



National Policy for Skill Development and Entrepreneurship

Ministry of Skill Development and Entrepreneurship

2025





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ECM DIAGRAM - SWIFT RS 412

ECM Components	Chassis Air Temperature Sensor
ECM Components	Intake Air Temperature Sensor
ECM Components	Exhaust Gas Temperature Sensor
ECM Components	Knock Sensor
ECM Components	Mass Air Flow Sensor

ECM Components	Throttle Position Sensor
ECM Components	Intake Air Temperature Sensor
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When the arms of crores of youth
are pushing the wheels of the
chariot of development forward,
we will definitely reach our target
of Viksit Bharat by 2047.

*Honourable
Prime Minister of India,
Shri Narendra Modi,*

12th January 2025



SECTION
01 | Introduction





India is on a robust growth trajectory, poised to become one of the top three global economies within the next few years and realise the aspiration for a *Viksit Bharat@2047*. To truly realise this aspiration, we need to harness the full potential of our demographic dividend. Building on the strong foundation and ground-work done over the last decade, the time is ripe to raise our ambition on the skilling and entrepreneurship agenda even further through a multi-dimensional approach ensuring seamless collaboration and convergence across various stakeholders.

ORGANISATION OF THIS CHAPTER

This chapter is organised into four key parts;

- **Part A** provides an overview of the multifaceted skilling and entrepreneurship ecosystem, including the progress made over the past decade since the previous policy was approved in 2015.
- **Part B** sets out the context for skilling and entrepreneurship that informs the design of this policy, in light of India's aspiration for *Viksit Bharat @2047*.
- **Part C** outlines the vision, aspirations, guiding principles, as well as the key focus areas and enablers of this policy.
- **Part D** highlights the key spotlight initiatives—those with high impact potential and the capacity to drive significant transformation.

The subsequent pages provide a detailed explanation of each of these sections.

A) Overview of India's Skilling and Entrepreneurship Ecosystem

I. India's Skilling Ecosystem: An Overview

Key Highlights

- Multifaceted ecosystem with multiple public and private players
- Over 7.67 crore people already trained between 2014-2015 to 2023-2024¹

The current ecosystem for skilling spans across central ministries, state skilling departments, institutions delivering short-term and long-term training, private sector players and platforms, assessment providers as well as regulators. Each actor has a specific role to play in the ecosystem. Between 2015-2016 to 2020-2021, ~₹32,300 crores² were allocated across 17 central ministries and departments towards implementation of various skilling schemes. Further, from 2014-2015 to 2023-2024, over 7.67 crore individuals were trained through various skilling initiatives undertaken across multiple ministries, state governments, private sector efforts, and civil society organisations.

¹ Ministry of Skill Development and Entrepreneurship.

² Convergence of Skill Development Initiatives, November 2022, MSDE.

The skilling ecosystem has been supported by key ministries such as the Ministry of Skill Development and Entrepreneurship (MSDE), the Ministry of Rural Development (MoRD), the Ministry of Micro, Small and Medium Enterprises (MSMEs), the Ministry of Housing and Urban Affairs (MoHUA), the Ministry of Labour and Employment (MoLE), the Ministry of Education (MoE), the Ministry of Women and Child Development (MoWCD), the Ministry of Development of North Eastern Region (MoDONER), the Ministry of Tribal Affairs (MoTA), the Ministry of Social Justice and Empowerment (MoSJ&E), the Ministry of New and Renewable Energy (MoNRE), the Ministry of Electronics and Information Technology (MeitY), the Ministry of Road Transport and Highways (MoRTH), the Ministry of Tourism (MoTourism), and the Ministry of Textiles (MoTextile) among others, all of which have played a critical role in policy direction, funding, and implementation.

Sector-specific initiatives, such as the Ministry of Textiles' Samarth Scheme, the Ministry of Agriculture & Farmers' Welfare's 'Rashtriya Krishi Vikas Yojana (RKVY)', the Ministry of Health & Family Welfare's 'Allied Healthcare Professional Scheme' and the Ministry of Tourism's 'Hunar Se Rozgar Tak' (HSRT), have been strengthening workforce development in key sectors.

These efforts have been augmented by state-led programmes like Tamil Nadu's Naan Mudhalvan

Scheme, Maharashtra's Mahaswayam Scheme, Odisha's Skilled in Odisha Programme, etc. State governments have been focused on strengthening capabilities, enhancing skilling resources, and developing infrastructure, including dedicated Skill Universities, to enhance outcomes.

Additionally, industry-led skilling institutions such as L&T's Construction Skills Training Institutes (CSTI) and Tech Mahindra's Smart Academy, among many others, have played a pivotal role in bridging skill gaps. Further, to address the growing demand for digital and AI skills, initiatives such as Google's AI Skills House aims to skill 10 million people, while Microsoft, in partnership with IndiaAI, aims to train 500,000 people by 2026. These are select illustrations amongst many similar initiatives.

Further, Civil Society Organisations (CSOs) and private companies today work across the skilling value chain – from hands-on community training to developing skilling modules, from training trainers to providing career guidance. Among other stakeholders within the ecosystem, financiers such as Non-Banking Financial Corporations (NBFCs) have been democratising skilling access by leveraging schemes such as the Model Loan Scheme while assessment providers are enabling a more data-driven measurement approach. The skilling expanse is thus vast and multi-faceted as Figure 1 maps out.

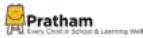


India's Skilling Ecosystem

Government Ecosystem

		Central Ministries	States
 Schemes	Sector Agnostic Ministries	Sector specific Ministries	
	NAPS, JSS, PMKVY Model Skill Loan, CTS	PM Suryamitra	ASAP (Additional Skill Acquisition Programme)-Kerala
	NATS	SAMARTH	Utkarsh Bangla Scheme, West Bengal
	RSETI, DDUGKY	Mahila Shakti Kendra	Mukhyamantri Kaushal Vikas Yojana (MMKVY) Chhattisgarh
	NULM	National Livestock Mission	Nirman Shramik Shiksha Kaushal Vikas Yojana, Rajasthan
	PM-Vishwakarma	Green Hydrogen Mission	
	PM DAKSH		
 Institutions	Regulatory Bodies:	  	 Industrial Training Institutes
	Implementation Bodies:		 Kaushalya Vardhan Kendras
	Content Creators:		
	MEL:	  	 The Centre for Training and Employment of Punjab Youth(C-PYTE)
	Training Centers:	 	 Delhi Skills and Entrepreneurship University
	ToT:		
			
 Platforms/ Databases	e-Shram  	 	 Rozgaar Sangam
	DIKSHA  		Karnataka Skill Connect Portal

Private Sector, Civil Society & Philanthropies

Skilling Partners	         
Assessment & Awarding Bodies	Sector Skill Councils    Assessment Agencies    
Civil Society Organisations & Philanthropies	   
Financiers & Allied Organisations	      
Industry & Industry Bodies	     

Note(s): The ministries, organisations, and institutional entities referenced here are indicative and not an exhaustive list

Figure 1: India's Skilling Ecosystem

II. India's Entrepreneurship Ecosystem: An Overview

India is home to 1.3 crore unincorporated agricultural and 11 crore unincorporated non-agricultural businesses,³ 6.3 crore incorporated micro-enterprises,⁴ and over 1.1 lakh startups,⁵ all of which play a critical role in the economy, contributing a remarkable 30% to the nation's GDP.

India is a land of entrepreneurs spanning a wide continuum of enterprises. They range from informal, unincorporated agricultural and non-agricultural enterprises⁶ to formal Micro, Small, and Medium Enterprises (MSMEs).⁷ This includes individual entrepreneurs, small groups, and aggregated clusters such as cooperatives and Self-Help Groups (SHG). At the same time, 11 crore students,⁸ ~22 crore Not in Education, Employment, or Training (NEET) individuals⁹, and 2 crore unemployed persons are either actively seeking or poised to seek employment. With adequate support and opportunities, many from this large pool can potentially transition into productive entrepreneurship.



In parallel, India has also become one of the most sought-after destinations for entrepreneurship innovation over the last few years. There are over 1.5 lakh registered startups generating over 17.3 lakh jobs (2024), and over 117 Unicorn startups have seen valuations above \$1 Bn.¹⁰

This growth has been enabled by an in-depth policy and ecosystem support network. The Startup India Seed Fund Scheme allocated ₹186 crore to 1,025 startups in 2023.¹¹ In addition, over ₹20,000 crore has been extended to Micro, Small and Medium Enterprises (MSMEs) since AY 2020-2021 in credit and support programmes. Meanwhile, private capital, in the form of venture capital and private equity, has given rise to multiple hypergrowth startups.

Institutional support for entrepreneurship has been equally broad-based, catering to diverse business models across sectors, including technology, agribusiness, manufacturing, and rural enterprises, among others. For example, the Pradhan Mantri Van Dhan Vikas Yojana by the Ministry of Tribal Affairs has supported tribal entrepreneurs in forest-produce value addition; Start-Up India has fostered entrepreneurship by supporting SC, ST, and women entrepreneurs through financial assistance and business development opportunities. Several sector-specific programmes have also been implemented, including the Rashtriya Krishi Vikas Yojana Agribusiness Incubators (RKVY-RAFTAAR) for agribusiness, the Pradhan Mantri Formalization of Micro Food Processing Enterprises (PMFME) scheme for small food businesses, etc.

Meanwhile, multiple States have created vibrant entrepreneurial ecosystems. Select examples include Telangana's T-Hub, Karnataka's E-Step, and Maharashtra's State Innovation Society to empower startups. In addition, dedicated institutions such as the Entrepreneurship Development Centres in the North-East, the Entrepreneurship Development Institute of India (EDII) in Gujarat, and the Indian Institute of Entrepreneurship (IIE) have enabled entrepreneurship training. Figure 2 presents an overview of India's entrepreneurship ecosystem.

³ PLFS 2023-2024, Ministry of Statistics and Programme Implementation, 2024, accessed in Nov 2024.

⁴ Annual Report 2023-2024, Ministry for Micro, Medium and Small Enterprises, 2024, accessed in Nov 2024.

⁵ Press Information Bureau, 2024, accessed in Aug 2024.

⁶ Annual Survey for Unincorporated Sector Enterprises 2022-2023, National Statistical Office, 2024, accessed in Aug 2024.

⁷ MSMEs are defined with investment in plant and machinery or equipment; Micro – not more than INR 1 crore and annual turnover not more than 5 crores; Small – not more than INR 10 crore and annual turnover not more than INR 50 crores; Medium – not more than INR 50 crore and annual turnover not more than INR 250 crores.

⁸ UDISE 2021-2022 and AISHE 2021-2022, Ministry of Education, 2023, accessed in Aug 2024.

⁹ PLFS 2023-2024, National Statistical Office, 2024.

¹⁰ The Future of Global Entrepreneurship.

¹¹ Press Information Bureau.

India's Entrepreneurship Ecosystem				
Government Ecosystem				
	Central Ministries		States	
	Sector Agnostic Ministries		Sector specific Ministries	
Schemes	ASPIRE, SFURTI, PMEGP, CGTSME, National SC-ST Hub, MS Scheme, IC Scheme, Self Reliant India Fund etc.	Innovation & Agri-entrepreneurship programme, Agriculture infrastructure Fund for Agri-preneurs	Kerala Startup Mission, ARISE, Young Entrepreneurs Scheme	
	Startup India, Startup India Seed Fund	PM JANMAN	Karnataka's Unnati Scheme, Samruddhi Scheme, Shrama Shakthi Scheme, E-step, NAIN	
	PMMY	PM Svanidhi	Telangana's T-PRIDE, T-IDEA, Dalit Bandhu, T-Spark	
Institutions	STRIVE, RUVF, PM YUVA, SANKALP	Standup India, PMMY	Tamil Nadu Startup and Innovation Mission, Annal Ambedkar Business Champions Scheme	
	Training & Certification:	NEVF, NEEDP	Maharashtra Start-up Policy, Seed Money Scheme	
	Innovation/Incubation Centres:	VCF-SC, VCF-B, PM DAKSH	Kerala Institute for Entrepreneurship Development	
Platforms/ Databases	Vaikunth Mehta National Institute of Cooperative Management, Ministry of Cooperatives	PRISM, NewGen Innovation and Entrepreneurship Development Centre, NIDHI	Institute for Entrepreneurship Development, UP	
	INSTITUTION'S INNOVATION COUNCIL	Entrepreneurship Development Institute of India	Centre for Entrepreneurship Development, Gujarat	
	Bharat Bhawan, BHASKAR, Aadhaar, WEP			
Private Ecosystem				
Aspiration, Mentorship & Peer Networks	Community based Counselling:	Mass Awareness Campaigns:	Peer Networking & Mentorship:	In-school mindset change:
Training and Support Services	Entrepreneurship training:		Incubator/Accelerator:	Knowlegde Navigation:
	Promotion:	B2b-Vendore to businesses:	D2C account aggregators:	Last mile linkages:
Financiers	Easing underwriting:	Enabling Finance:	Innovative Finance:	Banks:

Note(s): The ministries, organisations, and institutional entities referenced here are indicative and not an exhaustive list

Figure 2: India's Entrepreneurship Ecosystem

III. Key Milestones in India's Skilling and Entrepreneurship Ecosystem

India has made significant strides in building a comprehensive skilling framework to equip its workforce with the competencies required for an evolving economy.

Key Highlights

- Dedicated Ministry of Skill Development and Entrepreneurship (MSDE) was set up in 2014.
- New Education Policy, 2020 (NEP) provided a definitive framework across education and skilling.
- National Skills Qualification Framework and Digital Skills Hub further augmented growth.

To enable the right support for India's skilling requirements, a dedicated MSDE was established in 2014, followed by the launch of the National Policy for Skill Development and Entrepreneurship in 2015. This phase involved the consolidation of

key entities such as the Directorate General of Training (DGT), the National Skill Development Corporation (NSDC), the National Instructional Media Institute (NIMI), the Indian Institute of Entrepreneurship (IIE), the National Institute for Entrepreneurship and Small Business Development (NIESBUD), and the Central Staff Training and Research Institute (CSTARI) under (MSDE) ambit.

Over the past decade, MSDE has led various initiatives like the Pradhan Mantri Kaushal Vikas Yojna (PMKVY), National Apprenticeship Promotion Scheme (NAPS), Jan Shiksha Sansthan (JSS) among others. Similarly, on the entrepreneurship front, MSDE has been leading the development and deployment of Entrepreneurship Development Programmes (EDPs), trainer capacity building, etc., while supporting multiple cross-ministry schemes (e.g., PM Vishwakarma). Taking a global view of skilling, the ministry has been enabling the training of a skilled workforce for international mobility as well as for serving the demands of the Global Capability Centres (GCC) in India. Underpinning all these efforts has been the constant focus on driving convergence and coordination across programmes and stakeholders through integrated frameworks and launching flagship initiatives addressing national priorities.



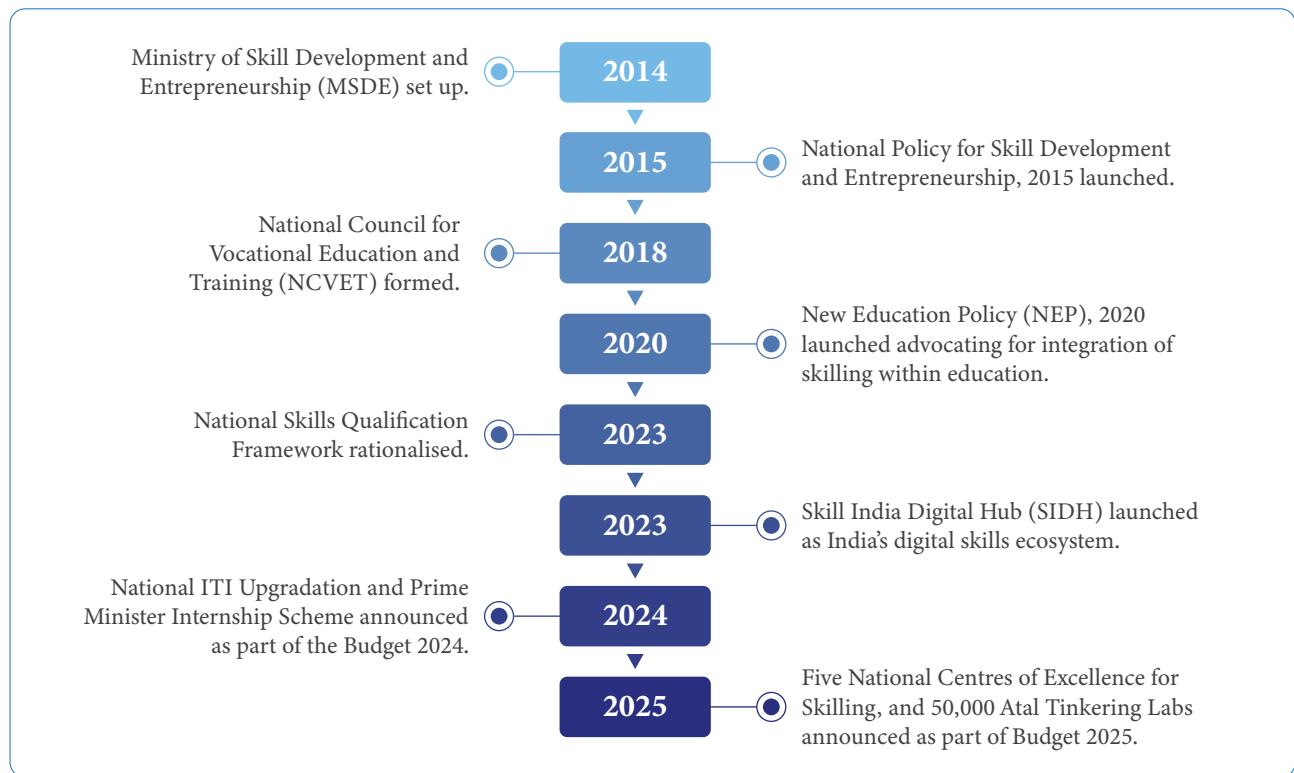


Figure 3: Key milestones in India's skilling and entrepreneurship ecosystem over the past decade

In parallel, the National Education Policy (NEP) 2020 provided a transformative direction for integrating education with skilling. Further, the 2023 launch of the Skill India Digital Hub (SIDH) enabled a digital backbone to expand the skilling reach. By August 2024, Skill India Digital Hub (SIDH) had registered over 90 lakh users.¹²

These initiatives have laid a robust foundation for India's skilling journey, and it is time to build on that for our future roadmap.

¹² National Skill Development Corporation.



B) Context for this Policy: The Journey to 2047

India's demographic opportunity is inspiring, but it is not automatic; it needs to be harnessed through timely policy interventions and strategic interventions that are aligned to industry and workforce needs. This policy is an attempt to update and refresh our approach to harness India's demographic dividend.

India's aspiration of 'Viksit Bharat @ 2047' vision is bold - a developed, inclusive nation where every citizen can access opportunities and contribute to the nation's collective prosperity. Skilling and Entrepreneurship are seen as critical enablers of this vision that have been mainstreamed over the last decade. The Union Budget 2025 highlighted employment and skilling as key priorities and focused on fostering talent by establishing five National Centres of Excellence for Skilling, along with a continued focus on marquee short-term training programmes, among other initiatives. This builds on the transformational announcements in the Union Budget 2024, which focused on upgrading over 1,000 Industrial Training Institutes (ITIs) and deepening industry co-ownership in skilling through the Pradhan Mantri (PM) Internship Scheme (PMIS), among others.¹³

While the foundations of this vision are well set, the journey ahead will also be shaped by several megatrends. A substantial technological disruption driven by Artificial Intelligence (AI) is rapidly transforming industries and redefining job roles. The climate crisis is compelling nations to adopt energy transition, green growth, and climate-resilient development. Changing geopolitical dynamics are causing disruptions in labour and supply chains and leading organisations to invest in economic resilience. The expansion of globalised business models such as Global Capability Centres (GCCs) is driving the export of cutting-edge

digital products and services to global markets. An increasing demographic imbalance is creating a global shortage of skilled workers in many countries, particularly in sectors such as manufacturing, IT, supply chain, robotics, healthcare and other services. Amidst this, cultural shifts driven by the digitally native Generation Z are redefining the 'future of work.'

These shifts are unpacking opportunities for India to leverage its demographic advantages while preparing to meet evolving workforce demands. The country has one of the world's youngest working-age populations, with 65% of its population in the working age group (15-59 years) and a median age of 28 years.¹⁴ This presents an opportunity to focus on building skills and harnessing the potential of youth for future growth.

India's demographic opportunity is inspiring, but it is not automatic; it needs to be harnessed through timely policy interventions and strategic interventions that are aligned to industry and workforce needs. This policy is an attempt to update and refresh our approach to harness India's demographic dividend. This is of particular importance given that only 4.1% of youth are



¹³ Union Budget 2025-2026, Government of India, accessed in Feb 2025.

¹⁴ Economic Survey 2023-2024, Ministry of Finance, 2024, accessed in Aug 2024.

formally trained today, while 30.6% are informally trained through hereditary exposure, self-learning, and on-the-job training.¹⁵ Further, barriers faced by women, marginalised communities, economically weaker sections, and those in remote areas require more focused attention. Other cross-cutting barriers such as access to the right information and guidance, societal stereotypes among others also need to be addressed. As a result, many beneficiaries lack guidance in selecting relevant courses, while employers face challenges in identifying skilled talent with verified credentials. This disconnect affects not only job seekers and employers but also financiers and training providers.

In parallel, the environment for entrepreneurship and self-employment needs to be strengthened.

It is essential to build the risk-taking appetite among the youth of the country, ease the regulatory environment, and further improve access to capital to achieve greater formalisation, innovation, and job creation. This policy focuses on addressing these challenges and enabling stronger economic participation by India's youth.

All these efforts need to be undertaken with a continued focus on the “Whole-of-Government” and “Whole-of-Nation” approach, with collaboration and convergence as key cornerstones. Existing efforts of key ministries such as the MoE, MoLE, and MoMSME, among others, will have to be leveraged and built upon. The integration of skilling with academia under the NEP 2020 has enabled several State Governments to embed skilling within formal education systems. Going forward, sector-specific ministries will play a significant role in expanding skill training in emerging industries. For instance, the Ministry of Electronics and Information Technology (MeitY) is focusing on digital literacy and advanced IT skills, supporting initiatives that promote new-age courses aligned with Industry 4.0, such as coding, artificial intelligence, and robotics. Similarly, the Ministry of New and Renewable Energy (MNRE) is committed to developing a skilled workforce in the renewable energy sector. In addition to these, traditional sectors for mass employment will be critical avenues for the expansion of the skilled workforce, especially given the capital investment in infrastructure under the Ministry of Road



Transport and Highways, the focus on organic farming under the Ministry of Agriculture, and the rise of tourism under Ministry of Tourism, among many others.



¹⁵ PLFS 2023-2024, Ministry of Statistics and Programme Implementation, 2024, accessed in Nov 2024.

C) The Organising Framework for this Policy

A critical starting point is to reflect on the definition of skilling. Global agencies such as UNESCO-UNEVOC¹⁶ define skills as “the relevant knowledge and experience needed to perform a specific task or job.¹⁷” Further, skilling not only encompasses foundational aspects (technical,¹⁸ transversal,¹⁹ behavioural,²⁰ among others) for workforce entrants, but also upskilling (to enhance and adapt existing skillsets), reskilling (critical for career shifts), and skills developed through work experience over the years (non-formal skilling recognised through Recognition of Prior Learning). Together, these elements enable lifelong learning through which individuals continuously acquire new skills to remain relevant in a dynamic environment.

As we mark the tenth anniversary of National Policy for Skill Development and Entrepreneurship, 2015 (NPSDE), this policy aims to enhance India’s ambition for skilling and entrepreneurship over the next decade. Figure 4 (illustrated below) showcases the organising framework of the policy document.



¹⁶ UNESCO-UNEVOC is UNESCO's specialised centre dedicated to strengthening and upgrading technical and vocational education and training (TVET) systems worldwide, promoting skills development for employment, decent work, and entrepreneurship.

¹⁷ Glossary of Skills and Labour Migration, UNESCO-UNEVOC, 2021, accessed in Nov 2024.

¹⁸ Technical skills refer to specialised abilities and knowledge required to perform specific tasks related to fields or professions.

¹⁹ Transversal skills refer to transferable skills and competencies common across various jobs, roles, and industries.

²⁰ Behavioural skills refer to interpersonal abilities such as communication, empathy, time management, conflict resolution, and emotional intelligence.

National Policy for Skills Development and Entrepreneurship, 2025



Figure 4: Policy Framework

I. VISION OF THE POLICY

The vision reflects several core elements of Viksit Bharat @2047, along with the key tenets of this policy.



Figure 5: Vision of the National Policy for Skill Development and Entrepreneurship, 2025

II. ASPIRATIONS OF THE POLICY



Aspirations refer to the broad, long-term agenda that the policy seeks to achieve, outlining the desired future outcomes—*including large-scale skilling, enhanced quality and employability, and inclusive access—that shape the overall direction and priorities of skilling initiatives.*

Scale

- 50% of the labour force to be skilled (including skilling, upskilling and reskilling), assessed and certified by 2035.
- All learners in school and higher education to have exposure to skill education (in line with NEP, 2020).



Quality

- Significantly improve employability (measured via National Employability and Entrepreneurship Measure) of the labour force across sectors, regions and cohorts.
- Strengthen skill ecosystem (e.g., quality assurance, training capacity, infrastructure) to enable competitive wages and robust self employment opportunities.



Inclusive Access

- 50% participation from women, minority groups, members of SC/ST, residents of LWE, NER across skilling interventions.
- Embed intentionality (e.g., gender budgeting, inclusive infrastructure) across skilling interventions.



Figure 6: Aspirations of the National Policy for Skill Development and Entrepreneurship, 2025

III. PRINCIPLES OF THE POLICY

Six core principles of the policy include outcome orientation, a robust and flexible regulatory framework, convergence and collaboration, a global outlook, inclusion by design, and a digital backbone.

The policy is guided by six core principles to ensure that its vision and aspirations are achieved. They include:



Outcome Orientation: Outcome orientation refers to the intentional shift towards focusing on key outcomes that the skilling system must deliver (e.g., employability of the workforce) to meet its aspirations, alongside tracking inputs (e.g., number of individuals skilled). This will be embodied in multiple ways. This includes defining goals with clear metrics, encouraging outcome-linked funding, establishing systems and processes to enable transparent tracking, and reporting outcomes and accountability. It extends to the government's partnership with industry, using outcome-linked incentives to drive results.



Robust yet Flexible Regulatory Framework: The policy envisages setting broad guidelines rather than rigid rules and requirements. As an example, the approach to decentralise assessment agencies and awarding bodies with necessary monitoring mechanisms. The objective is to help industries and the private sector take the lead in certifying skills and making certifications more accessible, of higher quality, and more relevant to market needs. Another key tenet is to ensure regulatory flexibility for further development of the entrepreneurship ecosystem in the country, to drive ease of doing and growing businesses.



Convergence and Collaboration: Recognising the complexity of the skilling and entrepreneurship landscape, convergence across central ministries, state governments, private sector players (including large industries and MSMEs), and other ecosystem actors like assessment agencies and awarding bodies, civil society organisations, etc. is a core tenet of this policy. By empowering districts and states to take ownership, e.g., through the State Skill Action Plan, the policy encourages those closest to local challenges to design solutions tailored to their unique contexts. The centre will ensure broader alignment with national goals and state-specific priorities and align resources along with enabling mechanisms to tackle critical market challenges.



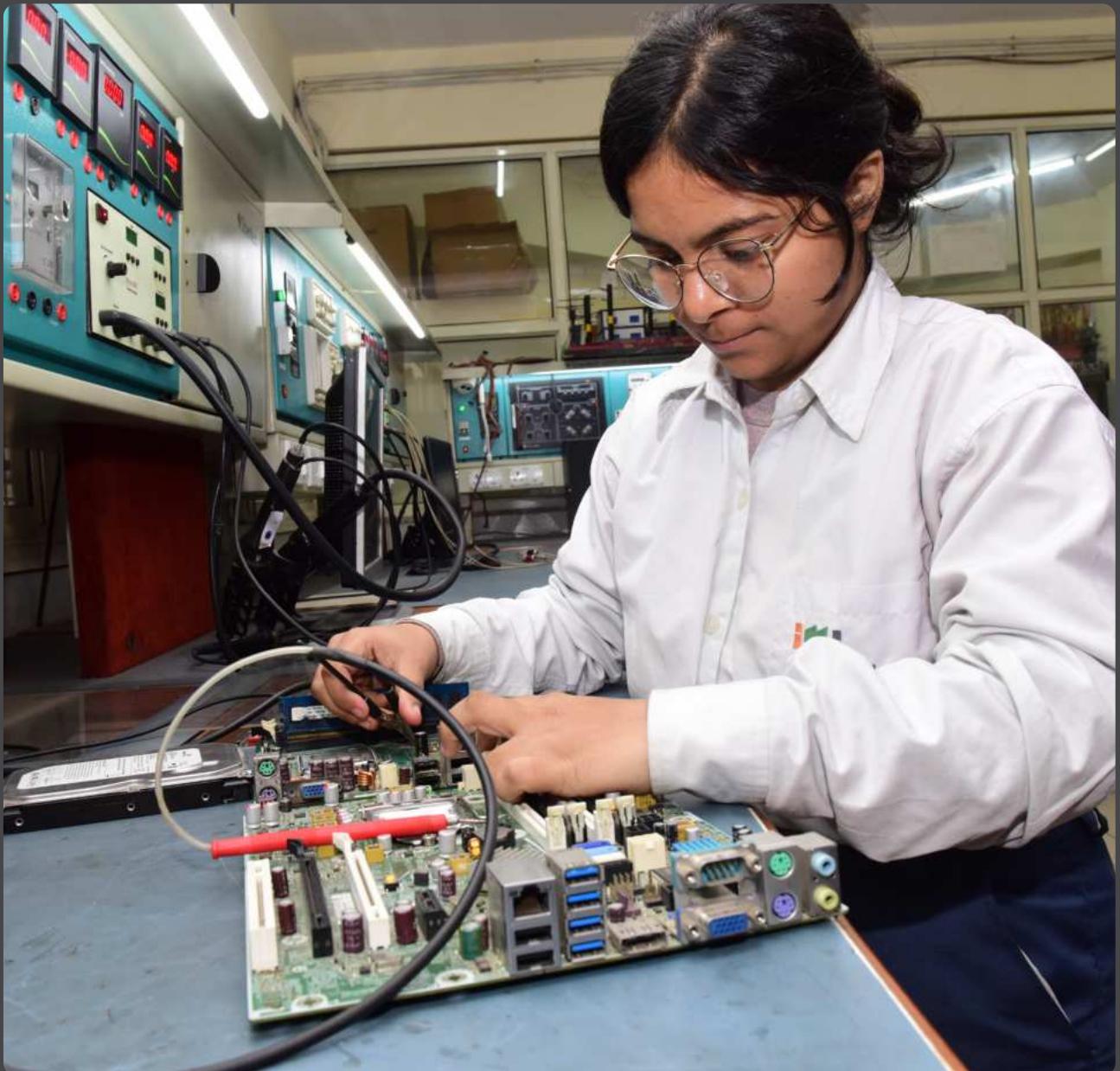
Global Outlook: The policy draws on the best international practices and seeks to foster cross-border partnerships. Its goal is to position India as a global skills hub, with global workforce mobility, and through export of goods and services. It also seeks to attract foreign investments as well as global skill providers to address critical global workforce gaps in areas such as healthcare, the digital economy, and others.



Inclusivity by Design: To drive the aspiration of inclusivity and recognise that skilling is a critical precursor for meaningful employment and self-employment, the policy looks at incorporating intentional inclusion into the design, development, and delivery of skills programmes while also leveraging community leaders and role models to raise awareness and encourage participation.



Digital Backbone: The Policy underscores the integration of advanced technologies like AI and existing digital platforms (e.g., Academic Bank of Credits, APAAR ID, SIDH) to drive a tech-enabled ecosystem. For the government, this involves developing a unified skills Digital Public Infrastructure (DPI) with interoperable skill databases. For industry, it entails co-developing tech-driven training models and supporting innovation.



The following section outlines 15 thrusts and 6 enablers that form the core action areas of the policy. Thrusts refer to the key focus areas that drive transformation within the skilling and entrepreneurship ecosystem, while enablers are cross-cutting, horizontal interventions that focus on strengthening the infrastructure and institutions necessary for effective policy implementation. Together, they address both the immediate and long-term needs for skilling, entrepreneurship, and supporting infrastructure. This combined framework offers a comprehensive and forward-looking blueprint, prioritising the key changes required today to strengthen India's skilling and entrepreneurship ecosystem.

An overview of each of the thrusts and enablers is provided below.

IV. KEY THRUSTS OF THE POLICY

Thrust 1: Institutionalise Dynamic Demand Planning for Skilling Programmes

India needs to align its workforce skills with the rapidly changing demands of industries and regional/global economies by developing a real-time view of the labour market. This involves integrating quantitative and qualitative demand data from diverse sources, developing cohesive skill gap estimation methodologies, and enhancing integration between skilling programmes and labour market needs.

A Labour Market Information System (LMIS) will be developed, unifying data from government bodies, industry, skilling institutions, and dashboards into a cohesive platform. It will involve creating a baseline of labour demand and supply using a standardised skills taxonomy aligned with the National Classification of Occupation (NCO) and the National Skills Qualification Framework (NSQF), working closely with MoLE (Ministry of Labour and Employment). High-frequency economic indicators, such as GST filings and e-way bills, will be leveraged along with datasets from e-Shram and Skill India Digital Hub (SIDH) to estimate sectoral and regional demand. Moreover, advanced AI and ML-powered analytics will be used to generate real-time insights into skills gaps and workforce trends, ensuring a targeted and adaptive approach.

Thrust 2: Integrated Skill-Education Learning Pathways with NCrF-enabled Mobility

Integrating academic, skilling, and professional pathways, with mobility/linkages among them is a key priority in promoting skill-led growth in India. The National Credit Framework (NCrF) has already introduced this via a unified system of

credits and enabling Multi-Entry, Multi-Exit (ME-ME) pathways across these systems. The NCrF is also enabling the ‘creditisation’ of work experience. This helps balance informal work experience with formal qualifications. Going forward, nationwide awareness campaigns and pilot programmes will promote NCrF adoption.

All academic, skilling, and employment credentials of an individual – connected via the APAAR ID - will be consolidated into a Digital Lifelong Learning Account (DLLA) to provide a unified, verified record. Using the DLLA, a Unique Skills Profile (USP) will be created, enabling individuals to showcase their credentials while offering employers a clear way to increase skill-based hiring. Over time, this will facilitate wage premiums based on skill levels and make skilling more aspirational.

As per the National Education Policy (NEP) 2020 guidelines, skill education will be made available to a significantly larger base of students through deeper integration with mainstream schools and higher education systems and by leveraging practical learning models such as Work-Integrated Degree Programmes (WIDP) and the Apprenticeship Embedded Degree Programmes (AEDP).



Thrust 3: Enhance Access to Employability and Entrepreneurship Skills

Basic Employability and Entrepreneurship skills refer to sector-agnostic skills that are necessary for success in any kind of job or entrepreneurial venture. This includes competencies like effective communication, digital and financial literacy, problem-solving, adaptability, and an entrepreneurial mindset, among others.

Delivery of these competencies will start from schools and continue through higher education and skilling programmes in various forms - as integrated modules (for e.g., integrated into curricula and pedagogy of core education subjects), standalone programmes (e.g., a dedicated short-term skilling programme) or bridge courses (e.g., at the start of an ITI programme), amongst others to address competency gaps. NCVET's (National Council for Vocational Education and Training) existing framework of Employability Skills (ES) and Life Skills (LS) will be leveraged to create stackable modules on these topics and the framework itself will be evolved and strengthened based on changing needs and on-ground feedback. Digital courses on these skills will be developed and delivered via platforms like Skill India Digital Hub (SIDH) using multilingual, interactive content to achieve scale and reach underserved regions.

To drive this priority, a Yojna Bharat Mission will be launched to develop and oversee the nationwide implementation of basic employability and entrepreneurship skills. Additionally, a National Employability and Entrepreneurship Measure will be introduced to regularly track workforce employability data, use data to improve programme design and ensure the programme remains aligned with industry needs.

In parallel, trainer capacity will be enhanced through specialised programmes and tools. For example, Gen AI will be used to supplement learning. Further, awareness campaigns will be rolled out to highlight the value of these skills and drive widespread adoption.

Thrust 4: Encourage Lifelong Learning

Lifelong Learning (LLL) is essential to help individuals and economies meet the changing demands of industries and technologies. To enable LLL, it is important to periodically update occupational standards under the National Skills Qualification Framework (NSQF). An agile framework will ensure that redundant job roles are proactively phased out while new ones are introduced, with planned reskilling efforts to support transitions.

New flagship upskilling and reskilling programmes will be launched to address diverse needs through short, medium, and long-term formats, focusing on national priority sectors like the green economy, care economy, agriculture/agritech, sports, AI and advanced manufacturing. Foundational programmes will also be introduced in select areas—skilling for foundational AI readiness and skilling for sports will be treated as priority. Nano-credentials and micro-credentials will be launched for modular learning. The focus of government efforts will be on upskilling/reskilling for critical sectors (e.g., mining, which is expected to see a decline in employment, green jobs which is expected to see a rise in new skills), as well as disadvantaged groups. Industries, more generally, will lead workforce upskilling/reskilling in all sectors and groups, including contract workers. Companies contributing to sector-wide Lifelong Learning (LLL) will be recognised via financial and non-financial incentives.

Infrastructure will be strengthened with dedicated Institutes of LLL (either newly established or upgraded) as hubs for targeted programmes. These will be supported by digital platforms, like Skill India Digital Hub (SIDH), offering scalable and personalised delivery. Innovative financial mechanisms (e.g., Skill Mudra (Skill Voucher)) and incentives (e.g., outcome-based funding) will be encouraged to promote LLL adoption.

Thrust 5: Strengthen Trainer Capacity and Enhance Skills Practitioner Ecosystem

Critical skills practitioners, including trainers, assessors, industry experts, and mentors form the backbone of the skilling ecosystem. Enhancing the quality of skills practitioners is a critical thrust area. To achieve this, the skills practitioner ecosystem will be enhanced, supported by a framework defining qualifications, onboarding, and performance standards. Flexible guidelines will make it easier to onboard trainers, while the adoption of newer roles like Professors of Practice will be enabled to attract experienced industry professionals. Also, inclusivity will be prioritised by creating part-time roles and other pathways for professionals returning from career breaks or from diverse backgrounds.

To maintain high quality standards, trainers will undergo periodic, NSQF-aligned modular training focused on sector-agnostic skills (e.g., digital skills, facilitation skills) and industry-relevant content. Continuous Professional Development (CPD) will be supported with performance-linked incentives to improve quality. Alumni networks will be tapped to encourage them to become trainers and mentors, creating strong connections between the industry and the skilling ecosystem. Platforms like Skill India Digital Hub (SIDH) and Takshashila²¹ will provide digital tools to create a community of practitioners, showcase their credentials, and enable feedback mechanisms such as user ratings, thus helping expand the reach of top-rated practitioners and overall, promote collaboration and utilisation.



Thrust 6: Strengthen Assessment Capabilities and Shift to Proficiency-based Evaluations

A shift to practical, proficiency-focused assessments is essential to improve workforce readiness, promote skills-based hiring, and enable wage premiums. This will focus on increasing the capacity of assessment agencies (AA) and awarding bodies (AB) from the current base of 68 AAs and 128 ABs, for example, through industry partnerships, especially in sectors such as manufacturing and healthcare. Collaborations with global organisations will be forged to introduce international standards in assessments, thus boosting global employability, particularly in high-demand roles like nursing and home healthcare. Proficiency-based methods, such as percentile scoring and adaptive assessments will be evaluated and launched. Digital tools, including AI-powered assessments, real-world simulators, and proctoring software, will be introduced to enhance scalability, accuracy, and reliability in applicable sectors. Recognition of Prior Learning (RPL) will be expanded at-scale and on-demand and supported via awareness campaigns, financial incentives, and innovative delivery models.

Thrust 7: Deepen Industry Co-ownership

With advancements in technology, automation, and sustainability, industries increasingly need to upskill and reskill their workforce. In parallel, the informal and gig economy, a large and growing segment of India's labour market, and participants in several new-age industries, also require targeted skilling to ensure inclusion and sustainable employment.

Recognising the significant contribution of industries via diverse resources and capacities, a four-pillar framework enabling varied levels of collaboration is envisaged - Build, Partner,

²¹ Takshashila portal serves as a dedicated online platform for the management of Trainers and Assessors of the Indian Short-Term Skill ecosystem, functioning as the central repository of information concerning development of quality Trainers and Assessors.



Contribute, and Engage. Under ‘Build’, industries will create world-class skilling institutions, such as Centres of Excellence (CoEs), through innovative PPP models. The ‘Partner’ pillar will encourage collaboration with academia and skilling institutions for shared resources, modern equipment, structured placement opportunities, and co-finance skilling programmes. Through ‘Contribute’, industries will promote skill-based hiring practices and embed lifelong learning. Finally, ‘Engage’ will emphasise regular feedback mechanisms, consultations, and structured communication platforms to ensure that programmes are responsive to evolving market demands. Industries, from across sectors, types, and size, can choose one or a combination of the above engagement models to contribute to the skilling ecosystem.

Future efforts will leverage, expand, and innovate based on key existing initiatives like PPP-based ITI modernisation, Industry-led skilling institutions, the Dual System of Training (DST), “Earn-while-you-Learn” programmes, flexi-MoU,²² etc. To encourage such efforts, the government will consider offering tax breaks, subsidies, and other incentives, particularly for efforts directed towards informal and gig economies. These incentives will be conceptualised and executed in collaboration with the Ministry of Corporate Affairs (MCA), the Ministry of Commerce and Industry (MoCI), and the Ministry of Finance (MoF). A Corporate Patronage Programme will also be launched to recognise industries for their contributions. Further, industry skilling contributions will be linked to government schemes like the Production-Linked Incentive (PLI) to embed skilling into business strategies.

Thrust 8: Skill for Women-led Development

A multi-pronged approach towards skilling women for a variety of job roles (traditional, emerging, and male-dominated) will be undertaken. Public campaigns targeting women and their families will be launched to challenge traditional norms and encourage participation. Collaborative efforts such as family counselling and support from Women Development Cells (WDCs), leveraging resources from ministries such as the MoWCD, will be launched.

Skilling programmes will be made accessible through flexible formats, women-only centres, mobile training units, and infrastructure such as support for childcare, hostels, transportation, and safe facilities. Skilling centres will be encouraged to achieve at least 30% enrolment of women with necessary incentives, especially for non-traditional roles. Gender-sensitive curricula and training will be introduced. Efforts will also be made to provide mentorship, post-placement support, and tailored skilling packages (e.g., via WDCs) for women re-entering the workforce after a break. Additional efforts will be undertaken to promote women’s participation in self-employment and entrepreneurship. Finally, gender-based tracking will be introduced for all schemes and programmes to enable data-driven action and interventions in the future.



²² Flexi MoUs allows industries to train candidates as per their skill set requirements and provides trainees with an industry environment aligned with the market needs.

Thrust 9: Drive Inclusion for Marginalised Groups and Regions

The skilling ecosystem will address the inequities faced by marginalised groups, including Scheduled Castes (SCs), Scheduled Tribes (STs), People with Disabilities (PwD), LGBTQ+ individuals, and residents of geographically challenging regions.

Infrastructure and resources will be upgraded with ramps, Braille materials, AR/VR tools, and gender-neutral facilities to accommodate key inclusion-related needs. Skilling programmes will also embed socio-cultural sensitivity in targeted job roles, courses, and curricula, delivered by trainers from local communities to ensure relevance. Innovative delivery models, such as mobile training units and digitally available courses for last-mile delivery, will be launched.

Grassroots awareness campaigns, leveraging local influencers, will be used to raise aspirations for skilling. Financial support such as stipends, scholarships, and grants will be leveraged to address affordability constraints. Skilling programmes will also be aligned with regional economic opportunities through tailored curricula specific to local job roles. Digital delivery of these courses will be done via platforms like Skill India Digital Hub (SIDH), which will integrate community-specific data to provide personalised course recommendations and benefits. Context-specific employment and self-employment opportunities will be facilitated through entrepreneurial programmes, access to credit, mentorship, and market linkages.



Thrust 10: Scale Skilling for the World

India is uniquely positioned to meet emerging global labour shortages with its young, diverse and skilled workforce. It aims to advance the vision of 'India for the World' by promoting the export of goods and services, while supporting workforce mobility. This will be achieved by skilling candidates for overseas employment, strengthening skills for the services export sector (e.g., Global Capability Centres or GCC), and enhancing workforce skills to support goods exports. An alignment via Mutual Recognition of Qualifications between domestic training programmes and international standards is required to optimally harness this potential. A 'Green Skills Channel'—a structured pathway for the international mobility of workers—will be enabled through mutual recognition of competencies, skills, qualifications, and certifications. This pathway, supported by relevant visa and mobility arrangements in coordination with the Ministry of External Affairs (MEA) through bilateral or multilateral agreements based on preset guidelines, will facilitate the smooth mobility of skilled talent.

Global skills' demand forecasting will be strengthened to allow data-driven planning of globally oriented skilling initiatives. Recognition of skill certifications thus received will be orchestrated with key countries, supported by Government to Government (G2G) or Government to Government to Businesses (G2G2B) partnerships and mobility agreements. Learnings from existing programmes, such as the Technical Intern Training Programme (TITP) with Japan and bilateral agreements with Gulf countries, will be leveraged as international skilling efforts are scaled. In addition, globally oriented courses, curriculum, and infrastructure will be developed to cater to the talent needs of growing services export (e.g., GCCs) and goods export companies. The creation of a high-quality skilled workforce within India will further drive foreign investments within the country, especially in emerging sectors such as Semiconductors, Robotics, AI/ML Research, and so on.

Thrust 11: Build Aspirations Towards Entrepreneurship

Future efforts will focus on cultivating aspirations through starting entrepreneurship related skilling early (in middle and secondary schools), and via nationwide public awareness campaigns such as National Entrepreneurship Week and the Entrepreneurs' Ambassador Programme. These programmes will highlight the success stories of diverse entrepreneurs to inspire entrepreneurship adoption. Grassroots efforts like 'Swavlamban Samwaads' will be launched to facilitate district-level dialogues, connecting aspiring entrepreneurs with mentors and resources to address challenges and explore opportunities. 'Idea-to-Business' competitions will be introduced to encourage creativity and innovation among students, workers, and those 'Not in Education, Employment, or Training' (NEET) by providing incubation and funding to turn ideas into viable businesses.

Positive reinforcements will also be promoted through an expanded entrepreneurship awards programme at national and district levels, celebrating entrepreneurial achievements across sectors, enterprise sizes, and gender contributions. Specific support will also be planned for entrepreneurs whose ventures have not succeeded to help them restart and rebuild sustainable businesses.

Thrust 12: Strengthen Skills for Entrepreneurship

Early exposure to entrepreneurial skills and practical aspects in a structured environment is important to promote awareness and a thriving entrepreneurship culture. National Skills Qualification Framework (NSQF)-aligned modular credentials focused on entrepreneurship, including micro- and nano-credentials will be developed with an objective to equip individuals with essential skills such as business

planning, financial management, and regulatory compliance. This will include practical learning through projects, competitions, and mentorship. These programmes will be embedded in academia and skilling institutions, starting in schools and continuing in higher education as well as delivered via independent skilling programmes.

A strong pool of master-trainers and faculty will be developed and will lay the foundation for guiding aspiring entrepreneurs. To further enhance delivery, innovative mechanisms such as AI-driven tutoring and mentorship will be introduced, making learning more personalised and accessible to a wider audience. Additionally, skilling programmes will be bundled with credit schemes to offer both skills and the financial resources needed to launch and grow businesses.

Thrust 13: Drive Ease of Starting and Growing Nano and Micro Businesses

Simplifying regulatory frameworks is essential for driving economic growth, promoting business creation, and improving competitiveness. While initiatives like the Insolvency and Bankruptcy Code (IBC), GST, and the Jan Vishwas Act have made significant contribution, further steps are needed to ease compliance and support MSMEs, particularly for nano and micro-enterprises.



Going forward, nano Enterprises (for e.g., with annual turnover less than ₹1 crore) will be defined as a distinct category with simplified registration, compliance processes, and enhanced access to credit, providing targeted support to help them formalise and grow. To empower entrepreneurs, innovative entrepreneurship models such as "Business-in-a-Box" will be introduced. The Business-in-a-Box (BiB) will provide structured, ready to deploy business models for direct implementation by individuals and nano-entrepreneurs, bringing together the necessary financial resources, technical skills, market access and requisite mentorship. BiB aims to cater to local economies, promoting sustainable (and contextualised) non-farm employment – particularly in rural, peri-urban and underserved areas.

Regulations will be streamlined through digital platforms and automated approvals coupled with AI-based tools to address key queries. Compliance frameworks will be continuously reviewed to eliminate redundancies and align policies with evolving business needs. In parallel, local entrepreneurship hubs will be set up (e.g., in academia, within District Industries Centres (DICs), etc.) to guide entrepreneurs through regulatory processes.

Thrust 14: Provide Mentorship and Resources to enable setup and Scale of Enterprises

Entrepreneurs, particularly in underserved regions, continue to face challenges in accessing high-quality mentorship, critical resources, and structured support during the early stages of their ventures. To address this, institutional capacity for mentorship will be strengthened. Structured mentorship programmes will pair new entrepreneurs with seasoned business leaders. Awareness will be enhanced to access existing platforms like Bharat Startup Knowledge Access Registry (BHASKAR), MyScheme, and Mentorship, Advisory, Assistance, Resilience, and Growth (MAARG), which aggregate resources such as mentor networks, funding opportunities, and operational support tools. Further, the efforts will be consolidated as a one-stop Digital Hub of all resources for entrepreneurs, including vernacular resources

and local mentors. Sector-specific mentors will be onboarded for emerging priorities such as agri-tech, fin-tech, AI, etc., and flexible or part-time models with necessary incentives will be leveraged to attract experts and industry practitioners as mentors.

Mentorship capacity and capability will be scaled within incubators, entrepreneurship cells in academia, and district-level institutions such as District Industries Centres (DIC). Strong linkages will be established amongst such incubators, entrepreneurship hubs, educational institutions, and skill centres. To enable ongoing access, business development support services will also be bundled with credit schemes at nominal fees. Further, entrepreneurship through aggregation/cluster models will be promoted to enable better access to resources, reduce risks, and achieve economies of scale.

Thrust 15: Strengthen Access to Finance for Entrepreneurs

Several initiatives that enhance access to finance for entrepreneurship, such as the Pradhan Mantri MUDRA Yojana, the Credit Guarantee Scheme for Micro & Small Enterprises, and equity-based programmes like the Self-Reliant India Fund have been introduced. Going forward, large-scale seed funds will be established to further enhance access to equity capital to help micro and small enterprises scale. This will be done by leveraging institutions like Small Industries Development Bank of India (SIDBI) and National Bank for Agriculture and Rural Development (NABARD) to manage the distribution of resources via intermediaries such as incubators and other business development support institutions.

Innovative financing mechanisms, such as outcome-linked funding for incubators, will also be brought in. Additional incentives/grants will be provided to incubators achieving goals like revenue growth, job creation, and profitability. They will also be encouraged to provide cluster-based funding to the extremely poor and marginalised.



V. KEY ENABLERS OF THE POLICY

In addition to the above 15 ‘Thrusts’, 6 ‘Enablers’ aim to build foundational support by improving infrastructure, encouraging collaboration, streamlining processes, ensuring sustainable financing, enhancing monitoring, and elevating the perception of skilling and entrepreneurship in the country.

Enabler 1: Enhance Digital Public Infrastructure (DPI) for Skills and Entrepreneurship

A robust digital ecosystem is key to better coordination, lower implementation costs, and greater effectiveness in the skilling ecosystem. The Skill India Digital Hub (SIDH), a single platform that brings together information on learners, courses, schemes, employers, and financiers, has already made good progress in this area.

Looking ahead, SIDH will be further enhanced to meet the changing needs of the ecosystem. This will include improving user interfaces, tailoring user experiences, raising the quality of courses and content, offering more value-added services, and using AI and advanced analytics for greater personalisation and impact.

At the same time, there will be a move towards an ‘open network’ model for Skilling Digital Public Infrastructure (DPI), allowing different



government and private platforms to work together more easily—for example, by integrating the National Career Service (NCS) with SIDH. This open network will support collaboration among independent organisations, helping them connect, innovate, and offer varied services on a shared and interoperable system. It will also improve efficiency and coordination by combining data from multiple sources and enabling more reliable services such as job matching and verified credentials.

Enabler 2: Enhance Physical Infrastructure for Skills and Entrepreneurship

Existing institutions like polytechnics, ITIs, private training partners, industry-led skilling efforts, skill labs in schools and colleges, etc., already provide a strong foundational infrastructure. A key step is to ensure optimal utilisation of this existing infrastructure. A National Skills Infrastructure Network (NSIN) will map and geo-tag all existing public and private institutions and resources, unlocking future collaborations and resource sharing. Facilities will also be organised into Hub-and-Spoke models, with Centres of Excellence (CoEs) serving as hubs while the spokes will extend their reach to underserved areas. Furthermore, classrooms will be upgraded with digital tools, smart labs equipped with up-to-date equipment and simulators, while inclusive features such as ramps, gender-neutral washrooms, and specialised tools for differently abled learners will be incorporated. Sustainability measures, including solar panels and energy-efficient systems, will be embedded within both existing and new setups.

Finally, a set of institutions will be developed as flagship institutions (brownfield and greenfield) in partnership with leading industries and institutes. They will offer courses relevant for both traditional and emerging sectors such as semiconductors, integrate advanced training labs, incubation hubs, and state-of-the-art equipment, and be strategically located near industrial clusters to align with sector-specific demands.

Enabler 3: Augment Innovative and Sustainable Outcome-led Financing

Innovative financing approaches are needed to meet the growing demand for workforce development in India, ensure resources reach all segments, and incentivise sustainable outcomes.

The skill finance market will be expanded through credit guarantees and better data for loan underwriting, thus reducing risks for lenders and enhancing skills finance for learners. Comprehensive rating systems for skilling institutions will be developed to enhance transparency. Separately, targeted interest subventions will be offered to marginalised groups and special regions to improve accessibility and affordability of skilling.

A Skill Mudra (Skill Voucher) programme will also be launched to empower individuals to choose courses aligned with their career aspirations. This initiative will offer high levels of programmability, enabling the expedited launch of targeted skilling efforts aligned with national priorities. It will also provide beneficiaries with broader access to both government and private training providers, ensuring quality through a user-driven selection model. A new scheme, the Pradhan Mantri Kaushal Mudra Yojna (PMKMY) will be launched towards this. The Skill Mudra (Skill Voucher) programme will prioritise emerging sectors like renewable energy and semiconductors and improve access for women, rural populations, and Persons with Disabilities. Separately, access to outcome-based financing models and blended finance models will be expanded, bringing together philanthropic and CSR funding sources, among others.



Enabler 4: Raise the Profile of Skilling and Entrepreneurship

Skilling faces a perception challenge rooted in societal preferences for academic degrees and limited recognition of skill-based pathways. Skilling is often associated with blue-collar jobs and limited prestige. This divide is reinforced by hiring practices that prioritise degrees over skills.

There is a need to modernise the language of skilling, replacing negatively perceived terms like "vocational" with professional identities such as "Skilled Experts" and rebranding job roles to reflect expertise such as referring to a "mechanic" as an "Automotive Specialist" or a "domestic worker" as "Housekeeping Staff". Flagship skilling institutions will be transformed into Centres of Excellence (CoE), offering world-class facilities and global industry partnerships to make them aspirational. In addition, grassroots campaigns using community ambassadors such as "Skill Sakhis", along with competitions like the National Skill Olympiads and World Skills, will help to raise awareness, inspire participation, and celebrate "Skill Champions." Unique Skills Profiles (USP), as outlined in Thrust 2, will also play a central role in reinforcing professional identity and supporting upward mobility.

Enabler 5: Strengthen Monitoring, Evaluation, and Learning (MEL)

This policy emphasises the implementation of an outcomes-based MEL framework, including key performance indicators (KPIs) such as employability and wage growth among others, along with systems and processes for measuring and tracking such KPIs via surveys, third-party assessments, audits, field visits etc. To guide overall policy implementation and oversee MEL efforts, a Policy Implementation Unit (PIU) will be set up and housed in Ministry of

Skill Development and Entrepreneurship (MSDE). This will ensure robust tracking and transparency through public dashboards, sharing of best practices and continuous learning and course correction across the ecosystem. As a marker of quality, a National Employability and Entrepreneurship Measure will be launched to periodically measure workforce employability, and this data will be used for adaptations to existing programmes, to inform policy revisions, as well as to launch new programmes. This assessment will be informed by the industry leveraging existing surveys, and will include key transferrable, technical and advanced technical competencies based on NCVET frameworks.

Additionally, a National Skill Research Network (NSRN) will be launched to drive evidence-based policymaking through longitudinal studies, impact assessments, and regular surveys.

Enabler 6: Deepen Whole-of-Government and Whole-of-Nation Approach

There is a continued need for greater collaboration and coordination between ministries—for example, between the MSDE and MoE for skills integration in schools and higher education, between MSDE and MoLE for Labour Market Information

System (LMIS), between MSDE and MoWCD / MoHUA / MoRD to ensure the availability of safe accommodations, etc. This Whole-of-Government approach will be guided by the National Skill Development Mission (NSDM) and steered by a Governing Council chaired by the Honourable Prime Minister. The Governing Council will set objectives and key priorities. An Executive Committee, chaired by the Honourable Minister of Skill Development and Entrepreneurship, will oversee implementation through a dedicated Policy Implementation Unit (PIU), chaired by the Secretary, MSDE. Clear roles and responsibilities have been laid out for stakeholders, including central ministries, state governments, and private organisations. Particularly, states will develop State Skill Development Plans (SSDPs), leveraging District Skill Development plans (DSDPs) and mobilise resources for regional programmes, while ensuring alignment with national strategies.

Beyond “Whole-of-Government”, the success of this policy needs a “Whole-of-Nation” approach with integration of efforts of private organisations, civil society, and others to expand the ecosystem’s contribution. Industries will co-develop training modules, provide on-the-job training, and invest in infrastructure, while academia and skilling institutions will implement skilling and capacity-building programmes. Civil society will promote skilling and micro-entrepreneurship in underserved areas to enhance accessibility. Various public and private collaborative efforts will also be undertaken.





D) Spotlight Initiatives of this Policy

20 spotlight initiatives with significant impact potential have been identified and categorised as (A) Strengthening Systems, (B) Strengthening Delivery and (C) Incentivising Desired Behaviour.

Prior to delving into the detailed thrusts and enablers within the overall holistic ambit of the policy, the

section below highlights 20 specific high potential ‘Spotlight Initiatives’ that can significantly impact the achievement of its goals. Spotlight Initiatives refer to focused, high-impact interventions that demonstrate strong potential for scale, innovation, and transformative change within the skilling and entrepreneurship ecosystem.

The three main areas are (A) Strengthening Systems, (B) Strengthening Delivery, and (C) Incentivising Desired Behaviour.



Strengthening Systems is focused on driving fundamental changes across the skilling ecosystem to build a strong and sustainable foundation for long-term impact and growth. This includes improving infrastructure, enabling policy reforms, and fostering collaboration among key stakeholders.



Strengthening Delivery aims to introduce or strengthen specific programmes or services, ensuring they are more effective, outcome-driven, and aligned with industry requirements to achieve targeted goals.



Incentivising Desired Behaviour leverages financial and non-financial incentives for various stakeholders—such as skilling institutions, employers, and learners—to drive scale, improve quality, and promote inclusion across the ecosystem.



Strengthening Systems

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| <p>1 Digital Public Infrastructure for Skilling</p> <p>2 Dynamic Labour Management Information System</p> <p>3 Unique Skills Profile enabled via DLLA</p> <p>4 Formalise Nano-enterprises</p> | <p>5 National Skills Research Network</p> <p>6 Skills Practitioners Digital Network</p> <p>7 National Skills Infrastructure Network</p> <p>8 Green Skills Channel</p> |
|---|---|

Strengthening Delivery

- | | |
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| <p>9 Integrated Skills-Ed-Work Experience Offering and Credit Management System</p> <p>10 National Employability and Entrepreneurship Program and National Employability and Entrepreneurship Measure (within 'Yogya Bharat Mission')</p> <p>11 Earn While You Learn @ Scale</p> <p>12 Flagship ITIs & Industry-led CoEs</p> | <p>13 RPL on-demand</p> <p>14 Business-in-a-Box</p> <p>15 Future Skills Mission</p> <p>16 Skilling Package for Women Re-entering the Workforce</p> |
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Incentivising Desired Behaviour

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| <p>17 Skill Mudra</p> <p>18 Impact Bond 2.0</p> | <p>19 Corporate Patronage Programme</p> <p>20 Grassroot Engagement Programmes</p> |
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Figure 7: Spotlight Initiatives

Initiative	Description	Thrust/ Enabler	Key entities
Strengthening Systems			
1 DPI for Skilling	Enhance the Skill India Digital Hub (SIDH) as a user-centric platform with varied value-added services and advanced analytics, and to serve as a data repository enabling linkages across skilling institutions, practitioners, beneficiaries, and industries. In parallel, shift to an 'open network for skilling' DPI model, enabling decentralised collaborations across multiple government and private platforms (e.g., NCS integration on SIDH). These measures will unlock greater interoperability, improved service delivery, more personalised learning pathways, and a more collaborative and efficient skilling ecosystem.	Enabler 1: Enhance DPI for Skills and Entrepreneurship	MSDE, MoLE, MoE, MeitY, NSDC, NeGD
2 Dynamic Labour Market Information System	Build a dynamic centralised platform to collect, analyse, and disseminate insights on labour supply and demand, enabling the alignment of skilling programmes with future industry needs across regions and sectors.	Thrust 1: Institutionalise Dynamic Demand Planning for Skilling Programmes	MoLE, MSDE, MoCI, MoCA, MoMSME, State Government, (including districts)
3 Unique Skills Profile enabled via Digital Lifelong Learning Account (DLLA)	Establish a Digital Lifelong Learning Account (DLLA), using the APAAR ID as the unique identifier. This will integrate multiple systems, such as the Academic Bank of Credits, e-Shram, and EPFO, etc. to consolidate individual credentials. A Unique Skills Profile (USP) will be created, capturing an individual's background, education, skilling, and employment history from the DLLA. This will empower individuals with a comprehensive record for better career planning and enable employers to access verified profiles for efficient talent matching.	Thrust 2: Integrated Skill-Education Learning Pathways with NCrF-enabled Mobility, Thrust 4: Encourage Lifelong Learning	MSDE, NCVET, MoE, MoLE, MoMSME

Initiative	Description	Thrust/ Enabler	Key entities
Strengthening Systems			
4 Formalise Nano-Enterprises	Consider a Nano-enterprise category for businesses with an annual turnover of less than ₹1 crore, with simplified regulatory frameworks and targeted financial incentives.	Thrust 13: Drive Ease of Starting and Growing Nano and Micro Businesses	MoMSME, MSDE
5 National Skills Research Network (NSRN)	Establish a multi-disciplinary network of research organisations to drive research and generate actionable insights and evidence to address emerging challenges in the skilling space. Undertake bi-annual skills survey to track specific skill-oriented metrics.	Enabler 5: Strengthen Monitoring, Evaluation and Learning	MSDE, MoSPI MoCI, MoLE, public and private think tanks
6 Skill Practitioners Digital Network	Build a cohesive digital network of Skill Practitioners (trainers, assessors, counsellors, mentors, industry experts, etc.), with user/feedback ratings, thus building an accessible community for learners, beneficiaries, institutions, and other fellow practitioners; onboard part-time and retired workers as practitioners.	Thrust 5: Strengthen Trainer Capacity and Enhance Skills Practitioner Ecosystem	MSDE, MoE, Private Training Providers, NSTI, Academic Institutions, Industry
7 National Skills Infrastructure Network	Establish a digitally enabled National Skills Infrastructure Network (NSIN) to optimize physical resources, improve training infrastructure, and standardise resource sharing processes. Map and geo-tag skilling institutions with data hosted on SIDH for centralized access and seamless communication.	Enabler 2: Enhance Physical Infrastructure for Skills and Entrepreneurship	Academic Institutions, Skilling Institutions, Private Training Providers, MSDE via NSDC
8 Green Skills Channel	Establish a Green Skills Channel for seamless workforce mobility by achieving mutual recognition of Indian skill qualifications through bilateral and multilateral agreements.	Thrust 10: Scale Skilling for the World	MSDE, MEA, NCVET

Initiative	Description	Thrust/ Enabler	Key entities
Strengthening Delivery			
9 Integrated Skills-Education-Work Experience Offering and Credit Management System	Integrate skilling, education, and work experience, both formal and informal, with at-scale adoption of the National Credit Framework (NCrF); deeply integrate skilling offerings in schools and higher education and enable seamless mobility.	Thrust 2: Integrated Skill-Education Learning Pathways with NCrF-enabled Mobility	MoE, MSDE, MoLE, NCVET, UGC, AICTE
10 National Employability and Entrepreneurship Program and National Employability and Entrepreneurship Measure (within 'Yogya Bharat Mission')	Embed delivery of essential, sector-agnostic employability and entrepreneurship skills across all education and skilling institutions and courses (e.g., basic literacy and numeracy, digital and financial literacy, critical thinking, problem-solving, entrepreneurial mindset, etc.). Further, launch a National Employability and Entrepreneurship Measure to assess the knowledge, skills and abilities of the workforce and periodically track the quality of workforce.	Thrust 3: Enhance Access to Employability and Entrepreneurship Skills	MSDE, MoE, NCVET
11 “Earn-while-you-Learn” @ Scale	Scale-up work-integrated certification/degree/ diploma programme models that address the need to earn while learning (e.g. Work-Integrated Degree Programmes); at the same time, enable strong outcomes via a significant share of practical industry-based learning component in skilling programmes.	Thrust 7: Deepen Industry Co-ownership	MoMSME, MCA, MSDE, MoE, Industries

Initiative	Description	Thrust/ Enabler	Key entities
Strengthening Delivery			
12 Flagship ITIs and industry-led Skilling CoEs	<p>Establish flagship ITIs and industry-led Skilling CoEs as exemplary institutes with modern infrastructure and resources – either greenfield or via brownfield revamp – leveraging PPP models.</p>	Thrust 2: Integrated Skill-Education Learning Pathways with NCrF-enabled Mobility Enabler 2: Enhance Physical Infrastructure for Skills and Entrepreneurship; Enabler 4: Raise the profile of Skilling and Entrepreneurship	MSDE, MoMSME, Industries, financiers
13 Recognition of Prior Learning (RPL) on Demand	<p>Scale RPL programmes to certify informally skilled workers through a single-window “RPL-on-Demand” approach, where individuals and organisations can apply anytime via a digital platform. Applications will be aggregated into a rolling pipeline, and periodic multi-modal certification campaigns are organised—through doorstep RPL, mobile assessment units, digital RPL (for relevant roles), RPL camps, and industry-hosted RPL days for employees and contract workers.</p>	Thrust 6: Strengthen Assessment Capabilities and Shift to Proficiency-based Evaluations	MSDE
14 Business-in-a-Box	<p>Develop "Business-in-a-Box" models that offer scalable, low-risk opportunities for nano-entrepreneurs through a package of skill training, mentorship support, tools and financial resources.</p>	Thrust 13: Drive Ease of Starting and Growing Nano and Micro Businesses	MSDE, MoMSME, MoLE, Private organisations, Self Help Groups

Initiative	Description	Thrust/ Enabler	Key entities
Strengthening Delivery			
15 Future Skills Mission	Embed future skills outlook across government schemes, training programmes, and foundational learning modules (e.g., Foundations in Artificial Intelligence, bionic skills such as Problem-solving approach, interdisciplinary knowledge). Track global and domestic trends, sectoral analytics to predict future requirements and respond appropriately.	Thrust 4: Encourage Lifelong Learning	MSDE, MoMSME, MoLE, Think Tanks, Industry Associations
16 Skilling Package for Women Re-entering the Workforce	Create a comprehensive skilling and livelihood package for women re-entering the workforce. Provide skill training, counselling, career guidance, access to financial support (e.g., Skill Vouchers), infrastructure (e.g., childcare support), placement and post-placement support.	Thrust 8: Skill for Women-led Development	Ministry of Skill Development and Entrepreneurship (MSDE), Ministry of Women and Child Development (MoWCD), Self Help Groups



Initiative	Description	Thrust/ Enabler	Key entities
Incentivising Desired Behaviour Change			
17 Skill Mudra (Skill Vouchers)	Introduce Skill Mudra (Skill Vouchers) to empower learners to self-select skilling programmes/providers with ease, thus fostering market-driven competition and accountability. SIDH Coins—a digital, programmable learning currency credited to learners' Digital Lifelong Learning Accounts (DLLAs) on the SIDH platform—to be leveraged for mass roll-out. A dedicated Pradhan Mantri Kaushal Mudra Yojna (PMKMY) to be launched to drive this initiative.	Enabler 3: Augment Innovative and Outcome-oriented Financing	MSDE
18 Impact Bond 2.0	Scale Skill Impact Bond (SIB 2.0) with the Government as the outcome-investor; expand the Impact Bond model to new areas (e.g. Apprenticeship Impact Bond, Entrepreneurship Impact Bond).	Enabler 3: Augment Innovative and Outcome-oriented Financing	Financiers, Monitoring agencies, MSDE, NCVET, NSDC
19 Corporate Patronage Programme	Develop a tiered reward and recognition mechanism for industries based on degree of engagement, commitment, and investment of industries towards leading or supporting skilling institutions and initiatives (e.g. Gold / Silver / Bronze Skill Patrons).	Thrust 7: Deepen Industry Co-ownership	MSDE - Sector-specific Central and State Ministries, Industries, Industry Associations
20 Grassroots engagement forums: Skill Sakhis, Swavlamban Samwaads.	Create platforms for grassroots dialogues for generating awareness, career counselling and mentorship for skill training and entrepreneurship. Leverage community ambassadors like "Skills Sakhis" and forums like "Swavlamban Samwaads".	Thrust 8: Skill for Women-led Development Thrust 11: Build Aspirations Towards Entrepreneurship	MSDE, MoMSME, Private organisations, Self Help Groups



E) Detailed Strategic Action Areas for Key Thrusts

**THRUST
01**

Institutionalise Dynamic Demand Planning for Skilling Programmes



STRATEGIC ACTION AREAS	INITIATIVES
Establish a baseline view of existing demand datasets and workforce supply using a standardised skills taxonomy.	<ul style="list-style-type: none"> • Develop a standardised skills taxonomy - refresh the NCO and align it with NSQF levels. • Establish demand baseline - including quantitative data (e.g., job vacancies, wage trends) and qualitative insights (e.g., evolving skills needed) from diverse sources (e.g., Employees' Provident Fund Organisation (EPFO), Employment exchanges, National Career Service (NCS), Digital District Skill Development Plans (DDSP) and State Skill Development Plans (SSDP), GST E-Waybill, etc.). • Establish supply baseline - a centralised repository of all institutions offering skill programmes, both physical and digital, and their beneficiaries from diverse sources (e.g., education institutions, e-Shram, etc.).
Develop foundational architecture and governance for the Labour Market Information System (LMIS).	<ul style="list-style-type: none"> • Establish strong foundational architecture, tools, and processes to ensure that the LMIS delivers reliable and actionable data on an ongoing basis. • Define protocols for data collection and integrate local mechanisms like DSDPs and SSDPs into the LMIS to maintain accurate, up-to-date information reflecting regional and sectoral needs. • Establish a dedicated LMIS governance unit with representatives from Central ministries, State governments, regulators, industry bodies, and academia to manage operations and ensure oversight.
Build analytical frameworks, including predictive modelling.	<ul style="list-style-type: none"> • Build advanced analytical capabilities to develop actionable insights, such as demand forecasting, skills gap analysis, and sector-specific workforce planning. • Incorporate advanced analytical tools powered by AI and ML to enhance the precision and impact of workforce planning and skilling strategies.



THRUST
02

Integrated Skill-Education Learning Pathways with NCrF-enabled Mobility



STRATEGIC ACTION AREAS	INITIATIVES
Drive awareness and build processes and capacity to accelerate the adoption of NCrF across education and skilling institutes and employers.	<ul style="list-style-type: none"> Accelerate on-ground implementation of the National Credit Framework (NCrF) through nationwide awareness campaigns educating students, parents, academic institutions, and employers about the benefits and implementation mechanisms. Expand pilot programmes across states and institutions to assess practical benefits, streamline processes, address implementation challenges, and gather feedback from key stakeholders. <ul style="list-style-type: none"> Update the framework and SOPs for creditisation on the basis of feedback; develop bridge courses to facilitate mobility. Encourage industries, starting with PSUs, to adopt NSQF/ NCrF levels as defined criteria in recruitment processes and promote skill-based hiring.
Establish a Digital Lifelong Learning account and promote the Unique Skills Profile to empower individuals by providing them with a distinct and comprehensive skills identity.	<ul style="list-style-type: none"> Establish a DLLA on the SIDH platform as a single, comprehensive view of an individual's academic, skilling, and employment history, using the APAAR ID as the unique identifier. Explore the application of a Unique Skills Profile (USP) application in areas such as background verification for visa services, CV creation, and reference checks, ensuring the system's utility extends to a wide range of individual and industry needs.
Facilitate deeper integration of skilling with school education (with mobility enabled via NCrF).	<ul style="list-style-type: none"> Integrate skill-based learning into school education with exposure to skills from middle school onwards, followed by wider exposure to vocations or a deeper study of a specific vocation over secondary grades (in line with NEP 2020). Implement essential reforms to successfully embed skills learning, including expanded vocational trade options, coverage of general employability and entrepreneurship skills, curriculum updates, improved assessment methods, standards for onboarding skilled teachers and trainers, and broader awareness and counselling, among others.
Facilitate deeper integration of skill education pathways in higher education (with mobility enabled via NCrF).	<ul style="list-style-type: none"> Scale integration of skill-linked courses in existing higher education programmes to enhance employability, either as core curricula or as add-on/optional skill certifications, depending on the programme structure. Encourage HEIs to launch new market-linked certificate/diploma/degree programmes, e.g., in analytics, design, etc.; promote involving industry in governing bodies and striking formal partnerships/MoUs for support with curricula, On Job Training (OJT), apprenticeships, internships, etc Incorporate general employability and entrepreneurship skills (e.g., communication, digital literacy, etc.) as mandatory core credits for all students, irrespective of their chosen programmes.

**THRUST
02**

Integrated Skill-Education Learning Pathways with NCrF-enabled Mobility



STRATEGIC ACTION AREAS

Strengthen independent skilling institutions through quality ranking framework, regional alignment and seamless pathways to higher education.

INITIATIVES

- Establish flagship skilling institutions (ITIs, Centres of Excellence (CoE)), either as Greenfield or Brownfield projects, equipped with advanced laboratories, industry-relevant machinery, modern classrooms, incubation centres, and high training standards to set benchmarks for quality and innovation.
- Phase out or repurpose institutions and programmes that don't deliver meaningful outcomes, reallocating resources to focus on high-impact skilling initiatives tailored to regional economies.
- Institutionalise formal ranking and accreditation frameworks for skilling institutions to emphasise outcomes like job placement rates, retention, and infrastructure quality, and input metrics, fostering accountability and competitiveness.
- Establish systems to track and publish skilling outcome metrics, ensuring transparency for students and parents to make informed choices based on employment outcomes.



**THRUST
03**

Enhance Access to Employability and Entrepreneurship Skills



STRATEGIC ACTION AREAS	INITIATIVES
Develop a flexible framework for employability and entrepreneurship skills and develop stackable modules.	<ul style="list-style-type: none"> • Develop a flexible framework for employability and entrepreneurship skills, leveraging NCVET's existing framework. Incorporate emerging competencies over time, ensuring relevance in a rapidly changing environment. • Develop stackable modules in the form of nano credentials, micro credentials, and qualification packs for prioritised employability and entrepreneurship skills; make them widely available.
Embed employability and entrepreneurship skills through curriculum, bridge courses, and awareness initiatives.	<ul style="list-style-type: none"> • Ensure widespread uptake of these skills via multiple avenues, including integrating them into school curricula across grades, higher education and long-term skilling curricula, standalone programmes/schemes, digital courses, etc. Track outcomes and evolve courses, curricula, and delivery mechanisms accordingly. • Develop bridge courses on select foundational competencies that can be taken up before commencing long-term training/ education programmes to ensure candidates are 'ready to learn'. • Increase adoption via targeted awareness campaigns that emphasise benefits (e.g., wider job opportunities, enhanced mobility options, etc.)
Enhance trainer capacity and leverage technology for scalable, high-quality training.	<ul style="list-style-type: none"> • Enhance capacity and capability of teachers/faculty/trainers to deliver these skills through contextualised training in NSTIs/IToTs and digital training programmes. • Leverage Skill Practitioners Network and technology to enhance delivery capacity and quality consistency (e.g., via support from GenAI Tutors).
Develop a National Employability and Entrepreneurship Measure (NEEM) to periodically assess labour force employability and use data to inform key interventions for the skilling ecosystem.	<ul style="list-style-type: none"> • Design and implement a structured assessment framework to evaluate foundational and job-specific employability skills, starting with general competencies such as numeracy, communication, problem-solving, and digital literacy. • Build the National Employability and Entrepreneurship Measure as a periodic, data-driven benchmark that captures workforce readiness across sectors, job roles, and regions. • Integrate NEEM into key systems by aligning assessments with school and skilling curricula, embedding employability scores into hiring processes, and using insights to inform workforce planning at national and sectoral levels. • Introduce employer incentives and launch awareness campaigns to drive participation and ensure widespread adoption. • Enhance technical infrastructure, ensure multilingual accessibility, and embed continuous monitoring for long-term impact.

**THRUST
04**

Encourage Lifelong Learning



STRATEGIC ACTION AREAS	INITIATIVES
Establish a dynamic framework for LLL and launch flagship programmes and pathways.	<ul style="list-style-type: none"> • Develop a dynamic framework of job roles and skills that evolve with industry demands; ensure alignment across NCO and NSQF. • Design flagship upskilling and reskilling programmes – as stackable nano and micro-credentials, standalone STTs or integration with existing STTs, as appropriate to address diverse needs. These may focus on (among others): <ul style="list-style-type: none"> — Embedding future skills such as bionic skills, AI, block chain, emotional intelligence, design thinking etc. — Ensuring requisite evolution in skilling for traditional roles such as in agriculture, handicrafts, construction etc. • Provide particular attention to vulnerable workers in transforming sectors (e.g., Mining) by providing them access to reskilling/ upskilling programmes. These efforts will be supported through a dedicated Reskilling Fund, established to financially aid workers whose livelihoods are at risk due to industry shifts, automation, or sectoral decline.
Strengthen infrastructure, resources and incentives for effective delivery of flagship LLL programmes.	<ul style="list-style-type: none"> • Establish Institutes of Lifelong Learning to design and deliver premier upskilling and reskilling programmes. • Expand the Skill Practitioners Ecosystem by developing a diverse pool of trainers equipped to support adult learners and mid-career professionals. This includes drawing from academia, industry, and community-based educators, and ensuring their continuous professional development through blended learning models tailored to the evolving demands of LLL programmes. • Leverage digital platforms and technologies like Generative AI to deliver personalised training, curated learning resources, and credible assessments. • Incentivise LLL through targeted financial support, such as skill vouchers and loans. • Recognise industries that contribute significantly to sector-wide skilling efforts – via financial and non-financial incentives.



**THRUST
05**

Strengthen Trainer Capacity and Enhance Skills Practitioner Ecosystem



STRATEGIC ACTION AREAS	INITIATIVES
Development of guidelines and management framework for skills practitioners.	<ul style="list-style-type: none"> Define and regularly update flexible, industry-aligned criteria for qualifications, experience, and expertise required to onboard diverse skill practitioners (trainers, assessors, counsellors, mentors, etc.); build structured systems for onboarding, performance management, and linked career progression. Address trainer shortage via flexible practitioner onboarding guidelines (with necessary performance checks and incentives), leveraging digital tools for top-rated trainers to teach at scale, and onboarding Professors of Practice (PoP) from the industry. Create flexible re-entry pathways and part-time roles to attract professionals from diverse backgrounds.
Build cross-functional capacity of skill practitioners (especially trainers) for effective skills delivery.	<ul style="list-style-type: none"> Equip trainers with technical as well as soft skills e.g., digital, interpersonal, and other soft skills. Build hybrid, continuous ToT mechanisms for practitioners to improve skill delivery. Utilise master trainers for industry-aligned trainer training. Streamline practitioners' professional development pathways for career progression and remuneration in alignment with skill growth. Mandate upskilling/reskilling every 2 years.
Develop tech-enabled infrastructure for driving linkages.	<ul style="list-style-type: none"> Create a Skill Practitioners Digital Network – creating practitioners' profile, integrating their digital lifelong learning accounts showcasing credentials, feedback, expertise, and employment history. Establish an alumni portal for graduates of skilling institutions to leverage alumni as trainers, mentors, or PoPs, bridging trainer gaps and strengthening industry-academia linkages.



**THRUST
06**

Strengthen Assessment Capabilities & Shift to Proficiency-based Evaluations



STRATEGIC ACTION AREAS	INITIATIVES
Develop a proficiency-based and continuous assessment framework.	<ul style="list-style-type: none"> Develop a proficiency-based assessment methodology, focused on practical learning and proficiency evaluation via appropriate examination mechanisms. Establish standardised proficiency ranges for various training types—OJT (On-the-Job Training), classroom learning, and practical training—to ensure consistent and accurate assessment of candidates' skills across sectors and types of learning avenues. Explore innovative assessment and evaluation systems for short-term-training programmes - for e.g., via percentile-based ranking or adaptive assessments, to provide industry and stakeholders with accurate, comparable data for recruitment decisions. Conversion to grade-based scoring will also be considered in line with other higher education institutions.
Leverage digital tools to scale and enhance the credibility and governance of assessments.	<ul style="list-style-type: none"> Promote the adoption of digital and AI-powered assessment tools to enhance scalability, consistency and accuracy; prioritise sectors where these technologies are most feasible. Incorporate real-world simulators and interactive tools to make assessments more engaging and reflective of workplace scenarios. Encourage the adoption of proctored assessments, leveraging AI-based tools for both online and offline evaluations to maintain fairness and credibility.
Expand high-quality assessment and assessor capacity with significant industry involvement.	<ul style="list-style-type: none"> Incentivise the creation of new Awarding Bodies (AB) and Assessment Agencies (AA) with necessary regulatory flexibility (balanced with ongoing due diligence), performance-based rewards, and industry collaboration. Establish partnerships with international awarding and assessment agencies to offer certifications aligned with global standards, improve recognition, and enable mobility. Introduce industry/ user ratings for AAs and ABs alongside continuous upskilling for assessors to enhance accountability and assessment consistency.
Expand Recognition of Prior Learning (RPL) through large-scale awareness, targeted incentives, and digital assessments.	<ul style="list-style-type: none"> Strengthen nationwide RPL campaigns targeting informal workers and employers and hosting events like “RPL Days” to enhance participation. Use financial incentives to drive RPL participation, offering workers support for assessment costs and rewarding MSMEs and employers with outcome-based benefits. Expand RPL access for underserved populations via digital assessments for select suitable roles, implementing hybrid models and expanding assessment centres.

**THRUST
07**

Deepen Industry Co-ownership



STRATEGIC ACTION AREAS	INITIATIVES
Encourage and enable industry to build, fully or partially owned, world-class skilling institutions through contextualised PPP models.	<ul style="list-style-type: none"> Establish a range of PPP models to enable the set-up of Greenfield industry-led skilling institutes and Brownfield revitalisation of existing institutes (e.g., ITIs). Co-locate skilling institutions in industry clusters such as SEZs to incentivise local industry engagement and enable infrastructure sharing, including residential facilities. Accredit industry-led skilling institutions based on scale, quality and inclusivity outcomes. Recognise high-quality accredited institutions as Skilling CoEs and consider them as preferred partners for implementing key government programmes.
Facilitate widespread industry-academia (Skilling institution) partnership to enable practical training, access to resources, and placement opportunities.	<ul style="list-style-type: none"> Scale work-integrated learning programmes (e.g., WIDP, Degree Apprenticeships, DST, and other new models) to enable relevant, hands-on skilling and 'earn-while-you-learn' approaches. Enhance uptake of apprenticeship and internships in industry through targeted financial incentives (e.g., CSR offsets and co-funding for stipends, especially for MSMEs) and outcome-linked models (e.g., additional incentives basis permanent placement and retention post apprenticeship). Establish mechanisms to ensure a safe and high-quality working environment for all learners during apprenticeships and internships. Make industry-led courses digitally available at scale (e.g., on SIDH); support industry with value-added services (e.g., recruitment support, verified candidate credentials, etc.) which incentivise their content/course contributions. Formally certify industry experts as trainers, counsellors, mentors, assessors, etc., basis guidelines of Skills Practitioners Network (detailed in relevant thrust 6); ensure flexible guidelines for onboarding, performance evaluation, and exit of part-time workers, retired workers, etc. Promote structured models like the Recruit-Train-Deploy (RTD) model and encourage states/ institutions to onboard partners via MoUs and customise programmes, as required.
Implement skill-based recruiting and strengthen industries' contribution towards certifying workforce and driving lifelong learning.	<ul style="list-style-type: none"> Implement skill-based recruitment by requiring alignment of all job roles (as per NCO) with NSQF levels and specifying them during recruitment; set a precedent by incorporating the process for public sector hiring. Recognise select industry-led institutions/centres as AAs/ABs who then certify own trainees/employees as well as support certification of employees through RPL camps, for their sector (formal and informal), with necessary incentives provided.

**THRUST
07**

Deepen Industry Co-ownership



STRATEGIC ACTION AREAS

Engage actively with the industry for the provision of services, real-time feedback, consultations, and data collection.

INITIATIVES

- Leverage SIDH to receive digital feedback and real-time data from industry on courses, curricula and emerging skill needs.
- Establish physical advisory forums to facilitate direct engagement between industry, SSCs, industry associations, and relevant ministries to inform the skilling ecosystem.
- Integrate skill-oriented metrics into national surveys/census of MoSPI; NSRN (described in Enabler 5), to develop specialised skill-oriented surveys.

To encourage industry participation across all the above:

- Establish a corporate patronage programme to provide structured recognition through tiered levels (e.g., gold / silver / bronze) based on a company's extent of engagement and investment in skilling initiatives.
- Consider linking companies' government benefits e.g., Production Linked Incentive (PLI) and Employment-Linked Incentive (ELI), etc., to their overall contribution to the skilling agenda.



**THRUST
08**

Skill for Women-led Development



STRATEGIC ACTION AREAS	INITIATIVES
Orchestrate a women-led grassroots movement to raise aspirations for skilling, employment, and self-employment opportunities.	<ul style="list-style-type: none"> Identify community role models like “Skill Sakhis” or “Lakhpatti Didi’s” to act as ambassadors and promote skilling opportunities within local communities. Leverage community-based organisations, Gram Panchayats, and Block Development Offices to provide targeted family counselling and create an enabling environment for women’s skilling. Develop a pan-India mass-media campaign encouraging women to undertake training, especially in non-traditional roles. Collaborate across ministries, including Ministry of Women and Child Development (MoWCD), and onboard district and State officers to facilitate outreach and ensure information dissemination on available skilling opportunities.
Develop solutions to enhance mobility and accessibility of skilling programmes for women.	<ul style="list-style-type: none"> Deploy mobile training units like “Skill Vans” to reach underserved and remote areas; also cover modern skills like IoT, drones, and robotics, amongst others. Establish affordable transportation and residential hostels through collaborations with NGOs and cross-ministry collaborations (e.g., MoWCD’s Sakhi Niwas). Introduce flexible learning formats such as afternoon classes, “phygital” models, and self-paced courses to accommodate women’s needs. Implement modular and credit-based skilling systems to allow women to complete certifications in stages (aligned with the National Education Policy 2020). Upgrade skilling centres with women-supportive infrastructure and amenities, e.g., childcare facilities, women-specific washrooms, security personnel, and CCTV to create a safe and supportive environment. Offer financial support through targeted financial products, e.g., subsidised skill vouchers/stipends/skill-linked credit to cover education, transport, and childcare costs for low-income women. Additionally, provide post-placement financial support to ensure stability during women’s employment transitions, leveraging existing CCN provisions.
Build a gender-intentional culture within the skilling ecosystem.	<ul style="list-style-type: none"> Conduct gender-sensitivity and POSH training workshops for trainers, staff, and learners to foster inclusive and respectful environments. Introduce gender-neutral job terms in curricula, replacing traditional titles like “salesman” with inclusive ones such as “sales associate.” Develop tailored courses for women on self-confidence, self-defence, financial literacy, and workplace navigation to empower them for workforce challenges. Create a dedicated pool of female trainers, prioritising local master trainers, to inspire and guide women trainees in relatable ways.

**THRUST
08**

Skill for Women-led Development



STRATEGIC ACTION AREAS

INITIATIVES

Provide tailored placement and post-placement support to help women enter and re-enter mainstream employment and self-employment.

- Collect gender-disaggregated data to monitor trends like women's placement and retention rates and guide targeted interventions for improved outcomes.
- Allocate a gender-specific budget to promote equality in skilling programmes, expanding the existing Union Budget's gender provisions.

Enable mechanisms for women to pursue entrepreneurial opportunities.

- Make SIDH more accessible and useful for women, e.g., introduce women-specific filters for job searches such as mapping of skill centres on the basis of childcare access, proximity to home, opportunities for women re-entering the workforce, etc.
- Establish Women Development Cells (WDCs) within key skilling and educational institutions—either as standalone units or integrated with existing ones (e.g., placement cells)—to offer career counselling, mentorship from female role models, alumni networking, and targeted support for improving and tracking women's career outcomes.
- Leverage community-based platforms such as One Stop Centres (MoWCD) to deliver similar career support services—ensuring women outside formal institutions also access mentorship, guidance, and career tracking tools.
- Create a targeted skilling and livelihood package for women re-entering the workforce with comprehensive training, career guidance, financial access, infrastructure, and placement and post-placement support. This may be made accessible via a targeted Skill Voucher Scheme.
- Form regional peer mentorship groups through digital forums to help women transition into professional roles, navigate new workplace challenges, and settle into new regions.
- Incentivise skilling partners with outcome-based payments tied to gender-specific KPIs, such as enrolment and retention rates for women, and those re-entering the workforce. Include performance against women-oriented KPIs in the institutional ranking mechanism.

- Integrate business training into skilling programmes, focusing on financial literacy and enterprise management, particularly for traditionally women-led sectors like food processing and textiles. Partner with State Rural Livelihood Missions (SRLMs) and SHGs to enhance women's entrepreneurial access and market linkages.
- Expand "Business-in-a-Box" models, equipping women with low-cost micro-franchising kits for starting small businesses in areas like agriculture, food processing and others.

THRUST
09

Drive Inclusion for Marginalised Groups and Regions



STRATEGIC ACTION AREAS	INITIATIVES
<p>Contextualise the skilling ecosystem to the unique needs of communities (course, curriculum, content, teaching resources).</p>	<ul style="list-style-type: none"> Develop region-specific job roles and courses aligned with local economic opportunities, e.g., focusing on sectors like sustainable tourism, biodiversity conservation, and indigenous businesses in regions like NER and IHR. Engage leaders from respective marginalised communities in curriculum design, making it relevant to local needs, and encourage adoption by private organisations to maintain adaptable regional standards. Provide inclusive learning spaces with necessary physical infrastructure, accessible teaching resources such as braille books and immersive AR/VR technologies and flexibly paced out curriculum (e.g., for PWID). Focus on career options found to be more suited for specific segments, e.g., for PwD and PwID, encourage public and private sector companies in sectors like BFSI, IT, and education to drive inclusive recruitment.
<p>Expand accessibility by developing a flexible and supportive infrastructure.</p>	<ul style="list-style-type: none"> Facilitate learning in remote areas with mobile training units like “Skill on Wheels,” and strengthen repository of digitally accessible, industry-aligned courses tailored to these regions on SIDH. Enhance accessibility of relevant courses, jobs, and benefits schemes to marginalised individuals by integrating community-specific identity data (e.g., Disability IDs, Transgender IDs) with consent into their digital lifelong learning accounts allowing personalised recommendations and benefits eligibility, direct benefits transfer etc. to be made. Upgrade skilling centres with ramps, elevators, and gender-neutral facilities aligned with the National Action Plan for Skill Development of PwD and Supreme Court mandates. Offer affordable accommodations and transport for remote students, building on existing benefits like those under Common Cost Norms. Promote cross-ministerial collaborations to scale skilling efforts using existing infrastructure, such as Garima Greh for transgender individuals and Divyang Centres for PwD. Expand marginalised community programmes like PM-DAKSH Yojana, which focuses on skill development of socially marginalised groups, ensuring all initiatives continue to be NSQF-aligned with MSDE’s implementation support.

THRUST
09

Drive Inclusion for Marginalised Groups and Regions

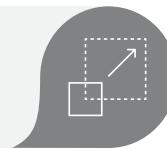


STRATEGIC ACTION AREAS	INITIATIVES
Build sensitivity amongst key stakeholders to manage needs of different communities.	<ul style="list-style-type: none"> Train educators in local languages and practices specific to regions like NER, LWE-affected zones, and tribal areas, emphasising the cultural and contextual needs of marginalised groups. Recruit trainers from within local communities to enhance cultural sensitivity, facilitate effective communication, and address grievances while acting as educators and counsellors.
Leverage incentives and financing schemes to enable employment and self-employment opportunities.	<ul style="list-style-type: none"> Encourage industries to adopt inclusive hiring practices with necessary benefits as well as recognition (e.g., co-fund initial employment costs for PwD/PwID). Strengthen financing schemes for entrepreneurial ventures by marginalised communities; bundle relevant skilling components within them. Encourage existing institutions that cater to marginalised communities like VCF-STs, NBCFDC, NSFDC, and NEDF to expand incubation programmes and facilitate self-enterprise in remote regions.



**THRUST
10**

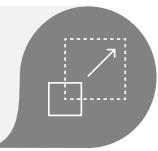
Scale Skilling for the World



STRATEGIC ACTION AREAS	INITIATIVES
Strengthen global skills demand forecasting and data-driven skilling initiatives.	<ul style="list-style-type: none"> Build capabilities to forecast global demand by skills, job roles, sectors, and geographies to align India's skilling programmes with international workforce needs in collaboration with MEA and resident missions. Publish insights through dashboards and reports to guide public and private skilling institutions in adapting training programmes to meet emerging global opportunities.
Orchestrate global skills equivalence and recognition of certifications.	<ul style="list-style-type: none"> Collaborate with global organisations (for e.g., ILO) to develop an "International Reference Classification of Occupations" to match India's skill qualifications with those in strategic countries. Strengthen global skill recognition through G2G partnerships and bilateral and multilateral agreements, including creating a "green skills channel" for seamless worker migration under mutual recognition agreements. Efforts are to be undertaken in collaboration with the Ministry of External Affairs. Periodically update (to be done by NCVET) Qualification Packs (QPs) to ensure alignment with globally demanded job roles in high-potential markets like the USA, Canada, and Germany. Partner with internationally recognised assessment bodies to operate in India and issue globally recognised certifications, e.g., locally, such as NCLEX certification for nurses seeking employment in the USA. Build G2G2B partnerships by engaging with top employers in global markets through job fairs and summits; encourage them to co-fund skilling programmes tied to employment commitments in India. Establish a globally recognised digital credential system linked to the Digital Lifelong Learning Account (DLLA) to serve as a repository for internationally accepted certifications.
Adapt skilling offerings and infrastructure to global needs and standards.	<ul style="list-style-type: none"> Update programme curricula to address country-specific requirements, such as compliance standards, ESG practices, and intellectual property regulations, to ensure relevance. Promote international internships and learning-based exchange programmes through formal MoUs, particularly in sectors like electric vehicles, semiconductors, and renewable energy, to enhance practical exposure. Expand Skill India International Centres (SIICs) to serve as global training hubs with facilities meeting international standards in technology and machinery. Provide incentives to global training institutions to establish campuses in India and collaborate across capacity-building programmes, foreign exchange opportunities, and placements. Organise outreach programmes like career counselling, open days, and community events to drive awareness and inspire aspiration to pursue globally oriented skilling opportunities.

**THRUST
10**

Scale Skilling for the World



STRATEGIC ACTION AREAS

Ensure ease in end-to-end candidate transition and settlement support in target countries.

INITIATIVES

- Develop country-specific orientation programmes and Pre-Departure Orientation Training (PDOT) to prepare candidates for cultural adaptation and professional success abroad.
- Collaborate with banks, NBFCs, and private organisations to provide financing options like low-interest loans, grants, and scholarships for training, travel, and settlement costs.
- Establish support centres for candidates' logistical needs, including visa assistance, accommodation guidance, and awareness of worker rights in foreign destinations.
- Leverage India's diaspora network to provide mentorship, networking, and emotional support to newly placed workers, fostering integration and community connections.



**THRUST
11**

Build Aspirations towards Entrepreneurship



STRATEGIC ACTION AREAS	INITIATIVES
Cultivate entrepreneurial aspirations.	<ul style="list-style-type: none"> Implement widespread campaigns, including an Entrepreneurs Ambassador Program and a National Entrepreneurship Week celebration, enabling access to diverse role models. Launch "Swavlamban Samwaads" at locations like District Industries Centres and academic institutions to foster discussions among entrepreneurs about challenges, opportunities, and resources. Launch State, district, and institutional level “Ideas to Business” challenges, encouraging participants to develop business plans and prototypes supported by financing and certifications.
Promote positive reinforcements amongst new and former entrepreneurs.	<ul style="list-style-type: none"> Broaden the MSME Awards programme to include national, State, and district levels, celebrating entrepreneurial achievements in growth, innovation, and impact across categories such as enterprise size, sector, gender, and regional contributions. Collaborate with institutions like schools, HEIs, and incubators to establish Business Readiness Cells and local entrepreneurship hubs that offer counselling and business development services.



THRUST
12

Strengthen Skills for Entrepreneurship



STRATEGIC ACTION AREAS	INITIATIVES
Develop NSQF-aligned qualification packs or micro/nano credentials to promote a modular approach to entrepreneurship education.	<ul style="list-style-type: none"> • Standardise entrepreneurship training by developing standalone QPs and modular micro/nano credentials aligned with the NSQF, covering topics like entrepreneurship mindset, taxation, business planning, and financial management. • Launch capacity building modules for emerging areas such as fintech, agritech, renewable energy and digital services in line with market trends.
Integrate entrepreneurship education/skills in academia and skill institutions.	<ul style="list-style-type: none"> • Integrate NSQF-aligned entrepreneurship courses, from grades 6 or 9, under NEP 2020, which will include a curriculum focusing on foundations in entrepreneurship. • Integrate entrepreneurship courses in HEIs, with mandatory inclusion in business programmes (delivered as classes, workshops, field visits) and as electives in other disciplines. • Strengthen entrepreneurship programmes in rural and non-industrial areas, offering optional or short-term courses under initiatives like PMKVY. • Use AI-driven mentorship on digital platforms to provide personalised guidance and real-time feedback – for trainers and learners • Develop a strong pool of trainers through the Skills Practitioner Ecosystem, enhancing the capabilities of existing trainers and incorporating practitioners and mentors.
Bundle Skilling Programmes with credit schemes.	<ul style="list-style-type: none"> • Bundle credit schemes with relevant skilling courses to provide entrepreneurs with the necessary financial resources along with the skilling component essential to launch and manage their businesses effectively.



**THRUST
13****Drive 'Ease of Starting and Growing'
Nano and Micro Businesses**

STRATEGIC ACTION AREAS	INITIATIVES
Define Nano Enterprises as a separate category to simplify starting new businesses.	<ul style="list-style-type: none"> Establish a new classification for nano enterprises as businesses with annual turnover under ₹1 crore, distinct from micro-enterprises, to focus on their unique formalisation and growth needs. Introduce a streamlined regulatory framework with self-declaration systems, and provide targeted financial benefits, including improved access to credit and interest subvention schemes, addressing challenges faced by smallest businesses.
Promote 'Business-in-a-Box' models to enable sustainable, small-scale entrepreneurship.	<ul style="list-style-type: none"> Launch "Business-in-a-Box" models enabling individuals (e.g., graduates, the NEET population), to own and operate sustainable businesses. Strengthen access to credit, infrastructure, market linkages, and incubation programmes to equip entrepreneurs with the tools needed to launch and grow their ventures effectively. Utilise mentors and counsellors to guide entrepreneurs in navigating local market conditions, overcoming challenges, and achieving consistent growth through targeted support and expertise.
Streamline regulations, including digitisation and automated approvals, are ongoing.	<ul style="list-style-type: none"> Establish a collaborative process involving key Ministries, State governments, academia, and industry bodies to assess and adapt regulations, focusing on reducing inefficiencies, eliminating redundancies, and enhancing socio-economic value for MSMEs. Launch platforms to streamline compliance processes across Central and State jurisdictions, incorporating automated approvals for licenses and permits to reduce administrative burdens and increase transparency. Develop entrepreneurship hubs and incubation cells as business facilitation centres to guide nano and micro-entrepreneurs through regulatory frameworks.



**THRUST
14**

Provide Mentorship and Resources to Enable Set-up and Scale-up Enterprises



STRATEGIC ACTION AREAS	INITIATIVES
Enhance institutional capacity for mentorship and access to resources.	<ul style="list-style-type: none"> Onboard functional experts, successful entrepreneurs, technical specialists, and mindset coaches as part of the Skills Practitioner Ecosystem to provide targeted support. Promote outcome-linked incubators evaluated on metrics like revenue growth, profits, and job creation. Explore Rural Incubation Cells in regions like LWE, NER, and hilly areas. Connect schools, HEIs, and skill training centres with local and regional incubators to ensure students and trainees pursuing entrepreneurship have access to necessary resources and incubation services. Enhance district-level institutions to deliver financial linkages, business development services, and market access.
Ensure ongoing access to essential tools and resources.	<ul style="list-style-type: none"> Offer bundled business development and go to market services at a nominal fee, including business validation, market connections, and support for creating business plans for entrepreneurs. Enhance platforms like BHASKAR to provide entrepreneurs with tailored resources, including case studies, government schemes, and tools to support business growth on a single consolidated Digital Hub. Introduce AI-powered digital assistants to support entrepreneurs with tasks like tax calculations, compliance, and business planning.
Promote aggregation to enhance incomes of the self-employed.	<ul style="list-style-type: none"> Launch targeted schemes to promote collective structures like cooperatives and clusters to boost scale, reduce costs, and improve income potential. Leverage successful models such as SJY and Van Dhan to integrate marginalised groups into sustainable livelihoods. Develop geographic and sectoral clusters by pooling resources and infrastructure to reduce risk and increase competitiveness. Enhance digital market linkage platforms to ensure nano entrepreneurs access broader national and international markets.



THRUST
15

Strengthen Access to Finance for Entrepreneurs



STRATEGIC ACTION AREAS	INITIATIVES
Establish large-scale seed funds for micro-entrepreneurs, providing equity capital through development banks and incubators.	<ul style="list-style-type: none">Encourage development banks like SIDBI to launch and manage seed funds to address small entrepreneurs' funding challenges.
Promote innovative financing via outcome-linked funding for incubators.	<ul style="list-style-type: none">Establish a performance-based system rewarding incubators with financial bonuses or grants to meet success targets like revenue growth, profitability, and job creation.





F) Detailed Strategic Action Areas for Key Enablers

**ENABLER
01**

Enhance Digital Public Infrastructure (DPI) for Skills and Entrepreneurship



STRATEGIC ACTION AREAS	INITIATIVES
Strengthening SIDH as a user-centric platform with additional value-added services.	<ul style="list-style-type: none"> • Create customised user journeys tailored to diverse profiles, such as students, apprentices, working professionals, and industry users, by leveraging advanced technologies like AI to provide personalised recommendations based on user profiles and needs. • Strengthen and refine standards and guidelines for the development and delivery of digital skilling content, ensuring accuracy, relevance, adherence to technical standards, and accessibility for all users. • Generate actionable insights, such as personalised dashboards, progress tracking, and skill-matching insights using real-time, verified datasets to address inefficiencies and provide stakeholders with transparent, data-driven decision-making tools. • Enhance mobile and portal-based user-friendly applications to better serve participants in the skills and entrepreneurship ecosystem, ensuring seamless access to resources.
Transitioning to an open and decentralised skilling network.	<ul style="list-style-type: none"> • Transition to Digital Public Infrastructure for Skills built on an open and decentralised skilling network that fosters collaboration among stakeholders, breaks down silos and promotes a transparent, inclusive ecosystem. As DPGs such as the DLLA and the skill voucher system become operational, private sector players can also leverage these foundational layers to innovate—for instance, by issuing their own skill vouchers or delivering personalised learning and skilling pathways, thereby expanding reach and value across the ecosystem. • Draw inspiration from successful models such as the Open Network for Digital Commerce in e-commerce and the Unified Health Interface in healthcare to operationalise this decentralised skilling network effectively. • Drive efficiency by integrating with existing platforms and tools such as the APAAR ID and the National Single Sign-on Option – MeriPehchaan.
Leveraging national policies on data governance and protection to streamline skill data.	<ul style="list-style-type: none"> • Ensure Data Standardisation across the ecosystem through alignment with the National Data Governance Framework Policy. • Comply with the Digital Personal Data Protection Act while utilising individual information for data-driven decision-making. • Develop a common registry and integration of APIs to address redundancy in data requirements from various stakeholders for government processes.

**ENABLER
02**

Enhance Physical Infrastructure for Skills and Entrepreneurship



STRATEGIC ACTION AREAS	INITIATIVES
Optimise utilisation of existing skilling infrastructure.	<ul style="list-style-type: none"> Establish a National Skills Infrastructure Network to integrate and optimise existing government and private skilling infrastructure, supported by continuous geo-tagging and resource mapping hosted on a centralised data repository (SIDH). Reorganise skilling institutions into a Hub-and-Spoke model, with hubs serving as Centres of Excellence to provide expert trainers, quality assurance, resource sharing, and placement facilitation for spokes, ensuring standardisation and improved employability.
Modernise existing infrastructure to enhance quality of training, inclusivity and sustainability.	<ul style="list-style-type: none"> Modernise skilling and entrepreneurship institutions by upgrading core training infrastructure, including labs tools, etc., as well as supporting civil infrastructure, such as canteens, libraries, incubation centres, hostels, and common areas. Finance effectively via targeted government schemes, industry and private sector partnerships, and leveraging opex models instead of capex heavy models (e.g., leasing equipment). Incorporate modern technology into skilling institutions, including digital labs, smart boards and Extended Reality (tools, and modern management systems (e.g., LMS, ERP systems). Ensure skilling infrastructure is accessible and inclusive by accommodating diverse needs, e.g., ramps, specialised tools for disabilities, and gender-neutral amenities. Upgrade existing infrastructure to meet sustainability standards, e.g., via the installation of solar panels.
Establish and enhance flagship institutions for future-ready workforce development and entrepreneurship promotion.	<ul style="list-style-type: none"> Establish flagship skilling institutions (either greenfield or brownfield) equipped with state-of-the-art laboratories, industry-relevant machinery, advanced classrooms, incubation centres, and high training standards to set benchmarks for quality and innovation in skilling. Co-locate them near major industrial clusters, SEZs, export zones, etc. Establish Industry-led skilling and innovation CoEs in emerging sectors such as semiconductors, renewable energy, and robotics, among others.



**ENABLER
03**

Augment Innovative and Sustainable Outcome-led Financing



STRATEGIC ACTION AREAS	INITIATIVES
Accelerate skills finance market via credit guarantees and better data for effective loan underwriting.	<ul style="list-style-type: none"> • Continue supporting lenders through credit default guarantee programmes, thereby encouraging greater participation in the skills loan market. • Develop a comprehensive training system for PIAs, TPs, and courses as an input for financial institutions for better evaluation and underwriting of skill loans. • Implement interest subventions, particularly for marginalised groups, as a targeted measure to reduce financial barriers and promote equitable participation.
Launch a Skills Mudras (Skill Vouchers) Programme to empower beneficiaries to pursue skill programme of their choice.	<ul style="list-style-type: none"> • Accelerate the adoption of demand-led skilling by introducing a beneficiary-centric 'Skill Voucher (Skill Mudra)' system that will offer learners the flexibility to choose their preferred training providers and courses; target specific sectors (e.g., renewable energy, semiconductors, etc.), and population segments, e.g., marginalised segments, PWD, and PwID, etc. • Establish a comprehensive framework for Skill Mudras (Skill Vouchers) implementation including eligibility criteria for skill providers and seekers, allocation and value of Skill Mudras, reimbursement criteria, etc. • Create robust digital infrastructure to manage and monitor the Skill Voucher system, ensuring transparency
Enhance quality by adopting outcome-oriented financing whereby funding is linked to achievement of skilling outcomes.	<ul style="list-style-type: none"> • Expand outcome-oriented financing leveraging lessons from India's first SIB, optimizing transaction costs and establishing strong Monitoring and Evaluation systems • Progress towards Government serving as the outcome investor for its schemes (i.e., a significant share of payments contingent on outcomes achievement) by earmarking a share of its budget to be spent only via outcome linked models. Track their success and scale initiatives based on performance outcomes. • Explore broader applications of the SIB model to other areas, e.g., an AIB, promoting results-driven apprenticeship programmes. • Strengthen SSE as an innovative means for channelling outcomes-aligned funding from government entities and private sector investors to support skill development initiatives.
Diversify funding sources and collaborate financing across different ecosystem players.	<ul style="list-style-type: none"> • Tap into corporate CSR funds to finance skilling programmes by simplifying processes and engaging with industry to promote sector-specific contributions. • Leverage the ESG agenda for skilling by encouraging organisations to integrate skill development investments into their ESG reporting under SEBI's BRSR framework. • Strengthen and evolve PPP models by incorporating lessons from existing PPP funding frameworks to drive greater efficiency and impact.

**ENABLER
04**

Raise the Profile of Skilling and Entrepreneurship



STRATEGIC ACTION AREAS	INITIATIVES
Elevate the language and terminology of skilling to enhance the professional identity of occupations.	<ul style="list-style-type: none"> Transition outdated terminology by replacing terms like "vocational" and "labourers" with modern, professional labels such as "skilled workers" in all formal communications to align skilling with professional identities. Upgrade job titles by rebranding roles like "Carpenter" as "Woodwork Specialist" and "Electrician" as "Electrical Systems Expert" to enhance the perception of skilled professions, ensuring the language is gender-neutral and inclusive; further develop skill-led gradation of expertise e.g. Levels 1-3 as "Early Experts", Level 4-6 as "Specialists" and further as "Advanced Specialists" etc.
Elevate status and recognition of skilling institutions.	<ul style="list-style-type: none"> Transform select ITIs and Skill Universities into Centres of Excellence for Lifelong Learning for advanced skilling and lifelong education; Upgrade infrastructure and foster global industry collaborations to establish CoEs as premier hubs for skilling and raise aspiration. Recognise excellence in skilling through annual national awards ceremony, celebrating top-performing institutions and promoting public awareness of their achievements and impact.
Adopt an aspirational grassroots agenda in communities via local ambassadors and influencers.	<ul style="list-style-type: none"> Launch a national grassroots campaign to raise localised awareness and promote skilling adoption Engage local skill influencers and ambassadors, such as "Drone Didi" and "Lakhpatti Didi," particularly in underrepresented regions like NER, LWE-affected areas, and tribal communities. Organise premier competitions like National and State-level Olympiads and business contests to identify "skill champions" and "pioneering entrepreneurs".



**ENABLER
05**

Strengthen Monitoring, Evaluation & Learning



STRATEGIC ACTION AREAS	INITIATIVES
<p>Strengthen the institutional mechanism for MEL with a framework defining KPIs, measuring and tracking KPIs and a governance mechanism.</p>	<ul style="list-style-type: none"> Finalise KPIs for this policy and align them with the overarching policy goals, incorporating both input and outcome-oriented metrics. Measure and track KPIs periodically using methods such as surveys of beneficiaries and other stakeholders, assessments, third-party audits, and field visits while leveraging industry data to ensure a continuous feedback loop between skilling efforts and employment outcomes (for e.g., measuring employability levels via NEEM). Augment MEL capacity at RSDEs while leveraging advanced technologies to enhance transparency and cost-efficiency in tracking KPIs. Establish a Policy Implementation Unit (PIU), housed in MSDE, to formulate action plans, facilitate collaboration and monitor the achievement of KPIs. Ensure that the National Policy remains a living document, evolving through regular reviews conducted by all stakeholders every five years.
<p>Strengthen research infrastructure by creating a National Skills Research Network (NSRN) and broadening the evidence base using surveys and longitudinal studies.</p>	<ul style="list-style-type: none"> Create the National Skill Research Network, a network of specialised research organisations, to generate evidence and insights for advancing the national skilling and entrepreneurship agenda. Leverage existing surveys and design and implement specialised surveys (e.g., an Annual/Biennial Skills Survey) to capture evolving skilling and entrepreneurship trends to inform policy priorities. Conduct impact assessments and longitudinal studies to track the long-term effects of various initiatives on beneficiaries' careers, income levels, and broader objectives such as inclusion and outcome-oriented financing.



**ENABLER
06**

Deepen Whole-of-Government and Whole-of-Nation Approach



DETAILED ROLES AND RESPONSIBILITIES UNDER THE INSTITUTIONAL FRAMEWORK

NSDM and SSDMs: Apex bodies at the Central and State levels.

- NSDM, set up in 2015, will provide overall governance, and MSDE, with a Policy Implementation Unit (PIU) housed within it, will continue to serve as the coordinating body for this policy.
- NSDM will continue to operate through a three-tier institutional structure – a Governing Council at the apex level, an Executive Committee, and the Policy Implementation Unit (PIU).
 - Clear operating guidelines will be put in place for the mission and its institutional entities to include regular reviews, decision-making modalities, and public communication.
 - The PIU will be accountable to the NSDM and will perform the following functions –
 - » Formulate action plans for the initiatives outlined in the policy, identifying all relevant entities required for implementation and mapping specific actions to the responsible entities.
 - » Facilitate coordination among the involved entities, assisting them in drafting implementation plans and timelines for their respective initiatives.
 - » Monitor the achievement of KPIs and outcomes by collecting data and ensuring transparency and accountability via reporting on public dashboards (as outlined in Chapter 22 on Enabler 5: Strengthen Monitoring, Evaluation and Learning).
 - » Actively identify priorities for policy implementation, such as gaps that need to be closed or emerging megatrends that need to be addressed and escalate these to NSDM for timely guidance.
- At the State level, states will be encouraged to establish and strengthen SSDMs, modelled on the National Mission, with their own Steering Committees and Mission Directorates. District Committees will further support these State bodies to ensure functional execution at the local level.





DETAILED ROLES AND RESPONSIBILITIES UNDER THE INSTITUTIONAL FRAMEWORK

Role of MSDE.

- Strengthening standards: MSDE will continue to lead in setting/strengthening standards and frameworks for skill development and entrepreneurship and enabling their adoption across Central and State-level ecosystem players. MSDE will be supported by NCVET, serving as the Central regulator for the skilling ecosystem. NCVET will ensure quality and standardisation through the recognition and regulation of awarding and assessment bodies, approval of qualifications, and accreditation of institutions. It will also be crucial in setting and implementing standards and frameworks such as the NSQF and NCrF. Additionally, NCVET will drive quality assurance in curriculum, assessment, and training to ensure alignment with national and international benchmarks.
- Strategic financing: MSDE will catalyse financing for skilling and entrepreneurship by promoting collaborative funding, incentivising State performance, and aligning with national priorities through:
 - Joint funding with states via centrally sponsored schemes.
 - Joint funding with other Central ministries.
 - PPPs with industry and ecosystem players for infrastructure, training delivery, etc.
 - Comprehensive central funding for areas of national priority or where MSDE assumes direct execution roles.
 - Strengthened Common Cost Norms (CCN) to account for factors like location, job roles, trainer expertise, and inclusion goals.
- Coordination: MSDE will coordinate national skilling and entrepreneurship efforts by aligning Central, State, and private initiatives, fostering collaboration, and ensuring cohesive execution. This includes:
 - Strengthening the current 3-tiered governance structure –
 - » NSDM at the Centre.
 - » SSDM at the State-level along the lines of NSDM.
 - » SSDM will, in turn, be supported by DSDM.
 - Constituting the PIU, housed in NSDM, with MSDE's Secretary as the Chairperson and representatives from relevant ministries, states, and other bodies (role of PIU outlined above).
 - Driving continuous stakeholder engagement (industry, regulatory bodies, social sector organisations, awarding and assessment bodies, etc.), and incorporating feedback.
 - Enabling cross-utilisation of resources from both government and non-government sectors on both the supply (training centre infrastructure) and demand sides (e.g., NCS portal).
- Support in developing SSDPs: Support the development of SSDPs by creating a standardised template and providing technical expertise and assistance to states for timely preparation and submission of the plan through a centralised digital portal. Additionally, institutionalise a periodic (e.g., annual or half-yearly) dialogue between states and Central ministries so that each State can present its plan. These plans will also critically input into the LMIS initiative of MoLE and MSDE by enabling an understanding of local needs and demands.

**ENABLER
06**

Deepen Whole-of-Government and Whole-of-Nation Approach



DETAILED ROLES AND RESPONSIBILITIES UNDER THE INSTITUTIONAL FRAMEWORK

Role of MSDE.

- Monitoring, Evaluation and Learning (MEL) (detailed in Chapter 22 as cross-cutting enabler 5): MSDE will enhance institutional mechanisms for MEL to continuously track the policy's implementation and make necessary adjustments to achieve the desired outcomes. Key actions include:
 - Defining clear KPIs and establishing systems and schedules for their tracking and reporting.
 - Strengthening MEL capacity and leveraging technology for cost-effective monitoring.
 - Creating a robust evidence base for skilling through the establishment of an NSRN.
- Promote entrepreneurship: Spearheaded by MSDE through NIESBUD and IIE, the entrepreneurship agenda focuses on equipping individuals with skills to start and manage businesses via comprehensive training. MSDE will establish training-cum-incubation centres for mentorship, practical exposure, and resources while supporting entrepreneurs in business planning, legal compliance, finance, and market strategy. These efforts will be coordinated with ministries like MSME and DPIIT to foster a conducive entrepreneurial ecosystem.
- Special initiatives: MSDE's primary role will continue to entail setting standards, overseeing implementation, and monitoring the achievement of skilling and entrepreneurship outcomes. In select situations, it will also assume execution responsibilities. This may include (non-exhaustive):
 - Conducting national-level campaigns and competitions, e.g. National Skills Competition.
 - Piloting projects for new skilling initiatives, e.g. outcomes-based financing.
 - Establishing and recognising Centres of Excellence (CoEs) to raise the aspiration for skilling and demonstrate what high-quality execution will entail e.g. spearheading transformation of ITIs and NSTIs.
 - Building Digital Public Goods with integrated two-way data sharing, e.g. strengthening SIDH and establishing skilling Digital Public Infrastructure for the country (e.g. Digital Lifelong Learning Account, integrated Labour Market information System (LMIS)).
 - Carrying out global skilling initiatives, e.g., driving G2G/G2G2B partnerships and help establish global skills equivalence.
 - Driving specific programmes for skilling/ upskilling/ reskilling, e.g., for national priorities and emerging sectors or for specific target segments.
- Implementing women and inclusion initiatives, e.g., women-only ITIs.



DETAILED ROLES AND RESPONSIBILITIES UNDER THE INSTITUTIONAL FRAMEWORK

Role of other central ministries.

- Sector-specific ministries will focus on driving the skilling and entrepreneurship agenda within their focus areas leveraging information on skill gaps in their respective domains/sectors that need to be bridged. Such ministries include the Ministry of Road Transport and Highways for construction, the Ministry of Textiles for textiles, the Ministry of Agriculture and Farmers Welfare for agriculture, the Ministry of Electronics and Information Technology for IT, the Ministry of Ports, Shipping and Waterways for shipping, the Ministry of MSMEs for MSME, the DPIIT for startups, etc. While MSDE will provide the necessary support, nodal/line ministries will follow standards and norms set by MSDE and align on data integration and reporting mechanisms (e.g., data parameters that must be collected and reported for programmes led by respective ministries).
- Ministry of Education to play a crucial and complementary role alongside MSDE in skilling and entrepreneurship development, including:
 - Working in partnership with states for integration of the skilling agenda in school and higher education.
 - Training of trainers and capacity building for integrating skilling, foundational employability and entrepreneurship skills in education.
 - Supporting the design of curricula to introduce skilling and entrepreneurial concepts early in the school and higher education system.
 - Integrating skilling and entrepreneurship programmes in existing digital learning platforms like Study Webs of Active-Learning for Young Aspiring Minds (SWAYAM) and Digital Infrastructure for Knowledge Sharing (DIKSHA).

Other central ministries will support MSDE in selecting ecosystem-strengthening priorities within their focus areas. For instance,

- The Ministry of Women and Child Development (MoWCD), the Ministry of Tribal Affairs (MoTA), and the Ministry of Rural Development (MoRD) will help drive the inclusion agenda by collaborating to provide safe accommodations for women, establish crèche facilities to improve female labour force participation, and develop transportation solutions to address access challenges in remote areas.
- The Ministry of Finance (MoF), the Ministry of Corporate Affairs (MCA), and the Ministry of Commerce and Industry (MoCI) will promote entrepreneurship and industry participation by collaborating on tax benefits and amendments to CSR provisions to foster stronger industry-academia linkages.
- Ministry of Electronics and Information Technology (MeitY) will help build digital solutions for skills training and capacity building.
- Ministry of Labour and Employment (MoLE) will support the creation of a robust LMIS to facilitate better skills demand-supply match.

**ENABLER
06**

Deepen Whole-of-Government and Whole-of-Nation Approach



DETAILED ROLES AND RESPONSIBILITIES UNDER THE INSTITUTIONAL FRAMEWORK

- Ministry of Finance (MoF), the Ministry of Micro, Small and Medium Enterprises (MoMSME), and the Department for Promotion of Industry and Internal Trade (DPIIT) will help promote entrepreneurship by enhancing the Ease of Doing Business (EoDB), providing financing and market linkages, and establishing incubation centres to support and accelerate startup growth.
- Ministry of External Affairs (MEA) will help in supporting the transition of Indian workforce for global employment opportunities.

Role of states.

- Develop State Skill Development Plans (SSDPs), keeping in mind imperatives as outlined in the National Policy. SSDPs will be built by consolidating District Skill Development Plans (DSDPs) to meet unique local and industry needs in tandem with national priorities and emerging sectors. The States will:
 - Upload their SSDPs in the standardised template on a centralised digital portal.
 - Launch skill development and entrepreneurship programmes tailored to each State's specific needs.
- Strengthen State-level implementation machinery by empowering the SSDM or equivalent bodies as the nodal agency responsible for implementing the SSDP, with clearly defined roles and responsibilities.
- Prioritise skill development in the State budget, ensuring adequate allocation for the State's share of Centrally Sponsored Schemes as well as for funding the SSDP.
- Mobilise and allocate necessary resources, including human resources, infrastructure, for policy implementation and engage local industries and social sector organisation at various levels.

Role of private sector participants.

- Industries/employers will be pivotal in addressing sector-specific skilling needs. They will support the identification of emerging skills, development of curricula and training modules, and facilitate delivery of programmes (e.g., adopting Work Integrated Degree Programmes, facilitating On Job Training) in coordination with training providers and educational institutions. They will also strengthen the skilling ecosystem by contributing to Skill Practitioner Networks, such as Professors of Practice, which integrate industry expertise into academia. Industries will promote Lifelong Learning (LLL) through regular upskilling and reskilling initiatives to ensure a competitive workforce. Additionally, they will incorporate skilling into their CSR and ESG strategies, prioritizing underserved regions to foster equitable development and inclusive growth. This aspect is further elaborated in Thrust Area 7: Deepen Industry Co-ownership.
- Industry associations, including SSCs, will be key enablers in fostering collaborations between industry and academia. These collaborations will help identify sectoral skill needs, standardise

**ENABLER
06**

Deepen Whole-of-Government and Whole-of-Nation Approach



DETAILED ROLES AND RESPONSIBILITIES UNDER THE INSTITUTIONAL FRAMEWORK

curricula, and shape certification frameworks to ensure alignment with industry demands. Associations will also advocate, working with governments to design policies supporting skilling and entrepreneurship. Through platforms such as workshops, industry expos, and forums, industry associations will facilitate knowledge-sharing and bridge stakeholder gaps, ensuring coordinated efforts across the ecosystem. They will strengthen the skilling and entrepreneurship landscape by aligning diverse interests and promoting best practices.

- Educational institutions will be critical in integrating skilling and entrepreneurship into mainstream education. They will introduce dedicated subjects, establish state-of-the-art laboratories, and establish incubation centres within schools and colleges. This aspect is further elaborated in Thrust Area 2: Integrated Skill-Education Learning Pathways with NCrF-enabled Mobility.
- Private organisations engaged in skilling delivery will lead efforts to design and implement cutting-edge skilling programmes aligned with market needs. Leveraging innovative technologies such as virtual simulations, AI-driven personalised learning tools, and hybrid delivery models will set benchmarks for accessibility, scalability, and quality. These players will also leverage global best practices to elevate the standards of training and certifications, providing models for government programmes to adopt and scale. Furthermore, collaborating with the government will bring private-sector efficiency and innovation to national skilling initiatives.

Role of civil society organisations.

- CSOs will ensure inclusivity and accessibility by delivering community-focused training programmes tailored to local needs, especially for marginalised groups and underserved regions. These initiatives will empower individuals to become self-reliant and economically active. By supporting nano- and micro-entrepreneurship through microfinance, business development training, and mentorship, CSOs will enable grassroots entrepreneurs to establish and sustain enterprises in areas lacking formal financial systems or infrastructure.
- CSOs will strengthen the skilling and entrepreneurship ecosystem by enhancing capacity and addressing on-ground implementation gaps. This will be achieved by providing skilled trainers, MEL support, and resources and tools to improve programme quality.
- Acting as intermediaries, CSOs will mobilise funding from multilateral organisations, regional development banks, local and international donors, and philanthropic foundations. These resources will support large-scale skilling projects, capacity-building efforts, and targeted initiatives.

**ENABLER
06**

Deepen Whole-of-Government and Whole-of-Nation Approach



DETAILED ROLES AND RESPONSIBILITIES UNDER THE INSTITUTIONAL FRAMEWORK

Role of private sector entrepreneurship ecosystem enablers.

- CSOs will play a crucial role in community mobilisation and aspiration building for skilling and entrepreneurship by conducting outreach programmes, organising local events, and using mass communication tools. These efforts will address socio-cultural barriers, such as gender biases, and foster participation from underrepresented groups.
- Startup incubators and accelerators will strengthen the entrepreneurial ecosystem by providing structured mentorship programmes, access to funding, and robust networks to help entrepreneurs refine their ideas and achieve market readiness. They will facilitate collaborations between startups and established firms, enabling market access and fostering strategic partnerships. Additionally, they will offer infrastructure support, such as co-working spaces, business services, and early-stage guidance to ensure startups can scale and succeed.
- Financiers like venture capitalists, angel investors, and microfinance institutions will play a central role in bridging funding gaps, especially for technology-driven and social enterprises. They will enable innovation and scalability by offering customised financial solutions tailored to the needs of startups at different growth stages. Promoting risk-taking and supporting experimentation will ensure that startups can access critical financial resources needed to thrive.
- Mentorship and peer networks will be integral to building a collaborative and supportive entrepreneurial ecosystem. They will connect entrepreneurs with experienced industry experts, successful entrepreneurs, and peer communities to provide guidance, share best practices, and offer industry insights. These networks will also create a sense of community, fostering resilience and helping entrepreneurs overcome challenges while accelerating innovation and knowledge-sharing. The above aspects are covered in more detail in Section 3: Entrepreneurship and Related Thrusts.





SECTION
02 | Key Thrusts

KEY TERMS TO GUIDE YOUR READING



Skill

"The relevant knowledge and experience needed to perform a specific task or job.²³" It encompasses foundational aspects (technical,²⁴ transversal,²⁵ behavioural,²⁶ among others) for workforce entrants along with upskilling, reskilling, and skills developed through work experience.²⁷



Upskilling

Short-term targeted training typically provided following initial education or training, and aimed at supplementing, improving or updating knowledge, skills, and competencies.²⁸ (*European Centre for the Development of Vocational Training*)



Reskilling (or Retraining)

Training and enabling individuals to acquire new skills giving access either to a new occupation or to new professional activities.²⁹ (*European Centre for the Development of Vocational Training*)



National Occupational Standards

The National Occupational Standards (NOS) specify the standard of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding required to meet a standard consistently. Each NOS defines one key function collating the related performance criteria in relation to the specific function in the job role concerned.³⁰ (*National Council for Vocational Education and Training*)



Qualification Pack

A Qualification Pack is an industry-validated qualification and is mapped to an NSQF level. It consists of a set of National Occupational Standards aligned to a job role.³¹ (*National Skill Development Corporation*)



National Skills Qualification Framework (NSQF)

The NSQF is an outcome and competency-based framework which organises qualifications according to a series of knowledge, skills, aptitude, and responsibility levels defined in terms of learning outcomes which the learner must acquire through formal, or non-formal learning. These may comprise academics, vocational education, training and skilling, and experiential learning including relevant experience and proficiency/professional levels acquired, subject to assessment. (*National Council for Vocational Education and Training*)

²³ Glossary of Skills and Labour Migration, UNESCO-UNEVOC, 2021, accessed in Nov 2024. ([Link](#))

²⁴ Technical skills refer to specialised abilities and knowledge required to perform specific tasks related to particular fields or professions.

²⁵ Transversal skills refer to transferable skills and competencies common across various jobs, roles, and industries.

²⁶ Behavioural skills refer to interpersonal abilities such as communication, empathy, time management, conflict resolution, and emotional intelligence.

²⁷ F. No. – 22001/01/2023/NCVET, National Skills Qualification Framework, Ministry of Skill Development and Entrepreneurship, 2023.

²⁸ Cedefop, Glossary, Terminology of European education and training policy, accessed on Glossary of Skills and Labour Migration, UNESCO-UNEVOC, 2021, accessed in Nov 2024. ([Link](#))

²⁹ Cedefop, Glossary, Terminology of European education and training policy, accessed on Glossary of Skills and Labour Migration, UNESCO-UNEVOC, 2021, accessed in Nov 2024. ([Link](#))

³⁰ 'National Occupational Standards', National Skill Development Corporation, accessed in Dec 2024. ([Link](#))

³¹ Qualification Pack Development Guidelines, National Skill Development Corporation, accessed in Dec 2024. ([Link](#))



Micro Credentials

Micro Credentials may be a permutation of units (performance criteria centred on identified learning outcomes) that may be developed within a sector or across sectors in a multiple of 7.5 learning hours. These may be developed within a sector or across sectors primarily focusing on upskilling. They aim to certify achievement of coherent sets of skills and knowledge, specified by a statement of purpose, learning outcomes and strong evidence of need by industry, employers, or the Government.³² (*National Council for Vocational Education and Training*)



Nano Credentials

A Nano Credential is smaller than a micro credential and can ‘stack’ into micro credentials. If a micro credential is 5-30 hours of learning, then a nano credential should be 1-4 hours. A nano credential should be more focused on specific skill sets.³³ (*National Council for Vocational Education and Training*).



Digital Literacy

It means the knowledge, skills, and attitudes that allow individuals to be safe and empowered in an increasingly digital world.³⁴ (*The Right to Digital Literacy Bill*)



Financial Literacy

It refers to “a combination of awareness, knowledge, skill, aptitude, and behaviours necessary to make sound financial decisions and achieve individual financial well-being.³⁵” (*SEBI-NCFE Financial Literacy and Inclusion Survey*)

³² Micro Credentials: Future of Modern Skilling, National Council for Vocational Education and Training, 2023.

³³ Micro Credentials: Future of Modern Skilling, National Council for Vocational Education and Training, 2023.

³⁴ Bill No. LXII of 2022, The Right to Digital Literacy Bill, 2022, Government of India.

³⁵ NCFE Financial Literacy and Inclusion Survey 2019, National Centre for Financial Education.



CHAPTER 02

THRUST 01: Institutionalise Dynamic Demand Planning for Skilling Programmes

India's rapidly evolving labour market and accelerated digitisation necessitate the need for a real-time, data-driven Labour Market Information System (LMIS) to align skill supply with emerging industry demands.

This policy focuses on three strategic action areas: a) Establish a baseline view of existing demand datasets and workforce supply using a standardised skills taxonomy; b) Develop foundational architecture and governance for the Labour Market Information System (LMIS); c) Build analytical frameworks, including predictive modelling.

Context and Need

India's rapidly evolving labour market and accelerated digitisation are reshaping job roles and creating new avenues for growth and innovation. The largely informal nature of India's workforce—characterised by unstructured employment, lack of standardised job classifications, and limited formal skilling pathways—adds complexity to workforce planning, making it challenging to accurately assess demand, track employment trends, and implement targeted skilling initiatives. To bridge this gap, it is essential to align workforce skills with the evolving demands of both domestic and global economies, ensuring adaptability to industry shifts and technological advancements. Several mechanisms are already in place to align skilling programmes with industry requirements and regional priorities. For example, the annual District Skill Development Plan (DSDP) and State Skill Development Plans (SSDPs) identify localised skill demands, while industry bodies and Sector Skill Councils (SSCs) act as essential intermediaries between industry and Government, ensuring training curricula are updated to meet emerging needs. Separately, initiatives like the All-India Quarterly Establishment-based Employment Survey (AQEES), sectoral roundtables with industry representatives, and various skill gap studies provide valuable, data-driven insights that guide these efforts. However, none of these mechanisms currently conduct real-time analysis of present and future job roles and skill requirements, resulting in a delay between industry demands and the availability of relevant programmes.

Establishing a comprehensive Labour Market Information System (LMIS) that adapts to changing needs is crucial to address this. An LMIS' primary objective is to generate near real-time actionable insights on current and future job roles and skill needs through systematic data collection from industries, employment exchanges, educational institutions, economic indicators, etc. Countries like Germany, the UK, and Singapore already have an advanced LMIS in place, while nations like Chile, Uruguay (see case study below), and El Salvador are developing LMISs in partnership with global organisations such as the International Labour Organisation (ILO).³⁶

Labour Market Information System in Uruguay³⁷

Uruguay's Labour Market Information System (SIMEL) is a dynamic public platform designed to collect, analyse, and share comprehensive data on employment, skills, and workforce trends. Launched to address the need for accurate labour market insights, SIMEL provides policymakers, researchers, and the public with a reliable source of information, guiding policies and programmes with robust evidence.

It integrates data from diverse sources such as the Ministry of Labour and Social Security, the National Institute of Statistics, and the Social Security Bank. The data spans a wide range of labour indicators, from employment rates to skill gaps, administrative records, surveys, and interviews. These are then processed and standardised to maintain reliability. Continuous updates ensure the platform remains responsive to evolving labour market needs, allowing education and training institutions to align curricula with industry demands and emerging job roles. Employers can leverage SIMEL to identify workforce shortages, plan recruitment strategies, and anticipate talent needs, while job seekers gain access to real-time insights on in-demand skills, enabling them to make informed career and training decisions. With this, the system ensures a holistic understanding of employment dynamics and enables policymakers to design targeted strategies that meet the workforce's real needs.

³⁶ Based on information available on SIMEL, Uruguay, accessed in December 2024. ([Link](#))

³⁷ Based on information available on SIMEL, Uruguay [website](#); accessed in November 2024.

Since its implementation, SIMEL has had a significant impact on Uruguay's labour and skill policies. It has enabled the development of data-driven strategies to address skill gaps and improve employment outcomes. The platform serves as a vital resource for academic research, labour market forecasting, and economic planning, offering insights that help job seekers and employers navigate the labour market more effectively. Additionally, SIMEL supports government and industry collaborations to design sector-specific skilling initiatives, ensuring workforce development aligns with national economic priorities.

Strategic Roadmap

The first step towards building the LMIS is establishing a baseline view of existing demand datasets and workforce supply using a standardised skills taxonomy. To ensure scalability and seamless integration, the LMIS will incorporate interoperable digital infrastructure, enabling real-time data exchange across government agencies, industry bodies, and skilling institutions. A structured governance mechanism will also be established to coordinate policy implementation, data-sharing, and decision-making among key stakeholders—including government bodies at the Central, State, and District levels, private skilling providers, industry representatives, and educational institutions. Finally, advanced analytical tools will be integrated to predict labour market trends and offer actionable insights through user-friendly dashboards. The entire effort will be undertaken collaboratively by the Ministry of Labour and Employment (MoLE) and the Ministry of Skill Development and Entrepreneurship (MSDE), among others.

1 STRATEGIC ACTION AREA

Establish a Baseline View of Existing Demand Datasets and Workforce Supply Using a Standardised Skills Taxonomy

Establishing an LMIS will begin with building a robust labour demand and supply baseline. It involves creating a standardised skills taxonomy and ensuring alignment between the National Classification of Occupations (NCO) of the Ministry of Labour and Employment (MoLE) and the National Skills Qualifications Framework (NSQF). The effort to map NCO roles to NSQF levels has been initiated and will continue as job roles evolve, undertaken in collaboration with the relevant Central ministries, SSCs, and potentially with international organisations such as the International Labour Organisation (ILO). Additionally, skill gaps will be analysed at the district level, mapping regional skilling needs and developing sector-specific transformation maps. Statistical studies/ assessments will be undertaken to assess data availability, data quality, reliability, and future utility. Key sources of data are identified in the box below. These inputs will provide a nuanced understanding of labour conditions and future workforce requirements.

LMIS Data Inclusions

- Quantitative data: Job vacancies, wage trends, and sectoral employment statistics will be aggregated apart from data from platforms like Employee Provident Fund Organisation (EPFO) and National Career Service (NCS).
- Requirements of national priorities and employment exchanges across the organised, unorganised sectors and the gig economy will be included.
- High-frequency economic indicators (e.g., E-way bill data from the GST system) will also be tracked to develop an understanding of evolving needs in different geographies and sectors.
- Qualitative insights from industries on evolving job roles, key skillsets required, and their importance will be gathered.

On the supply side, a centralised repository of all institutions offering skilling programmes will be created to provide a unified view of training resources. This repository will integrate information from different institutions and training providers, enabling policymakers to effectively assess the nation's skilling capacity. Additionally, a consolidated beneficiary repository will be developed to track and visualise the supply of skilled individuals. This will include leveraging datasets like Academic Bank of Credits (ABC) for students, e-Shram data for the unorganised workforce and Skill India Digital Hub (SIDH) for other skilling beneficiaries.



2 STRATEGIC ACTION AREA

Develop Foundational Architecture and Governance for the LMIS

Foundational architecture, tools, and processes will be developed to ensure the LMIS consistently delivers reliable and actionable workforce data, supported by the requisite technological framework for managing data repositories, verification, and flows.

Further, a dedicated governance unit will be established to ensure effective execution. The governance unit will include representatives from relevant Central ministries, State governments, higher education and skilling regulators, industry bodies, academia, and other stakeholders, thus ensuring diverse and holistic oversight. The unit will identify all relevant agencies responsible for contributing data to the LMIS and align them to a unified data collection framework as per the guidance provided by NITI Aayog in the Data Empowerment and Protection Architecture (DEPA) framework. The unit will also ensure that mechanisms are built to capture localised demand by strengthening local capacity to effectively utilize the tech system, with a focus on IT knowledge transfer to enhance sustainability. The platform will be localised and branded to align with national and regional requirements as well as cultural contexts.

3 STRATEGIC ACTION AREA

Build Analytical Frameworks Including Predictive Modelling

Post establishing the foundational elements, efforts will be made to build advanced analytical frameworks that transform raw data into actionable insights. These frameworks will enable the LMIS to anticipate labour market trends, address workforce challenges, guide evidence-based policymaking, and facilitate informed workforce planning at district, State, national, and international levels.

The development of these frameworks will begin with defining and prioritising critical use cases for analysis. Use cases such as demand forecasting, skills gap analysis, and sector-wise workforce planning will be identified and refined in collaboration with various Central ministries, State governments, SSCs, among others.

Integrating advanced tools powered by AI and ML will be central to this initiative. However, to ensure precision and reliability, a dedicated team of technical experts and data scientists will oversee the analytical processes. MoLE, in collaboration with industry stakeholders, will develop and implement robust frameworks to capture and analyse data.

The following table summarises key initiatives recommended across each of the strategic action areas.

STRATEGIC ACTION AREAS	INITIATIVES
Establish a baseline view of existing demand datasets and workforce supply using a standardised skills taxonomy.	<ul style="list-style-type: none"> Develop a standardised skills taxonomy - refresh the NCO and align it with NSQF levels. Establish demand baseline - including quantitative data (e.g., job vacancies, wage trends) and qualitative insights (e.g., evolving skills needed) from diverse sources (e.g., Employees' Provident Fund Organisation (EPFO), Employment exchanges, National Career Service (NCS), Digital District Skill Development Plans (DDSP) and State Skill Development Plans (SSDP), GST E-Waybill, etc.). Establish supply baseline - a centralised repository of all institutions offering skill programmes, both physical and digital, and their beneficiaries from diverse sources (e.g., education institutions, e-Shram, etc.).
Develop foundational architecture and governance for the Labour Market Information System (LMIS).	<ul style="list-style-type: none"> Establish strong foundational architecture, tools, and processes to ensure that the LMIS delivers reliable and actionable data on an ongoing basis. Define protocols for data collection and integrate local mechanisms like DSDPs and SSDPs into the LMIS to maintain accurate, up-to-date information reflecting regional and sectoral needs. Establish a dedicated LMIS governance unit with representatives from Central ministries, State governments, regulators, industry bodies, and academia to manage operations and ensure oversight.
Build analytical frameworks, including predictive modelling.	<ul style="list-style-type: none"> Build advanced analytical capabilities to develop actionable insights, such as demand forecasting, skills gap analysis, and sector-specific workforce planning. Incorporate advanced analytical tools powered by AI and ML to enhance the precision and impact of workforce planning and skilling strategies.



CHAPTER 03

THRUST 02: Integrated Skill-Education Learning Pathways with NCrF-enabled Mobility

India's fragmented academic, skilling, and professional systems require integration to enable seamless mobility, credit recognition, and career progression across education and skilling pathways.

This policy recommends focusing on five strategic action areas: a) Drive awareness and build processes and capacity to accelerate the adoption of NCrF across education and skilling institutes and employers; b) Establish a Digital Lifelong Learning Account and promote a Unique Skills Profile to empower individuals by providing them with a distinct and comprehensive skills identity; c) Facilitate deeper integration of skilling with school education with mobility enabled via NCrF; d) Facilitate deeper integration of skill education pathways in higher education with mobility enabled via NCrF; e) Strengthen independent skilling institutions through a quality ranking framework, regional alignment and seamless pathways to higher education.

Context and Need

India's academic, skilling and professional systems need to become more integrated, with seamless mobility amongst them.

The National Education Policy, 2020 (NEP) and the National Credit Framework (NCrF) have already envisioned the integration of skill education with mainstream school and higher education. However, the integration efforts are at a nascent stage. NEP's goal is to offer vocational education in all secondary schools by 2030.³⁸ Currently, only about 4% of government and government-aided secondary schools in India have started offering NSQF-based vocational electives.³⁹ Similarly, out of 4.3 crore students pursuing higher education (across Bachelors, Masters, and Diploma programmes), only 7% of students are undertaking programmes that can be considered technical or vocational in nature.⁴⁰

Beyond mainstream schools and higher education, several independent institutions offer skilling programmes. The ecosystem spans Short-Term Training (STT) centres (both government and private) offering programmes less than 1,200 hours in duration. Alongside STT, institutions like National Institute of Electronics and Information Technology (NIELIT), Polytechnics, and Industrial Training Institutes (ITIs) offer Long-Term Training (LTT) programmes that last greater than 1,200 hours. Specific guidelines for nano and micro-credentials are also being developed. However, students pursuing such courses often face unclear pathways to higher education. The criteria and processes to accommodate admission of students with short-term training skilling certifications are lacking in most institutions.

Employers also need to internalise the framework and undertake concerted efforts to unlock skill-based hiring and associated wage premiums for the workforce of our country and recognise work-based skills and experience. In parallel, recognition of skills acquired via work experience, particularly for individuals in informal or gig sectors, is necessary to unlock access to formal qualifications, enhance aspirations for skilling, and enable career progression.

Overview of the NCrF⁴¹

The NCrF is formulated by the Government of India and is a combined effort of key regulators in education and skilling, such as University Grants Commission (UGC), All India Council for Technical Education (AICTE), Central Board of Secondary Education (CBSE), National Institute of Open Schooling (NIOS), and others. The framework seeks to integrate various forms of learning—academic, skilling-

³⁸ UDISE 2021-22, Ministry of Education, accessed in Sep 2024

³⁹ UDISE 2021-22, Ministry of Education, accessed Sep 2024. Out of a total of 4.32 crore students enrolled in government and government-aided secondary and higher secondary schools (2.94 crore in government schools and 1.38 crore in government-aided schools), approximately 17.85 lakh students are enrolled in skill education programmes (17.72 lakh from government schools and 12,437 from aided schools). This accounts for roughly 4% of the total enrolment (17.85 lakh / 432.32 lakh).

⁴⁰ AISHE 2021-22, Ministry of Education, accessed in Sep 2024. Of the total 4.36 crore students enrolled in higher education (Bachelor's, Master's, and Diploma levels), around 31.3 lakh are in technical or vocational programmes — including Polytechnics (14.08 lakh) and fields like Nursing, Pharmacy, Hotel Management, Fashion, etc. (17.24 lakh). This represents approximately 7% of total enrolments (31.3 lakh / 435.7 lakh). ITI enrolments are excluded.

⁴¹ National Council for Vocational Education and Training (as of November 2024)

based, and experiential—acquired through diverse modes like offline, online, and blended learning to ensure flexibility, inclusivity, and mobility across education and skilling pathways. It also serves as an implementation mechanism of the NEP, 2020.

To implement the NCrF, learning is credited, with one credit equivalent to 30 hours of study. A specific formula⁴² calculates credits based on theoretical, practical, and hands-on learning, ensuring a standardised approach. The framework aligns with existing qualification structures like the National Higher Education Qualification Framework (NHEQF), National Curriculum Framework (NCF), and National Skills Qualification Framework (NSQF). It supports learners from school education (levels 1 to 4) to higher education and vocational training (levels 4.5 to 8). Credits are securely stored in a digital repository, the ABC (Academic Bank of Credits), linked to the learner's unique APAAR (Automated Permanent Academic Account Registry) ID, enabling easy transitions across educational stages.

The NCrF is based on mandatory assessment of learning outcomes and therefore emphasises defining clear learning outcomes for every level. To support this, the National Council for Vocational Education and Training (NCVET) has established a detailed procedure for designing and implementing skill-based qualifications in both school and higher education.

Strategic Roadmap

The first strategic action area aims to drive widespread adoption of the NCrF through increased awareness of NCrF's benefits while building processes and capacity to accelerate adoption. As this adoption progresses, all credits from all sources will sit in a Digital Lifelong Learning Account (DLLA) and allow generation of a Unique Skills Profile (USP). The second strategic action area is therefore focused on establishing a USP, which accumulates all background information and candidate credentials in an individual's DLLA. Details of such a DLLA and USP, which can unlock various benefits, form the foundation for this action area. While these institutional mechanisms are necessary for ensuring equivalence and mobility, the underlying 'integrated' offerings themselves will be further strengthened. In this context, the third and fourth strategic action areas are geared towards strengthening integrated skills-education offerings by deepening integration of skilling in school and higher education systems. The fifth strategic action area builds on this by enhancing independent institutions through the establishment of a quality ranking framework, alignment of programmes to regional needs, and the creation of seamless pathways into higher education

1 STRATEGIC ACTION AREA

Drive Awareness and Build Processes and Capacity to Accelerate NCrF Adoption

The rollout of the NCrF, duly approved by the Government and notified by the UGC, has commenced. To enable on-ground implementation and adoption at scale, nationwide awareness campaigns and trainings will continue to educate students, parents, academic institutions, and employers about the benefits and implementation mechanisms. The efforts will utilise multimedia platforms and community events to promote key concepts such as Multi-Entry and Multi-Exit (ME-ME) pathways, processes for credit recognition of work experience (including informal work), academic achievements, and skills-based education (e.g., STT and LTT), as well as encourage adoption. Messaging will focus on how NCrF enhances career flexibility and advancement, as well as various aspects of assigning and managing credits.

Building on the ME-ME concept within NCrF, seamless pathways between skilling and higher education will be institutionalised to unlock opportunities for learners. For example, a one-year Industrial Training Institute (ITI) certificate or an equivalent programme may be recognised as the first year of an undergraduate programme, complemented by bridge courses as necessary. Similarly, short-term courses with defined competencies should integrate into structured, long-term education pathways.

In parallel, pilot programmes on NCrF adoption will continue across states and institutions to evaluate practical benefits, streamline processes, identify implementation challenges, and gather feedback from key stakeholders, including State governments, industry leaders, academia, and skilling institutions.

⁴² The credits are calculated on the basis of the following: $(L+P+O)/30 + (I+A)*(40/12)$, where the credits for theory, practical and OJT are calculated as '30 hours of learning = 1 Credit', while credits for apprenticeship/ internship are calculated as 3 months = 10 Credits.; L = Lecture/Theory (Hours); P = Practical's (Hours); O - On Job Training - OJT (Hours); I = Internship (Months); A = Apprenticeship (Months)

NCrF Pilot with CBSE⁴³

The CBSE is piloting the NCrF guidelines to evaluate the practical implementation of the credit system from the academic year 2024-25. The pilot, undertaken by CBSE in India, is open to schools volunteering to implement NCrF across states to test its effectiveness in real-world educational settings.

In its pilot programme, CBSE follows a system where subjects are assigned different credit values (one credit for 30 hours of learning time), adding up to 40 credits per academic year. The learning hours include all academic courses, laboratory work, innovation labs, class projects, assignments, tutorials, project work, on-the-job training, and apprenticeships. Schools will conduct evaluations for Grades VI-IX and XI, while CBSE will oversee assessments for Grades X and XII. These credits will be deposited into the student's ABC,⁴⁴ which will be linked to their APAAR ID⁴⁵ and Digi-Locker⁴⁶ in the future. Credits will be awarded in full only if a student passes the assessment criteria for a subject. No partial credits will be granted if the assessment criteria are not met.

CBSE is conducting awareness sessions and mentorship programmes and offering guidance to schools participating in the NCrF pilot program to ensure a successful trial. The pilot program includes an evaluation of how well the credit system integrates into current curricula, the impact on student learning outcomes, and the overall feasibility of the framework for broader adoption in the future.

Key regulators like NCVET will use the data and evidence from such pilots to continuously refine guidelines for credit recognition, implementation processes, and support resources. This will involve updates to the framework, Standard Operating Procedures (SOPs) for admitting students with diverse qualifications and developing bridge courses to facilitate academic and career mobility.

As all ecosystems begin using a common language of credits, bringing them together for an individual will require a unique ID that connects the records across distinct platforms, creating a Digital Lifelong Learning Account (DLLA). This is detailed out further in the following strategic action area.

2 STRATEGIC ACTION AREA

Establish a Digital Lifelong Learning Account (DLLA) and generate Unique Skills Profile (USP) for every individual

All credentials of an individual — connected via the APAAR ID — will be consolidated into a DLLA hosted on the SIDH platform. The DLLA will integrate systems like the ABC, SIDH, private platforms (for skilling certifications), e-Shram (for unorganised worker registration), and EPFO (for employment history), among others, creating a unified and comprehensive view of an individual's background and credentials. This marks a shift from fragmented systems to a trusted, single account. Necessary integrations and protocols will ensure seamless functionality, enabling a robust Whole-of-Government approach to lifelong learning.

Information on the DLLA will be consolidated to generate a Unique Skills Profile (USP) for everyone, presenting a comprehensive profile encompassing the relevant background information, academic, skilling, and employment history. The USP will be pivotal in making skilling aspirational, accessible, and integral to individual growth. It will provide a structured, recognised format for showcasing verified credentials to the industry and other users, thus becoming a key determinant of access to employment and entrepreneurial opportunities. Additional use cases, such as background verification for visa services, CV creation, and reference checks, will be explored to enhance the utility of the DLLA as well as the USP. This effort will be undertaken in due consultations with the MoE, MoLE, MSDE, and other relevant ministries.

Further, to unlock skill-based hiring practices across public and private industries, mechanisms will be defined to periodically align NCO classifications with NSQF-aligned job roles and promote NCrF-based hiring criteria. To drive early adoption, appropriate incentives will be offered to industries adopting NCrF-aligned recruitment practices, particularly in Government and Public Sector Undertaking (PSU) jobs to begin with.

⁴³ Guidelines for Implementing National Credit Framework in Schools, Central Board of Secondary Education, 2023, accessed in Aug 2024

⁴⁴ Academic Bank of Credits (ABC) - A digital repository that stores academic credits, enabling seamless credit transfer and flexible learning under NEP

⁴⁵ Automated Permanent Academic Account Registry (APAAR) ID - A lifelong student ID linking academic records, certifications, and achievements across institutions

⁴⁶ Digi-Locker - A government-backed digital platform for storing and accessing verified documents like certificates and IDs

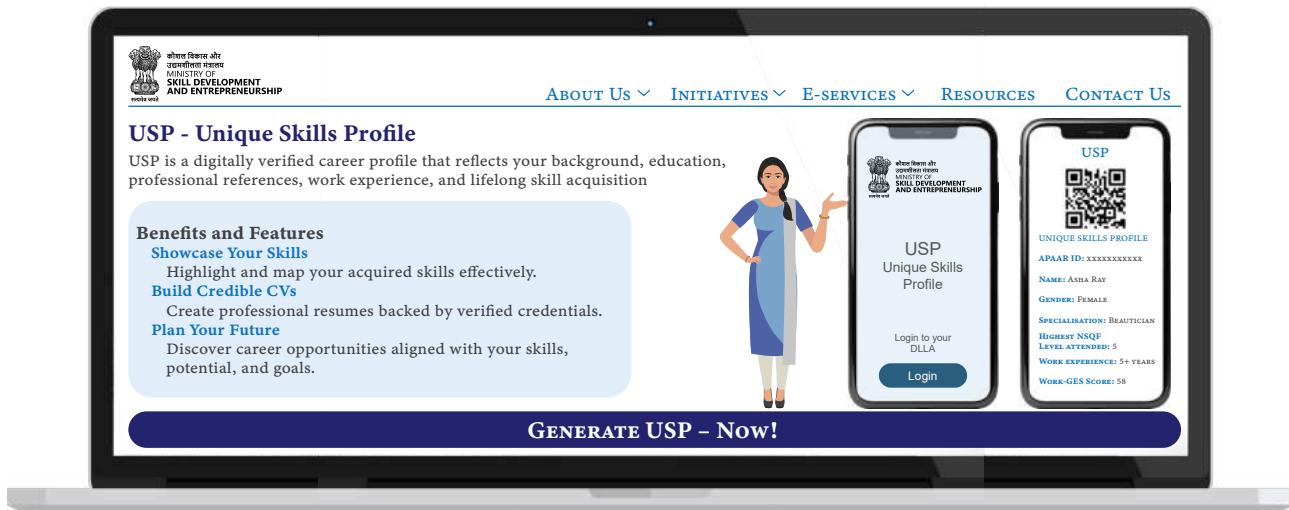


Figure 8: Concept of a Unique Skills Profile

3 STRATEGIC ACTION AREA

Facilitate Deeper Integration of Skilling with School Education (with Mobility Enabled via NCrF)

While the NCrF will provide an institutional mechanism for equivalence and mobility, there's a need to strengthen the underlying offerings itself which allow skills learning and mainstream education to be pursued in an integrated manner. In this action area we explore the integration of skill-based learning into school education. This is essential to improve retention of students in secondary grades, enable employment/self-employment pathways for those students who wish to or need to pursue them directly after school, and create a skilled workforce while avoiding costs of over-education (e.g., high attrition seen amongst graduates who do not get jobs in line with their increased aspirations). NEP 2020 has prioritised this objective and set an ambitious target, i.e. all learners must have exposure to vocational education by 2030. The policy encourages exposure to skills from middle school onwards, followed by wider exposure to vocations or a deeper study of a specific vocation over secondary grades.

To achieve these goals, various reforms will be implemented. These will include expanding the set of vocational trade options in line with the demands of local economies, establishing assessment methods to test for practical skill proficiency, and updating norms and standards for recruiting skilled trainers, including those with prior industry experience, among others. Key stakeholders across school education departments, school boards, and curriculum development bodies, such as State Council of Educational Research and Training (SCERT), National Council of Educational Research and Training (NCERT), Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), etc., will collaborate to lead this effort and will be supported with necessary training and resources.

Alongside domain-specific skills, a set of employability and entrepreneurship skills (as detailed further in Thrust 3) will be prioritised and embedded in curricula across grades. These include transversal⁴⁷ skills such as problem-solving, communication, green skills, critical thinking, financial and digital literacy, etc., which are necessary for success across sectoral boundaries and modes of employment.

Additionally, industry partnerships within schools will be expanded to strengthen school-to-work transitions, providing students with early exposure to workplace expectations and opportunities. Support mechanisms will also be introduced to ensure stronger industry linkages that facilitate smoother pathways into employment.

A multifaceted awareness campaign will be undertaken, targeting stakeholders such as school leaders, industry representatives, parents, and students to drive awareness. Effective counselling will be critical for students and parents to make informed subject choices and decide whether to pursue trade-specific skilling education deeply or not in line with their personal needs and goals.

⁴⁷ Transversal skills refer to transferable skills and competencies common across various jobs, roles, and industries

4 STRATEGIC ACTION AREA

Facilitate Deeper Integration of Skill Education Pathways in Higher Education (with Mobility Enabled via NCrF)

In 2023, UGC approved guidelines⁴⁸ for introducing short-term credit-linked skill development certificate courses with up to 30 credits per course in higher educational institutes. In 2024, UGC also issued draft guidelines for Higher Education Institutions (HEIs) to offer Apprenticeship-Embedded Degree Programmes (AEDPs) to enhance employability.

HEIs have begun and will be further encouraged to integrate skill-based courses into the curricula of degree/diploma programmes – as part of core credits or as add-on/ elective courses, as may be appropriate for different programmes (for example, skill-based courses in data science offered with general Bachelor of Science degrees, equipping students with necessary analytics and programming skills alongside knowledge of the pure sciences, or skill-based courses in digital design offered with a general Bachelor of Arts degree etc.). Going forward, HEIs will identify and scale up such course offerings in line with their local economies' skill needs and strengthen their delivery via trainers and teachers with the necessary expertise. The intent will be to enable students to achieve a certain minimum level of depth in their chosen skill-area through a series of inter-connected skill-linked courses that can culminate into a specialization or optional certification, thus improving future employment prospects.

In addition, HEIs will be encouraged to understand the evolving industry needs and expand the options of industry-linked degree/diploma programmes or specialisations, for example, programmes in areas like BFSI, retail, analytics, paramedical healthcare, digital marketing, etc. To enable this, HEIs will be encouraged to proactively involve the industry as part of governing bodies such as Board of Studies or Academic Councils and partner across areas of course determination, curricula design, enabling practical learning via On-the-Job Training (OJTs), internships and apprenticeships, guest lectures, etc. Methods of assessment will also be refined to test skill attainment practically and not via theoretical assessments.

Beyond domain or industry-specific skills, HEIs will be encouraged to integrate a set of employability and entrepreneurship skills as part of their core curricula credits that all students must pursue, irrespective of their chosen degree or diploma program. These include skills such as communication skills, digital fluency, business literacy, etc., which are critical to improve students' employability and productivity in future jobs as well as enable pathways to self-employment.

5 STRATEGIC ACTION AREA

Strengthen Independent Skilling Institutions (e.g. ITIs) through Quality Ranking Framework, Regional Alignment, and Seamless Pathways to Higher Education

Efforts to set up flagship, dedicated, skill-oriented institutes will be encouraged through Greenfield or Brownfield models (i.e., transforming existing technical education institutions into flagship institutions – detailed in Enabler 2). These reforms will focus on ensuring courses are demand-driven, and that the curricula align with evolving industry needs. Skill practitioners, including trainers, assessors, and counsellors, will be engaged in both curriculum design and delivery. Capacity building for trainers will be prioritised to ensure practical, hands-on teaching methods are employed. Additionally, partnerships with industries will be strengthened to ensure alignment with labour market requirements and to provide practical exposure to learners.

Institutions and programmes that are unable to consistently deliver outcomes will either be phased out or repurposed. A differentiated approach will be adopted for institutions in non-industrial zones—where standard industrial programmes may lack relevance. Efforts will be undertaken to evolve these institutions to offer courses tailored to local economies, such as agriculture and allied services, or select sector-specific training that addresses regional demand.

To ensure quality and performance, a formal ranking and accreditation framework for skilling institutions—like National Institutional Ranking Framework (NIRF) for higher education (also refer to Enabler 3) and the recent ITI grading system — will be created. This framework will emphasise outcomes, including employability, retention rates, industry feedback, and peer reviews, alongside key

⁴⁸ UGC Guidelines for the Introduction of Short-Term Skill Development Courses in Higher Educational Institutes ([Link](#))

input metrics like infrastructure and faculty quality. Over time, this ranking framework will help identify non-performing institutions. These institutions could then shift their offerings to focus on targeted STT or reconfigure them to deliver different LTT courses better suited to the needs of learners and local economies. Transparent rankings will improve institutional accountability and help learners and industries make informed choices.

The following table summarises key initiatives recommended across each of the strategic action areas.

STRATEGIC ACTION AREAS	INITIATIVES
Drive awareness and build processes and capacity to accelerate the adoption of NCrF across education and skilling institutes and employers.	<ul style="list-style-type: none"> • Accelerate on-ground implementation of the National Credit Framework (NCrF) through nationwide awareness campaigns educating students, parents, academic institutions, and employers about the benefits and implementation mechanisms. • Expand pilot programmes across states and institutions to assess practical benefits, streamline processes, address implementation challenges, and gather feedback from key stakeholders. <ul style="list-style-type: none"> — Update the framework and SOPs for creditisation on the basis of feedback; develop bridge courses to facilitate mobility. — Encourage industries, starting with PSUs, to adopt NSQF/ NCrF levels as defined criteria in recruitment processes and promote skill-based hiring.
Establish a Digital Lifelong Learning Account (DLA) and promote the Unique Skills Profile (USP) to empower individuals by providing them with a distinct and comprehensive skills identity.	<ul style="list-style-type: none"> • Establish a DLLA on the SIDH platform as a single, comprehensive view of an individual's academic, skilling, and employment history, using the APAAR ID as the unique identifier. • Explore the application of a Unique Skills Profile (USP) in areas such as background verification for visa services, CV creation, and reference checks, ensuring the system's utility extends to a wide range of individual and industry needs.
Facilitate deeper integration of skilling with school education (with mobility enabled via NCrF).	<ul style="list-style-type: none"> • Integrate skill-based learning into school education with exposure to skills from middle school onwards, followed by wider exposure to vocations or a deeper study of a specific vocation over secondary grades (in line with NEP 2020). • Implement essential reforms to successfully deliver skills learning in schools, including expanded vocational trade options, coverage of general employability and entrepreneurship skills, curriculum updates, improved assessment methods, norms and processes for onboarding skilled teachers and trainers including industry practitioners, and broader awareness and counselling, among others.
Facilitate deeper integration of skill education pathways in higher education (with mobility enabled via NCrF).	<ul style="list-style-type: none"> • Scale integration of skill-linked courses in existing higher education programmes to enhance employability, either as core curricula or as add-on/optional skill certifications, depending on the programme needs. • Encourage HEIs to launch new market-linked certificate/diploma/degree programmes, e.g., in analytics, design, etc.; promote involving industry in governing bodies and striking formal partnerships/MoUs for support with curricula, On Job Training (OJT), apprenticeships, internships, etc • Incorporate general employability and entrepreneurship skills (e.g., communication, digital literacy, etc.) as mandatory core credits for all students, irrespective of their chosen programmes.

STRATEGIC ACTION AREAS	INITIATIVES
Strengthen independent skilling institutions through quality ranking framework, regional alignment and seamless pathways to higher education.	<ul style="list-style-type: none"> Establish flagship skilling institutions (e.g. ITIs, Centres of Excellence (CoE)), either as Greenfield or Brownfield projects, equipped with advanced laboratories, industry-relevant machinery, modern classrooms, incubation centres, and high training standards to set benchmarks for quality and innovation. Phase out or repurpose institutions and programmes that don't deliver meaningful outcomes, reallocating resources to focus on high-impact skilling initiatives tailored to regional economies. Institutionalise formal ranking and accreditation frameworks for skilling institutions to emphasise outcomes like employability levels, retention, and infrastructure quality, and input metrics, fostering accountability and competitiveness.



CHAPTER 04

THRUST 03: Enhance Access to Employability and Entrepreneurship Skills

- Ensuring every individual possesses a minimum set of employability and entrepreneurship skills is critical for increasing employee productivity and cultivating an entrepreneurial mindset.
- This policy suggests focusing on four key strategic areas: a)A dynamic, at-scale framework for employability and entrepreneurship skills; b)Modular courses delivered via schools, colleges and standalone institutions, both physically and digitally; c)Enhanced trainer capacity to deliver employability and entrepreneurship skills; d)Periodic assessment of labour force's basic employability and entrepreneurship skills and using data-driven insights to inform key interventions.

Context and Need

Employability and entrepreneurship skills are essential competencies to succeed across professional, academic, and personal domains – agnostic of the chosen area of work or study. These skills include basic literacy and numeracy, bionic skills, green skills, digital and financial literacy, critical thinking, adaptability, problem-solving, and entrepreneurial mindset, among others. Together, they serve as the foundation for both wage and self-employment and are critical for India to harness its demographic dividend optimally.

The skilling process must begin early in the education system. Learning deficits in early education contribute to a weak skill base and have a ripple effect as students move into higher education, vocational training, and eventually the workforce. For instance, only 55%⁴⁹ of Indian youth are deemed employable, with employability rates as low as 41% among ITI graduates and 29% among polytechnic graduates.⁵⁰ Further, literacy rates in several other essential skills such as financial and digital literacy remain low with 27%⁵¹ of the population being financially literate and 38%⁵² being digitally literate. Workplace readiness skills such as professionalism, punctuality, and grooming have also been identified as key to further enhancing employability levels.⁵³ Regularly assessing workforce employability and leveraging data-driven insights to inform targeted interventions will be crucial to addressing these gaps, ensuring skilling programmes remain responsive to industry needs and workforce aspirations. Further, there is a critical shortage of specialised trainers to deliver these skills. Most skilling institutions rely on repurposing existing trainers, who instruct these courses as a secondary responsibility.

Beyond employability, cultivating an entrepreneurial mindset is equally critical for India. Individuals need to see entrepreneurship as a viable career path with a willingness to take calculated risks, develop an innovative mindset, and embrace resilience in the face of challenges. Globally, many frameworks are already in place outlining essential employability and entrepreneurship skills, such as the World Bank's Essential Skills Model, the International Labour Organisation's (ILO's) Competency Framework, the UK's Essential Digital Skills Framework, and Australia's Core Skills for Work Framework, among others.

The National Council for Vocational Education and Training (NCVET) has also commenced efforts in this direction by developing a framework to articulate competencies required within employability skills, life skills and entrepreneurship skills (among other areas). Going forward, there is a need to prioritise at-scale delivery of these skills to all students and the workforce.

⁴⁹ Wheebox India Skills Report, 2025, extracted in Feb 2025.

⁵⁰ Ibid.

⁵¹ As per SEBI-NCFE Financial Literacy and Inclusion Survey 2019; Financial Literacy is defined as “a combination of awareness, knowledge, skill, attitude and behavior necessary to make sound financial decisions and ultimately achieve individual financial well-being.”

⁵² National Statistical Office in 2020-21, extracted in Sep 2024.

⁵³ Industry conversations.

Strategic Roadmap

This policy focuses on four strategic action areas to address critical skill gaps in employability and entrepreneurship skills. Firstly, strengthening the employability and entrepreneurship skills framework, building on the efforts already made by NCVET, followed by creating stackable modules (e.g., nano, and micro-credentials) for targeted skill sets within the framework. Secondly, embedding the delivery of these skills across all skilling programmes and educational institutions as well as offer as standalone flagship programme, digitally and in offline mode. Thirdly, enhancing trainers' capacity to deliver these skills while exploring technology's role in expanding access and ensuring consistent, high-quality delivery nationwide. Finally, a National Employability and Entrepreneurship Measure (NEEM) will be developed which will periodically assess labour force employability and leverage this data and evidence to inform future interventions. Together, these three strategic action areas will be part of a Yогya Bharat Mission (YBM). Each of these areas are elaborated in the following sections.

1 STRATEGIC ACTION AREA

Strengthen and refine the employability and entrepreneurship skills framework and develop stackable modules

The framework for employability and entrepreneurship skills will be flexible, dynamic and constantly evolving. NCVET's current framework is structured in two broad categories - Employability Skills (ES), which also address entrepreneurship-related skills, and Life Skills (LS). These two categories have been further divided into nine modules: Communication Skills, English Language Literacy, Workplace and Job-related Skills, Interpersonal/Social Skills, Cognitive and Meta-cognitive Skills, Citizenship and Constitutional Values, Foundational Literacy, Digital Fluency, and Self-Employment and Entrepreneurship. Currently, courses are being built on these modules across various NSQF levels. These courses will be made available as stackable modules in the form of nano-credentials, micro-credentials, and qualification packs.

Based on learnings from on-ground execution and feedback, as well as evolving global needs, the framework will be dynamically updated and additional competencies such as adaptability and resilience, and health and nutrition awareness, will be considered for inclusion. Additional courses and modules will be periodically developed, updated and hosted on digital platforms such as Skill India Digital Hub (SIDH) or other State/private systems to maximise accessibility and impact.



2 STRATEGIC ACTION AREA

Enable widespread adoption of employability and entrepreneurship skills through a “National Employability and Entrepreneurship Program”

To achieve widespread awareness and adoption of these skills, a multi-pronged National Employability and Entrepreneurship Program (NEEP) will be launched. The programme will enable mandatory integration and creditisation of these essential skills across all forms of education and skilling. Mission-mode rollout will be undertaken across multiple diverse channels listed below:

- **Early integration in schools:** Key ministries, including the Ministry of Skill Development and Entrepreneurship (MSDE) and the Ministry of Education (MoE), along with state education departments and their affiliated bodies, will collaborate to embed employability and entrepreneurship skills into school curricula. Existing frameworks will be leveraged to clearly outline grade-specific competencies and skills to be emphasised in each grade. Once the competency ladder is established, these skills will be incorporated into core curricula of existing subjects and/or offered as standalone subjects as deemed fit in different local contexts across both physical and virtual/open schools. For example, day-to-day communication skills could be integrated with the existing English language curriculum or offered as a separate “Business or Functional English” curriculum. Similarly, skills required for fostering an entrepreneurial mindset or financial literacy could be introduced as separate subjects or modules to provide focused instruction.
- **Deepen integration in higher education and technical education/long-term skilling institutes:** To strengthen the delivery of employability and entrepreneurship skills in higher and technical education, institutes will be encouraged to allocate a minimum number of credits towards these essential skills and incorporate them in the curricula and pedagogy for existing subjects. Bridge courses will also be offered focused on these skills to equip students to be “ready to learn” as they move towards more advanced learning.
- **Incorporation in short-term skilling programmes:** Various QPs on employability and entrepreneurship skills will be built and launched as standalone short-term skilling programmes, including nano and micro credentials. All short-term training programmes today do include a component of employability skills in their curricula, however the emphasis on those will be increased and delivery strengthened.
- **Launch flagship National Employability and Entrepreneurship Programme (NEEP), digitally and in offline mode:** Flagship National Employability and Entrepreneurship Programme (NEEP) will be launched to deliver on the core competencies already identified by NCVET. The programme will continuously evolve to accommodate new related competencies required at the workplace coupled with adapting existing ones. To expand access to these skills, especially in rural and underserved areas, digital platforms like SIDH will be leveraged to offer these programmes online. Multilingual digital content, bite-sized videos (new or curated set of existing videos), and interactive learning modules, among other things, will also be launched in collaboration with State governments and private sector partners.

In parallel, nationwide awareness campaigns will be launched to amplify the benefits of employability and entrepreneurship skills for employment, self-employment, and career growth. These campaigns, executed in collaboration with media partners and educational institutions, will target students, parents, educators, and employers, highlighting advantages such as increased job opportunities, career mobility, and adaptability. Outreach through social media, public announcements, and on-ground events will be used to maximise reach and participation. Finally, mechanisms will be set up to track outcomes achieved via these skilling programmes and leverage them to enhance the framework, courses, curricula, and their delivery.

3 STRATEGIC ACTION AREA

Enhance trainer capacity and leverage technology for scalable, high-quality training

Delivering employability and entrepreneurship skills will require trainers/teachers with requisite skills and qualifications. Thus, specialised programmes will be offered for all trainers, across Central and State institutions. All trainers, including designated school and higher education teachers, will be required to undergo tailored training to deliver employability and entrepreneurship skills, earning minimum credits

within a specified timeframe. To enhance accessibility, digital training modules will supplement in-person sessions, offering flexible learning options, particularly for trainers in remote areas.

Additionally, the Skills Practitioners Ecosystem will be leveraged to integrate external expertise and support high-quality training. Appropriate technology will be integrated into training delivery, assessment, and faculty development. Tools like GenAI Tutor, which offer adaptive, personalised learning experiences, will be deployed to ensure consistent training quality across diverse learner needs and locations.

Duolingo – GenAI-enabled language learning platform

Duolingo has integrated generative AI to enhance personalised education. Through its premium subscription, Duolingo Max, the platform offers features like "Roleplay" and "Explain My Answer," powered by OpenAI's GPT-4. These tools provide interactive conversation practice and detailed answer explanations, tailoring lessons to individual learning styles and paces.

The generative AI analyses user interactions to adapt content dynamically, ensuring that exercises align with each learner's proficiency and progress. This personalised approach maintains engagement and optimises the learning experience.

For the skilling ecosystem, Duolingo's AI-driven personalisation exemplifies how technology can democratise education, making high-quality learning accessible and scalable. It highlights the potential of AI to provide individualised instruction at scale, addressing diverse learner needs and contributing to more efficient skill acquisition.

4 STRATEGIC ACTION AREA

Develop a National Employability Entrepreneurship Measure (NEEM) to periodically assess labour force employability and use data to inform key interventions for the skilling ecosystem

NEEM will be developed to measure the workforce's essential employability skills. NEEM will serve as a national benchmark, assessing workforce preparedness across sectors and job roles. Employability skills will be measured through a structured assessment framework that evaluates three key skill categories in alignment with workplace requirements (i) General Employability Skills (e.g., numerical ability, problem solving, speaking and listening abilities in English and/or vernacular medium); (ii) Technical Skills; and (iii) Advanced Technical Skills and Certifications for Lifelong Learning. These assessments will determine a candidate's readiness for both employment and self-employment, ensuring alignment with industry expectations. The data gathered will guide individuals in upskilling, employers in hiring, and policymakers in designing targeted skilling initiatives—ensuring that India's workforce is aligned with industry demands.

Since industry needs are constantly evolving, the NEEM will be regularly updated through employer surveys conducted in partnership with the Ministry of Statistics and Programme Implementation (MoSPI) and the Ministry of Labour and Employment (MoLE). Qualitative consultations (for example, leveraging existing Ministry of Statistics and Programme Implementation (MoSPI) surveys such as the Annual Survey of Unincorporated Sector Enterprises (ASUSE), Annual Survey of Industries (ASI), Annual Survey of Services Sector Enterprises (ASSSE), and Quarterly Employment Survey (QES) and training institutions will be conducted to ensure NEEM remains relevant and effective. These insights will help refine the assessment framework, ensuring its continued relevance.

To ensure widespread adoption, assessments will be expanded across various sectors, regions, and demographic groups, with NEEM integrated into educational curricula and employer hiring processes. Demand-side employer incentives will be introduced to encourage participation, while a national awareness campaign will educate students, job seekers, and businesses on its benefits. NEEM will be made accessible in multiple languages, supported by enhanced technical infrastructure for assessments, and efforts will be made to position it as a globally recognised framework. Continuous monitoring and evaluation will be embedded throughout the process to ensure long-term impact and refinement.

A Yogya Bharat Mission (YBM) will be established to oversee the expedited rollout of the NEEP along with NEEM.

The following table summarises key initiatives recommended across each of the strategic action areas:

STRATEGIC ACTION AREAS	INITIATIVES
Develop a flexible framework for employability and entrepreneurship skills and develop stackable modules.	<ul style="list-style-type: none"> Develop a flexible framework for employability and entrepreneurship skills, leveraging NCVET's existing framework. Incorporate emerging competencies over time, ensuring relevance in a rapidly changing environment. Develop stackable modules in the form of nano credentials, micro credentials, and qualification packs for prioritised employability and entrepreneurship skills; make them widely available.
Embed employability and entrepreneurship skills through curriculum, bridge courses, and awareness initiatives.	<ul style="list-style-type: none"> Ensure widespread uptake of these skills via multiple avenues, including integrating them into school curricula across grades, higher education and long-term skilling curricula, standalone programmes/schemes, digital courses, etc. Track outcomes and evolve courses, curricula, and delivery mechanisms accordingly. Develop bridge courses on select foundational competencies that can be taken up before commencing long-term training/ education programmes to ensure candidates are 'ready to learn'. Increase adoption via targeted awareness campaigns that emphasise benefits (e.g., wider job opportunities, enhanced mobility options, etc.).
Enhance trainer capacity and leverage technology for scalable, high-quality training.	<ul style="list-style-type: none"> Enhance capacity and capability of teachers/faculty/trainers to deliver these skills through contextualised training in NSTIs/IToTs and digital training programmes. Leverage Skill Practitioners Network and technology to enhance delivery capacity and quality consistency (e.g., via support from GenAI Tutors).
Develop a National Employability and Entrepreneurship Measure (NEEM) to periodically assess labour force employability and use data to inform key interventions for the skilling ecosystem.	<ul style="list-style-type: none"> Design and implement a structured assessment framework to evaluate foundational and job-specific employability skills, starting with general competencies such as numeracy, communication, problem-solving, and digital literacy. Build the National Employability and Entrepreneurship Measure as a periodic, data-driven benchmark that captures workforce readiness across sectors, job roles, and regions. Integrate NEEM into key systems by aligning assessments with school and skilling curricula, embedding employability scores into hiring processes, and using insights to inform workforce planning at national and sectoral levels. Introduce employer incentives and launch awareness campaigns to drive participation and ensure widespread adoption. Enhance technical infrastructure, ensure multilingual accessibility, and embed continuous monitoring for long-term impact.

CHAPTER 05**THRUST 04: Encourage Lifelong Learning**

- Lifelong Learning (LLL) is essential for India's workforce adaptability, economic growth, and transformation, ensuring continuous skill development, job readiness, and innovation in a rapidly evolving global landscape.
- This policy suggests focusing on two key strategic areas a)A dynamic and unifying framework for LLL which is agile to keep capturing future skills for new and existing job roles; b)Strengthening resources, infrastructure and incentives for effective delivery of Lifelong Learning Programmes.

Context and Need

Lifelong Learning (LLL) is essential in today's fast-changing world, where technological advancements, evolving job markets, and personal growth opportunities demand continuous skilling, up-skilling and re-skilling. In India, LLL is particularly critical. The country needs to prepare its large working-age population not just for future employment opportunities, but for sustainable self-employment opportunities, boosting economic growth and enhancing global competitiveness.

Globally, many countries have adopted and encouraged an LLL approach. South Korea's Lifelong Learning Account System⁵⁴ allows individuals to accumulate and document diverse learning experiences, integrating academic and vocational achievements into educational credits or qualifications. Similarly, Singapore's SkillsFuture Mid-Career Credit⁵⁵ offers financial support for mid-career professionals to access skill programmes, while UNESCO's Institute for Lifelong Learning⁵⁶ advances the global agenda of equipping citizens with evolving skills.

Mission Karmayogi is an apt case-in-point for Lifelong Learning in India. The programme is focused on competency building for civil servants, shifting from a rule-based model of governance—where roles are traditionally assigned based on seniority, tenure, or cadre—to a role-based model, where job allocations are determined by an individual's competencies and suitability for the specific responsibilities of the role. It emphasises periodic upskilling on domain knowledge as well as on functional and behavioural competencies. The case study below presents a deeper view on this initiative.

Case Study: Mission Karmayogi – An LLL Model for Public Administration⁵⁷

The National Programme for Civil Services Capacity Building - Mission Karmayogi - is a transformative LLL initiative launched in 2020 as part of India's effort to create a future-ready public administration. The programme is focused on competency building for civil servants, shifting from a rule-based to a role-based model of governance, where job allocations are based on an individual's competencies suited to the role. The programme is designed to cover all civil servants, including contractual employees, working across ministries, departments, and agencies of the Union Government, with an overall target of 46 lakh Central Government employees. It has a financial outlay of ₹510 crore over five years, with an annual subscription fee of ₹431 per civil servant.⁵⁸ The programme emphasises training not only on domain knowledge but also on functional and behavioural competencies.

Further, it has also been formally recognised as an Awarding Body (Dual)⁵⁹ by the NCVET to award, assess, and certify learners on the Integrated Government Online Training (iGOT) Karmayogi platform. With more than 3,88,000 personnel already trained in emerging technologies and key competencies, it aims to build a world-class civil service that is efficient, adaptable, and performance driven.⁶⁰ Mission Karmayogi represents a fundamental shift in how civil servants are trained, assessed, and deployed, ensuring a competency-driven, adaptable, and globally aligned governance framework. This policy envisions all LLL programmes to be anchored in these same principles of continuous innovation, capacity enhancement, and transformative impact.

⁵⁴ Lifelong Learning Account System, UNESCO Institute for Lifelong Learning, 2023, accessed in Dec 2024. ([Link](#));

⁵⁵ Mid-Career Support Package, SkillsFuture Singapore Website, 2024, accessed in Sep 2024. ([Link](#));

⁵⁶ UNESCO Institute for Lifelong Learning Official Website, 2024, accessed in Sep 2024. ([Link](#));

⁵⁷ Mission Karmayogi - National Programme for Civil Services Capacity Building, 2024, accessed in Nov 2024 ([Link](#));

⁵⁸ Press Information Bureau, 2020, accessed in Nov 2024 ([Link](#));

⁵⁹ An awarding body with Dual Status certifies and as well as conducts assessment of learners;

⁶⁰ Mission Karmayogi for civil servants who are better prepared and citizen-oriented, Indian Express, accessed in Oct 2024 ([Link](#))

Many states are also making attempts towards LLL. For example, Tamil Nadu has launched the Naan Mudhalvan Upskilling Platform.⁶¹ Under this scheme, 1,500 faculty members of engineering institutions have been trained in 24 skill areas and are now imparting industry-relevant training to students. Building on the existing initiatives in India and globally, the outlined strategic roadmap aims to establish a robust ecosystem of LLL for sustained progress.

Strategic Roadmap

Two key strategies are critical to achieving the LLL imperative. First, a dynamic framework of skills and job roles to enable flagship LLL programmes and pathways to be conceptualised. Second, strengthening existing infrastructure, resources, and incentives to support the quality and at scale delivery of these programmes. Complementing these strategies is the need for continuous training of the faculty and active involvement of skill practitioners in line with the evolving needs.

1 STRATEGIC ACTION AREA

Establish a dynamic framework for LLL in line with future skills, launching flagship programmes and pathways

To mainstream Lifelong Learning (LLL), a key step is to establish a dynamic framework which continuously evolves in alignment with changing industry needs. This will be a unified framework that will build on the ongoing framework alignment efforts between the National Classification of Occupation (NCO) (under MoLE) and the National Skills Qualification Framework (NSQF) (under NCVET).

This dynamic framework will need to embed future skills for new job roles as well as capture new skills for evolving traditional roles. Future skills will extend beyond just tech-oriented skills and will also include bionic skills (i.e., a combination of human and machine capabilities) and other multi-dimensional skill expectations, such as emotional intelligence, empathy, and design thinking.

Equally important will be the focus on new or future skills required in existing job roles. For example, 46% of India's workforce is still employed in agriculture.⁶² Driving income enhancement in agricultural and rural livelihoods requires training individuals in agri-tech, sustainable farming, and new-age food processing areas, amongst others.

Potential areas in which flagship Lifelong Learning may be launched (illustrative)

- Traditional sectors such as handicrafts, agriculture, construction and others which require skilling in modern techniques, business acumen, digital etc.
- Future skills such as foundational programmes in artificial intelligence, blockchain, and cybersecurity.
- Skilling in sectors of national priority, including renewable energy, space technology, semiconductors, deep-sea exploration, and defence manufacturing.
- Skilling in globally critical sectors, such as the care economy, health technicians, and international logistics.
- Emerging sectors with potential for viable career opportunities in the future. For e.g., sports and related roles (e.g., sport analysts, trainers, mental conditioning coach etc.).

As new or additional skill requirements and job roles are identified, these will be embedded across all training programmes including Short-Term Training (STT), Long-Term Training (LTT) or standalone nano and micro-credential courses. Additionally new flagship upskilling/reskilling programmes will be launched. Programmes will be designed in extensive consultations with Sector Skill Councils (SSCs), industries, industry bodies, skilling providers, and other key stakeholders to ensure alignment with market needs.

To address the most urgent needs, these programmes will prioritise support for vulnerable workers in rapidly transforming sectors (e.g., automotive industry with the shift to electric vehicles, rise of automation in mining, and AI-driven disruption in customer support roles). Existing frameworks and funding will be leveraged to drive this agenda. For example, the Industrial Relations Code, 2020, has introduced a reskilling fund for laid-off workers, mandating employers to contribute 15 days' wages per affected employee,⁶³ ensuring structured financial support for targeted training programmes.

⁶¹ Naan Mudhalvan Upskilling Platform Official Website, Tamil Nadu Skill Development Corporation, accessed Dec 2024 ([Link](#))

⁶² Share of employment in the agriculture sector in 2023-24. The Economic Survey 2024-25 (page 369)

⁶³ The Industrial Relations Code, 2020 ([Link](#))

2 STRATEGIC ACTION AREA

Strengthen infrastructure, resources, and incentives for effective delivery and uptake of flagship LLL programmes

Effective implementation of flagship LLL programmes requires dedicated physical infrastructure, adequately equipped trainers, phygital modes of delivery and financial incentives for enabling uptake.

First, as per National Education Policy (NEP) 2020, suitable infrastructure, including schools, libraries, and public spaces, will be utilised after hours for training and community engagement to promote adult education and lifelong learning. Adult Education Centres will be integrated into public institutions like higher education and vocational training centres to expand accessibility. To complement this, a set of skilling institutions will be established or rebranded as Institutes of Lifelong Learning to provide targeted support for designing, developing, and delivering LLL programmes. Best practices from pioneering countries, such as South Korea (Korea's National Institute for Lifelong Education), will be adequately utilised. Second, maintaining the quality of trainers' skills with respect to evolving skill requirements and subsequent programme needs is essential. Trainers will be periodically upskilled and equipped with the new-age skills emerging in the market through continuous professional development utilising a blended model.

Additionally, course delivery (e.g., timelines, medium, assessments) must be sensitive to the needs of mid-career and experienced professionals. To maximise accessibility, programmes will be delivered via phygital mediums across skilling centres and digital platforms such as the Skill India Digital Hub (SIDH). AI and GenAI will be deployed on SIDH to deliver personalised training, and reliable assessments. Further, collaborations with private academies will be pursued to build a robust repository of shared LLL resources and leverage the pace of private sector advancements.

Finally, need-based targeted financial incentives, such as skill vouchers and loans, will be provided to encourage participation in LLL. In sectors where national priorities require reskilling, the Government will actively support skill development, while in other sectors, industries and employees/learners themselves will be expected to bear the primary responsibility. Industries will be incentivised to manage upskilling efforts for employees on their payroll as well as contract workers. Companies making notable contributions to LLL beyond their own workforce will be recognised for their commitment to sector-wide skilling under the Corporate Patronage Programme (detailed in thrust 7).

Underpinning this will be the Digital Lifelong Learning Account (DLLA) which will serve as a personalized skilling profile, enabling individuals to track their learning journeys, access tailored course recommendations, and store verified credentials. Among other things, the DLLA will support targeted delivery of LLL programmes and alignment with labour market needs. AI-driven nudges and analytics will enhance personalisation and learner engagement, while real-time tracking will support outcome monitoring and continuous quality improvement across the ecosystem.



Case Study: Suwon City – Lifelong Learning ecosystem⁶⁴

Suwon City, South Korea has established a comprehensive lifelong learning ecosystem that promotes continuous education and community engagement. Four key success factors have led to a thriving ecosystem for LLL.

Firstly, an extensive network of 600+ learning facilities has been built, ensuring that every citizen can access a lifelong learning space within a 10-minute walk from their home. This accessibility has driven a 39.2% participation rate in Lifelong Learning (LLL), well above national averages. The city has also developed courses designed for the older generations (17.8% of LLL courses).

Secondly, there is a strong focus on collaboration across stakeholders. The Suwon Lifelong Learning Council, comprising of public officials, NGOs, private providers, and academics, is overseeing policy and programme development.

Thirdly, high citizen engagement with focus on inclusivity is central to Suwon's strategy. Popular initiatives include intergenerational projects like the "Every Other Generation Program," which connects younger and older generations to foster social cohesion.

Fourthly, there is a strong funding push from the city government. Public spending on LLL increases every year and keeps fees for citizens low to allow easy access. In 2014, the city invested about KRW 2,508 million (EUR 1.9 million) in LLL which increased to KRW 2,772 (about EUR 2.1 million) in 2018. The city engages with existing facilities such as libraries or welfare centres and helps to host LLL activities, which reduces the costs for the city.

The following table summarises key initiatives recommended across each of the strategic action areas:

STRATEGIC ACTION AREAS	INITIATIVES
Establish a dynamic framework for LLL and launch flagship programmes and pathways.	<ul style="list-style-type: none"> Develop a dynamic framework of job roles and skills that evolve with industry demands; ensure alignment across NCO and NSQF. Design flagship upskilling and reskilling programmes – as stackable nano and micro-credentials, standalone STTs or integration with existing STTs, as appropriate to address diverse needs. These may focus on (among others): <ul style="list-style-type: none"> Embedding future skills such as bionic skills, AI, block chain, emotional intelligence, design thinking etc. Ensuring requisite evolution in skilling for traditional roles such as in agriculture, handicrafts, construction etc. Provide particular attention to vulnerable workers in transforming sectors (e.g., Mining) by providing them access to reskilling/upskilling programmes. These efforts will be supported through a dedicated Reskilling Fund, established to financially aid workers whose livelihoods are at risk due to industry shifts, automation, or sectoral decline.
Strengthen infrastructure, resources and incentives for effective delivery of flagship LLL programmes.	<ul style="list-style-type: none"> Establish Institutes of Lifelong Learning to design and deliver premier upskilling and reskilling programmes. Expand the Skill Practitioners Ecosystem by developing a diverse pool of trainers equipped to support adult learners and mid-career professionals. This includes drawing from academia, industry, and community-based educators, and ensuring their continuous professional development through blended learning models tailored to the evolving demands of LLL programmes.

⁶⁴ Strengthening the Governance of Skills Systems, Lessons from Six OECD Countries, OECD, 2020, accessed Dec 2024 ([Link](#))

STRATEGIC ACTION AREAS**INITIATIVES**

- Leverage digital platforms and technologies like Generative AI to deliver personalised training, curated learning resources, and credible assessments.
- Incentivise LLL through targeted financial support, such as skill vouchers and loans
- Recognise industries that contribute significantly to sector-wide skilling efforts – via financial and non-financial incentives.



CHAPTER 06

THRUST 05: Strengthen Trainer Capacity and Enhance Skills Practitioner Ecosystem

- Skills practitioners play a critical role in the skilling ecosystem through effective delivery of content, effective assessments, counselling etc. and promoting a culture of continuous learning.
- This policy focuses on three key areas to strengthen practitioners' capacity: a)A robust guiding framework for onboarding and career management of practitioners; b)Continuous and cross functional training of the practitioners; c)Adequate, scalable technology infrastructure to enable demand-supply matching of practitioners, network benefits etc.

Context and Need

Skills practitioners, such as trainers, industry experts, counsellors, and mentors, play a critical role in the skilling ecosystem, through effective delivery of content and promoting a culture of continuous learning. Expanding and enhancing their availability, quality, and engagement is crucial to strengthening the skilling ecosystem.

However, there are several systemic challenges that need to be addressed. First, there is a paucity of trainers needed in the ecosystem. For example, out of the 2.4 lakh sanctioned posts for instructors in ITIs, only 1.02 lakh are filled, resulting in a substantial 57% shortage.⁶⁵

Secondly, gaps in recruitment planning for full-time or contract/guest practitioners, low remuneration, and limited formal training opportunities further hinder the ability to attract and retain high-quality trainers. Only 45% of MSDE's State of Skills Survey respondents who pursued skilling reported high satisfaction with skilling programmes.⁶⁶ Amongst the 55% respondents who aren't highly satisfied, 28% report inadequately skilled trainers and poor quality of instruction as a significant pain point.⁶⁷ Expanding access to industry professionals and leveraging their expertise for direct instruction and regular faculty capacity building is important.

Recently, some initiatives have been taken towards Training of Trainers (ToT). The Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE) conducts induction programmes and ongoing training sessions focused on skilling pedagogy, employability skills, emerging technologies, and subject-specific competencies for teachers.⁶⁸ Under the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) 3.0, direct funding has helped in creating a certified pool of trainers. The Takshashila platform, a central repository of trainers and assessors, launched in partnership with the National Skill Development Corporation (NSDC) further facilitates trainer development. Additionally, trainer-assessor academies implement ToT programmes and Continuous Professional Development (CPD) initiatives to ensure sustained capacity building for trainers and assessors.⁶⁹ A robust, future-ready skilling ecosystem depends on the sustained development and recognition of skilled practitioners, making it imperative to invest in their recruitment, training, and continuous professional advancement.

Strategic Roadmap

Given this context, enhancing the Skill Practitioners Ecosystem is fundamental to the effective functioning of the skilling ecosystem. Several strategic action areas are envisioned for building a strong 'practitioner identity'. First, developing well-defined guidelines and an operational framework for skill practitioners will establish a standardised system that governs their entry, participation, and progression. Second, building skill practitioners' cross-functional capacity through robust training and assessments will enable them to perform multiple tasks. For example, trainers can also act as assessors and vice versa. Finally, developing tech-enabled infrastructure to drive linkages among practitioners will help match the demand and supply of trainers while keeping them informed about industry trends and best practices. The following section details out each of these identified areas.

⁶⁵ "Instructor Dashboard," NCVET MIS, Ministry of Skill Development and Entrepreneurship, accessed in Oct 2024 ([Link](#))

⁶⁶ State of Skills Market Survey 2024, Ministry of Skill Development and Entrepreneurship, accessed in Sept 2024 Analysed among 3831 respondents who pursued skilling, question: On a scale of 1 to 5, how satisfied were you with the overall skilling programmes?

⁶⁷ State of Skills Market Survey 2024, Ministry of Skill Development and Entrepreneurship, accessed in Sept 2024 Analysed among 2004 respondents who were not completely satisfied with skilling, question: What are your pain points with the skilling programme?

⁶⁸ "NEP focuses on Inclusion of Vocational Education as part of curriculum", Press Information Bureau, 2023, accessed Dec 2024 ([Link](#))

⁶⁹ "Steps taken by the Government to increase skill development trainers in various sectors", Press Information Bureau, 2021, accessed Dec 2024 ([Link](#))

1 STRATEGIC ACTION AREA

Development of guidelines and management framework for skills practitioners

The Skill Practitioners' Ecosystem is envisioned to be a collaborative ecosystem that brings together a diverse group of professionals (including trainers, assessors, industry specialists, counsellors, auditors, mentors, alumni, and influencers) dedicated to delivering skilling, knowledge sharing, and industry-specific expertise.

Guidelines will be defined clearly including qualifications, experience, and expertise required for each role, with criteria updated regularly to maintain alignment with industry standards and ensure the desired levels of competency. The criteria will be kept sufficiently broad and flexible to allow the onboarding of various practitioners with diverse experiences. Additionally, a structured management framework will facilitate practitioners' entry, performance evaluation, and exit, ensuring quality, efficient operation, and consistency.

Inclusivity will be central to building a robust Skill Practitioners' Ecosystem. Outreach efforts will be prioritised to attract a broad pool of professionals, such as professionals returning from career breaks or individuals from diverse backgrounds, by offering flexible re-entry pathways, including part-time or mentoring roles. A coordinated effort amongst regulatory bodies, Sector Skill Councils, and Central institutions like National Skill Training Institutes (NSTIs) will be established to augment this ecosystem. Once onboarded, cross-functional capacity building measures will also be undertaken to ensure high quality delivery.

Flexible guidelines will be implemented to address the paucity of trainers and streamline trainer onboarding. Digital tools will be leveraged to enable top-rated trainers to teach digitally across a broader set of institutions. New roles, such as Professors of Practice (PoP), will bring in experienced industry professionals to provide practical training.

Case Study: Dual Teaching Experiment – Transforming Skill Education in Flanders⁷⁰

In 2021, Flanders, Belgium, launched a two-year dual teaching pilot to tackle skill shortages in education. Industry professionals were invited to teach hard-to-fill skill subjects for a few hours each week. Those who were not qualified teachers were required to complete a three-day Government-funded pedagogical training, before starting. These professionals continued receiving their regular salaries, while employers were subsidised for each teaching hour.

The programme also welcomed retired educators, corporate volunteers, and industry experts to contribute voluntarily. Private-sector professionals transitioning into teaching were offered additional benefits, such as higher tenure levels (up to eight years) and salaries up to EUR 300 above the baseline. Funded by the Government and the European Social Fund, the initiative bridged the gap between industry and education. By connecting students with market-relevant skills and alleviating teacher shortages, this programme displayed an innovative model for skill education through collaboration and industry involvement.

2 STRATEGIC ACTION AREA

Build cross-functional capacity of skill practitioners (especially trainers) for effective skills delivery

To deliver skills training that meet high standards and industry needs, practitioners themselves must be well-equipped with relevant, updated knowledge and cross-functional abilities. Their professional development via upskilling/reskilling, career progression and financial remuneration need to be adequately taken care of.

Trainers will be equipped with skills to deliver experiential learning and assess competencies effectively. Modular, NSQF aligned ToT courses will be developed to meet these objectives. Further, experienced master trainers will be identified and onboarded to support new practitioners through digital and physical training, ensuring consistent knowledge transfer.

⁷⁰ "Teachers and Leaders in Vocational Education and Training", OECD Reviews of Vocational Education and Training, OECD, 2021, accessed Dec 2024 ([Link](#))

ToT guidelines will be strengthened into a continuous, integrated learning process for professional development. Standardised modular courses will be developed with periodic (e.g., annually) mandatory upskilling and reskilling programmes to maintain practitioner capabilities. A comprehensive Continuous Professional Development (CPD) framework will align these efforts, ensuring that career progression for practitioners integrates both financial and skill growth.

To maintain tracking of such progress, a robust feedback mechanism will continuously evaluate skill practitioners — using assessments, user ratings, and internal feedback, to sustain quality and relevance in training delivery.

There will also be a strong emphasis in conducting rigorous performance evaluations of trainers. Trainer performance evaluations in the skilling ecosystem system today are fragmented and largely administrative, focusing on attendance and placement rates. They often lack depth in assessing teaching quality, learner engagement, and skill development. There's a pressing need for a balanced, consistent system integrating both quantitative and qualitative performance indicators.⁷¹

3 STRATEGIC ACTION AREA

Develop tech-enabled infrastructure for driving linkages

The creation of a robust digital infrastructure is critical for connecting skill practitioners, learners, and institutions, enabling a seamless exchange of knowledge and expertise across the ecosystem.

A key initiative will be the creation of the Skill Practitioners Digital Network, focused on creating a cohesive environment for practitioner identity, credentials, opportunities, and networking. The network will focus on scaling and refining the repository of Skill Practitioner profiles on SIDH, highlighting their credentials, user feedback, areas of expertise, and employment history. This initiative will build on the Takshashila platform to offer a comprehensive, transparent database that enables stakeholders to make informed decisions based on practitioners' qualifications and experience. The profiles will be used to develop an inter-linked practitioner community - accessible to learners, beneficiaries, institutions, and other fellow practitioners. This will enable users to connect with practitioners for on-demand training, assessments, certifications, and mentorship.

To further strengthen this ecosystem, an alumni portal for graduates of skilling institutions will be established and will be seamlessly integrated with SIDH. This portal will empower alumni to act as trainers, mentors, or PoPs, bridging industry and academia while offering mentorship, guidance, and employment connections.

In summary, the following table captures a snapshot of key initiatives recommended across each of the strategic action areas:

STRATEGIC ACTION AREAS	INITIATIVES
Development of guidelines and management framework for skills practitioners.	<ul style="list-style-type: none"> • Define and regularly update flexible, industry-aligned criteria for qualifications, experience, and expertise required to onboard diverse skill practitioners (trainers, assessors, counsellors, mentors, etc.); build structured systems for onboarding, performance management, and linked career progression. • Address trainer shortage via flexible practitioner onboarding guidelines (with necessary performance checks and incentives), leveraging digital tools for top-rated trainers to teach at scale, and onboarding Professors of Practice (PoP) from the industry. • Create flexible re-entry pathways and part-time roles to attract professionals from diverse backgrounds.

⁷¹ "Trainer Development Strategy for the Skilling Ecosystem, Future Right Skills Network", 2024, accessed in Nov 2024 ([Link](#))

STRATEGIC ACTION AREAS	INITIATIVES
Build cross-functional capacity of skill practitioners (especially trainers) for effective skills delivery.	<ul style="list-style-type: none"> Equip trainers with technical as well as soft skills e.g., digital, interpersonal, and other soft skills. Build hybrid, continuous ToT mechanisms for practitioners to improve skill delivery. Utilise master trainers for industry-aligned trainer training. Streamline practitioners' professional development pathways for career progression and remuneration in alignment with skill growth. Mandate upskilling/reskilling every 2 years.
Develop tech-enabled infrastructure for driving linkages.	<ul style="list-style-type: none"> Create a Skill Practitioners Digital Network – creating practitioners' profile, integrating their digital lifelong learning accounts highlighting credentials, feedback, expertise, and employment history. Establish an alumni portal for graduates of skilling institutions to leverage alumni as trainers, mentors, or PoPs, bridging trainer gaps and strengthening industry-academia linkages.



CHAPTER 07

THRUST 06: Strengthen Assessment Capabilities and Shift to Proficiency-Based Evaluations

- Assessments are critical to measure skilling success and validate outcomes.
- This policy focuses on four strategic action areas to strengthen assessments: a)Proficiency-based assessment framework; b)Use of technology to scale and enhance credibility; c)Strengthen assessor capacity with high industry involvement; d)Expand RPL to cover informal workforce.

Context and Need

Improving assessment methodology and capacity within the skilling ecosystem is essential to improve the quality of outcomes, build credibility for certifications, and enhance employer recognition.

However, the way forward requires mitigation of two key challenges. First, current assessment methodologies over-index on measuring theoretical understanding and recall rather than practical proficiency. Assessments that do not sufficiently measure the proficiency of candidates reduce the credibility of certifications for employers.

Second, the capacity and quality of assessors and assessment agencies need significant improvement to reach the envisioned scale of skilling and certification.

On quality, the effectiveness of assessments is directly influenced by the competency and training of assessors. Many of them lack industry experience and standardised evaluation skills, leading to inconsistencies in certification outcomes. Additionally, the lack of structured training and professional development opportunities for assessors impacts the reliability of assessments, making it crucial to invest in their continuous upskilling and standardisation.

On capacity, India also faces a shortage of assessors - as per NSDC, 1.39 lakh trainers and 35,000 assessors are available⁷² against a projected requirement of 2.5 lakh trainers and assessors,⁷³ marking a cumulative shortfall of 35%. Further, a physical shortage of well-equipped assessment centres for evaluating specific skill sets is seen, particularly in sectors like manufacturing and healthcare, where specialised equipment is essential. While capacity-building measures via assessment bodies and innovative technologies like Augmented Reality (AR) and Virtual Reality (VR) offer potential, their high costs limit widespread implementation.

Separately, the growing demand for Recognition of Prior Learning (RPL) certification of non-formally trained workers also necessitates expansion of assessment capabilities. ~15 lakh individuals were certified annually through the RPL programme as part of PMKVY II between 2016 and 2020.⁷⁴ However, as of 2024, over 25 crore individuals still need to be certified, who are skilled through non-formal channels.⁷⁵

As of 2024, 128 Awarding Bodies (ABs) and 68 Assessment Agencies⁷⁶ (AAs) have been established. Some prominent ABs in India include the National Institute of Open Schooling (NIOS) and the Central Board of Secondary Education (CBSE), which are recognised by NCVET. Agencies such as SHL (earlier 'Aspiring Minds') are prominent AAs, working across various sectors to ensure the quality of skill evaluations.

Efforts to enhance the overall effectiveness of the assessment ecosystem, such as implementing performance-linked categorisation through risk rating of ABs and AAs, have been initiated as part of an annual monitoring and evaluation initiative. These measures provide a robust foundation for addressing capacity shortages and further strengthening assessment systems, infrastructure, and quality.

⁷² National Portal for Trainers and Assessors, National Skill Development Corporation, 2024, extracted in Dec 2024. ([Link](#))

⁷³ Guidelines for Trainers and Assessors, National Skill Development Corporation, 2021, accessed in Aug 2024. ([Link](#))

⁷⁴ Impact Evaluation of Recognition of Prior Learning under PMKVY II, NSDC, accessed in Sep 2024. ([Link](#))

⁷⁵ PLFS 2023-24, Ministry of Statistics and Programme Implementation, 2024 (30.6% of the working age population is skilled through informal and non-formal channels) and Report of the Technical Group on Population Projections, accessed in Nov 2024

⁷⁶ NCVET website, extracted in Nov 2024 ([Link](#))

Strategic Roadmap

Four strategic action areas have been detailed to strengthen the assessment ecosystem. First, a shift to proficiency-based assessments via robust frameworks, technologies, and assessor training will allow for better candidate differentiation and incentivise industries to offer wage premiums for proficient candidates. Second, the credibility of the assessment system will be built through proctored assessments, industry rating systems, and dynamic feedback mechanisms to improve the reliability of certifications. Third, capacity across assessment agencies and awarding bodies will be enhanced to improve infrastructure, resources, and assessor quality. Finally, RPL for the informal workforce will be scaled via campaigns and incentives, while leveraging the expanded assessment capacity, both digitally and physically. Each of these action areas is detailed in the subsequent section.

1 STRATEGIC ACTION AREA

Develop a proficiency-based and continuous assessment framework

Establishing a proficiency-based assessment framework and methodology will improve the representation of candidates' skills and provide industry and other stakeholders with more relevant data to make recruitment decisions. The focus will be on practical tests, simulation-based assessments, interview-based exams (e.g., Viva) for real-life evaluation of proficiency over theoretical examinations.

Further, NCVET will create standards and proficiency ranges for different types of training (across sectors) — such as OJT, classroom learning, and practical training, among others. By doing so, all types of training will be consistently assessed, reflecting the actual skillsets of candidates.

Multiple methodologies will be evaluated for this approach including percentile-based scoring to rank candidates against their peers, as well as adaptive assessments where assessments adjust dynamically based on real-time performance. Additionally, conversion to grade-based scoring will be considered in line with other higher education institutions. Such grades may form a part of the skilling certifications to further provide access to potential wage premium for candidates.

2 STRATEGIC ACTION AREA

Leverage technology to scale and enhance the credibility and governance of assessments

Leveraging digital tools will be essential to scale assessments and enable consistency and accuracy, thus enhancing credibility. Accordingly, investments will be promoted in digital and AI-powered assessment tools. Sectors where digital assessments are most feasible will be prioritised.

Further, incorporating real-world simulators and interactive tools within assessments will make them more engaging and reflective of actual job scenarios. Features like time-based tasks or scenario-based challenges will help assess candidates' skills in a realistic environment and provide feedback relevant to the workplace. Initiatives will also be launched to train instructors and assessors to use these tools.

To maintain the integrity of digital assessment process, training institutions and AAs will be encouraged to adopt proctored assessments. Where applicable, AI-based proctoring tools will enable large-scale monitoring and enhance fairness and credibility. Correspondingly, efforts will be taken to raise awareness about the benefits of proctored assessments, engaging stakeholders across industries, academia, and training providers to promote adoption. Roles, courses, or skills that are most amenable to digital assessment will be prioritised, while in-person and/or hybrid assessments will continue for others by AAs and trainers. Proctoring for offline traditional assessments will also be strengthened by adoption of technology.

Necessary standards and regulatory frameworks towards the use of digital assessments and AI based proctoring will be developed in consultation with experts and industry and drawn from successful models like National Institute of Electronics & Information Technology's (NIELIT) proctored assessments.

3 STRATEGIC ACTION AREA

Expand high-quality assessment bodies and assessor capacity with significant industry involvement

The creation of new ABs and AAs will be incentivised with significant industry involvement to keep assessments relevant and aligned with market demands. In parallel, NCVET will evaluate the potential of greater regulatory flexibility and performance-based incentives to both established and new ABs and AAs. Initially, certain ABs and AAs will be granted autonomy in setting criteria and proficiency standards as well as in the way assessments are designed and conducted, enabling them to align their standards with specific industry needs while ensuring relevance. However, NCVET will conduct rigorous due diligence to ensure these bodies maintain high standards.

In addition, partnerships will be established with international ABs and AAs to integrate global standards into the skilling framework. For internationally relevant job roles, the skilling framework will map National Occupational Standards (NOS) with global benchmarks. Where additional NOS are required, learners will have the option to pursue those to become eligible for international assessments. Partnerships with organisations such as City & Guilds (UK) will help align certifications to global standards and enhance employability in both domestic and overseas markets. The selected agencies will be expected to have a track record of successfully partnering with other governments to deliver and/or certify programmes aligned with global standards, helping workers in diverse fields like healthcare, engineering, and IT, among others.

To maintain accountability and ensure consistency, an industry rating of AAs and ABs will be introduced, building upon the existing annual monitoring and evaluation process of AAs and ABs.

To further strengthen the assessment framework, continuous upskilling mechanisms for assessors will be introduced, e.g., via digital training materials. National Instructional Media Institute (NIMI) and similar government or private agencies under NCVET's guidance will develop these materials. Additionally, the skills practitioners' ecosystem will be leveraged to design and deliver these assessor-upskilling programmes.

4 STRATEGIC ACTION AREA

Expand Recognition of Prior Learning (RPL) through large-scale awareness, targeted incentives, and digital assessments

Expanding the RPL programme is essential for recognising skills that are acquired informally. This is particularly important given the large informal workforce as well as an increasing gig economy. According to e-Shram, as of September 2024, there are over 30 crore unorganised sector workers.⁷⁷ Further, NITI Aayog projects that gig economy participation will triple by 2029-30⁷⁸ with 78% of those in gig workforce are expected to be in low to medium-skill jobs (e.g., delivery agents, personal services).⁷⁹

Nationwide RPL campaigns will be strengthened by targeting informal workers directly as well as via employers emphasising the benefits of certification. These campaigns will use various media channels to reach both urban and rural populations. Collaboration with industry bodies, trade associations, and community organisations will extend outreach, while partnerships with private sector players will amplify campaign visibility. Additionally, innovative events such as "RPL Days", held every month or quarter by key ministries, State governments, industry bodies among others, will further raise awareness and increase participation.

Financial incentives will be leveraged to boost participation in the RPL programme, both for workers and employers. Assessments will be made more accessible for workers, while MSMEs will be offered outcome-based incentives to incorporate RPL in hiring and upskilling. Industry players are expected to drive these certifications for their own employees and contract workers, and those who meet set targets will be rewarded with additional financial or non-financial benefits.

⁷⁷ "eShram achieved over 30 crore registrations in the span of just 3 years", Ministry of Labour and Employment, Press Information Bureau of India, 2024, accessed in Nov 2024.

⁷⁸ India's Booming Gig and Platform Economy, Niti Aayog 2022, accessed in Nov 2024.

⁷⁹ India's Booming Gig and Platform Economy, Niti Aayog 2022, accessed in Nov 2024.

To reach underserved populations, digitally conducted RPL assessments will be scaled up for rural and remote areas - for sectors and skills that can be digitally assessed. For other sectors, RPL will be scaled up through additional measures such as implementing hybrid assessment models and expanding assessment centre capacity, as elaborated earlier.

Finally, a single-window system for RPL On-Demand will be introduced. RPL On-Demand will enable interested individuals and organisations to apply for Recognition of Prior Learning certification at any time via a digital platform such as SIDH. Applications will be continuously collected, creating a rolling pipeline. At regular intervals—such as one week each month—targeted assessments and certification processes will be conducted, ensuring timely recognition and seamless access to skilling and employment opportunities.

In summary, the following table outlines the key initiatives against each identified strategic action area:

STRATEGIC ACTION AREAS	INITIATIVES
Develop a proficiency-based and continuous assessment framework.	<ul style="list-style-type: none"> • Develop a proficiency-based assessment methodology, focused on practical learning and proficiency evaluation via appropriate examination mechanisms. • Establish standardised proficiency ranges for various training types—OJT, classroom learning, and practical training—to ensure consistent and accurate assessment of candidates' skills across sectors and types of learning avenues. • Explore innovative assessment and evaluation systems for short-term-training programmes - for e.g., via percentile-based ranking or adaptive assessments, to provide industry and stakeholders with accurate, comparable data for recruitment decisions. Conversion to grade-based scoring will also be considered in line with other higher education institutions.
Leverage digital tools to scale and enhance the credibility and governance of assessments.	<ul style="list-style-type: none"> • Promote the adoption of digital and AI-powered assessment tools to enhance scalability, consistency and accuracy; prioritise sectors where these technologies are most feasible. • Incorporate real-world simulators and interactive tools to make assessments more engaging and reflective of workplace scenarios. • Encourage the adoption of proctored assessments, leveraging AI-based tools for both online and offline evaluations to maintain fairness and credibility.



STRATEGIC ACTION AREAS	INITIATIVES
Expand high-quality assessment and assessor capacity with significant industry involvement.	<ul style="list-style-type: none">Incentivise the creation of new Awarding Bodies (AB) and Assessment Agencies (AA) with necessary regulatory flexibility (balanced with ongoing due diligence), performance-based rewards, and industry collaboration.Establish partnerships with international awarding and assessment agencies to offer certifications aligned with global standards, improve recognition, and enable mobility.Introduce industry/user ratings for AAs and ABs alongside continuous upskilling for assessors to enhance accountability and assessment consistency.
Expand Recognition of Prior Learning (RPL) through large-scale awareness, targeted incentives, and digital assessments.	<ul style="list-style-type: none">Strengthen nationwide RPL campaigns targeting informal workers and employers and hosting events like “RPL Days” to enhance participation.Use financial incentives to drive RPL participation, offering workers support for assessment costs and rewarding MSMEs and employers with outcome-based benefits.Expand RPL access for underserved populations via digital assessments for select suitable roles, implementing hybrid models and expanding assessment centres.



CHAPTER 08

THRUST 07: Strengthen Assessment Capabilities and Shift to Proficiency-Based Evaluations

- The transformation of jobs due to global trends and the rising gig economy necessitates a collaborative approach between the Government and industry to enhance skill development.
- This policy focuses on four key strategic action areas: a) Encourage and enable the industry to build world-class skilling institutes through novel PPP models; b) Increase experiential learning and access to resources through greater industry-academia partnerships and work or apprenticeship integrated degrees; c) Move towards skill-based hiring by first establishing a unified competencies framework — so there is a common, transparent way to define and recognise skills. This shifts the focus from degrees to demonstrated competencies. Over time, hiring—especially in public sector and government jobs — can be aligned to this framework using a standardised credit-based system; d) Structured mechanisms for active ongoing engagement with the industry.

Context and Need

Global trends like automation, climate change, and an ageing workforce are expected to transform 1.1 billion jobs⁸⁰ over the next decade, while over 44% of workers' skills are projected to be disrupted within the next five years.⁸¹ India's workforce will be required to constantly skill, upskill, and reskill. However, with the pace of change accelerating, it is increasingly difficult for the supply side—training systems and institutions—to keep up. Industry, which is closest to emerging demand, will always have a more current understanding of evolving skill needs. Therefore, it must play a larger and more proactive role in shaping and driving skilling efforts.

In addition, the rise in informal employment, fuelled by the gig economy, has reduced the reach of traditional corporate skilling programmes mostly run by large enterprises. According to e-Shram, as of September 2024, there are over 30 crore unorganised sector workers.⁸² NITI Aayog projects that gig economy participation will triple by 2029-30.⁸³ The report by NITI Aayog further states that only 22% of gig workers engage in high-skilled roles (e.g., cybersecurity engineer, graphic designer), while 78% are in low to medium-skill jobs (e.g., delivery agents, personal services).⁸⁴ These shifts make it imperative for the industry to play a significantly larger role in India's skilling efforts—not only to meet emerging skill demands but also to expand reach to the informal and gig workforce.

A co-ownership approach between the Government and industry is essential to bring in cutting-edge expertise, ensure market-relevant skilling, and build inclusive skilling pathways at scale. The industry will bring expertise, resources, and a view of future needs across various sectors, including Micro, Small, and Medium Enterprises (MSMEs). On the other hand, the Government will provide the necessary frameworks, resources, and incentives (for industry and for learners) and promote equitable access and widespread skilling adoption.

Several initiatives have been launched to encourage industry involvement in India's skill development and adopt a shared ownership approach. Public Private Partnerships (PPPs) and industry-led projects are enhancing infrastructure for skilling. Examples include initiatives like the Supply Chain Operations Academy (SCOA) run by Flipkart, the Livelihood Advancement Business School (LABS) by Dr Reddy's Foundation, and the Team Lease Skills University, among others. Moreover, programmes and initiatives such as the Work Integrated Degree Programme (WIDP), Apprenticeship Embedded Degree Programme, and Dual System of Training (DST) are increasingly integrating workplace learning and firsthand experience with academic theory. Efforts have also been made to provide customised, sector-specific workforce training via Flexible Memorandum of Understanding (Flexi MoU) arrangements, wherein industries collaborate directly with training providers to co-design course content, provide on-the-job training, and ensure placement-linked outcomes tailored to their operational needs.

⁸⁰ Future of Jobs, World Economic Forum 2023

⁸¹ Future of Jobs, World Economic Forum 2023

⁸² "eShram achieved over 30 crore registrations in the span of just 3 years", Ministry of Labour and Employment, Press Information Bureau of India, 2024, accessed in Nov 2024.

⁸³ India's Booming Gig and Platform Economy, Niti Aayog 2022, accessed in Nov 2024.

⁸⁴ India's Booming Gig and Platform Economy, Niti Aayog 2022, accessed in Nov 2024.

Going forward, the industry needs to increasingly take the lead in skilling/upskilling/reskilling for its own workforce on sector-specific skills. When it comes to foundational sector-agnostic employability skills and skilling entry-level young talent (particularly those in education and NEET individuals), government role remains salient and must be delivered in strong collaboration with industry to deliver stronger outcomes. Government's role will also remain salient for select areas/sectors of national priority which need rapid/ time-bound skilling at scale or select segments or geographies where private sector is not naturally incentivised to address the need (e.g., targeted programmes for women or vulnerable populations and informal workforce). With this philosophy a detailed roadmap for government and industry partnership is outlined below.

Strategic Roadmap

To encourage greater industry co-ownership in India's skilling initiatives, the roadmap outlines four strategic action areas —Build, Partner, Contribute, and Engage — that are designed to maximise both public and private sector efforts in workforce development.

Build: This will involve encouraging and enabling industries to invest in world-class skilling institutions, Greenfield or Brownfield, through contextualised PPP models and via capital or operating contributions.

Partner: Skilling will continue to happen in schools, higher education, and other independent skilling institutes. "Partnerships" will facilitate industry collaborations with educational and skilling institutions to contribute to curriculum design, programme delivery, resource sharing including co-financing key skilling programmes.

Contribute: The goal is to encourage industries to embed a skilling culture by prioritising the hiring of skilled workers, fostering lifelong learning, and ensuring continuous employee development to keep pace with technological and market shifts.

Engage: This underscores the importance of institutionalising a dynamic, responsive ecosystem where the industry and government maintain lines of communication through regular consultations and data-sharing, allowing for timely adjustments to skilling strategies that align with economic trends.

To achieve all the above, mechanisms to "incentivise" the industry to sustain and expand its involvement will need to be considered, periodically reviewed, and updated. This will take the form of financial incentives like tax breaks and subsidies, along with non-financial rewards such as public recognition.

The following illustration captures this four-pronged approach, and each of these is subsequently detailed.

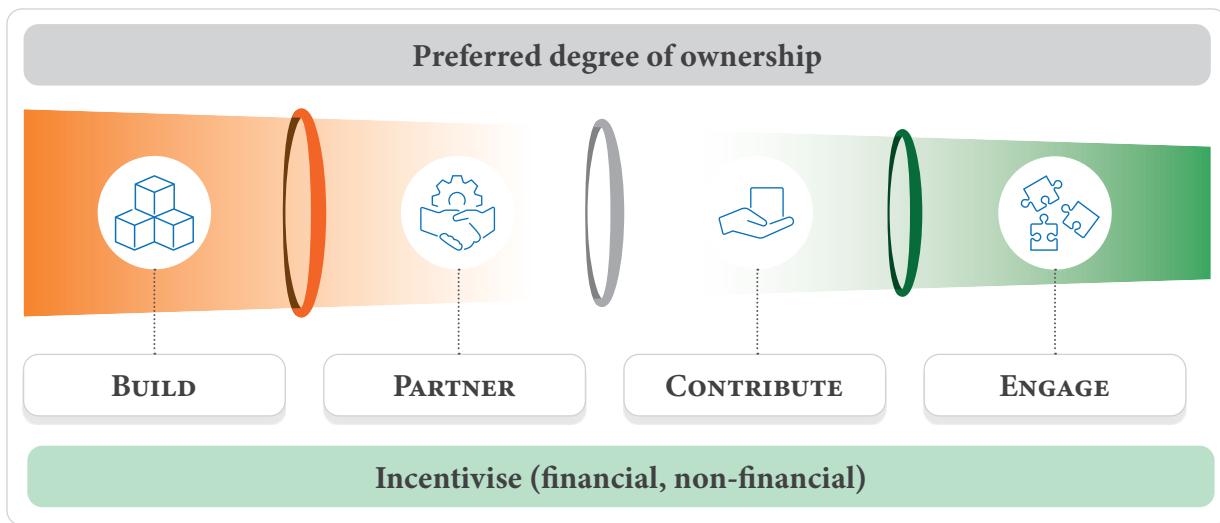


Figure 9: Framework for encouraging industry co-ownership

1 STRATEGIC ACTION AREA

Encourage and enable the industry to build, fully or partially owned, world-class skilling institutions through contextualised PPP models

A diverse range of Public Private Partnership (PPP) models will be explored to establish, revitalise, and scale high-quality skilling capacity. This includes development of Greenfield and Brownfield, industry-led skilling centres such as flagship ITIs or skilling Centres of Excellence (CoE). The Tata India Institute of Skills (IIS)⁸⁵ is one such example of an existing PPP model that follows a Build-Operate-Transfer model. To enhance industry participation, financial incentives like Corporate Social Responsibility (CSR) benefits and tax rebates, along with non-financial incentives such as public recognition, will be developed in collaboration with the Ministry of Finance and Ministry of Corporate Affairs. Programmes like the new ITI upgradation scheme announced as part of the Union Budget 2024–25, which rely on contributions from private stakeholders as well as Central and State governments, serve as a model where such incentive frameworks can be effectively applied and further refined.

These efforts will be particularly focused on industrial clusters such as special economic zones and export promotion zones. Co-location will automatically incentivise local industry engagement and enable infrastructure sharing, including residential facilities. Further, customised PPP models will be explored for remote or underserved areas where building new infrastructure and high investment from industry will not be feasible.

To encourage and recognise industry action, accreditation of industry-led skilling institutions will be taken up. Institutions that demonstrate scale (e.g., number of trainees), quality (e.g., employability of trainees/graduates and placement rates), and inclusion (e.g., enrolment of marginalised groups) will be accredited while select high-quality institutions will be further recognised as Centres of Excellence (CoEs). These accredited providers will become preferred partners for implementing key government skilling and entrepreneurship programmes. They will also be allowed the flexibility to partner with smaller skilling providers to expand reach and distribution while being held accountable for outcomes across their full network via outcome-linked payment structures. Such outcome-linked payment instruments will onboard industry partners as risk investors i.e., entities that provide upfront capital for training initiatives and are repaid only when predefined outcomes, such as successful course completions or job placements, are achieved. (detailed in Enabler 3: Augment Innovative and Sustainable Outcome-led Financing).

2 STRATEGIC ACTION AREA

Facilitate widespread industry-academia (skilling institution) partnership to enable practical training, access to resources, and placement opportunities

Partnerships and collaboration between industry and academia will take various forms. These will include work-integrated degree/diploma programmes, apprenticeships and internships or specific contributions from industry towards curricula, resources, and eventual placement of students.

a. Work-integrated degree/diploma programmes

Several such programmes are currently at various stages of implementation. For example, the Work Integrated Degree Programme (WIDP) integrates academic study with 1.5 to 2 years of structured, on-the-job training (candidates alternate between rigorous coursework at universities and industry-based learning) within the framework of a three-year degree programme. Similarly, the Apprenticeship Embedded Degree Programme combines classroom instruction with substantial apprenticeship experience. The Dual Skills Training (DST) has been implemented in ITIs, blending theoretical instruction with practical, industry-based training tailored to specific trades. Moving forward, it is imperative to enhance awareness of these models, scale their implementation, and strengthen their effectiveness and outcomes.

⁸⁵ The Indian Institute of Skills (IIS) is a public-private partnership (PPP) initiative aimed at enhancing advanced skill development and innovation across key sectors. Located in cities like Mumbai, Kanpur, and Ahmedabad, IIS collaborates with industry leaders to provide hands-on training, bridging the gap between education and employability for a skilled workforce.

b. Apprenticeships and Internships

India's apprenticeship ecosystem has seen considerable progress in recent years. Expansion of trades covered under the apprenticeship scheme, from a set of limited, Designated Trades (largely within manufacturing) to Optional Trades (i.e., trades freely determined by the employer for apprenticeship) opened the doors for participation from a broad array of industries. It led to a five-fold increase in apprenticeships over the past 5 years – from ~2 lakh apprentices in 2018-19 to ~9.3 lakh apprentices in 2023-24.⁸⁶ However, the need to bring MSMEs into the fold of providing apprenticeships remains critical given their substantial role in India's economy, offering opportunities across a diverse range of trades and regions. Targeted incentives will be designed to encourage participation from MSMEs and emerging sectors in apprenticeship and skilling programmes, including CSR offsets or co-funding for stipends. Additionally, differentiated incentives will be offered to encourage hiring from underrepresented regions and demographics such as LWE, NER, tribal areas, women, PwDs, and other marginalised groups.

Internships are another valuable pathway for real-world exposure and their widespread adoption across top enterprises will be encouraged. A collaborative effort across Central ministries, State governments, and the private sector will assist in promoting these internships, as also highlighted in the 2024 budget under the Pradhan Mantri Internship Scheme.

It is also increasingly important to ensure a safe and high-quality work environment for candidates while working in industry. Administrative processes will be set up, including processes to duly vet all firms onboarded for such programmes, streamline payment mechanisms, and monitor workplace norms. Further, comprehensive audits on the State of execution of such practical training programmes will be conducted to verify the safety and quality of training imparted.

c. Industry contributions to curricula, resources, and placement

There is a need to consistently refine the course mix and curricula with industry partners to align training with current market needs. Both industry and academia will be encouraged to engage in such partnerships. Large industries will be encouraged to contribute to training programmes not only for their direct workforce but also for forward and backward-linked stakeholders, such as suppliers and distributors.

Further, industry will be encouraged to build and publish industry-relevant courses on digital platforms such as SIDH, which can serve as a central hub for digital courses and service offerings. In turn, SIDH can provide the industry with value-added services like AI-enabled assessment tools, verification systems, and recruitment support. For example, generative AI can make the assessment of candidates faster and more accurate and enable access to verified candidates for recruitment, thus reducing the cost of discovery for the industry.

Beyond courses and curricula, engaging industry professionals as trainers and mentors within skilling institutions is critical. The Skills Practitioners Ecosystem (Thrust 5) will serve as a structured mechanism to encourage the creation and delivery of content by industry practitioners. Industry experts, as part of a network of trainers, assessors, and counsellors, will further strengthen the institutional delivery mechanism. Additionally, regulatory bodies (e.g., NCVET, UGC) and Central skilling institutions like NSTIs, will be encouraged to create mechanisms to officially recognise these trainers and offer certifications that qualify them as credible industry trainers.

Resource-sharing between skilling institutions/academia and industry is another essential component. Partnerships for access to machinery, shop floors, and labs will be encouraged. Public recognition will be given to companies that participate in such agreements.

Finally, industry partnerships are critical for placements. Structured placement models such as Recruit-Train-Deploy (RTD)⁸⁷ will be encouraged to drive skill-led recruitment. State development missions will be encouraged to onboard RTD partners through MoUs to scale these efforts further. Skilling institutions will be given the necessary flexibility to customise training programmes based on specific requirements sought from industries and establish viable industry partnership models at scale.

⁸⁶ Apprenticeship India, Government Portal on Apprenticeship, extracted in Nov 2024.

⁸⁷ RTD model is an industry-driven approach wherein they identify specific manpower needs and collaborate with training partners to recruit suitable candidates. These candidates undergo customised training tailored to the specific job roles and skill requirements of the industry, ensuring they are job-ready and can be seamlessly deployed upon completion.

Case Study: Meister Schools of South Korea.⁸⁸

Meister Schools in South Korea are specialised vocational secondary schools designed to meet industry needs directly. They collaborate with leading companies like Samsung and Hyundai to develop industry-aligned curricula, provide practical training, and certify students in areas such as IT and professional skills. This unique model ensures graduates are job-ready, bridging the gap between education and employment.

Industry partnerships drive the success of Meister Schools, with each school linked to at least eight firms. Companies co-design courses, supply equipment, and train students, resulting in placement rates soaring from 10% to over 90%. These partnerships create a steady pipeline of skilled talent tailored to market demands, highlighting the utility of such deep collaboration.

India can leverage this model to transform vocational education by fostering industry-linked schools tailored to regional needs. This approach will enhance employability, boost placement rates, and establish vocational training as a key driver of workforce development and economic growth.

3 STRATEGIC ACTION AREA

Implement skill-based recruiting and strengthen industries' contribution towards certifying the workforce and driving LLL

Today, promoting skill-based recruitment practices across industries is essential to elevate the overall value of skilling. The Government has already made considerable progress in mapping NCO roles and NSQF levels. Industries will be encouraged to reference specific skills and NSQF levels as well as recognise NCrF-aligned qualifications when recruiting new hires as against only mentioning education certificate/degree/diploma-based eligibility requirements. A precedent will be set by integrating this practice in the recruitment rules for public sector jobs. This approach will focus on skill competencies in the recruitment process to improve hiring standards and, over time, enable a wage premium for those with requisite skill sets.

In addition, there is a need for credible and widely recognised skill certifications, especially for non-formally skilled informal workers and industry needs to play a role towards it. RPL offers a valuable pathway for such workers to gain formal recognition as was discussed in Strategic Action Area 4 within Thrust 6. Assessment modes will be expanded to include physical, online and hybrid approaches. Further, industries will support certification by continuing to set up RPL camps to certify their own workforce as well as their suppliers/distributors based on existing skills. Select industry-led skilling institutions will be recognised as accredited assessment agencies / awarding bodies. Once formally accredited, these entities will be encouraged to certify their own trainees as well as the larger workforce in the sector in alignment with NSQF and NCrF, and necessary financial incentives will be provided, while institutionalising appropriate auditing and monitoring mechanisms.

IBM's Transition to Skills-Based Hiring in the United States of America (USA)

Skills-based hiring shifts the focus from traditional educational qualifications to what candidates can actually do—evaluating competencies over credentials. IBM adopted this approach to address a widening skills gap in the technology sector, where according to their website ~1.2 million software roles remain unfilled in the U.S. alone. Recognising that many capable individuals lack formal degrees but possess relevant skills, IBM eliminated four-year degree requirements for over 50% of its U.S. job postings.

The transition began with rewriting job descriptions to highlight specific skills needed for roles like cybersecurity analyst, cloud developer, and data engineer. IBM uses a combination of digital credentials, skills assessments, and performance simulations to evaluate candidates. Many applicants come through IBM's own learning platforms, such as Skills Build, which are accessible to underserved communities. Compensation is benchmarked to the demands of the role and skill level, not academic background. This shift has significantly broadened IBM's talent pipeline, improved diversity, and strengthened community engagement. It also helps IBM remain agile and future-ready in a fast-evolving digital economy.

⁸⁸ Meister High School System in Korea, Ministry of Education, KRIVET (Korea Research Institute for Vocational Education and Training), 2022, ([Link](#))

Finally, there is a need to establish the importance of LLL for mid-career professionals. As highlighted earlier, while the Government will prioritise select sectors or individuals that are economically disadvantaged or marginalised, in other sectors, it is primarily the responsibility of industries and employees to pursue ongoing upskilling and reskilling to remain competitive. Industries and corporations are expected to manage their own workforce development, including upskilling contract workers and supporting the broader sector. Companies that make significant contributions to LLL efforts, particularly those extending beyond their own workforce, will be recognised for their commitment to sector-wide skilling.

Singapore's Queen Bee initiative orchestrating skilling collaboration amongst large companies and MSMEs

The SME Training Consortium in South Korea⁸⁹ and SkillsFuture QueenBee⁹⁰ in Singapore both leverage large industries to support smaller businesses within their value chain, driving skills development and operational efficiency. In South Korea, the SME Training Consortium organises 30–50 SMEs within the same sector to share resources, hire trainers, and collectively upskill their workforce. Large industries provide trainers, financial support, and expertise to modernise skills, resulting in 81% productivity improvement, a 72% reduction in defective products, and 5x greater SME participation. This collaborative approach reduces the resource burden on smaller firms while enhancing industry-wide performance.

Similarly, Singapore's SkillsFuture Queen Bee programme sees companies like Bosch, Microsoft, and Prudential mentoring SMEs on digital transformation and capability enhancement. These anchor firms develop customised training solutions, provide technological support, and share expertise to help SMEs grow. For instance, Bosch Rexroth enabled Anda Hydraulics to achieve 50% space reduction and 80% energy savings while improving operational efficiency.

Both programmes highlight a nuanced model where large industries act as enablers, bridging skill gaps and strengthening smaller businesses. By offering mentorship, technology, and resources, these initiatives ensure that SMEs, often limited by capacity, gain access to advanced tools and training, creating a resilient and competitive value chain ecosystem.

4 STRATEGIC ACTION AREA

Engage actively with the industry for the provision of services, real-time feedback, consultations, and data collection

To ensure skilling programmes remain relevant to industry demands, multiple feedback channels will be established to obtain periodic industry input. A digital feedback mechanism on the SIDH platform will allow industries to continuously provide insights on courses, content, programme design, and trainee performance. The necessary technical infrastructure will be strengthened to ensure that the interface is accessible, user-friendly, and effective for industry partners.

In addition to digital feedback, physical advisory forums will be established to facilitate direct engagement between industry leaders and the Government. These forums will include representatives from SSCs, relevant ministries such as MoMSME, MCA, and other key stakeholders. Periodic meetings (e.g., convened annually or half-yearly) will allow the synthesis of industry feedback, analysis of trends, and incorporation of insights into programme design and interventions. This structured, in-person consultation will support regular updates to Qualification Packs (QPs), National Occupational Standards (NOS), and National Skills Qualifications Framework (NSQF), and corresponding curriculum. To support ongoing analysis, skill-oriented metrics will be integrated into national surveys/census of the Ministry of Statistics and Programme Implementation (MoSPI), Ministry of Labour and Employment (MoLE), and other relevant surveys. Additionally, the National Skill Research Network (NSRN) (detailed in Enabler 5, Strengthening Monitoring, Evaluation and Learning) will be leveraged to design specialised skill-oriented surveys. Over time, these metrics will be expanded across surveys conducted by the MoSPI, establishing a robust, data-driven foundation for decision-making.

⁸⁹ Skills Training by Small and Medium-Sized Enterprises: Innovative Cases and the Consortium Approach in the Republic of Korea, Asian Development Bank, 2016, ([Link](#))

⁹⁰ SkillsFuture QueenBEE Singapore, ([Link](#))

Successful execution of all the above four Strategic Action Areas requires the industry to engage actively with the skilling ecosystem. A Corporate Patronage Programme will be established to provide structured recognition to companies that make significant efforts and investments, e.g., adopting an ITI, providing resources such as trainers and resource labs, or exceeding apprenticeship quotas. Tiers of recognition (such as Platinum, Gold, and Silver) will be defined based on the extent of engagement.

Beyond these targeted incentives, a strategy where the companies' government benefits are linked with their contributions to workforce development will be considered such that investments in skilling link more directly and deeply with their wider business objectives, for e.g., linking skilling targets to key schemes such as the PLI and Employment-Linked Incentive (ELI). This approach serves as a check-and-balance mechanism, making skills a core component of companies' operational and growth strategies and promoting a shared responsibility for skilling. Collaboration with relevant ministries will be needed to incorporate skill-oriented metrics into these benefit schemes.

Incentives around the World⁹¹

Countries implement diverse approaches to encourage workforce development and skilling through rebates, levies, and incentives:

1. Rebates: Countries like South Korea offer significant rebates on training expenses to encourage employers to invest in employee development. For example, rebates can be as high as 270% for SMEs that invest in workforce skilling programmes.⁹² Such policies make upskilling financially attractive, allowing companies to reclaim training expenditures while building a competitive workforce. Similarly, South Africa allows employers to reclaim up to 70% of training expenses through rebates from their levies.

2. Levies: Training levies are mandatory contributions employers pay to a fund dedicated to skill development. For instance, Singapore mandates a 0.25% to 0.5% payroll levy for workforce training programmes. This collected fund supports initiatives⁹³ like the SkillsFuture Singapore framework, promoting continuous education and skill mastery. Another example of a mandatory skills levy is South Africa's Skills Development Levy (SDL).⁹⁴ Employers with an annual payroll exceeding R500,000 are required to contribute 1% of their total payroll monthly to the levy. These levies ensure sustainable financing for national skilling programmes and workforce development.

3. Incentives: Wage subsidies and hiring bonuses are used to promote apprenticeships and workforce skilling in countries like Australia and the United Kingdom. For example, Australia provides financial support for apprenticeships, including a 50% wage subsidy for employers and additional incentives for hiring apprentices.⁹⁵ Meanwhile, the UK incentivises hiring and retaining apprentices through cash bonuses of up to GBP 2,000, supporting skills development in critical industries.⁹⁶



⁹¹ Financial Incentives for Steering Education and Training, OECD Report, 2017 ([Link](#))

⁹² Training Levy in South Korea, International Labour Organisation, 2017

⁹³ Central Provident Fund Board, Singapore, ([Link](#))

⁹⁴ Basic Guide to Skill Development Levy, Department of Employment and Labour, Republic of South Africa, ([Link](#))

⁹⁵ Treasury Guidelines, Australian Government, ([Link](#))

⁹⁶ Department for Education, UK Government, ([Link](#))

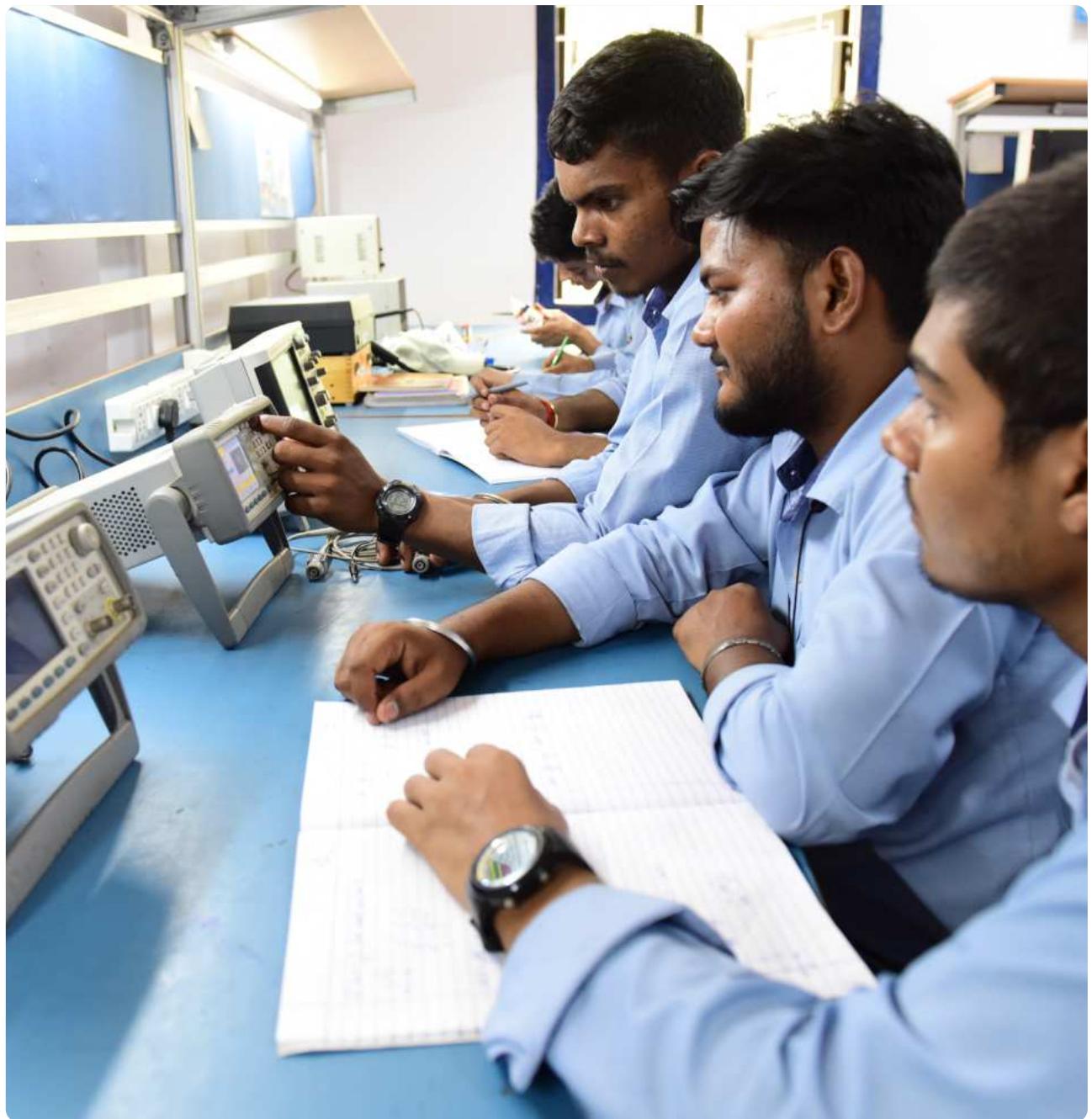
The following table summarises key initiatives recommended across each of the strategic action areas:

STRATEGIC ACTION AREAS	INITIATIVES
Encourage and enable industry to build, fully or partially owned, world-class skilling institutions through contextualised PPP models.	<ul style="list-style-type: none"> • Establish a range of PPP models to enable the set-up of Greenfield industry-led skilling institutes and Brownfield revitalisation of existing institutes (e.g., ITIs). • Co-locate skilling institutions in industry clusters such as SEZs to incentivise local industry engagement and enable infrastructure sharing, including residential facilities. • Accredit industry-led skilling institutions based on scale, quality and inclusivity outcomes. Recognise high-quality accredited institutions as Skilling CoEs and consider them as preferred partners for implementing key government programmes.
Facilitate widespread industry-academia (Skilling institution) partnership to enable practical training, access to resources, and placement opportunities.	<ul style="list-style-type: none"> • Scale work-integrated learning programmes (e.g., WIDP, Degree Apprenticeships, DST, and other new models) to enable relevant, hands-on skilling and 'earn-while-you-learn' approaches. • Enhance uptake of apprenticeship and internships in industry through targeted financial incentives (e.g., CSR offsets and co-funding for stipends, especially for MSMEs) and outcome-linked models (e.g., additional incentives basis permanent placement and retention post apprenticeship). Establish mechanisms to ensure a safe and high-quality working environment for all learners during apprenticeships and internships. • Make industry-led courses digitally available at scale (e.g., on SIDH); support industry with value-added services (e.g., recruitment support, verified candidate credentials, etc.) which incentivise their content/course contributions. • Formally certify industry experts as trainers, counsellors, mentors, assessors, etc., basis guidelines of Skills Practitioners Network (detailed in relevant thrust 6); ensure flexible guidelines for onboarding, performance evaluation, and exit of part-time workers, retired workers, etc. • Promote structured models like the Recruit-Train-Deploy (RTD) model and encourage states/ institutions to onboard partners via MoUs and customise programmes, as required.
Implement skill-based recruiting and strengthen industries' contribution towards certifying workforce and driving lifelong learning.	<ul style="list-style-type: none"> • Implement skill-based recruitment by requiring alignment of all job roles (as per NCO) with NSQF levels and specifying them during recruitment; set a precedent by incorporating the process for public sector hiring. • Recognise select industry-led institutions/centres as AAs/ABs who then certify own trainees/employees as well as support certification of employees through RPL camps, for their sector (formal and informal), with necessary incentives provided.

STRATEGIC ACTION AREAS	INITIATIVES
Engage actively with the industry for the provision of services, real-time feedback, consultations, and data collection.	<ul style="list-style-type: none"> • Leverage SIDH to receive digital feedback and real-time data from industry on courses, curricula and emerging skill needs. • Establish physical advisory forums to facilitate direct engagement between industry, SSCs, industry associations, and relevant ministries to inform the skilling ecosystem. • Integrate skill-oriented metrics into national surveys/census of MoSPI; NSRN (described in Enabler 5), to develop specialised skill-oriented surveys.

To encourage industry participation across all the above:

- Establish a corporate patronage programme to provide structured recognition through tiered levels (e.g., gold / silver / bronze) based on a company's extent of engagement and investment in skilling initiatives.
- Consider linking companies' government benefits e.g., Production Linked Incentive (PLI) and Employment-Linked Incentive (ELI), etc., to their overall contribution to the skilling agenda.



CHAPTER 09

THRUST 08: Skill for Women-led Development

- A gender-inclusive skilling ecosystem is critical to address mobility barriers, unpaid care work, financial autonomy and entrepreneurship to boost women's workforce participation.
- This policy focuses on five strategic action areas: a)Raising aspirations through a women-led grassroots movement; b)Developing solutions to enhance women's mobility and accessibility of skilling programmes; c)Building a gender intentional culture within skilling ecosystem; d)Providing tailored placement and post placement support; e)Developing mechanisms for women-led entrepreneurship

Context and Need

Skilling and education are vital pathways to economic empowerment for women, yet social norms and disproportionate family responsibilities continue to restrict their mobility and agency. India's Female Labour Force Participation Rate (FLFPR) stands at 41.7%, ranking 129 out of 146 globally,⁹⁷ reflecting significant disparities across education, age, geography, and income. It is becoming increasingly evident that expanding women's workforce participation is essential for gender equity and India's economic growth. The ILO highlights that greater female participation strengthens productivity, resilience, and social outcomes, positively impacting family income and community well-being.⁹⁸

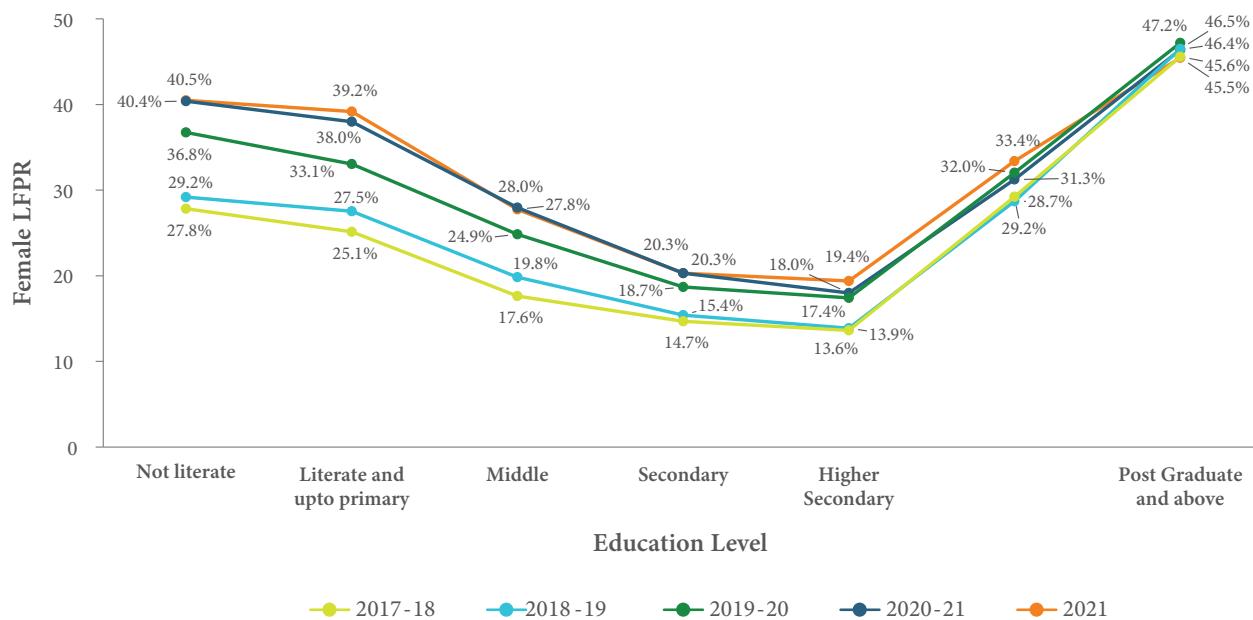


Figure 10: FLFPR by Education Levels in India (2021-22)⁹⁹

Educational attainment emerges as a pivotal factor. It shows a higher level of FLFPR amongst illiterate and college educated women as compared to women who have only studied till secondary and higher secondary (10+2) level. When the education is low, the high participation rate is explained by the need to have an income source.

⁹⁷ Periodic Labour Force Survey (PLFS) Annual Report for July 2023 – June 2024

⁹⁸ Women at Work in G20 countries: Progress and policy action in 2022 - ([Link](#))

⁹⁹ Female Labour Utilisation in India Report 2023, Ministry of Labour Employment, Government of India

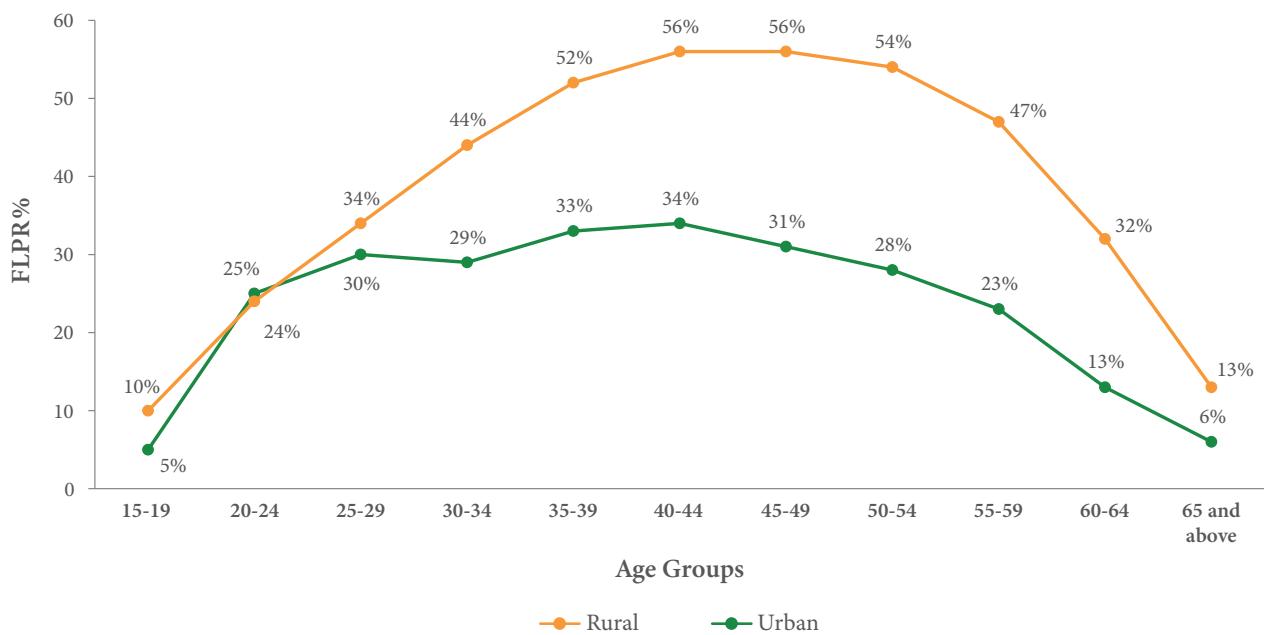


Figure 11: FLPF by Age Group in India (2021-22)¹⁰⁰

Further, FLPF variation by age reveals that urban and rural participation starts diverging significantly in the 20-30 age bracket, with participation for both declining further in the 40-50 age group. This suggests critical barriers for younger urban women, likely linked to challenges in balancing domestic responsibilities with personal and professional aspirations. To address this, targeted interventions are required to create enabling ecosystems that support their dual roles

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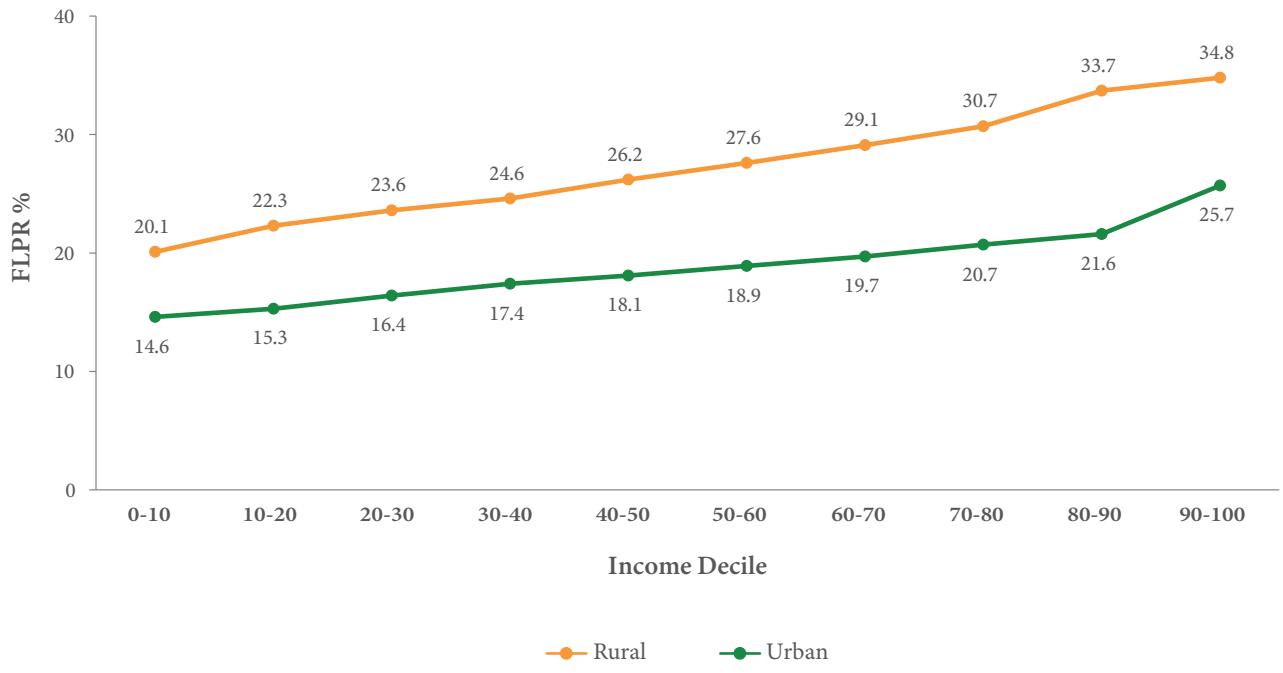


Figure 12: FLPF by Income Decile Classes in India (2021-22)¹⁰¹

Trends by income levels further nuance this story, with higher income deciles showing greater FLPF. However, workforce participation among urban women, even in higher-income brackets, are relatively lower than their rural counterparts. These disparities persist at the highest leadership levels as well, with a significantly lesser number of women CEOs (as compared to men) in Indian organisations.

¹⁰⁰ Policy Brief No. 2023-17, ADB Institute, 2023.

¹⁰¹ Policy Brief No. 2023-17, ADB Institute, 2023.

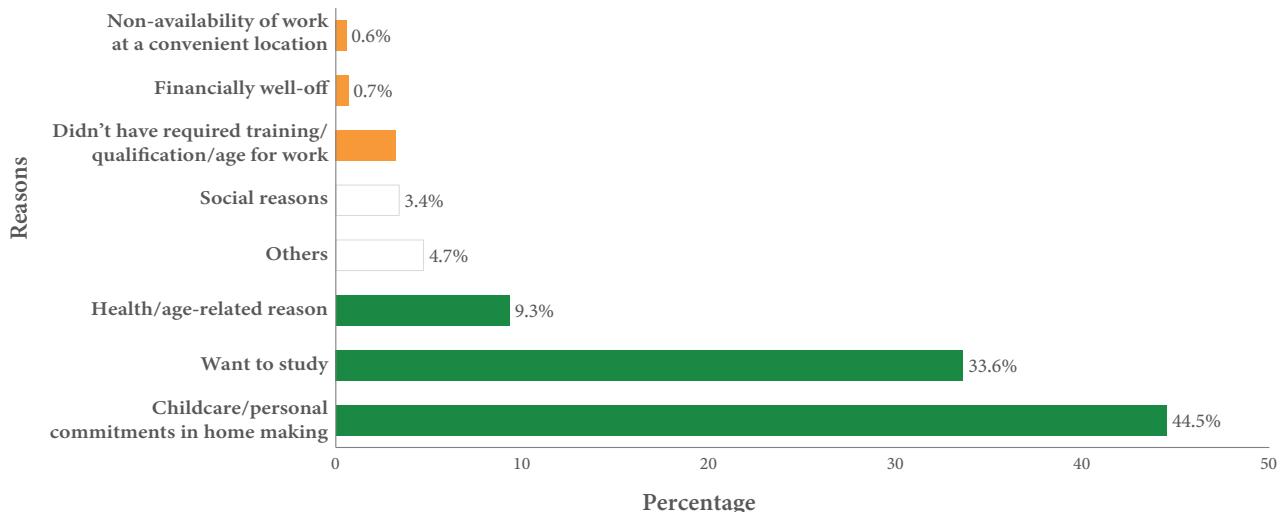


Figure 13: Reasons for non-participation of women in labour force

MoLE's Female Labour Utilisation Report (2023) reveals that 44.5% (Figure 13) of Indian women cite childcare and household commitments as the primary reason for not entering the workforce highlighting the overwhelming burden of unpaid care work placed on women. These barriers are further reinforced by limited financial autonomy and a lack of awareness about available career options, training programmes, and supportive benefit scheme.

Several initiatives have been implemented to enhance women's workforce participation and skilling, addressing critical barriers. The Skill Impact Bond prioritises accessibility for women, while the Jan Shikshan Sansthan (JSS) Scheme focuses on grassroots-level skilling for underserved communities. Supporting infrastructure, such as the Working Hostels Scheme, One Stop Centres, and Mahila Shakti Kendras, have further been pivotal in facilitating women's engagement in skilling programmes.

Further, self-employment for women, especially in rural areas, is also a meaningful pathway for economic growth. Women-owned MSMEs constitute 20% of India's 6.3 crore MSMEs.¹⁰² Estimates suggest that boosting women's entrepreneurship could potentially lead to the creation of over three crore women-owned enterprises, generating 1.5 to 1.7 crore new jobs.¹⁰³ Women must be equipped with market-relevant skills to access formal employment or entrepreneurial ventures, fostering independence and resilience. This policy outlines strategic action areas to build on these achievements and create a more inclusive skilling and entrepreneurship ecosystem.

Strategic Roadmap

Five strategic action areas have been outlined to enhance women's participation in skilling, employment, self-employment, and entrepreneurial opportunities across India. The first one focuses on creating a grassroot, women-led movement to raise aspirations for skilling and employment, leveraging community role models. The second strategic action area targets making skilling programmes more accessible, especially for women balancing family responsibilities or living in remote regions. The third area involves building a gender-intentional culture within the skilling ecosystem, implementing gender-sensitivity training and gender-neutral language in job roles, and creating a network of female trainers to foster a welcoming and supportive learning environment. The fourth and fifth strategic action areas aim to provide tailored placement and post-placement support – both for employment and self-employment. Each of these areas are detailed below.

¹⁰² Decoding government support to women entrepreneurs in India, Niti Aayog, 2022, accessed in Oct 2024.
¹⁰³ Ibid.

1 STRATEGIC ACTION AREA

Orchestrate a women-led grassroots movement to raise aspirations for skilling, employment, and self-employment opportunities

This begins with identifying community-based role models, such as “Skill Sakhis” in Maharashtra,¹⁰⁴ Bima Sakhi, Bank Sakhi, Krishi Sakhi, Pashu Sakhi, Drone Didi, Lakhpatti Didi”¹⁰⁵ or those who have succeeded post skill training programmes, to act as ambassadors to promote skilling opportunities within their communities. Further, these ambassadors, such as “Lakhpatti Didi”, will be trained under reskilling/upskilling programmes. Additionally, Community-Based Organisations, Non-Profit Organisations, Gram Panchayats, and Block Development Offices will be leveraged to provide targeted counselling for families and create an environment that encourages women to pursue skilling programmes.

Broader, pan-India public campaigns will be launched to continue generating awareness regarding the economic benefits of skilling women and challenging gender stereotypes. These campaigns will provide greater exposure to skilling and entrepreneurship opportunities for women and encourage them to undertake training in non-traditional jobs. Mass-media campaigns on the lines of “Beti Bachao, Beti Padhao” will be launched and driven in mission mode to drive change and address this critical challenge.

Cross-ministerial collaboration, especially with Ministry of Women and Child Development (MoWCD)¹⁰⁶, will be essential for this effort. In addition, district, block and cluster officers from State Government departments will need to be onboarded, trained, and assigned to facilitate outreach and information dissemination, ensuring that women across rural and urban settings are informed of available opportunities.

2 STRATEGIC ACTION AREA

Develop solutions to enhance mobility and accessibility of skilling programmes for women

Expanding access to skilling opportunities for women in India requires an approach that addresses logistical, financial, and social barriers. One primary challenge is to improve physical access to skilling centres, particularly for women in underserved and remote regions. Mobile training units, such as “Skill Vans”, will be deployed to bring training to hard-to-reach areas, including the North-Eastern Region (NER) and Left-Wing Extremism (LWE) regions. One such example is the 'Skill Rath', a mobile skilling van initiative by the HCL Foundation, which functions as a mini-ITI, showcasing modern and emerging skills such as the Internet of Things (IoT), drone technology, robotics, and 3D printing.¹⁰⁷

Skilling centres will be encouraged to achieve at least 30% enrolment of women. Specific quotas will be explored for female enrolment especially in non-traditional livelihood jobs with necessary tracking mechanisms and incentives. Further, provisions will be put in place to utilise the reserved seats in case of vacancies. Further, expanding the capacity of women-only skilling centres will also be considered.

To address logistical barriers, residential hostels will be expanded. They may be run using operating expense led models whereby the Government can lease existing infrastructure (e.g., hostels and skilling centres) rather than invest in capital. Additionally, existing initiatives like MoWCD's Sakhi Niwas hostels for working women will be leveraged to provide the facilities at subsidised rates. Transport allowances specifically for women already exist. The Common Cost Norms(CCN) for these allowances will be reviewed and revised to enhance accessibility and utilisation.

In addition to physical access, it is important to bring flexibility in learning formats to accommodate women's schedules and responsibilities. Many women balance household duties, caregiving, and, in some cases, part-time work, making traditional learning schedules challenging.

¹⁰⁴ The Case of Skill Sakhis in Maharashtra, UNDP, 2018, accessed in Nov 2024.

¹⁰⁵ Launch of Bima Sakhi Yojana, Prime Minister's Office, December 2024

¹⁰⁶ Ministry of Women and Child Development

¹⁰⁷ Skill Rath, HCL Foundation, accessed in Oct 2024

Skilling institutions will, therefore, offer flexibility across diverse learning formats, such as afternoon classes, phygital (physical and digital) delivery options, and self-paced digital courses. Aligned with the National Credit Framework, the skilling ecosystem will also introduce modular and credit-based systems allowing women to complete certifications in stages (based on a Multiple Entry and Multiple Exit (ME-ME) structure).

Creating a supportive and women-friendly infrastructure within skilled institutions is another key focus. Skilling centres will be equipped with amenities like crèches (directly or as a tie-up), female security personnel, improved lighting, CCTV surveillance, separate washrooms for women, and distress helplines. Infrastructure upgrades will include both enhancing existing facilities and building new ones where needed, ensuring that all institutions meet basic safety and comfort standards. Existing schemes, programmes and grants will create provisions for such upgrades.

Lastly, financial support is critical, especially for women from low-income households. Various financial products tailored to women will be introduced, including subsidised skill vouchers, scholarships, stipends, and skill-linked credit (e.g., a subsidised loan against production of a skilling certificate), which will help cover education, transportation, creches, and accommodation costs. These financial incentives are particularly important for encouraging women to enter high-demand, non-traditional jobs where skill development can lead to high-paying jobs. Post-placement financial support will be offered in addition to women as they transition to employment to enable financial stability as they begin their careers (this is also currently provided under Common Cost Norms and allocations may be revisited from time to time). Finally, the private sector will be encouraged to create innovative financing options tailored to women's needs.

3 STRATEGIC ACTION AREA

Build a gender-intentional culture within the skilling ecosystem

Creating a gender-intentional culture within the skilling ecosystem is essential to support diverse career paths and encourage greater female participation. This initiative requires a comprehensive approach, beginning with gender-sensitivity training for all stakeholders, including trainers, students, and employees. MSDE will implement frequent gender-sensitivity and Prevention of Sexual Harassment (POSH) workshops across skilling institutions for faculty, administrative staff, as well as learners to promote respectful, inclusive environments that support all participants.

Another critical element is the language used in skilling curricula, where job roles will adopt gender-neutral terms to challenge stereotypes and make roles more inviting for women. For example, "Salesman" will become "Sales Associate." This shift will help dismantle traditional gender associations and open non-traditional livelihoods to women who might otherwise feel excluded from these paths.

Additionally, the curriculum will include tailored courses designed to meet women's specific needs and empower them in the workforce. These courses will cover areas like self-confidence and self-defence, along with universally applicable skills such as financial literacy, employability, and soft skills. By building resilience and practical skills, these courses will equip women to navigate workplace challenges with confidence.

For example, the “Women Can Do It” (WCDI) Programme in Norway empowered women to engage more in the public sphere by addressing gaps in public speaking, negotiation, and media engagement, leading to greater women's participation in societal leadership. Its success led to its replication in over 23 countries, particularly in the Western Balkans, where it empowered women to take on decision-making roles in public and political life.

To strengthen this initiative, a dedicated pool of female trainers (building on Thrust 5: Strengthen Trainer Capacity and Enhance Skills Practitioner Ecosystem) will be established, with a preference for recruiting master trainers from within local communities. This community-based approach, modelled on programmes like Kerala's Kudumbashree—a women's self-help network that prioritises female trainers in trades such as food processing, tailoring, and digital literacy—creates relatable role models who can effectively guide and inspire women trainees.

Additionally, differentiated stipends for female trainers will help attract more women to these roles, enhancing representation in the skilling ecosystem.

To ensure interventions achieve desired outcomes, gender-disaggregated data will be regularly collected across the skilling ecosystem to monitor metrics such as women's placement and retention rates, dropout rates, and distribution across age, region, and trade. This data will help identify trends and guide targeted interventions. Additionally, gender-specific skilling parameters will be included in periodic surveys and evaluations, such as the "State of Skilled Women in India" report, to assess progress and inform policy. A dedicated gender budget for skilling will also be established, integrating gender considerations at every budgeting stage. While the Union Budget has included a gender budget since 2005-06, and MSDE already segregates budget allocations for NSTIs, the new gender budget will expand this approach, allocating specific resources to promote gender related interventions within each skilling scheme.

4 STRATEGIC ACTION AREA

Provide tailored placement and post-placement support to help women enter (or re-enter) mainstream employment and self-employment

Women Development Cells (WDCs) will be established within key skilling and educational institutions – either as separate cells or as an integral part of an existing functioning unit (e.g., a placement cell). These cells will offer career counselling, connect women with alumni networks, provide mentorship from established female role models and overall, create a supportive environment for women's career outcomes and tracking them with specific targets. Similar services will also be offered through community-based centres established by various other ministries e.g., One Stop Centres by MoWCD.

To build further support, regional peer mentorship groups will be established, allowing women to connect and support each other in adjusting to new professional settings, accessing resources, and seizing opportunities. These groups will be facilitated via digital forums to reach a broader network, providing a sustained community that helps women navigate challenges together. A successful model of this approach is seen in the Google Internet Saathi programme, where women in rural areas received digital training and subsequently supported each other in using technology for self-employment and information access.

A targeted Skilling and Livelihood Package will be envisioned for women re-entering the workforce. It will provide support to ensure successful reintegration, including comprehensive skill training, entrepreneurship guidance, career counselling, creche support if required, placement/post-placement assistance, among others. This may be enabled through a targeted Skill Voucher Scheme. Employers will receive incentives to actively recruit and retain women, thus creating sustainable opportunities. To drive uptake of the targeted offering, offline channels as well as SIDH will be leveraged for information dissemination and access to training resources, opportunities, networks, and financial resources.

Further, the SIDH platform will be made more accessible and tailored to women's needs. Women-specific filters will be introduced, allowing job seekers to search for roles based on criteria like proximity to home or access to creche facilities, thus removing common barriers women face in pursuing employment.

Finally, to improve women's participation, skilling partners will be incentivised through outcome-based payments tied to gender-specific Key Performance Indicators (KPIs). These KPIs will include metrics such as women's enrolment, retention, and placement rates, as well as enrolment of women re-entering the workforce. The ranking framework for institutions will also include performance evaluation against specific women-oriented KPIs as a key input.

South Korea's Saeil Job Centres¹⁰⁸

In South Korea, the Saeil Centres, also known as New Job Centres for Women, are government-established institutions dedicated to assisting women whose careers have been interrupted due to marriage, childbirth, or caregiving responsibilities. These centres offer comprehensive, one-stop employment support services, including job counselling, vocational training, internships, job placement, and post-employment follow-up. As of 2018, there were 158 Saeil Centres operating nationwide, providing accessible resources to women re-entering the workforce.

The impact of Saeil Centres has been significant. Between 2009 and 2018, these centres facilitated employment for over 1.54 million women, substantially enhancing their economic participation and financial independence. For instance, at the 2023 Seoul Woman Up Fair, 117 companies, including Apple Korea and Starbucks Korea, participated, offering over 1,060 job opportunities to women with career interruptions.

The success of Saeil Centres underscores the importance of tailored employment support services in National policies. By addressing career discontinuity among women, these centres promote gender equality in the labour market and contribute to broader economic growth.

5 STRATEGIC ACTION AREA

Enable mechanisms for women to pursue entrepreneurial opportunities

To empower women towards entrepreneurship, skilling programmes will integrate business training modules, especially in sectors traditionally dominated by women, such as food processing and textiles. By offering business management and financial literacy courses within these programmes, women will gain the knowledge, skills, and confidence needed to start and scale their own enterprises, whether through dedicated initiatives like the JSS programme or district- and national-level skilling efforts. In partnership with State Rural Livelihood Missions (SRLMs), initiatives will leverage Self-Help Groups (SHGs) to expand reach, deepen skilling efforts, and enhance women's access to employment opportunities.

To promote inclusive entrepreneurship, "Business-in-a-Box" models such as micro-franchising (refer Thrust 13: Drive Ease of Starting and Growing Nano and Micro Businesses) will help women start low-cost businesses. Drawing insights from ICRISAT's work with SHGs in agribusiness¹⁰⁹ and PM Vishwakarma, these models will offer essential resources, training, and market linkages to create sustainable incomes. MSDE will oversee the skilling component's development, deployment and monitoring while collaborating with ministries and grassroots organisations for effective partnerships and implementation.

SEWA: Women's Enterprise Support System (WESS)¹¹⁰

The Self-Employed Women's Association (SEWA) is a trade union empowering over 2.1 million women in the informal economy across 18 states. Within SEWA Bharat, the Women Enterprise Support System (WESS) is a flagship initiative that incubates and accelerates women-led micro and collective enterprises, focusing on those operating in rural and informal economies. WESS addresses women entrepreneurs' systemic challenges by offering a comprehensive 3-year partnership to support their growth and sustainability.

The programme provides targeted assistance in critical areas such as access to finance, strategic planning, regulatory compliance, and marketing. This holistic approach equips women entrepreneurs with the tools and knowledge to scale their businesses, increase profitability, and foster long-term viability.

Since its inception, WESS has supported over 22 enterprises, directly impacting the lives of more than 6,20,000 people. The programme has catalysed significant outcomes, with enterprises achieving an average of 1.5x growth. Beyond economic gains, WESS demonstrates the potential of grassroots interventions in empowering women, particularly in rural areas, and building resilient entrepreneurial ecosystems.

This success underscores the importance of micro-interventions to promote women's entrepreneurship and economic inclusion, fostering equitable growth across India's informal economy.

¹⁰⁸ Saeil Center on the Women's New Work Center website

¹⁰⁹ The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) collaborates with Self-Help Groups (SHGs) to enhance agricultural productivity and empower rural communities, particularly women.

¹¹⁰ SEWA Bharat

In summary, the following table captures a snapshot of key initiatives recommended across each of the strategic action areas:

STRATEGIC ACTION AREAS	INITIATIVES
Orchestrate a women-led grassroots movement to raise aspirations for skilling, employment, and self-employment opportunities.	<ul style="list-style-type: none"> • Identify community role models like “Skill Sakhis” or “Lakhpatti Didi’s” to act as ambassadors and promote skilling opportunities within local communities. • Leverage community-based organisations, Gram Panchayats, and Block Development Offices to provide targeted family counselling and create an enabling environment for women’s skilling. • Develop a pan-India mass-media campaign encouraging women to undertake training, especially in non-traditional roles. • Collaborate across ministries, including Ministry of Women and Child Development (MoWCD), and onboard district and State officers to facilitate outreach and ensure information dissemination on available skilling opportunities.
Develop solutions to enhance mobility and accessibility of skilling programmes for women.	<ul style="list-style-type: none"> • Deploy mobile training units like “Skill Vans” to reach underserved and remote areas; also cover modern skills like IoT, drones, and robotics, amongst others. • Establish affordable transportation and residential hostels through collaborations with NGOs and cross-ministry collaborations (e.g., MoWCD’s Sakhi Niwas). • Introduce flexible learning formats such as afternoon classes, “phygital” models, and self-paced courses to accommodate women’s needs. Implement modular and credit-based skilling systems to allow women to complete certifications in stages (aligned with the National Education Policy 2020). • Upgrade skilling centres with women-supportive infrastructure and amenities, e.g., childcare facilities, women-specific washrooms, security personnel, and CCTV to create a safe and supportive environment. • Offer financial support through targeted financial products, e.g., subsidised skill vouchers/stipends/skill-linked credit to cover education, transport, and childcare costs for low-income women. Additionally, provide post-placement financial support to ensure stability during women’s employment transitions, leveraging existing CCN provisions.
Build a gender-intentional culture within the skilling ecosystem.	<ul style="list-style-type: none"> • Conduct gender-sensitivity and POSH training workshops for trainers, staff, and learners to foster inclusive and respectful environments. • Introduce gender-neutral job terms in curricula, replacing traditional titles like “salesman” with inclusive ones such as “sales associate.” • Develop tailored courses for women on self-confidence, self-defence, financial literacy, and workplace navigation to empower them for workforce challenges. • Create a dedicated pool of female trainers, prioritising local master trainers, to inspire and guide women trainees in relatable ways.

STRATEGIC ACTION AREAS	INITIATIVES
	<ul style="list-style-type: none"> • Collect gender-disaggregated data to monitor trends like women's placement and retention rates and guide targeted interventions for improved outcomes. • Allocate a gender-specific budget to promote equality in skilling programmes, expanding the existing Union Budget's gender provisions.
<p>Provide tailored placement and post-placement support to help women enter and re-enter mainstream employment and self-employment.</p>	<ul style="list-style-type: none"> • Make SIDH more accessible and useful for women, e.g., introduce women-specific filters for job searches such as mapping of skill centres on the basis of childcare access, proximity to home, opportunities for women re-entering the workforce, etc. • Establish Women Development Cells (WDCs) within key skilling and educational institutions—either as standalone units or integrated with existing ones (e.g., placement cells)—to offer career counselling, mentorship from female role models, alumni networking, and targeted support for improving and tracking women's career outcomes. • Leverage community-based platforms such as One Stop Centres (MoWCD) to deliver similar career support services—ensuring women outside formal institutions also access mentorship, guidance, and career tracking tools. • Create a targeted skilling and livelihood package for women re-entering the workforce with comprehensive training, career guidance, financial access, infrastructure, and placement and post-placement support. This may be made accessible via a targeted Skill Voucher Scheme. • Form regional peer mentorship groups through digital forums to help women transition into professional roles, navigate new workplace challenges, and settle into new regions. • Incentivise skilling partners with outcome-based payments tied to gender-specific KPIs, such as enrolment and retention rates for women, and those re-entering the workforce. Include performance against women-oriented KPIs in the institutional ranking mechanism.
<p>Enable mechanisms for women to pursue entrepreneurial opportunities.</p>	<ul style="list-style-type: none"> • Integrate business training into skilling programmes, focusing on financial literacy and enterprise management, particularly for traditionally women-led sectors like food processing and textiles. Partner with State Rural Livelihood Missions (SRLMs) and SHGs to enhance women's entrepreneurial access and market linkages. • Expand "Business-in-a-Box" models, equipping women with low-cost micro-franchising kits for starting small businesses in areas like agriculture, food processing and others.

CHAPTER 10

THRUST 09: Drive Inclusion for Marginalised Groups and Regions

- India's skilling agenda must drive inclusion for marginalised groups by addressing systemic barriers for marginalised communities, enhancing accessibility, and offering tailored programmes.
- This policy focusses on four strategic action areas: a)Contextualising skilling by adapting courses to community needs; b)Expanding accessibility through inclusive last-mile infrastructure; c)Building sensitivity by training stakeholders for diverse needs; d)Leveraging incentives to facilitate employment and self-employment opportunities for the marginalised.

Context and Need

As India reimagines its skilling agenda, it is essential to embed the principle of inclusivity to achieve equitable economic growth and job creation. In India, a wide spectrum of groups face unique challenges, from historically marginalised communities like Scheduled Castes (SCs) and Scheduled Tribes (STs), and Other Backward Classes (OBCs) to people in under-resourced regions such as the North-East Region (NER), the Indian Himalayan Region (IHR), tribal belts, and Left-Wing Extremism-affected areas. Additionally, People with Disabilities (PwD), People with Intellectual Disabilities (PwID), Children with Special Needs (CwSN),¹¹¹ transgender individuals, and LGBTQ+ communities require tailored support to overcome systemic barriers and fully participate in the economy.

Structural barriers such as limited accessibility to learning resources, affordability constraints, and insufficient facilities in training centres are common to most marginalised groups. However, each group also faces distinct challenges. For instance, people residing in IHR or LWE regions are physically isolated, restricting their access to skilling centres and digital resources.¹¹² Even within these regions, different states are at varied levels of development. Separately, people with physical or intellectual disabilities need accommodations in tailored programmes, delivery modes, and infrastructure to address specific learning needs and diverse abilities.¹¹³ Transgender and LGBTQ+ communities often lack safe, inclusive spaces for skill development, deterring them from traditional learning environments.¹¹⁴ This limits the participation of marginalised groups in India's skilling programmes, leading to persistently lower enrolment rates.¹¹⁵

Over the years, several targeted initiatives and policies have been launched to bridge prevailing gaps. The National Action Plan for Skill Development of PwD is an important step in furthering the principles envisaged in The Rights of Persons with Disabilities Act, 2016. The Jan Shiksha Sansthan Scheme (JSS) has empowered groups that previously lacked access to skill development and self-enterprise opportunities (74.45% of JSS participants are from Below the Poverty Line (BPL), 24% of the participants are SCs, 14.5% are STs, 36.5% are OBCs, and 9.15% are from minority communities).¹¹⁶ Similarly, the Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM-JANMAN), with a total outlay of ₹24,104 crore, has enhanced the socio-economic conditions of Particularly Vulnerable Tribal Groups (PVTGs) by providing essential amenities, infrastructure, and sustainable livelihood opportunities, with further potential to incorporate skilling initiatives. Institutions like North-Eastern Council also show promise, with 30% of its total budget to be used to boost development in underdeveloped areas.¹¹⁷ Such funding is distributed across the overall growth of the region, including the development of infrastructure, resources, and delivery of skilling and employment programmes. These are among the many schemes focused on skill training, entrepreneurship development and livelihood expansion for these communities.

¹¹¹ PwID recognised under National Institute for Empowerment of People with Intellectual Disabilities, under Department of PwD, Ministry of Social Justice and Empowerment.

¹¹² Ministry of Skill Development Research, accessed in Oct 2024

¹¹³ National Action Plan for Skill Development of PwD, Ministry of Social Justice and Empowerment, accessed in Oct 2024

¹¹⁴ Ministry of Social Justice and Empowerment Research, accessed in Oct 2024

¹¹⁵ Results Brief, Impact evaluation of SIMO and SANKALP, World Bank 2023, accessed in Nov 2024

¹¹⁶ Annual Report 2023-24, Ministry of Skill Development and Entrepreneurship, accessed Nov 2024

¹¹⁷ North-Eastern Council Guidelines, 2020, accessed Sep 2024

However, to impact a broader range of excluded individuals, significant innovation and expansion is required at scale. Initiatives for these groups will be implemented in close collaboration with sector-specific ministries (e.g., Ministry of Development of North-Eastern Region (MoDONER), Ministry of Tribal Affairs (MoTA), Ministry of Minority Affairs (MoMA), and Ministry of Social Justice and Empowerment (MoSJ&E)), with MSDE driving the skilling component. As the economy evolves, more must be done, particularly in expanding accessible infrastructure, designing flexible learning pathways, and developing region-specific skilling centres.

Strategic Roadmap

To create an inclusive and effective skilling ecosystem, four strategic action areas have been identified. The first action area focuses on contextualising skilling by adapting courses, curricula, content, and teaching resources to cater to community-specific needs. The second area focuses on expanding accessibility by developing flexible and supportive infrastructure, ensuring that skill development reaches the last mile. The third area aims to build sensitivity among key stakeholders (educators, employers, and policymakers), enabling them to understand and respond to the diverse requirements of different communities effectively. Finally, the fourth strategic action area focuses on leveraging incentives and financing schemes to facilitate employment and self-employment opportunities for these groups. Each of these is detailed in subsequent sections.

1 STRATEGIC ACTION AREA

Contextualise the skilling ecosystem to the unique needs of communities (course, curriculum, content, teaching resources)

India's diverse social and geographical landscape requires a targeted, context-driven approach to skilling that reflects the distinct needs of each region and community. Region-specific job roles and courses will be developed to provide individuals with skills directly aligned with local economic opportunities, using qualification packs tailored to the requirements of specific areas. For instance, courses in the NER and the IHR will focus on fields like sustainable tourism, biodiversity conservation, and indigenous value-added businesses, leveraging the region's natural resources and cultural heritage.

Curriculum design will incorporate community feedback to ensure relevance to local needs and contexts. All curricula will be made available in vernacular languages. Independent private organisations will also be encouraged to adopt these model curricula, using them as foundational guides that may be further contextualised to regional demands. Content will be made accessible for diverse learners, especially marginalised groups such as PwDs, PwIDs, CwSN. Skilling institutions will ensure provision of inclusive learning spaces, and flexible, spaced-out modules will be developed for PwID and CwSN to accommodate their unique learning needs.

Teaching resources will be customised for different groups to further improve accessibility. For example, visually impaired learners will benefit from braille books, and emerging technologies like AR and VR will create immersive learning experiences. MSDE will leverage insights from its partnerships—such as the establishment of Centres of Excellence in VR and Mixed Reality at National Skill Training Institutes—to drive innovation and foster inclusive skill-building across the country.

Alongside contextualising skilling courses, career options that have been found to be more suited to specific segments will be prioritised. For example, for PwDs and PwIDs, Banking, Financial Services, and Insurance (BFSI), education, and IT sector related skilling will be encouraged. Organisations will be incentivised to collaborate and actively recruit these candidates.

The Kgbane Project – South Africa

The Kgbane Project is a rural development initiative in South Africa that empowers indigenous crafters and emerging jewellers from underprivileged communities to participate in the mainstream precious metal jewellery industry. Facilitated by the Mining Qualifications Authority (MQA), the project offers training programmes such as the Skills Programme in Rural Jewellery and Jewellery Learnerships (Levels 2 and 3), which combine theoretical instruction with practical experience, including business skills training. Upon successful completion, trainees receive MQA certification and essential equipment to establish their own businesses, fostering entrepreneurship within their communities.

The Kgbane Project primarily benefits unemployed women, youth, and individuals with disabilities in rural and impoverished urban areas, promoting inclusivity and economic empowerment. As part of South Africa's mineral beneficiation programme, the project adds value to the country's mineral resources by developing local craftsmanship and creating employment opportunities. Collaborations with entities like MINTEK enhance the quality and marketability of the artisans' products.

For India, the project highlights the need for inclusive skilling programmes targeting marginalised groups and integrating traditional skills with market-oriented, entrepreneurial frameworks to promote sustainable livelihoods.

2 STRATEGIC ACTION AREA

Expand accessibility by developing a flexible and supportive infrastructure

This approach involves multi-faceted strategies to enable learning in areas with a lack of traditional institutions. A primary solution is to facilitate remote digital learning and mobile training units, such as skill vans, allowing training programmes to reach remote areas. For instance, initiatives like "Skill on Wheels" by the Government of Tamil Nadu and private organisations like Maruti Suzuki have demonstrated success in raising awareness and providing valuable skilling in hard-to-reach areas.

Digital platforms such as SIDH will further enhance the accessibility of relevant courses, job opportunities, and potential benefits/ schemes for marginalised individuals by integrating community-specific identity data into each learner's Skills Profile via their digital lifelong learning account with necessary consent. By incorporating identifiers such as Disability IDs for PwDs and data from the National Portal for Transgender Persons, SIDH will allow seamless access to skilling history, benefits eligibility, direct benefit transfers and enable personalised recommendations on relevant courses, jobs, etc. A coordinated effort amongst ministries is essential to facilitate this integration. These measures, combined with capacity-building initiatives to raise awareness and equip employers with tools for workforce integration, will create a robust ecosystem that promotes sustainable and equitable employment opportunities for PwD, PwID, and CwSN. Additionally, digital learning programmes on platforms such as SIDH will be strengthened to offer digitally accessible, industry-aligned courses specifically tailored to these regions, ensuring comprehensive reach of skilling resources.

Beyond digital access, it is essential to make existing skilling institutions physically accessible to cater to all individuals, particularly PwD. In alignment with the National Action Plan for Skill Development of PwD and the Supreme Court's mandate on educational accessibility, skilling centres will undergo structural upgrades such as ramps, elevators, and disabled-friendly, gender-neutral washrooms to create supportive learning environments. To accommodate students from remote areas, affordable accommodations and transportation services will be introduced, building on existing benefits like those under the CCN. These benefits will continue to be revised based on adoption and feedback from beneficiaries.

To further promote inclusivity, cross-ministerial collaborations will be undertaken to enable the use of existing infrastructure to expand skilling efforts. Various ministries currently operate skilling centres and shelter homes, such as Garima Greh for transgender individuals and Divyang Centres for PwD, which provide livelihood training aligned with their specific needs. These centres, along with other initiatives like Pradhan Mantri Dakshata Aur Kushalta Sampann Hitgrahi (PM-DAKSH) Yojana by the Ministry of Social Justice and Empowerment (MoSJ&E) will continue to offer skill development for marginalised groups, including SCs, STs, and OBCs. All these skilling programmes will continue to be NSQF aligned with implementation support from MSDE.

3 STRATEGIC ACTION AREA

Build sensitivity amongst key stakeholders to address needs of different communities

Delivering effective training across India's diverse regions requires educators who are aware of the cultural and contextual needs of local communities. Educators must be trained in the languages, practices, and values specific to regions like the NER, LWE-affected zones, and tribal areas. Trainers must also be prepared to address unique challenges faced by marginalised groups, such as PwDs, PwIDs, and LGBTQ+ individuals, to ensure that skilling programmes support the full range of individualised needs.

To further strengthen this inclusive approach, recruiting trainers from within these communities is essential. Trainers who share cultural backgrounds with learners can communicate more effectively and provide meaningful support. Acting as both educators and counsellors, these trainers can address grievances, offer support, and advocate for their trainees' needs. States will be encouraged to embed these criteria into recruitment processes, ensuring that trainers bring both expertise and cultural sensitivity.

4 STRATEGIC ACTION AREA

Leverage incentives and financing schemes to enable employment and self-employment opportunities for the marginalised

Industries will be incentivised to hire PwD and PwID through financing models that share initial employment costs, such as subsidising a portion of stipends during the early employment, internship, or apprenticeship phase. This can be modelled on the structure utilised by NAPS wherein the Government subsidises one part of the apprentices' stipend. Employers will also benefit from additional incentives, including tax benefits and recognition programmes as they demonstrate inclusive hiring practices.

Dedicated financing schemes will be encouraged for entrepreneurial ventures by marginalised communities or in marginalised regions. A component of skilling on entrepreneurship related skills (e.g., on business, management, and finance) will be bundled with these financing schemes. Several institutions cater to funding for these communities, e.g., VCF-STs,¹¹⁸ NBCFD,¹¹⁹ NSFDC,¹²⁰ NEDF.¹²¹ Such institutions will be encouraged to further expand incubation programmes for encouraging self-enterprise in these regions.

In summary, the following table captures a snapshot of key initiatives recommended across each of the strategic action areas:

STRATEGIC ACTION AREAS	INITIATIVES
Contextualise the skilling ecosystem to the unique needs of communities (course, curriculum, content, teaching resources).	<ul style="list-style-type: none"> • Develop region-specific job roles and courses aligned with local economic opportunities, e.g., focusing on sectors like sustainable tourism, biodiversity conservation, and indigenous businesses in regions like NER and IHR. • Engage leaders from respective marginalised communities in curriculum design, making it relevant to local needs, and encourage adoption by private organisations to maintain adaptable regional standards. • Provide inclusive learning spaces with necessary physical infrastructure, accessible teaching resources such as braille books and immersive AR/VR technologies and flexibly paced out curriculum (e.g., for PWID).

¹¹⁸ Venture Capital Fund for Scheduled Tribes

¹¹⁹ National Backward Classes Finance & Development Corporation

¹²⁰ National Scheduled Castes Finance and Development Corporation

¹²¹ North-Eastern Development Finance Corporation Ltd

STRATEGIC ACTION AREAS	INITIATIVES
<p>Expand accessibility by developing a flexible and supportive infrastructure.</p>	<ul style="list-style-type: none"> Focus on career options found to be more suited for specific segments, e.g., for PwD and PwID, encourage public and private sector companies in sectors like BFSI, IT, and education to drive inclusive recruitment. <ul style="list-style-type: none"> Facilitate learning in remote areas with mobile training units like “Skill on Wheels,” and strengthen repository of digitally accessible, industry-aligned courses tailored to these regions on SIDH. Enhance accessibility of relevant courses, jobs, and benefits schemes to marginalised individuals by integrating community-specific identity data (e.g., Disability IDs, Transgender IDs) with consent into their digital lifelong learning accounts allowing personalised recommendations and benefits eligibility, direct benefits transfer etc. to be made. Upgrade skilling centres with ramps, elevators, and gender-neutral facilities aligned with the National Action Plan for Skill Development of PwD and Supreme Court mandates. Offer affordable accommodations and transport for remote students, building on existing benefits like those under Common Cost Norms. Promote cross-ministerial collaborations to scale skilling efforts using existing infrastructure, such as Garima Greh for transgender individuals and Divyang Centres for PwD. Expand marginalised community programmes like PM-DAKSH Yojana, which focuses on skill development of socially marginalised groups, ensuring all initiatives continue to be NSQF-aligned with MSDE’s implementation support.
<p>Build sensitivity amongst key stakeholders to manage needs of different communities.</p>	<ul style="list-style-type: none"> Train educators in local languages and practices specific to regions like NER, LWE-affected zones, and tribal areas, emphasising the cultural and contextual needs of marginalised groups. Recruit trainers from within local communities to enhance cultural sensitivity, facilitate effective communication, and address grievances while acting as educators and counsellors.
<p>Leverage incentives and financing schemes to enable employment and self-employment opportunities.</p>	<ul style="list-style-type: none"> Encourage industries to adopt inclusive hiring practices with necessary benefits as well as recognition (e.g., co-fund initial employment costs for PwD/PwID). Strengthen financing schemes for entrepreneurial ventures by marginalised communities; bundle relevant skilling components within them. Encourage existing institutions that cater to marginalised communities like VCF-STs, NBCFDC, NSFDC, and NEDF to expand incubation programmes and facilitate self-enterprise in remote regions.

CHAPTER 11

THRUST 10: Scale Skilling for the World

- By 2030, 20 countries, will account for 90% of the global labour shortages. India can play a transformative role in the global workforce, leveraging its large, young, working population through physical mobility of workers, expansion of services and goods exports.
- Four strategic action areas are identified including a) Strengthening global skills demand forecasting and data-driven skilling initiatives; b) Orchestrating global skills equivalence and recognition of certifications and; c) Adapting skilling offerings and infrastructure to global needs and standards; d) Ensuring ease in end-to-end candidate transition and settlement support in target countries.

Context and Need

The median age in India will be 31 years by 2030 – this is in sharp contrast to China and Europe which will have a median age of 43 years and 45 years, respectively, by 2030. Additionally, major economies like Germany, Japan, and South Korea are facing workforce challenges due to ageing populations while countries like the United States, United Kingdom, Japan, and Australia are already grappling with workforce shortages in various sectors, from healthcare and manufacturing to IT and infrastructure. In the backdrop of such a landscape, India emerges as a key source of global talent and is well-positioned to bridge a projected ~4.5 crore labour gap.¹²²

The global demand for skilled workforce materialises in three primary ways - physical mobility of workers, availability of talent for providing services to the globe from India, and availability of talent for export of (digital) goods manufacturing in India

- **Physical mobility of workers (talent export):** By 2030, 20 countries will account for 90% of the global labour gap.¹²³ The most significant gaps will arise in the U.S. (1.1-1.2 crores),¹²⁴ UK (50-60 lakh),¹²⁵ and other hotspots like Germany, Japan, and South Korea (40-50 lakh each).¹²⁶

Roles with mass employment opportunities, such as industry workers, caregivers, and hospitality staff, will constitute 50% of the labour gap (1.8-2 crore positions).¹²⁷ Demand is also expected to be prominent in countries like the UAE, Saudi Arabia, Qatar, and Romania.

Medium-skilled white-collar roles, accounting for 20% of the gap (60-80 lakh positions),¹²⁸ will be needed in Germany, Japan, and the UK. High-skilled white-collar roles, comprising 30% of the gap (1-1.2 crore positions).¹²⁹ ICT professionals, business specialists, and managers will be needed in countries like the U.S., Germany, and Singapore, driven by technological and economic advancements. Filling this labour gap is a win-win opportunity. It enhances productivity in countries with labour gaps and creates high-productivity employment for young Indians, including the benefits of substantial remittances sent home by overseas workers. India is already the highest recipient of these remittances at USD 120 billion in 2023, much ahead of Mexico (USD 66 billion), China (USD 50 billion), and the Philippines (USD 39 billion).¹³⁰

¹²² UNPD, World Bank, Oxford Economics, IMF-WEO. Estimation done based on current labour supply, labour productivity, current GDP, expected GDP in 2030.

¹²³ UNPD, World Bank, Oxford Economics, IMF-WEO. Estimation done based on current labour supply, labour productivity, current GDP, expected GDP in 2030.

¹²⁴ Ibid

¹²⁵ Ibid

¹²⁶ Ibid.

¹²⁷ Ibid.

¹²⁸ Ibid

¹²⁹ Ibid.

¹³⁰ Economic Survey, 2023-24, Ministry of Finance, accessed in Sep 2024.

- **Services export:** Government data shows that in 2023, India ranked fifth globally in services exports,¹³¹ with IT and business services contributing 73% of total services exports.¹³² This sector is growing at 9.6% year-on-year,¹³³ driven by the increasing global demand for digital services such as cybersecurity, AI, accounting and financial solutions, legal process outsourcing, and cloud solutions. The advent of GenAI could further accelerate this demand. As demand intensifies, India is expected to host several more GCCs, projected to reach an estimated market size of USD 90 billion by 2028.¹³⁴ Preparing our talent to tap into these opportunities is an imperative.
- **(Digital) Goods export:** Additionally, India's manufacturing sector is positioned to meet the rising global demand for goods as companies look to diversify their supply chains. Efforts undertaken by the Government of India in the form of "Make in India" and Production Linked Incentive (PLI) schemes are further encouraging foreign direct investment and promoting domestic manufacturing growth across several industries, including electronics, automotive components, textiles, and pharmaceuticals.¹³⁵ This is expected to create export-oriented domestic jobs, support local economies, and strengthen India's economic resilience while enabling India to emerge as a reliable player in the global supply chain.

India is well-positioned to benefit from these trends through numerous Government of India (GoI) initiatives that aim to enhance India's competitiveness across all three dimensions. In parallel, MSDE, along with the Ministry of External Affairs (MEA) have actively pursued several bilateral and multilateral collaborations to further the skilling agenda. Notable initiatives include the Technical Intern Training Programme (TITP) with Japan, which provides Indian youth opportunities to gain work experience in Japanese industries, and the Indo-German Vocational Education and Training (IGVET) programme, which focuses on advanced manufacturing and other high-demand sectors. Partnerships with Gulf countries, including the United Arab Emirates, Saudi Arabia, and Qatar, aim to streamline skill certification processes and facilitate job placements for Indian workers in these regions. Furthermore, multilateral collaborations through BRICS and G20 emphasise digital skills and workforce readiness for emerging economies. Finally, engagements with Australia and the UK focus on skilling and mutual recognition of qualifications and certifications to increase employability abroad.

Over 58,000 students across 12 countries have been deployed in various sectors such as construction, energy, healthcare, IT, and logistics.¹³⁶

Going forward, India will have a significant opportunity to expand its current initiatives by enhancing mobility agreements and deepening partnerships with key nations, while leveraging its networks abroad.

Strategic Roadmap

To position India's workforce for global demand, key strategic action areas target strengthening processes such as skill demand forecasting, certification recognition at a global level, adapting skills needs and infrastructure to global levels, and ensuring comprehensive transition support for candidates. Each action area builds on the other, creating a robust pathway for enhancing global mobility, service exports, and goods exports. These are enumerated below.

1 STRATEGIC ACTION AREA

Strengthen global skills demand forecasting and data-driven skilling initiative

The first action area focuses on building capabilities to forecast global demand for sectors, job roles and skills to enable alignment of India's skilling efforts with international workforce needs. Accordingly, MSDE will work with relevant ministries (e.g., MoLE, MSME) and expand existing mechanisms (such as the LMIS) to collect and analyse data on demand for specific target countries and industries in collaboration with MEA¹³⁷ and resident missions.

Sector-specific and region-specific insights outlining future workforce requirements, candidate profiles and trends will be made publicly available via publications and dashboards. This will guide key stakeholders, including public and private skilling institutions, to adapt training programmes to emerging opportunities.

¹³¹ Ibid.

¹³² Ibid.

¹³³ Ibid.

¹³⁴ Ibid.

¹³⁵ Invest India Website, accessed in Sep 2024.

¹³⁶ NSDC International Research, accessed in Sep 2024

¹³⁷ Ministry of External Affairs

2 STRATEGIC ACTION AREA

Orchestrate global skills equivalence and recognition of certifications

Achieving global skills equivalence and enabling recognition of certifications is essential for Indian workers to secure employment in international markets. The Delhi Declaration on Skills and Vocational Education, adopted during the G20 Summit in 2023, established a framework for standardised skill recognition across borders. Building on this foundation, MSDE will collaborate with organisations like the ILO and OECD to create an “International Reference Classification of Occupations” that matches India’s skill qualifications with those in strategic countries.¹³⁸

These efforts will be further strengthened through G2G partnerships,¹³⁹ bilateral and multilateral agreements that will be orchestrated in collaboration with the Ministry of External Affairs, multilateral and regional organisations like the G20 and QUAD, and other relevant agencies. These partnerships, combined with a Mutual Recognition of Skills (MRS) framework will enable the creation of a “Green Skills Channel” and facilitate seamless worker migration through.

As an ongoing priority, NCVET will periodically update India’s Qualification Packs (QPs) to ensure candidates are certified in job roles that are in high demand in high-potential markets like the USA, Canada, and Germany, among others. MSDE will also partner with internationally recognised assessment bodies to build capacity for issuing certifications in India that meet specific country requirements. Examples include NCLEX¹⁴⁰ certification for nurses seeking work in the USA and CGFNS¹⁴¹ for those interested in Canada. Establishing the capacity for awarding these certifications locally will enable Indian professionals to validate their competencies without travelling abroad, thus significantly improving their employability.

Building on the foundation of G2G partnerships, G2G2B partnerships will be entered into via engagement with top employers in target markets. These will be orchestrated through job fairs and summits in new regions. Global private companies will be encouraged to co-fund skilling programmes, especially in sectors with high international demand, combined with pre-determined agreements to provide full-time employment to Indian candidates upon completion of training.

Finally, there is a need for a globally recognised digital credential system inspired by the Europass in the European Union. Europass is a standardised platform recognised across Europe, enabling individuals to document and present their skills and qualifications in a format valid in all EU member States. It supports worker mobility by ensuring employers and institutions can easily understand and trust the credentials, fostering seamless career transitions across borders.¹⁴² Accordingly, a digital credential linked to a Digital Lifelong Learning Account (DLLA) will be established, serving as a repository of internationally accepted certifications. By incorporating verified credentials and making them accessible to global employers, this digital credential will simplify eligibility verification and job matching for Indian candidates. Further, the DLLA will offer value-added features such as access to funding and mentoring to support candidates’ careers internationally.

3 STRATEGIC ACTION AREA

Adapt skilling offerings and infrastructure to global needs and standards

MSDE will update its training programmes and add targeted courses to address specific skill requirements in various countries and industries. Since each country has unique compliance standards and regulations, curricula design will address country-specific requirements (e.g., regulatory compliance, intellectual property, and environmental, social, and governance (ESG) practices) to ensure that Indian workers are well-prepared for global opportunities. These courses will provide the requisite training for both international mobility, as well as to serve the needs of GCCs in the country.

¹³⁸ Delhi Declaration, G20 Summit, 2023

¹³⁹ G2G partnerships refer to Government to Government Partnerships. MSDE via its various efforts through NSDC International has already deployed 50,000+ candidates across 12 countries.

¹⁴⁰ The National Council Licensure Examination (NCLEX) is a computerised exam that nursing graduates must pass to become a licensed registered nurse in the United States, Canada, and Australia.

¹⁴¹ Commission on Graduates of Foreign Nursing Schools (CGFNS). CGFNS has an exclusive partnership with Canadian nursing regulators and the National Nursing Assessment Service (NNAS) to evaluate and validate the nursing credentials in Canada.

¹⁴² Europass Mobility, ([Link](#))

Internships and learning-based exchange programmes with other countries will be promoted to enable practical exposure, particularly in high-growth sectors like Electric Vehicles (EVs), semiconductors, and renewable energy.

Internationally oriented, Government and Private including Public Private Partnership (PPP) institutes (e.g., Skill India International Centres) will be expanded to serve as dedicated hubs for training workers for international opportunities. Their facilities will meet global standards in technology and infrastructure. Incentives will be provided to attract global training institutions to set up campuses in India and engage in partnerships across capacity-building programmes, foreign exchange opportunities, and placements. Further, skilling can be delivered by for-profit entities or through Foreign Direct Investment (FDI). Accordingly, international training providers will be encouraged to set up world-class institutes in India particularly to cater to needs of GCCs and manufacturing for global exports.

To promote aspirations amongst learners to pursue such globally oriented offerings, outreach initiatives like open days in academia and skilling institutions, career counselling for students and workforce, and community events (in line with Rozgar mela) will be organised across the country. These programmes will inform candidates and their families about career paths in high-demand sectors in India and globally.

4 STRATEGIC ACTION AREA

Ensure ease in end-to-end candidate transition and settlement support in target countries

Facilitating workforce mobility goes beyond training. It requires support for candidates' smooth transition and settlement in foreign countries. Interventions and incentives will be designed to prepare candidates for cultural adaptation and professional success in their destination countries. This preparation will include country-specific orientation programmes and Pre-Departure Orientation Training (PDOT) focusing on social norms, communication, language training, and professional etiquette, all integrated into the skills training programme's delivery.

Financial support is an equally important aspect for candidates facing relocation expenses. Partnerships among skilling institutions and banks, NBFCs, and private organisations will be enabled to expand financing options like low-interest loans, grants, and scholarships to cover the costs of training, travel, and settlement. Additionally, dedicated support centres will be established to address candidates' logistical needs, including visa assistance, accommodation guidance, and worker rights awareness.

Lastly, India's extensive diaspora network will be leveraged to support newly placed workers. Collaborating with MEA, MSDE will encourage engagement with diaspora associations to provide mentorship, networking opportunities, and emotional support to new arrivals. This connection to the diaspora will help Indian workers integrate smoothly, creating a sense of community and amplifying India's global influence as a provider of skilled talent.



In summary, the following table captures a snapshot of key initiatives recommended across each of the strategic action areas:

STRATEGIC ACTION AREAS	INITIATIVES
Strengthen global skills demand forecasting and data-driven skilling initiatives.	<ul style="list-style-type: none"> Build capabilities to forecast global demand by skills, job roles, sectors, and geographies to align India's skilling programmes with international workforce needs in collaboration with MEA and resident missions. Publish insights through dashboards and reports to guide public and private skilling institutions in adapting training programmes to meet emerging global opportunities.
Orchestrate global skills equivalence and recognition of certifications.	<ul style="list-style-type: none"> Collaborate with global organisations (for e.g., ILO) to develop an "International Reference Classification of Occupations" to match India's skill qualifications with those in strategic countries. Strengthen global skill recognition through G2G partnerships and bilateral and multilateral agreements, including creating a "green skills channel" for seamless worker migration under mutual recognition agreements. Efforts are to be undertaken in collaboration with the Ministry of External Affairs. Periodically update (to be done by NCVET) Qualification Packs (QPs) to ensure alignment with globally demanded job roles in high-potential markets like the USA, Canada, and Germany. Partner with internationally recognised assessment bodies to operate in India and issue globally recognised certifications, e.g., locally, such as NCLEX certification for nurses seeking employment in the USA. Build G2G2B partnerships by engaging with top employers in global markets through job fairs and summits; encourage them to co-fund skilling programmes tied to employment commitments in India. Establish a globally recognised digital credential system linked to the Digital Lifelong Learning Account (DLLA) to serve as a repository for internationally accepted certifications.
Adapt skilling offerings and infrastructure to global needs and standards.	<ul style="list-style-type: none"> Update programme curricula to address country-specific requirements, such as compliance standards, ESG practices, and intellectual property regulations, to ensure relevance. Promote international internships and learning-based exchange programmes through formal MoUs, particularly in sectors like electric vehicles, semiconductors, and renewable energy, to enhance practical exposure. Expand Skill India International Centres (SIICs) to serve as global training hubs with facilities meeting international standards in technology and machinery. Provide incentives to global training institutions to establish campuses in India and collaborate across capacity-building programmes, foreign exchange opportunities, and placements. Organise outreach programmes like career counselling, open days, and community events to drive awareness and inspire aspiration to pursue globally oriented skilling opportunities.

STRATEGIC ACTION AREAS	INITIATIVES
Ensure ease in end-to-end candidate transition and settlement support in target countries.	<ul style="list-style-type: none"> • Develop country-specific orientation programmes and Pre-Departure Orientation Training (PDOT) to prepare candidates for cultural adaptation and professional success abroad. • Collaborate with banks, NBFCs, and private organisations to provide financing options like low-interest loans, grants, and scholarships for training, travel, and settlement costs. • Establish support centres for candidates' logistical needs, including visa assistance, accommodation guidance, and awareness of worker rights in foreign destinations. • Leverage India's diaspora network to provide mentorship, networking, and emotional support to newly placed workers, fostering integration and community connections.





SECTION
03

Entrepreneurship
and Related Thrusts

KEY TERMS TO GUIDE YOUR READING



Entrepreneurship

An entrepreneur is the owner or manager of a business unit, who, by undertaking risk and initiative, attempts to make profits". The key words here are "risk" and "profits". Any activity undertaken keeping profits in mind and involving a certain risk to the investments made is generally an entrepreneurship activity.¹⁴³ (*7th Economic Census*)



Self-Employed

Persons who operate their own farm or non-farm enterprises or are engaged independently in a profession or trade on 'own account' or with one or a few partners are deemed self-employed in household enterprises. They have autonomy and economic independence to carry out their operations. The remuneration of the self-employed consists of a non-separable combination of two parts - a reward for their labour and profit of their enterprise.¹⁴⁴ (*Periodic Labour Force Survey, 2022-23*)



Startups

Startups are young companies working towards innovation/ improvement of existing products, services, and processes, and have the potential to generate employment/create wealth. A startup may be incorporated as a private limited company, a limited liability company or registered as a partnership firm. Its turnover should be less than ₹100 crore in any of the previous financial years. An entity shall be considered as a startup up to 10 years from the date of its incorporation.¹⁴⁵ (*Department for Promotion of Industry and Internal Trade, 2019*)



Enterprise

An institutional unit in its capacity as a producer of goods and services is known as an enterprise. An enterprise is an economic transactor with autonomy in respect of financial and investment decision-making, as well as authority and responsibility for allocating resources for the production of goods and services. It may be engaged in one or more economic activities at one or more locations.¹⁴⁶ (*Annual Survey of Unincorporated Sector Enterprises*)



Nano Enterprise

A nano enterprise is understood by industry experts as a business operating typically with a turnover of less than ₹1 crore annually, as there is no official turnover criterion for nano enterprises under the MSME Act.¹⁴⁷ (*Industry View*)

¹⁴³ Seventh Economic Census, Ministry of Statistics and Programme Implementation, 2019, accessed in Dec 2024.

¹⁴⁴ Annual Report: PLFS 2022-23, Ministry of Statistics and Programme Implementation, 2023, accessed in Dec 2024.

¹⁴⁵ G.S.R. 127 (E) dated 19th February 2019, Gazette of India, 2019, accessed in Dec 2024.

¹⁴⁶ Annual Survey of Unincorporated Sector Enterprise 2023-24, NSO, Ministry of Statistics and Programme Implementation, 2024, accessed in Jan 2025.

¹⁴⁷ "How nano enterprises are defined in India?", The Financial Express, 2024, accessed in Dec 2024 ([Link](#)).



Cluster

A cluster is a group of enterprises located within an identifiable and as far as practicable, contiguous area and producing same/similar products/services.¹⁴⁸ (*Ministry of Micro, Small and Medium Enterprises*)



Incubator

Incubator refers to a facility designed to nurture entrepreneurship and assist startup companies to grow by making use of shared resources, management and technical expertise and intellectual capital.¹⁴⁹ (*Ministry of Electronics and Information Technology*)



Accelerator

An accelerator is an institution that “accelerates” the growth of new ventures. Acceleration programmes are usually time-limited and provide specific services, resources and contacts with the precondition that the startups must provide a working prototype and initial traction on the market. The start-ups ‘graduate’ at the end of the accelerator program.¹⁵⁰ (*Ministry of Electronics and Information Technology*)



Micro-franchise

A micro-franchise is defined as "a small business whose start-up costs are minimal and whose concepts and operations are easily replicated". Micro-franchising is used to increase access to business opportunities, enabling people to lift themselves out of poverty.¹⁵¹ (*Journal of Business Research*)



Seed Fund

Seed funding is a term that can be applied to any finance received at the outset of a new venture to begin operations. It could be sourced through bootstrapping (friends, family or personal assets of the founder), government incentives and funds from private investors.¹⁵² (*Ministry of Electronics and Information Technology*)



¹⁴⁸ Know your Scheme: Micro and Small Enterprises Cluster Development Programme, Ministry of Micro, Small and Medium Enterprises, accessed in Dec 2024 ([Link](#)).

¹⁴⁹ Frequently Asked Questions, Ministry of Electronics and Information Technology, accessed in Dec 2024 ([Link](#)).

¹⁵⁰ Frequently Asked Questions, Ministry of Electronics and Information Technology, accessed in Dec 2024 ([Link](#)).

¹⁵¹ Christensen et al, Building Entrepreneurship in Subsistence Markets: Micro franchising as an Employment Incubator, *Journal of Business Research*, 2010, accessed in Dec 2024 ([Link](#)).

¹⁵² Frequently Asked Questions, Ministry of Electronics and Information Technology, accessed in Dec 2024 ([Link](#)).

CHAPTER 12

INTRODUCTION TO THE INDIAN ENTREPRENEURSHIP ECOSYSTEM

Context

"The genius in you is what makes startups successful. I see a future entrepreneur in everyone."

- Honourable Prime Minister, Startup Mahakumbh, March 2024

India's workforce is largely self-employed, comprising 58.4% of the overall workforce.¹⁵³ The self-employed workforce is 64.7% in rural areas compared to 40.4% in urban areas.¹⁵⁴ While this could indicate self-reliance and growth, self-employed workers earn significantly lesser, with incomes nearly 35% lower than salaried jobs.¹⁵⁵

The entrepreneurial landscape in India spans a wide continuum of enterprises, differentiated by their degree of formalisation and scale of operations and productivity. They range from informal, unincorporated agricultural and non-agricultural enterprises¹⁵⁶ to formal Micro, Small, and Medium Enterprises (MSMEs).¹⁵⁷ This includes individual entrepreneurs, small groups, and aggregated clusters such as cooperatives and self-help group. Currently, India is home to 1.3 crore unincorporated agricultural and 11 crore unincorporated non-agricultural businesses,¹⁵⁸ 6.3 crore incorporated micro-enterprises,¹⁵⁹ and over 1.1 lakh startups,¹⁶⁰ all of which play a critical role in the economy, contributing a remarkable 30% to the nation's GDP.

At the same time, 11 crore students,¹⁶¹ ~22 crore NEET individuals,¹⁶² and 2 crore unemployed persons are either actively seeking or poised to seek employment. With adequate support and opportunities, many from this large pool can potentially transition into productive entrepreneurship.

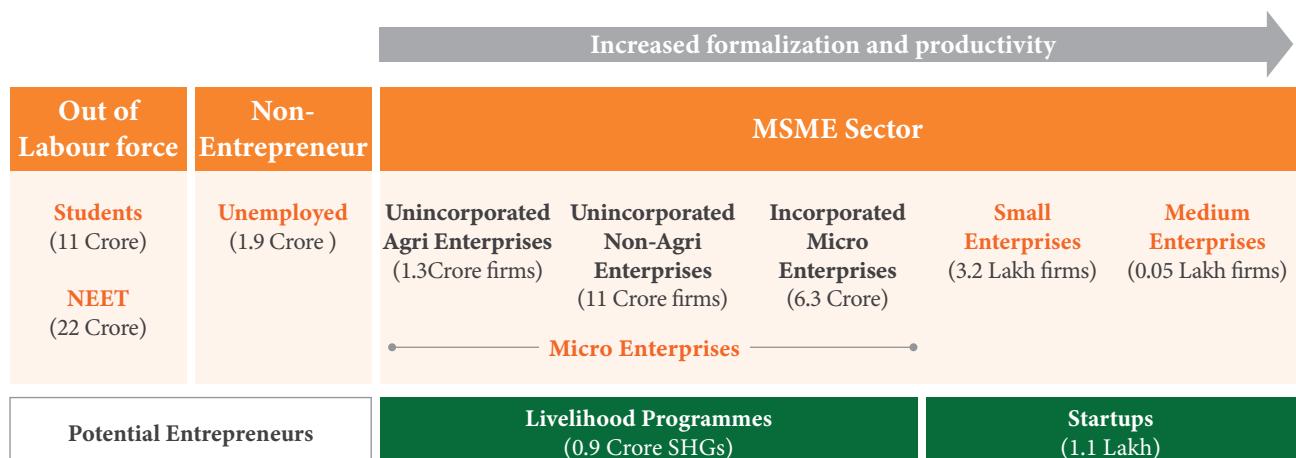


Figure 14: Landscape of Enterprises¹⁶³ in India¹⁶⁴

Although India has undertaken several measures to improve its entrepreneurial context, there is still untapped potential - evident from the entrepreneurial activity of various developed and comparable economies.¹⁶⁵ For instance, in the case of new business density, Singapore (11.32), South Africa (11.05),

¹⁵³ PLFS 2023-24, Ministry of Statistics and Programme Implementation, 2024, accessed in Nov 2024.

¹⁵⁴ Ibid.

¹⁵⁵ Ibid.

¹⁵⁶ Annual Survey for Unincorporated Sector Enterprises 2022-23, National Statistical Office, 2024, accessed in Aug 2024.

¹⁵⁷ MSMEs are defined with investment in plant and machinery or equipment; Micro – not more than ₹1 crore and annual turnover not more than ₹5 crores; Small – not more than ₹10 crore and annual turnover not more than ₹50 crores; Medium – not more than ₹50 crore and annual turnover not more than ₹250 crores.

¹⁵⁸ Annual Survey for Unincorporated Sector Enterprises 2022-23, National Statistical Office, 2024, accessed in Aug 2024.

¹⁵⁹ Annual Report 2023-24, Ministry for Micro, Medium and Small Enterprises, 2024, accessed in Nov 2024.

¹⁶⁰ Press Information Bureau, 2024, accessed in Aug 2024.

¹⁶¹ UDISE 2021-22 and AISHE 2021-22, Ministry of Education, 2023, accessed in Aug 2024.

¹⁶² PLFS 2023-24, National Statistical Office, 2024.

¹⁶³ Unincorporated Agri and Non-Agri establishments: Establishments which are not incorporated (not registered either under the Companies Act 1956 or Companies Act 2013); MSMEs are defined with investment in plant and machinery or equipment: Micro – Not more than ₹1 crore and Annual Turnover not more than ₹5 crores, Small: Not more than ₹10 crore and Annual Turnover not more than ₹50 crore, Medium – Not more than ₹50 crore and Annual Turnover not more than ₹250 crore; Startups: Incorporated as private limited company or partnership firm or LLP, turnover less than ₹100 crore, and less than 10 years from date of incorporation.

¹⁶⁴ UDISE 2021-22, AISHE 2021-22, Ministry of Education; PLFS 2023-24, National Statistical Office, 2024; 6th Economic Survey, National Statistical Office, 2016; Annual Survey of Unincorporated Sector Enterprises, 2024; Annual Report 2023-24, Ministry for Micro, Medium and Small Enterprises 2024.

¹⁶⁵ National Entrepreneurial Context Index, GEM 203-2024 Report, accessed in Dec 2024.

and Brazil (5.10)¹⁶⁶ are ahead of India (0.18). Additionally, 62.8% of India's population cites fear of failure as a barrier to entrepreneurship, the highest among the countries compared.¹⁶⁷ These global examples also prove that improving skills, cultivating an entrepreneurial mindset, and formalisation are key levers of economic growth. For instance, high per capita GDP countries like Germany (USD 49,000) and Singapore (USD 83,000) have high productivity, strong formal workforce participation, and thriving entrepreneurial ecosystems.¹⁶⁸ Further comparable economies such as South Africa and Brazil have higher formalisation at 65% and 62% respectively, as compared to 11% for India.¹⁶⁹

		Developed economies with advanced skilling systems			Comparable economies		
		South Korea	Germany	Singapore	South Africa	Brazil	India
Socio-economic Indicators	GDP Per Capita (in US\$)	32000	49000	83000	7000	9000	2000
	Productivity (at \$ PPP)	42	68	74	21	17	8
Workforce profile	% Entrepreneurship	NA	9	14	33	26	39(57)
	% Working in formal sector	88	98	NA	65	62	11
	% Working in informal sector	12	2	NA	35	38	89
Mindsets	New Business Density	3.09	1.40	11.32	11.05	5.10	0.18
	Fear of Failure Rate	26.8	38.6	NA	59.44	46.9	62.8

Figure 15: Workforce¹⁷⁰ and Entrepreneurship Comparison¹⁷¹ with Developed and Comparable Economies¹⁷²

India must therefore prioritise mindset shifts and formalisation to drive more productivity. Various steps are already being taken in this direction. These range across sector-agnostic initiatives run by the Ministry of Micro, Small, and Medium Enterprises (MoMSME), State governments, and sector-specific initiatives promoting entrepreneurship in specific fields, such as agriculture and technology, or within certain groups, such as dedicated Venture Capital Funds for Scheduled Castes and Backward Classes. Several institutions provide training and incubation support, while digital platforms like Bharat Startup Knowledge Access Registry (BHASKAR) are improving backward and forward linkages and offering essential services to entrepreneurs. Many players in the private ecosystem are also providing services across functions like aspiration and mindset building, mentorship, training and support services, and access to finance. International organisations like the World Bank are also providing cluster-based seed funding for entrepreneurial ventures for the extremely poor through village organisations.¹⁷³ Details on the ecosystem including the key players and initiatives are illustrated in the ecosystem map in Figure 2 in Section 1.

However, several challenges, highlighted below, continue to persist.

- **Necessity-driven, risk-averse entrepreneurship:** According to the MSDE State of Skills Survey, most entrepreneurs begin with need rather than choice. Necessity-driven entrepreneurs report higher dissatisfaction with 72% of entrepreneurs reporting dissatisfaction.¹⁷⁴ Necessity and fear of failure also lead

¹⁶⁶ Global Entrepreneurship Monitor Annual Report, 2024.

¹⁶⁷ Ibid.

¹⁶⁸ World Bank GDP per capita.

¹⁶⁹ Global Entrepreneurship Monitor Annual Report, 2024.

¹⁷⁰ Workforce Profile: India Entrepreneurship - 39% refers to own-account workers and employers, while 57% refers to total self-employed workers, as per the definition in PLFS 2023-24, National Statistical Office, 2024.

¹⁷¹ New Business Density: The new business density is defined as the number of newly registered corporation per 1000 working aged people (those aged 15-64). The units of measurement are private companies with limited liability. The data can help understand the trends in new firm creation across regions and income groups; Fear of Failure Rate: Percentage of the 18-64 population who agree that they see good opportunities but will not start a business for fear it might fail. This is a percentage of those seeing good opportunities and not the total adult population.

¹⁷² World Bank GDP per Capita (Current USD); ILO Labour Productivity Data; PLFS 2023-2024.

¹⁷³ The State of Economic Inclusion Report 2024, World Bank, 2024, accessed in Dec 2024 ([Link](#)).

¹⁷⁴ State of Skills Market Survey 2024, Ministry of Skill Development and Entrepreneurship, accessed in Sept 2024 Analysed among 561 Necessity-based Entrepreneurs. Question: On a scale of 1 to 5, how satisfied are you with your current business?

to risk-averse behaviour, with 62.8% of potential entrepreneurs hesitating to start or scale enterprises,¹⁷⁵ in contrast with countries like South Korea (26.8%) and Brazil (46.7%).¹⁷⁶ Insights from the Global Entrepreneurship Monitor (GEM) India Report suggest that fostering a more risk-taking national culture can unlock significant entrepreneurial potential, driving innovation and growth.¹⁷⁷

- **Ease of doing (nano) business:** Despite recent efforts, the ease of doing (nano) business is limited. Micro and nano firms in India are twice as likely to cite regulatory obstacles as their biggest challenge compared to the global average for lower-middle-income countries.¹⁷⁸ The high regulatory burden leads to significant time and money spent on compliance activities, such as obtaining permits and discharging tax obligations.¹⁷⁹ This challenges most enterprises to grow beyond their initial stages as they operate at sub-scale levels. The Jan Vishwas Act, 2023¹⁸⁰ made an important contribution by decriminalising 183 provisions across 42 laws; more reforms are needed to ease starting, operating, and scaling businesses.
- **Barriers to scale and sustainability leading to fragmentation:** India's enterprise landscape is dominated by small and informal businesses, with 95.5% employing fewer than six workers and just 1.37% employing more than ten workers.¹⁸¹ Additionally, business density in India is 1.61 firms per thousand workers, and new business density¹⁸² is 0.18 per thousand workers, which is significantly lower than in countries like Brazil and South Africa, as discussed in the earlier section.¹⁸³ Several factors contribute to the untapped entrepreneurial potential. Limited infrastructure and low levels of technological adoption hinder growth, with only 20% of micro-enterprises currently using digital tools. High attrition rates further challenge the stability of these ventures.¹⁸⁴ While access to credit and financial assistance is improving, entrepreneurship can be further strengthened by enhancing access to critical aspects such as identifying opportunities, validating business plans, building market connections, and scaling operations.

A cohesive framework can address these challenges, remove structural barriers, and unlock the full capacity of entrepreneurship. Accordingly, a framework has been established to define the policy.

Framework for Fostering a Thriving Entrepreneurial Ecosystem

This policy recommends five key thrusts to guide the design of programmes, incentives, and schemes and elaborates on each in separate chapters. The thrusts are intended to build a strong and cohesive entrepreneurship ecosystem.

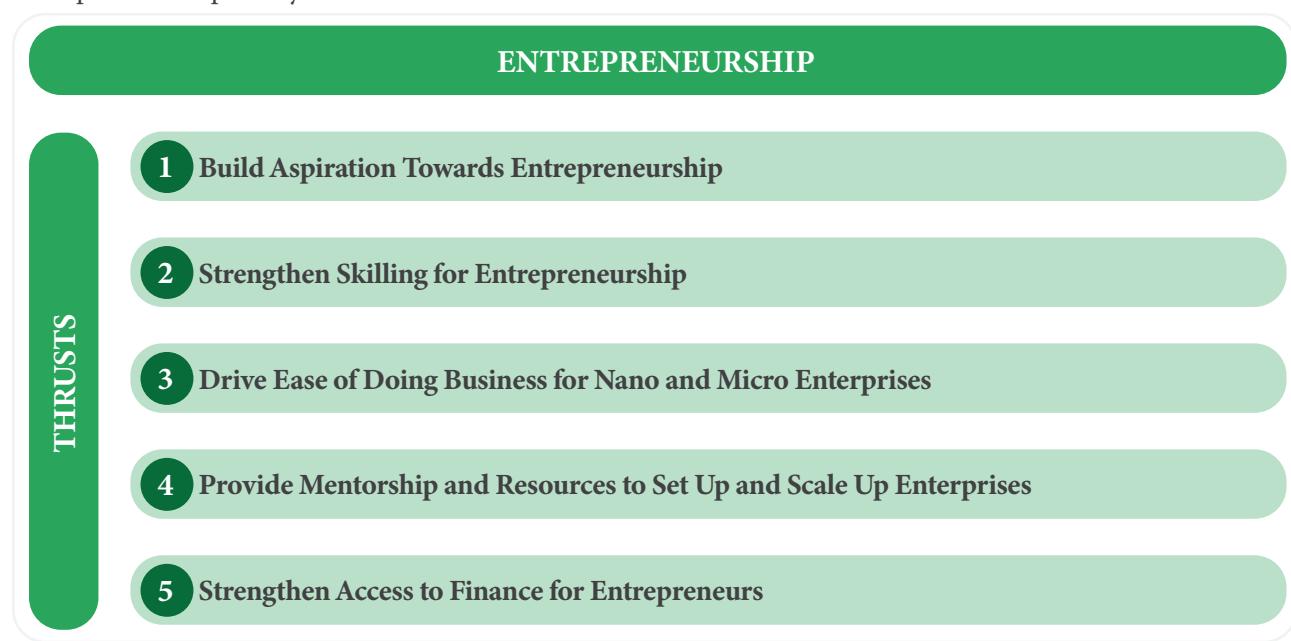


Figure 16: Five Key Thrusts for Entrepreneurship

¹⁷⁵ Statistics on Labour productivity, International Labour Organisation Database, 2023, extracted in Aug 2024.

¹⁷⁶ Country Profiles, Global Entrepreneurship Monitor, 2023, accessed in Aug 2024.

¹⁷⁷ GEM India Survey 2022-23, accessed in Aug 2024.

¹⁷⁸ Enterprise Survey, World Bank, 2022, accessed in Aug 2024.

¹⁷⁹ Ibid.

¹⁸⁰ Act No. 13 of 2023, Government of India, accessed in Aug 2024.

¹⁸¹ 6th Economic Census, Central Statistical Office, 2016, accessed in Aug 2024.

¹⁸² The new business density is defined as the number of newly registered corporations per 1,000 working-age people (those ages 15–64). World Bank Entrepreneurship Database, extracted in Dec 2024.

¹⁸³ Entrepreneurship Database, World Bank, 2023, extracted in Aug 2024.

¹⁸⁴ Annual Report 2022-23, Ministry of Information and Technology, accessed in Sep 2024. ([Link](#))

CHAPTER 13**THRUST 11: Build Aspirations Towards Entrepreneurship**

- The first step towards entrepreneurship is cultivating an aspirational and positive mindset.
- This policy focuses on two strategic action areas a)Cultivate entrepreneurial aspirations through mass awareness, running grassroot dialogues and orchestrating innovative measures such as Ideas-to-Business Challenges; b)Promote positive reinforcements amongst new and former entrepreneurs.

Context and Need

Building an enterprise requires resilience, creativity, and a proactive approach to navigating uncertainties and challenges. Today, approximately 10% of small businesses manage to survive beyond five years.¹⁸⁵ This issue is starker among women and marginalised groups. Currently, women own 20% of MSMEs in India, compared to a global average of 33%, and business ownership among Scheduled Castes (12.5%) and Scheduled Tribes (4.5%) is even lower.¹⁸⁶

Several Central and State ministries have taken many initiatives to cultivate an entrepreneurial mindset amongst the young and the underrepresented. Over 10,000 Atal Tinkering Labs targeting grades 6-12 were set up under the Atal Innovation Mission. The Union Budget 2025 has proposed setting up an additional 50,000 Atal Tinkering Labs (ATLs) in government schools by 2030.¹⁸⁷ These do-it-yourself labs help build aspirations towards innovation through hands-on learning at a young age. The MoMSME's ASPIRE initiative established 124 Livelihood Business Incubators targeting underserved rural areas. Under the Deendayal Antyodaya Yojana, the Start-Up Village Entrepreneurship Programme promotes self-employment opportunities at the grassroots level to encourage non-farm jobs in rural areas. The DPIIT also launched the Startup India Yatras, travelling to tier 2 and 3 cities to raise awareness and identify entrepreneurial talent.¹⁸⁸

At the State level, the Government of Delhi launched the Business Blasters Scheme, where students from classes 11 and 12 were provided seed money to start their businesses. The Government of Karnataka's E-STEP and the Government of Gujarat's Student Startup & Innovation Policy aim to support innovation amongst students. The larger entrepreneurial space is abuzz with innovation, and new identities like 'sanpreneurs', 'greenpreneurs', and 'technopreneurs', are emerging and generating an encouraging narrative around entrepreneurship.

Strengthening existing efforts is crucial to continue addressing cultural perceptions and other mindset barriers. Additionally, it is imperative to keep building confidence to inspire greater participation in entrepreneurship and unlock untapped potential across diverse groups.

Strategic Roadmap

The policy aims to cultivate entrepreneurial aspirations for both new and former entrepreneurs. To achieve this, public awareness campaigns will be launched to inspire entrepreneurship through role models and initiatives like National Entrepreneurship Week. Grassroot Entrepreneurship Dialogues (Swavlamban Samwaads) will be launched to facilitate conversations between aspiring entrepreneurs, offering insights and support at key locations. Further, business competitions will be introduced to nurture entrepreneurial ideas among students, the workforce, and NEET. Each of these is detailed subsequently.

¹⁸⁵ 90% Of Startups Fail: Here's What You Need to Know About The 10%, Forbes India, 2015, accessed in Aug 2024.

¹⁸⁶ 6th Economic Census, Central Statistical Office, 2016, accessed in Aug 2024.

¹⁸⁷ Highlights Of Union Budget 2025-26, Press Information Bureau (PIB) ([Link](#))

¹⁸⁸ Startup India Yatra, Startup India, Government of India, accessed in Dec 2024.

1 STRATEGIC ACTION AREA

Cultivate entrepreneurial aspirations

The effort to build an entrepreneurial mindset must start in schools. A National Entrepreneurship Week held at regular intervals, along with an overarching Entrepreneurs Ambassador Programme, can play a pivotal role in fostering entrepreneurial aspirations.

The National Entrepreneurship Week will be held for a nationwide audience and act as a confluence for various players in the entrepreneurial ecosystem. The ‘Week’ will highlight contextual role models working across sectors and representing diverse locations, genders, languages and cultures. It will create a physical forum for budding entrepreneurs to network with established businesses, pitch to potential investors, and seek other support from incubators, research centres and other relevant players.

Representative role models (e.g., Lakhpati Didi’s) will also conduct targeted awareness campaigns through the Entrepreneurs Ambassador Programme. The scope of the awareness campaigns will include not only students and the workforce but also other target groups such as school dropouts, marginalised populations, and rural communities. Entrepreneurship-focused bodies such as the Entrepreneurship Development Institute of India (EDII), the National Institute for Entrepreneurship and Small Business Development (NIESBUD), and the Indian Institute of Entrepreneurship (IIE) will lead the design and implementation of these campaigns to ensure maximum reach and impact.

Case Study- Gründungswoche Deutschland – Startup Week Germany¹⁸⁹

Gründungswoche Deutschland (Startup Week Germany) is an annual event that takes place every November, bringing together aspiring entrepreneurs, industry experts, and organisations to celebrate and promote entrepreneurship across Germany. It is part of the Global Entrepreneurship Week (GEW) and is coordinated by the German Federal Ministry of Economic Affairs and Energy (BMWi) in collaboration with numerous regional and local partners.

Startup Week Germany features a diverse programme of events, including workshops, panel discussions, networking sessions, and competitions, organised by a wide range of partners such as universities, chambers of commerce, and innovation hubs. These events are hosted in both physical and virtual formats, making them accessible to participants nationwide. Participation is often free or low-cost, ensuring inclusivity and broad engagement.

The initiative offers tailored resources, including guidance on business planning, financing, and intellectual property protection, creating a comprehensive support ecosystem for individuals at various stages of their entrepreneurial journey. Key highlights include free consultations on intellectual property rights for startups and SMEs, offered in collaboration with the German Patent and Trademark Office, and regional events hosted by institutions like the Technical University of Halle-Wittenberg, to foster entrepreneurial mindsets and networking. By blending inspiration, education, and practical support, Gründungswoche Deutschland provides a dynamic platform to ignite and sustain the entrepreneurial spirit.



¹⁸⁹ Gruendungswoche Deutschland, Bundesministerium für Wirtschaft und Klimaschutz, extracted in Dec 2024 ([Link](#)).

Grassroots dialogues, branded as "Swavlamban Samwaads" or a similar forum, will be organised to create platforms for existing and aspiring entrepreneurs to discuss opportunities, challenges, and the resources needed to start and grow businesses. These dialogues will be held at key locations such as District Industries Centre's (DIC), academic institutions, and skill centres. Local community leaders and organisations will be engaged to facilitate these conversations and promote entrepreneurship among underrepresented populations. Key State skilling departments will curate these district-level cohort discussions in collaboration with other ministries and State governments.

To further nurture entrepreneurial potential, "Idea-to-Business Challenges" will be launched at various levels, including states, districts, schools, and universities. Partnerships with private companies and other ecosystem players may be leveraged to create these challenges. These challenges will encourage students, workforce members, and NEETs to develop business plans and prototypes supported by platforms, financing, and certifications. Programmes like Atal New India Challenge, spurring innovation and creativity to solve issues of national importance and societal relevance, will be promoted. National Resource Organisations (NROs), NIESBUD, IIE, and regional Centres of Excellence (CoEs) will serve as the nodal agencies for designing and executing these initiatives, creating pathways for innovative ideas to transition into successful ventures.

Case Study- Student Start-up and Innovation Policy (SSIP 2.0) in Gujarat¹⁹⁰

The Student Start-up and Innovation Policy (SSIP) 2.0, introduced by Gujarat's Education Department, encourages innovation and entrepreneurship at all educational levels, from schools to universities. Its goal is to build a self-reliant ("Aatmanirbhar") Gujarat by fostering creativity, providing incubation support, and guiding students toward successful startups.

SSIP 2.0 aims to establish an innovation ecosystem across 1,000 HEIs and 10,000 schools. It focuses on supporting 10,000 student-led Proof-of-Concepts (PoCs), nurturing 1,500 student startups, and incubating 500 startups. The policy also promotes sustainable development and innovation in key sectors like clean energy, robotics, AI, and blockchain.

Various interventions have been introduced at both the State and institutional levels. Project Management Units (PMUs) oversee implementation, conduct State-level programmes, and promote industry partnerships. Educational institutions receive funding for pre-incubation facilities, proof of concept development, prototypes, and Intellectual Property (IP) support.

With a budget of ₹500 crore, including a Student Innovation Fund (SIF), the policy strengthens the infrastructure for innovation and entrepreneurship. It places special emphasis on inclusivity, ensuring support for marginalised communities, including women and differently abled students, within Gujarat's start-up ecosystem.

2 STRATEGIC ACTION AREA

Promote positive reinforcements amongst new and former entrepreneurs

The existing MSME awards programme will be expanded to include national, State, and district levels and broaden the recognition of entrepreneurial achievements. This enhanced programme will celebrate entrepreneurs excelling in growth, innovation, and impact across categories such as nano, micro, and medium enterprises, as well as sectors, gender, and regional contributions. It will motivate entrepreneurs, foster a competitive environment, and encourage business scaling, which will drive innovation and job creation.

Collaboration with existing support institutions such as schools, skilling institutions, HEIs, incubators, and accelerators is essential to assist entrepreneurs whose ventures have not succeeded. Initiatives like Business Readiness Cells in academic institutions and local entrepreneurship hubs such as strengthened Atal Community Innovation Centres can offer counselling and specialised business development services to help these entrepreneurs restart and build sustainable businesses. EDII, NIESBUD and IIE, and regional CoEs and National Resource Organization's (NROs), will play a crucial role in scaling existing centres to ensure comprehensive support for entrepreneurs, helping them turn past failures into future successes.

¹⁹⁰ Student Startup Innovation Programme Portal, 2024, accessed in Aug 2024.

The following table summarises key initiatives recommended across each strategic action area:

STRATEGIC ACTION AREAS	INITIATIVES
Cultivate entrepreneurial aspirations.	<ul style="list-style-type: none"> • Implement widespread campaigns, including an Entrepreneurs Ambassador Program and a National Entrepreneurship Week celebration, enabling access to diverse role models. • Launch "Swavlamban Samwaads" at locations like District Industries Centres and academic institutions to foster discussions among entrepreneurs about challenges, opportunities, and resources. • Launch State, district, and institutional level "Ideas to Business" challenges, encouraging participants to develop business plans and prototypes supported by financing and certifications.
Promote positive reinforcements amongst new and former entrepreneurs.	<ul style="list-style-type: none"> • Broaden the MSME Awards programme to include national, State, and district levels, celebrating entrepreneurial achievements in growth, innovation, and impact across categories such as enterprise size, sector, gender, and regional contributions. • Collaborate with institutions like schools, HEIs, and incubators to establish Business Readiness Cells and local entrepreneurship hubs that offer counselling and business development services.



CHAPTER 14

THRUST 12: Strengthen Skills for Entrepreneurship

- Early exposure towards practical skill building is essential to build awareness of opportunities and cultivate the foundation for an entrepreneurial mindset. Entrepreneurship skilling programmes must provide a structured environment where learners can grasp both theoretical and practical aspects.
- There is a focus on three strategic action areas: a)Developing NSQF-aligned qualification packs or micro/nano credentials to promote a modular approach to entrepreneurship education; b)Integrating entrepreneurship education/skills in academia and skill institutions and; c)Bundling skilling programmes with credit schemes.

Context and Need

Schools and universities have commenced offering entrepreneurship education, with 4 school education boards¹⁹¹ and more than 45 universities¹⁹² launching entrepreneurship courses.¹⁹³ Organisations like Micro, Small & Medium Enterprises - Development Institute (MSME DI), Tool Rooms and Training Centres, EDII, NIELET, NIESBUD, and IIE offer entrepreneurship training, digital literacy, and trainer's training programmes to targeted groups through regular courses and workshops in partnership with Central ministries and industry players. Private edtech platforms also provide topical entrepreneurship courses online.¹⁹⁴ Additionally, several institutions offer study breaks and career counselling services to encourage entrepreneurship.¹⁹⁵ These efforts mark a promising start in fostering an entrepreneurial mindset among India's youth.

However, these programmes need to be expanded in scope and reach. Entrepreneurship is currently included as a minor component of broader employability skills. Moreover, most entrepreneurship development programmes are relatively short, and online options are limited – standards developed by the Management & Entrepreneurship and Professional Skills Council (MEPSC) are still pending approval.¹⁹⁶

Thus, specific emphasis needs to be placed on the design, development, and scaling-up of entrepreneurship-oriented skilling programmes for students in academia and the workforce, and on supporting the starting and scaling of successful businesses.

Strategic Roadmap

Three strategic action areas are recommended to strengthen skilling for entrepreneurship. First, creating NSQF-aligned Qualification Packs is key. These standards will be incorporated into school curricula starting from grades 6 or 9 and continue through higher education and skill development programmes. Practical learning through projects, competitions, and mentorship from successful entrepreneurs will reinforce this foundation. Second, digital platforms like SIDH will be strengthened and leveraged to expand access to entrepreneurship training, ensuring that programmes reach underserved communities and broader audiences. Finally, bundling skilling with financing will enable entrepreneurs to become more effective. Each of the above is detailed below.

1 STRATEGIC ACTION AREA

Develop NSQF-aligned Qualification Packs or micro/nano credentials to promote a modular approach to entrepreneurship education

To standardise entrepreneurship training nationally, standalone QPs and modular micro and nano credentials will be developed in alignment with the NSQF. These credentials will address both foundational and advanced skilling needs, covering key areas such as entrepreneurship mindset, compliance with taxation and regulatory requirements (e.g., GST), business planning (e.g., designing

¹⁹¹ Recognised Educational Boards/Councils in Indian Education System, Ministry of Education, 2024, accessed in Aug 2024.

¹⁹² All India Survey on Higher Education (AISHE) 2020-2021, Ministry of Education, 2023, accessed in Aug 2024.

¹⁹³ Curated List, Analytics Vidya Magazine, 2024, accessed in Aug 2024.

¹⁹⁴ Entrepreneurship, Udemy, ([Link](#))

¹⁹⁵ News Article, Economic Times, 2016, accessed in Aug 2024.

¹⁹⁶ MEPSC Homepage, National Skill Development Corporation, 2022, accessed in Aug 2024.

business model templates), and financial planning (e.g., managing cash flow). Programmes offered will range from basic entrepreneurship skills for beginners to advanced managerial training for experienced entrepreneurs. Further, capacity-building modules in emerging sectors such as renewable energy, agritech, fintech, and digital services will be offered in alignment with market trends. Beneficiaries will have the flexibility to choose modular programmes or targeted credentials based on their needs and market relevance. NCVET will oversee the design and development of these frameworks, ensuring high-quality standards and sector-wide applicability.

2 STRATEGIC ACTION AREA

Integrate entrepreneurship education/skills in academia and skilling institutions

Integrating entrepreneurship education into academic curricula early can develop creativity, resilience, and problem-solving skills at a young age. Starting in grades 6 or 9, NSQF-aligned entrepreneurship subjects will be introduced as a part of the skilling focus outlined in NEP 2020. This formal entrepreneurship curriculum will combine basic business concepts like profit and loss with practical activities such as competitions and projects to instil a leadership mindset and encourage innovative thinking.

In HEIs, entrepreneurship will be integrated as a core or elective subject based on the field of study. While business programmes may make it mandatory, other disciplines may offer it as an elective to accommodate varying student interests. Practical exposure through internships, business simulations, and startup collaborations will equip students with tools to address real-world challenges.

Entrepreneurship training will be significantly enhanced in ITIs and Polytechnics, particularly in rural and non-industrial areas where the role of self-employment is critical. These programmes will also be available as optional or short-term courses under initiatives like PMKVY.

Training delivery will leverage digital and physical channels to ensure accessibility even in remote areas. For skills requiring hands-on engagement, a ‘phygital’ approach will combine online learning with practical sessions and real-world projects. To further enhance learning, programmes will include market research, boot camps, customer interactions, and on-the-job training supported by partnerships with local businesses and entrepreneurs.

To personalise learning experiences, AI-driven mentorship will be integrated into digital platforms to provide tailored guidance, offering entrepreneurs real-time feedback and support as they refine their skills. Entrepreneurship Hubs/Cells will be strengthened and established in collaboration with educational institutions. Reputable civil society organisations will be encouraged to deliver capacity-building programmes, workshops for scaling businesses, and localised mentorship tailored to economic and industry needs.

Lastly, building a strong pool of master trainers and faculty members is essential for promoting entrepreneurship across institutions, districts, and states. Besides delivering quality instructions and mentorship, these trainers and faculty members may also facilitate student-faculty spin-off ventures. With defined faculty and institution shares, such spin-offs will further support and nurture innovation. The Skills Practitioner Ecosystem will be key in this effort, upskilling existing trainers and incorporating practitioners, mentors, and counsellors to deliver high-quality, impactful programmes. This closely aligns with the broader goals outlined in Thrust 5.



3 STRATEGIC ACTION AREA

Bundle entrepreneurship development and skilling programmes with credit schemes

Skilling programmes will be bundled with credit schemes to provide entrepreneurs with the necessary financial resources along with the skilling component essential to launch and manage their businesses effectively. This approach has been proven successful by models such as the Rural Self-Employment Training Institutes (RSETI) and Pradhan Mantri Vishwakarma scheme, which integrates skilling with access to credit. Scaling such models nationwide will benefit a larger audience, enabling more aspiring entrepreneurs to gain critical training and financial assistance.

Central ministries and State governments will promote these bundled programmes through targeted awareness campaigns and advocacy efforts, driving uptake and participation across diverse regions. This initiative aims to empower a greater number of entrepreneurs by equipping them with the tools and resources needed for sustainable success.

Rural Self-Employment Training Institutes Model

RSETI is a sub-scheme of the National Rural Livelihood Mission (NRLM) managed by sponsor banks with active cooperation from the Government of India and State Governments. It provides free, short-term residential training to unemployed rural youth (18-45 years), focusing on skill and entrepreneurship development.

The main objective of RSETIs is to empower rural youth to explore self-employment and build sustainable livelihoods. RSETIs operate in 591 institutes across 577 districts,¹⁹⁷ offering 59 NSQF-aligned courses and 5 General Entrepreneurship Development Programmes in product development, processes, and agriculture sectors.¹⁹⁸ A key feature of the programme is its emphasis on linking trainees to formal credit institutions, particularly sponsor banks, to enable access to loans for starting or expanding businesses. RSETIs also provide long-term support to entrepreneurs to ensure business success.

As of September 2024, RSETIs have trained over 52 lakh candidates, of which 37.2 lakh (71%) have been successfully placed in self-employment or wage employment.¹⁹⁹ The programme has especially impacted rural women and marginalised communities and fostered entrepreneurship and enhancing financial inclusion. RSETIs' combination of skill development and access to credit has played a crucial role in building sustainable livelihoods and boosting rural economies across India.

The following table summarises key initiatives recommended across each strategic action area:

STRATEGIC ACTION AREAS	INITIATIVES
Develop NSQF-aligned qualification packs or micro/nano credentials to promote a modular approach to entrepreneurship education.	<ul style="list-style-type: none"> Standardise entrepreneurship training by developing standalone QPs and modular micro/nano credentials aligned with the NSQF, covering topics like entrepreneurship mindset, taxation, business planning, and financial management. Launch capacity building modules for emerging areas such as fintech, agritech, renewable energy and digital services in line with market trends.
Integrate entrepreneurship education/skills in academia and skill institutions.	<ul style="list-style-type: none"> Integrate NSQF-aligned entrepreneurship courses, from grades 6 or 9, under NEP 2020, which will include a curriculum focusing on foundations in entrepreneurship. Integrate entrepreneurship courses in HEIs, with mandatory inclusion in business programmes (delivered as classes, workshops, field visits) and as electives in other disciplines.

¹⁹⁷ Rural Self Employment Training Institutes, Press Information Bureau, 2024, accessed in Sep 2024 ([Link](#))

¹⁹⁸ SBI's Leading Role in RSETIs, State Bank of India, 2024, accessed in Sep 2024 ([Link](#))

¹⁹⁹ Rural Self Employment Training Institutes Dashboard, Ministry of Rural Development, extracted in Oct 2024 ([Link](#))

STRATEGIC ACTION AREAS	INITIATIVES
	<ul style="list-style-type: none"> • Strengthen entrepreneurship programmes in rural and non-industrial areas, offering optional or short-term courses under initiatives like PMKVK. • Use AI-driven mentorship on digital platforms to provide personalised guidance and real-time feedback – for trainers and learners. • Develop a strong pool of trainers through the Skills Practitioner Ecosystem, enhancing the capabilities of existing trainers and incorporating practitioners and mentors.
Bundle Skilling Programmes with credit schemes.	<ul style="list-style-type: none"> • Bundle credit schemes with relevant skilling courses to provide entrepreneurs with the necessary financial resources along with the skilling component essential to launch and manage their businesses effectively.



CHAPTER 15

THRUST 13: Drive ‘Ease of Starting and Growing Nano and Micro Businesses’

- Countries that streamline their regulatory frameworks around entrepreneurship have seen substantial boosts in business formation and competitiveness.
- Three strategic action areas are outlined as follows: a) Consider Nano Enterprises as a separate category to simplify starting new businesses; b) Promote ‘Business-in-a-Box’ models to enable sustainable, small-scale entrepreneurship and; c) Streamlining regulations, including digitisation and automated approvals.

Context and Need

Regulatory reforms, such as simplifying registration and compliance procedures, are correlated with economic growth, potentially contributing a 0.15% increase in GDP growth.²⁰⁰

India has made significant strides in evolving its regulatory environment to support entrepreneurs. Key reforms include the introduction of the Insolvency and Bankruptcy Code in 2016, the Goods and Service Tax in 2017, and most recently, the Jan Vishwas Act in 2023.²⁰¹ Over 3,400 legal provisions have been decriminalised, and more than 3,900 compliance requirements have been eliminated, reflecting substantial progress in easing regulatory burdens.²⁰²

However, challenges still exist, particularly for very small businesses called nano enterprises by the industry. These are enterprises with an annual turnover of less than ₹1 Crore, and as per a research study, 96% of the 4.96 crores enterprises classified as micro-enterprises fall into this category.²⁰³ Streamlining processes such as reducing the time required to obtain permits can significantly enhance efficiency by reducing costs for small businesses and creating a more supportive business environment.²⁰⁴ Continued reforms are required aimed at simplifying compliance to create a stronger entrepreneurial ecosystem and support sustainable economic growth.

Strategic Roadmap

Three strategic action areas have been identified. The first is defining and recognising ‘nano enterprises’ as a separate category under MSME classification with simplified regulations and compliance processes. This classification will specifically address the challenges faced by such businesses with low revenue, for e.g., barriers to securing necessary financial support.²⁰⁵ By easing compliance, the new definition will support the formation and growth of nano enterprises. The second is developing packaged business solutions - ‘Business-in-a-Box’ which can help individuals launch small business swiftly. These ready-made business models will reduce risks for entrepreneurs and promote opportunities, especially for underserved populations. The model will also contribute to formalisation by providing structured and standardised setups. Lastly, streamlining regulations by reducing, decriminalising, and digitising compliance processes will boost business efficiency and growth and create a more business.

1 STRATEGIC ACTION AREA

Define nano enterprises as a separate category to simplify starting new businesses

To better support the smaller businesses, a new ‘nano-enterprise’ category will be created for businesses with an annual turnover of less than ₹1 crore.²⁰⁶ This new classification will separate nano-enterprises from micro-enterprises, which include businesses with an annual turnover of up to ₹5 crore.²⁰⁷

²⁰⁰ ASEAN Work Programme on Starting a Business, ASEAN Secretariat, 2016, accessed in Nov 2024. ([Link](#))

²⁰¹ Act No. 13 of 2023, Government of India, accessed in Aug 2024

²⁰² Business Friendly Reforms: India's Path to Prosperity, Invest India, 2024, accessed in Aug 2024.

²⁰³ Formalization of Nano Enterprises through Digital Platforms: Potential and Challenges, LEAD at Krea University, March 2024. ([Link](#))

²⁰⁴ ASEAN Work Programme on Starting a Business, ASEAN Secretariat, 2016, accessed in Nov 2024. ([Link](#))

²⁰⁵ The Curse of Smallness, Indian Express, 2024, accessed in Aug 2024.

²⁰⁶ The MSME Development Act of 2006 doesn't specifically define nano enterprises. It is informally understood by industry experts as a business operating typically with a turnover of less than ₹1 crore annually.

²⁰⁷ Ministry of Micro, Small and Medium Enterprises Official Website. ([Link](#))

By formally recognising nano-enterprises, the Government can address their unique challenges related to formalisation and growth, which differ significantly from larger firms.

A simplified regulatory framework will be introduced for nano-enterprises, emphasising self-declaration systems to ease compliance processes. This approach aims to streamline formalisation and reduce the administrative burden for these businesses.

To further support nano-enterprises, targeted financial benefits will be offered, including enhanced access to credit and interest subvention schemes.²⁰⁸ These measures are designed to improve the financial viability and growth prospects of nano-enterprises, and create an inclusive and supportive business environment. To achieve all of the above, a dedicated National Nano-Enterprise Mission (NNEM) will be formed in collaboration between MSDE and MoMSME to drive the agenda on mission mode.

2 STRATEGIC ACTION AREA

Promote ‘Business-in-a-Box’ models to enable sustainable entrepreneurship

The Business-in-a-Box (BiB) model provides structured, ready to deploy package for direct implementation by individuals and nano-entrepreneurs, bringing together the necessary financial resources, skills, market access and requisite mentorship. BiB aims to cater to local economies, promoting sustainable (and contextualised) non-farm employment – particularly in rural, peri-urban and underserved areas. This initiative will particularly focus on individuals from lower-income and marginalised groups, as well as rural households and NEET among others, enabling them to own and operate sustainable and scalable businesses while addressing job shortages. Efforts will prioritise the design, innovation, and promotion of these business models to encourage entrepreneurship. These models will create opportunities by meeting local demand while ensuring accessibility for individuals in rural and per-urban areas while enabling creation of non-farm opportunities and long-term impact. Several models may be launched simultaneously, with continuous monitoring to assess their scalability and benefits for participants. Where models face challenges or prove unviable, they will be refined or phased out to optimise resource utilisation and maximise effectiveness. Several variations of the framework (not exhaustive) are offered as case studies below.

Case Study - Business-in-a-Box Models²⁰⁹

- **Micro-Franchising:** Micro-franchising provides affordable and sustainable business opportunities to underserved communities. It is a business framework that replicates small, proven and scalable business concepts for entrepreneurs with limited resources, providing them with tools, trainings, and support to operate under a shared brand. Solar Sister empowers women in rural Africa by training them to sell solar-powered lights and clean energy products, fostering entrepreneurship and promoting clean energy access. Similarly, Jibu operates in East Africa, where local entrepreneurs run water depots providing affordable clean water. Jibu supports these micro-franchisees with financing, training, and equipment to ensure business success. Another example is VisionSpring, which trains individuals to sell affordable eyeglasses in low-income areas, improving both livelihoods and access to vision care.
- **Hub and Spoke:** This model centralises resources and training to support small-scale businesses while linking them to larger markets. In India, Amul Parlours enable local entrepreneurs to sell dairy products with minimal investment, supported by training, equipment, and marketing assistance. Akshayakalpa takes a similar approach by training ‘model farmers’ in organic farming, who then supply produce to central village hubs for processing and distribution, inspiring others to adopt sustainable practices.
- **Community Business Clusters:** Shared infrastructure, common procurement of raw material and collective market access helps reduce costs and promote collaboration. For example, SEWA’s Rural Urban Distribution Initiative in India enables women to use cooperatives and warehouses to produce and market goods efficiently, empowering rural entrepreneurs and creating collective growth. Several SHGs, especially those focussed on food and textiles, are built on this concept.

²⁰⁸ The Curse of Smallness, Indian Express, 2024, accessed in Aug 2024.

²⁰⁹ Micro-Franchising: A Growing Trend in 2024, Forbes; Five ways to build a successful micro-franchise business, World Economic Forum; Homepage, Jibu; Amul Franchise Business Opportunity, Amul, 2024, accessed in Aug 2024.

- **Toolkits for Specialised Skills:** These programmes equip individuals with tools, training, and resources tailored to their specific trade or skill. Programmes like Tools for Solidarity in Tanzania provide rural artisans with toolkits and training to monetise trades such as carpentry and tailoring, ensuring financial independence for marginalised groups. The PM Vishwakarma in India is also premised on this model.
- **Subscription-based Kits:** A variation of the above model, these kits offer ongoing support and resources on a subscription model to ensure sustainability and long-term success. One Acre Fund supports smallholder farmers in sub-Saharan Africa by offering seeds, fertilisers, and ongoing training. This subscription-based approach ensures farmers receive consistent support to enhance agricultural productivity and long-term success.

To ensure sustained success, a robust supporting ecosystem will be built, offering critical support such as access to credit, infrastructure, market linkages, and incubation programmes. The Skill Practitioner Ecosystem, including mentors and counsellors, will play a vital role in supporting these businesses. These experts will guide entrepreneurs in navigating local market conditions, overcoming operational challenges, and achieving steady growth.

A dedicated National Nano Entrepreneurship Programme (NNEP) will be launched to deliver this area of action. The effective implementation of Business-in-a-Box (BiB) models will require coordinated efforts from multiple stakeholders. MSDE will lead the initiative by engaging industries for micro-franchising, curating scalable BiB models, hosting awareness workshops, and developing a mentor network to support entrepreneurs with training, finance, and guidance. The Ministry of MSME will provide strategic support by building on the learnings of PM Vishwakarma, facilitating access to finance and markets, and partnering with institutions such as NABARD, among others. State and District Governments will ensure on-the-ground implementation by identifying high-potential districts, coordinating training and market linkages, leveraging state and district staff for delivery support, and assisting with onboarding onto digital platforms. The private sector will play a vital role by identifying and incubating viable business models, ensuring operational sustainability, providing capacity-building and mentorship, and supporting scale-up through franchising, cluster development, and transitions to entrepreneur-led ownership.

3 STRATEGIC ACTION AREA

Streamline regulations, including digitisation and automated approvals on an ongoing basis

A robust framework for continuous regulatory review is essential to support nano-enterprises and MSMEs and create a dynamic business environment. This framework will be developed collaboratively by key ministries, state governments, academia, and industry bodies, ensuring that regulations adapt to meet evolving market needs. The focus will be on eliminating inefficiencies, reducing redundancies, and enhancing socio-economic value to create a more supportive ecosystem for small businesses.

To streamline compliance, digital platforms will be enhanced to simplify processes across central and state jurisdictions. These platforms will prioritise interventions like automated approvals for licenses and permits, among other interventions, significantly reducing administrative burdens and increasing transparency.

Additionally, local entrepreneurship hubs or incubation cells (as identified in other sections) will serve as business facilitation centres. Staffed with trained professionals, these centres will support nano and micro-entrepreneurs by guiding them through the regulatory landscape. They will help entrepreneurs understand compliance requirements, access necessary resources, and navigate the processes needed to start and scale their businesses effectively.

Case Study - Transforming Ease of Doing Business for MSMEs in Punjab²¹⁰

In January 2021, the Government of Punjab launched a comprehensive reform initiative to improve the Ease of Doing Business for MSMEs. The initiative aimed to simplify regulations, reduce compliance burdens, and expedite approvals, fostering a more efficient business environment.

The Government established an Ease of Doing Business task force, including senior officials and experts, to review over 70,000 compliances. Feedback from 10-12 MSME clusters led to five key reforms, including streamlining regulatory processes, digitising compliance, and decriminalising minor violations. Unified digital platforms for labour and other core regulations were also introduced to enhance efficiency.

The reforms are expected to cut No Objection Certificate (NOC) processing time by 30%, benefiting over 1.1 lakh MSMEs.²¹¹ Rationalising document checklists is projected to save ₹2.50 crore, while application processing times will be halved.²¹² Automated trade license approvals and streamlined fire safety and forest clearance procedures will further reduce delays, creating a more business-friendly environment for MSMEs.

The following table summarises key initiatives recommended across each of the strategic action areas:

STRATEGIC ACTION AREAS	INITIATIVES
Define Nano Enterprises as a separate category to simplify starting new businesses.	<ul style="list-style-type: none"> Establish a new classification for nano enterprises as businesses with annual turnover under ₹1 crore, distinct from micro-enterprises, to focus on their unique formalisation and growth needs. Introduce a streamlined regulatory framework with self-declaration systems, and provide targeted financial benefits, including improved access to credit and interest subvention schemes, addressing challenges faced by smallest businesses.
Promote 'Business-in-a-Box' models to enable sustainable, small-scale entrepreneurship.	<ul style="list-style-type: none"> Launch "Business-in-a-Box" models enabling individuals (e.g., graduates, the NEET population), to own and operate sustainable businesses. Strengthen access to credit, infrastructure, market linkages, and incubation programmes to equip entrepreneurs with the tools needed to launch and grow their ventures effectively. Utilise mentors and counsellors to guide entrepreneurs in navigating local market conditions, overcoming challenges, and achieving consistent growth through targeted support and expertise.
Streamline regulations, including digitisation and automated approvals, are ongoing.	<ul style="list-style-type: none"> Establish a collaborative process involving key Ministries, State governments, academia, and industry bodies to assess and adapt regulations, focusing on reducing inefficiencies, eliminating redundancies, and enhancing socio-economic value for MSMEs. Launch platforms to streamline compliance processes across Central and State jurisdictions, incorporating automated approvals for licenses and permits to reduce administrative burdens and increase transparency. Develop entrepreneurship hubs and incubation cells as business facilitation centres to guide nano and micro-entrepreneurs through regulatory frameworks.

²¹⁰ Reforms Compendium, Invest Punjab, 2021, accessed in Aug 2024.

²¹¹ Ibid.

²¹² Ibid.

CHAPTER 16

THRUST 14: Provide Mentorship and Resources to Enable Set-up and Scale-up of Enterprises

- Mentorship is crucial in entrepreneurship. Getting the right support and guidance often helps in achieving entrepreneurial success.
- This policy focuses on three strategic action areas: a)Expand and improve the networks of incubators ; b)Ensure ongoing access to essential tools and resources available to entrepreneurs such as case studies, business templates, and marketing tools like SEO optimisation and; c)Innovative aggregation models can be explored to increase attractiveness to credit.

Context and Need

Entrepreneurship can be a long and challenging journey, often fraught with complexity that can be hard to navigate without proper guidance and mentorship. Achieving success in this domain frequently hinges on receiving the right support at pivotal moments along the way. India has made significant strides in building a robust entrepreneurial ecosystem through initiatives like the establishment of over 1,100 incubators²¹³ that offer capital and operational grants. Programmes like MSME's National SC-ST Hub Scheme, NITI Aayog's Women Entrepreneurship Platform (WEP), Ministry of Science and Technology's (MoST) Promoting Innovations in Individuals, Startups and MSMEs (PRISM), and DPIIT's Mentorship, Advisory, Assistance, Resilience, and Growth (MAARG) portal further offer entrepreneurs mentorship, resources, and networking opportunities. Atal Innovation Mission's Mentor India has onboarded over 6,200 mentors across 4,900 schools²¹⁴. Government platforms such as MyScheme also aggregate government resources to provide centralised access to essential schemes for entrepreneurs.

Despite these efforts, challenges remain in providing entrepreneurs with high-quality mentors, timely information, and financial access. Many self-employed individuals, particularly at the micro and nano levels, operate at sub-scale due to limited resources, inadequate risk capacity, and the absence of mentorship. Aggregation and clustering of these entrepreneurs, especially in rural and tribal areas, could address these issues, optimising their operations and incomes.²¹⁵

Further, a structured mentorship network tailored to the entrepreneurial journey is critical. Entrepreneurs at various stages can benefit from specialised guidance, such as early-stage support for ideation and business validation, growth-stage mentorship to scale operations and access market, and technical expertise to navigate niche challenges and innovation.

As mentor resources and networks continue to be developed, there is a growing need to raise awareness about them and enhance their integration with various institutions. This need is underscored by findings from the MSDE State of Skills survey, which reveal that existing platforms and resources have low visibility. For instance, 71% of respondents reported being unaware of key initiatives such as Ajeevika Stores, E-Haat, and Udyam registration.²¹⁶

Strategic Roadmap

Three strategic action areas have been identified to effectively address the gaps in mentorship and resources for entrepreneurs. First, expanding and improving the network of incubators is essential. Second, ensuring ongoing access to essential tools and resources available to entrepreneurs, such as case studies, business templates, and marketing tools like SEO optimisation, is important. Third, innovative aggregation models can be explored to increase attractiveness to credit and embolden entrepreneurs to take more risks through these aggregates. These three action areas are detailed below.

²¹³ Schemes for Incubators, Startup India portal, accessed in Aug 2024.

²¹⁴ Atal Innovation Mission website ([Link](#)), data extracted in January 2025

²¹⁵ The State of Economic Inclusion Report 2024, World Bank, 2024, accessed in Dec 2024 ([Link](#)).

²¹⁶ State of Skills Market Survey 2024, Ministry of Skill Development and Entrepreneurship, accessed Sep 2024 “Which of the following portals are you aware about?”

1 STRATEGIC ACTION AREA

Enhance institutional capacity for mentorship and access to resources

To nurture a thriving entrepreneurial ecosystem, a diverse pool of mentors will be onboarded as part of the Skills Practitioner Ecosystem, recommended in the policy. This pool will include functional experts, local entrepreneurs, technical specialists, and mindset coaches, providing targeted support. Additionally, peer-to-peer mentoring networks will connect new entrepreneurs with experienced individuals who have successfully overcome similar challenges.

The network of mentors will be operationalised through Business Readiness Cells at academic institutions, District Industries Centres (DICs), and Digital Hub - a singular touch point to access entrepreneurship-related mentorship and resources. Further, sector-specific mentorship initiatives tailored for industries like agritech, fintech, healthtech and AI will provide specialised guidance to address unique challenges and leverage opportunities. All mentors will be incentivised through a combination of financial and non-financial rewards, supported by appropriate performance review mechanisms as outlined in Chapter 6 on “Strengthening Trainer Capacity and Enhancing the Skill Practitioners Ecosystem.

Outcome-driven incubators will also play a critical role in supporting entrepreneurs and will be evaluated based on measurable performance metrics, such as revenue growth, profits generated, and job creation within supported enterprises. Beyond financial support, these incubators will offer mentorship, business assistance, and access to market and industry linkages. In rural and special regions, such as LWE, NER, and hilly areas, state governments will conduct feasibility studies at the district level of establishing Rural Incubation Cells or Regional Incubation Hubs; such hubs will provide access to a localised support system, including physical mentoring, funding advice, and resource linkages. The renewed Atal Innovation Mission (AIM) can further expand its Atal Incubation Centres (AICs) network to address regional disparities and integrate mentorship programmes across these hubs to ensure consistent guidance for new entrepreneurs nationwide.²¹⁷ Additionally, expanding the Vernacular Innovation Programme will lower the language barrier and enable seamless access to entrepreneurial opportunities in regional languages.

Stronger institutional linkages will connect schools, HEIs and skill training centres with local and regional incubators. Partnerships between MSDE, MoE, MoA&FW and MoLE will integrate incubation networks with academic and skilling institutions, ensuring students and trainees pursuing entrepreneurial ventures have better access to resources.

Agencies like NROs, EDII, NIESBUD, and IIE will support the capacity building of district-level institutions, ensuring they are equipped to support both new and existing enterprises effectively.



²¹⁷ Atal Innovation Mission, Government of India, accessed in Dec 2024 ([Link](#)).

Sardarkrushinagar Dantiwada Agricultural University Rural Business Incubation Centre²¹⁸

The Sardarkrushinagar Dantiwada Agricultural University Rural Business Incubation Centre (SDAU-RBIC) is a pioneering initiative in Gujarat, established through a collaboration between SDAU and the National Bank for Agriculture and Rural Development (NABARD). It is Gujarat's first incubation centre supported by NABARD in the western region of India. Its primary objective is to cultivate an entrepreneurial ecosystem that supports impact-driven organisations, particularly among rural youth. Key features of the SDAU-RBIC include state-of-the-art infrastructure, training halls, conference rooms, research labs, and a diverse pool of mentors, all situated within SDAU's campus. The centre focuses on sectors such as food and agriculture, manufacturing processed food products, silk products, climate action in agriculture, and support for producer organisations etc. Through partnerships with entities like NABARD, the SDAU-RBIC offers business support, training, financial assistance, market access, and networking opportunities. Its approach involves organising workshops, boot camps, and sensitisation seminars to nurture startups and encourage innovation.

The impact of the SDAU-RBIC is evident in its role as a catalyst for rural development, promoting entrepreneurship, and enhancing the startup ecosystem in agriculture and allied sectors. Today, it serves as a vital resource for aspiring entrepreneurs, providing the necessary support to transform innovative ideas into viable businesses. Since its inception, it has incubated nearly 100 organisations. Additionally, the centre has been instrumental in generating employment for over 10,000 individuals through its support of startups and incubates. In addition to its incubation services, SDAU-RBIC has been proactive in capacity building and knowledge dissemination, including residential training programmes aiming to strengthen the managerial capabilities of rural enterprises, ensuring their sustainability and growth.

2 STRATEGIC ACTION AREA

Ensure ongoing access to essential tools and resources

Business development services will be bundled with credit schemes to enhance entrepreneurial success. These bundled services will be offered at a nominal fee, including business validation, market connections, and support in creating business plans.

Resource repositories and digital platforms like BHASKAR, developed by DPIIT, among many others, will be strengthened and promoted. These platforms will act as a Digital Hub to provide entrepreneurs with access to case studies, government schemes, training materials and other resources tailored to help them start and grow their businesses, and access to mentorship. The Digital Hubs will be modelled as a single point for startups to network with, pitch to, and seek mentorship from mentors, investors, startups, incubators, and accelerators.



²¹⁸ Rural Business Incubation Centre, RBIC-SDAU, extracted in Dec 2024 ([Link](#))

Startup SG Portal – Singapore²¹⁹

Startup SG is a strategic initiative launched by Enterprise Singapore in 2017 to consolidate and enhance support for the nation's startup ecosystem. As a statutory board under the Ministry of Trade and Industry, Enterprise Singapore oversees this platform to position Singapore as a leading startup hub in Asia and globally.

The portal offers a comprehensive suite of resources and programmes tailored to the diverse needs of startups at various stages of development. Key features include funding schemes such as Startup SG Founder, which provides mentorship and startup capital grants to first-time entrepreneurs, and Startup SG Tech, offering early-stage funding to accelerate the development of proprietary technologies. Additionally, the platform supports talent acquisition through initiatives like Startup SG Talent, facilitating access to skilled professionals and entrepreneurial work visas. Support is available via Startup SG Infrastructure, providing physical spaces conducive to innovation and collaboration. The portal also fosters connections between startups and investors through Startup SG Equity, a co-investment scheme that partners with qualified third-party investors to fund high-potential startups.

Startup SG simplifies the process for aspiring entrepreneurs by unifying access to essential resources, including funding, mentorship, talent, and infrastructure. This integrated approach reduces barriers to entry and accelerates startups' growth trajectory, enabling them to scale more efficiently and effectively. The Startup SG Network, a community initiative under the platform, connects over 4,000 tech startups, 400 venture capital firms, and 220 incubators and accelerators within Singapore.

Additionally, where relevant and feasible, latest technologies will be introduced for greater efficiency. For example, introducing an AI-powered digital assistant on existing platforms can help with tax calculations, compliance requirements, business model guidance, and more, providing instant and tailored support. Key ministries will collaborate and develop, test, and promote such technologies to ensure widespread adoption across platforms serving entrepreneurs.

Brazilian Micro and Small Business Support Service²²⁰

Serviço Brasileiro de Apoio às Micro e Pequenas Empresas, or SEBRAE, is a non-profit entity, working in collaboration with the Ministry of Development, Industry and Trade, and the Government of Brazil, dedicated to promoting the sustainable and competitive development of micro and small enterprises in Brazil. Through a nationwide network of 500+ service centres, 27 State units, and 5800 direct collaborators, SEBRAE facilitates partnerships between startups and established companies, enabling knowledge transfer, mentorship, and market access. It has supported more than 1 lakh firms through online as well as offline channels.

SEBRAE is a form of 'Single Window Support' programme which provides multiple services through a single portal. This enables bottom-up compatibility with local systems, incentivises formalisation, and reduces cost of compliance by incentivising collaboration among government bodies. SEBRAE also collaborates with universities, technical centres, and professional schools to offer training and tailored consulting services for formalisation, obtaining regulatory permissions, tax support, training to scale, social security benefits, among others, on a single platform. It also provides technical solutions and innovation support with dedicated programmes.

3 STRATEGIC ACTION AREA

Promote aggregation to enhance incomes of self-employed

To empower individuals and small businesses, their aggregation into clusters, cooperatives, producer groups or other collaborative structures will be promoted. These collaborative structures will help achieve economies of scale, increase attractiveness for credit, and hence, improve incomes. In rural and tribal areas, such models also drive innovation, promote community participation, create local employment and empower marginalised groups.

²¹⁹ Portal SEBRAE, extracted in Dec 2024 ([Link](#)); INSME, extracted in Dec 2024 ([Link](#)).

²²⁰ Portal SEBRAE, extracted in Dec 2024 ([Link](#)); INSME, extracted in Dec 2024 ([Link](#)).

For example, the graduation approach,²²¹ as seen in Bihar's Satat Jeevikoparjan Yojana (SJY), provides a pathway out of poverty by integrating the poorest households into sustainable livelihoods. This can be achieved through a combination of financial support, capacity building, and market linkages.²²² In implementing such programmes, community linkages will also be leveraged through targeted schemes, as in the Van Dhan Vikas Yojana – which empowers tribal communities to become entrepreneurs by harnessing forest resources through value addition.²²³

Graduation Approach – Satat Jeevikoparjan Yojana and Tamil Nadu Rural Transformation Project²²⁴

The Satat Jeevikoparjan Yojana (SJY), implemented in Bihar under the Deendayal Antyodaya Yojana-national Rural Livelihood Mission (DAY-NRLM), is a flagship initiative funded by World Bank, designed to provide a structured pathway out of poverty for the poorest and most vulnerable households. It employs an integrated approach to help beneficiaries transition to sustainable livelihoods, focusing on financial, social, and market-based interventions.

Households living in extreme poverty are identified and provided initial support including financial assistance, and grants which address the immediate needs. Then, tailored skill development training is delivered, in addition to providing market insights and access to supply chains. Beneficiaries are organised into SHGs, and several SHGs together form the village organisation which acts as a financial intermediary and the collective voice of the SHGs.

The Tamil Nadu Rural Transformation Project was started with the objective to promote rural enterprises, access to finance, and employment opportunities in selected blocks of Tamil Nadu. Funded by the World Bank and implemented by the Department of Rural Development & Panchayat Raj, Government of Tamil Nadu, this project has adopted a three-tiered approach to form a collective enterprise in rural areas.

In the first tier, the enterprise groups at the community or village-level engage 30 members in shared farming or non-farming-related production directly connected to the market. In the second tier, producers with direct market linkages are involved in the aggregation of produce and basic processing. In the third tier, higher-order producer collectives acting as member organisations provide a range of value-added services to their members, such as high-quality inputs, improved technologies, availability of finance and better market linkages.

Geographic, industrial and sector-specific clusters, such as the Pochampally Handloom cluster,²²⁵ and Sports Goods Manufacturing and Exporters Association (SGMEA) demonstrate the potential of shared infrastructure, resource pooling, and risk distribution. Illustratively, the centralised weaving, designing, and dyeing units in Pochampally Handloom Park, along with bulk procurement of raw materials, help reduce per-unit cost by spreading out capital expenditure and accessing the market collectively. DICs will play a crucial role in identifying the right opportunities and implementing incentives at the local level.

Strengthening market linkage platforms will be critical to further supporting the self-employed. Channels like the Government e-Marketplace, Amazon Saheli, and Flipkart Samarth aggregate products from small entrepreneurs and provide comprehensive market access. Enhancing these platforms will ensure small businesses gain visibility and access to national and international markets.

²²¹ The graduation approach refers to sequenced and time bound set of multisectoral interventions that help people living in extreme poverty build resilience and engage in sustainable livelihood through self-employment. It involves interventions such as (1) consumption support, (2) skills training, (3) means to jump start an economic activity, (4) access to savings service and related financial capacity building and (5) coaching, mentoring and group membership; "Graduating the Poor: CGAP Completion Report", 2019 World Bank, ([Link](#)).

²²² The State of Economic Inclusion Report 2024, World Bank, 2024, accessed in Dec 2024 ([Link](#)).

²²³ Van Dhan Vikas Yojana, Ministry of Tribal Affairs, Government of India ([Link](#)).

²²⁴ Tamil Nadu Rural Transformation Project, World Bank, ([Link](#)).

²²⁵ "Pochampally: Documentation and Survey Report for Rural Tourism Development", Indian Trust for Rural Heritage ([Link](#)).

The following table summarises key initiatives recommended across each of the strategic action areas:

STRATEGIC ACTION AREAS	INITIATIVES
Enhance institutional capacity for mentorship and access to resources.	<ul style="list-style-type: none"> • Onboard functional experts, successful entrepreneurs, technical specialists, and mindset coaches as part of the Skills Practitioner Ecosystem to provide targeted support. • Promote outcome-linked incubators evaluated on metrics like revenue growth, profits, and job creation. Explore Rural Incubation Cells in regions like LWE, NER, and hilly areas. • Connect schools, HEIs, and skill training centres with local and regional incubators to ensure students and trainees pursuing entrepreneurship have access to necessary resources and incubation services. • Enhance district-level institutions to deliver financial linkages, business development services, and market access.
Ensure ongoing access to essential tools and resources.	<ul style="list-style-type: none"> • Offer bundled business development and go to market services at a nominal fee, including business validation, market connections, and support for creating business plans for entrepreneurs. • Enhance platforms like BHASKAR to provide entrepreneurs with tailored resources, including case studies, government schemes, and tools to support business growth on a single consolidated Digital Hub. • Introduce AI-powered digital assistants to support entrepreneurs with tasks like tax calculations, compliance, and business planning.
Promote aggregation to enhance incomes of the self-employed.	<ul style="list-style-type: none"> • Launch targeted schemes to promote collective structures like cooperatives and clusters to boost scale, reduce costs, and improve income potential. • Leverage successful models such as SJY and Van Dhan to integrate marginalised groups into sustainable livelihoods. • Develop geographic and sectoral clusters by pooling resources and infrastructure to reduce risk and increase competitiveness. • Enhance digital market linkage platforms to ensure nano entrepreneurs access broader national and international markets.



CHAPTER 17

THRUST 15: Strengthen Access to Finance for Entrepreneurs

- Despite significant efforts MSMEs face a credit shortfall of ₹20-25 lakh crore. Access to finance remains a key challenge for entrepreneurs which needs to be solved.
- This policy focuses on two strategic action areas: a)Establish large scale seed funds for micro entrepreneurs and; b)Promote innovative financing via outcome-linked funding for incubators.

Context and Need

Finance is critical to the success of an enterprise. At every stage, the needs of an enterprise keep evolving, ranging from pre-seed funding, which supports prototype and Minimum Viable Product (MVP) development, to seed funding, which enables the establishment of new enterprises, and post-seed funding, which facilitates scaling and expansion. To address these ongoing financing needs, India has launched numerous financing schemes aimed at fostering entrepreneurship with a strong focus on inclusion, gender equity, and innovation. These initiatives provide credit, equity, and grant-based funding to support enterprises at various stages and sectors.

Key programmes include the Pradhan Mantri MUDRA Yojana (PMMY), which has disbursed over ₹4.5 lakh crore to 6.6 crore micro-enterprises,²²⁶ and the Credit Guarantee Scheme for Micro & Small Enterprise, which has extended over ₹25,000 crore to 11.65 lakh enterprises. Early-stage funds like DPIIT's Startup India Seed Fund and BIRAC Incubators Seed Fund have collectively supported over 1100 startups with more than ₹1200 crore disbursed. Ministry of Social Justice and Empowerment (MoSJE) & Ministry of Development of North Eastern Region (MoDONER), such as the North-East Venture Fund, Venture Capital Fund for Scheduled Castes, and Venture Capital Fund for Backward Classes, have collectively supported over 200 startups with a total budget outlay of over ₹750 crore.²²⁷ Similarly, equity-based programmes like the Self-Reliant India Fund, with an allocation of ₹529 crore,²²⁸ provide growth capital to MSMEs. Sector-specific funds like the Agriculture Infrastructure Fund for agripreneurs with a budget of ₹1 lakh crore and Gen-next support for innovative startups with a budget of ₹490 crore, further enrich this ecosystem.

Complementing these financial incentives is an evolving and strong legal and regulatory framework, including acts such as the MSME (Amendment) Act, 2015; SARFAESI Act, 2002; Companies Act, 2013, Insolvency and Bankruptcy Code, 2016, and GST, which collectively foster a more supportive entrepreneurial environment.

Going forward, access to finance needs to be further strengthened. In 2022, the Standing Committee on Finance estimated a credit shortfall for MSMEs at ₹20-25 lakh crore.²²⁹ The World Bank's Enterprise Survey for India (2022) highlights that 16.4% of firms reported access to finance as their largest obstacle, while 16.8% cited high tax rates as another major challenge²³⁰. Micro and small enterprises, despite their potential to deliver high returns on capital, are especially vulnerable to volatile revenue streams, which increase their risk of defaulting on credit repayments. Therefore, continued innovative efforts are required to enable finances for micro & small enterprises to create a thriving and sustainable entrepreneurial ecosystem.

Strategic Roadmap

Complementing the range of existing interventions, two key strategies are outlined. First, large-scale seed funds (supplementing existing schemes offering loans) will be established to provide equity capital to micro-entrepreneurs through incubators and other institutions. Second, innovative financing channels will be strengthened. For e.g., outcome-linked funding for incubators will spur high-quality enterprises by incentivising incubators to achieve performance metrics such as profitability, revenue growth, or social impact. Both strategic action areas are detailed below.

²²⁶ PMMY Reports, Micro Units Development & Refinance Agency Ltd (MUDRA), 2023, accessed in Aug 2024.

²²⁷ Ministry of Social Justice and Empowerment (MoSJE) - Venture Capital Fund for Backward Classes ([Link](#)), Venture Capital Fund for Scheduled Castes ([Link](#)), NEDFi Venture Capital Limited ([Link](#)), accessed in Aug 2024.

²²⁸ Self-Reliant India Fund, Press Information Bureau, 2023, accessed in Aug 2024.

²²⁹ Strengthening Credit Flows to MSME Sector, Standing Committee on Finance 2021-22, accessed in Aug 2024.

²³⁰ World Bank's Enterprise Survey for India, 2022, accessed in August 2024 ([Link](#))

1 STRATEGIC ACTION AREA

Establish large-scale seed funds for micro-entrepreneurs, providing equity capital through development banks and incubators

To address the funding challenges faced by small entrepreneurs, large-scale seed funds will be established and expanded by building on the initiatives of Development Finance Institutions (DFIs) like SIDBI and NABARD, among others. These development banks will leverage their financial capacity and expertise to oversee large-scale funding initiatives. While development banks like SIDBI provide the financial resources, various district level organisations (e.g., District Industries Centre) will play a crucial role in identifying promising micro-enterprises and guiding them through the business development process. These seed funds will offer financial support to enable the micro-entrepreneurs to start and scale their ventures effectively.

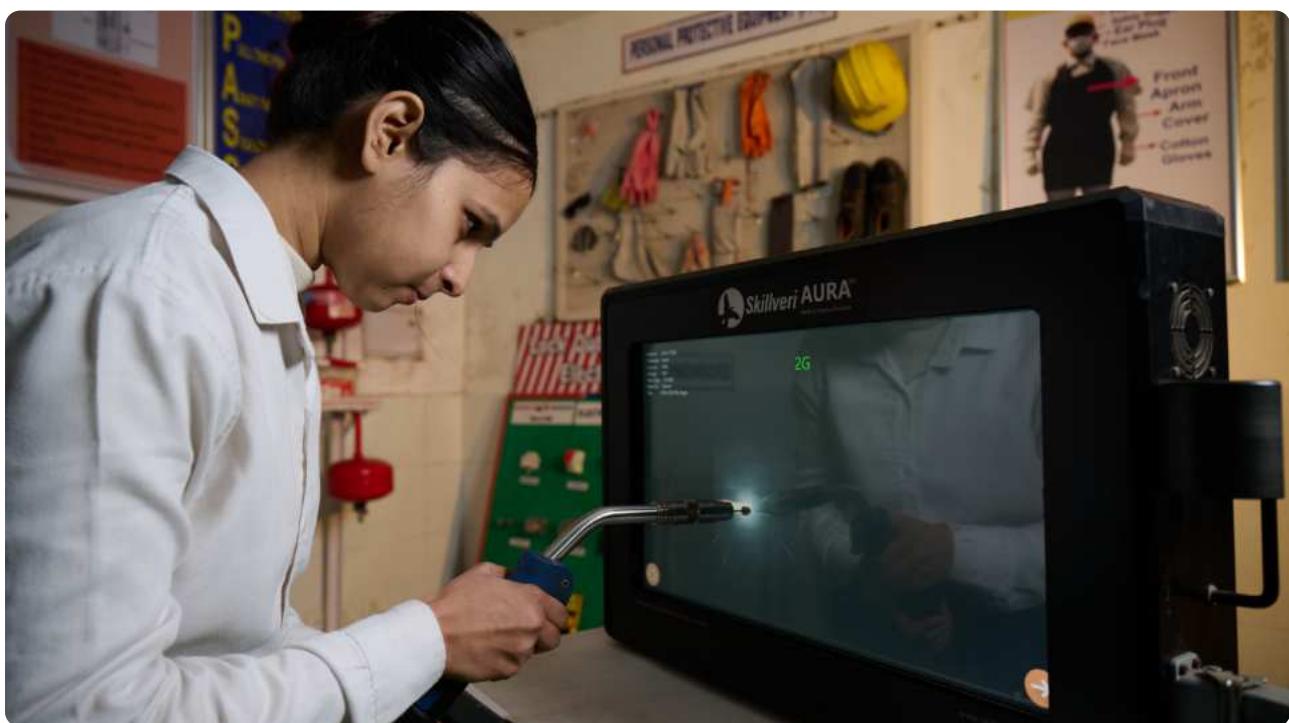
2 STRATEGIC ACTION AREA

Promote innovative financing via outcome-linked funding for incubators

A performance-based incentive system will be established, where existing and new incubators meeting predefined success targets, such as revenue growth, profitability, or job creation, receive financial bonuses or additional government grants. These incentives will encourage incubators to actively scale businesses and maintain consistent, high-quality support for small businesses and entrepreneurs.

Further, entrepreneurship will be promoted by leveraging community linkages and providing cluster-based funding to integrate the extremely poor and marginalised into the value chain. Programmes for banker sensitisation, to enhance the understanding of entrepreneurial needs, especially for women and marginalised groups shall be undertaken. Over 85 lakh women's SHGs²³¹ have been established with the potential to grow into productive businesses. Cluster-based approach for promoting group enterprises, for select groups in suitable industries shall also be encouraged. For instance, the Satat Jeevikoparjan Yojana, provides access to finance, in addition to mentorship, training, and access to market, through the interface of village organisations composed of multiple self-help groups.²³²

Robust accountability and reporting frameworks will be critical to track the performance of incubators and the startups they support. Clear guidelines will be developed for incubators to report outcomes based on predefined business metrics, ensuring transparency and alignment with the programme's objectives. Metrics such as growth, revenue generation, and impact in terms of job creation or income multiplication will form the basis of this evaluation.



²³¹ NRLM MIS, Ministry of Rural Development, 2024, accessed in Aug 2024.

²³² The State of Economic Inclusion Report 2024, World Bank, accessed in Dec 2024 ([Link](#)).

Case Study - Chile's Commitment to Seed Funds and Outcome-Led Incubation for Startups and Micro-Entrepreneurs^{233,234}

Chile is actively encouraging entrepreneurship through a range of seed funding initiatives and specialised incubation programmes. These efforts are aimed at both high-growth startups and micro-entrepreneurs, creating a dynamic environment where innovation can thrive, and new businesses can take root.

At the core of this strategy is the **Capital Semilla Programme**, which operates along two main avenues. The first provides seed capital for pre-investment studies and assists entrepreneurs in shaping their business plans. The second is tailored for high-growth ventures, covering up to 90% of project costs, with a funding cap of USD 80,000. This support is critical for activities such as securing IP, conducting market research, business planning, and product development. To date, more than 2,000 startups have received funding, generating USD 2 billion in sales and attracting USD 1 billion in external investments. Chile also prioritises micro-entrepreneurs through the **Capital Semilla -Emprende Programme**, administered by SERCOTEC.²³⁵ This competitive fund provides financial support to help entrepreneurs formalise and enter the marketplace. The programme offers subsidies of up to CLP 3.5 million, allocated for business management and investments in assets, infrastructure, and working capital. To encourage ownership and responsibility, participant micro-entrepreneurs enrolled in the programme must contribute a portion of the total project cost.

Together, these programmes highlight Chile's comprehensive approach to nurturing entrepreneurship at all levels. By providing seed funding and results-driven incubation, the country is building a diverse entrepreneurial ecosystem, ensuring that both startups and micro-entrepreneurs have access to the resources, training, and financial support necessary to succeed. This dual approach is not only fuelling the creation of new businesses but also driving innovation, economic growth, and sustainable development.

The following table summarises key initiatives recommended across each of the strategic action areas:

STRATEGIC ACTION AREAS	INITIATIVES
Establish large-scale seed funds for micro-entrepreneurs, providing equity capital through development banks and incubators.	<ul style="list-style-type: none"> Encourage development banks like SIDBI to launch and manage seed funds to address small entrepreneurs' funding challenges.
Promote innovative financing via outcome-linked funding for incubators.	<ul style="list-style-type: none"> Establish a performance-based system rewarding incubators with financial bonuses or grants to meet success targets like revenue growth, profitability, and job creation.

²³³ Influencia de un programa de capital semilla para apoyar a empresas de alto crecimiento en Chile, SCIELCO, 2019, accessed in Aug 2024.

²³⁴ Capital Semilla Emprande, SERCOTEC, 2023, accessed in Aug 2024.

²³⁵ Servicio de Cooperación Técnica, SERCOTEC, 2023, accessed in Aug 2024.





SECTION
04

Enablers

CHAPTER 18

ENABLER 01: Enhance the Digital Public Infrastructure for Skills and Entrepreneurship

- Digital infrastructure is critical to close information gaps, boost trust, and enable data-driven decision-making across India's skilling and entrepreneurship ecosystem.
- This policy focuses on three strategic action areas: a)Strengthen SIDH as a user-centric platform with additional value-added services; b)Transition to an open and decentralised skilling network and; c)Leverage national policies on data governance and protection to streamline skill data.

Context and Need

The diversity and scale of India's skilling and entrepreneurship ecosystem lead to significant information gaps—learners lack data on courses, jobs, and funding, industries have limited visibility on talent, and policymakers lack real-time labour insights. Further, strengthening data systems and certification traceability can boost trust, ease verification processes, and enhance skill recognition. Stronger cross-government coordination can also cut implementation costs and improve the effectiveness of skilling initiatives.

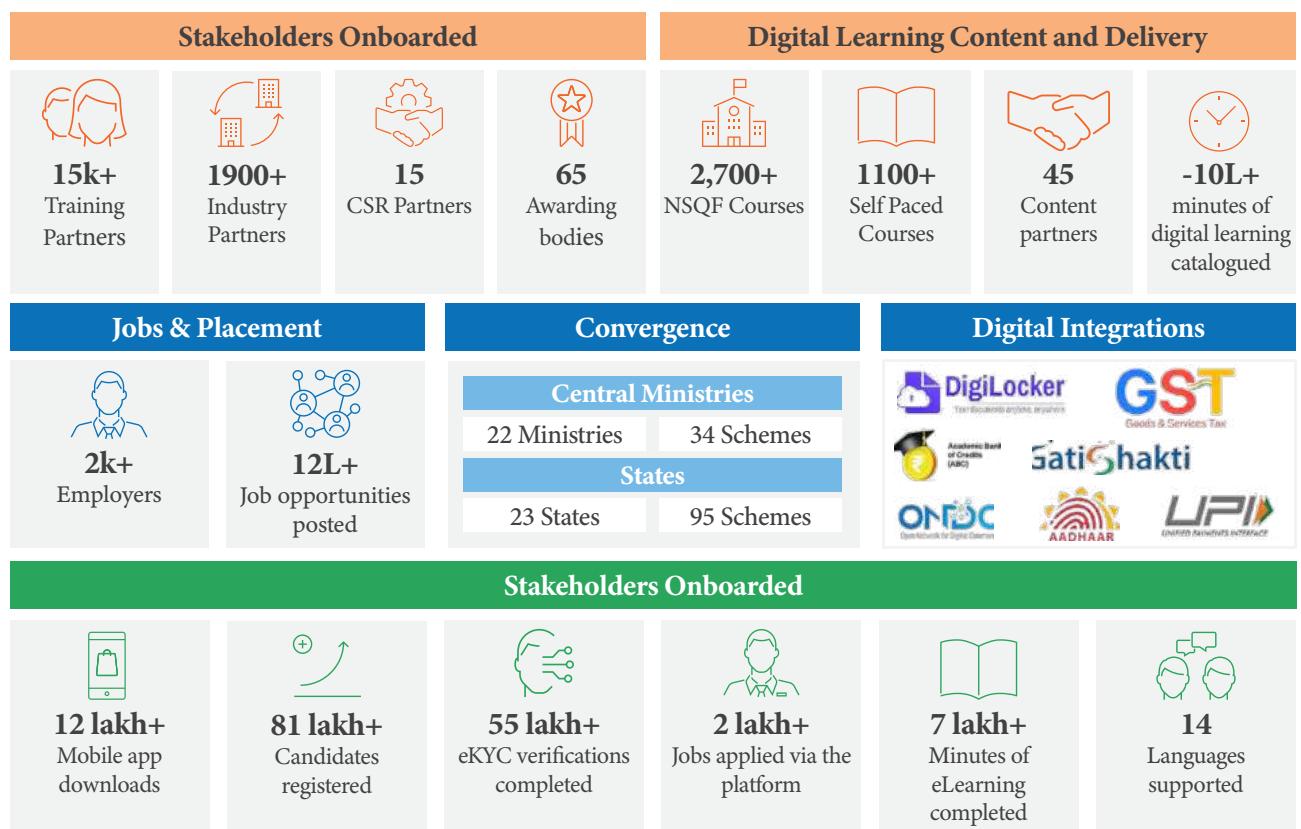


Figure 17: Progress made on SIDH as a unified platform of the digital skilling ecosystem

To address these challenges, MSDE launched the Skill India Digital Hub (SIDH)—a unified platform that consolidates and integrates data, streamlines stakeholder interactions, and enhances transparency. SIDH hosts registries for beneficiaries, practitioners, institutions, content, jobs, and financing options, facilitating functions such as candidate discovery for employers, geo-tagging of training infrastructure, access to digital content, and aggregation of job opportunities. This reduces search costs and improves decision-making for all participants. Several other products, such as digitally verifiable credentials, are also being developed on SIDH. While the impact of SIDH is evident from its widespread adoption (see box),²³⁶ it requires continuous improvements to meet the evolving demands of the ecosystem. These include upgrading user interfaces, strengthening existing value-added services, introducing new services, and integrating advanced analytics to enhance usability and impact over time.

Further, the success of the Digital Public Infrastructure (DPI), led by Aadhaar and UPI, offers a blueprint for further innovation. Building on the efforts and results accomplished via SIDH, transitioning to a DPI-led approach in the future will unlock the full potential of India's skilling landscape by enhancing ecosystem efficiencies via shared data exchanges, driving innovation, and ensuring greater inclusivity and trust.

Strategic Roadmap

The path forward is centred around three action areas: first, enhancing SIDH itself as a user-centric platform with value-added services; second, building upon SIDH's foundation, transition to an open and decentralised skilling network; and third, leveraging national policy and laws to inform the approach to building a skilling data ecosystem.

1 STRATEGIC ACTION AREA

Strengthen SIDH as a user-centric platform with additional value-added services

SIDH will continue to be strengthened as a comprehensive, user-focused platform. This will be achieved through an ongoing, consultative approach capturing all key stakeholders' diverse and dynamic needs. SIDH will offer customised user journeys and dynamic, personalised recommendations for different profiles, such as students, apprentices, working professionals and industry users. Advanced technologies like AI will be integrated to recommend job opportunities, learning courses, and career pathways to beneficiaries based on profile-specific skills and career goals. Additionally, SIDH will consider developing a freemium payment model: basic functionalities will be available for free. At the same time, there will be an optional fee for additional customisations enabled by a UPI-based payment mechanism.

Enhancing SIDH also requires a strong focus on standardising and improving the quality of digital content. To achieve this, the development of comprehensive guidelines for creating and delivering digital materials, including courses, teacher training resources, and assessments, will be led by NCVET. These guidelines will emphasise fact-checking, technical relevance, and accessibility (e.g., no gender biases in learning materials), aligning content with stakeholder needs while maintaining high standards. Additionally, the platform will feature international courses, maintain a repository of global skill practitioners to enable delivery of international courses for mobility and services exports among others. Lastly, accessibility will be a priority, with improvements such as multilingual interfaces, user-friendly navigation, and optimisation for low-bandwidth environments.

The expansive datasets available on SIDH, reports, and dashboards, will be further enhanced and leveraged for data-driven decision-making for all stakeholders. For example, ratings of training institutions, assessments of candidate proficiency by job roles, skill gap analyses, and geo-tagging of skilling institutions will be made available to relevant stakeholders. In doing this, it will ensure that all necessary data protection and privacy measures are complied with (refer Strategic Action Area 3 of this chapter for further details). Finally, SIDH will be leveraged as a platform to host all digital-related recommendations for this policy to the greatest extent possible.

²³⁶ National Skills Development Council Research accessed Oct 2024.

2 STRATEGIC ACTION AREA

Transition to an open and decentralised skilling network

Adopting a DPI-led approach in the skilling ecosystem requires a paradigm shift from a platform-centric model, where services are confined within isolated systems, to a network-centric model. A platform-centric model relies on a centralised system or application to deliver specific services, with limited flexibility for external stakeholders to customise or innovate. In contrast, a network-centric model enables decentralised collaboration, allowing multiple independent entities to connect, innovate, and deliver diverse solutions on a shared interoperable infrastructure, fostering scalability and inclusivity. This allows the development of robust foundational data exchanges built on widely accepted protocols across various sources and stakeholders.

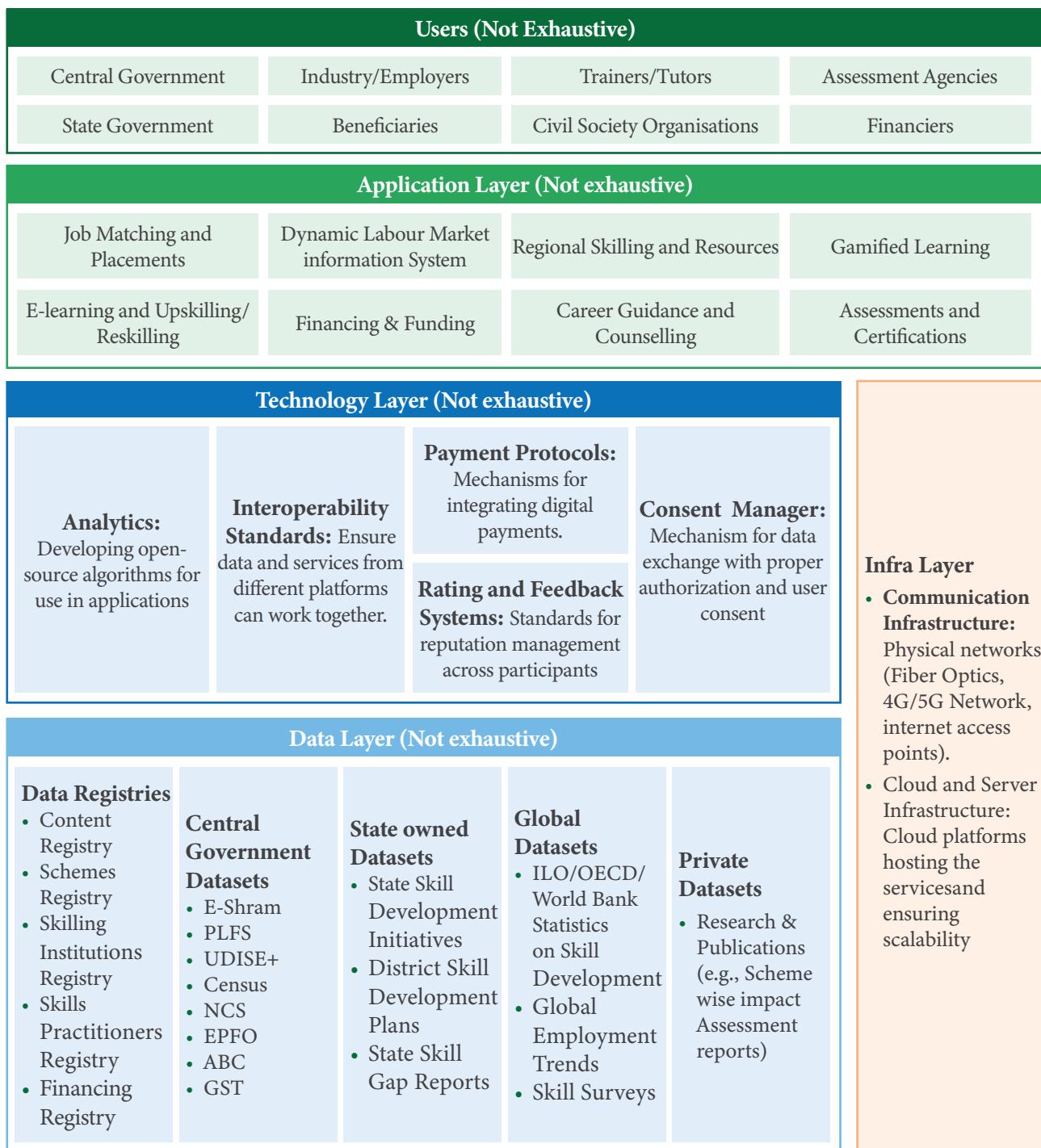
Accordingly, the second strategic action area involves transitioning to an open and decentralised skilling network or Skills DPI, inspired by Open Network for Digital Commerce (ONDC) and United Health Interface (UHI).

Both, providers (for e.g., employers, trainers, content creators, financiers) and consumers (for e.g., job seekers, learners, entrepreneurs) will engage, transact and collaborate in an open, inclusive system. The unbundling of interoperable services will enable the private sector to further innovate and build specific tools, platforms, and applications.

The success of this DPI-led skilling network relies on adhering to foundational design principles. These include:

- **Interoperability:** Adopting standard data formats and secure protocols to ensure seamless interaction across platforms, enabling smooth collaboration and exchange of information.
- **Consent-Based Data Sharing:** Empowering users to control their personal data, ensuring they can decide how, when, and with whom their data is shared, thereby protecting privacy and promoting user autonomy.
- **Private Sector Participation:** Engaging private players to contribute their expertise, resources, and innovative solutions will expand the DPI's capabilities and enrich the ecosystem with diverse products and services across multiple platforms.
- **Robust Governance and Regulatory Framework:** Establishing a governance structure to oversee the network design, ensuring alignment with legal standards and maintaining regulatory oversight while fostering transparency and accountability.
- **User-Centric and Inclusive Design:** Prioritising focus on accessibility, ease of use, and inclusivity through design, ensuring all citizens can benefit from its capabilities.

DPI for skilling will operate through four key layers (see figure below): the Protocol Layer, the Network Layer, the Application Layer, and the User Layer. The Protocol Layer will establish the foundational rules, standards, and frameworks that ensure interoperability, security, and data exchange. The Network Layer will provide the connectivity and infrastructure required to enable seamless communication and data transfer across the system. The Application Layer will host and deliver platforms and interfaces facilitating interaction between providers, learners, and other stakeholders. Finally, the User Layer will enable the end user to avail various skilling programmes and services. All participants plugged into the network, irrespective of the platforms, can access and share data, fostering transparency, efficiency, and collaboration. The figure shows the different layers of the network and the users.

**Figure 18: Outline of the proposed skilling stack**

Several transformative use cases can be unlocked through a network-led approach, benefiting both public and private sector players. For instance, in the case of entry-level jobs, background verification is often costly, repetitive, and unreliable. A digitally verified Unique Skills Profile (USP), enabled via a Digital Lifelong Learning Account (DLLA – further details in Chapter 6 on Thrust 2: Integrated Skill-Education Learning Pathways with NCrF-enabled Mobility), can address this. This account will store verified education, skilling credentials, and work experience details from sources like e-Shram and EPFO in machine-readable formats. Individuals can share their verified credentials, enhancing credibility and data ownership while reducing employer verification costs and improving hiring efficiency. While both the USP and DLLA functionalities can be implemented on the SIDH platform, the key differentiator as a Digital Public Infrastructure (DPI) is that DLLA can, with user consent, be accessed by private applications—enabling additional use cases, such as personalised skilling recommendations or skill-linked benefits delivery. Similarly, Reserve Bank of India's newly introduced digital wallet – the Central Bank Digital Currency (CBDC) wallet – may be integrated to offer skills financing via skill voucher and other sources (e.g., industry-sponsored, philanthropy)

for more streamlined access, utilisation, and deployment of funds. Moreover, as these Digital Public Goods (DPGs) are made available, private players will be empowered to unlock innovation by building value-added services on top of shared infrastructure.

Further, the skills DPI will enable both private job aggregation platforms and public sector job platforms such as NCS or SIDH to integrate seamlessly into the network. This will allow all relevant job opportunities, irrespective of the originating platform, to become accessible to job seekers across platforms, promoting inclusivity and efficiency. Connected platforms will aggregate and enhance visibility into job demand and supply and facilitate hyperlocal matchmaking between employers and job seekers. This will eliminate silos, ensure equal access to opportunities, and create a transparent, unified labour market.

MSDE will anchor the network within its mandate, like how the Open Network for Digital Commerce (ONDC) operates under DPIIT. An entity will be identified to manage operational protocols, technology standards, and network policies while ensuring interoperability across the ecosystem. Comprehensive guidelines for data privacy, certification authenticity, and platform usage will be developed to build user trust and ensure system integrity.

3 STRATEGIC ACTION AREA

Leverage national policies on data governance and protection to streamline skill data

Given the scale and sensitivity of the data involved in SIDH and Skills DPI, prevailing national laws and policies must serve as the cornerstone in driving data collection and management in these initiatives.

Data collection throughout the skilling and entrepreneurship ecosystem will be standardised in compliance with the National Data Governance Framework Policy (NDGFP). NDGFP was formulated to address different government entities' differing and inconsistent ways and drive efficient data-driven governance.

All digital information will be collected and managed in compliance with the Data Empowerment and Protection Architecture (DEPA) and the Digital Personal Data Protection Act, 2023, with clear articulation of consent, extent, and intent of data collection. This will be implemented across the ecosystem and will be considered a priority given the rapid pace of skilling digitisation.

Further, a single, common-use registry for data collection will be used. Currently, partners are required to provide similar details multiple times to NCVET, SIDH, and the Ministry during approval processes. A singular stakeholder who maintains the registry for modules like QPs and Course Lifecycle Management will solve the duplication of effort. This will be strengthened via the integration of Application Programming Interfaces (APIs).



The following table summarises key initiatives recommended across each strategic action areas:

STRATEGIC ACTION AREAS	INITIATIVES
Strengthening SIDH as a user-centric platform with additional value-added services.	<ul style="list-style-type: none"> • Create customised user journeys tailored to diverse profiles, such as students, apprentices, working professionals, and industry users, by leveraging advanced technologies like AI to provide personalised recommendations based on user profiles and needs. • Strengthen and refine standards and guidelines for the development and delivery of digital skilling content, ensuring accuracy, relevance, adherence to technical standards, and accessibility for all users. • Generate actionable insights, such as personalised dashboards, progress tracking, and skill-matching insights using real-time, verified datasets to address inefficiencies and provide stakeholders with transparent, data-driven decision-making tools. • Enhance mobile and portal-based user-friendly applications to better serve participants in the skills and entrepreneurship ecosystem, ensuring seamless access to resources.
Transitioning to an open and decentralised skilling network.	<ul style="list-style-type: none"> • Transition to Digital Public Infrastructure for Skills built on an open and decentralised skilling network that fosters collaboration among stakeholders, breaks down silos and promotes a transparent, inclusive ecosystem. As DPGs such as the DLLA and the skill voucher system become operational, private sector players can also leverage these foundational layers to innovate—for instance, by issuing their own skill vouchers or delivering personalised learning and skilling pathways, thereby expanding reach and value across the ecosystem. • Draw inspiration from successful models such as the Open Network for Digital Commerce in e-commerce and the Unified Health Interface in healthcare to operationalise this decentralised skilling network effectively. • Drive efficiency by integrating with existing platforms and tools such as the APAAR ID and the National Single Sign-on Option – MeriPehchaan.
Leveraging national policies on data governance and protection to streamline skill data.	<ul style="list-style-type: none"> • Ensure Data Standardisation across the ecosystem through alignment with the National Data Governance Framework Policy. • Comply with the Digital Personal Data Protection Act while utilising individual information for data-driven decision-making. • Develop a common registry and integration of APIs to address redundancy in data requirements from various stakeholders for government processes.

CHAPTER 19**ENABLER 02: Enhance Physical Infrastructure for Skills and Entrepreneurship**

- Upgrading skilling infrastructure is vital to meet the growing demand for quality training, improve employment outcomes, and build a future-ready workforce aligned with industry and global standards.
- This policy focuses on three strategic action areas: a)Optimise existing infrastructure through a National Skills Infrastructure Network and a hub-and-spoke model; b)Modernise institutions with upgraded training tools, inclusive facilities, and sustainable technologies and; c)Establish flagship institutions as Centres of Excellence co-located near industrial hubs to drive innovation and entrepreneurship.

Context and Need

Between 2018 and 2024, 500 ITIs²³⁷ were upgraded with improved workshops, laboratories, and capacity-building resources under the STRIVE scheme.²³⁸ The Union Budget 2024-25 has proposed a significant five-year investment of ₹60,000 crore to further upgrade and modernise 1,000 ITIs under a joint funding model (50% Centre, 30% States, and 20% Industry).²³⁹

Various ministries are driving a broad range of initiatives. For e.g., MoAFW set up 700 Krishi Vigyan Kendras, and MoMSME set up Tool Rooms and Technology Centres. Several institutions are being setup under different collaborative models including the Tata Indian Institute of Skills (developed under a PPP model) and India Institute of Skills (IIS), Kanpur (in partnership with IIT Kanpur). Similarly, many organisations are expanding their presence to support the entrepreneurship agenda – for example, NITI Aayog has established 72 AICs,²⁴⁰ NIESBUD operates through its head office and 20 State centres.²⁴¹ Premier institutions run incubation and entrepreneurship cells on campus, like Nadathur S. Raghavan Centre for Entrepreneurial Learning (NSRCEL) at IIM Bangalore and the Society for Innovation and Entrepreneurship (SINE) at IIT Bombay.

Inclusion has been a key consideration in these efforts – girls' hostels were constructed under the Scheme of Polytechnics, and infrastructure deficiencies were supplemented in 28 ITIs²⁴² in the NER under the Enhancing Skill Development Infrastructure (ESDI).²⁴³ Special attention is being given to marginalised groups - the construction of Vocational Training Centres for tribal populations by the Ministry of Tribal Affairs (MoTA) and the expansion of infrastructure through DDU-GKY training centres focusing on rural skill development by MoRD are key examples.

However, gaps still exist, both in terms of capacity and quality, in India's skilling infrastructure. India's 18,000 skilling institutions (like ITIs, Polytechnics, and NSTIs) and more than 1,50,000 other training centres are insufficient to serve its large workforce and meet the ambitious goals of this policy.²⁴⁴ The efforts towards building new infrastructure should be supplemented with optimising the use of existing infrastructure.²⁴⁵ Training quality and employment outcomes are in a cyclical relationship with infrastructure limitations²⁴⁶ - outdated laboratories and equipment hamper instruction quality, and the absence of aspirational flagship institutions to serve as CoEs does not attract good talent.

Strategic Roadmap

Given the above context, a strategic approach is needed to develop an extensive network of skill development facilities. This strategy centres around three key action areas: optimising existing infrastructure for skilling delivery, modernising existing skilling facilities, and establishing flagship institutions.

²³⁷ Include 467 government and 33 private ITIs; Operational of Industrial Training Institute, Press Information Bureau, 2024, accessed in Sep 2024.

²³⁸ Ended in May 2024

²³⁹ Prime Minister's Package Worth ₹2 Lakh Crore Central Outlay Announced; Employment, Skilling And Other Opportunities For 4.1 Crore Youth Over A 5-Year Period, Press Information Bureau, 2024, extracted in Dec, 2024, ([Link](#)).

²⁴⁰ Atal Innovation Mission Website, accessed in Dec 2024 ([Link](#))

²⁴¹ Ministry of Skill Development and Entrepreneurship Website, accessed in Nov 2024

²⁴² Operational of ITI, Press Information Bureau, Aug 2024, accessed in Sep 2024. ([Link](#))

²⁴³ Enhancing Skill Development Infrastructure in North-Eastern States.

²⁴⁴ Annual Report 2022-23, Ministry of Skill Development and Entrepreneurship, accessed in Sep 2024.

²⁴⁵ During academic year 2022-23, ~45% of ITI seats and ~53% of diploma seats were vacant (AICTE).

²⁴⁶ Transforming ITI, NITI Aayog, 2023, accessed in Sep 2024. ([Link](#))

1 STRATEGIC ACTION AREA

Establish a National Skills Infrastructure Network (NSIN) and optimise utilisation of all existing skilling infrastructure

Optimising infrastructure utilisation for skill development and entrepreneurship training recognises the extensive, pre-existing network nationwide. It is essential to repurpose existing assets as skill development and entrepreneurship training hubs to enhance accessibility, particularly in regions where developing new skilling infrastructure is challenging.

Establishing a National Skills Infrastructure Network (NSIN) is a key initiative to create a comprehensive and collaborative network that integrates government and private infrastructure and facilitates the sharing of resources. NSIN will encompass skilling and entrepreneurship infrastructure including schools, colleges, ITIs, polytechnics, community skilling centres, government facilities, industrial sites, short-term training providers, incubation centres and entrepreneurship cells. Both institutions and resources, including technical equipment and manpower, will be geo-tagged and hosted on SIDH, to enable shared access across stakeholders. For example, schools and colleges can be utilised for training during off-hours, such as evenings or weekends, without disrupting regular schedules. Similarly, private infrastructure, such as industry-owned training centres used for captive purposes, can be leveraged for broader sectoral or government programmes with appropriate remuneration for use of facilities. Similarly, school faculty can deliver language and communication skills in ITIs, while ITI faculty can support schools by teaching technical skills.

Furthermore, the NSIN aims to restructure existing institutions into a hub-and-spoke model to enhance training delivery, standardisation, and employability. Hubs, acting as CoEs, will support spokes with quality assurance, resources, placement opportunities, and trainer support by providing expert trainers and conducting training for trainers. This collaborative approach creates a cohesive and integrated skill development and entrepreneurship training ecosystem.

2 STRATEGIC ACTION AREA

Modernise existing infrastructure to enhance quality of training, inclusivity, and sustainability

Modernising skilling and entrepreneurship institutions requires upgrading both ‘core’ training infrastructure, such as laboratories, tools, and technical equipment, and ‘supporting’ civil infrastructure, such as canteens, libraries, incubation centres, hostels, and common areas. Targeted government schemes, industry-academia partnerships, and alternative approaches that enable a transition from CAPEX-led models to OPEX-led models can orchestrate this change. For example, machinery and equipment will be leased from Original Equipment Manufacturers (OEMs) to reduce upfront capital expenditure and enable regular maintenance and technology upgrades as innovations emerge.

To enhance training quality, incorporating modern technology into skilling institutions is essential. Classrooms will be upgraded with digital labs, smart boards, and interactive learning tools to make education more engaging and accessible. Additionally, integrating Extended Reality (XR) tools and simulators in training labs provides students with hands-on experience in a safe, controlled environment. These tools may be particularly valuable in specific fields like healthcare or engineering, where complex skills require practical, risk-free training. Beyond training technology, modern Learning Management Systems (LMS), Enterprise Resource Planning (ERP), and other software will be introduced to streamline administrative tasks, including scheduling classes, tracking student progress, and managing resources effectively. Integration of such technologies, especially in flagship institutions, will be prioritised to provide a seamless experience to all stakeholders.

It is equally important to make skilling infrastructure accessible, inclusive, and sustainable. To enable this, institutions must accommodate all students, including those with disabilities and from diverse backgrounds. This includes providing essential accessibility features, like ramps for mobility, specialised tools for the hearing or visually impaired, and amenities such as gender-neutral washrooms. In parallel, sustainability initiatives, such as installing solar panels or sensor-operated lighting systems, will be adopted to make these institutions more environmentally friendly and cost-effective.

3 STRATEGIC ACTION AREA

Establish and enhance flagship institutions for future-ready workforce development and entrepreneurship promotion

Another imperative is developing new, specialised skilling facilities and entrepreneurship centres. Establishing flagship institutions (like Tata IIS or Government Toll Room and Training Centre, Bangalore) with state-of-the-art laboratories, industry-relevant machinery, advanced classrooms, incubation centres, and high training standards will set new benchmarks in quality and innovation. These institutions, whether built from scratch (Greenfield) or upgraded from existing sites (Brownfield), will be designed to become CoEs. In establishing these institutions, care will be taken to ensure inclusivity and sustainability.

To ensure these institutions align closely with industry needs, strategically locating them near major industrial clusters, Special Economic Zones (SEZs), and export zones is key. Proximity to industry hubs will allow these training centres to tailor curricula and programmes to the specific demands of nearby sectors, creating a seamless pipeline for hands-on training, internships, and apprenticeships. Partnerships with leading industries and educational institutions will also be crucial in establishing CoEs and incubation hubs within these new skilling centres. These CoEs will drive innovation in traditional and emerging sectors, such as semiconductors and renewable energy. For example, MSDE has partnered with Meta to establish CoEs in VR and Mixed reality across 5 NSTIs.²⁴⁷ Similarly, the Meister Schools in South Korea are dedicated vocational (secondary) schools with deep industry engagement; industry players help with curricula design and procuring equipment and bring in company experts for teaching (detailed case study in Thrust 7: Deepen Industry Co-ownership).



²⁴⁷ Press Information Bureau, 2024, accessed in Nov 2024. ([Link](#))

The following table summarises key initiatives recommended across each strategic action areas:

STRATEGIC ACTION AREAS	INITIATIVES
Optimise utilisation of existing skilling infrastructure.	<ul style="list-style-type: none"> Establish a National Skills Infrastructure Network to integrate and optimise existing government and private skilling infrastructure, supported by continuous geo-tagging and resource mapping hosted on a centralised data repository (SIDH). Reorganise skilling institutions into a Hub-and-Spoke model, with hubs serving as Centres of Excellence to provide expert trainers, quality assurance, resource sharing, and placement facilitation for spokes, ensuring standardisation and improved employability.
Modernise existing infrastructure to enhance quality of training, inclusivity and sustainability.	<ul style="list-style-type: none"> Modernise skilling and entrepreneurship institutions by upgrading core training infrastructure, including labs tools, etc., as well as supporting civil infrastructure, such as canteens, libraries, incubation centres, hostels, and common areas. Finance effectively via targeted government schemes, industry and private sector partnerships, and leveraging opex models instead of capex heavy models (e.g., leasing equipment). Incorporate modern technology into skilling institutions, including digital labs, smart boards and Extended Reality (tools, and modern management systems (e.g., LMS, ERP systems). Ensure skilling infrastructure is accessible and inclusive by accommodating diverse needs, e.g., ramps, specialised tools for disabilities, and gender-neutral amenities. Upgrade existing infrastructure to meet sustainability standards, e.g., via the installation of solar panels.
Establish and enhance flagship institutions for future-ready workforce development and entrepreneurship promotion.	<ul style="list-style-type: none"> Establish flagship skilling institutions (either greenfield or brownfield) equipped with state-of-the-art laboratories, industry-relevant machinery, advanced classrooms, incubation centres, and high training standards to set benchmarks for quality and innovation in skilling. Co-locate them near major industrial clusters, SEZs, export zones, etc. Establish Industry-led skilling and innovation CoEs in emerging sectors such as semiconductors, renewable energy, and robotics, among others.

CHAPTER 20**ENABLER 03: Augment innovative and sustainable outcome-led financing**

- Innovative and diversified financing is essential to build a sustainable skilling ecosystem, reduce reliance on public funds, empower individuals, and ensure measurable outcomes like job placements and income growth.
- This policy focuses on four strategic action areas: a) Accelerate the skills finance market through credit guarantees, interest subventions, and better data for loan underwriting; b) Launch a Skill Mudras (voucher) programme to enable beneficiary choice and demand-driven skilling; c) Adopt outcome-oriented financing models like Skill Impact Bonds to link funding with real employment outcomes and Diversify funding sources through CSR, ESG, and strengthened public-private partnerships.

Context and Need

MSDE has committed over ₹20,000 crores towards skilling efforts since its inception in 2014²⁴⁸. These investments were geared towards structured skill development, formalisation of RPL programmes, launch of marquee catalytic programmes (e.g., Model Loan Scheme), and establishment of robust physical and digital infrastructure. In parallel, States and other Central ministries have financed the establishment and operation of skilling institutions. The private sector has also played an active role, with several initiatives in building infrastructure, designing and delivering inclusive programmes, and committing funds for broader ecosystem development. While these investments have laid a solid foundation, achieving the desired outcomes will require significantly higher funding.

Further, the absence of compelling data on skilling outcomes, like job placements and income growth, makes financial institutions hesitant to offer loans for skilling, fearing high default rates. The current skill development framework in India predominantly follows a supply-driven model, where training programmes are designed and delivered without adequate alignment with the actual demands of the labour markets. This further generates lack of clarity on skilling outcomes and return on investment.

Various innovative financing mechanisms have already been piloted in the skilling space. For example, the Skill Impact Bonds (SIBs) pilot has been created to encourage inclusive, outcome-based financing. MSDE's Model Skill Loan Scheme has been designed to use credit default guarantees to reduce lenders' risk and boost the skill financing market. Such alternate models will provide the foundation for exploring flexible and accessible funding models for individuals and businesses. Collaborative funding models—across ministries, between Central and State governments, or government and private actors via PPP models—will play a key role in the skilling finance ecosystem. A multi-source funding approach will build resilience, ensuring that skilling efforts adapt to market needs over time.

Strategic Roadmap

Four strategic action areas have been prioritised to fund the skilling and entrepreneurship ecosystem and empower beneficiaries adequately. First, credit guarantees and better data for effective loan underwriting will accelerate the skills finance market. Second, a skill voucher programme will empower beneficiaries to pursue skill programmes aligned with their career aspirations. Third, outcome-oriented financing will ensure funding is closely linked to quality outcomes in skilling, such as employment and retention. Finally, funding sources will be diversified by encouraging collaborative financing across ecosystem players to create a sustainable and resilient ecosystem.

²⁴⁸ Ministry of Skill Development and Entrepreneurship, accessed in August 2024. ([Link](#))

1 STRATEGIC ACTION AREA

Accelerate skill finance market via credit guarantees and better data for effective loan underwriting

Credit default guarantees reduce the risk for lenders by covering a portion of the losses incurred in case of default. Continuing existing efforts in this direction will encourage more lenders to offer skill loans and eventually create a sustainable and diversified skill finance market as they gain confidence in skill loan returns.

In addition to credit default guarantees, a comprehensive rating system for the skilling ecosystem will be developed to enable a stable loan market. A data-driven rating mechanism for Program Implementation Agencies (PIAs), Training Providers (TPs), and courses would allow financial institutions to evaluate skilling programmes based on metrics like training quality, employability scores among other metrics. Periodic Surveys and outcome-linked incentives will necessitate data sharing for robust monitoring of these parameters. Building on learnings from frameworks like the National Institutional Ranking Framework (NIRF), the rating system will promote transparency and accountability, helping beneficiaries and lenders make informed choices.

To further enhance accessibility and reduce financial barriers, interest subventions will be implemented as a targeted measure, particularly for marginalised groups. As part of this effort, a portion of the interest payment will be subsidised, thus lowering borrowing costs and making loans more affordable for underserved populations. Learnings will be drawn from interest subvention schemes that have proven effective in other sectors, such as agriculture and housing. For example, Pradhan Mantri Awas Yojana (PMAY) by the MoHUA offered affordable housing loans to enable access for economically weaker sections, positively impacting over 1.2 crore households since its inception in 2015.

2 STRATEGIC ACTION AREA

Launch a Skill Mudras (Skill Vouchers) Programme to empower beneficiaries to pursue skill programmes of their choice

The transition from a supply-driven model to a more demand-led skilling model can be enabled by providing individuals the freedom to choose courses that align with career goals and the job market's needs. This will be done by launching Skill Mudras (Skill Vouchers) Programme.

As part of this programme, beneficiaries will receive credits, referred to as "Skill Mudras," in their DLLA. These Skill Mudras will be redeemable at verified and approved institutions, allowing learners to select from various courses and training providers. Participating institutions will claim reimbursement for these Skill Mudras from the Government or other funding bodies, ensuring smooth and efficient financial flows. Transactions will be enabled through SIDH Coins—a digital, programmable learning currency credited to beneficiaries' Digital Lifelong Learning Accounts (DLLAs) on the SIDH platform. These coins will be used exclusively for enrolling in approved skilling programmes and will ensure secure, transparent, and efficient financial flows.

The potential of Skill Mudras will be leveraged via targeted voucher schemes (for e.g., a Pradhan Mantri Kaushal Yojna) in emerging sectors such as renewable energy, semiconductors, and other national priority areas where skill gaps are significant. Targeted schemes will also be launched to strategically promote upskilling and reskilling in specific fields. These schemes will enable inclusive access focusing on marginalised groups, such as PwDs, individuals in rural areas, and women re-entering the workforce. Regular collaboration with industry experts and stakeholders will be essential to continuously update and expand the list of empanelled institutions and approved courses.

To ensure the fair and transparent implementation of the Skill Mudras programme, MSDE will establish comprehensive eligibility criteria for both beneficiaries and training institutions. A framework will define the value of Skill Mudras and set guidelines for their allocation, considering factors such as sectoral priorities and beneficiary needs. To ensure effective uptake and utilisation of Skill Mudras, targeted awareness campaigns will be launched in collaboration with local organisations, including NGOs, social enterprises, and government agencies.

Robust digital infrastructure will be required to manage and monitor the Skill Mudra system. Integration of Skill Mudras with the proposed DLLA will enable the real-time tracking of Skill Mudras' issuance, redemption, and reimbursement while ensuring user-friendly access to beneficiaries, institutions, and funding bodies. The MSDE will also monitor voucher usage digitally to ensure resources are directed towards desired beneficiary groups.

Case Study - Singapore's Skill Voucher Initiative (SkillsFuture Credit)

Singapore's SkillsFuture Credit initiative fosters LLL and skills development by offering financial credits for education and training. It empowers individuals to upskill and reskill, enabling them to stay competitive in a rapidly evolving job market.

The programme is managed by SkillsFuture Singapore Agency (SSG) under the Ministry of Education. Singaporeans aged 25 years and above receive an initial credit of S\$500 with no expiry date. These credits can be used to enrol in SkillsFuture Singapore-accredited courses delivered by over 700 TPs, including public institutions, private academies, and industry bodies. More than 18,000 approved courses cover emerging fields like data analytics, finance, and advanced manufacturing. For mid-career professionals aged 40 and above, the initiative provides an additional S\$4,000 through the Mid-Career Subsidy to support reskilling and career transitions.

In 2021, over 247,000 Singaporeans utilised their SkillsFuture Credits, while the Mid-Career Subsidy benefited 80,000 individuals with access to 9,000 courses. The programme's success stems from its wide accessibility, industry relevance, and inclusive design, ensuring targeted support for mid-career and economically disadvantaged individuals.

3 STRATEGIC ACTION AREA

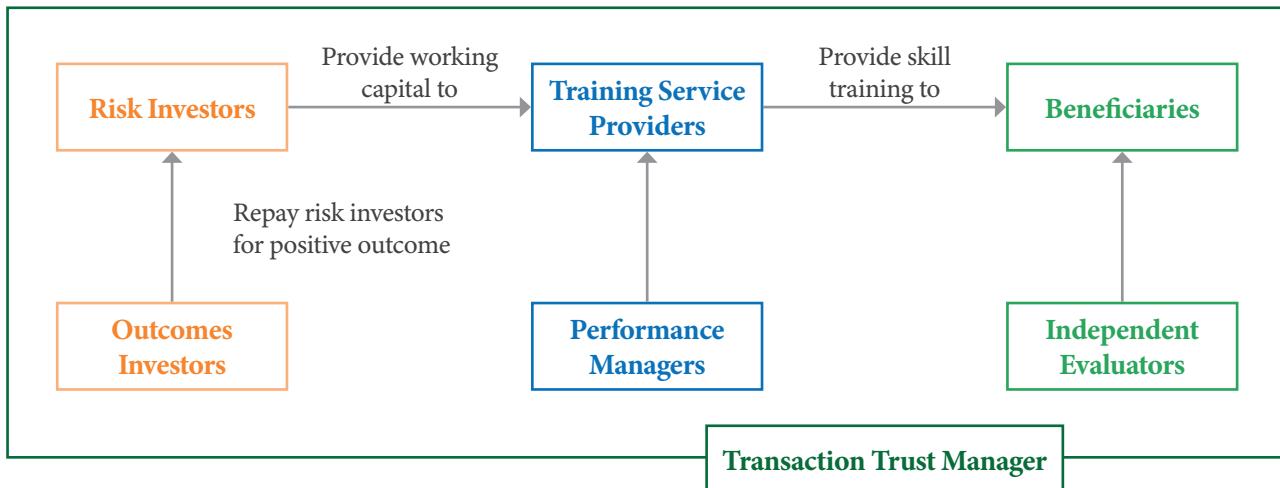
Enhance quality by adopting outcome-oriented financing whereby funding is linked to the achievement of skilling outcomes

India must transition from traditional, input-focused funding models to outcome-oriented financing to build a more impactful and effective skilling ecosystem. By linking funds to actual, measurable outcomes like employability, employment, retention, and wage growth, skilling efforts will be more streamlined to benefit participants directly.

Innovative tools like impact bonds will enable this shift. India's first Skill Impact Bond pilot demonstrated the potential of outcome-oriented financing by placing a primary focus on enhancing placements, retention, and inclusion, shows the potential of outcome-oriented financing. Multiple actors facilitate a Skill Impact Bond. Risk investors provide upfront capital to training service providers to conduct skill training programmes. Performance managers monitor progress, ensuring training quality and adherence to goals. Independent evaluators assess outcomes, verifying if beneficiaries have gained skills and achieved employment or other desired outcomes. If the outcomes are met, the outcome investors repay risk investors for their investment often along with a premium/return. A transaction trust manager oversees the accountability and management of financial transactions. (see Figure 19).

The SIB's initial success in enrolling over 23,000 beneficiaries, comprising more than 70% women, and achieving a placement rate exceeding 70% offers valuable lessons for scaling such models.²⁴⁹ The high costs associated with structuring transactions and onboarding various entities, such as risk investors, outcome investors, programme implementation agencies, and independent monitoring agencies, will be optimised before expansion. Additionally, robust technology-enabled monitoring and evaluation systems will be established to measure outcomes.

²⁴⁹ NSDC, accessed in September 2024

**Figure 19: Structuring of Skill Impact Bond**

The Government will strive to act as the outcome investor for its schemes, while Industry/TPs/PIAs serve as risk investors. In such a model, industry/TPs/PIAs will provide initial capital, with the Government contributing limited working capital as needed. Subsequent payments will be tied to specific outcomes (employability, placements, retention, income enhancement, etc.), ensuring financial viability and measurable results. The Government will allocate a portion of its budget to outcome-oriented financing to support this shift.

Further, broader applications of the SIB model will be explored. For instance, in the Apprenticeship Impact Bond (AIB), industries (risk investors) assume the financial risk of hiring and paying apprentices and are rewarded by the Government (outcome investor) upon achieving outcomes like certification, permanent employment, and retention of apprentices, among others. This approach would promote industry engagement and accountability, ensuring that apprenticeships lead to long-term, impactful career opportunities.

Social Stock Exchange (SSE) offers another innovative approach to channelise outcomes-aligned funding sources towards skilling initiatives. As illustrated below, this platform opens a new financing avenue for government entities and private sector investors to support skill development programmes.

Social Stock Exchange²⁵⁰

SSE is an initiative introduced by the SEBI where fund-raising is linked to specific projects undertaken by eligible Non-profit Organisations (NPO). These NPOs are mandated to declare their year-wise milestones that are targeted to be achieved with funds raised from the public. The contributions towards the social sector projects listed on SSE are made through a unique security, known as Zero Coupon, Zero Principal (ZCZP) instrument as the nature of funding is akin to a donation and, as such, does not promise any payment of coupon or return of the principal amount.

As of April 2024, 51 NPOs are registered on the BSE, and 50 (11 undergoing renewal) are registered on the NSE. 9 NPOs have raised funds on SSE, amounting to a total of ₹12.4 crore (Economic Survey 2023-24).

4 STRATEGIC ACTION AREA

Diversify funding sources and collaborate financing across different ecosystem players

Sustainability and resilience in skill financing require diversification of funding sources. CSR and Environmental, Social, and Governance (ESG) related funds must be diverted to the skilling agenda. To enable this, the Ministry of Corporate Affairs (MoCA) will work towards simplifying CSR funding process based on ongoing industry feedback. This may include automatic CSR compliance for contributions to the National Skill Development Fund and facilitating sector-specific CSR investments. A unified reporting mechanism will ensure transparency in tracking and utilising CSR contributions for skilling.

²⁵⁰ Economic Survey 2023-24, Ministry of Finance, accessed in Nov 2024.

The rising emphasis on ESG standards presents a new avenue for skilling financing. To leverage this, MSDE will integrate ESG-driven spending into the Business Responsibility and Sustainability Framework (BRSF) and other emerging frameworks, emphasizing its role in workforce development.

Collaborative financing will also be key to optimizing resources across ministries and States. Central ministries will pool funds and resources for shared priorities, such as developing the LMIS. At the same time, the Centre and States will jointly advance skilling through centrally sponsored schemes, such as the PM Vishwakarma Scheme.

Public-Private Partnerships (PPPs) will be further strengthened to attract private capital, enhance efficiency, and leverage industry expertise. PPPs can support infrastructure development (e.g., state-of-the-art labs), training delivery (via WIDP, Flexi-MOUs, PMIS²⁵¹ initiatives), and knowledge sharing, enabling co-development of curricula, QPs, and labour market insights. The Tata Indian Institute of Skilling is an existing example, wherein MSDE-provided land and infrastructure were co-developed using a Build-Operate-Transfer (BOT) model. In this instance, Tata Education and Development Trust (TEDT) is responsible for constructing the entire IIS facility, including the laboratories, which will be transferred to the Government after 25 years. TEDT is also responsible for end-to-end training delivery and managing the day-to-day operations for this period. Learnings from such models will be inform future design on key interventions.



²⁵¹ Prime Minister's Internship Scheme (PMIS) announced in Budget 2024-25

The following table summarises key initiatives recommended across each strategic action areas:

STRATEGIC ACTION AREAS	INITIATIVES
Accelerate skills finance market via credit guarantees and better data for effective loan underwriting.	<ul style="list-style-type: none"> Continue supporting lenders through credit default guarantee programmes, thereby encouraging greater participation in the skills loan market. Develop a comprehensive training system for PIAs, TPs, and courses as an input for financial institutions for better evaluation and underwriting of skill loans. Implement interest subventions, particularly for marginalised groups, as a targeted measure to reduce financial barriers and promote equitable participation.
Launch a Skills Mudras (Skill Vouchers) Programme to empower beneficiaries to pursue skill programme of their choice.	<ul style="list-style-type: none"> Accelerate the adoption of demand-led skilling by introducing a beneficiary-centric 'Skill Voucher (Skill Mudra)' system that will offer learners the flexibility to choose their preferred training providers and courses; target specific sectors (e.g., renewable energy, semiconductors, etc.), and population segments, e.g., marginalised segments, PWD, and PwID, etc. Establish a comprehensive framework for Skill Mudras (Skill Vouchers) implementation including eligibility criteria for skill providers and seekers, allocation and value of Skill Mudras, reimbursement criteria, etc. Create robust digital infrastructure to manage and monitor the Skill Voucher system, ensuring transparency.
Enhance quality by adopting outcome-oriented financing whereby funding is linked to achievement of skilling outcomes.	<ul style="list-style-type: none"> Expand outcome-oriented financing leveraging lessons from India's first SIB, optimizing transaction costs and establishing strong Monitoring and Evaluation systems. Progress towards Government serving as the outcome investor for its schemes (i.e., a significant share of payments contingent on outcomes achievement) by earmarking a share of its budget to be spent only via outcome linked models. Track their success and scale initiatives based on performance outcomes. Explore broader applications of the SIB model to other areas, e.g., an AIB, promoting results-driven apprenticeship programmes. Strengthen SSE as an innovative means for channelling outcomes-aligned funding from government entities and private sector investors to support skill development initiatives.
Diversify funding sources and collaborate financing across different ecosystem players.	<ul style="list-style-type: none"> Tap into corporate CSR funds to finance skilling programmes by simplifying processes and engaging with industry to promote sector-specific contributions. Leverage the ESG agenda for skilling by encouraging organisations to integrate skill development investments into their ESG reporting under SEBI's BRSR framework. Strengthen and evolve PPP models by incorporating lessons from existing PPP funding frameworks to drive greater efficiency and impact.

CHAPTER 21**ENABLER 04: Raise the Profile of Skilling and Entrepreneurship**

- Skilling faces a significant perception challenge rooted in complex social, cultural, and economic barriers in India.
- This policy focuses on three strategic action areas to raise the profile of skilling and entrepreneurship: a)Elevate the language and terminology of skilling; b)Elevate the status and recognition of skilling institutions and; c)Adopt an aspirational grassroots agenda in communities.

Context and Need

Academic degrees in management, engineering, medicine, and law are widely regarded as pathways to financial stability, upward mobility and hence, social prestige. In contrast, skill-based education is often associated with blue-collar jobs that lack societal recognition.

Industry hiring practices further reinforce this divide by prioritising degrees over practical skills, resulting in lower wages, fewer benefits, and limited opportunities for those pursuing skill-based pathways. The challenge is further compounded by the limited mobility between academic and skilling pathways, which restricts opportunities for those pursuing skill-based education.

Enhancing the quality of skilling delivery and improving employment or self-employment outcomes is essential for making skilling aspirational. This policy outlines various measures to achieve this, including establishing a Unique Skills Profile (USP) for individuals, promoting skill-based hiring to enable wage premiums, and developing various digital and physical public goods including value added services.

However, challenges such as low awareness, inadequate career counselling, and a lack of visible role models must be addressed independently. The MSDE State of Skills Survey indicates that informal networks significantly shape awareness, with 73% of respondents relying on friends and peers and 43% on family,²⁵² while formal sources like teachers (32%) and career counsellors (23%) play a lesser role. This highlights a critical gap in institutional promotion. Addressing this perception challenge requires a multi-faceted approach.

Strategic Roadmap

This section outlines supplementary strategies that must work with the existing thrusts and enablers to raise the profile of both skilling and entrepreneurship. Key supplementary strategies include elevating the language and terminology of skilling to enhance the professional identity of occupations, rebranding skilling institutions as aspirational CoEs, and driving grassroots advocacy through local ambassadors and influencers to build trust and awareness about the benefits of skilling and government programmes. These strategies require alignment and coordination across multiple ministries, industries, and community-level stakeholders.

1 STRATEGIC ACTION AREA**Elevate the language and terminology of skilling to enhance the professional identity of occupations**

A crucial first step in reshaping societal perceptions of skilling is elevating its language and terminology. Moving away from outdated terms such as “vocational” and “labourers” is essential to aligning skilling with professional identities. Instead, “skilled workers” will be standard in all formal communication. MSDE will lead this transition in collaboration with key ministries, state governments, and relevant stakeholders to ensure effective implementation. Officials will be comprehensively trained to embed this terminology across Central and State Government systems.

²⁵² MSDE State of Skills Survey, 2024 “Which information source/channel influenced your decision the most in deciding to pursue skilling program?”

Further, upgrading job titles to be more aspirational and representative and aspirational is key to enhancing the perception of skilled professions. Illustratively, "Carpenter" may be rebranded as "Woodwork Specialist" and "Electrician" as "Electrical Expert" in all official documents and training materials. This transition, guided by relevant bodies such as NIMI, will also ensure gender neutrality and inclusivity in updated terminology.

A skill-led gradation of expertise tied to NSQF levels will be developed to reinforce this identity. For instance, individuals will be identified as "Early Experts" at Levels 1-3, "Specialists" at Levels 4-6, and "Advanced Specialists" for Levels 6 and above. Key regulators, such as NCVET, will standardise this across various skilling programmes and constructs (e.g., short-term, long-term, etc.).

Additionally, the introduction of USP, as described in 3, Thrust 2: Integrated Skill-Education Learning Pathways with NCrF-enabled Mobility, will enable individuals to showcase their qualifications and expertise to industries and employers. Available in digital and physical formats, these credentials will serve as a portable and credible record of their skills and proficiency.

2 STRATEGIC ACTION AREA

Elevate status and recognition of skilling institutions

Skilling institutions must transform to become aspirational destinations for learning. Correspondingly, select ITIs and Skill Universities will be strengthened and rebranded as Centres of Excellence for Lifelong Learning. Some may be developed as flagship centres, serving as resource hubs for the broader skilling ecosystem. The outcomes and achievements of these flagship institutes will be leveraged to enhance the perception of skilling pathways.

These CoEs will embody global standards by upgrading their infrastructure, incorporating advanced machinery, fostering collaborations with leading industries, and offering foreign exchange programmes (such as the European Union's Erasmus+ Programme). Additionally, top-tier apprenticeships and placement opportunities for students will further solidify their position as premier skilling hubs.

Erasmus+ Programme :- Elevating Skilling Status Through Cross-Border Learning²⁵³

Erasmus+ is the European Union's education, training, youth, and sports programme. It provides funding, opportunities, and support for individuals and organisations to engage in activities that foster learning, mobility, and collaboration across Europe and beyond. It also promotes professional growth for educators and practitioners in skill education by offering opportunities for training periods abroad. Participants engage in structured courses, training sessions, or job shadowing experiences at skill institutions or relevant organisations.

By exposing practitioners to innovative practices and diverse perspectives, Erasmus+ strengthens their ability to deliver high-quality, inclusive, and modern skill education. The programme supports individual career growth and drives systemic improvements in skill education by fostering collaboration and knowledge exchange across borders.

Public recognition of skilling institutions is a key component of this strategy. A national annual awards ceremony will honour top-performing institutions, incentivising continuous improvement and enhancing public awareness of excellence in skilling. States will nominate candidates, with MSDE overseeing evaluation and selection.

3 STRATEGIC ACTION AREA

Adopt an aspirational grassroots agenda in communities via local ambassadors and influencers

A national grassroots campaign will be launched to raise awareness and encourage participation in skilling programmes. This campaign will highlight tangible benefits of pursuing employability and entrepreneurship programmes with beneficiaries and their families. It will leverage multi-media strategies with dedicated public advocacy budgets.

²⁵³ "Vocational education and training (training staff)", Erasmus+, European Commission, 2022, accessed Dec 2024 ([Link](#))

Community-level skill ambassadors will be central to this effort. Successful alumni (e.g., an ITI graduate in a renowned manufacturing company who has grown through the ranks) will be identified as skill champions and ambassadors – alongside role model figures like "Drone Didi" and "Lakhpatti Didi" – to inspire individuals, particularly in NER, LWE-affected areas, and tribal communities. These ambassadors will highlight personal success stories, demonstrating the transformative impact of skilling.

Premier competitions, including National and State-level Olympiads and high-impact skill and business case contests, will identify and celebrate "skill champions" and "pioneering entrepreneurs" as national symbols of excellence in skilling and innovation, fostering pride and international recognition. Inspired by IndiaSkills and global models like WorldSkills and the UK's National Apprenticeship Awards, MSDE will design and implement these initiatives.

Fostering an entrepreneurial mindset requires early exposure, mentorship, and ecosystem support, starting during school itself. Further, Thrust 11 – Build aspirations towards Entrepreneurship outlines the detailed strategic action areas for raising the entrepreneurial aspirations.

In summary, the following table captures a snapshot of key initiatives recommended across each of the strategic action areas:

STRATEGIC ACTION AREAS	INITIATIVES
Elevate the language and terminology of skilling to enhance the professional identity of occupations.	<ul style="list-style-type: none"> • Transition outdated terminology by replacing terms like "vocational" and "labourers" with modern, professional labels such as "skilled workers" in all formal communications to align skilling with professional identities. • Upgrade job titles by rebranding roles like "Carpenter" as "Woodwork Specialist" and "Electrician" as "Electrical Systems Expert" to enhance the perception of skilled professions, ensuring the language is gender-neutral and inclusive; further develop skilled gradation of expertise e.g. Levels 1-3 as "Early Experts", Level 4-6 as "Specialists" and further as "Advanced Specialists" etc.
Elevate status and recognition of skilling institutions.	<ul style="list-style-type: none"> • Transform select ITIs and Skill Universities into Centres of Excellence for Lifelong Learning for advanced skilling and lifelong education; Upgrade infrastructure and foster global industry collaborations to establish CoEs as premier hubs for skilling and raise aspiration. • Recognise excellence in skilling through annual national awards ceremony, celebrating top-performing institutions and promoting public awareness of their achievements and impact.
Adopt an aspirational grassroots agenda in communities via local ambassadors and influencers.	<ul style="list-style-type: none"> • Launch a national grassroots campaign to raise localised awareness and promote skilling adoption • Engage local skill influencers and ambassadors, such as "Drone Didi" and "Lakhpatti Didi," particularly in underrepresented regions like NER, LWE-affected areas, and tribal communities. • Organise premier competitions like National and State-level Olympiads and business contests to identify "skill champions" and "pioneering entrepreneurs".

CHAPTER 22**ENABLER 05: Strengthen Monitoring, Evaluation and Learning**

- In India's vast and dynamic skilling and entrepreneurship ecosystem, a robust Monitoring, Evaluation, and Learning (MEL) Framework is essential for tracking outcomes and refining policy approaches.
- This policy focuses on two strategic action areas: a) Strengthen institutional mechanisms through a unified MEL framework with clear KPIs, systematic tracking, and a strong governance structure; b) Build research infrastructure via a National Skills Research Network (NSRN), regular surveys, and longitudinal studies to generate evidence for informed policy decisions.

Context and Need

Tracking initiatives' progress and impact can guide policymakers to make timely course corrections and ensure efficient resource allocation with data-backed evidence. Furthermore, Monitoring, Evaluation, and Learning (MEL) promotes accountability and transparency, which are essential for sustaining public trust and refining policy approaches. Importantly, it facilitates coordination among various stakeholders, improves the overall coherence of the skilling ecosystem, and enables a more strategic, data-driven approach to policy formulation and enhancement.

There has been a strong commitment to MEL in the skilling ecosystem in India, with suitable allocation of human and financial resources and establishment of institutional structures. For instance, the Regional Directorates of Skill Development and Entrepreneurship (RDSDE) monitor key programmes and schemes such as the Craftsmen Training Scheme (CTS), the National Apprenticeship Promotion Scheme (NAPS), and the Pradhan Mantri Kaushal Vikas Yojana (PMKVY). They are also responsible for coordinating with the National Skill Training Institute (NSTI) extension centres and central and state agencies.

However, there remains scope for further improvement. At present, the Regional Directorate of Skill Development and Entrepreneurship (RDSDE) operates with limited personnel capacity, particularly in remote areas, resulting in delays in audits, inspections, and evaluations. Furthermore, restricted access to evaluators and inadequate infrastructure hinders the collection of quality data, disrupts consistent assessments, and limits the ability to identify and implement best practices.

Another critical priority is shifting from input-based metrics (e.g., enrolment) to outcome-based metrics (e.g., employability). The current system is still in its early stages and requires strengthening to enable real-time, continuous monitoring. Data collection must be better integrated across skilling programmes, institutions, ministries, and between central and state governments. Additionally, a more robust research infrastructure is essential to build a stronger evidence base for skilling, guiding policy priorities and interventions effectively.

Strategic Roadmap

Two strategic action areas have been identified to address the highlighted gaps. Firstly, the institutional mechanism for MEL will be strengthened, focusing more on defining and measuring KPIs and reviewing performance with a robust governance mechanism. Secondly, research infrastructure will be strengthened by creating a National Skills Research Network (NSRN) to drive more evidence-based decision-making and prioritisation.

1 STRATEGIC ACTION AREA

Strengthen institutional mechanism with a framework to define, measure and track KPIs, supported by a robust governance mechanism

To achieve scale, quality, and inclusivity in India's skilling ecosystem, a unified Monitoring, Evaluation, and Learning (MEL) framework is required to synergise the disparate, existing efforts. This framework will cover various skilling programmes, including short-term and long-term courses. It will also support entrepreneurship, women's empowerment, socio-economic and regional inclusion, and key enablers like digital platforms and financial support mechanisms.

The MEL framework has been structured along three core components:

- A. Defining Key Performance Indicators (KPIs)
- B. Systems and processes for measuring and tracking KPIs
- C. Establishing a robust governance mechanism for MEL

A. Define Key Performance Indicators (KPIs)

To ensure strategic focus and accountability, KPIs will be aligned with the overarching policy goals, i.e., scaling skilling initiatives, improving quality, and expanding inclusive access. These KPIs will include a combination of input metrics and long-term, outcome-oriented indicators. Tracking these outcome-based metrics will also enable greater adoption of innovative funding mechanisms, such as outcome-based financing.

The following KPI list will serve as an initial indicative list, and will be refined based on inputs from various stakeholders and in alignment with schemes/ programmes launched.

Policy Goals	KPIs	Baseline (2025)	Target (2035)
Scale	Number of individuals		
	% of formally skilled working population		
	# of students skilled in schools		
	# of students skilled in Higher Education Institutes (HEI)		
	# learners skilled via skilling, upskilling, reskilling programmes (including Short-term training, Long-term training and others)		
	# of Recognition of Prior Learning (RPL) certifications		
	# of apprentices (designated trade and optional trade)		
	Infrastructure/Outreach		
	# of skilling institutes (Ministries, State, Private)		
	% of secondary and higher secondary schools that have integrated vocational education		
Quality	Average National Employability score		
	% of seat utilisation of ITIs/ Polytechnics		
	# of enrolments in Work Integrated Degree Programme (WIDP), Apprenticeship Embedded Degree Programme (AEDP), and Dual System of Training (DST), any other forms of "earn-while-you-learn" programmes		
	% of placements (wage/self-employment) across key institutions and programmes		
	Job Retention Rate at the end of 3/6 months		

Policy Goals	KPIs	Baseline (2025)	Target (2035)
Inclusive Access	<p>Inclusivity</p> <ul style="list-style-type: none"> % of women enrolled under skilling programmes % of SC/ST/ OBC learners enrolled in skilling programmes % of PwD / PwID learners enrolled in skilling programmes <p>Accessibility</p> <ul style="list-style-type: none"> # of women-only skilling centres % districts with ITI penetration in NER, LWE, IHR etc. <p>Affordability</p> <ul style="list-style-type: none"> Total government budget allocation for skilling programmes (Centre and States) # and amount of skilling loans offered # and amount of skilling vouchers offered 		

B. Systems and processes for measuring and tracking KPIs

Systematic and periodic tracking is essential once the KPIs are defined and aligned with various stakeholders. Specific mechanisms and methods will be determined to track and monitor each KPI, including surveys, third-party assessments, audits, field visits, and on-site observations.

An integral part of this KPI framework will involve systematically and periodically measuring national employability levels through the National Employability and Entrepreneurship Measure (NEEM). This will entail periodic and representative assessments of workforce employability—encompassing academia, learners across skilling institutions, the workforce, NEET, among others. Assessments will cover general employability skills, technical skills, and advanced technical skills. Efforts will be made to report scores in a structured manner, track progress over time, and nudge the ecosystem towards continuous quality enhancement. Further details on NEEM are outlined under Chapter 4, Thrust 3: Enhance Access to Employability and Entrepreneurship Skills, Strategic Action Area 4.

Additionally, skilling centres and institutions will be key data collection sources, periodic surveys with beneficiaries (e.g., those registered on SIDH) will provide insights into outcomes, particularly placement and retention rates. The introduction of Digital Lifelong Learning Accounts (DLLA) will further enhance access directly to beneficiaries. This data will be further analysed by region, institution type, and beneficiary segment. Industry partners will also provide information on employment and retention of apprentices and skilled personnel, ensuring a continuous feedback loop between skilling and employment outcomes. Close coordination across ministries and states will be a priority to maintain a holistic view of progress.

Personnel capacity will be augmented by appointing additional experts in programme evaluation, impact assessment, and other relevant domains, particularly at RDSDEs, which will lead a large share of the data collection effort. In addition, advanced technologies will be deployed to increase transparency and cost-efficiency in tracking KPIs and enable better analytics and data visualisations that provide insights to guide action.

C. Establish robust governance mechanism for MEL

To guide overall policy implementation and oversee MEL across ministries and programmes, a Policy Implementation Unit (PIU) chaired by the Secretary of the MSDE and composed of representatives from relevant ministries, states, and other bodies, will be set up and housed in the MSDE. The PIU will be accountable to the NSDM and will perform the following functions:

- Monitor the achievement of KPIs and outcomes by collecting data and ensuring transparency and accountability via reporting on public dashboards.
- Actively identify priorities for policy implementation, such as gaps that need to be bridged or emerging megatrends that need to be addressed and escalate these to the NSDM for timely guidance.

An online public dashboard will be developed to report performance on the KPIs of this policy for public transparency and enhanced accountability. The PIU will work closely with training providers, industry partners, ministries, and states to keep the dashboard updated.

The framework below outlines the overarching governance framework. Detailed roles and responsibilities are further articulated in the subsequent sections.

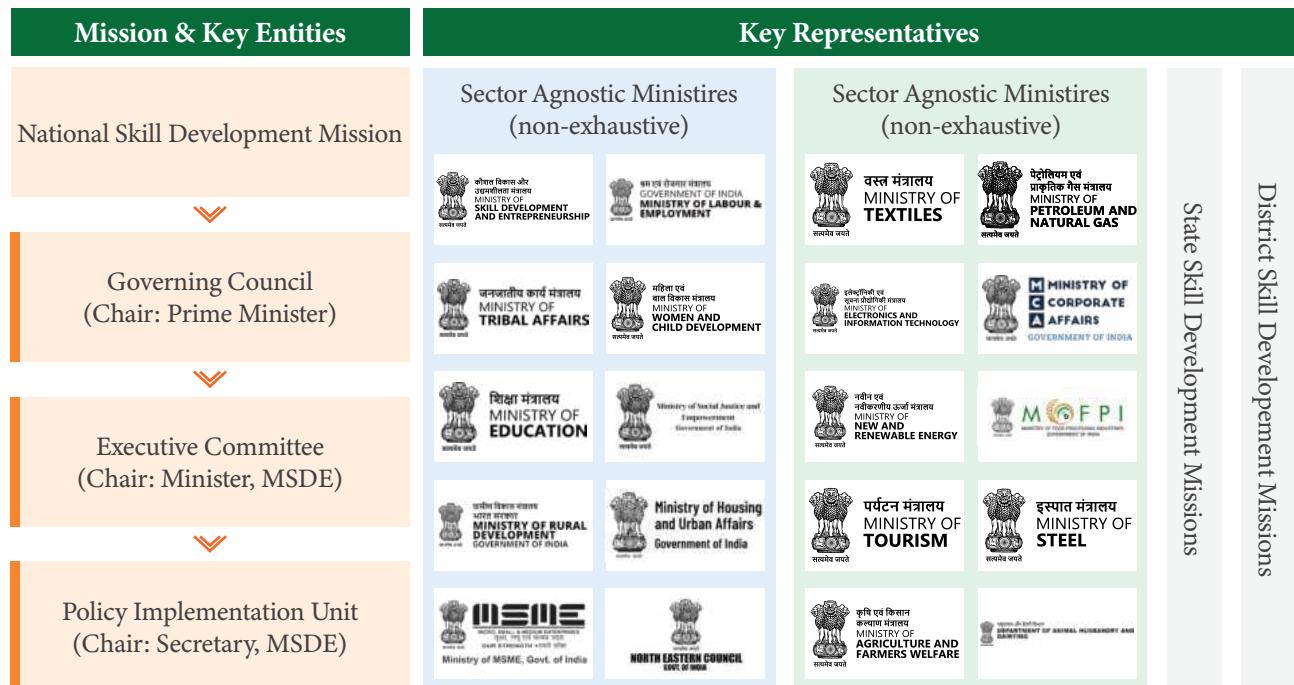


Figure 20: Skilling and Entrepreneurship Governance Framework

To ensure that the policy remains relevant and adaptable, MSDE will also conduct a comprehensive review every five years, incorporating all stakeholders' input. This regular review process will allow the policy to respond effectively to evolving labour market needs and emerging skilling demands, positioning India's workforce for success in an increasingly competitive global landscape.

2 STRATEGIC ACTION AREA

Strengthen research infrastructure by creating an NSRN and broadening the evidence base using surveys and longitudinal studies

It is essential to build a strong foundation of research and evidence to drive India's national skilling and entrepreneurship agenda and ensure the priorities and direction are evidence driven. Establishing a National Skill Research Network (NSRN) can serve as a cornerstone for generating actionable insights. The NSRN will bring together leading national and international academic institutions, think tanks, and industry bodies to create a diverse research consortium to generate evidence for the skilling ecosystem.

The Network will drive a multi-disciplinary research agenda to address key skilling challenges. It will also conduct targeted impact assessments and longitudinal studies to evaluate the long-term effects of skilling initiatives. This research will assess career trajectories, income growth, and broader outcomes such as social inclusion. Furthermore, NSRN will also explore research grants and innovative mechanisms like fellowships to support skilling research. The MSDE will serve as the Secretariat, overseeing the network's strategic direction, work planning, and operational efficiency.

The MSDE will also collaborate with expert organisations, such as the Central Statistical Organisation (CSO), to design and implement skills surveys with regular frequency (e.g., an Annual/Biennial Skills Survey), capturing evolving skilling and entrepreneurship trends to inform policy priorities. Further, skilling and entrepreneurship-related questions will be embedded in surveys like the Quarterly Employment Survey (QES) and the Periodic Labour Force Survey (PLFS) to provide valuable insights into demand and supply.

The following table summarises key initiatives recommended across each strategic action areas:

STRATEGIC ACTION AREAS	INITIATIVES
Strengthen the institutional mechanism for MEL with a framework defining KPIs, measuring and tracking KPIs and a governance mechanism.	<ul style="list-style-type: none"> Finalise KPIs for this policy and align them with the overarching policy goals, incorporating both input and outcome-oriented metrics. Measure and track KPIs periodically using methods such as surveys of beneficiaries and other stakeholders, assessments, third-party audits, and field visits while leveraging industry data to ensure a continuous feedback loop between skilling efforts and employment outcomes (for e.g., measuring employability levels via NEEM). Augment MEL capacity at RSDEs while leveraging advanced technologies to enhance transparency and cost-efficiency in tracking KPIs. Establish a Policy Implementation Unit (PIU), housed in MSDE, to formulate action plans, facilitate collaboration and monitor the achievement of KPIs. Ensure that the National Policy remains a living document, evolving through regular reviews conducted by all stakeholders every five years.
Strengthen research infrastructure by creating a National Skills Research Network (NSRN) and broadening the evidence base using surveys and longitudinal studies.	<ul style="list-style-type: none"> Create the National Skill Research Network, a network of specialised research organisations, to generate evidence and insights for advancing the national skilling and entrepreneurship agenda. Leverage existing surveys and design and implement specialised surveys (e.g., an Annual/Biennial Skills Survey) to capture evolving skilling and entrepreneurship trends to inform policy priorities. Conduct impact assessments and longitudinal studies to track the long-term effects of various initiatives on beneficiaries' careers, income levels, and broader objectives such as inclusion and outcome-oriented financing.



CHAPTER 23**ENABLER 06: Deepen Whole-of-Government and Whole-of-Nation Approach**

- A Whole-of-Government and Whole-of-Nation approach is essential to effectively implement India's skilling and entrepreneurship agenda, given the large number of ministries, states, private players, and civil society actors involved in delivering diverse programmes and initiatives.
- This enabler focuses on establishing a robust institutional framework with a)Clear roles for NSDM, MSDE, and SSDMs to coordinate policy design and implementation; b)Strong cross-ministerial collaboration on data, financing, inclusion, and entrepreneurship and; c)Deeper private sector and civil society engagement to align training with market needs and drive last-mile impact.

Context and Need

The skilling ecosystem is inherently wide-ranging and complex, with the skilling agenda intricately linked to multiple ministries, states, industry players and various implementing agencies.

First, numerous skilling and entrepreneurship schemes across Central Government ministries cover various stages and aspects of skills development and entrepreneurship training. For instance, the Ministry of Skill Development and Entrepreneurship (MSDE) leads key initiatives such as the Pradhan Mantri Kaushal Vikas Yojana (PMKVY), the Craftsmen Training Scheme (CTS), and the National Apprenticeship Promotion Scheme (NAPS). The Ministry of Rural Development (MoRD) implements the Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDUGKY) to provide skills training for rural youth, while the Ministry of Education (MoE) offers practical training for graduates and diploma holders through the National Apprenticeship Training Scheme (NATS). The Ministry of Textiles focuses on skilling through the Scheme for Capacity Building in the Textile Sector (SAMARTH), tailored for the textile industry, and the Ministry of Tourism delivers sector-specific training under the 'Hunar Se Rozgar Tak' (HSRT) programme. For entrepreneurship development, the Department for Promotion of Industry and Internal Trade (DPIIT) leads the Startup India initiative, the Ministry of Finance (MoF) oversees funding initiatives such as Mudra Loans, and the Ministry of Micro, Small and Medium Enterprises (Ministry of MSMEs) manages Credit Guarantee schemes, among others.

Second, since skilling is a concurrent subject, State governments undertake their skilling initiatives via State Skill Development Mission (SSDM) or equivalent organisations. Many institutions deliver training, including ITIs, Polytechnics, Jan Shikshan Sansthanas (JSS), Tool Rooms / Technology Centres, and entrepreneurship training institutes. States also run specialised skilling centres such as CM's Skill Excellence Centres (Andhra Pradesh), Kaushalya Vardhan Kendras (Gujarat), and Additional Skill Acquisition Programme Skill Development Centres (Kerala).

Further, there are several other stakeholders involved, such as regulatory bodies (e.g., NCVET, UGC, AICTE), implementation bodies (e.g., Directorate General of Training, NSDC), awarding bodies (e.g., SSCs), assessment agencies, and monitoring bodies (e.g., RDSDE). There are also organisations responsible for creating training and learning materials (Central Staff Training and Research Institute, CSTARI²⁵⁴ and National Instructional Media Institute, NIMI)²⁵⁵ and institutions focusing on training trainers (NSTI and IToTs). Additionally, there are State and district level bodies (e.g., SSDMs or District Skill Development Mission (DSDMs)) that contribute to the ecosystem. Figure 1 in the Introduction section provides a detailed overview of the ecosystem.

Given the involvement of multiple government entities in driving a common agenda, further efforts towards seamless coordination are essential. For instance, all ministries involved in skill development must collaborate on data integration to provide a unified view of skill demand and supply. The proposed LMIS would require MOLE and MSDE to collaborate. Similarly, MSDE and MoE must work together to integrate skilling into the education pathways, in alignment with NSQF and NCrF. Enhancing women's participation in the workforce would require joint efforts of MSDE, MoWCD, MoHUA, and MoRD.

²⁵⁴ CSTARI is a government institute under the MSDE, responsible for developing vocational training curricula and research in skill development. It plays a key role in training instructors, updating ITI courses, and ensuring alignment with industry needs.

²⁵⁵ NIMI is a government institute under the MSDE, responsible for developing instructional materials and e-learning content for vocational training. It plays a key role in creating training manuals, question banks, and multimedia resources to enhance skill development programmes.

Additionally, the partnership of MoCA, MoF, and MSDE is necessary for the implementation of Prime Minister Internship Scheme (PMIS),²⁵⁶ streamlining CSR processes and other efforts to encourage industry participation. Industry engagement and industry-academia linkage represent another crucial area where alignment is necessary.

The entrepreneurial ecosystem, too, requires a coordinated approach. MSDE, DPIIT, and the MoMSME must work together to promote entrepreneurship by providing aspiring business owners the necessary skills, access to finance, market linkages, and other essential tools for business growth.

In addition to the multiplicity of government entities, numerous non-governmental players contribute to the skilling ecosystem. Industry players, including large multinationals, MSMEs, and industry associations, play a crucial role by identifying emerging skill needs, co-developing curricula, and offering apprenticeships, internships, and on-the-job training. Sector Skill Councils (SSCs) bridge industries and training providers, ensuring that skilling programmes align with evolving workforce demands.

Further, Multilateral Development Banks (MDBs) and international organisations provide financial assistance, policy support, and global best practices, strengthening skilling initiatives. Philanthropic foundations and civil society organizations (CSOs) drive last-mile skilling efforts, particularly among marginalised communities, while ed-tech platforms and training providers are revolutionizing skill delivery through digital solutions, making learning more accessible and scalable.

Additionally, research institutions and academia contribute by developing innovative pedagogies, conducting impact assessments, and fostering industry-academia linkages. These diverse stakeholders create a dynamic and responsive skilling ecosystem that ensures workforce preparedness, economic growth, and social inclusion.

This underscores the necessity of adopting a Whole-of-Government and Whole-of-Nation approach to ensure all stakeholders and government entities work together within a clear framework of roles and responsibilities. Successful models like the PM Gati Shakti programme demonstrate the effectiveness of such coordination in streamlining efforts across multiple departments.

Case Study on Gati Shakti programme:

Gati Shakti is a flagship initiative by the Government of India, launched in October 2021, designed to revolutionise the country's infrastructure landscape through an integrated, multi-modal approach. This ambitious plan aims to break down silos across various sectors by converging efforts from 16 key ministries, including Railways, Highways, and Telecommunications, into a unified framework. The whole-of-government approach embodied in PM Gati Shakti ensures that infrastructure development is not only coordinated but also optimised for efficiency and resource utilisation. Key aspects of the programme:

Whole-of-Government Approach: The programme exemplifies inter-ministerial cooperation across ministries, with Central and State governments working together alongside private sector players. This convergence across ecosystem players is crucial for addressing infrastructure bottlenecks and achieving national goals.

Data-Driven Decision Making: The initiative is underpinned by a digital platform based on a Geographical Information System (GIS), which enables real-time data sharing and analytics across ministries and stakeholders. This technology-driven approach supports informed decision-making, reduces delays, and minimises resource duplication.

Integrated Infrastructure Planning: Gati Shakti focuses on integrating various modes of transport—roadways, railways, airways, waterways, and ports—into a unified network. This approach ensures seamless and efficient movement of goods and people across the country.

Hub and Spoke Model: The programme supports the development of a Hub and Spoke model, where key infrastructure hubs are connected to smaller spokes, ensuring broad geographic reach and inclusivity.

²⁵⁶ The Prime Minister's Internship Scheme (PMIS Scheme) announced in the Budget 2024-25, aims to provide internship opportunities to one crore youth in top 500 companies in five years. PM Internship Scheme provides an opportunity to the interns to get training, gain experience and skills within the real-life environment of the businesses or organizations that helps in bridging the gap between academic learning and industry requirements, in turn, assisting enhancement of her/his employability, (Press Information Bureau, 2024).

Progress made so far on Gati Shakti –

Successfully integrated 43²⁵⁷ ministries through a unified digital platform.

Facilitated the planning and construction of over 7,000 kilometres of expressways and 13,500 kilometres of railway lines using a GIS-based platform.

Enhanced logistical efficiency by reducing transportation costs and improving the ease of doing business.

Proposed Whole-of-Government Institutional Framework for this Policy

The National Skill Development Mission (NSDM), approved by the Honourable Prime Minister in 2015, will coordinate this policy's objectives at the apex level.²⁵⁸ NSDM will provide overall direction, set priority areas for action, and establish mechanisms for regular progress reviews for the policy.

MSDE, as the nodal ministry for skilling and entrepreneurship, will orchestrate the implementation of the policy by providing strong underlying standards and common frameworks to enable high-quality execution. To guide overall policy implementation, a PIU will be set up and housed in MSDE, chaired by the Secretary of MSDE and comprised of representatives from relevant ministries, states, and other bodies.

States are the primary execution bodies for skilling and entrepreneurship initiatives. They will continue to play this role by developing and implementing State Skill Development Plans (SSDPs) and leveraging the plans made by District Skill Development Plans (DSDPs). States will strengthen the implementation machinery, prioritise skill development in their budgets, mobilise resources for skilling and entrepreneurship, and ensure effective execution. They will also create State-specific skill and entrepreneurship programmes per national policy guidelines.

Other Central ministries will collaborate with MSDE and follow defined standards and frameworks for executing the skilling and entrepreneurship agenda in sectors like textiles, shipping, and tourism. Specifically, the MoE will be key in integrating skilling in academia in accordance with the NEP, 2020 guidelines. Other Central ministries will co-own the skilling agenda basis their expertise and execution machinery to build a cohesive system.



²⁵⁷ PM Gati Shakti, Government of India, 2024, accessed Oct 2024 ([Link](#))

²⁵⁸ National Skill Development Mission, Ministry of Skill Development and Entrepreneurship, 2020, accessed Oct 2024 ([Link](#))

DETAILED ROLES AND RESPONSIBILITIES UNDER THE INSTITUTIONAL FRAMEWORK

NSDM and SSDMs: Apex bodies at the Central and State levels.

- NSDM, set up in 2015,²⁵⁹ will provide overall governance, and MSDE, with a Policy Implementation Unit (PIU) housed within it, will continue to serve as the coordinating body for this policy.
- NSDM will continue to operate through a three-tier institutional structure – a Governing Council at the apex level, an Executive Committee, and the Policy Implementation Unit (PIU).
 - Clear operating guidelines will be put in place for the mission and its institutional entities to include regular reviews, decision-making modalities, and public communication.
 - The PIU will be accountable to the NSDM and will perform the following functions –
 - » Formulate action plans for the initiatives outlined in the policy, identifying all relevant entities required for implementation and mapping specific actions to the responsible entities.
 - » Facilitate coordination among the involved entities, assisting them in drafting implementation plans and timelines for their respective initiatives.
 - » Monitor the achievement of KPIs and outcomes by collecting data and ensuring transparency and accountability via reporting on public dashboards (as outlined in Chapter 22 on Enabler 5: Strengthen Monitoring, Evaluation and Learning).
 - » Actively identify priorities for policy implementation, such as gaps that need to be closed or emerging megatrends that need to be addressed and escalate these to NSDM for timely guidance.
- At the State level, states will be encouraged to establish and strengthen SSDMs, modelled on the National Mission, with their own Steering Committees and Mission Directorates. District Committees will further support these State bodies to ensure functional execution at the local level.



²⁵⁹ Ibid.

DETAILED ROLES AND RESPONSIBILITIES UNDER THE INSTITUTIONAL FRAMEWORK

Role of MSDE.

- Strengthening standards: MSDE will continue to lead in setting/strengthening standards and frameworks for skill development and entrepreneurship and enabling their adoption across Central and State-level ecosystem players. MSDE will be supported by NCVET, serving as the Central regulator for the skilling ecosystem. NCVET will ensure quality and standardisation through the recognition and regulation of awarding and assessment bodies, approval of qualifications, and accreditation of institutions. It will also be crucial in setting and implementing standards and frameworks such as the NSQF and NCrF. Additionally, NCVET will drive quality assurance in curriculum, assessment, and training to ensure alignment with national and international benchmarks.
- Strategic financing: MSDE will catalyse financing for skilling and entrepreneurship by promoting collaborative funding, incentivising State performance, and aligning with national priorities through:
 - Joint funding with states via centrally sponsored schemes.
 - Joint funding with other Central ministries.
 - PPPs with industry and ecosystem players for infrastructure, training delivery, etc.
 - Comprehensive central funding for areas of national priority or where MSDE assumes direct execution roles.
 - Strengthened Common Cost Norms (CCN) to account for factors like location, job roles, trainer expertise, and inclusion goals.
- Coordination: MSDE will coordinate national skilling and entrepreneurship efforts by aligning Central, State, and private initiatives, fostering collaboration, and ensuring cohesive execution. This includes:
 - Strengthening the current 3-tiered governance structure –
 - » NSDM at the Centre.
 - » SSDM at the State-level along the lines of NSDM.
 - » SSDM will, in turn, be supported by DSDM.
 - Constituting the PIU, housed in NSDM, with MSDE's Secretary as the Chairperson and representatives from relevant ministries, states, and other bodies (role of PIU outlined above).
 - Driving continuous stakeholder engagement (industry, regulatory bodies, social sector organisations, awarding and assessment bodies, etc.), and incorporating feedback.
 - Enabling cross-utilisation of resources from both government and non-government sectors on both the supply (training centre infrastructure) and demand sides (e.g., NCS portal).
- Support in developing SSDPs: Support the development of SSDPs by creating a standardised template and providing technical expertise and assistance to states for timely preparation and submission of the plan through a centralised digital portal. Additionally, institutionalise a periodic (e.g., annual or half-yearly) dialogue between states and Central ministries so that each State can present its plan. These plans will also critically input into the LMIS initiative of MoLE and MSDE by enabling an understanding of local needs and demands.

DETAILED ROLES AND RESPONSIBILITIES UNDER THE INSTITUTIONAL FRAMEWORK

Role of MSDE.

- Monitoring, Evaluation and Learning (MEL) (detailed in Chapter 22 as cross-cutting enabler 5): MSDE will enhance institutional mechanisms for MEL to continuously track the policy's implementation and make necessary adjustments to achieve the desired outcomes. Key actions include:
 - Defining clear KPIs and establishing systems and schedules for their tracking and reporting.
 - Strengthening MEL capacity and leveraging technology for cost-effective monitoring.
 - Creating a robust evidence base for skilling through the establishment of an NSRN.
- Promote entrepreneurship: Spearheaded by MSDE through NIESBUD and IIE, the entrepreneurship agenda focuses on equipping individuals with skills to start and manage businesses via comprehensive training. MSDE will establish training-cum-incubation centres for mentorship, practical exposure, and resources while supporting entrepreneurs in business planning, legal compliance, finance, and market strategy. These efforts will be coordinated with ministries like MSME and DPIIT to foster a conducive entrepreneurial ecosystem.
- Special initiatives: MSDE's primary role will continue to entail setting standards, overseeing implementation, and monitoring the achievement of skilling and entrepreneurship outcomes. In select situations, it will also assume execution responsibilities. This may include (non-exhaustive):
 - Conducting national-level campaigns and competitions, e.g. National Skills Competition.
 - Piloting projects for new skilling initiatives, e.g. outcomes-based financing.
 - Establishing and recognising Centres of Excellence (CoEs) to raise the aspiration for skilling and demonstrate what high-quality execution will entail e.g. spearheading transformation of ITIs and NSTIs.
 - Building Digital Public Goods with integrated two-way data sharing, e.g. strengthening SIDH and establishing skilling Digital Public Infrastructure for the country (e.g. Digital Lifelong Learning Account, integrated Labour Market information System (LMIS)).
 - Carrying out global skilling initiatives, e.g., driving G2G/G2G2B partnerships and help establish global skills equivalence.
 - Driving specific programmes for skilling/ upskilling/ reskilling, e.g., for national priorities and emerging sectors or for specific target segments.
 - Implementing women and inclusion initiatives, e.g., women-only ITIs.

DETAILED ROLES AND RESPONSIBILITIES UNDER THE INSTITUTIONAL FRAMEWORK

Role of other central ministries.

- Sector-specific ministries will focus on driving the skilling and entrepreneurship agenda within their focus areas leveraging information on skill gaps in their respective domains/sectors that need to be bridged. Such ministries include the Ministry of Road Transport and Highways for construction, the Ministry of Textiles for textiles, the Ministry of Agriculture and Farmers Welfare for agriculture, the Ministry of Electronics and Information Technology for IT, the Ministry of Ports, Shipping and Waterways for shipping, the Ministry of MSMEs for MSME, the DPIIT for startups, etc. While MSDE will provide the necessary support, nodal/line ministries will follow standards and norms set by MSDE and align on data integration and reporting mechanisms (e.g., data parameters that must be collected and reported for programmes led by respective ministries).
- Ministry of Education to play a crucial and complementary role alongside MSDE in skilling and entrepreneurship development, including:
 - Working in partnership with states for integration of the skilling agenda in school and higher education.
 - Training of trainers and capacity building for integrating skilling, foundational employability and entrepreneurship skills in education.
 - Supporting the design of curricula to introduce skilling and entrepreneurial concepts early in the school and higher education system.
 - Integrating skilling and entrepreneurship programmes in existing digital learning platforms like Study Webs of Active-Learning for Young Aspiring Minds (SWAYAM) and Digital Infrastructure for Knowledge Sharing (DIKSHA).

Other central ministries will support MSDE in selecting ecosystem-strengthening priorities within their focus areas. For instance.

- The Ministry of Women and Child Development (MoWCD), the Ministry of Tribal Affairs (MoTA), and the Ministry of Rural Development (MoRD) will help drive the inclusion agenda by collaborating to provide safe accommodations for women, establish crèche facilities to improve female labour force participation, and develop transportation solutions to address access challenges in remote areas.
- The Ministry of Finance (MoF), the Ministry of Corporate Affairs (MCA), and the Ministry of Commerce and Industry (MoCI) will promote entrepreneurship and industry participation by collaborating on tax benefits and amendments to CSR provisions to foster stronger industry-academia linkages.
- Ministry of Electronics and Information Technology (MeitY) will help build digital solutions for skills training and capacity building.
- Ministry of Labour and Employment (MoLE) will support the creation of a robust LMIS to facilitate better skills demand-supply match.

DETAILED ROLES AND RESPONSIBILITIES UNDER THE INSTITUTIONAL FRAMEWORK

- Ministry of Finance (MoF), the Ministry of Micro, Small and Medium Enterprises (MoMSME), and the Department for Promotion of Industry and Internal Trade (DPIIT) will help promote entrepreneurship by enhancing the Ease of Doing Business (EoDB), providing financing and market linkages, and establishing incubation centres to support and accelerate startup growth.
- Ministry of External Affairs (MEA) will help in supporting the transition of Indian workforce for global employment opportunities.

Role of states.

- Develop State Skill Development Plans (SSDPs), keeping in mind imperatives as outlined in the National Policy. SSDPs will be built by consolidating District Skill Development Plans (DSDPs) to meet unique local and industry needs in tandem with national priorities and emerging sectors. The States will:
 - Upload their SSDPs in the standardised template on a centralised digital portal.
 - Launch skill development and entrepreneurship programmes tailored to each State's specific needs.
- Strengthen State-level implementation machinery by empowering the SSDM or equivalent bodies as the nodal agency responsible for implementing the SSDP, with clearly defined roles and responsibilities.
- Prioritise skill development in the State budget, ensuring adequate allocation for the State's share of Centrally Sponsored Schemes as well as for funding the SSDP.
- Mobilise and allocate necessary resources, including human resources, infrastructure, for policy implementation and engage local industries and social sector organisation at various levels.

Expanding from Whole-of-Government to Whole-of-Nation Approach

While the Whole-of-Government approach is essential, the pervasive nature of the skilling and entrepreneurship agenda necessitates an even broader framework. Adopting a **Whole-of-Nation** approach is required to advance skilling and entrepreneurship and integrate government efforts with the private sector, civil society, and other ecosystem enablers.

Role of private sector participants.

- Industries/employers will be pivotal in addressing sector-specific skilling needs. They will support the identification of emerging skills, development of curricula and training modules, and facilitate delivery of programmes (e.g., adopting Work Integrated Degree Programmes, facilitating On Job Training) in coordination with training providers and educational institutions. They will also strengthen the skilling ecosystem by contributing to Skill Practitioner Networks, such as Professors of Practice, which integrate industry expertise into academia. Industries will promote Lifelong Learning (LLL) through regular upskilling and reskilling initiatives to ensure a competitive workforce. Additionally, they will incorporate skilling into their CSR and ESG strategies, prioritizing underserved regions to foster equitable development and inclusive growth. This aspect is further elaborated in Thrust Area 7: Deepen Industry Co-ownership.
- Industry associations, including SSCs, will be key enablers in fostering collaborations between industry and academia. These collaborations will help identify sectoral skill needs, standardise

DETAILED ROLES AND RESPONSIBILITIES UNDER THE INSTITUTIONAL FRAMEWORK

curricula, and shape certification frameworks to ensure alignment with industry demands. Associations will also advocate, working with governments to design policies supporting skilling and entrepreneurship. Through platforms such as workshops, industry expos, and forums, industry associations will facilitate knowledge-sharing and bridge stakeholder gaps, ensuring coordinated efforts across the ecosystem. They will strengthen the skilling and entrepreneurship landscape by aligning diverse interests and promoting best practices.

- Educational institutions will be critical in integrating skilling and entrepreneurship into mainstream education. They will introduce dedicated subjects, establish state-of-the-art laboratories, and establish incubation centres within schools and colleges. This aspect is further elaborated in Thrust Area 2: Integrated Skill-Education Learning Pathways with NCrF-enabled Mobility.
- Private organisations engaged in skilling delivery will lead efforts to design and implement cutting-edge skilling programmes aligned with market needs. Leveraging innovative technologies such as virtual simulations, AI-driven personalised learning tools, and hybrid delivery models will set benchmarks for accessibility, scalability, and quality. These players will also leverage global best practices to elevate the standards of training and certifications, providing models for government programmes to adopt and scale. Furthermore, collaborating with the government will bring private-sector efficiency and innovation to national skilling initiatives.

Role of civil society organisations.

- CSOs will ensure inclusivity and accessibility by delivering community-focused training programmes tailored to local needs, especially for marginalised groups and underserved regions. These initiatives will empower individuals to become self-reliant and economically active. By supporting nano- and micro-entrepreneurship through microfinance, business development training, and mentorship, CSOs will enable grassroots entrepreneurs to establish and sustain enterprises in areas lacking formal financial systems or infrastructure.
- CSOs will strengthen the skilling and entrepreneurship ecosystem by enhancing capacity and addressing on-ground implementation gaps. This will be achieved by providing skilled trainers, MEL support, and resources and tools to improve programme quality.
- Acting as intermediaries, CSOs will mobilise funding from multilateral organisations, regional development banks, local and international donors, and philanthropic foundations. These resources will support large-scale skilling projects, capacity-building efforts, and targeted initiatives.
- CSOs will play a crucial role in community mobilisation and aspiration building for skilling and entrepreneurship by conducting outreach programmes, organising local events, and using mass communication tools. These efforts will address socio-cultural barriers, such as gender biases, and foster participation from underrepresented groups.

DETAILED ROLES AND RESPONSIBILITIES UNDER THE INSTITUTIONAL FRAMEWORK

Role of private sector entrepreneurship ecosystem enablers.

- Startup incubators and accelerators will strengthen the entrepreneurial ecosystem by providing structured mentorship programmes, access to funding, and robust networks to help entrepreneurs refine their ideas and achieve market readiness. They will facilitate collaborations between startups and established firms, enabling market access and fostering strategic partnerships. Additionally, they will offer infrastructure support, such as co-working spaces, business services, and early-stage guidance to ensure startups can scale and succeed.
- Financiers like venture capitalists, angel investors, and microfinance institutions will play a central role in bridging funding gaps, especially for technology-driven and social enterprises. They will enable innovation and scalability by offering customised financial solutions tailored to the needs of startups at different growth stages. Promoting risk-taking and supporting experimentation will ensure that startups can access critical financial resources needed to thrive.
- Mentorship and peer networks will be integral to building a collaborative and supportive entrepreneurial ecosystem. They will connect entrepreneurs with experienced industry experts, successful entrepreneurs, and peer communities to provide guidance, share best practices, and offer industry insights. These networks will also create a sense of community, fostering resilience and helping entrepreneurs overcome challenges while accelerating innovation and knowledge-sharing. The above aspects are covered in more detail in Section 3: Entrepreneurship and Related Thrusts.



CHAPTER 24

Conclusion

The National Policy for Skill Development and Entrepreneurship 2025 (NPSDE 2025) offers a bold and transformative vision to elevate India's skilling and entrepreneurship ecosystem. By aligning with the nation's priorities, developmental aspirations and emerging global trends, the policy aims to drive equitable economic growth through sustainable livelihoods enabled by skilling and entrepreneurship. It lays emphasis on key sectors like green energy, artificial intelligence, healthcare, semiconductor manufacturing, and advanced logistics to prepare India's workforce for the future. Simultaneously, it aims to position India as a global leader in skilled talent, serving domestic and international markets and attracting foreign investments.

The policy recognises the importance of skilling and entrepreneurship as complementary pillars that work together to advance national priorities. Achieving this requires a Whole-of-Government and Whole-of-Nation approach, ensuring seamless collaboration among all stakeholders. Sector-specific and sector-agnostic ministries will leverage their expertise to address key skilling and entrepreneurship needs, while states will adapt programmes to regional and local contexts. It is envisioned that the private sector's role will extend beyond immediate workforce needs and will be encouraged to invest in skilling their supply chains and informal workers. MSDE will anchor these efforts by ensuring alignment with national priorities and driving simplification of processes and structures.

The policy also emphasises a Whole-of-Nation approach to expand the ecosystem's reach. Collaboration with industries, NGOs, CSOs, and multilateral organisations will drive co-ownership of skilling initiatives. Industries will co-develop curricula, offer on-the-job training, and align CSR and ESG strategies with skilling goals. Simultaneously, CSOs will focus on inclusivity by mobilising communities, supporting micro-entrepreneurship, and addressing socio-cultural barriers. These efforts will unlock the potential of underrepresented groups such as women, tribal communities, persons with disabilities, and rural youth.

In parallel, entrepreneurship will receive dedicated attention by enhancing initiatives led by MSME and DPIIT, supported by MSDE's efforts to build aspirations and foster collaboration. Entrepreneurs will be empowered to start, sustain, and scale businesses, promoting a culture of innovation and growth.

For this transformation to materialise, a fundamental shift in mindset is required to elevate the status of skilling and entrepreneurship. Historically, skilling has been perceived as a fallback for those unable to pursue academics, while entrepreneurship was pursued out of necessity rather than opportunity. The shift is needed across dimensions: integrating formal education and skilling, balancing wage employment with entrepreneurial ambition, and transforming societal perceptions of blue-collar and white-collar work.

The timeless wisdom of Swami Vivekananda serves as a guiding light for the policy: "*We want that education by which character is formed, the strength of mind is increased, the intellect is expanded, and by which one can stand on one's own feet.*"

In resonance with his philosophy, NPSDE 2025 is not merely a policy document but a call to action to redefine India's workforce, unlock human potential, and drive the nation towards a *Viksit Bharat* by 2047.





CHAPTER 25

Appendix

OVERVIEW OF APPROACH AND METHODOLOGY FOR NPSDE 2025

The National Policy for Skill Development and Entrepreneurship (NPSDE) 2025 is a forward-looking policy framework rooted in the realities of the prevailing skilling and entrepreneurship ecosystem and the aspirations of a future-ready nation. It was developed through a multi-phase process involving documenting the baseline of national and State-level efforts, the challenges and learnings, understanding international best practices, and iterative stakeholder consultations. The stakeholders involved Central ministries, State governments, Industries, and Civil society at every stage to shape a future-ready framework.

Process and Governance for this Policy

The process of policy development was overseen by a Core Group comprising senior representatives from the Ministry of Skill Development and Entrepreneurship (MSDE), NSDC, DGT, and NCVET. The group was chaired by the Secretary of the MSDE, playing a critical role in guiding the policy's development. The Core Group periodically oversaw the alignment of the approach, reviewed key findings, and ensured the inclusion of diverse perspectives throughout the process.

The draft has benefitted immensely from various consultations and inputs that cover 45+ experts from Central ministries, policy veterans, industry practitioners, 11 states, 12 learner focus group discussions, and industry sectoral roundtables with 100+ organisations represented across eight core and emerging sectors. Further, the draft benefitted from the timely guidance of the Minister of State (I/C) for the MSDE.

The draft is now open for widespread public consultation, which will be duly considered before this policy is finalised. The following sections capture a timeline of the approach followed for the development of the policy.

Phase 1	May–July 2024: Ecosystem Baselining	<ul style="list-style-type: none"> ● Review of Schemes: Skilling and entrepreneurship-related schemes by sector-specific ministries, sector-agnostic ministries, and States were reviewed. ● Belief Audits with – <ul style="list-style-type: none"> — 28 central ministry representatives, — 11 state skilling bodies' representatives, — 14 government organisations (e.g., AICTE, UGC, IIE), and — 10 ecosystem players ● International Benchmarking: international benchmarking was leveraged across multiple countries to identify best practices and other learnings
Phase 2	August–September 2024: Needs Assessment and Field Validation	<ul style="list-style-type: none"> ● Consultations with Beneficiaries: Qualitative insights gather via 12 FGDs followed by a extensive quantitative survey with over 7,000 beneficiaries Focused Group Discussions (FGDs) were held with over 120 participants ● Consultations with Industry: Over 100 industry players were engaged through one-on-one interviews and sectoral roundtables across 14 key sectors ● Field Visits: Over 20 field visits validate and test key findings through in-depth conversations with stakeholders
Phase 3	October–December 2024: Discussion, Deliberation, and Policy Drafting	<ul style="list-style-type: none"> ● 2-day workshop with PSC along with key representatives from MSDE, NSDC, and NCVET ● Through these discussions overall policy framework with 15 strategic thrusts and six enablers were identified along with a shared vision statement, policy principles, and goals.
Phase 4	January–February 2025: Stakeholder convenings for consensus building	<ul style="list-style-type: none"> ● Physical/digital/ hybrid convenings for consensus building on Draft Policy with key stakeholders – <ul style="list-style-type: none"> — Central Ministries — Government bodies — State governments and skill department representatives — Industry — Other ecosystem players
Phase 5	March–August 2025: Policy Finalization and Dissemination	<ul style="list-style-type: none"> ● Consolidate, synthesise and incorporate all feedback from Phase 4 ● Widely disseminated to ensure alignment and awareness among stakeholders, paving the way for coordinated implementation

Figure 21: Timeline View of Approach and Methodologies for NPSDE, 2025

Phase 1 (May–July 2024): Ecosystem Baselining

Review of Schemes: The first phase focused on reviewing the efforts of multiple stakeholders in the ecosystem. This included schemes of sectoral ministries like SAMARTH (Ministry of Textiles), National Livestock Mission (Ministry of Agriculture and Farmers Welfare) and sector agnostic ministries like PM-Vishwakarma (Ministry of MSME), PM-DAKSH (Ministry of Social Justice and Empowerment), among others. Further, the review also encompassed flagship schemes of MSDE like PMKVY, NAPS, CTS, and other initiatives such as the Skill Impact Bond and Skill Loan, among others. Additionally, over 100 entrepreneurship-oriented schemes, such as Pradhan Mantri Yuva Udyamita Vikas Abhiyan (PM-YUVA), PM-Mudra Yojana, and Startup India, were reviewed. In addition, State-level schemes and initiatives such as the Naan Mudhalvan Scheme of Tamil Nadu, the CM Kaushalya Karnataka Yojana of Karnataka, and the AEDP from Karnataka were reviewed. Further, key collaborative efforts involving MSDE, NSDC, and SSCs were reviewed to understand the industry's role and future opportunities. Finally, NPSDE, 2015, impact assessment reports and marquee research and publications in skilling and entrepreneurship ecosystem were also studied.

Belief Audits: To supplement the scheme review, Central ministry representatives, State skilling bodies, government organisations (e.g., AICTE, UGC, IIE), and several ecosystem players were engaged through detailed 'belief audits' (detailed list in appendix). These interactions evaluated the relevance of existing schemes and explored open challenges within the skilling ecosystem.

International Benchmarks: Simultaneously, international benchmarking was leveraged across multiple countries to identify best practices and other learnings. Countries were chosen for their diverse economic profiles, offering insights into strategies that could be tailored to the Indian context.

Phase 2 (August–September 2024): Needs Assessment and Field Validation

This phase aimed to validate insights through direct beneficiary engagement and industry consultations.

Consultations with Beneficiaries: 12 focused group discussions were held with over 120 beneficiaries. These sessions aimed to capture immediate challenges, motivations, and behavioural patterns related to skilling and entrepreneurship. Participants included school students, women, higher education participants, workforce members, and NEET (Not in Education, Employment, or Training) individuals. These FGDs encompassed diverse demographics covering urban, peri-urban, and rural India. The participants were representative of gender (men and women), geography (North, South, East, and West), and age groups to understand the diverse needs related to upskilling and reskilling. Insights from these discussions informed the refinement of hypotheses and the development of detailed discussion guides for subsequent research. An extensive quantitative survey, with over 7,000 beneficiaries, was implemented to delve deeper into their challenges, aspirations, and specific needs. The study examined awareness of skilling programmes, perceptions of skilling versus formal education, and the value it provides. It also explored triggers for skilling engagement, barriers to employment and career progression, and challenges in transitioning to the formal economy, particularly for those in unorganised sectors. Recommendations for enhancing skilling outcomes and addressing systemic gaps were derived, with a focus on improving existing skilling interventions such as SAMARTH (MoT), DDU-GKVKY, NIELT, PMKVY, ITI, NAPS, NATS, among others.

Consultations with Industry: Over 100 industry players were engaged through one-on-one interviews and sectoral roundtables across 14 key sectors. These sectors included agriculture, manufacturing, transportation, accommodation and food services, information and communication, human health and social work, and financial services. The discussions involved a diverse range of organisations, from startups and MSMEs to large corporations. Participants represented various roles across the value chain, providing insights from the perspective of different age groups, skill levels (e.g., technical workers and professionals), and sectors (e.g., primary, secondary, tertiary). The discussions focused on talent requirements, challenges in hiring and retaining employees, and the industry's role in skilling through in-house training programmes or collaborations with skilling institutions. They also surfaced systemic barriers in the skilling ecosystem, such as awareness gaps, procedural inefficiencies, and limited compliance by MSMEs, while also outlining the effectiveness of prevalent skilling initiatives.

Field visits were conducted to validate and test key findings through in-depth conversations with stakeholders. These visits covered institutions such as ITIs, skilling centres under DDU-GKY, PMKVY, JSS, IIE, NIESBUD, NIELT, Toolrooms, Language centres, Divyang Centres, and Entrepreneurship

Development Centres (EDCs). The fieldwork also included Aspirational Districts and various skilling initiatives in the NER, ensuring a comprehensive understanding of on-ground realities and challenges.

Phase 3 (October–December 2024): Discussion, Deliberation, and Policy Drafting

After establishing the baseline and needs of the different stakeholders, several internal meetings and workshops were conducted to arrive at the organising framework for the policy grounded in 15 strategic thrusts and six enablers. Through these series of deliberations, key initiatives that will help achieve the policy goals and vision were also outlined. Following this, a consultative and iterative process for drafting the policy document was followed, with frequent reviews with the core group to address conflicting inputs and maintain cohesion in the policy framework.

Phase 4 (January–February 2025): Stakeholder convenings for consensus building

This phase engaged a wide array of stakeholders to ensure that the policy reflects the aspirations of diverse groups. It involved engaging with a spectrum of participants, including

- Central ministries such as Ministry of Micro, Small, and Medium Enterprises, Ministry of Electronics and Information Technology, Ministry of Agriculture, Ministry of Social Justice, Ministry of Education, and Ministry of Labour and Employment.
- State governments and skill department representatives of key regions of the country, North, South, East, West, North-East, and areas like hilly regions, LWE impacted states, among others.
- Diverse industry representatives, including large businesses, MSMEs, and emerging sectors.
- Academia and related institutions including UGC, AICTE, Skill Universities and vocational institutions (training providers, ITI, etc.).
- Key experts in the skills development ecosystem.

Physical and digital convenings were held with each stakeholder group across the country, complemented by in-depth discussions with key stakeholders to gather comprehensive inputs on the policy framework and proposed recommendations.

Phase 5 (March–August 2025): Policy Finalisation and Dissemination

The final phase involves consolidating all feedback into the NPSDE 2025, establishing a robust framework to guide India's skilling and entrepreneurship agenda for the next decade. The finalised policy will be disseminated widely to ensure alignment and awareness among stakeholders, paving the way for coordinated implementation.



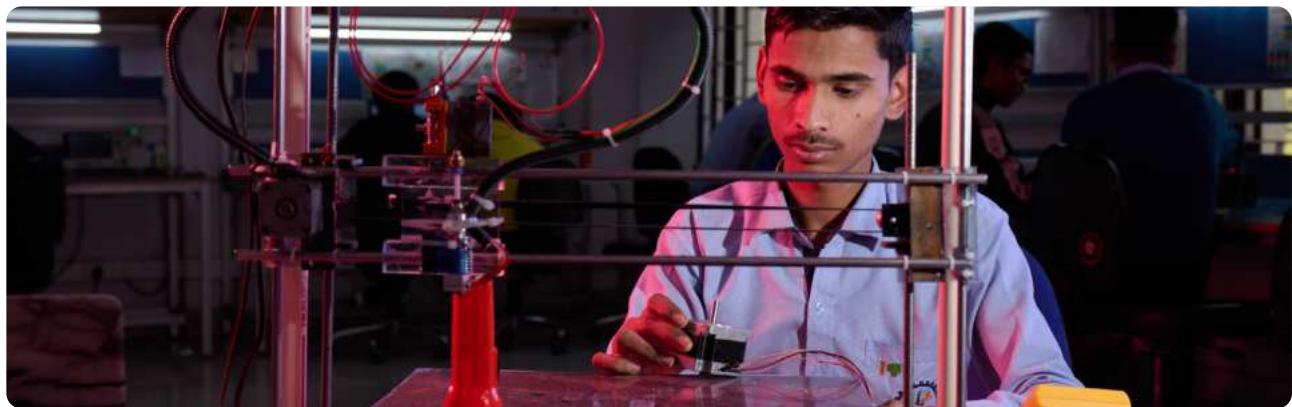
CONSULTATIONS UNDERTAKEN AT THE START OF POLICY FORMULATION

Organisation	Name	Designation
Central Government		
Ministry of Textiles	Shri. Ajay Gupta	Joint Secretary
Ministry of Electronics and Information Technology	Shri. Akash Tripathi	Managing Director & CEO (Digital India Corporation)
Ministry of Labour and Employment	Shri. Amit Nirmal	Deputy DG (Employment)
Ministry of Skill Development and Entrepreneurship	Smt. Anuja Bapat	Deputy Director General
Ministry of Housing and Urban Affairs	Shri. Anurag Jain	Secretary
Ministry of Skill Development and Entrepreneurship	Smt. G. Madhumita Das	Joint Secretary & Financial Advisor
Ministry of Skill Development and Entrepreneurship	Smt. Hena Usman	Joint Secretary
Ministry of Skill Development and Entrepreneurship	Shri. KP Krishnan	Ex-Secretary
Ministry of Skill Development and Entrepreneurship	Shri. Niraj Kumar	Joint Secretary -IV (Parliament affairs - Hindi language)
Ministry of Petroleum and Natural Gas	Shri. Pankaj Jain	Secretary
Department of School Education and Literacy	Smt. Prachi Pandey	Joint Secretary
Ministry of Labour and Employment	Shri. Ramesh Krishnamurthy	Additional Secretary
Ministry of Agriculture & Farmers Welfare	Shri. Samuel Praveen Kumar	Joint Secretary (Extension, AIF, Investments & Price Support)

Organisation	Name	Designation
Central Government		
Ministry of Education	Shri. Sanjay Kumar	Secretary (School Ed.)
Department for Promotion of Industry and Internal Trade	Shri. Sanjiv	Joint Secretary
Ministry of Rural Development	Shri. Shailesh Kumar Singh	Secretary
Ministry of Skill Development and Entrepreneurship	Shri. Shreeshail Malge	Joint Secretary
Ministry of Electronics and Information Technology	Shri. S. Krishnan	Secretary
Ministry of Skill Development and Entrepreneurship	Smt. Sonal Mishra	Joint Secretary-I (PMKVY & PM Vishwakarma)
Ministry of Commerce and Industry	Shri. Sunil Barthwal	Secretary
Ministry of Skill Development and Entrepreneurship	Smt. Trishaljit Sethi	Additional Secretary/Director General (Training)
Ministry of Education	Shri. Vipin Kumar	Additional Secretary (SS-II) (DOSEL)



Organisation	Name	Designation
State Government		
Assam Skill Employment and Entrepreneurship	Shri B. Kalyan Chakravarthy	Principal Secretary
Gujarat Skill Development Mission	Ms. Gargi Jain	Director
Karnataka State Skill Development Mission	Smt. Kanagavalli M	Managing Director
Jammu & Kashmir, Department of Skill Development	Mr. Kumar Rajeev Ranjan	Administrative Secretary
Assam State Skill Development Mission	Smt. Masanda Magdalin Pertin	Mission Director
Rajasthan Skill Development Mission	Shri. Ngikya Gohain	Mission Director
Maharashtra Skill Development Mission	Smt. Nidhi Choudhari	Commissioner
Odisha State Skill Development Mission	Smt. Rashmita Pande	Mission Director
Tamil Nadu Skill Development Mission	Shri. Samayamoorthi	Mission Director
Tamil Nadu Skill Development Corporation	Smt. Thirumathi J Innocent Divya	Managing Director
Odisha Skill Development and Technical Education Dept.	Smt. Usha Padhee	Principal Secretary



Organisation	Name	Designation
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Other Government Bodies

All India Council for Technical Education	Dr. Abhay Jere	Vice Chairman
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National Education Technology Forum	Prof Anil Sahasrabudhe	Chairman
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Indian Institute of Entrepreneurship	Dr. Lalit Sharma	Director
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National Skill Development Council	Shri. Manish Kumar	ex-CEO
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University Grants Commission	Prof M. Jagdeshkumar	Chairperson
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National Council of Vocational Education and Training	Dr. Nirmaljeet Singh Kalsi	Chairperson
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National Skill Development Corporation	Mr. Sanjeeva Singh	Executive Vice President
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All India Council for Technical Education	Prof TG Sitharam	Chairman
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National Skill Development Corporation	Mr. Ved Mani Tiwari	CEO
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National Council of Vocational Education and Training	Dr. Vinita Aggarwal (IES, Retd.)	Member, Executive Council
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Organisation	Name	Designation
Other Ecosystem Players		
British Asian Trust	Ms. Abha Thorat Shah	Executive Director
Leather sector skill council	Mr. Amin	Chairman
Tata Strive	Ms. Anita Ranjan	Advisor & ex- CEO
Pratham Education Foundation	Ms. Annette Francis	Director, Skilling, Entrepreneurship & Livelihood
British Asian Trust	Ms. Anushree Parekh	Associate Director, Social Finance
Auto Sector Skill council	Mr. Arindam Lahiri	CEO
British Asian Trust	Mr. Bharat Visweswariah	Executive Director
NASSCOM	Ms. Debjani Ghosh	President
Asian Development Bank	Mr. Fok Yen Chong	Principal Social Sector Specialist
Construction Sector Skill Council	Ms. Jancy Mathew	CEO & COO
CREDAI	Mr. Jitendar Thakkar	Committee Chairman, Constitutional Advisory Council
FICCI	Mr. Rajesh Pankaj	Director & Head-Education & Skills
GAME	Mr. Ravi Venkatesan	Co-founder
Logistics sector skill council	Mr. Ravikanth Yamarithy	CEO
School Net	Mr. RCM Reddy	Ex-CEO, IL&FS, Founder, SchoolNet
Michael and Susan Dell Foundation	Mr. Sanjay Modi	Senior Director
Agriculture Sector Skill Council	Dr Satender Singh Arya	CEO
EkStep	Mr. Shankar Maruwada	CEO & Co-founder

Organisation

Name

Designation

Other Ecosystem Players

Karamyogi Bharat

Mr. S. Ramadorai

Chair, Board of Directors

The Abdul Lateef Jamal Poverty Action Lab

Ms. Sharanya Chandran

Director, Policy and Communication

The Abdul Lateef Jamal Poverty Action Lab

Ms. Shobhini Mukerji

Executive Director

Confederation of Indian Industry

Ms. Sougata Choudhary

Head of Skill Development

The Blended Finance Company

Mr. Tushar Thakkar

Partner



STAKEHOLDER CONSULTATIONS FOR FEEDBACK ON POLICY DRAFT

Stakeholder Groups

Stakeholder Bodies

Stakeholder

Central Government

Core Ministries	Education, Labour, MSME, Regulatory Bodies, Academic Institutions	<ul style="list-style-type: none"> Central Ministries (MoLE, MoE, MoRD, MoHUA, MSME) MoE, boards/councils (UGC, AICTE, CBSE), Institutions (Skill Universities, Vocational institutes)
Marginalised groups	Key Ministries	<ul style="list-style-type: none"> Central Ministries (MoWCD, MoDONER, MoTA, MoSJ&E)
Other Key Ministries	Key Central Ministries	<ul style="list-style-type: none"> Central Ministries (MoNRE, MEITY, MoRTH, DPIIT/ MoCI, Mo Tourism, Mo Textiles among others)
State Governments	All States	<ul style="list-style-type: none"> Heads of SSDMs, PS of Skill Depts Regional/ Zonal break outs
Industry & Other players	Industry Leaders, SSCs, MSMEs, Associations, CSOs	<ul style="list-style-type: none"> Industry leaders (large scale, emerging sectors) Industry Association Bodies (CII, FICCI) and SSCs Pvt Orgs (e.g., TeamLease, Haqdarshak) Multilateral Orgs (ADB, World Bank, UNDP) Pvt TPs (e.g., Learnnet) CSOs (e.g., SEWA)
Skill Development Experts	5 key SMEs	<ul style="list-style-type: none"> 3-4 key experts from Government & Private Sector

LIST OF SKILLING-RELATED SCHEMES REVIEWED

Serial No.	Ministry	Scheme/Programme	Description
Sector Agnostic Schemes			
1	Ministry of Rural Development	Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY)	Aims to skill rural youth for jobs with a focus on sustainable employment.
2	Ministry of Rural Development	Rural Self-Employment Training Institutes (RSETIs)	Provides free skill training and entrepreneurship development.
3	Ministry of Skill Development and Entrepreneurship	Rural Self-Employment Training Institutes (RSETIs)	Provides free skill training and entrepreneurship development.
4	Ministry of Skill Development and Entrepreneurship	National Apprenticeship Promotion Scheme (NAPS)	Encourages employers to engage apprentices by providing financial incentives.
5	Ministry of Skill Development and Entrepreneurship	Jan Shikshan Sansthan (JSS),	Provides vocational training for non-literate, neo-literate, and school dropouts in rural areas.
6	Ministry of Social Justice & Empowerment	Pradhan Mantri Dakshta aur Kushalta Sampatti Hitgrahi Yojana (PM-DAKSH)	Provides skill training for marginalised sections of society.
7	Ministry of Social Justice & Empowerment	Atal Vayo Abhyuday Yojana (AVYAY)	Provides skill training and resources for the welfare of senior citizens.
8	Ministry of Tribal Affairs	Pradhan Mantri- Janjati Adivasi Nyaya Maha Abhiyan	Focuses on skilling and empowering tribal communities.
9	Ministry of Women and Child Development	Support to Training and Employment Programme for Women (STEP)	Provides skill training for women to improve employability.

Serial No.	Ministry	Scheme/Programme	Description
Sector Agnostic Schemes			
10	Ministry of Minority Affairs	Seekho aur Kamao	Offers skill training for minorities to enhance employability.
11	Ministry of Minority Affairs	Nai Manzil	Combines education and skill training for minority youth.
12	Ministry of Micro, Small & Medium Enterprises	National Small Industries Corporation (NSIC)	Provides training and support to small industries.
13	Ministry of Micro, Small & Medium Enterprises	Tool Rooms and Technology Development Centres,	Offers technical and vocational training for MSMEs.
14	Ministry of Micro, Small & Medium Enterprises	Management Development Programmes (MDP)	Provides training in managerial skills for MSME entrepreneurs.
15	Ministry of Micro, Small & Medium Enterprises	Assistance to Training Institutions Scheme (ATI Scheme)	Financial aid to training institutions for skilling programmes.
16	Ministry of Micro, Small & Medium Enterprises	Skill Upgradation & Quality Improvement	Enhances quality and competitiveness of MSMEs through skill training.
17	Ministry of Micro, Small & Medium Enterprises	Entrepreneurship Skill Development Programme (ESDP)	Promotes entrepreneurship and skill training for MSME sector.
17	Ministry of Micro, Small & Medium Enterprises	Entrepreneurship Skill Development Programme (ESDP)	Promotes entrepreneurship and skill training for MSME sector.
18	Ministry of Education	National Apprenticeship Training Scheme	Offers practical training to graduates and diploma holders.

Serial No.	Ministry	Scheme/Programme	Description
Sector Agnostic Schemes			
19	Department of School Education & Literacy	Samagra Shiksha	Provides skill and vocational training as part of school education.
20	Ministry of Housing and Urban Affairs	DAY-National Urban Livelihoods Mission (NULM)	Focuses on urban poverty alleviation through skill training.



A young man in a white polo shirt with 'PMKVY' logo is working on a wooden stool in a workshop. He is using a screwdriver to assemble the wooden parts. The workshop has shelves in the background.

Serial No.	Ministry	Scheme/Programme	Description
Sector Specific Schemes			
21	Department of Animal Husbandry, Dairying & Fisheries	Rashtriya Gokul Mission	Aims at conserving and developing indigenous cattle breeds.
22	Department of Animal Husbandry, Dairying & Fisheries	National Programme for Dairy Development	Enhances milk production and creates rural jobs.
23	Department of Animal Husbandry, Dairying & Fisheries	National Livestock Mission	Develops the livestock sector to improve productivity.
24	Department of Promotion of Industry and Internal Trade	Integrated Leather Development Programme (ILDP)	Focuses on skill training and modernising the leather industry.
25	Department of Promotion of Industry and Internal Trade	Indian Footwear and Leather Development Programme (IFLDP)	Supports skill development and capacity building in the leather sector.
26	Department of Telecommunications	Pandit Deendayal Upadhyaya Sanchar Kaushal Vikas Pratisthans (PDDUSKVP)	Provides telecom-related skill training.
27	Ministry of Agriculture & Farmer Welfare	Rashtriya Krishi Vikas Yojana (RKVY)	Promotes skill training in agriculture and allied sectors.
28	Ministry of Electronics & Information Technology	Scheme for Financial Assistance to Select States/UTs for Skill Development in ESDM Sector	Supports skilling in electronics system design and manufacturing.
29	Ministry of Electronics & Information Technology	Scheme for Skill Development in ESDM for Digital India	Provides skill training in digital and electronic fields.

Serial No.	Ministry	Scheme/Programme	Description
Sector Specific Schemes			
30	Ministry of Food Processing Industries	Pradhan Mantri Formalisation of Micro Food Processing Enterprises Scheme	Provides skill training and support to food processing units.
31	Ministry of Jal Shakti	Jal Jeevan Mission	Enhances water-related skills for rural development.
32	Ministry of Micro, Small & Medium Enterprises	Mahila Coir Yojana (MCY)	Promotes women's employment through coir industry skill training.
33	Ministry of Minority Affairs	Upgrading the Skills and Training in Traditional Arts Crafts for Development	Supports traditional artisans and craftspeople with skill enhancement.
34	Ministry of New and Renewable Energy	Suryamitra, Vayumitra, & Jal-Urgamitra	Provides training in renewable energy technologies.
35	Ministry of New and Renewable Energy	PM-Surya Ghar Muft Bijli Yojana	Promotes solar energy and skilling in installation and maintenance.
36	Ministry of New and Renewable Energy	National Green Hydrogen Mission	Focuses on skill development in hydrogen energy technologies.
37	Ministry of Rural Development	Pradhan Mantri Gramin Awas Yojana (PMAY-Gramin)	Includes skill training in construction-related trades.
38	Ministry of Steel	National Institute of Secondary Steel and Technology (NISST)	Offers skill training in secondary steel manufacturing technologies.
39	Ministry of Steel	Biju Patnaik National Steel Institute (BPNSI)	Promotes training in advanced steel technologies.

Serial No.	Ministry	Scheme/Programme	Description
Sector Specific Schemes			
40	Ministry of Textiles	Scheme For Capacity Building in Textile Sector (SAMARTH)	Provides skill training in the textile industry.
41	Ministry of Textiles	Integrated Scheme for Skill Development	Supports skilling across textile sub-sectors.
42	Ministry of Textiles	PM Mega Integrated Textile Region and Apparel	Enhances textile sector with skill and infrastructure development.
43	Ministry of Tourism	Capacity Building for Service Providers (CBSP)	Provides training to improve services in the tourism industry.



LIST OF ENTREPRENEURSHIP RELATED SCHEMES REVIEWED

Serial No.	Ministry	Scheme/Programme	Description
1	Ministry of Micro, Small and Medium Enterprises	Prime Minister's Employment Generation Programme (PMEGP)	Provides financial assistance for setting up self-employment ventures targeting rural and unemployed youth.
2	Ministry of Micro, Small and Medium Enterprises	Credit Guarantee Scheme for Micro & Small Enterprises (CGTMSE)	Facilitates collateral-free loans for first-generation entrepreneurs and MSMEs, with coverage of up to 85%.
3	Ministry of Micro, Small and Medium Enterprises	Entrepreneurship and Skill Development Programme (ESDP) Scheme	Promotes new enterprises by motivating and training individuals across society.
4	Ministry of Micro, Small and Medium Enterprises	Procurement and Marketing Support (PMS) Scheme	Promotes market access for MSMEs through trade fairs, expos, and training on packaging, trade policies, and technology.
5	Ministry of Micro, Small and Medium Enterprises	International Cooperation (IC) Scheme	Builds capacity for MSMEs to access export markets via participation in international trade events.
6	Ministry of Micro, Small and Medium Enterprises	National SC-ST Hub Scheme	Supports SC/ST entrepreneurs with business practices and access to government procurement initiatives.
7	Ministry of Micro, Small and Medium Enterprises	A Scheme for Promotion of Innovation, Rural Industries and Entrepreneurship (ASPIRE)	Promotes rural innovation through livelihood incubators and strengthens MSME competitiveness.

Serial No.	Ministry	Scheme/Programme	Description
8	Ministry of Skill Development	PM-YUVA Yojana (Pradhan Mantri Yuva Udyamita Vikas Abhiyan)	Encourages entrepreneurship education, mentoring, and skill development for aspiring entrepreneurs.
9	Ministry of Agriculture and Farmers Welfare	Innovation and Agri-Entrepreneurship Programme	Promotes innovation and agri-entrepreneurship by supporting startups in agriculture with financial and technical aid.
10	Ministry of Agriculture and Farmers Welfare	Agriculture Infrastructure Fund for Agripreneurs	Mobilises medium long-term debt financing facility for investment in viable projects relating to post-harvest management infrastructure and community farming assets through incentives and financial support.
11	Ministry of Electronic and Information Technology	Genesis	Supports startups in Tier II and III cities through the Digital India GENESIS initiative, fostering digitisation and collaboration.
12	Ministry of Electronic and Information Technology	Electronics Hardware Technology Park Scheme	Encourages software and electronics hardware development for exports through dedicated parks.
13	Ministry of Development of Northeast Region	Northeast Entrepreneurs Development (NEED)	Supports first-generation entrepreneurs in the Northeast with equity for new or expanded projects.
14	Ministry of Development of Northeast Region	North-East Handloom Handicrafts (NEHH)	Promotes handloom and handicrafts enterprises in the Northeast for sustainable economic growth.

Serial No.	Ministry	Scheme/Programme	Description
15	NITI Aayog	Women Entrepreneurship Platform	Creates an ecosystem for women entrepreneurs across India with financial and mentoring support.
16	Ministry of Science and Technology	Promoting Innovations in Individuals, Startups and MSMEs (PRISM)	Provides grants and mentoring to innovators and startups for creating new enterprises and MSME solutions.
17	Ministry of Science and Technology	NewGen Innovation and Entrepreneurship Development Centre	Encourages innovation and entrepreneurship in students by supporting startup creation in academic institutions.
18	Ministry of Science and Technology	Technology Incubation and Development of Entrepreneurs (TIDE) 2.0	Promotes tech entrepreneurship by supporting 51 incubators and 2000 ICT startups in emerging technologies over 5 years, fostering a holistic ecosystem for innovation and societal relevance.
19	Ministry of Science and Technology	NIDHI Programme	Umbrella programme for nurturing knowledge-based, technology-driven ideas into startups, focusing on innovation, wealth, job creation, and socioeconomic development.
20	SIDBI-Ministry of Finance	Samridhi Fund	Social Venture capital fund to provide capital to social enterprises in Bihar, UP, MP, Odisha, Chhattisgarh, Jharkhand, Rajasthan and West Bengal.
21	SIDBI-Ministry of Finance	Pradhan Mantri Mudra Yojana	Loans, up to 10 lakh, classified as MUDRAS to non-corporate, non-farm small/micro enterprises.

Serial No.	Ministry	Scheme/Programme	Description
21	SIDBI-Ministry of Finance	Pradhan Mantri Mudra Yojana	Loans, up to 10 lakh, classified as MUDRAS to non-corporate, non-farm small/micro enterprises.
22	SIDBI-Ministry of Finance	Stand Up India	Facilitates loans between 10 lakh and 1 crore to at least one SC/ST borrower, one woman per bank branch for setting up a greenfield enterprise in manufacturing, services or trading sector.
23	Ministry of Heavy Industries & Public Enterprises	PLI Scheme for Automobile and Auto components	Offers financial incentives to enhance domestic manufacturing of advanced automotive products and attract investments in the automotive value chain.
24	Ministry of Heavy Industries & Public Enterprises	PLI Scheme for National Programme on Advanced Chemistry Cell (ACC) Battery Storage	Designed to boost the production of advanced chemistry cell batteries in India and promote the adoption of clean and efficient energy storage solutions.
25	Ministry of Finance	Pradhan Mantri Mudra Yojana	Loans without collaterals are offered to young, educated and skilled workers who aspire to be first generation entrepreneurs.
26	Ministry of Social Justice and Empowerment	Venture Capital Fund for Scheduled Castes (VCF-SC)	Launched to promote entrepreneurship and provide concessional finance to companies promoted by SC entrepreneurs.
27	Ministry of Social Justice and Empowerment	Venture Capital Fund for Backward Classes (VCF-BC)	Launched to promote entrepreneurship and provide concessional finance to companies promoted by entrepreneurs from Backward Classes.

Serial No.	Ministry	Scheme/Programme	Description
28	Ministry of Social Justice and Empowerment	SENIOR CARE AGEING GROWTH ENGINE (SAGE) VENTURE FUND	Fund targeted to provide equity support up to ₹1 Crore for up to 49% stake in such start-ups which innovate on products and services for Senior Citizens of India.
29	Ministry of Social Justice and Empowerment	Ambedkar Social Innovation Incubation Mission (ASIIM) Scheme under VCF-SC	Supports SC & SC-Divyang students engaged in innovative and technology-oriented business ideas in educational campuses or Technology Business Incubators, to set up successful ventures.
30	BIRAC	BIRAC Incubators SEED Fund	Support scheme providing seed funding to bridge the gap between promoters' investments and venture/ angel investment.
31	BIRAC	SPARSH (Social Innovation Programme for Products; Affordable & Relevant to Societal Health)	Supports the development of innovative solutions to society's most pressing social problems through biotechnology approaches.



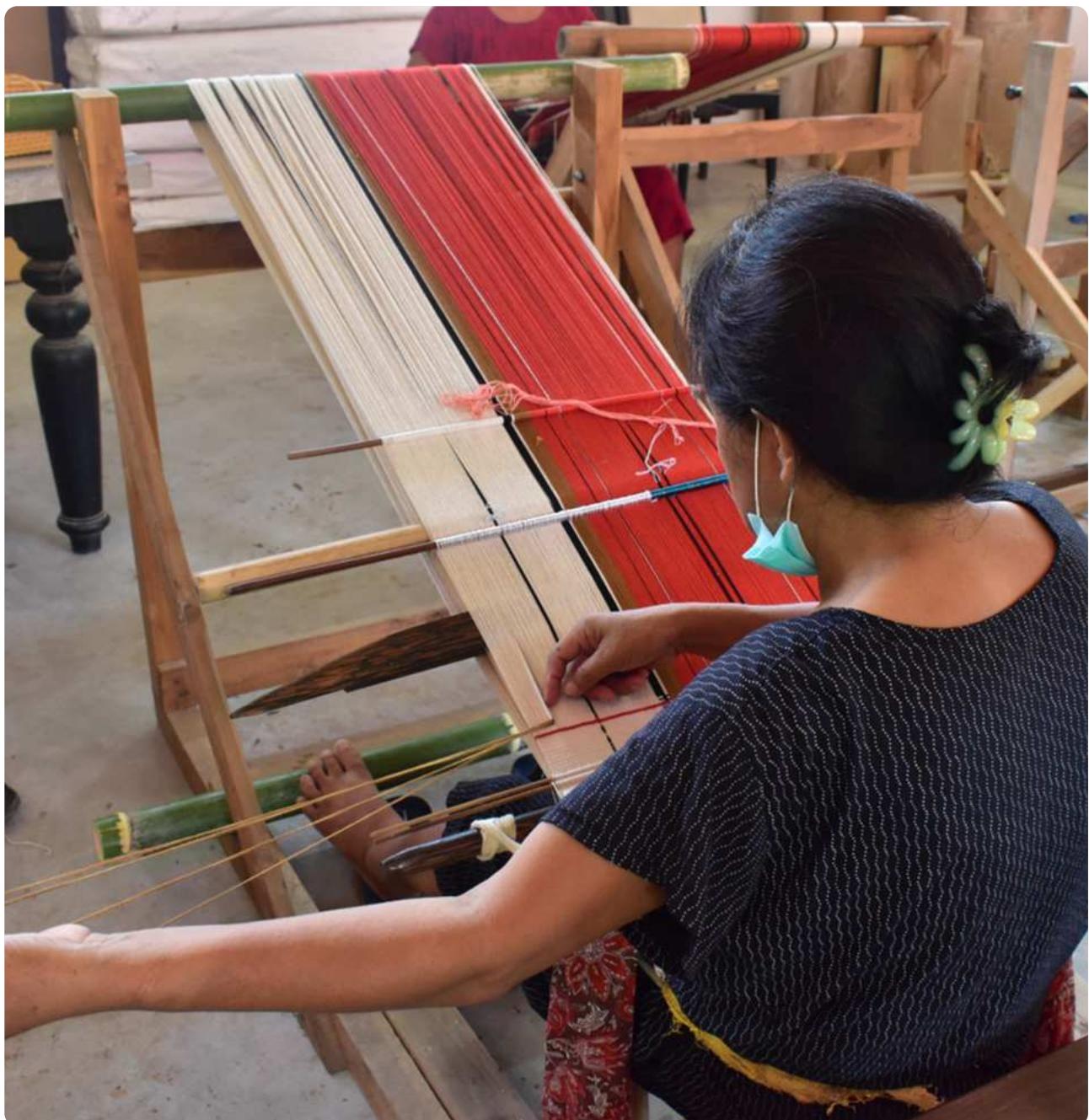
GLOSSARY

AA	Assessment Agency	CBDC	Central Bank Digital Currency	EDC	Entrepreneurship Development Centres
AB	Awarding Body	CBSE	Central Board of Secondary Education	EDII	Entrepreneurship Development Institute of India
ABC	Academic Bank of Credit	CCN	Common Cost Norms	EDPs	Entrepreneurship Development Programmes
ACC	Advance Chemistry Cell	CCTV	Closed-Circuit Television	ELI	Employment-Linked Incentive
ACP	Assured Career Progression	CEO	Chief Executive Officer	EoDB	Ease of Doing Business
AEDP	Apprenticeship Embedded Degree Programme	CGTMSE	Credit Guarantee Scheme for Micro & Small Enterprises	EPFO	Employees' Provident Fund Organisation
AI	Artificial Intelligence	CITS	Crafts Instructor Training Scheme	ERP	Enterprise Resource Planning
AIB	Apprenticeship Impact Bond	CoE	Centres of Excellence	ES	Employability Skills
AIC	Atal Incubation Centres	CPD	Continuous Professional Development	ESDI	Enhancing Skill Development Infrastructure in North-Eastern States
AICTE	All India Council for Technical Education	CRM	Customer Relationship Management	ESG	Environmental, Social and Governance
AIM	Atal Innovation Mission	CSO	Civil Society Organisations	EVs	Electric Vehicles
AISHE	All India Survey on Higher Education	CSR	Corporate Social Responsibility	FDI	Foreign Direct Investment
APAAR ID	Automated Permanent Academic Account Registry	CSTARI	Central Staff Training and Research Institute	Female LFPR	Female Labour Force Participation Rate
APIs	Application Programming Interfaces	CSTI	L&T's Construction Skills Training Institutes	FLN	Foundational Literacy and Numeracy
AQEES	All India Quarterly Establishment based Employment Survey	CTS	Craftsmen Training Scheme	G20	Group of Twenty
ASER	Annual Status of Education Report	CGFNS	Commission on Graduates of Foreign Nursing Schools	G2G	Government to Government
ASI	Annual Survey of Industries	CV	Curriculum Vitae	G2G2B	Government to Government to Business
ASPIRE	A Scheme for Promotion of Innovation, Rural Industries and Entrepreneurship	CwSN	Children with Special Needs	GCC	Global Capability Centres
ASIIM	Ambedkar Social Innovation Incubation Mission	DAY-NRLM	Deendayal Antyodaya Yojana- National Rural Livelihood Mission	GEM	Global Entrepreneurship Monitor
ASSSE	Annual Survey of Services Sector Enterprises	DDU-GKY	Deen Dayal Upadhyaya Grameen Kaushalya Yojana	GENESIS	Gen-next support for Innovative Startups
ASUSE	Annual Survey of Unincorporated Sector Enterprises	DEPA	Data Empowerment and Protection Architecture	GEW	Global Entrepreneurship Week
ATLs	Atal Tinkering Labs	DFI	Development Finance Institutions	GIS	Geographical Information System
AY	Assessment Year	DGT	Directorate General of Training	GST	Goods and Services Tax
BFSI	Banking, Financial Services, and Insurance	DIC	District Industries Centres	HEI	Higher Education Institutions
BHASKAR	Bharat Startup Knowledge Access Registry	DIKSHA	Digital Infrastructure for Knowledge Sharing	HSRT	Hunar Se Rozgar Tak
BiB	Business in a Box	DLLA	Digital Lifelong Learning Account	IBC	Insolvency and Bankruptcy Code
BIRAC	Biotechnology Industry Research Assistance Council	DPI	Digital Public Infrastructure	ICRF	International Reference Classification of Occupations
BMW	German Federal Ministry of Economic Affairs and Energy	DPIIT	Department for Promotion of Industry and Internal Trade	IC	International Cooperation Scheme
BOT	Build-Operate-Transfer	DSC	District Skill Committees	IFLDP	Indian Footwear and Leather Development Programme
BPL	Below the Poverty Line	DSDM	District Skill Development Missions	iGOT	Integrated Government Online Training
BPNSI	Biju Patnaik National Steel Institute	DSDP	District Skill Development Plans	IGVET	Indo-German Vocational Education and Training
BRICS	Brazil, Russia, India, China, and South Africa	DST	Dual System of Training		
BRSF	Business Responsibility and Sustainability Framework	E&P	Economic and Policy Wing		
BRSR	Business Responsibility and Sustainability Reporting				

IHR	Indian Himalayan Region	MoLE	Ministry of Labour and Employment	NDGFP	National Data Governance Framework Policy
IIE	Indian Institute of Entrepreneurship	MoMSME	Ministry of Micro, Small and Medium Enterprise	NDSAP	National Data Sharing and Accessibility Policy
IIS	Indian Institute of Skills	MoRD	Ministry of Rural Development	NEDF	North-Eastern Development Finance Corporation Ltd
ILO	International Labour Organisation	MoRTH	Ministry of Road Transport and Highways of India	NEDP	National Employability Development Programme
IoT	Internet of Things	MoSPI	Ministry of Statistics and Programme Implementation	NEED	Northeast Entrepreneurs Development
IP	Intellectual Property	MoTourism	Ministry of Tourism	NEEDP	North East Entrepreneurship Development Programme
ITI	Industrial Training Institutes	MoTextiles	Ministry of Textiles	NEEM	National Employability and Entrepreneurship Mission
IT	Information Technology	MoTA	Ministry of Tribal Affairs	NEEP	National Employability and Entrepreneurship Programme
IToT	Institutes of Training of Trainers	MoU	Memorandum of Understanding	NEET	Not in Employment, Education, or Training
JSS	Jan Shikshan Sansthan	MoWCD	Ministry of Women and Child Development	NEHH	North-East Handloom Handicrafts
KPI	Key Performance Indicators	MoNRE	Ministry of New and Renewable Energy	NEP	National Education Policy
LABS	Livelihood Advancement Business School	MoSJ&E	Ministry of Social Justice and Empowerment	NER	North-Eastern Regions
LFPR	Labour Force Participation Rate	MQA	Mining Qualification Authority	NEVF	North East Venture Fund
LGBTQ+	Lesbian, Gay, Bisexual, Transgender and Queer	MRS	Mutual Recognition of Skills	NHEQF	National Higher Education Qualification Framework
LLL	Lifelong Learning	MSDE	Ministry of Skill Development and Entrepreneurship	NIDHI	National Initiative for Developing and Harnessing Innovation
LMIS	Labour Market Information System	MSME	Micro, Small, and Medium Enterprises	NIELET	National Institute of Electronics and Information Technology
LMS	Learning Management Systems	MUDRA	Micro Units Development & Refinance Agency	NIES-BUD	National Instructional Media Institute
LS	Life Skills	MVP	Minimum Viable Product	NIOS	National Institute of Open Schooling
LT	Longterm training	NABARD	National Bank for Agriculture and Rural Development	NIRF	National Institutional Ranking Framework
LWE	Left Wing Extremism	NAIN	New Age Innovation Network	NITI	National Institute for Transforming India
MAARG	Mentorship, Advisory, Assistance, Resilience, and Growth	NAPS	National Apprenticeship Promotion Scheme	NNEM	National Nano-Enterprise Mission
M&E	Monitoring and Evaluation	NATS	National Apprenticeship Training Scheme	NOC	No Objection Certificate
MBKVV	Mukhyamantri Bhavishyalakshmi Kaushalya Vikas Yojana	NBCFDC	National Backward Classes Finance & Development Corporation	NOS	National Occupational Standards
MCY	Mahila Coir Yojana	NBFCs	Non-Banking Financial Corporations	NPO	Non-profit Organisations
MDBs	Multilateral Development Banks	NBER	National Bureau of Economic Research	NPSDE	National Policy for Skill Development and Entrepreneurship
MEL	Monitoring, Evaluation and Learning	NCERT	National Council of Educational Research and Training	NRLM	National Rural Livelihood Mission
MeitY	Ministry of Electronics and Information Technology	NCF	National Curriculum Framework	NRO	National Resource Organisations
ME-ME	Multiple Entry and Multiple Exit	NCLEX	National Council Licensure Examination	NSDC	National Skill Development Corporation
MEPSC	Management & Entrepreneurship and Professional Skills Council	NCO	National Classification of Occupations	NSDM	National Skill Development Mission
MHRD	Ministry of Human Resource and Development	NCrF	National Credit Framework		
ML	Machine Learning	NCS	National Career Service		
MoAFW	Ministry of Agriculture & Farmer Welfare	NCVET	National Council for Vocational Education and Training		
MoCA	Ministry of Corporate Affairs				
MoCI	Ministry of Commerce & Industry				
MoDONER	Ministry of Development of North Eastern Region				
MOE	Ministry of Education				
MoF	Ministry of Finance				
MoHUA	Ministry of Housing & Urban Affairs				

NSFDC	National Scheduled Castes Finance and Development Corporation	POSH	Prevention of Sexual Harassment	SEO	Search Engine Optimisation
NSIN	National Skills Infrastructure Network	PPP	Public-Private Partnership	SEWA	Self-Employed Women's Association
NSQF	National Skills Qualification Framework	PRISM	Promoting Innovations in Individuals, Start-ups and MSMEs	SEZ	Special Economic Zones
NSRCEL	Nadathur S. Raghavan Centre for Entrepreneurial Learning	PSSCIVE	Pandit Sunderlal Sharma Central Institute of Vocational Education	SFURTI	Scheme of Fund for Regeneration of Traditional Industries
NSRN	National Skills Research Network	PSU	Public Sector Undertaking	SGMEA	Sports Goods Manufacturing and Exporters Association
NSTI	National Skill Training Institute	PVTG	Particularly Vulnerable Tribal Groups	SHG	Self-Help Groups
NTIS	National Technical Information System	PwD	Persons with Disabilities	SIB	Skill Impact Bond
NUML	National Urban Livelihoods Mission	PwID	Persons with Intellectual Disabilities	SIDBI	Small Industries Development Bank of India
OBCs	Other Backward Classes	QES	Quarterly Employment Survey	SIDH	Skill India Digital Hub
OECD	Organisation for Economic Cooperation and Development	QP	Qualification Packs	SIF	Student Innovation Fund
OEM	Original Equipment Manufacturers	QUAD	Quadrilateral Security Dialogue	SIIC	Skill India International Centres
OJT	On the Job Training	RDSDE	Regional Directorates of Skill Development and Entrepreneurship	SIMEL	El Sistema de Información de Mercado Laboral
ONDC	Open Network for Digital Commerce	RKVY	Rashtriya Krishi Vikas Yojana	SINE	Society for Innovation and Entrepreneurship
PDOT	Pre-Departure Orientation Training	RKVY-ABI	Rashtriya Krishi Vikas Yojana Agribusiness Incubators	SJY	Satat Jeevikoparjan Yojana
PD-DUSKVP	Pandit Deendayal Upadhyaya Sanchar Kaushal Vikas Pratisthan	RKVY-RAFTAAR	Rashtriya Krishi Vikas Yojana Agribusiness Incubators	SoP	Scope of Work
PIA	Programme Implementation Agencies	RPL	Recognition of Prior Learning	SPARSH	Social Innovation Programme for Products; Affordable & Relevant to Societal Health
PIU	Project Implementation Unit	RSETI	Rural Self-Employment Training Institutes	SRLM	State Rural Livelihood Missions
PLFS	Periodic Labour Force Survey	RTD	Recruit-Train-Deploy	SS	Soft Skills
PLI	Production Linked Incentive	RUVF	Rashtriya Udyamita Vikas Pariyojana	SSC	Sector Skill Councils
PMAY	Pradhan Mantri Awas Yojana	SADAU	Sardarkrushinagar Dantiwada Agricultural University	SSDM	State Skill Development Mission
PMEGP	Prime Minister's Employment Generation Programme	SAGE	Senior Care Ageing Growth Engine	SSDP	State Skill Development Plans
PMIS	Pradhan Mantri (PM) Internship Scheme	SAMA-RTH	Scheme for Capacity Building in the Textile Sector	SSE	Social Stock Exchange
PM-FME	Pradhan Mantri Formalisation of Micro food processing Enterprises	SANKALP	Skills Acquisition and Knowledge Awareness for Livelihood Promotion	SSG	SkillsFuture Singapore Agency
PM-JAN-MAN	Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan	SC	Scheduled Castes	SSIP	Student Start-up and Innovation Policy
PM - DAKSH	Pradhan Mantri Dakshta Aur Kushalta Sampann Hitgrahi	SCERT	State Council of Educational Research and Training	ST	Scheduled Tribes
PM-JAN-MAN	Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan	SCOA	Supply Chain Operations Academy	STEP	Support to Training and Employment Programme for Women
PMKVY	Pradhan Mantri Kaushal Vikas Yojana	SDAU-RBIC	Sardarkrushinagar Dantiwada Agricultural University Rural Business Incubation Centre	STRIVE	Skill Strengthening for Industrial Value Enhancement
PMMY	Pradhan Mantri MUDRA Yojana	SDL	South Africa's Skills Development Levy	STT	Short Term Training
PMU	Project Management Units	SEBRAE	Serviço Brasileiro de Apoio às Micro e Pequenas Empresas (Brazilian Micro and Small Business Support Service)	S2W	School-to-work
PMFME	Pradhan Mantri Formalization of Micro Food Processing Enterprises			SWAYAM	Study Webs of Active-Learning for Young Aspiring Minds
PM-YUVA	Pradhan Mantri Yuva Udyamita Vikas Abhiyan			TEDT	Tata Education and Development Trust
PoC	Proof-of-Concepts			TIDE 2.0	Technology Incubation and Development of Industries 2.0
PoP	Professors of Practice			T-IDEA	Telangana State Industrial Development and Entrepreneur Advancement
				TIDP	Training of Instructors and Developing Practitioners

TITP	Technical Intern Training Programme	USP	Unique Skill Profiles		WESS	Women Enterprise Support System
ToT	Training of Trainers	VCF-BC	Venture Capital Fund for Backward Classes			
TP	Training Providers	VCF-SC	Venture Capital Fund for Scheduled Castes	WIDP	Work Integrated Degree Programmes	
T-PRIDE	Telangana State Programme for Rapid Incubation of Dalit Entrepreneurs	VCF-STs	Venture Capital Fund for Scheduled Tribes			
UGC	University Grants Commission	VR	Virtual Reality	WoG	Whole-of-Government	
UHI	Unified Health Interface	WCDI	Women Can Do It	XR	Extended Reality	
UNESCO	United Nations Educational, Scientific and Cultural Organization	WDC	Women Development Cells			
UNES-CO-UN-EVOC	UNESCO International Centre for Technical and Vocational Education and Training	WEP	Women Entrepreneurship Platform	ZCZP	Zero Coupon, Zero Principal	





सत्यमेव जयते

कौशल विकास और
उद्यमशीलता मंत्रालय
MINISTRY OF
**SKILL DEVELOPMENT
AND ENTREPRENEURSHIP**