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NSDC CONNECT

May 2025 Issue - 20

EXCELLENCE IN INDIA'S SKILLING ECOSYSTEM

UNLOCKING THE POWER OF QUALITY ASSURANCE

SKILLS, STANDARDS, AND STAKEHOLDERS

BUILDING THE FUTURE OF QUALITY IN VET

THE ARCHITECTURE OF IMPACT

QUALITY AND STANDARDS FOR A FUTURE-READY BHARAT

EMPOWERING INDIA'S ASCENT

THE IMPERATIVE OF PROCESS EXCELLENCE IN SKILL DEVELOPMENT

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DR. DEBDEEP DE

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DIVYA SHELADIYA

National Skill Development Corporation, 5th & 6th Floor, Kaushal Bhawan, New Moti Bagh, New Delhi - 110023
website: www.nsdcindia.org
Tel +91-11-71600050, Fax +91-11-71600060

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Message from NSDC

Quality and Excellence in the Skilling Ecosystem

As our nation stands poised for significant advancements in its development journey, the calibre of our skilled workforce will unequivocally dictate the pace and impact of this progress. With that in mind, twentieth issue of Connect delves into the multifaceted realm of Quality Assurance (QA) within the skilling ecosystem. The theme carries an underlying recognition that imparting skills is a complex and mammoth exercise where we must cultivate a culture of excellence for desired outcomes. While it is a complex and technical subject, QA and Process Excellence measures often form the secret sauce of program success. Through this issue, our goal is to demystify QA and create a platform for a rich discourse on this subject.

This issue presents critical expert voices on the subject matter. In an interview with the Chairman of Quality Council of India, Mr. Jaxay Shah, takes us through the multifaceted dimensions of accreditation's gatekeeping role. Our spotlight article, written by Mr. Alok Jain (VP, Quality Assurance, NSDC), lays the foundational understanding of why a systematic, efficient, and outcome-focused approach is crucial. Moving beyond isolated training efforts, we examine how the principles of Process Excellence can forge a cohesive ecosystem that consistently delivers high-quality outcomes, propelling India towards its ambition of becoming a global talent hub.

Further, the Deep Dive articles in this issue unpack the transformative power of technology, process excellence, assessments, certifications, and quality management frameworks in ensuring stringent quality standards, understand process excellence. In an era defined by intricate processes, these tools emerge as a critical enabler, streamlining workflows, minimizing human error, and ultimately elevating the reliability and insightfulness of our quality assurance mechanisms. These articles also examine NSDC's pivotal role in using these tools and frameworks to accurately design, deliver, and validate skills for the aspirational Indian youth, fostering trust among learners, employers, and the wider ecosystem.

While the articles primarily focus on the Indian context, the principles of Process Excellence and Quality Assurance are universally applicable. Learnings from across the world highlight the success of nations that have prioritized rigorous quality standards in their vocational education and training systems. These examples often showcase strong industry involvement in curriculum design, standardized assessment frameworks, and robust quality monitoring mechanisms, leading to greater employer confidence and enhanced global recognition of their skilled workforce.

As NSDC continues to champion the cause of skill development in India, this edition of NSDC Connect serves as a powerful reminder that quality is not an afterthought, but the very foundation upon which a future-ready India will be built. By embracing Process Excellence and embedding robust quality assurance mechanisms across the skilling landscape, we can empower our youth with the skills and the credibility they need to thrive in a competitive global economy.

NSDC invites you to delve into this insightful issue and join us in the collective pursuit of excellence in skilling India.

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IN CONCERSATION

THE ARCHITECTURE OF IMPACT: QUALITY AND STANDARDS FOR A FUTURE-READY BHARAT

Jaxay Shah

Chairman, Quality Council of India

Ragini Thakur from NSDC Connect interviews Mr. Jaxay Shah. He is the Chairperson of the Quality Council of India (QCI), an autonomous body of the Ministry of Commerce & Industry, and the Founder & Chairman of the Savvy Group. He is a former Chairman of CREDAI, where he led affordable housing projects. Under his leadership, QCI works across various sectors to enhance quality of life in India. A civil engineering graduate, Shah is committed to eco-friendly construction and sustainability. He is also a mentor to initiatives like the PharmEasy Accelerator Program and serves on several boards, including ONDC.

Ragini: Could you walk us through your career journey and leadership approach? What drives your passion for working in the Quality Assurance sector?

Mr. Shah: My career journey has been deeply influenced by three key pillars- family values, interactions with people, and personal wellness. Shaped by a four-generational upbringing, I learned early to balance ambitious aspirations with a firm sense of reality. My grandfather's wisdom, "You fail, you learn, you rise, and learn how to fail better," has been foundational in shaping my approach to challenges and opportunities alike.

Starting my professional journey in real estate, I quickly understood that I wasn't merely constructing buildings I was creating homes. Interacting closely with residents, I learned firsthand that a home embodies dreams, aspirations, and hopes. This profound realization made it imperative for me to prioritize quality in every aspect, ensuring we delivered not just structures, but genuine value to people's lives.

As my journey expanded into leadership roles, particularly at CREDAI and now at Quality Council of India (QCI), my core belief has remained consistent: sustainable impact and quality are inseparable. At QCI, I've been inspired immensely by our vibrant team of over 800 young professionals, whose stories of resilience, hard work, and fresh perspectives constantly reshape my worldview and reinforce the importance of humility and continuous learning. What fuels my passion for Quality Assurance is the clear, measurable impact it brings to individuals and society. Quality isn't merely a compliance checklist; it's about empowering citizens, from urban centers to the remotest villages, with better choices and improved lives. Through initiatives like Swachh Bharat, Jal Jeevan Mission, and Zero Defect Zero Effect (ZED), I have seen firsthand how embedding quality at every-level drives tangible transformation, fostering economic growth, environmental sustainability, and social equity.

My vision aligns deeply with our Hon'ble Prime Minister's aspiration of building a Viksit Bharat by 2047, an India recognized globally for its impeccable standards and trustworthiness. I believe deeply in the transformative power of quality "Made in India" products and services should evoke the same trust and admiration globally as those from Germany or Japan. Ultimately, my leadership philosophy centers around an entrepreneurial mindset encouraging teams to think as owners, act proactively, and continuously seek improvements. It is this passion for sustainable impact, genuine quality, and empowering people that motivates me every day in my journey with Quality Assurance.

> *Ultimately, QCI's mission aligns closely with the national vision of a climate-smart, $7-trillion Viksit Bharat. By embedding trust, efficiency, and sustainability into every rupee of public investment and each unit of private production, we are not just setting standards—we are building an India that the world recognizes and respects.*

Ragini: Could you share your insights on the vision and role of QCI in India's development journey? What are the ways in which QCI contributes to the broader mission of Viksit Bharat?

Mr. Shah: QCI took off in 1997 from a visionary partnership between government and industry created to build trust and reliability into India's growth story. Over the years, I, deeply appreciate how vital QCI's role is: it isn't just an institution; it's a catalyst turning ambitious national plans into real, tangible outcomes for every citizen and investor.

Today, through its robust accreditation boards, QCI certifies more than 12,000 laboratories, hospitals, and inspection bodies, each recognized internationally through ILAC and APAC mutual-recognition agreements global benchmarks of quality. Think of it like holding a universal passport of trust: when Indian exporters carry certificates stamped with ILAC or APAC credentials, their products automatically gain entry and acceptance in over 100 partner economies. This means shorter wait times, lower costs, and significantly easier market access for businesses from Gujarat to Assam.

On the domestic front, our contributions span diverse fields—take Swachh Survekshan, for instance, where QCI independently audits cleanliness efforts across more than 4,355 cities. By linking cleanliness scores directly to tourism and public-health savings, we've helped local governments prioritize hygiene and sanitation, creating visible impacts for millions.

Similarly, through Jal Jeevan Mission, QCI provides independent third-party inspection for critical infrastructure like pipes, pumps, and water-treatment plants. This impartial oversight has been instrumental in driving rural tap-water coverage dramatically from just 17% in 2019 to around 80% today, fundamentally enhancing quality of life at the grassroots level.

Our impact extends significantly to India's backbone its MSMEs. The ZED scheme, managed by QCI, provides up to 80% subsidy on certifications for over three lakh small businesses, helping them cut raw-material and energy costs by 5 - 7%. More importantly, ZED opens doors for MSMEs to prestigious export markets, boosting India's global presence.

QCI also champions frontier sectors. For instance, we authored India's drone certification framework, giving innovative local manufacturers a swift, credible route to market. Furthermore, we're driving green finance by accrediting validation bodies essential for credible voluntary carbon projects, facilitating India's sustainable-growth ambitions.

At the heart of all our initiatives is a simple yet powerful loop: Standards > Independent Measurement > Public Dashboards > Course Correction. This cycle safeguards

taxpayer money, removes unnecessary business frictions, and ensures public spending aligns seamlessly with sustainability goals.

Ultimately, QCI's mission aligns closely with the national vision of a climate-smart, $7-trillion Viksit Bharat. By embedding trust, efficiency, and sustainability into every rupee of public investment and each unit of private production, we are not just setting standards, we are building an India that the world recognizes and respects.

Ragini: At NSDC, we are committed to transforming India's skilling ecosystem. How do you view the synergies between the initiatives of QCI and NSDC? From a Quality Assurance standpoint, what best practices and frameworks would you recommend for strengthening skilling efforts across the country?

Mr. Shah: NSDC is India's skill-factory, while QCI serves as its

quality guardian. The partnership we formalized this March is exactly that a commitment to working together, ensuring every skilled worker who leaves an NSDC centre carries not just a certificate, but a passport of trust that instantly resonates with employers in more than 100 economies worldwide.

At QCI, two of our boards are already deeply involved in the skilling value chain. NABET accredits vocational training institutions, ensuring the foundational quality of skilling centres, while NABCB certifies independent assessment bodies. This separation of training and assessment removes any potential conflicts of interest, reduces re-assessment costs, and maintains the credibility of our National Skills Qualifications Framework (NSQF), reassuring industries and regulators like NCVET alike.

Drawing from our experience, I'd highlight five key Quality Assurance practices essential to strengthening India's skilling ecosystem:

Pre-batch Centre Accreditation: Ensuring training centres meet rigorous standards before training begins, a crucial step NSDC has wisely strengthened under PMKVY 4.0.

Independent Assessor Licensing: Licensing independent assessors who regularly undergo their own "examiner's exam" to consistently validate their skills and neutrality.

Recognition of Prior Learning (RPL) Audits: Systematic audits that sample at least 10% of RPL certificates, ensuring these credentials reflect genuine skills, not merely paper qualifications.

Continuous Improvement through Lean-Kaizen: Implementing lean-Kaizen toolkits from QCI's Zero Defect Zero Effect (ZED) programme into every skill lab and training centre, fostering a culture of continuous improvement, efficiency, and excellence.

Digital Credential Stack: Establishing an internationally recognized digital credential platform, enabling instant verification of skills by ILAC and APAC partner economies, reducing overseas placement timelines from weeks to mere clicks.

When combined, these frameworks create a seamless, closed-loop skilling ecosystem where training quality, robust assessment, and global recognition continuously reinforce one another. This synergy between NSDC's vision and QCI's quality benchmarks lays the foundation for precisely the agile, trusted, and future-ready workforce India requires in its journey to becoming a developed, globally competitive nation.

Ragini: What are the emerging, future-oriented challenges in India's Quality Assurance (QA) ecosystem, and how should they be addressed through public policy and government initiatives?

Mr. Shah: Today, India's Quality Assurance ecosystem stands at an exciting yet challenging crossroads, shaped by three powerful forces that demand immediate attention.

Firstly, global trade is increasingly filtering through the lens of climate responsibility. Nations, notably the European Union, are rolling out stringent "green filters" like the Carbon Border Adjustment Mechanism (CBAM), deforestation-free supply chain regulations (EUDR), and broader Ecodesign rules. These new global standards directly impact Indian exporters potentially putting over US $37 billion of our exports at risk if we can't credibly demonstrate low-carbon footprints, traceability, and sustainable sourcing from farm to factory.

Secondly, as India rapidly embraces a fully digital economy, cybersecurity and data integrity have become as crucial as traditional product safety. Supply chains today depend on digital trust as much as physical quality. Businesses, particularly MSMEs, face unprecedented cyber threats that can compromise customer data, operational integrity, and even national security.

Thirdly, the breathtaking speed of technological breakthroughs—drones, electric vehicle batteries, advanced medical devices far outpaces traditional testing capacities, making timely certification a daunting challenge for industry innovators.

At QCI, we anticipated these shifts early on and have begun building the foundational frameworks needed to navigate these challenges. Our Greenhouse Gas Validation & Verification programme equips exporters with a single, globally recognized audit satisfying carbon-border requirements. Likewise, our robust Conformity Assessment Framework for Cybersecurity in Critical Infrastructure and the accredited Cybersecurity Management System Scheme offer proven templates for businesses to secure their digital environments comprehensively.

To keep pace with innovation, we've established standards for frontier sectors, such as our Certification Scheme for Unmanned Aircraft Systems, lean-and-green toolkits under the ZED initiative reaching over three lakh MSMEs, and rapid-certification frameworks tailored for EV battery laboratories. These proactive measures ensure Indian

companies can stay globally competitive without delays or overseas dependencies.

Now, the policy imperative is clear rapidly scale and mainstream these successful pilots. We should integrate robust cybersecurity certification into public procurement criteria and incentivize MSMEs through targeted subsidies akin to the successful ZED model. Similarly, embedding a Green Assurance Code directly within India's sovereign green-bond framework would unlock concessional finance, accelerating low-carbon transitions nationwide.

To address emerging tech frontiers, establishing a network of public-private "frontier labs" is crucial. This infrastructure would allow cutting-edge products such as advanced battery packs, bio-plastics, or innovative medical devices to be certified domestically, significantly cutting turnaround times and positioning India as a global innovation hub.

Finally, bringing transparency and trust to a completely new level, we should create a National Quality Ledger an open-API blockchain platform seamlessly integrating every accredited test, skill certificate, sanitation audit, or sustainability claim. Such a platform would empower buyers, regulators, and citizens alike to verify quality instantly, reinforcing trust at every interaction.

In essence, by embedding trust, transparency, and forward-thinking adaptability into India's Quality Assurance frameworks, public policy and government initiatives can ensure we are not merely responding to global trends but actively shaping them paving the way toward a truly developed, globally respected India.

Ragini: What key skills should individuals focus on developing if they aspire to build a successful career in QA?

Mr. Shah: I would suggest, Start by developing a "T-shaped" skillset this means having a broad understanding of core management standards like International Organization for Standardization (ISO) 9001, 14001, and 45001 (which together underpin over a million certificates globally), and then choosing one specialized area to master, such as food safety, cybersecurity, or sustainability reporting.

Next, embrace data fluency today's audits rely heavily on analytics, whether using Python or user-friendly tools like Power BI. Also, familiarize yourself with digital-trust technologies like blockchain ledgers, secure APIs, and basic cybersecurity testing, as paper certificates rapidly evolve into digital verifications.

Finally, cultivate systems thinking and persuasive communication. The best QA professionals are those who translate complex standards and technical findings into clear, compelling narratives for business leaders, regulators, and global buyers. Mastering these four areas standards literacy, data analytics, digital trust, and storytelling will future-proof your career and set you apart in any QA role, from auditor to sustainability leader.

Ragini: You've consistently advocated for sustainable development and the importance of technology in India's progress. As we advance toward deeper tech integration in the workplace and face growing environmental challenges, what skills and mindsets do you believe today's youth should cultivate to succeed?

Mr. Shah: Imagine the workplace of 2035 as a living ecosystem: sensors, AI algorithms, and human creativity coming together to deliver value amidst tight constraints on resources and climate. To thrive, our youth must adopt an entrepreneurial, ownership mindset instead of asking, "What's my job description?", they should ask, "If this were my company, how would I improve and sustain this system?"

Specifically, three key skills will define their success:

AI-Accelerated Craftsmanship: Comfort with low-code tools, AI copilots, and real-time data, enabling swift problem-solving without dependency on dedicated tech teams.

Systems Thinking with Humility: Understanding interconnected feedback loops and acknowledging the unpredictability of complex systems.

Sustainability-First Judgment: Habitually evaluating decisions in terms of energy efficiency, waste reduction, and social equity essential as ESG becomes central to market decisions.

With these skills and the foundational mindset of personal ownership, every role becomes entrepreneurial constantly scanning for risks, identifying inefficiencies, and proactively seizing opportunities. This blend of entrepreneurial spirit, systems thinking, and AI-enabled execution will distinguish the indispensable from the merely employable in the decades ahead.

SPOTLIGHT

SKILLS, STANDARDS, AND STAKEHOLDERS: BUILDING THE FUTURE OF QUALITY IN VET

This article explores the evolving landscape of quality assurance in vocational education and training (VET), emphasizing its multidimensional nature across learners, employers, institutions, and policymakers. It highlights global benchmarks, India's harmonization efforts, and future trends such as predictive analytics and digital credentials, framing QA as a strategic driver of skills excellence.

Alok Jain
Vice President, Quality Assurance, NSDC

Mr. Jain's expertise spans quality assurance, certification, and capacity building across industrial, governmental, and international platforms for over 25 years. His experience with global accreditation bodies and his leadership in large-scale training initiatives underscore his ability to uphold and advance institutional standards. His nuanced understanding of quality ecosystems adds significant strength to organizations aiming for operational excellence and regulatory credibility.

Introduction

What exactly constitutes "quality"? While seemingly simple, the term is relative. The ISO definition offers a useful starting point: "the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs." Essentially, quality signifies meeting or exceeding expectations. Over time, the concept has evolved, giving rise to terms like Quality Control (QC), Quality Assurance (QA), Quality Management Systems (QMS), and Total Quality Management (TQM), each representing a deepening commitment to ensuring desired standards.

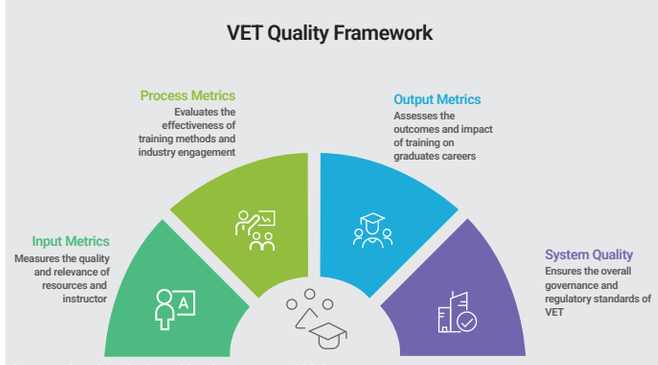
Historically, the pursuit of quality can be traced back to medieval European guilds, where inspection and maker's stamping served as primary mechanisms to establish quality and authenticity for the product. The Industrial Revolution brought about the factory system and a greater emphasis on product inspection, though approaches varied geographically. The 20th century marked the integration of processes into quality systems, with figures like Walter E. Shewhart and W. Edward Demings championing statistical quality control through tools like Control Charts[1]. The Japanese post-WWII focus on holistic quality improvement, encompassing all organizational processes, further revolutionized the field[2].

QA in Vocational Education and Training

In our daily lives, we instinctively recognize and seek quality. This pursuit is formalized in professional domains through Quality Assurance (QA) frameworks, evolving from basic inspection to comprehensive Total Quality Management (TQM) systems emphasizing stakeholder satisfaction and continuous improvement. Nowhere is this more critical than in Vocational Education and Training (VET). The quality of VET directly impacts workforce readiness, economic competitiveness, and individual livelihoods, determining whether training translates to meaningful employment and whether certifications hold real value.

Quality Assurance in VET is the systematic application of standards, processes, and monitoring to ensure training outcomes align with industry and learner needs. Robust QA in VET yields significant benefits, including enhanced institutional reputation, improved learner confidence and

Image 1: Key Dimensions of QA in VET



Source: Graphic designed by the team at NSDC

employability, reduced employer costs, and stronger national competitiveness.

Leading skill development ecosystems track a balanced portfolio of metrics that span the entire training lifecycle:

Input Metrics

- Instructor industry experience (average years of relevant workplace experience)
- Learning resource currency (percentage of materials updated within industry-appropriate cycles)
- Equipment modernity index (ratio of training equipment age to industry standard equipment age)
- Student-to-instructor ratios for theoretical and practical components

Process Metrics

- Practical training ratio (percentage of total training hours in hands-on application)
- Industry engagement frequency (average number of industry touchpoints per training program)
- Formative assessment diversity (number of distinct assessment methodologies employed)
- Learner progression velocity (time to competency achievement relative to program benchmarks)

Output Metrics

- Certification achievement rates (percentage of entrants who achieve target qualifications)
- Employment conversion (percentage of graduates employed in relevant fields within defined timeframes)
- Skills utilization (percentage of learned skills applied in subsequent employment)
- Wage progression (income growth trajectory in 1-3-5-year intervals post-certification)

System Quality

System quality encompasses the overarching frameworks and structures that govern VET. Critical components include:

- **Governance Structures:** Effective governance ensures accountability and transparency in the management of VET institutions and programs.
- **Funding Mechanisms:** Adequate funding is essential for maintaining quality standards and supporting continuous improvement in VET.
- **Regulatory Frameworks:** Strong regulatory frameworks help maintain consistency and quality across VET programs, ensuring they meet national and international standards.

At its core, QA in VET addresses fundamental questions that determine training effectiveness: Are the right skills being taught? Are they being taught effectively? Are assessments valid and reliable? Do certifications accurately reflect competence? Does the training ecosystem respond dynamically to changing industry requirements? Studies by the ILO[3] and OECD highlight the tangible positive impact of well-established QA systems on employment rates and reduced skill mismatches.

Multiple Lenses on QA for Skilling

Quality in skill development is a multifaceted concept shaped by the needs and expectations of different stakeholders. To build effective quality assurance (QA) frameworks, it is essential to understand how learners, employers, institutions, and policymakers each define and assess quality.

Learner Perspective

For learners, quality is closely tied to employability and return on investment. A McKinsey Global Institute survey found that 72% of vocational students prioritize employment outcomes, with practical training opportunities (68%) and industry-recognized certifications (61%) also considered key indicators of quality. Increasingly, learners demand transparent data—such as graduation rates, job placement statistics, and wage outcomes—to guide their educational decisions.

Modern learners also expect flexibility, especially adult learners balancing education with work or family. They value modular, technology-enabled programs that recognize prior learning and adapt to individual schedules and goals.

Employer Perspective

Employers judge quality based on job readiness and the ability of graduates to adapt and learn continuously. The World Economic Forum reports that 94% of businesses expect employees to acquire new skills while working (up from 65% in earlier years). This shift highlights the importance of training systems that develop both technical expertise and lifelong learning abilities.
Employers now play a more active role in shaping quality. Industry involvement includes validating curriculum relevance through advisory boards, mentoring learners during practical training, leading authentic assessments, and offering feedback to refine programs. This collaborative approach ensures that graduates are prepared for real-world workplace demands.

Institutional Perspective

Training providers view quality through the lenses of performance, compliance, and competitiveness. A survey of vocational institutions across fifteen countries showed that administrators prioritize accreditation (89%), student satisfaction (84%), completion rates (77%), and financial sustainability (72%).

Beyond regulatory compliance, quality is also a strategic asset. Institutions use quality to attract students, form industry partnerships, and differentiate themselves in the market. Many now employ balanced scorecard systems that track performance across learner outcomes, operational efficiency, innovation, and fiscal health.

Policy Perspective

Policymakers assess quality at the system level, focusing on national goals such as employment, social inclusion, and economic competitiveness. Effective vocational education and training (VET) systems are expected to advance regional development, support equity, and respond to labor market demands.

This broad policy view has led to national qualification frameworks, standardized occupational benchmarks, and centralized QA agencies. One example is the European Quality Assurance Reference Framework for VET (EQAVET), which harmonizes quality standards across thirty-three countries while allowing for contextual implementation.

Benchmarking Approaches & Global Practices in VET

Beyond traditional metrices, innovative VET systems are implementing next-generation benchmarking methodologies that provide deeper insights into quality dynamics:

Longitudinal Tracking: Following cohorts through multi-year career trajectories to measure long-term skill relevance and career mobility.

Competency Velocity Analysis: Measuring the speed at which learners progress through competency gateways relative to industry needs.

Return on Skill Investment (ROSI): Calculating economic returns to individuals, employers, and public funders for specific skill attainment.

Skills Ecosystem Mapping: Visualizing the relationship between training inputs and industry-specific economic outputs across regional economies.

The World Bank's Skills Toward Employment and Productivity (STEP) framework provides a comprehensive methodology for benchmarking workforce development systems at national levels. STEP evaluations reveal that top-performing countries invest heavily in quality assurance - allocating 8-12% of total VET expenditure to quality monitoring, improvement, and innovation processes.

Global benchmarking offers insight into what high-performing VET systems can achieve. In Switzerland, 85% of VET graduates are employed within six months, and youth unemployment is just 3.2%. Singapore's training system boasts 95% employer satisfaction and a 23% wage premium for certified graduates. Australia reports a 78% apprenticeship completion rate, with 91% of completers employed within three months.

These outcomes highlight the importance of robust QA systems and ongoing measurement to drive excellence in skills development.

International Standards for Quality and Harmonization in TVET Sector

International standards ensure that the products and services you use daily are **safe, reliable, and of high quality**. They also guide businesses in adopting **sustainable** and **ethical practices**, helping to create a future where your purchases not only perform excellently but also safeguard our planet.

In essence, standards seamlessly blend quality with conscience, enhancing your everyday experiences and choices.

ISO is an independent, non-governmental international organization. It brings global experts from 172 national standards bodies together to agree on the best ways of doing things from Quality Management to Artificial Intelligence with a mission **to make lives easier, safer and better – for everyone, everywhere**.

Some of the top internationally adopted ISO Standards for Skilling include:

- **ISO/IEC 17024 'General requirements for bodies operating certification of persons'**
  Designed to harmonize the personnel certification process worldwide and it describes competency as 'The demonstrated ability to apply knowledge,skillsand attributes.'

- **ISO 21001 'Educational organizations - Management systems for educational organizations — Requirements with guidance for use'**
  Aimed at standardizing education management to ensure it meets learners' needs and helps educational providers meet students' requirements.

- **ISO29993 'Learning services outside formal education — Service requirements'**
  Specifies requirements for learning services outside formal education, including all types of life-long learning.

- **ISO 10015 'Quality management — Guidelines for competence management and people development'**
  Provides guidelines for organizations toestablish, implement, maintain, and improve systems for competence management and people development etc. "

NSDC's Harmonization Initiatives

The fragmentation of quality assurance across educational subsystems creates substantial challenges for learners, employers, and policymakers. Different standards, terminologies, and frameworks between higher education, vocational training, and workplace learning create artificial barriers that impede skill recognition and career progression.

Progressive skill development ecosystems are moving beyond siloed approaches to establish coherent quality frameworks that span the entire learning continuum. This harmonization effort addresses several critical needs:

- Enabling seamless learner transitions between educational pathways
- Creating consistent qualification recognition across industries and regions
- Reducing duplication of quality assurance processes and associated costs
- Establishing comparable metrics that facilitate system-wide improvement
- Building shared understanding of quality standards among diverse stakeholders

India's National Skill Development Corporation (NSDC) has emerged as a global leader in quality harmonization efforts, developing innovative approaches that bridge traditional divides between educational and training sectors.

Persistent Challenges

While significant strides have been made, establishing truly effective quality assurance in skill development continues to grapple with substantial challenges. These include the delicate balance between standardization for consistency and fostering innovation alongside contextual relevance, the need to develop quality frameworks that can effectively accommodate emerging and diverse delivery modalities, and the ongoing quest for assessment methodologies that can accurately measure complex, real-world competencies. Furthermore, ensuring that quality processes enhance, rather than hinder, the system's ability to respond swiftly to evolving needs remains a critical concern, as does building robust quality capacity within resource-constrained environments.

Overcoming these multifaceted challenges demands a deeply collaborative engagement across the entire skills ecosystem. Quality cannot be mandated by a single entity—be it government, industry, or educational institutions. Instead, it flourishes from aligned incentives, a shared sense of ownership, and continuous, open dialogue between those who define the skills required, those who cultivate them, and those who ultimately utilize them in the workplace.

As India advances its ambitious skill development agenda, quality assurance must remain not a bureaucratic hurdle but the very bedrock upon which the success of these investments relies. By thoughtfully integrating global best practices while remaining agile and responsive to local realities, India has a unique opportunity to forge a quality-assured skill development system that not only fuels economic advancement but also empowers individual aspirations and fulfilment.

Way Forward

Quality assurance in vocational education and training is undergoing a profound shift, moving beyond static standards and periodic compliance to embrace dynamic systems that proactively adapt to evolving labour market demands and rapid technological innovations. This transformation underscores a growing recognition: quality is not just a technical necessity but a strategic imperative for both national competitiveness and individual prosperity.

Looking ahead, several key imperatives will drive this evolution:

The Rise of Predictive Quality: Advanced labour market intelligence, powered by artificial intelligence analysis of vast datasets encompassing job postings, employment trends, and technological advancements, will enable pre-emptive quality interventions. This will allow for continuous updates to standards and curricula, ensuring relevance before skills become obsolete.

Empowering the Learner through Personalized Quality: Future quality assurance frameworks will increasingly prioritize the individual learner, accommodating diverse learning pathways and recognizing that standardized approaches are insufficient. This necessitates flexible assessment models capable of validating competence regardless of the acquisition method.

Building Trust with Digital Verification: Blockchain-based credentials, comprehensive skills passports, and verifiable digital badges will revolutionize qualification recognition. These ecosystems will reduce fraud, streamline verification processes, and enhance the portability of skills across borders and industries.

Fostering Seamless Lifelong Learning: The artificial silos between education sectors will continue to break down as quality systems evolve to support fluid transitions between academic education, vocational training, workplace learning, and the growing realm of self-directed upskilling.

As India continues its ambitious skill development agenda, quality assurance must remain at the forefront—not as a bureaucratic requirement but as the foundational element that determines whether investments in skill development yield their intended returns. By building on international best practices while adapting to local contexts, India has the opportunity to establish a quality-assured skill development system that supports both economic advancement and individual fulfilment.

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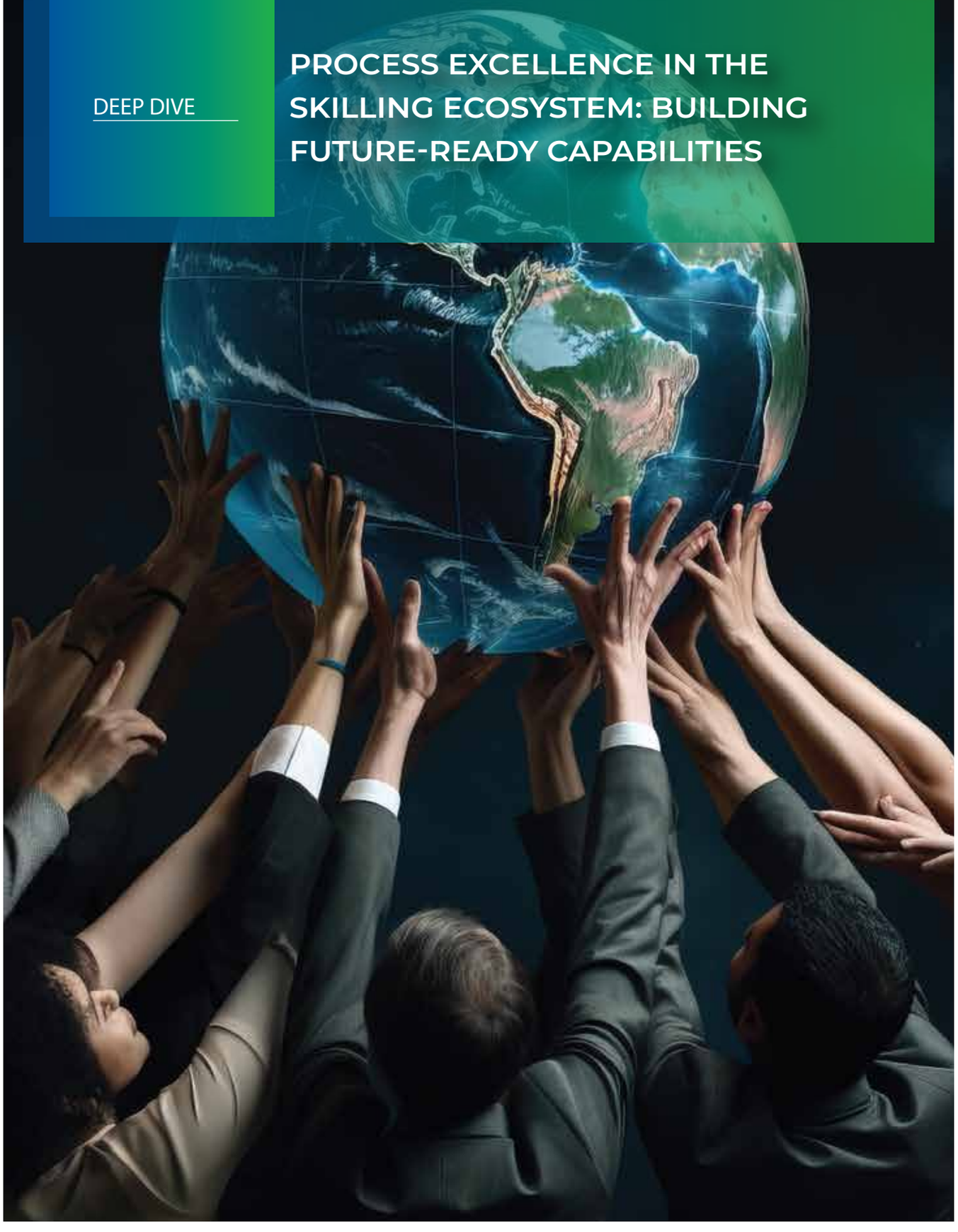
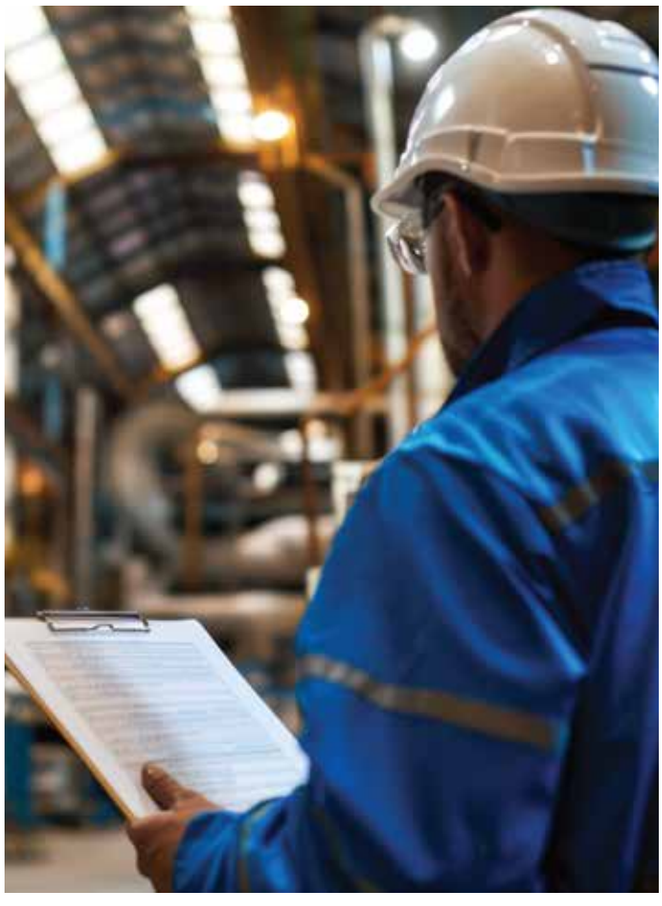
DEEP DIVE

PROCESS EXCELLENCE IN THE SKILLING ECOSYSTEM: BUILDING FUTURE-READY CAPABILITIES



Sachin Sharma
DGM, Quality Assurance, NSDC

Mr. Sharma is a cross-sectoral leader with over two decades of experience driving transformation across skilling, quality assurance, CSR, insurance, and technology. He has held leadership roles at ICICI Prudential, IL&FS Skills, monster.com and now leads the Centre Accreditation and Affiliation vertical at NSDC's Quality Assurance Division. At NSDC, he champions system-level reforms that elevate training quality, institutional accountability, and workforce readiness. A firm believer in outcomes-led innovation, Sachin is shaping India's skill development architecture to meet the demands of a dynamic global economy.



Introduction

In today's rapidly evolving workforce landscape, creating skilled professionals requires systematic, efficient, and outcome-focused approaches. Process excellence provides the backbone for transforming India's skilling initiatives by integrating best aspects. This article showcases how adopting process excellence principles can revolutionize the approach to skill development and accelerate India's journey toward becoming a global talent hub.

Process Excellence in Skilling

Process excellence elevates skilling from a transactional task to a transformative journey. By applying Lean Six Sigma, and other optimization methods, it streamlines training delivery, assessment, and certification into standardized yet adaptable frameworks. This ensures consistent quality, aligns learning with industry needs, and delivers measurable outcomes—creating real value for learners, providers, employers, and the economy.

Need for Process Excellence in Skilling

India's demographic dividend is a powerful asset—but only if harnessed effectively. With 12 million people entering the workforce each year, traditional skilling models fall short in scale, speed, and consistency. Variations in training quality across locations and trainers directly impact employability, making process excellence not just important, but essential.

Training programs often exhibit significant quality variations across different locations, trainers, and batches directly impacting employment outcomes.

Scale and Standardization Challenges

Process Excellence provides the methodological framework to standardize critical elements while allowing necessary contextual adaptations.

Evolving Industry Requirements

The half-life of technical skills continues to shrink rapidly. Industry 4.0 technologies require training systems that can quickly integrate new competency requirements into existing frameworks without compromising quality. Process Excellence methodologies offer the agility needed to respond to these shifting demands.

Return on Investment Considerations

With significant public and private investment flowing into skill development, stakeholders increasingly demand demonstrable returns. Process Excellence introduces rigorous measurement frameworks that track not just outputs (number trained) but outcomes (employment, productivity improvement, and wage gains).

Global Competitiveness

As India positions itself as a global talent hub, the quality of our skilled workforce becomes a critical competitive advantage. Process Excellence aligns our quality parameters with international benchmarks, enhancing the global recognition of Indian certifications.

Key Attributes for Process Excellence in Skilling

Creating robust Process Excellence frameworks for skill development requires deliberately building certain foundational attributes:

Outcome Orientation

Excellence in skilling processes begins with clarity about desired outcomes. Every process element should directly contribute to enhancing learner capabilities, improving placement rates, or boosting workplace productivity. This requires establishing clear key performance indicators that focus on impact rather than just activity. Training programs with clearly defined outcome metrics show relatively higher employment rates than those focused primarily on completing curriculum requirements.

Data-Driven Decision Making

High-performing skilling ecosystems establish robust data collection across the entire training lifecycle—from enrolment to employment and beyond. This enables continuous improvement through real-time feedback loops and predictive analytics that identify potential issues before they impact outcomes.

Stakeholder Integration

Process Excellence recognizes that siloed operations create inefficiencies. Best-in-class skilling systems establish seamless interfaces between training providers, assessment agencies, industry partners, and government bodies, creating an integrated ecosystem rather than disconnected components.

Adaptive Quality Management

Unlike manufacturing where rigid quality control might suffice, skilling requires adaptive quality systems that can accommodate the human element of learning while still maintaining standards. This includes personalized learning pathways within standardized competency frameworks.

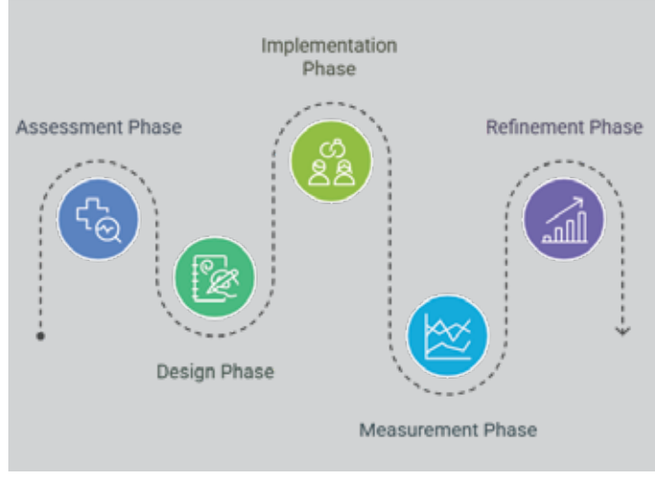
Technology Enablement

Digital platforms that support process automation, learning analytics, virtual assessments, and credential management form the technological backbone of excellence-oriented skilling systems. These platforms reduce manual interventions, minimize errors, and generate rich data for continuous improvement.

Excellence in Process: A Framework for Implementation

Achieving process excellence in skilling requires a structured, flexible approach. It begins with a diagnostic assessment to benchmark current processes and identify key improvement areas. Next, standardized yet adaptable systems are designed to address these gaps, incorporating sectoral and regional nuances. Implementation follows through phased deployment, change management, and capacity building. Measurement systems are then put in place to track both compliance and real-world outcomes like employment and productivity. Finally, continuous refinement ensures the system evolves with industry needs, maintaining relevance and impact over time.

Image 1: Process Excellence Implementation Flow



Source: Graphic designed by NSDC

Guiding Principles for Process Excellence

Organizations embarking on Process Excellence journeys should anchor their efforts in these fundamental principles:

Learner-Centricity

While processes create structure, the ultimate focus must

remain on enhancing learner experiences and outcomes.

Every process improvement should be evaluated through the lens of its impact on learning effectiveness.

Evidence-Based Iteration

Process changes should be driven by data and evidence rather than assumptions. This requires robust monitoring systems that generate actionable insights for continuous refinement.

Balanced Standardization

Identify which process elements require strict standardization (assessment methodologies, certification standards) versus those needing contextual adaptation (pedagogical approaches, learner engagement strategies).

Ecosystem Thinking

Recognize that excellence cannot be achieved in isolation. Process improvements must consider upstream and downstream impacts across the entire skilling value chain—from counselling and enrolment through to placement and career progression.

Image 2: Process Excellence Implementation Flow

Source: Graphic designed by NSDC

Building a Process Excellence Culture

As India aspires to become a global skill hub, embedding a culture of process excellence is crucial for lasting impact. This means building internal capabilities through targeted training and knowledge-sharing networks, recognizing and rewarding improvements to sustain momentum, and integrating advanced technologies to drive quality, personalization, and trust across the skilling ecosystem.

Conclusion

To realise India's economic potential through a skilled workforce, process excellence provides the essential framework for achieving scale, quality, and relevance in our skilling ecosystem. Strategically balancing standardization with adaptability will drive consistently superior outcomes across all sectors. This requires sustained commitment, investment in capabilities, and a data-driven, continuous improvement culture. The far-reaching benefits – increased youth employment, enhanced global standing of Indian skills, better skilling ROI, and greater national competitiveness – make this a critical imperative as we collectively build a future where process excellence transforms potential into productivity and aspirations into lasting achievements.

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DEEP DIVE

DRIVING QUALITY IN DIGITAL AGE: HARNESSING TECHNOLOGY FOR THE SKILLING ECOSYSTEM

Shikha Koul Sapru
Manager, Quality Assurance, NSDC

Shikha is an experienced professional with experience of over a decade in program and quality assurance management. Currently a Manager at National Skill Development Corporation, she leads monitoring and evaluation of government skilling schemes, drives technological automation, and mentors teams for effective implementation. Her expertise spans program design & management, process improvisation, system automation, stakeholder engagement, audit facilitation, and continuous improvement in skill development initiatives.

Introduction

Quality Assurance refers to the proactive measures taken to ensure that the final output of a process, product, system, or service adheres to defined quality standards.

As the complexity of modern processes and systems continues to escalate, organizations face increasing pressure to enhance the efficiency, reliability, and speed of their Quality Assurance (QA) processes. In this dynamic and rapidly evolving landscape, automation has emerged as a transformative tool, providing robust solutions to streamline workflows, minimizing manual intervention, and elevating overall quality. This article delves into the expanding role of automation in QA, exploring a comprehensive range of automated tools, frameworks, and methodologies specifically designed to mitigate human error, accelerate process functioning, and yield more reliable and insightful results that meet stringent quality standards.

Technology Impact on Quality Assurance – Skilling, Training & Education

Quality Assurance is essential for maintaining program integrity, building trust, and ensuring training consistently meets regulatory standards and industry needs. It guarantees relevant, employable outcomes for learners while ensuring consistency across diverse geographies, partners, and delivery modes. In this complexity, technology becomes a key enabler - making scalable, high-impact QA both possible and sustainable.

Technology has become a defining force in modern times, reshaping the way we live, work, and connect. From revolutionizing communication through smartphones and the internet to transforming industries with automation, artificial intelligence, and big data, technology has enhanced productivity, accessibility, and convenience on an unprecedented scale. It has bridged geographical divides, enabled remote learning and work, and empowered innovation across every sector skilling, healthcare, education, finance, governance, and more. While it brings immense benefits, technology also raises new challenges related to privacy, digital literacy, and ethical use. Nonetheless, its impact remains profound, driving continuous change and shaping the future of societies worldwide.

In the area of quality assurance, IT-enabled systems have demonstrated significant improvements in product inspection and defect detection. Traditional manual quality checks are often subjective and prone to human error, which can lead to defects slipping through the inspection process. In contrast, computer vision systems offer consistent and objective assessments of product quality in real-time. This has been especially beneficial in industries such as manufacturing and food production, where maintaining high product standards is crucial to customer satisfaction.

Case studies indicate that technological interventions in

terms of system automation, AI-based quality control systems can identify defects with higher accuracy and speed compared to traditional methods. Realtime monitoring of programs, projects and processes enables the identification of inefficiencies and bottlenecks, leading to faster detection and resolution of potential issues before they impact the outcome.

The adoption of technology in quality assurance has also led to improved operational efficiency. The use of AI for defect-detection reduces the time required for manual inspections by 50%, allowing employees to focus on other value-added tasks. Moreover, the automation of quality control processes has reduced the labor costs associated with manual inspections, contributing to significant cost savings for the business.

Key Areas of Application

Compliance and Accreditation Automation

Skill development programs in India and globally involve multiple stakeholders—training providers, assessment agencies, certifying bodies, and regulators. Ensuring consistent quality and compliance with accreditation norms is complex and time-consuming when done manually. Automation brings transparency, efficiency, and scalability. The figure below outlines a digitally streamlined accreditation process.

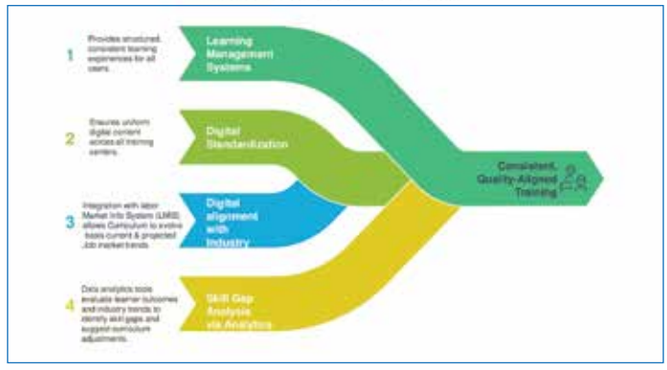
Image 1: Digital Accreditation Transformation

Source: Graphic designed by NSDC

Curriculum Standardization and Alignment

Skilling programs often vary in content quality, structure, and relevance to industry needs. Automating curriculum standardization ensures that all stakeholders—training providers, sector skill councils (SSCs), and regulators—are aligned in delivering uniform and industry-relevant training.

Image 2: Smart Curriculum Mapping and Alignment System

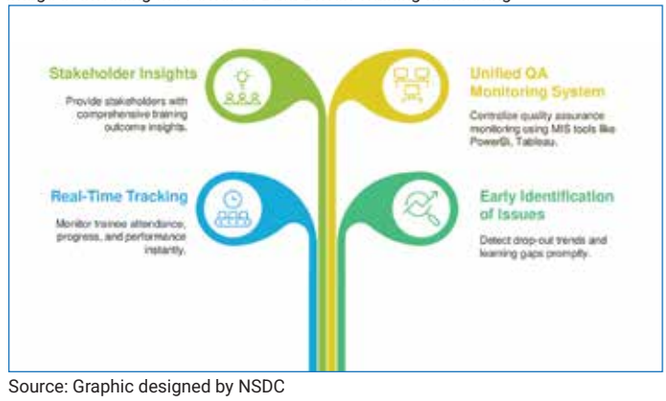


Source: Graphic designed by NSDC

Data-Driven Monitoring and Evaluation

In large-scale skilling programs like PMKVY, PM Vishwakarma, NAPS, or state-led initiatives, traditional M&E methods (field visits, paper reports) are often delayed, inconsistent, or expensive. Data-driven M&E leverages technology offers timely insights and responsive program management.

Image 3: Unveiling the Power of Data-Driven Training Monitoring

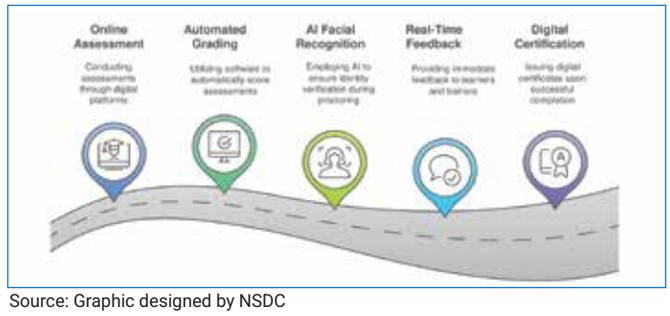


Source: Graphic designed by NSDC

Assessment and Certification using Technology

Online and proctored assessment tools bring objectivity and transparency to the evaluation process. Features include:

Image 4: Technology-Driven Assessment and Certification Process



Source: Graphic designed by NSDC

Trainer Qualification and Performance Tracking

In skill development, trainers play a pivotal role in shaping learner outcomes. However, the variation in trainer quality across Training Providers (TPs) is a persistent challenge. Automating the qualification verification and performance monitoring process helps standardize quality and promote accountability.

Image 5: Trainer Qualification & Performance Tracking Process

Source: Graphic designed by NSDC

Mobile Learning Platforms/Portals

Traditional classroom-based training often faces challenges like infrastructure gaps, geographical barriers, and inflexible schedules. Mobile learning addresses these by delivering content directly to the learner's device, allowing self-paced, accessible, and cost-effective skilling.

Image 6: Key features of Mobile Learning Platforms/Portals

Source: Graphic designed by NSDC

As nations race to close skill gaps and future-proof their workforces, Quality Assurance must be seen not as a checkpoint but as a continuous, technology-driven journey. By embedding smart QA mechanisms powered by digital tools, AI, data, and mobile platforms, we can ensure that skill development is not only accessible and scalable but also truly impactful.

"The future of skilling is tech-enabled, learner-centred, and quality-assured."

NSDC's Role in Ensuring Quality Assurance through Technological Interventions

The National Skill Development Corporation (NSDC) plays a critical role in ensuring quality across India's skilling ecosystem by leveraging advanced technologies. Its Monitoring & Evaluation (M&E) systems drive transparency, compliance, and accountability across training centres, trainers, and candidates.

At the core is the Skill India Digital Hub (SIDH), which enables real-time tracking, consequence management, and data-driven insights to improve training delivery. The platform identifies gaps, monitors standards, and supports timely corrective action across schemes and geographies.

Automated Accreditation & Monitoring systems streamline affiliation for Training Providers and Centres through API integrations, mobile-based inspections, geo-tagging, and structured forms—reducing errors and processing time. Mobile apps and virtual inspection modules ensure scalable, real-time audits, even in remote areas.

CCTV-based Monitoring, powered by NSDC's Command-and-Control Centre, offers live oversight of training sessions, attendance, and infrastructure. With features like process optimization and decision support, it minimizes the need for physical monitoring and enhances safety, engagement, and quality assurance at scale.

AI Face Recognition for Attendance

The AI-powered facial recognition system is in a pipeline to be introduced across schemes to verify and record the

attendance of both trainers and trainees.

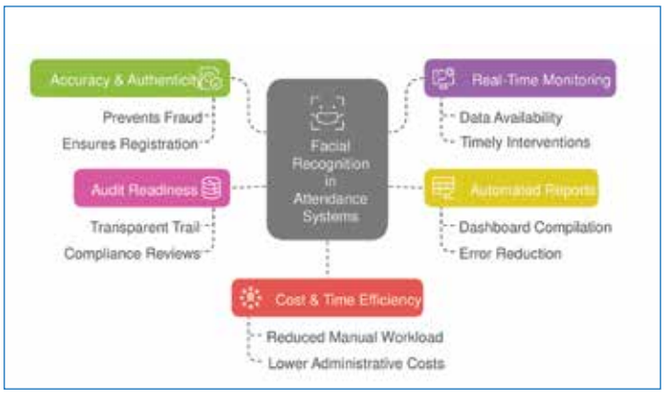
This eliminates the risk of proxy attendance and improves authenticity in attendance tracking. It also enables real-time syncing with central databases for better oversight and audit readiness.

How It Works:

Each trainee and trainer are enrolled into the system with a digital facial scan.

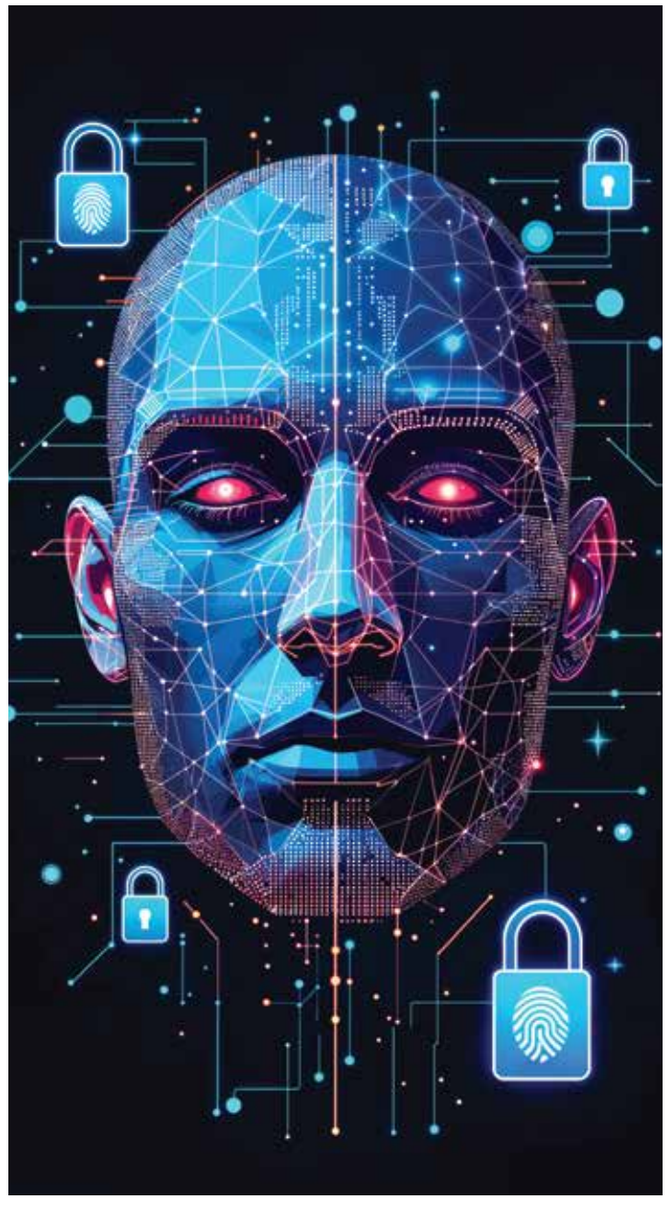
- Daily attendance is captured via AI-powered cameras or mobile devices equipped with facial recognition software.
- The captured data is automatically synchronised with NSDC's central server in real time.
- The system logs timestamps, location data, and images to maintain robust audit trails.

Image 7: Benefits of Facial Recognition in Attendance Systems



Source: Graphic designed by NSDC

The use of facial recognition technology in attendance tracking is a game-changer for quality assurance in skilling space. It reflects NSDC's commitment to leveraging cutting-edge technology for improving governance, fostering transparency, and building trust in the skilling ecosystem.



Conclusion

Technology is no longer a peripheral tool but the very backbone of robust Quality Assurance in India's rapidly evolving skilling ecosystem. From automating compliance and standardizing curricula to enabling real-time monitoring and transparent assessments, digital interventions are enhancing efficiency, accuracy, and accountability. NSDC's proactive adoption of AI-powered attendance, and mobile inspection tools underscores a firm commitment to leveraging technology to build a future of skilling that is not only scalable and accessible but also demonstrably high in quality and impact.

DEEP DIVE

ASSESSMENT AND CERTIFICATION IN SKILL DEVELOPMENT: BUILDING TRUST, VALIDATING SKILLS, EMPOWERING INDIA'S WORKFORCE

Rakesh Sharma,
DGM, Quality Assurance, NSDC

Rakesh is a seasoned social sector leader with over 20 years of experience in hospitality and skill development and presently leading operational excellence, assessment and certification vertical under Quality Assurance division at NSDC. Conferred the Kaushalacharya Award by the Ministry of Skill Development, he has led various national level key skilling projects and initiatives in his previous stint with Tata STRIVE. Having represented Indian contingent of master trainers to Singapore in a global skilling pedagogies capacity building project, he is also pursuing a doctorate in Social Work.

Divya Sheladiya
Manager, Quality Assurance NSDC

Experienced social sector professional specializing in public policy, project management, and capacity building in education and skills. Recognized for leading national policy initiatives, crafting inclusive strategies, and delivering impactful, human-centric projects. Passionate about driving systemic change through thoughtful design and effective implementation in the development sector.

Introduction

In an era where skill proficiency determines economic success, assessment and certification are not just processes, they are pillars of credibility and gateways to opportunity. The National Skill Development Corporation (NSDC) stands at the forefront of India's skill development movement, establishing robust frameworks to validate skills acquired through both formal training and informal learning.

By embedding quality, transparency, and inclusivity at every stage, NSDC ensures that certifications are more than documents, they are trusted proofs of capability, recognized by employers in India and globally.

Core Principles of NSDC's Assessment Framework

At the heart of the NSDC's mission to empower India's workforce lies a robust and meticulously designed assessment framework. This framework is not merely a process of evaluation; it embodies a set of core principles that underpin its credibility and effectiveness. By adhering to these fundamental tenets, the NSDC ensures that assessment and certification become powerful tools for individual growth and national progress.

Inclusivity

NSDC's approach ensures that individuals from diverse backgrounds, including rural artisans, tribal communities, and urban youth, have access to skill development opportunities. Initiatives like the Varanasi Udyamita Project focus on transforming traditional practices into structured micro-enterprises, empowering rural livelihoods.

Transparency

The assessment process is designed to be transparent, with clear criteria and standardized procedures. This transparency builds trust among stakeholders and ensures that certifications are credible and respected.

Quality Assurance

NSDC emphasizes the importance of quality in assessments. This includes the periodic review of assessment agencies, assessor training, and adherence to Standard Operating Procedures (SOPs) aligned with global benchmarks. Such measures ensure that assessments are fair, dependable, and valid.

Innovation

Embracing technological advancements, NSDC integrates AI-driven evaluation tools, remote and

hybrid assessment models, and a robust certifcation. These innovations enhance the assessment experience and ensure that it meets the demands of the modern workforce.

Empowerment

The goal of NSDC's assessment framework is to empower individuals. By providing recognized certifications, individuals gain access to better employment opportunities, career progression, and personal growth.

The journey of skill validation through the NSDC framework is a structured and comprehensive process, this journey unfolds across five distinct steps, each playing a crucial role in building a holistic understanding of an individual's skill proficiency.

The Five-Step Assessment Journey

1. Pre-Assessment Preparation: Candidate registration, allocation of agencies, assessor readiness, tools, and QP mapping

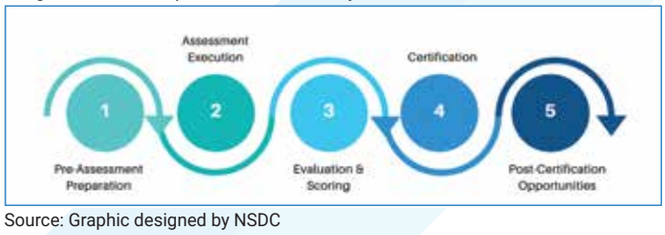
2. Assessment Execution: Digital theory tests, practical demos, portfolios, viva, workplace observations-tech-enabled where applicable

3. Evaluation & Scoring: Assessed via standardized rubrics, emphasizing real-world application of skills

4. Certification: Certificates with QR codes, serial IDs, and anti-fraud mechanisms

5. Post-Certification Opportunities: Connection to placement drives, job platforms, and re-skilling pathways

Image 1: The Five-Step Assessment Journey at NSDC



Source: Graphic designed by NSDC

This five-step journey, from initial registration to the final conferment of certification, underscores the NSDC's commitment to a systematic and rigorous approach to skill assessment. Each stage is designed to contribute to a fair, transparent, and ultimately, empowering experience for the candidate, ensuring that the awarded certification truly reflects their acquired skills and opens doors to enhanced opportunities.

Innovation in Action: Future-Ready Assessment

In a rapidly evolving landscape, the methods of assessing and validating skills must also adapt and innovate. This includes taking proactive measures to integrate novel techniques and digital solutions, paving the way for a more dynamic and effective skill development ecosystem. Some of the features of Future Ready Assessments are listed below:

- **AI-Driven Evaluation Tools:** Pilots with platforms like Mercer Mettl and Skylio using computer vision & auto-evaluation

- **Remote and Hybrid Models:** Advanced proctoring, face recognition, and secure digital interfaces adopted during and post-COVID

- **AR/VR Simulation-Based Assessments:** Especially in healthcare, manufacturing, retail, enabling immersive evaluation

- **Stackable Credentials and Micro-Certifications:** Modular pathways to allow flexible, lifelong learning progressions

- **Blockchain-Powered Certificates:** Piloted for tamper-proof, globally portable documentation of skill credentials

Image 2: Future Ready Assessments

Source: Image created by NSDC

Beyond NSQF: Strategic Non-NSQF Initiatives by NSDC

NSDC's Quality Assurance Division has expanded its mandate of assessment and certification beyond NSQF frameworks, addressing real-world skilling needs and bridging the gap between learning and employability: Each assessment was more than a milestone; it was a story of transformation validating the capabilities of aspiring micro-entrepreneurs, rural youth, and tribal artisans, many of whom had never engaged with formal certification systems.

From Villages to Value Chains

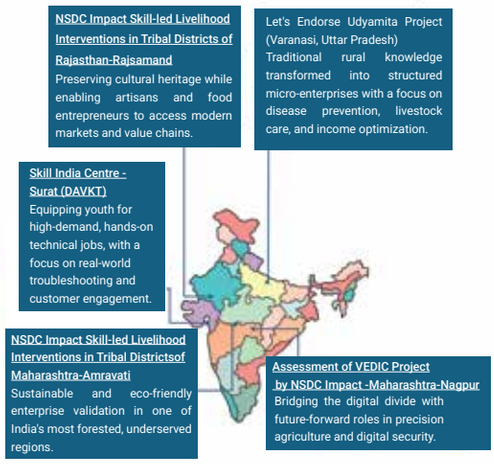
Our portfolio of assessments spans both urban and deeply remote landscapes, reflecting the adaptability and contextual strength of our approach. While the NSQF remains central, NSDC has extended its QA-driven

framework to strategic non-NSQF domains. These include:

- Entrepreneurship & Micro-Enterprise Assessments (e.g., self-help groups, nano-entrepreneurs)
- Digital Literacy & Financial Inclusion Certifications
- Livelihood-Oriented Certifications in tribal and border areas (e.g., crafts, organic farming)
- Gig Economy & Platform Skill Certifications tailored for delivery, rideshare, and e-commerce workers

These niche frameworks meet market demand and validate informal sector competencies.

Image 3: NSDC Impact and CSR Non NSQF Assessment Locations



Source: Image created by NSDC

Global Best Practices

To continually refine and elevate its assessment and certification processes, the NSDC is actively looks beyond national borders, engaging with and learning from global best practices in skill development. By studying successful models and innovative approaches implemented worldwide, the NSDC aims to incorporate valuable insights and adapt proven strategies to the Indian context. This dedication to 'Learning from the World' ensures that India's skill development ecosystem remains aligned with international standards and benefits from the collective wisdom of global expertise.

Challenges That Inspire Innovation

The path to effective skill development and certification in a diverse nation like India is not without its hurdles. The very scale and complexity of the country presents unique challenges that, in turn, serve as powerful catalysts for innovation within the NSDC's assessment framework. From the logistical complexities of ensuring geographic accessibility in remote aspirational districts and conflict zones to overcoming significant language and literacy barriers across more than 20 Indian languages, the need for creative solutions is paramount. Furthermore, addressing the perception gaps between industry expectations and learner readiness requires sophisticated skill diagnostics and orientation programs. The integrity of the assessment process is also a key concern, demanding robust fraud prevention measures leveraging technologies like blockchain, biometric verification, and facial recognition. Finally, the sheer volume of assessments, exceeding a million annually, necessitates scalable solutions that can maintain quality and rigor without compromise. These multifaceted challenges are not seen as roadblocks but rather as crucial drivers inspiring the NSDC to forge innovative and future-ready assessment strategies.

Image 4: Challenges that Inspire Innovation

Source: Image created by NSDC

NSDC's Forward-Looking Priorities

Looking ahead, the NSDC is strategically focused on several key priorities to further enhance the efficacy and credibility of India's skill ecosystem. This includes actively advancing towards the globally recognized ISO/IEC 17024 accreditation, fostering greater buy-in from the industry, and establishment of sector-wide industry recognition badges.

Furthermore, the integration of clear career pathways through stackable credentials will empower individuals with opportunities for continuous growth and specialization. Finally, leveraging the power of data, the NSDC intends to enable comprehensive skill data analytics to inform future skilling policies and ensure they are aligned with evolving industry demands.

In the ambitious pursuit of becoming the Skill Capital of the World, India's true advantage will be defined not solely by the quantity of individuals skilled, but by the quality and reliability with which those skills are assessed and validated. Imagine a gig worker in Amravati, their skills officially recognized, or a beekeeper in Varanasi, their traditional knowledge validated to modern standards each certified skill becomes a powerful testament to individual aspiration, economic empowerment, and tangible national growth.

While the journey ahead will undoubtedly be dynamic, India's commitment to robust quality assurance mechanisms, inclusive certification frameworks that reach every corner of the nation, and alignment with global standards is not just building a workforce – it is cultivating a workforce of global calibre and credibility.

DEEP DIVE

EMPOWERING INDIA'S ASCENT: ENGINEERING EXCELLENCE IN SKILL DEVELOPMENT

Himal Tewari
President—Group HR, CHRO,
Chief - Sustainability & CSR, Tata Power Co. Ltd.

Mr. Tewari is the Chief Human Resources Officer of Tata Power Group since 2019, overseeing HR, Sustainability, and CSR. With 28 years of experience across industries and global consultancies, he has led in leadership, change, and organizational effectiveness. He holds advanced degrees from INSEAD, IIM Ahmedabad, and Delhi University.

Neelabh Sangal
DGM, Quality Assurance, NSDC

Mr. Sangal is a passionate professional with career spanning more than 14 years across Education, Skilling, Impact Financing, Credit Monitoring and Audits & Assurance functions across levels with Government, Public and Private sectors in India. He is a Qualified Chartered Accountant and holds a Bachelor's Degree in Commerce from University of Delhi.

Introduction

As India stands on the cusp of unprecedented growth in its energy, infrastructure, and digital sectors, the quality of our skilled workforce will be the ultimate determinant of our success. Traditional skilling programs alone will not suffice. To truly capitalize on this transformative era, we must embrace Process Excellence in training and development. This deep dive explores how a structured, outcome-driven approach – one that prioritizes training quality, deep industry integration, inclusivity, and agile adaptability – is no longer a desirable add-on, but the critical engine for both individual empowerment and national industrial advancement.

Process Excellence as the Skilling Advantage

Moving beyond the limitations of conventional training, Process Excellence in skilling prioritizes tangible results. It is a framework built on systematic design, consistent execution, and a commitment to continuous refinement. The true value of skilling is no longer measured by enrolment numbers alone, but by impactful outcomes: enhanced placement rates, significant wage growth for graduates, demonstrable mastery of skills, and genuine satisfaction from industry employers. Achieving this requires a steadfast commitment to rigorous quality standards at every stage of the training journey. By embedding values like integrity, responsibility, and a drive for excellence, we equip individuals to become not only proficient professionals but also ethical and responsible contributors to the broader industrial and societal landscape. This holistic approach, exemplified by progressive leaders like Tata Power, demonstrates how Process Excellence creates a workforce that is both technically adept and ethically grounded.

The 6-Pillar Framework for Skilling Excellence

India stands at the cusp of a transformative energy and industrial revolution. As the country accelerates its shift to sustainable, digital, and decentralized development, building a future-ready, skilled workforce becomes critical. At Tata Power, we view skilling not just as a business need but a national responsibility.

Image 1: Six Pillar Framework for Effective Skilling

Source: TATA Power

To contribute meaningfully, we established the Tata Power Skill Development Institute (TPSDI) in 2015. Since then, TPSDI has trained over 3.4 lakh youth and professionals, and empowered more than 11,000 women in green energy roles from FY23 to FY25. Our programs span solar PV, green hydrogen, hydropower, transmission & distribution, and other emerging technologies.

This TPSDI Skilling Model is built on two foundational principles: Tata Way and Outcome oriented learning.

TPSDI's skilling philosophy reflects the Tata Way—with its emphasis on integrity, excellence, unity, and responsibility. Our programs nurture not just skills, but also character and commitment. This ensures that every TPSDI-trained professional enters the industry not only with competence, but with the ethics and values expected from a Tata-trained workforce.

Skilling at TPSDI is Outcome-Oriented. We focus on making learners job-ready from day one, blending technical proficiency with safety awareness, work discipline, and soft skills. Our goal is to create professionals who are not just certified, but truly prepared for the challenges and expectations of the modern workplace.

Standing on these two foundations is our 6-Pillar Framework for Effective Skilling, which shapes how we design, deliver, and scale our training initiatives. These six pillars provide structure, adaptability, and impact to our skilling efforts and serve as a practical blueprint for industry-led skill development across sectors.

1. **Industry-Relevant Curriculum: Built by Practitioners, Kept Current**

   Skilling must begin with relevance. At TPSDI, every course is built around actual job roles and emerging technologies in the power and renewable energy sector. Our curriculum is co-developed with in-house expertise that resides in Tata Power's business units, ensuring that it reflects the latest operational practices, compliance standards, and safety protocols. The curriculum is reviewed regularly and evolves in step with the industry whether it's rooftop solar, transmission & distribution, safety, or green hydrogen.

2. **Industry Experts as Trainers and Mentors: Learning from the Best**

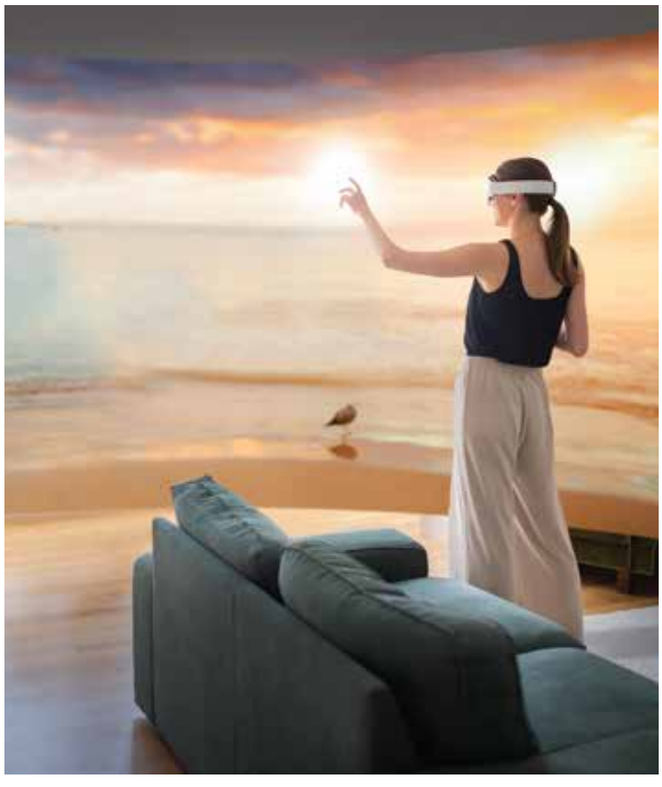
   We firmly believe that trainers must be masters of the craft. TPSDI actively involves Tata Power's domain experts engineers, designer, and project managers as instructors and mentors. These professionals bring field-tested experience, real-world examples, and operational insights to the training room. Beyond delivering training, these experts also help build the capability of the trainer ecosystem by mentoring new instructors, conducting assessments, and guiding the development of content and evaluation rubrics. This ensures that learners not only understand what needs to be done but why, when, and how to do it the right way.

3. **Hands-On Learning: Balancing Theory with Practice**

   Effective skilling must be practice-oriented, not just knowledge-heavy. TPSDI places a strong emphasis on learning by doing, with a structured balance between theory and practical sessions. Each center is equipped with well-designed labs that simulate real-world working conditions ranging from solar rooftops and switchgear panels to distribution systems and control rooms. These labs enable trainees to gain confidence, technical precision, and safety awareness through direct application. For many roles, such as installation technicians or discom field staff, this practical familiarity is what enables them to "hit the ground running" from day one on the job.

4. **Technology for Safe, Real-Life Simulation**

At TPSDI, we have adopted digital technologies like simulators and immersive learning to replicate high-risk or complex work scenarios in a risk-free environment. From Solar PV design, fire safety to confined space rescue drills, these immersive learning modules allow trainees to experience, repeat, and refine skills with zero exposure to danger. We also use a centralized Learning Management System (LMS) for blended delivery, mobile learning, and tracking assessments making our programs more flexible and learner-centric. This use of tech not only enhances learning quality but also makes it easier to scale specialized training across geographies.



5. **Inclusive and Equitable Access: Skilling for All**

TPSDI is committed to making skilling inclusive and empowering. We run dedicated women-only batches especially in non-traditional roles like solar PV installation, wiring, and plat engineering. Our outreach extends to youth from underserved, and marginalized communities, supported by Tata Power's CSR programs and partnerships with local NGOs. Through these efforts, TPSDI not only builds skills but also opens pathways to dignity, livelihood, and leadership.

6. **Knowledge Sharing and Ecosystem Collaboration**

As an NSDC-approved Training Partner and Dual Awarding Body under NCVET, TPSDI plays a key role in strengthening the broader skilling ecosystem. We collaborate with Sector Skill Councils, ITIs, government missions, and industry partners to share knowledge, build training capacity, and create standard-aligned content. Through knowledge partnerships, curriculum development, and trainer certification, TPSDI acts as a national resource hub for energy sector skilling.

As India gears up for a green and digital future, the need for scalable, industry-led skilling models becomes urgent. The TPSDI 6-pillar framework rooted in industry alignment, practical delivery, and inclusive access has demonstrated measurable outcomes and long-term impact. At Tata Power, we remain committed to working with government bodies, industry partners, and civil society to create a workforce that not only meets today's demand but drives tomorrow's transformation.

Assuring Quality in the Six-Pillars Model

Robust data reporting from India's skilling ecosystem now irrefutably underscores the power of Quality Assurance . Our analysis reveals a clear correlation: training programs with robust, documented quality management systems consistently deliver superior placement rates. Furthermore, the adoption of standardized assessment protocols demonstrably bridges the gap, ensuring a stronger correlation between earned certifications and the actual skill proficiency valued by employers. And the bottom line? Organizations committed to continuous improvement within their training processes are not only witnessing significant gains in cost efficiency but also maintaining or enhancing the quality of their skilled graduates. The data is clear: Process Excellence is not a luxury but a fundamental necessity for driving impactful and cost-effective skilling initiatives at scale.

With this fundamental principle in mind, clear QA measures need to be taken at each step of the Six Pillar Model to ensure quality and effectiveness of skilling programs. Such measures would include steps such as:

1. **Curriculum Validation**

Quality assurance begins with curriculum validation. This means establishing and observing standards that adequately reflect the industry demand and focus on strong competencies. QA measures here could include

mandatory industry co-signoffs on curriculum modules, standard setting through National Occupational Standards (NOS), and ensuring training content reflect Industry requirements.

2. Trainer Quality Checks

Quality in instruction hinges on trainer competence and domain credibility. A strong QA framework must mandate that trainers are certified and undergo regular ToTs (Training of Trainers) programs. Veteran industry professionals may be empanelled as Master Trainers, and QA protocols should track trainer deployment ratios, learner feedback, and outcomes mapping to ensure experiential learning. Learning Infrastructure Quality Checks.

3. Learning Infrastructure Quality Checks

Skilling must replicate the complexity of real work. QA systems should require pre-operational accreditation of skill labs and workshops through defined parameters like equipment fidelity, safety compliance, and task replication accuracy. For example, training in solar rooftop installation must include live modules on panel mounting, inverter wiring, and safety harness protocols. Assessment frameworks should integrate skill demonstration audits, industry-led practical evaluations, and surprise third-party inspections to validate that hands-on competencies align with actual field requirements.

Skilling should mirror the intricacies of actual work. QA systems require approval of skill centres and workshops through defined parameters like equipment fidelity, safety compliance, and task replication accuracy. For example, training in solar rooftop installation must include live modules on panel mounting, inverter wiring, and safety harness protocols. Assessment frameworks should integrate skill demonstration audits, industry-led practical evaluations, and surprise third-party inspections to validate that hands-on competencies align with actual field requirements

4. Security and Reliability Standards for Digital Infrastructure

Digital QA mechanisms must ensure content quality, learner engagement, and system performance. Digital Learning Management Systems (LMS) should incorporate AI-based analytics for learner progress, dropout prediction, and competency tracking. Covering AR/VR module validity ensures industry alignment and technical accuracy. Additionally, regular stress testing of platforms and cybersecurity audits are covered in standard QA protocols to guarantee reliable and secure access for all users.

5. Equity Benchmarking

Inclusive skilling requires QA frameworks to track and enforce equity benchmarks- like gender parity, rural representation, and access for persons with disabilities. Stakeholders may collate data for trainee demographics and outcomes. Outreach campaigns are subject to impact assessments, and training centres should be inspected for physical and digital accessibility. Quality indicators assess the presence of support systems like mentorship, transport, and flexible schedules tailored for trainees.

6. Ecosystem Functionality Checks

An integrated QA ecosystem is supported by standards, transparent data sharing, and co-certification mechanisms across institutions. All key stakeholders in the skilling ecosystem strengthens the outcomes by complying with National frameworks like National Credit Framework (NCrF), using uniform templates, thus contributing to a national repository of best practices. This approach will embed systemic trust and promote continuous improvement across the skilling landscape.

Bringing Process Excellence to Life: The Comprehensive Approach of TPSDI

The Tata Power Skill Development Institute (TPSDI) offers a powerful illustration of the 6-Pillar Framework in action, driving Process Excellence across the vital power and renewable energy landscape.

Their comprehensive approach encompasses detailed process documentation that leaves no room for ambiguity, rigorously enforced standardized operating procedures that ensure consistent quality, and fully integrated quality management systems that provide oversight from the moment a student enrols to their continued success after placement.

The Engine Room of Excellence

Process Excellence does not remain theoretical; it is brought to life through meticulously defined workflows that govern every facet of training delivery:

- **Orchestrating Curriculum Development**

  A robust flow that starts with deep Industry Consultation, moves through precise Competency Mapping, culminates in impactful Content Development, undergoes rigorous Validation, ensures effective Implementation, and is continuously refined through systematic Review.

- **Cultivating Expert Instructors**

  A strategic Trainer Development Pipeline that begins with thorough Identification of potential, ensures robust Domain Verification, equips individuals with essential Pedagogical Training, provides practical Supervised Teaching, culminates in formal Certification, and fosters ongoing Continuing Education.

- **Ensuring Unwavering Quality**

A proactive Quality Assurance Cycle that starts with clear Standards Definition, provides comprehensive Implementation Support, involves diligent Monitoring, conducts thorough Evaluation, drives targeted Improvement Planning, and ultimately leads to the continuous Standards Refinement.

These standardized flows are the bedrock of consistent quality, yet they are intentionally designed to allow for strategic contextual adaptation based on the unique requirements of specific sectors and the diverse learning needs of individuals.

The Way Forward

India's journey towards leadership in energy, infrastructure, and the digital realm hinges on embracing Process Excellence in skill development, as highlighted by the impactful 6-pillar framework. This outcome-driven approach, prioritizing tangible results like placements and wage growth, moves beyond conventional training metrics. As India advances towards a green and digital economy, this scalable and industry-integrated blueprint becomes crucial. Committed adoption by institutions and corporations will forge a robust workforce development ecosystem, consistently producing capable and confident professionals. Ultimately, this dedication to Process Excellence will not only fuel India's economic ascent but also empower individuals to achieve meaningful and transformative career paths.

STRENGTHENING GOVERNANCE AND ECONOMIC GROWTH THROUGH QUALITY INFRASTRUCTURE (QI) IN INDIA

Rajesh Maheshwari,
CEO NABCB

Quality Infrastructure (QI) is crucial for successful governance of a country as it enhances productivity, reduces costs, enables the effective delivery of public services, boosts economic growth, and improves the overall quality of life for citizens. The key pillars for QI are Standards & Technical Regulations, Accreditation & Conformity Assessment, and Metrology. India is ranked 5th in Accreditation and 10th in overall QI in the last two biennial global rankings released by GQII. A robust QI system is also crucial for achieving the UN SDGs and for significantly contributing to India's global commitments to combat climate change by providing goods & services in the market that are safe, reliable and environment-friendly promoting sustainable development and circular economy. By ensuring consistent quality and alignment with industry needs, and further development and implementation of a comprehensive QA ecosystem, India can significantly enhance its skilling landscape, improve the quality of its workforce, and drive economic growth.

The Quality Council of India with its constituent Boards, an apex body established by the Government of India for accreditation and quality promotion, is leading the nation in enhancing quality across industry sectors and facilitating internationally recognized accredited conformity assessment for the benefit of industry and trade.

LEGAL METROLOGY: A PILLAR OF QUALITY ASSURANCE FOR INDIA'S GROWTH

Quality assurance is a commitment that builds trust, credibility, and progress. The Legal Metrology Act, 2009, implemented by the Department of Consumer Affairs, plays a key role in this commitment. By ensuring accurate weights and measures, it fosters confidence among consumers, industries, and traders. Legal Metrology exemplifies how Quality Assurance (QA) frameworks enhance governance by promoting transparency and fairness in trade. It ensures equitable transactions, protects consumer rights, and ensures businesses comply with standardized regulations. These QA processes increase institutional credibility and support data-driven decision-making, making governance more accountable.

Ashutosh Agarwal,
Director Legal Metrology,
Department of Consumer Affairs

Precision in sectors like energy, agriculture, retail, and infrastructure drives productivity, quality, and investor confidence. Legal Metrology combines technical expertise with regulatory knowledge, using tools like IoT-enabled instruments and AI analytics. By adopting QA best practices, India's skilling ecosystem can align with international standards, build a competent workforce, and strengthen India's position on the global stage.

TIC SECTOR: POWERING INDIA'S SKILLS ECOSYSTEM FOR VISION @2047

Ms. Hanane Taidi,
Director General,
TIC Council

The TIC (Testing, Inspection and Certification) sector plays a vital role in strengthening global supply chains, with nearly 40% of global GDP depending on Testing, Inspection, and Certification services. India's skills ecosystem presents a unique opportunity to integrate international best practices in workforce development. According to the India Skills Report 2024, only 51% of Indian youth are considered employable, with over 3 million skilled workers needed in manufacturing alone.

The TIC sector can bridge this gap by embedding international standards, certifications, and independent assessments into skilling programs. This will enable SMEs and vocational institutes to deliver more industry-ready professionals. By focusing on quality infrastructure, the TIC sector can transform India into a global hub for skilled professionals, opening new export opportunities.

Aligning workforce development with quality assurance practices will play a crucial role in building a resilient, future-ready India, as it moves towards its Vision @2047 goals.

THE ROLE OF QUALITY ASSURANCE IN STRENGTHENING INDIA'S SKILLING ECOSYSTEM

With over 50 million youth expected to enter the workforce by 2030, India faces both a challenge and an opportunity. The real question isn't just how many are trained but how well we train and empower them. A robust Quality Assurance (QA) system is critical to ensure that our learning ecosystem doesn't just expand but improves.

QA is the backbone of trust, standardization, and relevance in skilling programs. It ensures that training is meaningful, measurable, and aligned with the ever-evolving demands of the industry. Whether through independent audits, outcome-based evaluations, or internationally recognised ISO standards like ISO 21001 'Educational organizations Management systems for educational organizations Requirements with guidance for use', QA helps institutions become more accountable, learner-centric, and globally benchmarked.

As we move toward Viksit Bharat@100, quality must not be an afterthought. It should rather be embedded in every step of the skilling value chain, ensuring our youth emerge not just as jobseekers, but as confident, future-ready contributors to a thriving nation and this is the best time to implement quality at all levels.

"यही समय है, सही समय है, भारत का अनमोल समय है"

Dr. Arti Khosla, Founder & CEO,
COAE International,
Project Leader,
ISO 21001(ISO/TC232-WG 7),
Convenor, Strategic Business
Planning Group
(ISO/TC 232-TG 3)

EMBEDDING EXCELLENCE IN SKILLING: INSIGHTS FROM TATA STRIVE'S QUALITY ASSURANCE FRAMEWORK

Ameya Vanjari,
COO, Tata STRIVE

Having led by our brand promise of 'quality with scale' at Tata STRIVE, we believe the learnings from Quality Assurance and design offers invaluable lessons for India's skilling landscape. True quality in skilling arises from a synergy of standardized processes, well designed content, enabling technology, and people capability, all aligned towards the common goal. Drawing inspiration from the Tata Group's business excellence practices,

Tata STRIVE has implemented a QA framework that rigorously measures learning effectiveness, compliance, and outcomes across all projects. Both these aspects have been instrumental in embedding excellence as part of Tata STRIVE Way - our culture. Should one be interested, we are happy to share our learning with those chasing excellence in skilling.

NEWS BYTES 35

PM Modi Highlights Inclusive Growth, Expanding Opportunities for Youth and Women

At the 15th Rozgar Mela, Prime Minister Shri Narendra Modi emphasized India's inclusive growth, mentioning rising women's participation across sectors. He highlighted that three of the top five UPSC toppers are women, and over 10 crore women are engaged in 90 lakh self-help groups. Distributing over 51,000 appointment letters, PM Modi stressed that youth empowerment is vital for nation-building, with new records in automobile and footwear exports creating employment. He announced the upcoming manufacturing mission to boost MSMEs and self-employment.

PM Modi also unveiled WAVES 2025—the World Audio Visual and Entertainment Summit in Mumbai as a major platform for young innovators in media, gaming, and immersive technologies. Reaffirming IMF projections, he stated India will continue to be the fastest-growing major economy, offering expanding job opportunities.

India Showcases Skilling and Digital Innovation Leadership at GITEX Africa 2025

Representing India at GITEX Africa 2025 in Marrakesh, Minister of State (Independent Charge) for Ministry of Skill Development & Entrepreneurship (MSDE), Shri Jayant Chaudhary highlighted India's leadership in Digital Public Infrastructure (DPI) and skilling innovations. He showcased key initiatives like Aadhaar, UPI, ONDC, and Skill India Digital Hub (SIDH), which has onboarded over 1 crore users in 18 months. Speaking at multiple sessions, he emphasized India's growing AI talent pool rising 33.39% YoY as per the Stanford AI Index 2025—and the country's potential to support digital transitions globally through open-source infrastructure and capacity building.

In bilateral meetings with Moroccan ministers across digital transition, education, and employment, Mr. Chaudhary discussed collaboration in AI, research, and innovation. He stressed India's DPI as a model for inclusive, scalable growth in developing nations. India's participation reaffirmed its status as a global hub for tech-enabled skilling, digital innovation, and public service delivery, aligned with the goals of equitable economic progress and global partnerships in digital transformation.

Secretary, MSDE Highlights Skilling as Key to India's Growth During State Visits

During visits to Nagpur and Kerala, Shri Atul Kumar Tiwari, Secretary, MSDE, highlighted skilling as central to India's growth, inclusion, and innovation. In Nagpur, he interacted with young women at key institutions and praised initiatives like the Green Hydrogen Lab.

In Kerala, alongside state officials, he explored integrated skilling models at Digital University and AVGC innovations at Kerala Startup Mission and Toonz Animation. He underscored the need for industry-aligned, impact-driven training and stronger collaboration across government, academia, and industry to ensure India's skilling ecosystem remains future-ready and globally competitive.

सत्यमेव जयते
MINISTRY OF SKILL DEVELOPMENT
& ENTREPRENEURSHIP
GOVERNMENT OF INDIA

MSDE, Microsoft Launch 'AI Careers for Women' to Boost Tech Skilling

The Ministry of Skill Development and Entrepreneurship (MSDE) and tech giant Microsoft have partnered to launch 'AI Careers for Women,' a skilling initiative to equip women with AI skills. Microsoft will offer a 240-hour curriculum aligned with industry standards, delivered through 30 Centres of Excellence and 150 institutions across six states. Minister Shri Jayant Chaudhary said the initiative advances inclusive, future-ready skilling aligned with the National Education Policy. It aims to bridge the gender gap in tech and boost India's innovation-led growth.

AP Steps Up Skilling and Welfare Initiatives in Amaravati

The Andhra Pradesh government, through APCRDA, is driving inclusive growth in Amaravati with free skill development programs for landless families. Over 200 youth and women are receiving training in tailoring, electrical work, surveying, and computer skills. A ₹5,000 monthly pension is supporting 17,000 displaced families. Public infrastructure, including schools, health centres, and Anganwadi centres, is nearing completion. New residential complexes for the poor are also underway. With focused skilling and social welfare, the government aims to empower locals and ensure active participation in building the People's Capital.

Tripura Signs Agreement to Upskill Government Employees

In a move to enhance public service delivery, the Tripura Government signed a tripartite agreement with the Skill Development Commission and Karmayogi Bharat at Pragya Bhavan. Chief Secretary Shri JK Sinha highlighted that the initiative would boost professional capabilities and public engagement among state employees. The agreement was signed by Apurba Roy (Tripura Government), Dr. R. Balasubrahmanyam (Skill Development Commission), and Shobhana Rana (Karmayogi Bharat), aiming to provide comprehensive skill development training across departments.

India's First AVGC-XR Institute Coming Up in Mumbai

The Ministry of Information & Broadcasting, Maharashtra government, and MFSCDCL have signed an MoU to establish the Indian Institute of Creative Technologies (IICT) in Mumbai's Film City. Focused on Animation, VFX, Gaming, Comics, and XR, IICT will nurture innovation and global competitiveness. Backed by approximately ₹390 crore grant. With an agenda of Not for Profit, the entity will work with government and enable industry. Chief Minister Shri Devendra Fadnavis and Union Minister Ashwini Vaishnaw hailed it as a major step toward strengthening India's creative economy and digital ecosystem.

Madhya Pradesh Unveils new age tech and skilling initiatives

At the Tech Growth Conclave 2025 in Indore, Chief Minister Shri Mohan Yadav announced a space technology policy and a Cyber Security Centre of Excellence to boost Madhya Pradesh's digital and space capabilities. An Electronic Manufacturing Cluster 2.0 in Bhopal will attract ₹20,000 crore investment and create 75,000 jobs. The state will also set up an Indian Institute of Creative Technology Regional Centre and launch the MP Digital Economy Mission, alongside new facility centres in IT parks across Indore, Bhopal, Jabalpur, and Gwalior.

Arunachal Pradesh with its Buddhist Heritage bats for Tourism Circuit at International Conclave

The International Buddhist Confederation, in collaboration with the Ministry of Culture, hosted a two-day conclave in Namsai, Arunachal Pradesh, spotlighting the region's rich Buddhist traditions. Deputy Chief Minister Shri Chowna Mein advocated for developing a Buddhist tourism circuit and highlighted cultural preservation efforts by the Tai Khamti community. He also proposed setting up a skill development centre to empower local youth. The conclave reinforced Arunachal's potential as a global Buddhist tourism destination, following the success of cultural events like the Songpa Water Festival.

Scindia and Mizoram CM Review Development Progress and Plan for Vision 2047

Union Minister Shri Jyotiraditya M Scindia and Mizoram Chief Minister Shri Lalduhoma held a virtual review meeting to assess Mizoram's development under key schemes like NESIDS, PM-DevINE, and NEC. They discussed ongoing projects and prioritized new initiatives. Mizoram Vision 2047 was also presented by state planning secretary Shri Lalmalsawma Pachuau. Chief Secretary Shri Khilli Ram Meena participated in the discussions, which focused on aligning development efforts with the state's long-term goals.

Tamil Nadu Unveils Rs 40 Crore Residential Coaching Centre for UPSC Aspirants

Tamil Nadu Chief Minister Shri MK Stalin announced a Rs 40-crore residential coaching facility in Shenoy Nagar, Chennai, to support 500 UPSC aspirants under the 'Naan Mudhalvan' scheme. Aimed at boosting the state's civil services success rate, the initiative offers financial assistance and targeted training. This year, 57 Tamil Nadu candidates cleared the UPSC exam, with 50 benefitting from the scheme. A felicitation ceremony will be held at the Anna Administrative Staff College.

NSDC and QCI Join Forces to Elevate Skill Excellence in India

The National Skill Development Corporation (NSDC) and the Quality Council of India (QCI) have formalized a strategic partnership through a Memorandum of Understanding (MoU) aimed at strengthening the quality and credibility of India's skilling ecosystem. This collaboration will introduce standardized certification processes and robust quality frameworks to ensure industry-aligned, globally compliant skill development programs. With a shared vision to enhance employability and global recognition of Indian talent, the partnership focuses on aligning training outcomes with evolving market demands, setting new benchmarks in quality assurance, and streamlining accreditation processes for training providers. This milestone reinforces the government's commitment to building a future-ready, competitive workforce through systematic, high-impact skilling initiatives.

Union Minister Shri Jayant Chaudhary Launched the NSDC-PDEU Centre of Excellence (CoE) with 40 skill courses Gandhinagar

Honourable Union Minister of State for Skill Development and Entrepreneurship & Minister of State, Ministry of Education Shri Jayant Chaudhary launched a Centre of Excellence (CoE), jointly set up by National Skill Development Corporation (NSDC) and Pandit Deendayal Energy University (PDEU), at Gandhinagar in Gujarat. The Centre will be equipped with advanced manufacturing capabilities labs to provide specialized training, offering 40 online and hybrid courses.
Speaking during the launch, Shri Jayant Chaudhary said, "Universities are not just institutions of learning, they are dynamic bridges that connect young minds to the ever-evolving demands of the real world. By imparting both technical expertise and liberal knowledge, they empower students to think critically, innovate boldly, and adapt effectively."

A Memorandum of Association (MoA) was signed between NSDC and PDEU at the Startup Mahakumbh in New Delhi. These courses will cater to students from ITI, Diploma, undergraduate, and postgraduate programs. The curriculum is designed to equip learners from Tier-1, Tier-2 and Tier-3 institutes with hands-on experience in niche manufacturing skill sets across critical sectors, including energy, health, water and food. PDEU, which has been at the forefront of energy transition and skill development, will leverage its expertise in different verticals, including solar and wind energy, lithium and vanadium energy storage, carbon capture and smart hybrid grids to prepare students for careers in these fields.

NSDC along with Rapido launch initiative to boost gig economy opportunities

NSDC and India's leading bike taxi aggregators Rapido signed a Memorandum of Understanding (MoU) to facilitate skill development for gig workers. NSDC's expertise and infrastructure in skilling and training will be combined with Rapido's bike taxi fleet and network to provide sustainable earning opportunities for candidates, accompanied by access to vehicles, skill development programmes, and stable income prospects.

Pavan Guntupalli, Co-Founder of Rapido, said, "We are thrilled to partner with NSDC in creating earning opportunities for over half a million driver partners every month. At Rapido, our mission has always been to empower individuals by fostering sustainable livelihoods. Our recently launched Pink Mobility initiative reflects our focus on diversity and dedication to ensuring equal opportunities for women and building a more inclusive mobility ecosystem."

NSDC's Software Development Unit Achieves CMMI Maturity Level 3 Certification

The Software Development Unit at the National Skill Development Corporation (NSDC) has been appraised at Capability Maturity Model Integration (CMMI) – Maturity Level 3, marking a significant milestone in the organization's commitment to technological excellence and mature process governance.

This internationally recognized appraisal signifies that NSDC's software development processes now align with globally accepted best practices. It reflects the unit's adoption of standardized procedures, tools, and methods that drive consistency, efficiency, and excellence across all projects. Our enhanced capability in managing complex project environments, and a deep commitment to delivering defect-free solutions 'on time' project deliveries. The recognition reinforces NSDC's focus on building scalable, reliable, and mission-aligned digital platforms that support India's skilling ecosystem.

NSDC and WRI India collaborate to strengthen Green Skilling Ecosystem in India

NSDC and WRI India signed a Memorandum of Understanding (MoU) with aim to map green skill gap, implement reskilling and upskilling programmes and strengthen the green skilling ecosystem in India.India's transition to a green economy presents aremarkable opportunity to empower its workforce with future-ready skills. This partnership with WRI India will play a pivotal role in equipping youth and MSMEs with specialized capabilities that not only meet domestic demand but alsoposition India as a global hub for green talent."

KUHS, NSDC International Partner to Train Nurses for Global Jobs

The Kerala University of Health Sciences (KUHS) has signed a landmark Memorandum of Understanding (MoU) with NSDC International to train and certify nursing students for overseas employment, making KUHS the first university in India to formally collaborate with NSDC for global healthcare workforce development. The partnership aims to provide specialised, industry-aligned skill training to nursing students and graduates from Kerala, enabling them to secure employment in countries such as Germany, the UK, and Canada—without reliance on intermediaries. A MoU was signed between KUHS and NSDC at the ceremony. As part of the collaboration, NSDC International will align the training with international qualification standards, supporting smoother migration pathways through government-to-government agreements. The scope of the partnership is expected to expand to include skilling in paramedical sciences and pharmacy, positioning Kerala as a hub for globally mobile healthcare professionals.

NSDC Showcases India's AI Skilling Leadership and Innovation at TiEcon 2025

At TiEcon 2025 in Santa Clara, California, India spotlighted its growing leadership in artificial intelligence and entrepreneurship, with a strong presence led by the Ministry of Skill Development and Entrepreneurship (MSDE) and NSDC International. Themed "AiVerse," the three-day global conference brought together innovators, investors, and policymakers to discuss the future of AI. Addressing the gathering virtually, Minister Jayant Chaudhary emphasized that India is nurturing over a million entrepreneurs through initiatives like Startup India, Skill India, and Atal Innovation Mission. NSDC's exhibition booth showcased India's AI-integrated skilling models, drawing strong international interest. NSDC team connected with Microsoft CEO Satya Nadella, discussing NSDC's role in preparing Indian youth for future-ready, standardised careers. India's participation reinforced its positioning as a global innovation and skilling partner.

MSDE launches apprenticeship scheme for the North East youth with financial support

The Ministry of Skill Development and Entrepreneurship (MSDE) has launched a focused pilot initiative to promote apprenticeship training across the North Eastern Region (NER). The North East Apprenticeship Pilot Scheme was officially inaugurated in Aizawl by Shri Jayant Chaudhary, Union Minister of State (Independent Charge), MSDE, alongside Shri Lalduhoma, Chief Minister of Mizoram.

This initiative aligns with the vision of Ashta Lakshmi and Viksit Bharat, Viksit North East, championed by Prime Minister Shri Narendra Modi. It offers structured, paid, and high-quality apprenticeship opportunities to youth in the region. The goal is to bridge the gap between education and employment through real-world industry exposure.

Under the scheme, more than 26,000 youth from the North East will receive an additional ₹1,500 per month for one year on top of the regular stipend available under the National Apprenticeship Promotion Scheme (NAPS). This incentive is available to apprentices both within and outside the region, promoting mobility and broader access to industry-linked training opportunities. A total budget of ₹43.94 crore has been earmarked for the pilot, which includes ₹4 crore allocated for outreach, capacity building, and implementation support.

Official Release of the Hindi version of the Compendium, titled 'Skill-Led Models for Sustainable Rural Development: Stories from Nandurbar, Maharashtra'

Hon'ble Union Minister, Shri Shivraj Singh Chouhan, Ministry of Agriculture & Farmers Welfare, inaugurated the Hindi version of the Compendium, titled, 'Skill-Led Models for Sustainable Rural Development: Stories from Nandurbar, Maharashtra' at the Krishi Vigyan Kendra, Nandurbar Maharashtra.

Hon'ble Union Minister appreciated the efforts of National Skill Development Corporation and the skill-led models being implemented for sustainable rural development. He acknowledged the compendium as an important initiative, that may serve as a model for other regions and aspirational districts, showcasing how skills, innovation, and local collaboration can transform rural livelihoods, enhancing agricultural productivity and fostering entrepreneurship at the grassroots level.

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5th & 6th Floor, Kaushal Bhawan, New Moti Bagh, New Delhi - 110023

website: www.nsdcindia.org , Tel +91-11-71600050 , Fax +91-11-71600060

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