, course management, assessment and certification. These tools will enable the ecosystem of training institutions, urban experts and academia to rapidly digitise their existing course material while creating new interactive and engaging types of content as well.

2. Pragmatic approach to learning

Today's urban leaders face a host of challenges: diminishing environmental resources, shrinking budgets and dramatic shifts in how people participate in the workforce. Partnerships between the public and private sector have long been championed as potential solutions to the deep-rooted and systemic problems facing cities. However, public-private partnerships operating in smart cities all too often force problem-solving partners to operate in silos, producing solutions that lack interoperability and sustainable business models for future use.

Cities also lack a clear and cost-effective mechanism for implementing new solutions or scaling them after they've been developed. This lack of clarity in implementation is endemic to current urban problem-solving. City officials believe the industry does not understand them, and technology vendors think dealing with cities is too complicated. This unintegrated approach also results in ad hoc implementation of products and services on a case-by-case basis.

NULP will look to catalyse the quadruple helix of governments, citizens, industry and academia to address the complex and dynamic nature of delivering learning programs. NULP will follow an approach that can evolve and be extensible. This involves eradicating silos, driving interoperability and reducing friction to engage, for the ecosystem actors. The network of actors needs to come together and have the capabilities to build a platform that can be leveraged by citizens & departments alike for gaining competency to deal with different urban challenges.

3. Foundation of the Learning Strategy

3.1. Vision

To create a learning environment through modern techniques of knowledge and skills transfer to ensure that the upskilling expectations of member states and key stakeholders are met.

3.2. Purpose and scope

- a) Build up a culture of continued learning that involves partners from the quadruple helix – government, academia, industry and citizens.
- b) Adopt a competency-based approach to learning by specifying desirable behaviours in the urban context.

- c) Introduce learning pathways for learners depending on the roles they are expected to perform. Learning pathways will take learners from their current capacity level to the level that can demonstrate desirable behaviours. This transformation agenda foresees three pathways: cognition, technical and leadership. While citizens would be primarily expected to gain cognitive skills, government personnel would follow either of the two trajectories of technical or leadership development. Personnel may change pathways with time but will be asked to follow a continuous development programme based on one of the paths initially.
- d) Reinforce that learning occurs through three main sources: formal training, relationships (mentoring, coaching and buddying) and on-the-job experience. Learners will be offered a mix of these three main strategies to plot their selected learning pathway.
- e) Coherent, high-quality, coordinated and standardised learning and training activities to develop human resources for work across the organisation and beyond.

3.3. Goal

The goal of this learning strategy is to guide a coordinated effort of learning for the development of a workforce of excellence at municipalities and ensure that each stratum of the population gains access to cost-efficient resources for learning.

3.4. Objectives

The following objectives shall be utilised to realise the above goal:

- a) Create and maintain a comprehensive and innovative learning platform that forms a knowledge base for all cities.
- b) Ensure cities adopt the platform to holistically cater to the learning needs of the citizens thereby mobilising them towards innovative learning strategies.
- c) Establish coherent and consistent approaches and standards for learning across a breadth of urban municipalities to facilitate knowledge sharing.
- d) Foster an environment of co-creation and innovation to prepare an urban workforce of skilled, confident and qualified individuals and teams.
- e) Empower citizens to learn, communicate and contribute towards the development of cities through crowdsourcing initiatives to counter urban challenges.

3.5. Stakeholders

The ecosystem shall consist of the following stakeholders:

- a) Government bodies or ULBs
- b) Academia or Institutions
- c) Industry
- d) Citizens

These stakeholders form the quadruple helix and are essential for this capacity building initiative.

3.6. Value proposition

- a) Standardisation of non-formal learning (social learning and experiential learning) as part of the learning package for individuals and teams.
- b) Standardisation of training curricula and materials.
- c) Provision of tools for assessment and tracking of competencies.
- d) Competent pool of training designers, facilitators and administrators to support a wide range of training.
- e) Functional learning management system with training planning tool
- f) Build adequate measures at city level to ensure predictable and sustained funding to support the platform.

g) Application of a quality management system.

3.7. Learning principles

- a) NIUA recognises that a commitment to learning is a defining characteristic of the functionally efficient organisations that municipalities strive to be.
- b) NIUA also recognises the fact that a socially relevant platform for learning can increase citizen engagement and catalyse learning among them.
- c) NIUA will support a learning culture through the strategic investment of resources and effort, and by setting recognition standards to create an enabling environment for learning and development.
- d) NIUA recognises that learning is best viewed as a career-long process and not a one-time event. Dedicated training activities represent only one modality for learning; the learners can develop knowledge, skills and attitudes through informal as well as formal interactions.
- e) NIUA also recognises that individuals come from different learning backgrounds, learn at their own pace and have different learning styles. They therefore require exposure to different learning modalities.
- f) Increased accessibility, including language accessibility, and adaption to the learning needs and preferences of key stakeholders is of prime importance to NIUA.

3.8. Target Audiences

The primary target audiences for this strategy are:

- a) ULBs interested in creating a learning ecosystem for citizens
- b) Citizens looking for upskilling or reskilling initiatives
- c) Industry and academia partners who are keen to offer support in learning initiatives of cities

4. Enabling learning pathways

NIUA recognises that everyone learns in a different manner, in her or his own way and pace. As such, NULP would strive to maintain a flexible approach to the creation of individual learning pathways, which may involve formal or informal activities. For example, learning may involve a mix of blended training, mentoring, academic degree work and/or on-the-job training.

The learning pathways would therefore intentionally be flexible and adaptable, allowing learners to formulate activities that are appropriately suited to their levels of expertise, competence, priorities and resources. The common critical component is that each person needs to have a clear learning goal and direction and make an informed and supported choice to take a route or path to achieve the desired competencies for performance improvement.

4.1. Competency framework

A competency is the demonstrated ability (behaviours) to apply attributes, skills and knowledge. Attributes, skills and knowledge are the critical components of a competency. Behavioural indicators are descriptions of behaviours that provide evidence of the existence of a required competency.



- a) Technical competencies: Possessing and maintaining the highest levels of technical knowledge, skills and approaches for one's respective area of expertise.
- b) Behavioural competencies: Flexibility, agility and adaptability, situational awareness in diverse environments. Building and promoting partnerships across the organisation and beyond, partner coordination.

4.2. Formal learning

- a) Evaluated at the end of each training.
- b) Based on achieving competencies identified for key functions.
- c) Offered as events in a learning pathway (cognition, technical and leadership) selected for individuals and teams, with flexibility for movement between pathways with time.
- d) Linked to career advancement and able to influence the assignment of development tasks/assignments and mobility.
- e) Assigning knowledge transfer to flexible online learning, leading to skills acquisition and competency assessment.
- f) Based on the strict use of adult learning techniques and delivered by trained professionals – staff.
- g) Supported by quality checks and independent assessment of learning.
- h) Based on accreditation and certification, as appropriate.

4.3. Social learning

- a) Mutual learning is a necessity for fostering an environment of knowledge sharing and competency building.
- b) Based on interrelationships between learners for achieving a common knowledge objective.
- c) Involves individuals exchanging knowledge and experience with each other and diffusing this learning back to their organisations to ensure an impact on sectors and communities.
- d) Use of message boards and chat rooms to promote social dialogue around learning.
- e) Gamification is another important aspect to catalyse learners' interest and propel them towards higher competency levels.

4.4. Experiential learning

- a) Identifying and supporting challenging job tasks and problem-solving.
- b) Regular presentation and discussion of experience and learnings to groups of peers and supervisors.
- c) Writing about and publishing experience and learnings on internal and external fora.
- d) Periodically assessing future learning needs by taking stock of experience and proactively searching for opportunities to fill that gap.

5. Learning cities

5.1. Fulfilling learners' interests

Learners' need for professional and personal growth has transcended the walls of classrooms and lecture rooms. Learners now learn at their computer screens, they learn outside, they learn in solitude, and they learn in groups. Today's individuals have committed to never stop growing, to continue reinventing themselves, and acquire new skills and knowledge wherever they are.

The learning platform can amplify the quality of learning when the following interests of learners are met:

- a) **Learner-centred content:** Designing curricula and suggesting learning opportunities that circle around the personal interests of learners while fulfilling learners' needs, roles and responsibilities in professional life. Skills, knowledge and information should be provided to this end.
- b) **Granularity:** Segmenting content to facilitate assimilation of new knowledge and to allow flexible scheduling of time for learning.
- c) **Engaging content:** Creative use of instructional methods and techniques to develop an engaging and motivating learning experience.
- d) **Interactivity:** Scheduling frequent interactions of learners with instructors and fellow learners to sustain attention and promote learning.
- e) **Personalisation:** Customising self-paced courses to reflect learners' interests and needs; in instructor-led courses, tutors and facilitators should be able to follow the learners' progress and performance individually

5.2. Global platforms for urban learning

Learners are now starting to get learning opportunities available at their fingertips and the recognition of their learning efforts being captured in a digital badges' portfolio. There are numerous online platforms, allowing learners to pick and choose learning opportunities based on their passion and interests. Essentially, they are proactively creating learning pathways for themselves to sharpen their skills and prepare themselves for the rigours faced by the modern workforce. Below is a snapshot of some prevalent urban learning platforms that give an insight into how learning is being transformed across cities.

- a) City Possible

City Possible	
Platform Link	City Possible
About the platform	i. Caters to a network of cities mainly across America, Brazil, Europe, Australia

	<ul style="list-style-type: none"> ii. The platform now has 100+ member cities with an aim to make the city more sustainable and inclusive. iii. Vision- Global Network, Urban Co creation, Scale co created solutions iv. 1 Academy Partner- Harvard v. Numerous Industry Partners like AT&T, IDEMIA, Kisio Digital, etc. vi. Platform partner- Mastercard vii. Most of the content is contributed by Harvard. Either the academicians at Harvard create the content themselves or they outsource the content to industry partners and review it before publishing it to the portal
Focus area	<p>Co creation of content, global webinars</p> <p>Value proposition for NULP-</p> <ul style="list-style-type: none"> ● Co Creation of content is an important feature for the NULP platform as Research groups and academicians might co create content pieces for uploading. ● Content consumption by all stakeholders- All stakeholders irrespective of their city they belong to can access the content present on CityPossible platform
Target audience	Cities' municipalities
Main features of the platform	<ul style="list-style-type: none"> i. Responsive design for cross-device compatibility i.e. Mobile and Web ii. Effective onsite search iii. Easy and Convenient Customer Interface iv. Intercity usability of the contents
Content types	<p>Online trainings, blogs, webinars</p> <p>Topics include- Smart City, Sustainable cities, Latest innovation</p>
Benefits	<ul style="list-style-type: none"> i. Interactive and easy to navigate platform ii. Use of technology by the partnering cities in the fields like Tourism, Inclusive Urbanisation, Urban mobility can be explored using this platform iii. Content contributed by academicians across the world can be consumed through one single platform iv. Easy user registration method

b) Cities of learning

Cities of Learning	
Platform Link	Cities of Learning

About the platform	<ul style="list-style-type: none"> i. Cities of Learning is a territory-based web platform that enables cities and regions to create unique learning pathways for their youth using interactive maps, online learning playlists and digital Open Badges. ii. It is a European Union initiative iii. Badge craft hosts this platform and develops it together with leading educational organisations. iv. The European Union's program Erasmus+ granted co-funding for building the first version of this platform
Focus area	<p>The platform offers an interactive method of learning for the partnering cities. The stakeholders can consume the contents contributed by other cities also.</p> <p>Value Proposition for NULP-</p> <ul style="list-style-type: none"> ● Role based access- Blogs and manuals created by the academicians and researchers are available in public domain for mass consumption. Whereas, some contents like video lectures are available only on role-based sign on ● Multilingual platform- The contents are available in different European languages for different stakeholders
Target audience	Youth of the partnering cities
Main features of the platform	<ul style="list-style-type: none"> i. Numerous instructor-led courses on topics like Career and job readiness, Technology and computers, Art and culture, Creativity and design, Personal Development, Environment and Ecology, etc. ii. The platform also contains a number of blogs on the topics similar to the ones listed above iii. Inter stakeholder interaction- Technologies and skills of one city can be explored by the youth of another city iv. The content contributed by the cities can be outsourced to the institutions or industry partners or could also be contributed by the set of academicians and research groups identified by them
Content types	<p>Instructor led courses, Blogs, Interactive maps</p> <p>Main Sectors- Career and job readiness, Technology and computers, Art and culture, Creativity and design, Personal Development, Environment and Ecology, etc</p>
Benefits	<ul style="list-style-type: none"> i. The citizens of the participating cities can learn new skills using this platform. ii. Also, the citizens can acquire 'Digital Open Badge' which is a type of certification present on the platform iii. Easy Sign up process as all the consumers have the same access role, that is, all the consumers will have access to the same set of contents

Gaps	All content is in local languages of the cities only. Intercity interaction of youth on the platform might be difficult.
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c) City Fix Learn

City Fix Learn	
Platform Link	City Fix Learn
About the platform	<ul style="list-style-type: none"> i. City Fix Learn works for making Sustainable Cities. It helps to make urban sustainability a reality. ii. Global research and on-the-ground experience in Brazil, China, India, Mexico, Turkey and the United States combine to spur action that improves life for millions of people. iii. The content is decided by the World Resource Institute (WRI). WRI either creates the content or asks the participating cities to contribute it. But final publication of content is done by WRI only
Focus area	Sustainable urban cities
Target audience	Citizens
Main features of the platform	<ul style="list-style-type: none"> i. Interactive home page giving a sense of all types of content present in the platform ii. Advance search feature for choosing learning type, solution, enabler, language, region iii. Bookmark course feature to save the relevant courses and consume it later iv. Platform allows co creation of learning product or training offers v. Partnership with organisations and institutions for conducting events, conference and webinars vi. Allows citizens to write blogs on the City Fix Blog page vii. Past webinars saved as Archives and uploaded on YouTube for consumption viii. Multilingual platform
Content types	<ul style="list-style-type: none"> i. Trainings- Mainly in the form of instructor- led courses where the participants need to join at a particular time and complete the learning lessons ii. Webinars- Open for all logged in users. They can register for the webinar and join iii. Tools- Helps you download tools and also gives you a brief about the features and usage of the tool. This section also includes the training on the tool. iv. Learning Guides- Designed for 'Learning at your own pace'. Participants can access the guide whenever they want and finish the course as per their convenience

	Sectors focussed: Sustainable Cities, Smart cities, waste management
Benefits	Value adds: <ul style="list-style-type: none"> i. No sign in required for the free blogs and archived webinars ii. Interactive user platform making sure that user experience is good

d) UNESCO UIL Learning

UNESCO UIL Learning	
Platform Link	UNESCO UIL Learning Cities
About the platform	<ul style="list-style-type: none"> i. The Lifelong Learning Platform is an umbrella that gathers 42 European organisations active in the field of education, training and youth, coming from all over Europe and beyond. ii. Currently these networks represent more than 50,000 educational institutions and associations covering all sectors of formal, non-formal and informal learning. Their members reach out to several millions of beneficiaries. iii. The Platform aims to voice citizens' concerns about lifelong learning. The idea is that no one should be left out and that bridges are built across sectors to increase access to quality education for all. iv. The platform: <ul style="list-style-type: none"> o Enables exchange of practices and expertise o Gives a voice of concern and connects the partnering cities o Promotes a more democratic, civic, and social Europe o Offers updated information on and analysis of key issues o Offers peer learning and capacity building activities
Focus area	Training the citizens
Target audience	Youth of the participating cities
Main features of the platform	<ul style="list-style-type: none"> i. Separate member area where the users of the registered cities can login and consume content ii. Educational Institutions contribute content on the platform iii. 4 types of working group for bringing forth the content: <ul style="list-style-type: none"> o Wider benefits of learning o Europe 2020 policy conference o Validation task force o Digital learning
Content types	Instructor-led courses, blogs and articles.

Benefits	Systematic learning on the topics related to European markets
Gaps	<ul style="list-style-type: none"> i. Complex user interface. ii. Difficult to navigate to learning page compromising user experience on the platform

e) Learning Climate

Learning Climate	
Platform Link	Learning Climate
About the platform	<ul style="list-style-type: none"> i. This platform aims to equip local governments, citizens and businesses with a set of capacities that enable them to initiative, promote and accelerate city transformation towards sustainability. ii. The content has been collated, curated and distilled from an extraordinary community of practitioners, partners, experts and researchers.
Focus area	To enable sustainability in states
Target audience	Citizens, Governments, Businesses
Main features of the platform	<ul style="list-style-type: none"> i. Contains both free and paid courses ii. Vast Network of coaches where the coach register and conduct the physical trainings for which the participants can register, pay and attend iii. Different communities/ Discussion forums of users where the participants can discuss, co-create, learn new topics
Content types	<ul style="list-style-type: none"> i. Through this platform you can access videos, webinars, enrol in face-to-face trainings and online courses covering: <ul style="list-style-type: none"> o Key enablers of transformative changes in the cities, such as governance and partnership models, access to finance and urban system analysis o Strategic topics essential to tackling city challenges, including leadership for enabling system change, smart cities and project preparation o New and often overlooked functional skills required for driving the urban transition towards sustainable city systems
Benefits	<ul style="list-style-type: none"> i. Huge repository of courses for smooth management of cities ii. Global partnership of members ensuring that there is a transfer of knowledge from one part of the world to the other

	<ul style="list-style-type: none"> iii. Numerous free webinars and online training courses which anyone can benefit from without registering on the platform iv. Easy to use interface
Gaps	<ul style="list-style-type: none"> i. No search feature on any of the pages. ii. The user will have to scroll down to look at the courses relevant to them

B. Platform Perspective

After analysing these platforms, we have identified some of the main features of these platforms. These are divided into four major segments:

1. **Homepage Feature-** Mainly highlighting what all contents are included in the home page.
2. **Content Features-** To highlight what types of content are present in the learning platform analysed
3. **Platform Specific Features-** These features summarise the platform level functionalities which are included
4. **Type of users-** What are the users who act as stakeholders to these platforms

In the following tables, the features for the 4 headers are analysed. If the platform includes the feature then it is marked in green.

TABLE 1- HOME PAGE FEATURES

HOME PAGE FEATURES					
	City Possible	Cities of Learning	City Fix Learn	UNESCO Learning Platform	Learning Climate
1) About Page					
2) About Industry Partners					
3) About Institute Partnership					
4) FAQs					

TABLE 2- CONTENT FEATURES

CONTENT FEATURES					
	City Possible	Cities of Learning	City Fix Learn	UNESCO Learning Platform	Learning Climate
5) Blogs					
6) Webinars					

7) Instructor Led Courses					
8) Paid Courses					
9) Free Courses					
10) Open for all type content					
11) Role specific content					
12) SOPs and manuals					
13) Assessments					
14) Cross tenant content availability					
15) Content for ULB's context					
16) Certifications					
17) Face to face learnings					

TABLE 3- PLATFORM SPECIFIC FEATURES

PLATFORM SPECIFIC FEATURES					
	City Possible	Cities of Learning	City Fix Learn	UNESCO Learning Platform	Learning Climate
18) Search feature					
19) Ease of usage					
20) User Registration					
21) City Registration					

TABLE 4- TYPE OF USERS

TYPE OF USERS					
	City Possible	Cities of Learning	City Fix Learn	UNESCO Learning Platform	Learning Climate
22) Government Officials					
23) Municipalities					

24) Citizens					
25) Industry partners					

Based on the benchmarking study, the following features should be included in the NULP Platform:

- A. About Page-** An about page mentioning a brief about the platform and the contact person's details for platform stakeholders to send their interest for partnering, contributing content and post queries
- B. About Industry Partners-** As NULP welcomes partnership with Industry partners/ content partners, a page highlighting the name of the partners associates with NULP must be included.
- C. About Institute Partnership-** As it is envisaged that NULP will partner with institutes for creation of content repository and organisation of webinars, an institute partnership page becomes important for NULP.
- D. FAQs-** As deduced by the benchmarking study, an FAQ section helps users to navigate and understand the platform interface easily.
- E. Blogs-** Blog is a content type which is publicly available in all the urban learning platforms. The same is suggested for NULP also.
- F. Webinars-** Webinars are an important feature in some of the platforms and can be included in NULP also to conduct webinars for officials/ citizens across the ULB for sharing information online
- G. Instructor Led Courses-** For different learning platforms and also for NULP, instructor led courses are very important and form one of the main content types
- H. Paid Courses-** Some urban learning platforms have included paid courses in their portal which can be explored for NULP at later stages
- I. SOPs and manuals-** SOPs and manuals form another crucial content type benefitting not only the ULB officials but also citizens
- J. Cross tenant content availability-** A user registered for one city in the learning platform can view and consume content created for another city also. The same feature is envisaged for NULP also.
- K. Searchability-** An advanced search feature for specifying content topic, type, language, region is present in all the platforms. The same is suggested for NULP also
- L. City Registration-** Some platforms have a city registration form which can be filled by the nodal officer and show their interest for partnership. This feature can be considered upgrading NULP in the next stage
- M. User Registration-** User registration form is an important part of the platform and it is crucial for NULP also to have a user registration page so that any person willing to create an account on NULP can be seamlessly allowed to do so. This is critical also because four stakeholders as per the quadruple helix- ULB officials, citizens, industry partners and academicians are identified for the NULP platform and all registrations cannot be managed offline at the backend. Thus, the platform should have the facility of user registration.

OTHER MAJOR LEARNING PLATFORMS

Udemy- founded in May 2010, is an American online learning platform aimed at professional adults and students. As of Jan 2020, the platform has more than 50 million students and 57,000 instructors teaching courses in over 65 languages. There have been over 295 million course enrolments. Students and instructors come from 190+ countries and 2/3 of the students are located outside of the U.S.

Students take courses largely as a means of improving job-related skills. Some courses generate credit toward technical certification. Udemy has made a special effort to attract corporate trainers seeking to create coursework for employees of their company. As of 2020, there are more than 150,000 courses on the website.^[4]

Coursera- a world-wide online learning platform founded that offers massive open online courses (MOOC), specialisations, and degrees.

Coursera works with universities and other organisations to offer online courses, specialisations, and degrees in a variety of subjects, such as engineering, data science, machine learning, mathematics, business, computer science, digital marketing, humanities, medicine, biology, social sciences, and others.

Khan Academy- is an American non-profit educational organisation created in 2008, with the goal of creating a set of online tools that help educate students. The organisation produces short lessons in the form of videos. Its website also includes supplementary practice exercises and materials for educators. All resources are available for free to users of the website and app.

The website and its content are provided mainly in English, but is also available in other languages including Arabic, Armenian, Azerbaijani, Bengali, Bulgarian, Chinese, Czech, Danish, Dutch, French, Georgian, German, Gujarati, Hebrew, Hindi, Indonesian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese (Brazilian and European), Serbian, Spanish, Swedish, Tamil, Telugu, Turkish, Urdu and Uzbek.

Khan Academy's website aims to provide a personalised learning experience, mainly built on the videos which are hosted on YouTube. The website is meant to be used as a supplement to its videos, because it includes other features such as progress tracking, practice exercises, and teaching tools. The material can also be accessed through mobile applications.

The videos display a recording of drawings on an electronic blackboard, which are similar to the style of a teacher giving a lecture. The narrator describes each drawing and how they relate to the material being taught. Non-profit groups have distributed offline versions of the videos to rural areas in Asia, Latin America, and Africa. Videos range from all subjects covered in school and for all grades from kindergarten up through high school. The Khan Academy website also hosts content from educational YouTube channels and organisations such as Crash Course and the Museum of Modern Art. It also provides online courses for preparing for standardised tests, including the SAT and MCAT and released LSAT preparation lessons in 2018. Khan Academy has also supported Code.org's Hour of Code, providing coding lessons on its website

FEATURES IDENTIFIED

TABLE 1- HOME PAGE FEATURES

HOME PAGE FEATURES			
	Coursera	Udemy	Khan Academy
1. About Page			
2. About Industry Partners			
3. About Institute Partnership			

TABLE 2- CONTENT FEATURES

CONTENT FEATURES			
	Coursera	Udemy	Khan Academy
1. Instructor Led Courses			
2. Paid Courses			
3. Free Courses			
4. Open for all type content			
5. Role specific content			
6. SOPs and manuals			
7. Assessments			
8. Cross tenant content availability			
9. Certifications			
10. Face to face learnings			

TABLE 3- PLATFORM SPECIFIC FEATURES

PLATFORM SPECIFIC FEATURES			
	Coursera	Udemy	Khan Academy
1. Search feature			
2. Ease of usage			
3. User Registration			

6. National Urban Learning Platform (NULP)

6.1. About NULP

Ministry of Housing & Urban Affairs (MoHUA) intends to develop the National Urban Innovation Stack (NUIS) to provide the foundational components that are required across various urban programs in India. NUIS will be developed as a layered digital infrastructure to strengthen the capability of the ecosystem, to identify urban challenges and solve them. NUIS will be a nationally shared digital infrastructure usable by the Union and State across public and private sectors. It will establish a hub-and-spoke network wherein NUIS will be the 'virtual hub' that brings immediate results to the stakeholders of the ecosystem. Built as a public good, it will be interoperable through Open Source code and Open APIs, keeping in mind data privacy, extensibility and scalability. NUIS is highly configurable and scalable to meet the varied needs of diverse cities across the nation.

NUIS will become a vehicle for activating several key programs that can accelerate the ecosystem for urban transformation across India's geography through key urban initiatives like India Urban Data Exchange (IUDX), India Urban Connect (IUC), Smart Procure, Research & Innovation for Urban India, National Urban Learning Platform (NULP), SmartCode and Smart Governance. This will provide urban ecosystems with the resources and support needed to address systemic challenges.

The Ministry of Housing and Urban Affairs is managing various missions, programs and projects for urban transformation across 4000+ cities. Urban Ecosystem currently faces various challenges and poor capacities across the value chain is one of the core issues which leads to poor services, unsustainable projects and unviable infrastructure. Government, Industry, Academia and Communities/Citizens need a newer approach and new age solution to address capacity constraints instead of the traditional unidirectional manual manner of augmenting the capacity.

National Urban Learning Platform (NULP) aims to address these challenges and could be the game changer for the urban ecosystem. NULP could be the leapfrog opportunity today to address various constraints. NULP will cater the content needs of a diverse set of stakeholders in the urban domain. National Urban Innovation Stack has laid out guiding principle such as interoperability, scalability, minimalistic, modular and evolvable architecture which needs to be kept at the center to design, develop and roll out NULP to help NIUA achieve its objectives i.e. to do capacity building at scale and speed.

6.2. Capacity building through NULP

The National Urban Learning Platform is envisioned as a means of digitally consolidating key skills and knowledge required by urban stakeholders and making these available to all actors on the channel of their choice. The NULP will include tools to enable and streamline content creation, content organisation and management, course building, course management, assessment and certification. These tools will enable the ecosystem of training institutions, urban experts and academia to rapidly digitise their existing course materials while creating new interactive and engaging types of content as well.

Following are some aspects of NULP which would drive the usage and outreach in comparison with existing learning management system tools/platforms:

- a) NULP will be a dedicated national platform for urban development with shared digital infrastructure to be offered as a public good.
- b) NULP will be based on open source and open architecture which would allow easy extension/change of the platform as well Application Program Interface (API) based easy integration capabilities with any other open source systems.
- c) NULP will be truly multi-tenant in nature i.e. it will allow it to host cities as tenants on the platform and cities would be expected to drive the program.
- d) NULP will enable the creation of multilingual content to ensure that language does not form a barrier to learning.

- e) NULP will actively engage with and enrol training institutions, schools, civil society and other knowledge creators in India and abroad to ensure that there is a variety of content on a wide range of topics available on demand.
- f) NULP will enable users to discover relevant materials and content on topics of interest and relevance and enrol in benchmarked and certified courses of varying durations and levels of effort to develop the related skills and capacities.
- g) Due to the dynamic nature of learning demand, the NULP will place agency and control over training in the hands of the users by making available a variety of options for self-directed learning and training. This will ensure that users are able to engage in lifelong learning and can access training and knowledge at a time that is most useful and relevant to them.
- h) NULP will also enable the creation of certification programs and will assist in the digital issuance and verification of certificates needed by functionaries in their respective roles. This will drive transparency on the skill levels and capacities available in the urban ecosystem and assist in matching functionaries to the roles that they are qualified to perform.
- i) NULP will provide the required telemetry frameworks, assessment mechanisms and tools to measure the usage of content and the engagement and completion levels achieved across specific pieces of content – this will enable content creators to assess the effectiveness of their content and enhance it as needed and will inform users about relevance and effectiveness of course content based on user ratings and feedback.
- j) NULP team will also engage with MoHUA missions and their existing capacity building ecosystems to ensure that the content available is aligned to the practical needs of various missions and to enable certifications obtained through the NULP to be counted as mandatory training requirements of the missions.
- k) NULP will synergise the capacity building institutions empanelled with MoHUA to converge their training mandates and targets with the content and courses.
- l) NULP will empower India's urban functionaries, administrators, elected representatives, civil society, industry actors and other ecosystem players to build smart, inclusive, sustainable and resilient cities.

7. Prerequisites for operationalising NULP

7.1. Sensitising cities

Sensitising cities comprises approaching the cities and making them aware about NULP portal. It is proposed to conduct workshops at city level and sensitising ULBs about functions, features and benefits of NULP. This stage will help the states in developing an overall plan with respect to manpower, infrastructure, logistics requirements to ensure smooth execution of NULP program.

Expected outcomes of this stage are to institutionalise NULP and finalise the overall project roadmap along with developing a detailed plan for implementation. Formation of committees for NULP includes setting up and regular convening of committees to ensure smooth implementation of NULP in the ULB. Finally, at the end of this stage, state would have identified its users who will be onboarded on the NULP platform and essentially provide support for effective decision making at the ULB end.

7.2. Process of approaching cities

- a) **Stage 1:** Mail communication from Central Program Management Unit (CPMU) to cities for introducing NULP platform and to assign a nodal person for coordination.
- b) **Stage 2:** CPMU will share an ULB assessment framework and coordinate with nodal officers for relevant information. The assessment framework will help the program management unit and ULB to outline training priorities futuristic roadmap for overall program implementation.

- c) **Stage 3:** After city assessment the program management unit will work closely with ULBs to prepare the program implementation roadmap. Each ULB will identify users of NULP and their training requirements.
- d) **Stage 4-** All identified users registered on the platform and will undergo a Design Thinking Workshops and contribute on the portal once onboarded.

Post user registration program management unit will work closely with ULB to identify training needs of users. A detailed training need assessment form will be circulated to ULBs to identify various training needs.

7.3. Discover learning expectations of cities

This stage is very crucial wherein ULB is required to identify the various types of training needs of their employees, it is proposed to conduct a need assessment survey to analyse training requirements of various users. Training requirement comprises domain specific training, career development training, roles and responsibilities specific training are name a few.

Central Program Management Unit will support ULBs in identifying training needs and help in sourcing/ creating content for identified training. Following are broad steps to analyse training needs. Please refer following steps for training need assessment at ULB level:

Sr.no	Steps	Description
1.	Training Need Assessment	Training needs analysis by conducting surveys and via focus group discussions of various ULB officials based on latest trends and technologies and best practices around the globe.
2.	Review of Existing Training Program	Coordination with various departments within ULB to define training scope.
3.	Content Preparation	A content creation group needs to be formalised to define content sourcing and creation strategy. Content preparation in consultation with various subject matter and industry experts.
4.	Design Training Modules	Plan workshop for training of users to create content. Designing of training modules focused on need and interest of users.
5.	Launch of training modules	Launch of training modules and communication to user departments.
6.	Continuous Feedback Improvement	Continuous feedback and improvement on training modules.

7.4. Content sourcing mechanism

Content sourcing is defined as creating channelled mechanisms to facilitate the output of predictable and valuable content. Once the training needs of ULBs are identified, providing good quality content is the next and important step. Program management unit is responsible for facilitating quality content based on demand of users. Content sourcing can be done by following methods:

- a) Onboarding of various industries, academia's, research institutions and NGOs that are operating in various municipal domains.

- b) Content crowdsourcing
- c) Content creation by ULBs

Content creation will be enabled by the program management unit in the content creation workshops.

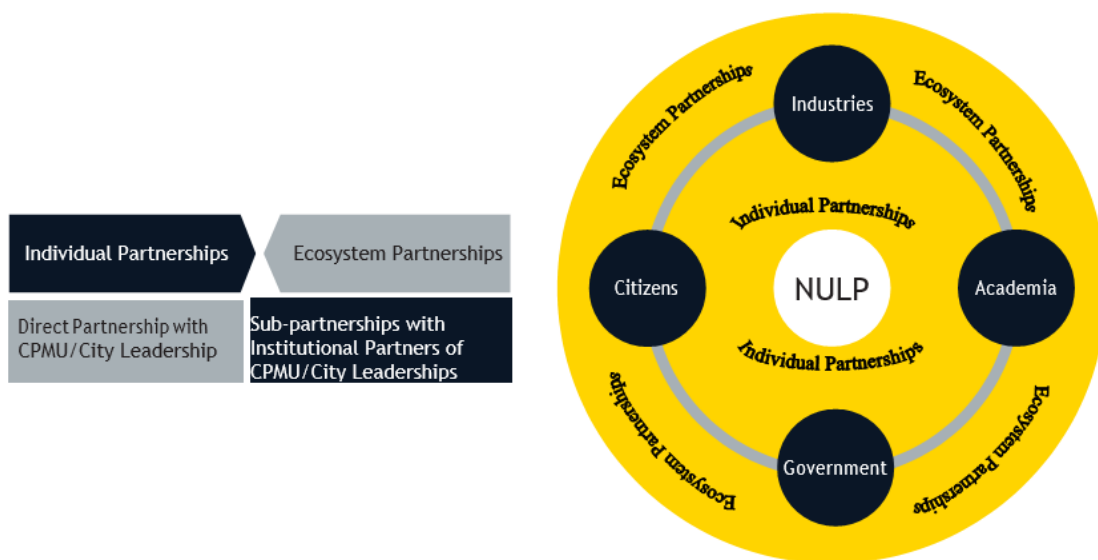
7.5. Partner Activation

The National Urban Learning Platform (NULP) provides a commonplace for ecosystem actors of the quadruple helix to build partnerships for knowledge-sharing and learning. The purpose of these partnerships differs from partner to partner. To demonstrate the partnership model that can be there in the National Urban Learning Platform, the following partnership model table is made. In this table, the Partner column refers to the category of probable partners for NULP, Partnership type refers to the short- or long-term duration associated with the partnership model. The last column, Partnership for represents the probable outcomes of the partnership.

Partner	Partnership Type	Partnership for
Industry Partnership	Long term partnership	<ul style="list-style-type: none"> ∅ To create manuals for tools, parts and software used by them in the ULB ∅ Paid courses with video tutorials about the usage of these tools and technologies along with certification of completion
Content partner firms (for creating, editing, reviewing contents)	Short term partnership	Engaged by city/ centre to: <ul style="list-style-type: none"> ∅ Create content on different sectors ∅ Translate the contents for different states and cities to increase usability of content across the country ∅ Make edits to the contents like changes in the subtitles (closed text), images, etc. ∅ Review contents basis the rubrics provided to them
Academics and research groups	Short term partnerships	<ul style="list-style-type: none"> ∅ To create contents for gaps and contribute their research works to NULP ∅ To create live lectures and share their courses online on NULP ∅ Co-create content with other academicians who are also a part of NULP ∅ Post blogs about their research and findings
Education institutions and training centres	Long term partnerships	<ul style="list-style-type: none"> ∅ Sharing readily available content which can be a part of NULP ∅ Providing Subject Matter Experts for different sectors for content creation for ULBs ∅ Review contents created by other partners and share their feedbacks ∅ Conduct events like workshops, seminars, webinars

Partnership Ecosystem

Two different partnership models are proposed under NULP:



NULP will act as a knowledge sharing platform facilitating the creation, uploading and curation of content. Various stakeholders of quadruple helix and their partner network are envisaged as key contributors of the portal. Basis on the nature of association the partnership with NULP may categorised in Individual and Ecosystem Partnerships.

Individual Partnership

A central program management unit (CPMU) shall be responsible for tie-up with various partners to source quality content. CPMU will analyse the need of content basis the feedback received from various ULBs and work towards activation of thematic areas to source content from eminent partners.

Ecosystem Partnership

NULP believes in democratisation of content hence it is intended to associate with partners via partners network to explore more avenues of quality content. It is envisaged that various stakeholders of NULP will approach their partner network which can also become sub partners and can contribute to NULP.

All partnerships will typically undergo the process outlined below:

SN.	Process	Description
1	Communication of Interest for Partnership	Sending of formal communication to nulp@niua.org or via the online form to express interest <i>(Online forms to be made available in future iterations of the platform)</i>
2	Assessment of partnership fit	<p>Purpose and fit of partnerships can be for exploring any of the following:</p> <ol style="list-style-type: none"> 1. Content partnerships 2. Research groups 3. Content reviewers and SMEs 4. Industry partners sharing SOPs, manuals, trainings 5. Content facilitators for thematic area activation 6. The following methods for identification of probable partner can also be explored by CPMU/City Leadership: <ol style="list-style-type: none"> 7. Conducting secondary research 8. Communicating with existing network 9. Building of a Content Landscaping document 10. Floating of Eol on NULP/City websites inviting partnerships <p>This can be an ongoing process where CPMU/City Leadership landscape content partners and engage with them for program requirements</p>
3	Setup of Introductory Scoping Call	Initial scoping call to be setup to explore potential areas for synergies discuss broad level briefing provided on NULP platform and, program and institutional priorities.
4	Sharing of concept note	Sharing of concept note by potential partner outlining past work and potential areas of convergence.
5	1st Level Screening	<ul style="list-style-type: none"> • CPMU/City Leadership to conduct 1st level screening basis introductory call and concept note insights capturing potential partner’s alignment with NULP program. • CPMU/City Leadership SPOC to communicate screening results to potential partners along with SoW/RfP/ToR for screened partners to progress with the process.
6	Sharing of Proposal and Work Plan	<ul style="list-style-type: none"> • After clearing the 1st screening, potential partners would have to submit a proposal in a prescribed template outlining a detailed work plan for the duration proposed as per the SoW/RfP/ToR shared. • For content partners details pertaining to the Onboarding form (annexed below) will have to be submitted as well
7	2nd Level Screening	<ul style="list-style-type: none"> • Final level selection to be done basis proposal submitted and its alignment with SoW/ToR/RfP. • CPMU/City Leadership SPOC to communicate selection results to potential partners and progress signing of MoU/email formalisations, wherever applicable.

For Selected Partners		
8	Technical Onboarding	<ul style="list-style-type: none"> • Post selection, partner Teams would have to follow the steps enrolled for the creation of access rights for the platform. • Starter kits with Content Management Guidelines, User Manuals, etc.) to be shared with partner POCs. • For content partners, the partner would need to assign various roles like Administrator, content creator and content reviewer along with other relevant POC details to enable access rights.
9	Partner Induction and Onboarding Workshops	<ul style="list-style-type: none"> • Partners POCs to participate in an onboarding induction workshop including a Platform Demo, an introduction to Program KPIs and the long-term vision. • Regular cadence to be mutually decided between CPMU/City Leadership and partner POCs to further the proposed engagement.
10	Co-creation of KRAs and KPIs	Partners to co-create KRAs and KPIs for periodic monitoring and evaluation in alignment with both sides of priorities.
11	Commencement of Engagement	<ul style="list-style-type: none"> • Partners begin contribution through work plan-based activities outlined. • Regular updations of risks and proposed mitigation plans to be done on an ongoing basis.
12	Monitoring and performance tracking	<ul style="list-style-type: none"> • Teams to monitor engagement efficacy through regular check on milestones outlined for delivery in KRAs/KPIs. • Baseline and end lines results for content partners to be evaluated through similar mechanisms.
13	Sharing feedback	<ul style="list-style-type: none"> • Partners to exchange feedback on engagement and direction on a regular basis for course correction and enhancement of outputs as and when needed.

Partnerships will be the key differentiator in successful and lucrative associations for NULP. By capitalising on productive partnerships, ULB/Cities may increase its knowledge pool and can focus on training and capacity building needs of manpower.

7.6. Defining taxonomy

A taxonomy is an arrangement or classification of content according to a predetermined system. It helps to categorise, search and discover and repurpose content. A taxonomy also describes the purpose on which we have built the application.

During the city consultation workshop, the program management unit will deliberate with the content team at the ULB for possible taxonomies to categorise content. Broad categorisation of the content could be:

- a) Category
- b) State Name
- c) ULB Name
- d) ULB Sectors
- e) Sector Topic

- f) Medium
- g) Resource Type
- h) Key Words
- i) Content Type

Taxonomy is collectively associated with a framework. A framework is reusable. We can have two different cities sharing the same framework and thus having the same taxonomy.

7.7. Framework for content curation

Curation of content is an important activity for assessing quality content. Curation helps us to extract the best available content. It is an act of discovering, gathering, and presenting digital content that surrounds specific subject matter.

It is proposed to constitute a content curation committee/team at the city level that will curate the content uploaded on the portal as per the content curation guidelines specified by NULP and publish the same for consumption of larger audience. The committee will review and approve the content.

8. Execution strategy for NULP

Urbanisation as a self-catalytic phenomenon will eventually result in an economic plateau for any city. The real socio-economic potential of any city will be realised only when urbanisation is managed effectively. One of the key pillars to effectively manage the rapid pace of urbanisation is to harness, curate and aggregate knowledge and information and utilise it effectively to develop and build capacity of cities.

The Ministry of Housing and Urban Affairs (MoHUA) proposes to build a National Urban Learning Platform (NULP). The platform shall help facilitate a learning environment through modern techniques of knowledge and skills transfer to ensure that the upskilling, training, awareness and information sharing expectations of member cities and stakeholders are met in a collaborative environment.

Effective usage and adoption of any product is governed by how well the product is aligned and suited to the user requirements. Hence, in order to achieve the said objective, it is important to understand and capture the needs and requirements of the NULP users and how they would like a learning platform to address their needs.

8.1. Evaluate cities for onboarding

The NULP platform on a multi-tenant model is completely modular and cities will have complete freedom to customise, localise and curate content as per their needs. Hence cities need to come forward with the required bandwidth, intent, content and partnerships to ignite the platform which is suited to their needs and requirements.

As a first step, NIUA will set forth parameters for a City Preparedness Survey of prospective cities to be onboarded on the platform. For this purpose, the following assessment criteria shall be considered:

Sr. No	Parameters	Description
1.	Human Resource Assessment	<ul style="list-style-type: none"> ● To design a sustainable and tailor-made learning roadmap for the ULB, it is evident to assess all types of intended users/participants for availing various types of training ● Information and communications technology (ICT) plays an important role in building technical capacity in any Organisation. Hence assessing technical manpower is an important parameter to design training programs.

2.	Citizen Engagement	<ul style="list-style-type: none"> ● There is now a greater consensus that citizen participation and civic engagement are the building blocks for good governance. ● Citizen Engagement is an interactive two-way process that encourages participation, exchange of ideas and flow of conversation. It reflects willingness on part of government to share information and make citizens a partner in decision making. ● NIUA's intent is to understand whether there is any mechanism in ULB for engaging citizens in decision making activity on policy related issues or to design citizen specific programs.
3.	Training & Development Opportunities	<ul style="list-style-type: none"> ● Capacity building focuses on furthering an organisation's ability to do new things and improve what they currently do. ● Capacity building improves the organisation's performance and enhances its ability to function and continue to stay relevant within a rapidly changing environment. ● Continuous training helps organisations to develop effective capacity which results in increased efficiency. ● In this segment cities would be assessed on training and capacity building initiatives being undertaken and training infrastructure and policies being followed. ● Questions will be focused on understanding the ULB's training policies and employee participation in training and development related activities.
4.	Technology Resources	<ul style="list-style-type: none"> ● Each Urban Local Body (ULB) has a dedicated information technology (IT) team working on various aspects of e-governance. The size of the team is also a factor of the robustness of the cell since it is a measure of dedication of the ULB towards digital practices. ● To build any Learning management system technical resources play a very important role hence NIUA would like to understand the availability of such resources in ULBs.
5.	Content Readiness	<ul style="list-style-type: none"> ● Content is the backbone of every learning program. Quality content provides an excellent user experience and increases retention rate, hence it is one of the important parameters. ● NIUA understands that ULBs might have a collection of SoPs/manuals of various municipal functional areas, requesting ULB to provide details of such knowledge assets. ● SoPs, manuals and other learning materials such as best practices, research papers etc., are considered as a source of knowledge assets, availability of such knowledge resources will help in speeding up implementation of learning platform.
6.	Community Participation	<ul style="list-style-type: none"> ● In this segment we would like to understand whether ULBs have any formal or informal associations with academia, NGOs and industry etc. ● This information will help to analyse and prioritise training specific needs of ULBs. Also, this will help in sourcing content specific to cities' needs. ● ULB is requested to provide details of any formal or informal partnerships with government or private institutions such as collage of town planning, climate change, financial institution etc. ● Details of such partnership will help us understand your preferred and focus domain or area for training.

7.	Innovative Initiatives	<ul style="list-style-type: none"> ● This segment requires cities to elaborate if their ULBs have taken any innovative initiative to increase the efficiency of their functional areas. ● ULBs may describe Innovative Initiative/s which have helped them in increasing their efficiency in any of the municipal functional areas.
8.	Challenges (if any)	<ul style="list-style-type: none"> ● In this segment cities are required to mention if there are any challenges the municipality is facing related to training and development related activities. ● One example could be employees are reluctant to classroom training or not willing to learn new technologies etc. You can specify challenges related to municipal functional areas.
9	Cities' Expectations	This segment of assessment form needs cities' views on their expectations from the proposed NULP platform.

An insights report will showcase readiness of cities for the adoption of NULP and provide the basis of the pilot selection.

8.2. Mapping content and training requirements

Mapping content to training requirements for each city is the first step while talking about the execution strategy of the National Urban Learning Platform.

The main activities to be carried out while mapping these are highlighted in the table below. This table is in the form of RACI (Responsibility, Accountability, Consulted and Informed) framework where different stakeholders are included.

RACI matrix is as follows:

S. No.	Activities	City ULB	NULP PMU team	NULP Tech team
1	Conduct workshops with the city ULB officials to understand the purpose and requirement for trainings	R, A	C	I
2	Make strategy for fulfilling the training requirement	I, R	R, A	I, C
3	Identify the content channels possible for the city	I, C, R	R, A	I, C
4	Conduct preliminary content source analysis	R, A	I, C, R	I, C
5	Source Content	R, A	I, R	I, R
6	NULP Roadmap for next 3 months	R, A	I, C, R	I

- a) Conduct workshops with the city ULB officials to understand the purpose and requirement for trainings
 - After the state is onboarded, the first step will be finalising the date and time for the workshop involving the senior officials of the ULB and the NULP platforms' management units.
 - The main purpose of this workshop will be to understand the purpose of the training which the ULB has identified for its stakeholders. The outcome will be a list of topics and content types which the ULB wants to focus upon.
- b) Make strategy for fulfilling the training requirement- Total modules required, target audience, time duration for creating/ sourcing content
 - Once the training requirement is gathered, the next step will be to make a strategy for execution. This will include finalising the training modules required, target audience, content creators and content creation and review duration.
 - This step will also include finalising the budget for the National Urban Learning Platform by the city.
- c) Identify the content channels possible for the city
 - The next step is to identify the content channels possible for the city. The contents to be outsourced and the fresh contents to be developed by the city will be finalised in this step. The city may also use the training modules put forth by other ULBs on the NULP, that is, utilising the existing content present on the NULP repository.
 - Hence, a thorough analysis on the available content channels is done and the best suited ones for the city's required are chosen.
- d) Conduct preliminary content source analysis- Sample content quality, relevance and user impact of the content, time requirement for content creation
 - On choosing the content channels and before finally sourcing the content from these channels a preliminary content analysis is necessary to make sure that the content is falling fit to all the parameters of an ideal content on NULP platform. Only if the sample content is in line with the content guidelines prepared by NULP, will the content sourcing take place.
 - In case of fresh content creation by the city, a workshop can be organised by the NULP platform experts and content experts to make the creators of the city familiar with the NULP tool and its functionality along with highlighting the important content characteristics to be included while creating the sample content.
- e) Source Content
 - The final step will then be sourcing the contents from the channels identified by the city and making it available for the end users.
- f) NULP roadmap for the next 3 months
 - For each city onboarded on the NULP platform, the roadmap for the next 3 months will be made to make sure that all the contents are sourced, and the end users are able to consume the content.
 - Also, the feedback received on the contents are analysed and the features of most liked content and the least liked content are outlined.

8.3. Feedback mechanism

All the contents available on the National Urban Learning Platform will have a feedback page following the main content pages. The users will submit their feedback and these feedbacks will be analysed to incorporate the refinements and improvements in the content.

The following steps will be incorporated for a systematic feedback process.

- a) Create Feedback strategy:

There will be some content pieces for which submitting feedback will be mandatory whereas for some, feedback submission might be optional. Hence the first two questions to answer are:

- Which all modules will have mandatory feedback?
- Which all modules will have optional feedback?

Hence, the first step will be making the feedback for all the certification courses and webinars compulsory.

Some suggested ways for doing this are:

- Include feedback twice. Once in between the content modules and once at the end of the modules
- Send feedback link on the registered email ID and the mobile number
- Informing the officials that the final certificate will be issued only after successful feedback submission

b) Decide content for feedback form?

The next step will be finalising the content of the feedback form. For doing this the content of the form should be chosen. One of the following types should be selected for the feedback form:

- Form with only objective type questions
- Form with only descriptive type questions
- Form with a mix of objective questions

After deciding the type of form, a mechanism for quantifying each response from the user to deduce results out of the feedback will be detailed out. That is, a method to convert descriptive questions into categorical variables to assign marks to each content needs to be analysed.

c) Decide parameters to be included for feedback form

Next, the parameters to be included in the feedback form need to be finalised. The parameters can be:

- Content Level Parameters:
 - Duration of the content
 - Video clarity
 - Audio clarity
 - Text clarity
 - Ease of understanding
 - Ease of retention
 - Key takeaways
- Platform level parameters:
 - Ease of navigation to the content
 - Content Rendering
 - Metadata correctness

d) Feedback analysis

The following pointers can be included in the feedback analysis

- Most liked content and its features
- Most scanned content and its features
- Critical features for a content on the platform

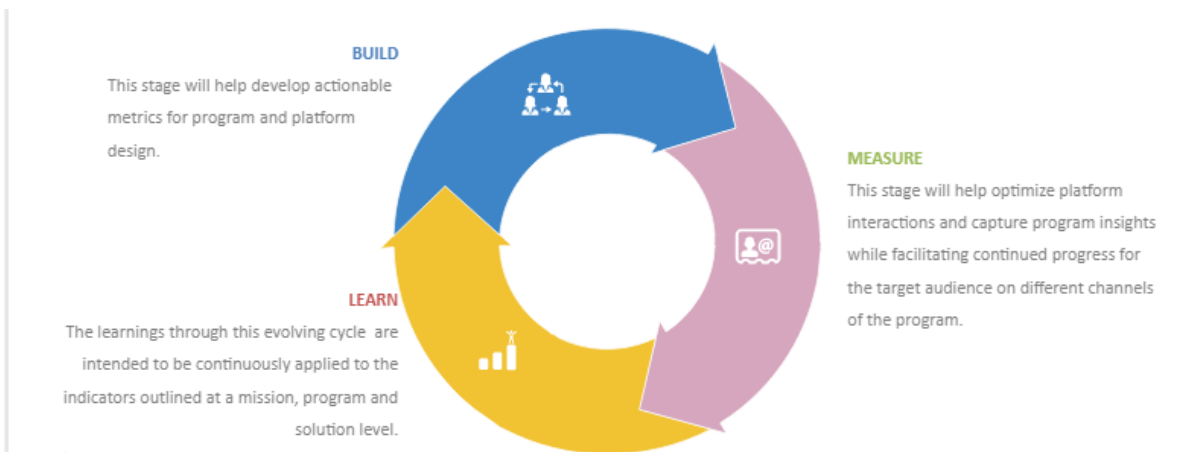
8.4. Success

metrics

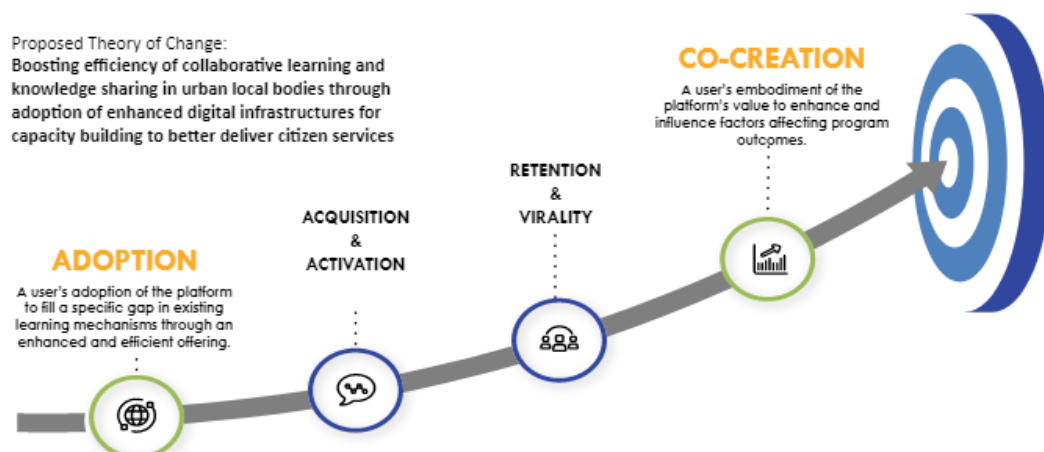
In order to ensure the long-term vision of the platform is met, a set of Key Result Areas (KRAs) and Key Performance Indicators (KPIs) have been outlined for the proposed program based on the following approach:

- Industry Consultations
 - Multiple rounds of external and internal consultations with subject matter experts (SMEs)
- Research based references
 - Review of industry standards as published by peer platforms relevant for similar components under NULP.
- Overcoming Vanity Matrices
 - Special focus on outlining indicators based on specific and repeatable tasks to track and improve the foundational goals of the program.
- Institution in Platform Design
 - Enhancement of platform design to incorporate the required telemetry for current and future usage.

The proposed log frame is broadly modelled around the following components of the Lean Start-up Methodology for supporting different stages of program maturity - Build, Measure and Learn.



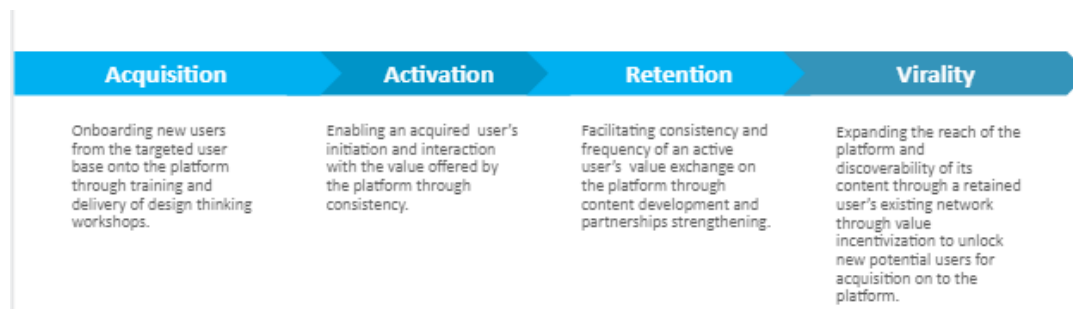
The program's success is outlined by mapping the journey of a user from Adoption of the platform to Co-creation of content - igniting learning in the ecosystem.



Under these program objectives our key results areas are outlined as - Acquisition, Activation, Retention, Virality.

The journey of a user under **Adoption** is envisioned to take shape from an onboarding process under the **Acquisition** phase culminating in to platform viewership under the **Activation** phase.

The most critical phase of a user transition from an **Adopter** to a **Co-creator** on the platform is outlined by the **Retention** phase and further solidified by its network-base expansion under the **Virality** phase of the program objectives.



Key Assumptions and Definitions under the program are outlined below:

- Platform Interactions - Registered users of NULP undergoing at least one iteration of value exchange through views, posts, likes, comments, feedback, requests etc.
- Platform Integration - A registered user's journey under 'retention' phase of the pilot program based on platform interactions through quadruple helix partnerships.
- Platform Adoption - A registered user's journey under 'acquisition' through 'activation' phase of the pilot program based on platform interactions
- Power User - Activated Users creating content (posts, research papers, collaborations, videos etc.) at least once a month or engaging with the user base through platform-driven engagement events/sessions/showcases.
- Self-Assessment - Baseline and end line surveys conducted per user at the beginning of design thinking workshop training (during acquisition) and at the ends of the first quarter from user onboarding.
- Quadruple Helix - Actors from government bodies, civil societies, academia and industry forming a target base for future anchoring and propelling of the NULP.
- Core Working Group - Group of thought leaders under a priority vertical of the NULP partnered through an MoU/ToR and responsible for supporting and sustaining the life cycle of the vertical on the platform.
- Priority Thematic Area - Sub-sectors priorities as per the Smart Cities Mission (SCM) of the Ministry of Housing and Urban Affairs (MoHUA) that are envisioned to be activated and sustained under the scope of NULP, viz. Public Transport, Complete Streets, Electric Mobility, Urban Freight, Data Driven Transportation System, Water and Wastewater, City Health Planning, Form Based Codes (TR), Child Friendly Cities
- Discoverability of content - Mechanism of developing channels for a user to reach as much content as possible on the platform through - curation of relevant and credible content, retention and activation of systemic leadership through partnerships built for perpetuity of verticals under the platform and enabling systemic governance for the operational scopes of pilot and program.

Program outcomes are classified as key milestones along the user journey from Adoption to Co-creation further measured by specific output-level key result areas (KRAs)

Key Objectives	Outcomes	Key Performance Indicators (KPIs)	Program Phase/Timelines
Adoption	Enhanced capacity building of Urban Local Body (ULB) officials in India through training and certifications.	Number of cities onboarded for adoption per year	Initial Phase - 70% of target user base to be registered/onboarded on to the platform Target: 100 cities in 3 years
Pathways to Learning	Fostering of learning bridges through collaborations with other platforms and urban ecosystem actors.	Percentage of partnerships retained under NULP (institutional, private sector, think tanks) for enabling a robust network per city per year	Mid-term Phase - Accomplishment of 60% of proposed program hypothesis of mid-2023 - Target: 500 cities in 5 years
Co-creation	Expanded user base adoption from ULB ecosystem actors through platform-based value incentivisation for sustained long-term capacity building.	Percentage increase in co-created and collaborated content published on the platform per city per year	Long - Term Phase - Ignite leadership effectiveness in urban professionals across Target: 2000 cities in 10 years

Output level priorities are further measured below:

Key Result Areas	Outputs	Key Performance Indicators (KPIs)
Acquisition	Users are acquired onto the platform from the targeted user base through training and delivery of design thinking workshops. (Impact Weightage - 20%)	<ol style="list-style-type: none"> 1. City departments outreached under the program 2. Users on boarded from city departments outreached under the program 3. Design thinking workshops conducted per department per city
Activation	NULP acquired users are activated on the platform to initiate and interact with the value offered by the platform (Impact Weightage - 20%)	<ol style="list-style-type: none"> 1. Positive increase in Self-Assessment Scores 2. Core working groups developed for priority verticals under the program 3. Content uploads per partner for a priority thematic area
Retention	Activated NULP users are retained through facilitation of consistent and frequent value exchange on the platform enabled by content development and partnerships strengthening. (Impact Weightage - 30%)	<ol style="list-style-type: none"> 1. Increase in onboarded users' conducting platform interactions 2. Power users generated per city per quarter 3. Co-created partnerships-based knowledge products deployed on the platform per thematic area
Virality	Increased virality of the platform and discoverability of its content through a retained user's network for unlocking new potential users to be acquired for the platform. (Impact Weightage - 30%)	<ol style="list-style-type: none"> 1. Addition of users through social/marketing channels 2. Increase in discoverability of content per year for enhancing trust and accountability scopes within the system 3. Increase in platform-based reviews, course feedbacks and social media reshares

An additional set of activity-based metrics are suggested below:

a) Portal Level Metrics

- Number of registered users- The total number of users across all roles registered for each city
- Total hits on the page- Total number of people visiting the platform per day from
- Average session time- Total time spent by the user after logging into the platform

b) City and State Level Metrics

- Total Plays- Total number of times stakeholders are playing any content (video contents) on the platform
- Total clicks- Total clicks on Blogs/ Manuals/ SOPs/ Trainings
- Total scans- Number of times contents are getting consumed by scanning a QR codes

c) Content Level Metrics

- Average play time- Duration for which a video is getting viewed

The KPIs are further set to be developed on a quarterly basis with partner inputs feeding into the system. Simultaneously the required telemetry will be developed and instituted in the platform. This can be leveraged for continuous monitoring and real-time reporting aiding program governance.

9. Governance and management

9.1. Governance Principles

Governance, for a program, is a combination of individuals filling executive and management roles, program oversight functions organised into structures, and policies that define management principles and decision making.

This combination is focused upon providing direction and oversight, which guide the achievement of the needed outcome from the execution of the program effort, and providing data and feedback, which measure the ongoing contribution by the program to needed results within the overall strategy and direction.

Furthermore, programs are dynamic and must respond to external events and changing conditions. Therefore, an effective governance structure and set of governance functions must provide the means to identify, assess, and respond to internal and external events and changes by adjusting program components or features.

This section tries to address the roles and responsibilities of each of the stakeholders and how their interactions would help in growing the initiative at the desired scale & speed. Presented below is a guidelines framework on how different stakeholders at the program and platform level shall interact and work in tandem to make NULP a self-sustainable platform to meet capacity building, training and knowledge requirements of different cities. The intent is to not hard-line an organisational structure of the program but to guide ULBs during the process of on-boarding the platform. Outlined are different support structures that shall be available to cities and its respective stakeholders involved in the process of learning through co-creation and collaboration. The program acknowledges the fact that the interactions and support mechanisms shall be different at the initial stages as compared to the platform later gradually maturing and operating at a larger scale. Therefore, roles and responsibilities, interactions and support mechanisms in two stages, that is the initial stage and in the long term of the roll-out of the program are clearly defined.

9.2. Stage 1 - Igniting the platform

In the initial stage, it is envisaged that the platform shall go through a discovery stage where different stakeholders shall test and implement ideas and learn from the user behaviour. Based on the learnings, the platform will

undergo rapid transformation in its features and functionalities depending on suitable use cases of the different stakeholders.

Cities and ULBs shall require additional support and handholding initially for them to be able to use the platform effectively and efficiently. Furthermore, in the initial stage it would be important to lay out clear guidelines to follow certain protocols while on-boarding cities, content and partners on the platform. These guidelines must be easy to adapt, practical and scalable.

During this stage, it would be important to institutionalise an innovative accounting framework to clearly document and track the ideas on the basis of their outcomes. This shall help keep and stock of different innovations being tried on the platform and shall build a knowledge repository for others as we progress in the journey.

9.2.1. Framework

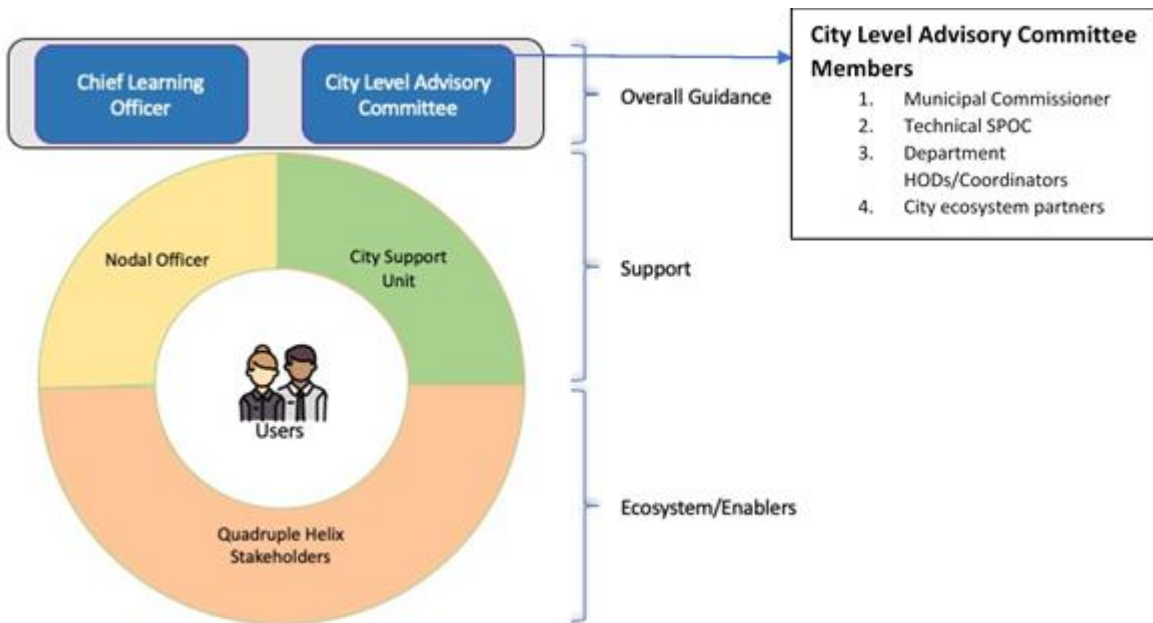
The NULP envisages a decentralised model where individual cities being onboarded on the platform form the core of the platform and shall have the autonomy to shape their learning environments as per their needs and requirements in alignment with the overall strategic vision of NULP. It is recommended that the existing staff and manpower assume the different roles mentioned at various levels in the governance structure, this is to ensure the sustainability of the program and the platform.



9.2.2. Composition

1) Cities or ULBs

ULB's working on the platform shall function as an independent unit to shape and define their localised environments. Each city and ULB shall have their own governance and operational structures to operate. They would have support from central units (CPMU and TPIU) which shall help them to put these structures in place. The support shall be in the form of knowledge sharing, templates, guidelines and handholding. Cities shall have the full autonomy to define their own structures and mechanisms or to use the one suggested by central units (CPMU and TPIU). However, to ensure smooth functioning of different aspects of the platform at the city level, a suggested governance structure at city level is depicted below:



Within the ULB, the City Level Advisory Committee and City Support Unit should function as independent management units to shape and define their own knowledge ecosystem. They can focus end-to-end in igniting and shaping their own tenants. The cities shall interface with respective central units through their Nodal Officers. It is recommended that the individuals and units highlighted in the governance structure are selected from the existing staff of the ULB. The major roles and responsibilities of the different individuals and city level governance units are defined below:

a) Chief Learning Officer (CLO)

The Chief Learning Officer shall be a person nominated by the city leadership act as a point of contact between central units and city level. The nominated person shall be responsible to lead the decision-making process and provide guidance in relation to city level programmatic aspects of the platform. The major roles and responsibilities include:

- Identify learning gaps, risks and opportunities in the ULB
- Articulate an effective learning strategy
- Develop a connected and collaborative learning culture within the ULB
- Guidance and decision making at the city level as per the strategic envisioning at the Steering Committee and the CPMU level (Refer point no. 2 & 3 mentioned later in the document)
- Reporting program level metrics to Steering Committee and the CPMU
- Prioritising activation of thematic areas as per the needs of the ULB's departments

It is recommended that a CLO must have prior experience in:

- Developing an organisation's learning and knowledge management processes
- Macro-level human resource processes and management
- Methods and alternatives to deliver learning solutions
- Tools and technique to measure effectiveness of learning intervention
- Developing a Knowledge-Needs-Assessment Strategy

b) Nodal Officer

The Nodal Officer shall be a person nominated by the city leadership to coordinate the necessary operational activities. The person is responsible for monitoring, coordinating and reporting day to day activities for NULP at city level. The same official designated to be a Nodal Officer can also take the responsibilities of a Chief Learning

Officer depending on his/her experience, skillsets and the size of the ULB. The major roles and responsibilities include:

- Coordinating daily operational challenges and activities for NULP at city level
- Interacting with central units to report program challenges and request of support
- Communicating decisions taken by the city and central units to city stakeholders
- Managing NULP program at city level
- Identifying interests and initiating quadruple helix partnerships for content across thematic areas
- Provide metrics on the current state of learning and on the effectiveness of initiatives
- Coordinating and arranging workshops, visits etc. for central units for study, knowledge exchange and capacity development

It is recommended that a Nodal Officer has prior experience in:

- Learning Management Systems
- Encouraging, motivating and guiding individuals and teams to participate in learning initiatives
- Managing day-to-day operations at the ULB level

c) City Level Advisory Committee

The City Level Advisory Committee shall be responsible for overall monitoring and management of the city level activities and framing policies and processes for institutionalising the NULP platform. The major functions of the committee are as described below:

- Provide leadership direction and vision for the implementation and usage of the NULP platform
- Consolidate stakeholder interests and ensure buy-in for project at the city/ULB level
- Arrange manage and monitor program costs
- Define roles and responsibilities of stakeholders at city level
- Monitor adoption and program progress

d) City Support Unit

The City Support Unit would be responsible to provide any assistance required to assess the knowledge needs of a city, create content, provide technical assistance and review the uploaded content. It shall comprise of individuals nominated from the existing employees/officials of a ULB. The unit shall support and manage the tenants at city level and provide any additional technical or operational support to city users as required. They shall act as first source of contact for escalation of any issue arising at the city level and shall further interface with central TPIU only when they are unable to provide a resolution. Their major functions shall include the below:

- Managing and maintaining the city level tenant
- Creation of users at city level (creators, contributors, reviewers, etc.)
- Providing support to resolve technical issues and fixing bugs
- Training of city users on usage of the platform
- Interfacing the central technical implementation unit for support and resolution of issues
- Identifying the City Knowledge Needs and identify use cases to be on-boarded
- Identify and engage with different ecosystem partners
- Work with on-boarded partners and monitor their contribution as per agreement
- Share updates and program information with the Chief Learning Officer as per requirement

Each department in the ULBs shall be responsible for facilitating and igniting their respective domains (Health, mobility, etc.) individually on their respective tenants. Coordinated by the HODs, a department will be responsible for activities listed below:

- Analysing department and the ULB’s knowledge need and interests
- Sourcing, Creating and Reviewing content as per requirement and need
- Identifying, driving and engaging with different ecosystem partners who can help the cities on-board a variety of content, programs and use cases on the platform

Key responsibilities of different members involved within a ULB would be:

Representation	Entity	Role	Responsibilities
Chief Learning Officer	ULBs	Chair	<ul style="list-style-type: none"> ● Point of contact between central units and city level ● City level decision making
Nodal officer	ULBs	Chair	<ul style="list-style-type: none"> ● Overall coordination and management of the program
Heads	Departments	Members	<ul style="list-style-type: none"> ● Assist in on-boarding content partners & shortlisting content according to training needs of the departments
Review team	TPIU	Member	<ul style="list-style-type: none"> ● Monitor the overall program implementation across all departments ● Coordination between city level management and departments for operational activities ● Review content for on-boarding on platform
Technical SPOC	ULBs	Member	<ul style="list-style-type: none"> ● Assist in technical implementation and support activities
Invited officials	Content Providers	Partners	<ul style="list-style-type: none"> ● Suggest quality content for platform based on interactions with departments ● Assist in content development activities

It is recommended that the Technical SPOC mentioned in the table above has prior experience in:

- Multi-tenancy models
- IT troubleshooting
- LMS user on-boarding
- AI based Learning & Development Solutions
- Open-architecture platforms like sunbird is desirable

2) Steering Committee

This apex level committee shall be responsible for providing the strategic vision and direction to the overall platform and program. It shall also play a fundamental role in institutionalising strategic partnerships for the program with key ecosystem stakeholders at a national level. The main functions of the committee shall include the following:

- Provide overall leadership, vision and direction
- Overall strategic control and decision making based on platform level data being consolidated from different cities/ULB's
- Create a supporting environment and provide guidance
- Consideration of matters arising out of change of control and approval of the same
- Consolidate stakeholder interests and ensure buy-in for project

The committee shall comprise of the below key members:

Representation	Entity	Role	Responsibilities
Secretary & JS	MoHUA	Chairperson	<ul style="list-style-type: none"> ● Approve mission, objectives, long-term strategy & operational policies ● Ensure establishment of monitoring frameworks & work plans ● Review performance of CPMU
Director	NIUA	Member	<ul style="list-style-type: none"> ● Approve & oversee the execution of the NULP strategy
Program Coordinator	NIUA	Member	<ul style="list-style-type: none"> ● Maintain regular communication with stakeholders for implementation
Program coordinator	Funding agency	Member	<ul style="list-style-type: none"> ● Support establishment of financial viability for NULP, including cost efficiency measures ● Proactive advice on annual budgets & funding disbursement
Program manager	TPIU	Member	<ul style="list-style-type: none"> ● Devise an execution strategy for NULP including content sourcing, partner on-boarding and city on-boarding ● Foster relationships with industry & academia ● Monitor innovation readiness of the program ● Identify potential risks & propose mitigation plans

Invited experts	Academia & Industry	Partners	<ul style="list-style-type: none"> Advise committee on different aspects of the program ranging from content sourcing & curation to partner on-boarding strategy
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3) Central Program Management Unit (CPMU)

The Central Program Management Unit (CPMU) shall act as a bridge between the cities and the steering committee. It shall be responsible for providing program level support to cities such as program documentation, partner on-boarding, content sourcing, monitoring adoption and consumption, etc. The CPMU shall provide support to cities on program aspects and partnerships with ecosystem players. It shall also be responsible for reporting program progress, bottlenecks and program risks to the steering committee periodically. The broad list of activities that CPMU shall perform as listed below:

- Overall planning, coordination and monitoring of the program
- Coordinate with different ecosystem stakeholders for building long lasting and fruitful partnerships for the platform
- Support in knowledge transfer and handholding of cities
- Work with cities to identify user requirements and define use cases and feature requirements for the platform
- Develop platform roadmap
- Periodic reporting and updates to steering committee
- Develop guidelines and templates for program implementation and platform adoption
- Experiment new ideas and use cases with cities and monitor their outcomes
- Innovation accounting and building knowledge base for stakeholders who are gradually on-boarded on the platform
- Monitor and track program level metrics

The CPMU shall comprise of the below key members:

Representation	Entity	Role	Responsibilities
Program manager	NIUA	Chair	<ul style="list-style-type: none"> Ensure compliance to approved work plans & review outcomes Coordinate with TPIU for implementation and sustenance activities Review performance of SPMUs
Chief Learning Officers	Core committee (cities/ULBs)	Members	<ul style="list-style-type: none"> Highlight cities' training needs and assist in devising training plans Assist in identifying potential risks and suggest mitigation plans
Program manager	TPIU	Member	<ul style="list-style-type: none"> Assist shortlisted cities in streamlining on-boarding activities Oversee rollout & sustenance of platform across target cities Delve on content requirements at national level & devise sourcing & curation methodologies

Invited officials	Content providers	Partners	<ul style="list-style-type: none"> Assist in development of a content sourcing & curation strategy Assist in reviewing content development and curation activities
Invited officials	Platform partners	Partners	<ul style="list-style-type: none"> Suggest innovative methods of content delivery, wherever feasible Assist in technical sustenance of the platform

4) Technical Program Implementation Unit (TPIU)

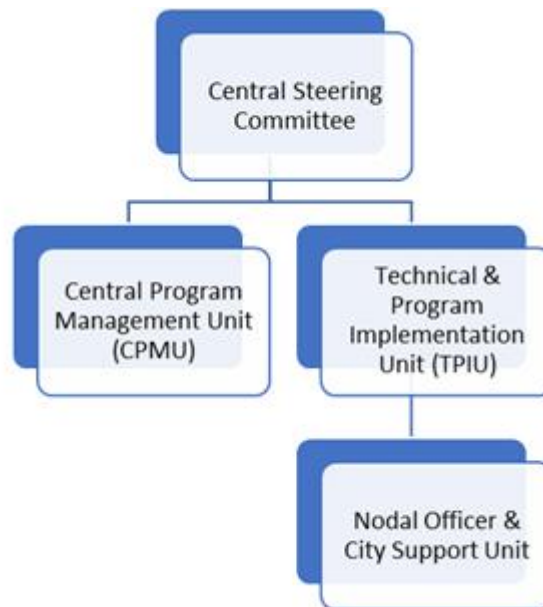
The Technical Program Management Unit (TPIU) shall support cities and ULB's on their day-to-day technical issues, handholding support staff of ULB's on using and updating the platform, implementation of new platform features and functionalities, etc. It shall be responsible for the maintenance and technical implementation of the platform. It shall also provide support in implementing platform features and updates, fixing bugs and resolving technical issues of cities. The TPIU shall also be responsible for maintaining and monitoring platform infrastructure. The major functions of this unit are described as below.

- Design and develop platform feature as defined in the product roadmap
- Plan and manage platform releases
- Monitor platform metrics
- Maintain back end platform infrastructure
- Estimate infrastructure cost based on forecasted load
- Resolve technical queries of cities as per request
- Manage tenant creation and process on-boarding requests
- Identify platform bottlenecks suggest strategies to overcome the bottlenecks

The TPIU shall comprise of the below key members:

Representation	Entity	Role	Responsibilities
Program Manager	TPIU	Chair	<ul style="list-style-type: none"> Monitoring rollout & handhold cities for on-boarding & running the program
Specific point of contact (SPOC)	CPMU & TPIU	Members	<ul style="list-style-type: none"> Monitor the overall program implementation across cities Technical Assistance Coordination between CPMU & TPIU for operational activities
Specific point of contacts (SPOCs)	Cities / ULBs	Members	<ul style="list-style-type: none"> Assist in implementation & handholding activities
Invited officials	Platform partners	Partners	<ul style="list-style-type: none"> Assist in technical sustenance of the program

9.2.3. Communication and Interface



The different units at the central and the state level shall interface and coordinate with each other to share program insights, report program progress and seek and provide support; a two-way communication structure shall exist as depicted in the above figure. The envisaged exchange of information as outlined below:

- **Steering Committee and CPMU:** Shall provide overall vision and guidance on the program
- **CPMU and Steering Committee:** Shall provide program updates on progress and adoption along with data driven insights
- **Central Steering Committee and TPIU:** Shall provide guidance on platform features and updates
- **TPIU and Steering Committee:** Shall provide updates on platform metrics and infrastructure requirements and bottlenecks
- **CPMU to Nodal Officer:** Share knowledge and provide guidance on platform implementation. Shall help co-create and implement platform level use cases
- **Nodal Officer to CPMU:** Shall provide program level updates and insights on usage and adoption along with program data that may be required from time to time
- **TPIU to Nodal Officer and City Support Unit:** Update and information about platform features and upcoming releases
- **Nodal Officer and City Support Unit to TPIU:** Request for bug fixes and technical resolution

In-order to effectively manage city level queries and support requirements a ticketing system shall be introduced gradually where city level stakeholders can raise requests and resolution and support can be facilitated by central units.

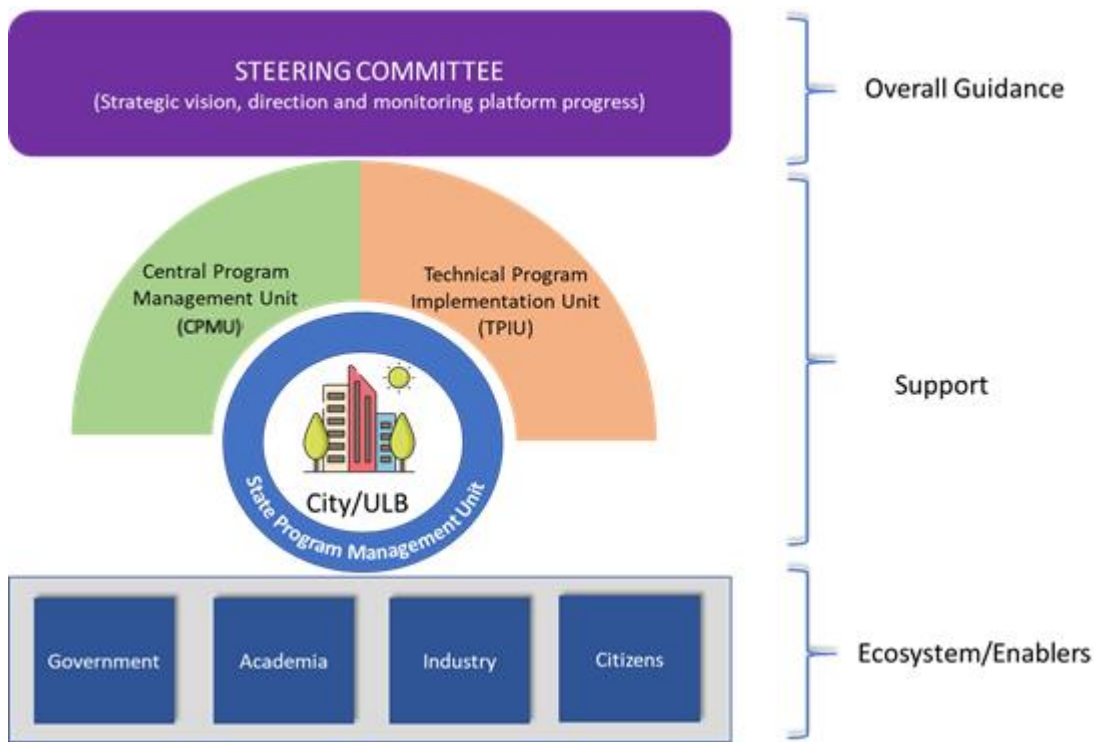
9.2.4. Rhythm and Cadence

In order to effectively manage the program, a rhythm and cadence frequency will need to be institutionalised at different levels to monitor and manage the program. This shall help faster decision making and adapt to the changing requirement of the program to derive better outcomes an indicative cadence and frequency is outlined below for effective program management.

Particulars	Frequency
Central Steering Committee meeting	Once in a month
Central Program Review meeting (CPMU & TPIU)	Once in a week
City Level Advisory Committee Meeting	Once in a week
Central & City Level Program Review Meeting (CPMU SPOC & City SPOC)	Once in a fortnight or as per need

9.3. Stage 2 - NULP Operating at Scale

In the long run NULP penetrates deeper into India's urban ecosystem with increased adoption and consumption, the operational elements of the program shall undergo some changes to address the scale. At this stage, we envisage most of the platform features and cities on-boarded would reach a stable position and shall begin to function in a self-sustainable mode. However, it is important to note that there would still be a need for a support and monitoring system to maintain momentum in the long run. In such a scenario, the cities from a state will be required to come together to form a State Program Management Unit (SPMU). The SPMU shall act as a bridge between the CPMU, TPIU and the city level administration. They shall be required to support on-boarding of new cities and ULB's within the state at the same time report progress of the program to the city program management units. Similarly, some functions of the different units and priority areas shall undergo changes once the platform starts operating at scales. The SPMU would be developed and operated by the cities with no or minimal interventions from the CPMU.



The SPMU would comprise of:

Representation	Entity	Role	Responsibilities
Core committee	City's Chief Learning Officers	Members	<ul style="list-style-type: none"> To recommend alterations to operational strategy as per inputs received from cities Monitor the overall program implementation across multiple cities Assist in content sourcing & curation activities at state level
Specific point of contact (SPOC)	TPIU	Member	<ul style="list-style-type: none"> Coordination between CPMU & SPMU for operational activities
Invited officials	Content providers	Partners	<ul style="list-style-type: none"> Review & suggest content for platform based on interactions with cities Assist in content development activities

9.4. Governance 2.0

As the current proposed structure is institutionalised in Cities, NULP envisions the evolutions of its governance model to include the following scopes:

- **Telemetry Governance** - Based on management and regulation of the automated communications processed by NULP through which measurements are made and data collected at remote points. The data is then transmitted to receiving equipment for monitoring. The following aspects would be explored in this type of governance model:
 - The massive amounts of data generated through usage will drive the requirement for data governance and data quality issues which will be addressed at the data integration layer.
 - It will ensure guidelines on how checks and balances are created within the system to validate the data generated by the platform to ease the complexities emanating from layered systems propelled by technology.
 - It will also ensure information is managed effectively from point-to-point, and then persisted within transitional or analytics databases.

- **Agency Governance** - Based on principles of establishing governance between agents and principals of a system to ensure the best interest of all ecosystem actors are represented and addressed by the governing body and its participants. The following aspects would be explored in this type of governance model:
 - The long-term vision would be to ensure the agents/beneficiaries of NULP imbibe its ecosystem values so as to represent the interest of the principles/governing or implementing body (ULBs) by overcoming lack of information and instilling transparency across the administrative systems.
 - Understanding the motivations of ecosystem actors that augment value exchange on the platforms that encourage intended participation and discourage moral hazards must be in place through a self-governing model and aid long-term policy development.
 - Designing of the required incentivisation for all ecosystem actors so as to mutually represent and showcase ownership of each other's interests to promote partner actions in unison and harmony.
 - Safeguarding for 'agency loss' , that is, maintaining the cause-effect equilibrium for the platform's primary contributors and primary consumers.

- **Adoption Governance** - Based on principles of embedding governance mechanisms that will aid adoption of the platform and contribute to the envisioned speed, scale and sustainability of the program. The following aspects would be explored in this type of governance model:
 - Establishing systems for easy adoption of centralised and decentralised components of the program.
 - Understanding systems to enhance trust and increase motivation to benefit user expectation.
 - Develop cohesive channels for increasing the degree of openness of the platform for users to easily access all platform components and for platform owners to share control with users for mutual value exchange.
 - Perpetuating sustainability of the intervention by limiting centralised controls for processes, quality and end-user satisfaction designed for the intended scale.

10. Funding strategy

10.1. Administrative commitment

During the pilot phase of the program, the cities would require funding support from the central funding agency. This would enable the cities to get onboarded on the NULP platform as tenants and commit themselves towards creating an ecosystem of learning.

The members of the steering committee and the program management units shall play an active role in ensuring that requisite funding opportunities for cities are available during this phase so as to kickstart skilling initiatives. The pilot would serve as a sandbox for cities to innovate around training methodologies and ascertain what works best for them. It would be a bootstrap phase and hence the focus for cities would be to leverage the expertise of the different stakeholders to propagate the adoption of the platform amongst learners.

10.2. Self-sustenance

As cities mature and move out of the pilot phase, they would increasingly become responsible for sustaining their learning initiatives. Cities, while embarking on their journey for creating a robust skilling program, would be exposed to different actors of the quadruple helix. They would look to leverage the relationships built with the industry and academia during the pilot phase to self-finance the program at a local level.

Once the program reaches critical mass, cities would start engaging with the stakeholders of the quadruple helix for devising fundraising strategies to foster an ecosystem of self-reliant learning. Cities would need to explore different avenues for sustaining the program while ensuring that relevant and good quality content is available for learners on the platform. Some of the opportunities that can be explored by cities are as follows:

1. **Association with local universities/colleges:** The local educational institutions can prove to be a critical source of content for fulfilling the learning needs of the citizens. These institutions can provide curated content for the platform and can also run specialised programs across verticals for interested learners.
2. **Industry partnerships:** The cities can reach out to industry players for sourcing curated learning and training content. A lot of organisations also provide dedicated training for industry wide products and services and the content pertaining to these could be utilised by the platform.
3. **Certifications:** With the increase in digital content consumption across the country, there has also been a marked increase in learners opting for certified courses on digital platforms. Cities can develop curated courses and offer credentialing services for a fee for the benefit of interested learners
4. **E-content providers:** These are platforms that already have curated content for learners. Cities can amalgamate content from such partners to make them available on their platform basis a revenue sharing model for certifications.

While the above are some select approaches that cities can follow, wider consultations with the actors of the quadruple helix would help cities in identifying activities to enable self-sustenance.

Conclusion

Given the changing norms for how we interact with our ecosystems and deliver services in the future, there is a surge in demand for digital learning mechanisms to upgrade oneself and one's access to information.

Program efficacy through NULP's implementation in cities is defined by the phases of adoption it undergoes in city ecosystems and the ownership exercised by its beneficiaries to develop and sustain the same. In this regard, multi-stakeholder models and collaborative bridges for learning are imperative to be built using this platform in a phased and gradually scaled manner.

NULP designed to cater to the learning needs across India will only be a product created and consumed by its users and adopters. The different scopes outlined in this document intended to showcase that very purpose for city leaderships and program management units that will further helm the charge of driving change through capacity building initiatives by leveraging the key benefits offered by the platforms.

The speed, scale and sustainability mechanisms required to cater to the diverse stakeholders set outlined for this project can only be achieved through rapid and smooth project implementation. Envisaged through design thinking workshops to bring out key problem areas in learning and suggest innovative methodologies to counter them, ULBs will be activated to develop NULP as a central repository of content. Through thorough landscaping of key partnerships working in various municipal domains different use cases outlined for the program can be put to practice for showcase to other cities.

Success of this platform and its proposed impact is thus viewed from two critical stages for this level of program maturity - onboarding cities and handholding the officials through activation, and large-scale adoption of NULP by other ecosystem actors of the quadruple helix.

Beginning with the upcoming endeavours of working with pilot and early adopter cities to showcase models of success for other cities in India, a longer vision is what remains to be defined still. Collaboratively with partner helix actors, more so to scale up this initiative from a ULB to city-wide to state-wide levels.

While the primary offering of the program through the digital infrastructure would be to provide a commonplace for quadruple helix actors, the roles of cities in anchoring and owning this initiative has been attempted to be defined through this document.

Cities are urged to helm the charge of redesigning approaches for learning in their areas of administration and leverage the wealth of knowledge access provided by the content through the adoption of NULP.



About NIUA

Established in 1976, National Institute of Urban Affairs (NIUA) was tasked to bridge the gap between research and practice on issues related to urbanisation and suggest ways and mechanisms to address urban challenges in the country. For more than 40 years now, NIUA has been the vanguard for contributing to, and at times, building the urban narrative for a fast-evolving Urban India. The Institution has been actively working on bringing forth key areas of concern for urban India in order to build the urban discourse at various urban scales.

It has utilised its competencies in research, knowledge management, policy advocacy and capacity building to address urban challenges and continuously striving to develop sustainable, inclusive, and productive urban ecosystems in the country. It has emerged as a thought leader and knowledge hub for urban development in India and is sought out by both Indian and International organisations for collaborations and partnerships in India's urban transforming journey. NIUA is committed towards aligning its efforts towards achieving Sustainable Development Goals (SDGs) through all its initiatives and programs.

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