

Skill Matters

BUDGET 2022

Initiatives for Skill Ecosystem



“The Union Budget 2022 has emerged as a much-needed boost for the Indian skilling ecosystem. Now, with a purposeful focus on skilling, upskilling, reskilling and employment generation, we will not only be able to meet the aspirations of India’s youth but create a sustainable ecosystem for their livelihood. The Government’s decision to strengthen the foundation for digital skills and realign the National Skill Qualification Framework is a welcome move, emphasising that skilling is a life-long process and building an inclusive skill system is necessary. I am also confident that with the launch of DESH-Stack e-portal, we will be able to empower citizens through online skill training and boost India’s skill development framework aimed at making it the skill capital of the world.”

Rajesh Aggarwal

Secretary, Ministry of Skill Development & Entrepreneurship

Setting inclusive growth as one of its priorities, the Government of India, in the Union Budget for 2022-23, promised to focus on skill development by empowering citizens to skill, reskill or upskill through online training, reorienting skilling programmes and industry partnerships, vocational courses for universalization of quality education, improve entrepreneurial opportunities for micro, small and medium enterprises (MSMEs) and formalise the economy.

The Government also envisions complementing the macro-economic level growth focus with a micro-economic level all-inclusive welfare focus, and skilling plays a vital role to drive this vision. Hon’ble Finance Minister Nirmala Sitharaman announced the launch of **Digital Ecosystem for Skilling and Livelihood (DESH Stack)** that aims to empower citizens to skill, reskill or upskill through a unified framework.

DESH Stack will act as a technology umbrella, under which all Budget 2022 announcements made for the skill ecosystem will be aligned. Multiple applications and portals related to skill development will be a part of the DESH Stack network.

The following are the announcements made for the skill ecosystem along with overview:

The DESH Stack e-portal

“Digital Ecosystem for Skilling and Livelihood – the DESH-Stack eportal – will be launched. This aims to empower citizens to skill, reskill or upskill through online training. It will also provide API-based trusted skill credentials, payment, and discovery layers to find relevant jobs and entrepreneurial opportunities.”

Under the guidance of Ministry of Skill Development and Entrepreneurship (MSDE), National Skill Development Corporation (NSDC) is working towards developing a digital infrastructure with governing protocols for the education and skills community termed as DESH Stack. DESH Stack will allow frictionless exchange for skill development, deployment and associated supply-chain and enabling services. It is a set of configurable, extendable, modular opensource digital building blocks, with robust data-privacy. It is not a monolithic platform but a unifying framework that will allow many platforms, applications, service providers, business models to innovate with the underlying framework, protocols, and specifications. (Visit: www.deshstack.io)

THE PROPOSED DESH STACK

MARKETPLACE

Innovation: Aggregation, Skill matching, Learning paths, Mentorship, Finance apps etc.

PLATFORM

Application: Skill Key, Knowledge graph, learning path, skill-mapping and analysis etc

DESH STACK

Proof of Education

Proof of Skills Training

Proof of Work

Proof of Reputation

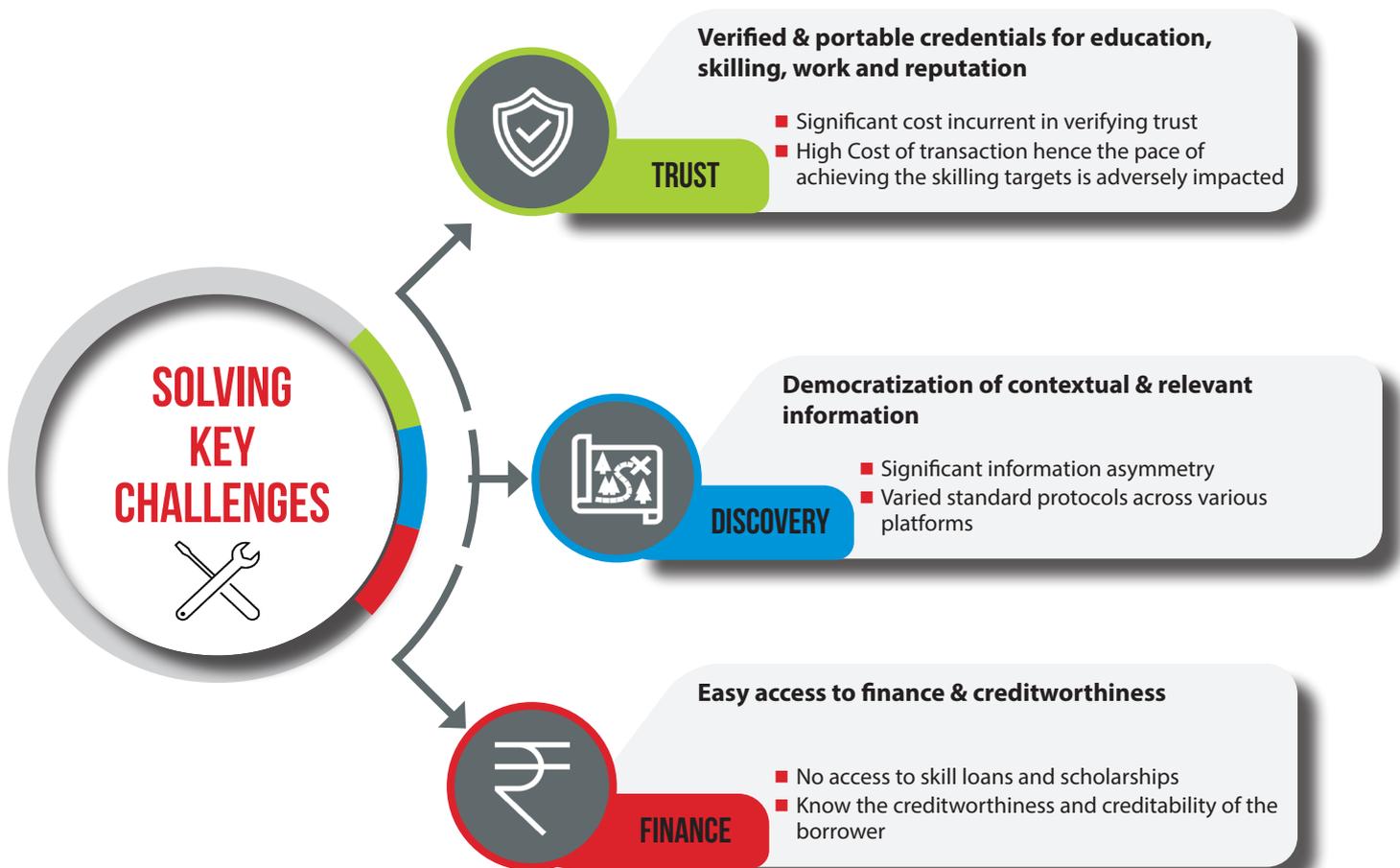
Trust: Registries, Skill Training Credentials

Payments: Direct Benefit Transfer, eRupi, etc

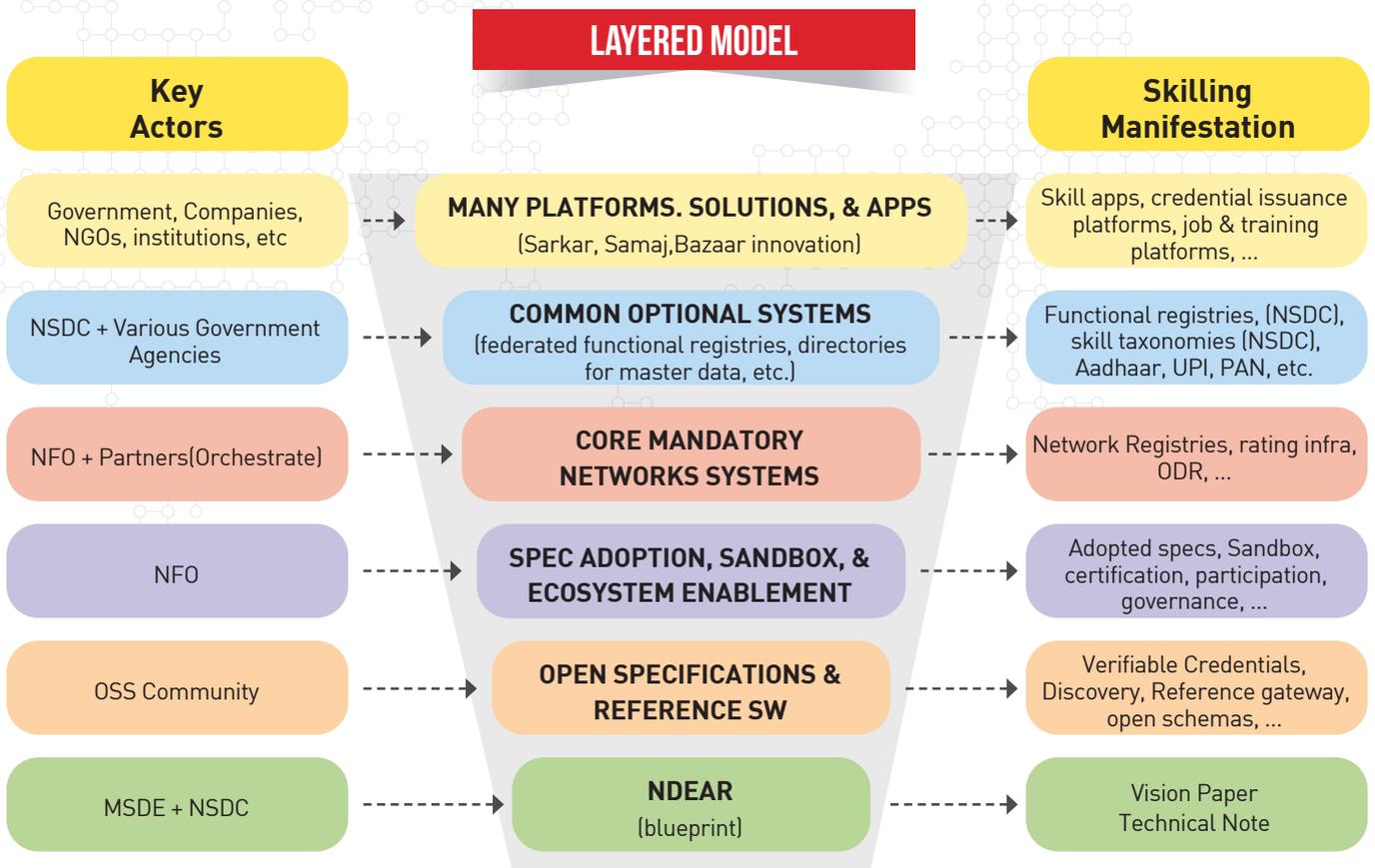
Discovery: Learning, Trainers / Assessors, Skilled Candidate Pool, Job opportunities, etc.

- ▶ **DESH:** A protocol layer based on open standards and specifications for registries & credentials, a payment for transactions, data governance, consent and discovery.
- ▶ **Platforms:** An application layer built on DESH with non-repudiable credentials management. Multiple players can implement platforms based on open standards and specifications
- ▶ **Marketplace:** An innovation layer creating products and services for all the stakeholders building on the platform and DESH layers

DESH Stack is configured on a three-layered framework—trust, finance, and discovery. Trust layer is to enable verifiable digital credentials designed for portability, permanence, and inclusion and reusable electronic registries as a single source of truth. Payment layer is to enable services such as direct beneficiary transfer, rewards, scholarships, among others. Discovery layer will facilitate commerce, enable innovation and entrepreneurship in the ecosystem. The framework draws parallels to the infrastructure of Aadhaar, DigiLocker, and Unified Payments Interface (UPI), open protocol in Unified Health Interface (part of Ayushman Bharat Digital Mission – ABDM), new registries in CO-WIN and standards in Ministry of Electronics and Information Technology (MeitY).



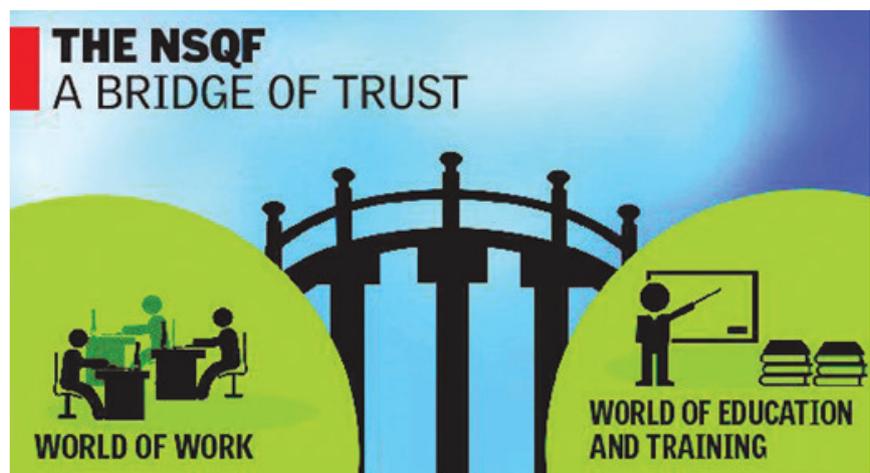
In line with Hon'ble Prime Minister Narendra Modi's vision of mandating vocational education/ skill training in the education ecosystem, DESH Stack will act as a tool that bridges the gap between demand and supply of skilled workforce. DESH Stack is a building block towards empowerment that will utilize existing infrastructure of National Digital Education Architecture, Aadhaar, Permanent Account Number (PAN), Goods and Services Tax Network (GSTN), DigiLocker, Public Financials Management System (PFMS), Aadhaar-enabled payment system (AEPS), UPI, scalable CO-WIN registries, MeitY's open-source policy, Data Empowerment and Protection Architecture (DEPA), and more.



Reorienting Skilling Programmes through NSQF

"Skilling programmes and partnership with the industry will be reoriented to promote continuous skilling avenues, sustainability, and employability. The National Skill Qualification Framework (NSQF) will be aligned with dynamic industry needs."

NSQF is a nationally integrated education and competency-based framework that enables persons to acquire desired competency levels. The NSQF organises qualifications according to a series of levels of knowledge, skills and aptitude. The NSQF levels, graded from one to ten, are defined in terms of learning outcomes, which the learner must possess regardless of whether they are obtained through formal, non-formal or informal learning. NSDC, which has standardized over 2,500 job roles, engages with industry and re-aligns NSQF as per dynamic industry needs.



UNDERSTANDING NSQF

Unified Indian Qualification Framework

- Qualifications organised based on different levels of competencies: Knowledge, Skills & Aptitude

Unified Indian Qualification Framework

- Recognises learning outcomes
- 10 levels of competency
- Each level defined by level descriptors

Provides

- Multiple entry and exit points
- Industry inputs in developing qualifications
- Recognition of prior learning
- Life-long learning

Drone Shakti

“Startups will be promoted to facilitate ‘Drone Shakti’ through varied applications and for Drone-As-A-Service (DrAAS). In select Industrial Training Institutes (ITIs), in all states, the required courses for skilling will be started.”

NSDC, in partnership with industry associations, Sector Skill Councils (SSCs) and training partners will implement the training programme. The programme will be rolled out in over 75 skilling centres across all states. Multi-skilling needs from ministries such as Agriculture, Chemicals & Fertilizers, among others will also be factored in.

Vocational Courses for Critical-thinking Skills

“In vocational courses, to promote crucial critical thinking skills, to give space for creativity, 750 virtual labs in science and mathematics, and 75 skilling e-labs for simulated learning environment, will be set-up in 2022-23.”

NSDC aims to promote skill development by catalysing creation of large, quality and for-profit vocational institutions. Further, NSDC provides funding to build scalable and profitable vocational training initiatives. The organisation is also mandated to enable support system, which focuses on quality assurance, information systems and train the trainer academies either directly or through partnerships.

Interlinking Portals for MSMEs

“Udyam, e-Shram, NCS and ASEEM portals will be interlinked. Their scope will be widened. They will now perform as portals with live, organic databases, providing G2C, B2C and B2B services. These services will relate to credit facilitation, skilling, and recruitment with an aim to further formalise the economy and enhance entrepreneurial opportunities for all.”

NSDC has been working on improving models to ensure the demand-supply parity of skilled workforce. ASEEM (Aatma Nirbhar Skilled Employee Employer Mapping) portal, developed by NSDC, is designed to act as a policy instrument to improve the information flow in the skilled workforce market and highlight actual demand patterns, skill requirements by various industry associations, key consumers of skilled workforce, workforce movement (migration patterns) and other analytics, which could trickle down to the district/ state/ regional levels.

ASEEM provides a platform to both candidates / job seekers as well as the employers / job givers to interact. The artificial intelligence (AI)-based algorithm of ASEEM analyses the interaction and generates real-time analytics and trends. These trends and analytics refer to the data and patterns that describe the workforce market and map demand of skilled workforce to the supply closest to their geo location. Increasingly, the platform has also been providing tools and resources to help skilled candidates find better livelihood opportunities using AI / machine learning-driven algorithms.

More from the Ecosystem

Source: Ministry of Skill Development & Entrepreneurship

National Council of Vocational Education and Training (NCVET) has approved more than 5,100 industry aligned qualifications till January 2022, on the request of various SSCs and other awarding bodies. It has identified future skills required by the industry in close collaboration with SSCs, Directorate General of Training (DGT), Central Ministries, state governments, industry experts, among others.

NCVET is closely working on skills required for industry 4.0 and beyond. Efforts have been made for NSQF-level alignment of industry-recognized courses from top companies such as Oracle India, Microsoft Corporation, Tata Group, Cisco Systems and Original Equipment Manufacturer (OEM) courses to skill/ reskill/ upskill the youth.

DGT has received qualification tag on drones approved under NSQF for implementation in ITIs:

- ▶ Craftsmen Training Scheme (CTS): Remotely Piloted Aircraft (RPA)/ drone pilot (refresher course)
- ▶ Drone technician
- ▶ Remotely Piloted Aircraft (RPA)/ drone pilot
- ▶ Remotely Piloted Aircraft (RPA)/ drone pilot (CTS)

Under NCVET, a unified credit framework will be implemented from the next academic session. This framework will seamlessly integrate vocational education and training in school and higher education, and enable multiple entry-exit along with fulfillment of the quality manpower requirements in the industry.