

# INDIA SKILLS REPORT 2023

ROADMAP TO INDIA'S SKILLS AND TALENT ECONOMY 2030



AN INITIATIVE BY

**Wheebox**  
Measuring World's Talent and Skill Potential

TECHNOLOGY PARTNER



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“

MAPPING THE TALENT  
LANDSCAPE OF THE  
NATION FOR A DECADE

”

# INDIA SKILLS REPORT

THE MOST CREDIBLE AND CONSIDERED THOUGHT LEADER IN  
THE TALENT DEMAND AND SUPPLY STUDY ACROSS INDIA.

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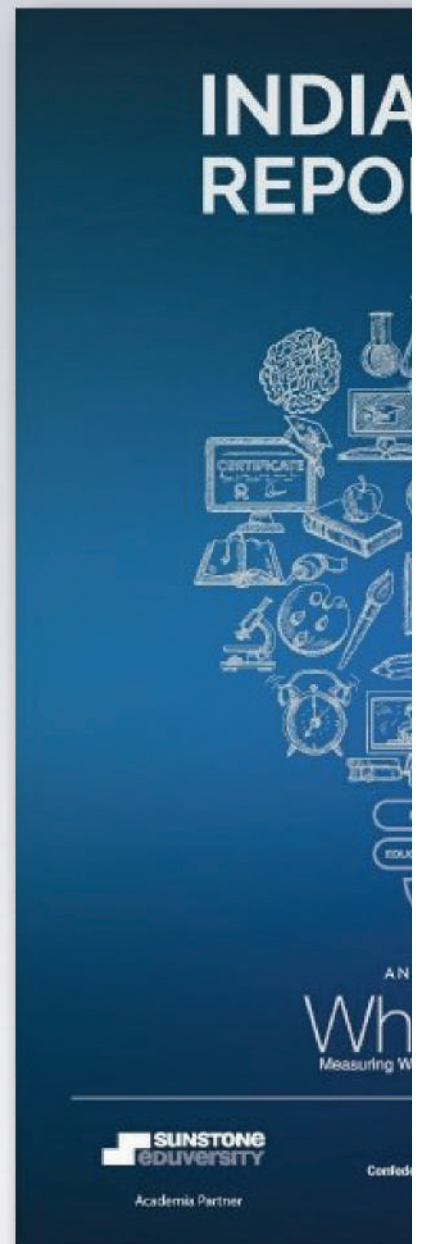
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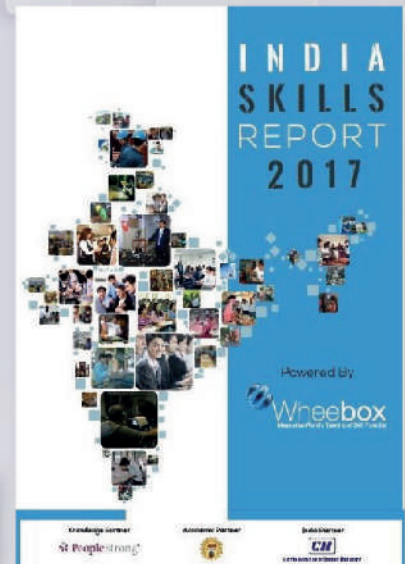
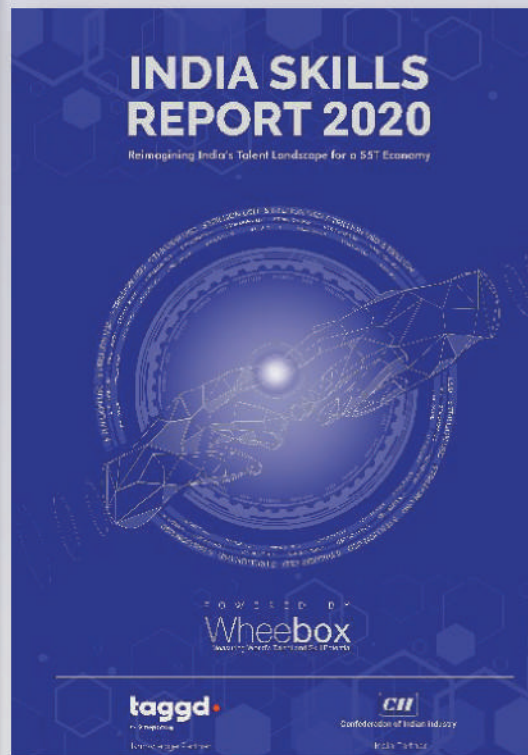
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# INDIA SKILLS REPORT



# PREVIOUS EDITIONS





# **INDIA SKILLS REPORT 2023**

**ROADMAP TO INDIA'S SKILLS & TALENT ECONOMY 2030**

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# ABOUT THE TEAM

## Wheebox Talent Assessments

Wheebox is a global leader in Remote Proctored Assessment, the most popular online talent assessment platform, and has affiliations with the best businesses, institutes of higher learning, and organizations working in a wide range of industries. Wheebox develops strategies to find, keep, and upskill talent using the most cutting-edge standardized assessments for pre-hiring and learning requirements. Wheebox strives to realize the aim of assessing the talent of the globe with over 50 million active users worldwide. Wheebox administered 20 million examinations in total last year, 17.5 million of which were proctored tests. Wheebox can execute skill development projects and hire the best practices across industries thanks to partnerships with Fortune 500 corporations and large, medium-sized, and small businesses.

The proprietary “Wheebox National Employability Test” (WNET), which focuses on final-year students and postgraduates, is based on ongoing cooperation with various educational institutions and organizations. The test translates the competencies and skills necessary to be employable in a socioeconomic environment that is rapidly changing. The “India Skills Report,” according to Wheebox, offers a thorough understanding of the supply of skills and talent present among India’s sizable youth talent. Wheebox deploys standardized important skill areas for numerous professions across industrial verticals in close collaboration with Education and Academia. With a network of partners, including the Confederation of Indian Industry, Taggd, All India Council for Technical Education, Association of Indian Universities, Sunstone, Pearson, AWS and ET, this year’s exam generates insightful reports to build employment skills and competencies of the future years.

Wheebox collaborates with Indian states to project and advance the nation’s talent pool through an in-depth analysis of current trends. As a result, Wheebox produces the State Skill Report. Additionally, Wheebox creates the BARO Career Association of Indian Universities, Interest Report



in collaboration with the Ministry of Labor and Employment, empowering candidates to utilize the “National Career Service” at any of the country’s “Model Career Centers” with greater knowledge and clarity. Wheebox has acquired and used important knowledge about rapidly changing job patterns & competencies and the general employability landscape to measure worldwide talent consistently for more than over the decade. A strategic review of India’s Skills and Talent Economy by 2030 is included in the year’s ISR 2023 study, the tenth edition bridging the gap between talent availability and security to build digital India by 2030. We thank all our partners, stakeholders and personnel involved in this remarkable achievement to showcase the emergence of a young, able and resourceful India of many Indias.

We are proud of our continued association and extend a heartfelt gratitude on behalf of the team, and all the people’s success stories highlighted in the following sections. Thank you for all your contributions, support, well wishes and more to each of you.

## Confederation of Indian Industry (CII)

By collaborating with businesses, governments, civil society organizations, and other organizations, the (CII) is tasked with fostering sustainable growth in the Indian industry. CII is a non-profit, non-governmental organization that is controlled by businesses and is driven by those in charge of various national development initiatives. The country’s top association was established in 1895 and now has more than 9000 members from the public and private sectors, MNCs, and SMEs.

The CII includes 291 local, regional, and national industries and sectors with more than 300,000 corporate connections and memberships. To establish sustainable development modules and policies, CII works with government officials and business executives. With a wide range of specialized services and a significant worldwide footprint, its goals include increasing efficiency and competitiveness and generating chances for economic and social growth.

With a growing affiliate body, the CII is a well-known networking platform that handles urgent concerns related to sustainable development. It helps businesses to decide on and carry out corporate social responsibility projects. To initiate and include dependable

development possibilities across industries and sectors, several civic societies collaborate with CII. CII is a significant contributor to the development of a progressive nation by providing services in the fields of education, diversity and inclusion, health-care, livelihood, women’s empowerment, skill development, resource management, and other industries. The job landscape in India and throughout the world is undergoing a significant transformation as firms adopt digital technology in response to developments in science and technology.

The focus on industrial modernization is elevated by the topic of “India Skills and Talent Economy by 2030.” CII will implement methods to take advantage of changing economic trends for cumulative development in the years 2023 and beyond. This includes fostering new employment opportunities, enhancing security and access to energy, as well as implementing reformative legislation and sustainable environmental measures. CII is a cornerstone of sustainable development for the Indian and global business community, with 68 offices worldwide, 9 Centres of Excellence in India, 11 overseas offices in China, Australia, France, Germany, Egypt, Singapore, Indonesia, the United Arab Emirates, South Africa, the United States, and the United Kingdom, and 394 partner organizations across 133 countries working on similar initiatives.

## Taggd

Taggd is a digital recruitment platform that provides ‘Ready-to-Hire’ talent to India Inc. Combining the power of human knowledge and data, Taggd has successfully fulfilled talent mandates of more than 100+ clients and ensured hiring managers’ success for half a million jobs from over 14+ sectors. With a vision to fulfill 1 million Jobs by 2025, the Taggd talent platform strives to connect people to people, people to companies, and people to opportunities, just right, every time. Taggd is the knowledge partner for the India Skills Report. With access to cutting-edge resources and intelligence, Taggd sheds light on the job and hiring landscape cross-nation, providing qualitative and quantitative data from industry experts.

## All India Council for Technical Education (AICTE)

The CABE recommendations led to the establishment of AICTE in 1945, which was created to direct, encourage, and coordinate the nation’s industrial and educational progress. AICTE began with engineering and



technology-focused programs before developing into a major force in technical education with a large number of colleges and polytechnic institutions. The development of AICTE into a leading organization was brought on by the rise of technical education in India. AICTE played a crucial role in promoting the engagement of the commercial and public sectors for technical education, stemming from reform efforts during the 1980s to recalibrate Independent India with an emphasis on technical education and growth.

With a growing affiliate body, the CII is a well-known networking platform that handles urgent concerns related to sustainable development. It helps businesses to decide on and carry out corporate social responsibility projects. To initiate and include dependable development possibilities across industries and sectors, several civic societies collaborate with CII. CII is a significant contributor to the development of a progressive nation by providing services in the fields of education, diversity and inclusion, healthcare, livelihood, women's empowerment, skill development, resource management, and other industries. The job landscape in India and throughout the world is undergoing a significant transformation as firms adopt digital technology in response to developments in science and technology.

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## Association of Indian Universities (AIU)

The Association of Indian Universities (AIU) is an esteemed institution that focuses on the access and advancement of Higher Education in India. Established in 1925, AIU later became the Association of Indian Universities in 1973. Established in 1925, AIU later became the Association of Indian Universities in 1973. AIU is associated with Universities

in India, getting representation from central and state governed Universities. Coordinating with the leading Higher Education Institutions across the globe, AIU continuously facilitates activities and initiatives to preserve and safeguard the interest of universities. Through the exchange of information, facilitation of culture-driven activities, sports initiatives, and recognition of degrees and certifications, AIU collaborates with educational institutions to create sustainable strategies. As an expert academic entity, AIU leads the country's education landscape with the highest academics in the nation. Out of the 831 Universities in India, 635 are already members of the Association. 10+ foreign universities are also affiliated with AIU.

## Sunstone

Sunstone is a leading higher education service provider that works with academic institutions to enable industry-integrated education to undergraduate and postgraduate students across **50+ institutions in 30+ cities**. Sunstone's training programs are industry-endorsed to enhance employability, generate employment across domains, and are designed for hybrid delivery to provide a holistic student experience. Besides providing focused skill training to make students industry-ready and ensuring corporate placement support, Sunstone offers admissions support and customized learning-management solutions. Sunstone aims to make higher education more accountable, pragmatic, and tailor-made to meet industry requirements. Sunstone exists to empower every deserving student to take charge of their careers. We are committed to becoming the largest hiring partner for India's top 50 corporate establishments.

## Pearson

Pearson is the world's leading learning company with a rich legacy of offering top-quality educational content and learning solutions. With a mission to add life to a lifetime of learning and support learners, Pearson is harnessing its expertise, knowledge, and technology to support and enable learners to flourish. A team of more than 20,000 individuals collaborates with governments, employers, and globally recognized educational institutions to strengthen its innovative products and services. Pearson is developing a learning ecosystem that places the customer at the center of everything they do. In order to assist in developing the talent roadmap for the future, Pearson has teamed up as a skilled partner for the ISR 2023 report's 10th edition.

## Amazon Web Services (AWS)

For over 15 years, Amazon Web Services has been the world's most comprehensive and broadly adopted cloud offering. AWS has been continually expanding its services to support virtually any cloud workload, and it now has more than 200 fully featured services for computing, storage, databases, networking, analytics, machine learning and artificial intelligence (AI), Internet of Things (IoT), mobile, security, hybrid, virtual and augmented reality (VR and AR), media, and application development, deployment, and management from 84 Availability Zones (AZs) within 26 geographic regions, with announced plans for 24 more Availability Zones and eight more AWS Regions in Australia, Canada, India, Israel, New Zealand, Spain, Switzerland, and the United Arab Emirates. Millions of customers—including the fastest-growing startups, largest enterprises, and leading government agencies—trust AWS to power their infrastructure, become more agile, and lower costs. To learn more about AWS, visit [aws.amazon.com](https://aws.amazon.com).

## Economic Times

As India's No 1 business news destination, EconomicTimes.com has been creating properties that have always strived to provide value to its readers. ET is committed to foster the spirit of life long learning and leadership, champion professional growth and opportunity amongst millions of students across the country.

In 2017 ET launched the flagship initiative, ET Campus Stars – India's largest hunt for the brightest engineering minds and the opportunity to interact with industry leaders to achieve their true potential.



# ACKNOWLEDGEMENTS

This report is a result of the evaluation of **3.75** lakh candidates who took the Wheebox National Employability Test (WNET) across India and the participation of **150** corporations from **15+** different industries in the Early Career Edition of the India Hiring Intent Survey.

## India Skills Report 2023

The India Skills Report 2023, in its tenth edition, examines the strategic overview of India's Skills and Talent Economy by 2030. The shifting employability trends and industry forecasts have a solid foundation thanks to a comprehensive understanding of talent needs and supply across the job environment. The version from this year includes the outcomes of the WNET exam, which 3.75 lakh individuals nationally took in an effort to better understand India's talent market. The pattern of recruiting early career professionals across 150 corporates in various job roles across 15+ industries is validated for exclusive demand trends by deciphering the future of work.

Our knowledge partner Taggd has produced a comprehensive hiring forecast for early career workers. We are grateful to everyone who contributed significantly to the success of this joint endeavor and this year's report. We sincerely thank the administrators of the participating educational institutions for granting us access to India's vast potential pool of young people. This project would not have been possible without their support and participation.

We also like to thank the CII for sponsoring WNET and the Hiring Intent Survey, as well as the National Committee on Skills Development and Livelihood and all CII office bearers. This year's study attracts participants from businesses and candidates across India because of their invaluable insight. We appreciate the MSDE's tenacious efforts to start skill-building initiatives throughout the state of Kerala and for helping us broaden our appeal to other youth demographics.

We have gained valuable knowledge about India's talent supply and demand as a result of our cooperation with Sunstone Eduveristy, which has also been fruitful. The ISR 2023 represents the tenth year,



of the report, and we would like to express our sincere gratitude to all the companies, academics employees, and collaborators who made this possible. Wheebox feels pleased to have collaborated with you all on such an important initiative that will determine how India approaches establishing the employment, educational, and skill-based infrastructure required to create the conditions for the future of work. Women's labor-force involvement will have a substantial impact on India's march to modernity, as more female workers are found among highly employable human capital in this year's study yet again. With the success of government-led skilling ecosystems and incentives, the role of education, media, and corporations in molding the goals and aspirations of youth has found new promise. We really hope you find this year's report useful, and we are convinced that your continued support will benefit us in the years ahead.

The publication this year includes a significant thought leadership segment as well as exclusive interview coverage of MSDE's crucial role in enabling India's Skill and Talent Economy by 2030. The data gathered and displayed in the 10th edition of the India Skills Report 2023 will showcase India's talent ecosystem, examine in-demand skills, estimate demand for the upcoming year's hiring intent by corporates, and complement the steps done to engage the future of India's talent economy.

**Thank you for your invaluable time and effort in pursuing the future for India and the manyIndiasaroundtheglobe,connectedby the promise of perseverance and progress.**

# ISR 2023 OVERVIEW

The youth of India must be raised to the level of professionals who are highly employable and prepared for the workflows of the next decade, pivotal to modernization via digital literacy and new age workplace skills. ISR 2023 provides key information on how talent supply and demand are changing across India. Using data on the nation's key employability factors, a team of experts and our recognized partners have conducted research and contributed to developing a roadmap for planning for the future of work. Significant changes in the way we work and achieve are expected to have an impact on the decisions taken by India's youth and business leaders in the private and public sectors.

Gender involvement in the labour sector, as well as greater availability of internship opportunities, will position India talent as a force to be reckoned with in the coming years. The success of broad private and state skilling programmes is to be recognised for the rise in young employability. Building on India's rising technological market and industrial advantage, the qualified personnel pool from all demographics and domains will be useful in preparing for future occupations. The growth in internship possibilities and the inclusion of women in the workforce will make India's talent a force to be reckoned with in the next years. The increasing youth employability can be attributed to the broad private and public skilling initiatives that have been so successful. The qualified talent pool from across demographics and domains will be useful in preparing for the occupations of the future, building upon India's expanding technological market and industrial advantage

Data gathered for the India Skill Report 2023 shows the supply and demand for talent in India in relation to the measures taken to build and prepare the talent of the future by 2030, highlighting the expanding need for expertise in a variety of tech-related, computation, technical, and administrative areas. A deliberate strategy for preparing young people for the future is to assess their employable skills in every aspect. Investigated with a focus on in-demand talents in each city and state with the most robust employability data. The India Hiring Intent study - Early Career Edition, which covers 15+ industries nationally, aims



to gain insight into the business need for qualified workers, emerging opportunities and predicted hiring patterns as the new FY 2023 approaches in full swing.

# FOREWORD

## Engaging Talent of the Future ISR 2023 | 10th Edition

As India marches towards a developed nation status by 2047 as envisioned by Hon'ble PM, we must break the historic shibboleths of skilling. To reap the benefit of India's demographic advantage, it is imperative to equip our workforce with employable skills and knowledge that meets the requirements of globalized labor market, Industry 4.0. and future skills. Skill development is the critical enabler for improving employment outcomes and higher productivity leading to faster and sustainable economic growth. The National Education Policy (NEP) 2020 provides an overarching framework for exposing at least 50% of all learners to vocational education by 2025 and its integration with formal education.

Looked thus, in this context, Wheebox India Skills Report is mapping of hiring intentions in the labor market with evidence on employability across education levels can be a great reference point for policy makers and practitioners alike in the skill ecosystem. This can be further enriched, in my opinion, by embedding metrics of 'skill intensity', 'labor productivity' and 'employment elasticity' of specific sectors to steer the orderly growth of skill development initiatives in our country.

As you know, the expanse of skill development activities since 2014 under the aegis of the Ministry of Skill Development and Entrepreneurship (MSDE) has grown both in quantitative and qualitative terms to enable more skilling and match skill demand with candidate aspirations. We are building the necessary framework to align provider, trainer, and assessor incentives with candidate skilling to derive a self-propelled ecosystem with a single-minded focus on candidate's employability and her contribution to the economy.

MSDE believes that it is necessary to embed evidence of outcomes and employability in all its skill programs and embed technological solutions to address challenges of convergence across all skill initiatives spread across various Ministries/ Departments and States. The ongoing work to build a common student registry for all forms, of education and skilling and transformation of the Skill India Portal to a comprehensive digital platform that aggregates skill initiatives of all Government stakeholders is a step in this direction.



**Mr. Atul Tiwari**

**Secretary, Ministry of Skill Development  
and Entrepreneurship**

It will also help us to build the necessary linkages of skilling with counselling, career guidance, job openings, credit, social security, etc.

On the demand mapping front, while MSDE engages its ecosystem including Sector Skill Councils (SSCs), and district level skill functionaries through District Skill Committees (DSCs) for skill demand-supply analysis; we periodically need credible insights on business and consumer sentiment estimates from non-Government partners and think tanks to make skill need assessment dynamic especially for new age sectors and technologies.

With the above in mind, it is clear to me that there is a need for greater collaboration between the private and public sector in the areas of skill need assessment, future skills and sharing of evidence to enable better outcomes at the candidate and economy level. I wish the current edition of the India Skills Report all the success and look forward to more meaningful engagement in the future.

# BUILDING SKILLS ECONOMY OF THE WORLD: ROADMAP 2030

The best way to predict the future is to create it. The collective efforts of 1.3 billion Indians are helping India towards improving India's competitiveness and building a roadmap for India's Talent and skill economy by 2030. India Skills Report 10th edition proposes present status and policy level changes for leveraging technology for creating a skilled and employable workforce and creating a roadmap for India towards an additional 2 trillion skill economy by 2030.

As we celebrate India at 75, it is imperative now that we must harness the demographic dividend. The world is rapidly aging, but India is still young. In the next few decades, Though India will be a talent powerhouse and one of the largest contributors to the global workforce, India will start losing its power of young demography and thus the existing dividend in the next 25 years. According to a CII report, if **India's demographic dividend** is productively employed, growth prospects will brighten, helping it to leapfrog its GDP from the current **\$3 trillion to \$9 trillion** by 2030 and \$40 trillion by 2047. I believe skill and education can only bring equality to society and India will be marching towards a more balanced society.



**Mr. Nirmal Singh**  
Chief Convenor of India Skills Report  
Founder and CEO, Wheebox

In recent years the fields of science, technology, engineering, and mathematics—collectively known as **STEM**—have received much attention for their critical role in maintaining our nation's competitive edge in the global economy. Globally of the total workforce in science, technology, engineering, and math (STEM), **Women make up only 28% representation in STEM Jobs.** Most of the high-paying jobs are in these emerging fields of technology. If the country needs to realize true talent potential, the focus should be training and skilling more women in technology by promoting skilling, entrepreneurship, and market linkage support to women building technology startups and tech-driven businesses. I believe if India is to realize its true potential, female participation in the workforce should be encouraged, Female participation in the organized workforce is dismally low compared to male participation, and the situation in urban workforce comparison is even worse compared to rural female participation in organized and unorganized workforce together, think if India focuses on 2 key metrics, more female participation in STEM and more female workforce participation, India will double the economy in half the period. The

secret sauce of economic growth is in Access to devices and Incentives around STEM education for female and female workforce participation. That's it. Though I completely understand that it is not that simple math. The economic growth of any country in an interconnected world depends on multiple other factors than only workforce participation.

We find new hope by comprehending the patterns in employability and skilling in the country. We identify the employability landscape of India by examining the Wheebox National Employability Test findings, which were taken by **3.75 lakh students** nationwide and the report presents the best practices for skilling adopted by flagship states **Uttar Pradesh, Maharashtra, and Delhi** wherein tech-driven solution for mass level skilling and career readiness solutions being adopted by the government.

In the tenth edition of the India Skills Report, the team has worked hard to conduct by travelling to the most semi urban areas of the nation and assess the true talent potential for young people's employability across Higher education and Vocational schools to create a more inclusive Bharat that is skilled enough to take advantage of both domestic and international opportunities. I want to express my gratitude to all of the Education Secretaries, Academic partners, academic and business institutions, and the entire Wheebox team for their support.

India would need to hire its underrepresented women in order to grow its \$2 trillion skill-based economy. For mass skilling and increasing female involvement in high-paying technical and STEM employment, the creation of women's skill centres, markets, and capital linkages can be a fantastic answer. I think that in order to achieve the Sustainable Development Goals (equal access to affordable, high-quality technical, vocational, and tertiary education for all women and men) and (achieve gender equality and empower all women and girls for a more inclusive growth), as well as the 2 trillion skill-based economy target by 2030, we must take a focused approach. These goals will serve as our main guiding principles in the years to come.

We are pleased to have assisted a few states, advised on deployment of an affordable and scalable talent measurement solution, and advised on talent insights for the future workforce over the years.

Our advisory and consultancy practises for talent assessment solutions have assisted several states in making data-driven decisions for the employability skills and suggesting curriculum level modifications for a more competent, employable, and productive workforce and inclusive growth for the nation.

As we get India's Skills and Talent Economy ready for 2030, India Skills Report 2023 promises to be a lighthouse that will illuminate the road to industrial autonomy and digital excellence by 2030. We are excited to share with all our readers this 10th edition of India Skills Report 2023 which includes crucial insights that are reshaping India's status as a global leader. I urge you to take part in the journey to measure the world's talent and position people and processes to make the best of human lives, careers, and aspirations.

**Jai Hind!**



# FROM THE DESK OF CII

The future of India lies in the hands of young people, who are poised to play a vital role in shaping our country's destiny. As such, it is vital that India's Education and Skilling efforts are geared towards preparing its youth for the world.. This report is a must-read for the Industry as well as the Academia and proposes a few interesting insights about the Megatrends which will be shaping the future for the talent and skill economy by 2030.

It compiles the demand-side story captured by reaching out to 15 sectors and over 150 organisations about their key hiring pattern and supply side story with over 3.75 lakhs students who appeared for the Wheebox National Employability Test for their critical thinking , numerical and analytical skills.

This report focuses on the talent demand and supply in India, which can be beneficial for co-creating a 2 trillion skill based economy by 2030. The information gathered indicates a favorable trend toward digital modernization, and more employment is anticipated in the upcoming year. I am glad that employability for the country has increased and the youth of India are viewed as being highly employable to a great degree, which bodes well for the multiple government-led and private skilling programs in the nation.

The great majority of India's workforce is adjusting to these new learning environments, which have been designated as the pedestal for modern career progression. Given the rapid changes in technology as well as the global landscape, which is impacting almost every sector of the Indian economy, boosting employment is a thrust area for the Government and industry. Additionally, with India set to have the world's largest workforce by 2030 with more than 60% of its population in the working age group, this is an opportune time to reap the benefits of its rich demographic dividend.



**Mr. Sanjay C Kirloskar**  
Chairman, CII National Committee on  
Skill Development and Livelihood

ISR 2023 is the definitive reference book on India's skills economy and its potential to transform the country's economy. It provides an important contribution to understanding how India can adapt its system of higher education to meet the needs of its growing workforce and adapting to modern technology in key sectors like Manufacturing and Retail which have huge employment generation potential.



# MESSAGE FROM ACADEMIA PARTNER

## Empowering the future of India's workforce

India aspires to be an economic superpower and contribute to over 25% of the world's workforce by 2025. Challenges to achieving this target persist, as a majority of the workforce remains without any formal skill training. The India Skills Report 2021 did highlight this challenge by finding that only 45.9% of the country's youth are considered employable.

Improving employability through higher education remains a challenge and can be attributed to many factors. A review of the market trends and research broadly classifies the issue into three factors, as mentioned below.

- Skill mismatch
- Quality skill gap
- Over-qualification

The next generation of the workforce in India continues to be trained using a curriculum that has remained vastly unchanged for several years. The Post-Covid era further requires realignment of the higher education curriculum, up-skilling practices, and training techniques. Dynamic changes to the jobs market as a whole and sector-specific requirements further results in recruiters demanding updated and evolving higher education curriculums and candidates with multidisciplinary skillsets.

Recruiters and organizations are shifting to identifying more adaptable, solution-oriented, and application-focused freshers. However, the inclusion of these professional skills has not ideally occurred in the higher education curriculum nor has its integration commenced with the technical training received by the higher education learners.

Technical skills often learned by learners in various Higher Education (herein HE) programs are often not required for several jobs in the market. In addition, employers continue to stress that technical skills, professional skills, or knowledge are often inadequate for the job role requiring HE graduates with specific training.



**Piyush Nangru**  
Co-Founder & COO, Sunstone

The skill gap is further exacerbated by the post-COVID jobs market trends. Recruiters are increasingly looking for multi-talented hires, which are skilled in more than one technical competency and can supplement this with strong professional skills, such as critical thinking, problem solving, adaptability, leadership, and communication skills.

In addition, the scarcity of graduates specializing in programs or technical skills that are in high demand continues to exacerbate the industry and higher education skill gap. For instance, the demand for competencies in data analysts, strategy, technology, and problem solvers continues to grow.

There is an urgent need across the country for multiple stakeholders to remedy the industry and higher education gap. This can be achieved through a single integrated solution that ensures learners are provided with a more dynamic curriculum while making them industry ready from day one of their programs.

Bridging the industry skill gap is not easy. However, the fastest way for India to achieve its aspirations requires all stakeholders to come together and focus on holistic growth, skill development, and a centralized training format for higher education. Only through the consistent development of these dynamic higher education systems can we help learners achieve outcomes while providing recruiters access to a large, diverse, and industry-ready talent pool.

# SKILL PARTNER



Pearson is the world's leading learning company with a rich legacy of offering top-quality educational content and learning solutions. With a mission to add life to a lifetime of learning and support learners, Pearson is harnessing its expertise, knowledge, and technology to support and enable learners to flourish.

A team of more than 20,000 individuals collaborates with governments, employers, and globally recognized educational institutions to strengthen its innovative products and services. Pearson is developing a learning ecosystem that places the customer at the center of everything they do.



177

Years since Pearson's foundation



200

Countries where we are present



20k+

Pearson employees around the world



FTSE 100 Company listed on LSE. Also listed on NYSE

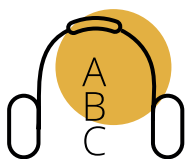
## The Impact on India

The pandemic has catalyzed the transformation of the education sector in the country. During this transmute stage, Pearson India has realigned its focus on three salient verticals - education, employability & global mobility. With quality content & digital innovation at its core, Pearson India deployed contemporary higher education solutions like E-Library & MePro to transform the learning

experience of institutions, educators, and learners in the country. Furthermore, Pearson India harnessed the power of new-age technology to come up with the fastest, fairest; the most flexible way of proving English language proficiency for study/work abroad enabling Indian learners to gain global exposure - Pearson Test of English (PTE) and Versant.

## Pearson India - Key Business Verticals

We are the global powerhouse of learning focussed on education, employability and global mobility



**English Language Learning**  
AI-powered Language Assessments - Pearson Test of English (PTE) and Versant



**Higher Education Digital**  
Hybrid and Innovative solutions including E-Library, MePro, for institutions, educators and learners



**Workforce Skills**  
To provide learners with hands-on skills for employability

Pearson India has set up tech development centers and is creating global products through digital-first solutions, quality content & world-class assessments & qualifications. The global learning firm has established substantial partnerships with 7000+ higher education institutions, including IIMs, IITs, and SP Jain School of Global Management to name a few.

## Creating Employability

The world of work is changing faster than the workforce, with technological developments, automation, changes in consumer behavior, and widespread remote working patterns rapidly changing how and where we work. The Workforce Skills division at Pearson provides products and services across more than 70 countries that bridge the skills needs of businesses and governments, boosting employability and career success for individuals. We work closely with providers, employers, industry and professional bodies, higher education institutions, and policymakers, to ensure our insight informs our qualifications, training, and services.

A teacher at Mahatma Gandhi International School says our learners enjoy the practical nature of BTEC, as they get to learn through doing, rather than just from a textbook. When it comes to assignments, learners enjoy being able to work with industry experts, carry out industry visits, and complete internships within corporate firms. Our skills agenda: Our strength is built on four key pillars that drive the work we do. Pearson has decades of experience and service.

We understand the future of work. Our market-leading capabilities underpin our understanding of workforce needs. Our qualifications, training, and services are designed to be fit for the future and to help everyone to realize their potential. Our work is driven by continuous evidence-based improvement.

Pearson is working in partnership with India to support skills acquisition by Partnering with Apollo Med-skills to collaborate in developing and promoting solutions to help reskill/upskill the existing workforce, create global mobility for learners for linkage with international opportunities, and equip learners with emergency care skills.

Our exclusive tie-up with the All India Football Federation enables young enthusiasts to pursue their passion in the field of Sports and Exercise and to specialize in, for example, Sports-Nutrition, Sports Psychology, Sports Journalism, and Coaching.

The program is co-created with Liverpool FC and is currently offered from Cooperage stadium in Mumbai. As Pearson further invests in India, our focus is on the sectors of Digitech, Healthcare, and E- Vehicles, to support the human capital requirements and skills for India.



# ACADEMIA PARTNER



There is an increasing impetus to improve the employability parameters of fresh recruits in India, which is attributed to many factors. A study of the market trends and research concluded three main factors, namely



In the post-covid era, companies have adopted new recruitment strategies centered around soft skills like communication, teamwork, and emotional intelligence. However, institutes haven't adopted the norm of educating their students on these significant parameters and focusing just on the technical skills, thus having an adverse impact on the workforce entering the job market.

After the shift in market trends, recruiters are now looking for multi-talented employees who can complement the technical competency with strong professional skills like critical thinking, leadership, problem-solving, and adaptability. The ideal employee in the 21st century embodies a diverse set of skills which includes a perfect blend of technical and soft skills. Being cognitively flexible, thinking big, and getting out of the comfort zone is vital for freshers entering the workforce.

In the 2020 Training Industry Report, it was observed that average training expenditures for companies increased by nearly 25%, with the average time of training received by recruits increased by 35% between 2019-20 and 2020-21. The rapid requirements for organizations of various sizes to continuously provide training to freshers and recruits highlights the current higher education and industry skill gap.

Sunstone positions itself to resolve these challenges by providing the higher education (Herein HE) ecosystem in India with an industry-informed technical and professional skills curriculum. Our curriculum is continuously revised based on a multiple-stakeholder feedback mechanism. Our data-driven approach also identifies critical gaps in training systems and informs changes in practices to enhance learner outcomes while bridging the HE and Industry skill gap feedback mechanism.

**Sunstone is a leading higher education service provider that provides academic institutions across India with up-skilling, curriculum, and diagnostic tools to improve and sustain the higher employability of graduates. We offer career-oriented pedagogy and training interventions for undergraduate and postgraduate students at over 45+ leading HE Institutions across 30+ cities.**

**Sunstone curates all training programs based on specific inputs from industry leaders across different domains. This enhances employability while supplementing traditional education with experiential training and a more robust experience. Sunstone also develops and supports these programs for hybrid delivery with an unmatched focus on the development of technical application, professional skills, and learner personality.**

## Student & Learner Focused

Sunstone's ideology is focused on the student. We believe in providing accountable higher education to learners across India. We achieve this by providing a layer of measurable and visible outcomes at a course and program level. While it remains imperative to provide a regularly revised curriculum, technical training, and professional skills, the student-focused goal can only be achieved by ensuring the learner achieves various levels of outcomes.

Our programs are designed to ensure that appropriate diagnostic tools are constructed and employed from Day 1 of the student's journey.

This allows for student-centric training and development. Research and industry-informed methodologies are selected for designing classroom delivery, skill training, and skill diagnostics.

For instance, all students are pressed on being trained in technical problem solving by engaging in multiple real-world scenarios through each technical or professional skills course. Similarly, diagnostic tests for measuring outcomes, results, and skills in learners, employ the latest methodology of design, reliability, and validation. These tools are also developed keeping in mind learner limitations arising from prior knowledge and the eventual requirements of the industry.

## Recruitment & Hiring

Sunstone provides recruiters across India with a single-stop solution for recruitment. Through our HE Partners, Sunstone develops strong candidates that demonstrate a combination of various technical and professional skill competencies.

Sunstone believes in developing experienced freshers, who have been exposed to advanced certifications, industry experience through internships, industry training and visits, and professional skills development. Several of these functions operate for over 200 hours in the student's journey.

We currently cater to the hiring requirements of over 1000+ recruiters in India. The unified platform for the process is also able to provide recruiters with access to:



Sunstone has its IP Skills Taxonomy and Framework that measures students on 150+ technical and professional aptitudes, mindsets, behaviours, and abilities. This framework is developed based on appropriate feedback from industry partners and internal reliability and validity procedures. This provides significant information to recruiters on each student that has completed the program. Recruiters also have information symmetry on various candidate profiles, which include performance, engagement, mindset, technical skills, and professional skill metrics.

Following the Hire-Train-Deploy (HTD) Model, recruiters can easily access and hire job-specific talent. The HTD model ensures that training and development focus on developing domain and role-specific candidates for the entire industry. This also allows recruiters to deploy professionals from Sunstone as per their requirements in various functions.



### Hire

Sunstone's network will allow recruiters to scale their recruitment for various roles across India.



### Train

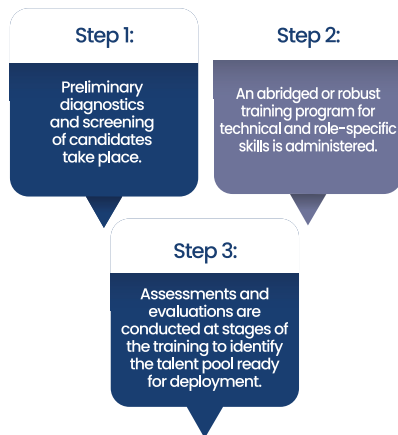
Sunstone's network will allow recruiters to scale their recruitment for various roles across India.



### Deploy

Recruiters can screen, shortlist, and select candidates from any initial training group based on their performance for eventual deployment.

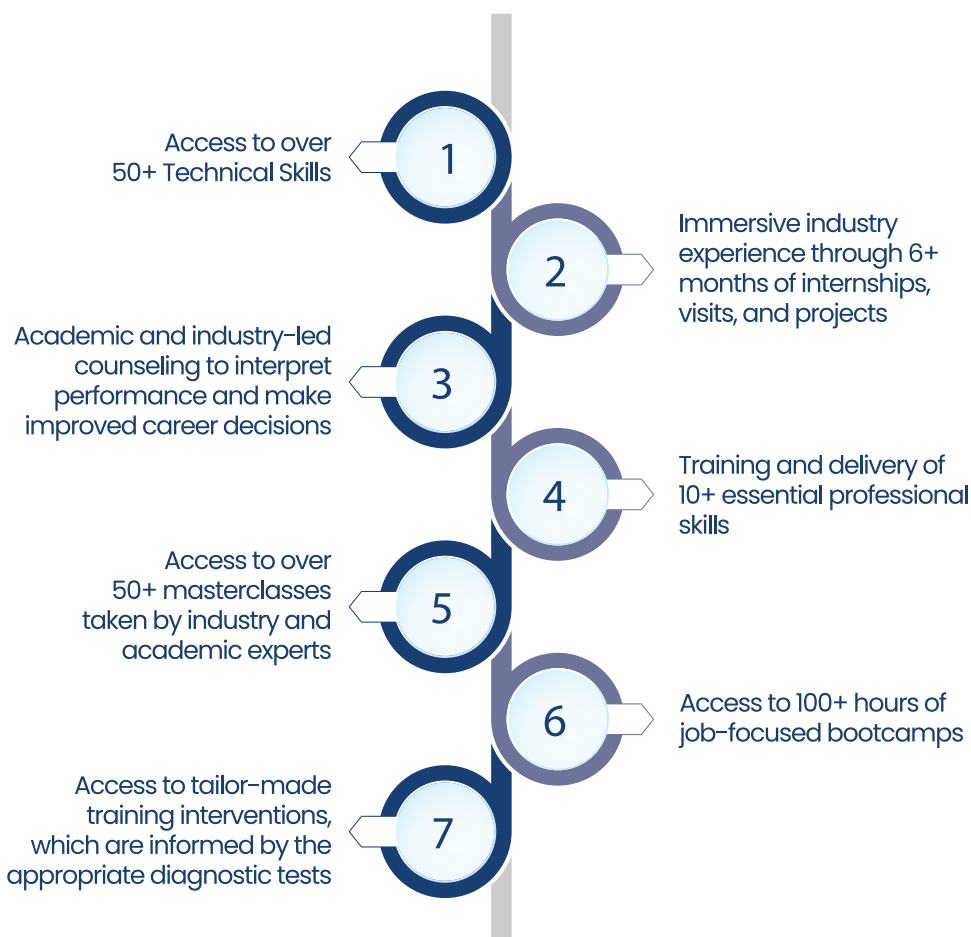
## The HTD model operates in three simple steps:



## Empowering Talent & Learners

One core focus of empowerment of learners and accountable higher education is achieved through the democratization of opportunities and creating awareness among students. This process is ordered in a manner that helps students make informed choices that aid in achieving and exceeding their potential.

Sunstone's benefits in this regard provide learners with: Sunstone is driven by its mission to help student learning and career growth. We aim to lead students to better opportunities and outcomes while reducing the industry and higher education skill gap through a single comprehensive skill development experience.



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# TECHNOLOGY PARTNER



## AWS Academy

Empowering higher education institutions to prepare students for industry-recognized certifications and careers in the cloud

### Bridging the gap between industry and academia

As cloud technologies continue to help organizations transform at a rapid pace, employees with the necessary cloud skills are in high demand. According to LinkedIn data, cloud computing is the number one hard skill companies need most.

AWS Academy provides higher education institutions with a free, ready-to-teach cloud computing curriculum that prepares students to pursue industry-recognized certifications and in-demand cloud jobs. Our curriculum helps educators stay at the forefront of AWS Cloud innovation so that they can equip students with the skills they need to get hired in one of the fastest-growing industries.



### AWS-Authored Curriculum

Designed by AWS experts, our ready-to-teach courses and learning resources help institutions and educators stay up to date with the latest cloud innovations.



### AWS Certification Alignment

Educators and students acquire AWS skills and can prepare for AWS Certification with complimentary practice exams and 50% discounts on full exams.



### Employment Readiness

By providing students with in-demand cloud skills and hands-on experience working in the AWS Cloud, the AWS Academy curriculum helps prepare graduates to pursue careers in the cloud.

## About the curriculum

AWS Academy offers courses and learning resources that enable students to develop a range of skills in the AWS Cloud.

- **AWS Academy Cloud Foundations**
- **AWS Academy Introduction to Cloud Semesters 1 and 2**
- **AWS Academy Cloud Security Foundations**
- **AWS Academy Data Center Technician**
- **AWS Academy Engineering Operations Technician**
- **AWS Academy Cloud Architecting**
- **AWS Academy Cloud Developing**
- **AWS Academy Cloud Operations**
- **AWS Academy Machine Learning Foundations**
- **AWS Academy Machine Learning for Natural Language Processing**
- **AWS Academy Data Analytics**

## AWS Academy Learner Labs

AWS Academy Learner Labs are long-running hands-on lab environments where educators can bring their own assignments and invite their students to get experience using select AWS Services.

## What can you do with AWS Academy Learner Labs?

- **Create a class for your students**
- **Invite your students**
- **Assign your own projects**
- **View a student's workspace**
- **View analytics including time and money spent**



# INSTITUTIONAL PARTNER



## All India Council for Technical Education (AICTE)

All India Council for Technical Education (AICTE) was established in 1945 as a National Level Apex Advisory Body and as a Statutory body by an Act of Parliament in 1987 for developing and promoting quality technical education in the country in a coordinated and integrated manner. Over the years higher education, particularly technical education has become inclusive and available to all those who were interested from the initial days whereas earlier it was the fortunate few who had access to higher education, particularly technical education. It has been the endeavor of AICTE to make quality technical education inclusive and affordable to all. AICTE has taken several proactive measures for planned and qualitative growth of technical education and effectively implemented the same. AICTE has changed its role from the regulator to facilitator and has been ensuring that with changing times and new discoveries/changes in technical education, the curriculum remains relevant and dynamic. Relevant changes have been incorporated in the Approval Process Handbook which is published annually. Focus has always been on the quality of education, simplicity of procedures, and transparency in implementation. It has always been two-way communication, suggestions of all education partners/stakeholders have been considered and implemented wherever practicable. In the midst of covid crisis, the nation has risen successfully and is chartering a new territory in education. National Education Policy 2020 (NEP) aims to bridge the gap between current learning outcomes and what is required by undertaking major reforms that bring the highest quality, equity, and integrity into the system. National Education Policy (NEP) envisages multidisciplinary education so that boundaries are

removed to promote the overall development of students in different disciplines. In this regard, in line with NEP, AICTE has added several subjects to the eligibility list apart from Physics, Mathematics, and Chemistry. Further NEP 2020 envisages that Technical Education shall be imparted in Indian Languages also. AICTE has already initiated steps and granted approval for conducting technical courses in Indian Languages. It can be said AICTE has adopted the vision of NEP regarding flexibility, multidisciplinary, and innovation in true spirit. Good infrastructure and enrolment of students only cannot ensure quality technical education unless focused attention is given to quality teaching and learning. The endeavor of AICTE has been on supporting the institutions to get autonomy, accreditation ranking, etc. through Margdarshan, Adjunct faculty, Unnat Bharat Abhiyan, Research Promotion Scheme. AICTE Doctoral Fellowship (ADF), Short Term Training program (STTP), National Initiative for Technical Teachers Training (NITTT), AICTE – IDEALAB, a MOOCs platform SWAYAM, Start-up Policy, etc. Model Curricula Teacher Training Programmes for both new Teachers and in-service Teachers through ATAL academies, Student Induction Programmes, Mandatory Internship for students, Recognition to the teachers, Examination Reforms, Support for Innovation and entrepreneurship, Industry Interaction Cell, National Perspective Plan are some of the innovative ideas implemented by AICTE. Instead of major changes, attempts have been made in this Approval Process Handbook 2022–23 to consolidate and refine the guidelines which are already there so that the process of evaluation of applications of the institutions becomes hassle-free.

AICTE assures all the stakeholders that it will continue to be a facilitator taking care of changing needs of all concerned and hope that with the concerted effort of all concerned, the quality of technical education in India will reach a new pinnacle during the coming days. This handbook is an attempt to provide comprehensive information on the fair and rational system of administration as well as other necessary information on the processes involved under the aegis of AICTE. The emphasis on e-governance to ensure transparency and accountability, implementing a tech-savvy approach to enable faster processing, and clearly defining the Infrastructural norms in Institutions are just a few pointers toward AICTE's efforts at fostering a technical education system that is on par with the best institutions in the world. The slogan of this year is "Vigyan Sarvatra Pujyate" which means science is revered all over and will display our scientific legacy and technological prowess that have helped find solutions



to problems in defense, space, healthcare, agriculture, astronomy, and others. Society should respect and revere science and the scientific community, and this would be possible only through constant interactions between the scientific community with the public. If this happens, it will indeed create a new stronger India that can address the challenges humanity may encounter in the near future, especially in sharing the resources essential for maintaining healthy life on this planet.

Swami Vivekananda said, "Education is the manifestation of the perfection already in man". In keeping with this objective, apart from the regulatory role, AICTE shall continue to strive to be a true mentor, facilitator, and enabler in bringing out the best in each Institution. We hope all the education partners/stakeholders of technical education shall also put in their best and make team India proud and make "Atmanirbhar Bharat" a reality.



# RESEARCH PARTNER



## Association of Indian Universities (AIU)

### Corporate India on a Steady Climb

India, the employment rate climbed from 40.90% in the second quarter of 2021 to 42.30% in the third quarter. source: MOSPI 3Y 10Y, Ministry of Statistics and Programme Implementation. Fastest Growing Cist the nation in producing a range of consumer items at a low cost. The leading industry in India is actually the auto sector. a sector that aspires to raise its rate to 12% and currently contributes approximately 7% of the country's GDP. India's vehicle industry is expanding along with our nation's fast-rising automobile market. India is the second-largest nation in the world with a population of more than 1.35 billion. This suggests that the nation consumes a lot of energy. The energy sector has expanded as a result. Although natural gas, crude oil, and coal are the nation's main energy sources, the government is striving to focus more on renewable energy companies on the Fortune 500 in India Revenue growth was fastest in metals and pharmaceuticals in FY22. While Bharti Airtel headed the top tier of the Fortune 500 rankings, Max Healthcare's sales increased by almost 130%. from Fortune India on December 8, 2021. For several years, the industrial sector has seen overgrowth. The advancement of technology is another factor. Industries are essential to the nation's development. The expansion of businesses accounts for more than half of our GDP. Industries assess the talent availability and demand across job roles in ISR 2023 to showcase the vision for a futuristic and fully equipped India in 2030.

There may be more people than ever before who have AI technology installed in their homes, such as Amazon's Alexa or Google hubs that take voice commands to execute various tasks. This has opened up India and spurred the growth of comparable local enterprises focused on developing or gathering this technology to make it more accessible. As a result, professionals who understand the practical uses of AI are more common than ever. AIU is pleased to see the huge success of government-led skilling efforts, as well as the increasing employment prospects in corporate India. Because of the intense focus on digital adoption and business transformation, new-age skills and disciplines will emerge, making academics a priority for talent development. As a result of highly qualified female labor availability, this year's statistics are a revelatory step in the right direction, accelerating the demand for female involvement in the workforce. Inclusive workplace rules and employee flexibility will be two important elements impacting employment acquisition and retention in the future.

According to the ISR 2023 Tenth Edition, India's immense talent pool is about to embark on a journey of discovery and purpose in the next years. As an inflow of freshers is projected to find its way to various regions of metropolitan India, more positions in strategic roles will acquire significance. We are thrilled to be a part of this year's celebration of the India Skills Report 2023

### Tenth Edition - A ROADMAP TO THE SKILLS & TALENT ECONOMY OF 2030



# EMPLOYABILITY PARTNER



## ET Career Ready

As India's No 1 business news destination, EconomicTimes.com has been creating properties that has always strived to provide value to its readers. ET is committed to foster the spirit of life long learning and leadership, champion professional growth and opportunity amongst millions of students across the country.

In 2017 ET launched the flagship initiative, ET Campus Stars – India's largest hunt for the brightest engineering minds and the opportunity to interact with industry leaders to achieve their true potential.

### Context

India has 42,343 colleges, 8997 AICTE-approved institutes, 250 million school going children. The youth unemployment rate in India has been rising steadily and in the June quarter of 2021-22 surged to 12.6% from the previous quarter's 9.3%. As per the World Economic Forum, of the 13 million people who join India's workforce each year, only one in four management professionals, one in five engineers, and one in 10 graduates are employable. Burgeoning educated but unemployed youth for a country like India where 50% of the workforce is below 25 years, is the nation's highest priority.

Its against this backdrop, that ET launches ET Career Ready ([www.etcareerready.com](http://www.etcareerready.com)) to address the scourge of unemployment among students and freshers. And, engage recruiters and academia to discuss, solve, and enable.

### Proposed approach

ET Career Ready intends to create impact at scale, as follows

#### ET Career Ready:

India's largest unbiased platform to assess employability quotient of engineering and non-engineering graduates, and identify the job-ready talent. ET Career Ready program structure devised in partnership with Wheebox pre-employment screening assessments that is endorsed by Industries and Academia to identify the job-ready talent. These online assessments will have detailed scorecard for each assessment module, highlighting participants strengths and improvement areas across 4 phases:

27

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**Phase 1:** Wheebox National Employability Test

**Phase 2:** Critical Thinking Test of Wheebox

**Phase 3:** Leadership Competency Index of Wheebox

**Phase 4:** mentorship by eminent CHROs as program mentor

Participants that qualify to Phase 4 will be recognized as the 'Top Employable Talent'.

#### Mini Summits:

Recruiters, academia and stakeholders from education, skilling and assessment will participate in 4 mini summits each having 3 conversations that will host 40+ panelists to discuss implementable ways to bridge need-gaps and improve employability for graduates and actionable insights to enable higher engagement of industry with students to improve preparedness.

Dec 2022 - Mar 2023

### ET Future of Jobs Summit

([www.etfoj.com](http://www.etfoj.com)): A defining platform for business leaders, policymakers, innovators and thought leaders to come together to share insights, incisive discussions on the skills and jobs that will shape tomorrow.

A power packed event for the viewers on the future forward themes curated by the ET editors, will have 30+ leaders as panelists viz. CHROs, Founders, Heads of Universities, and industry.

Students will be able to improve their opportunity to be employable basis scores in ET Career Ready with Wheebox.

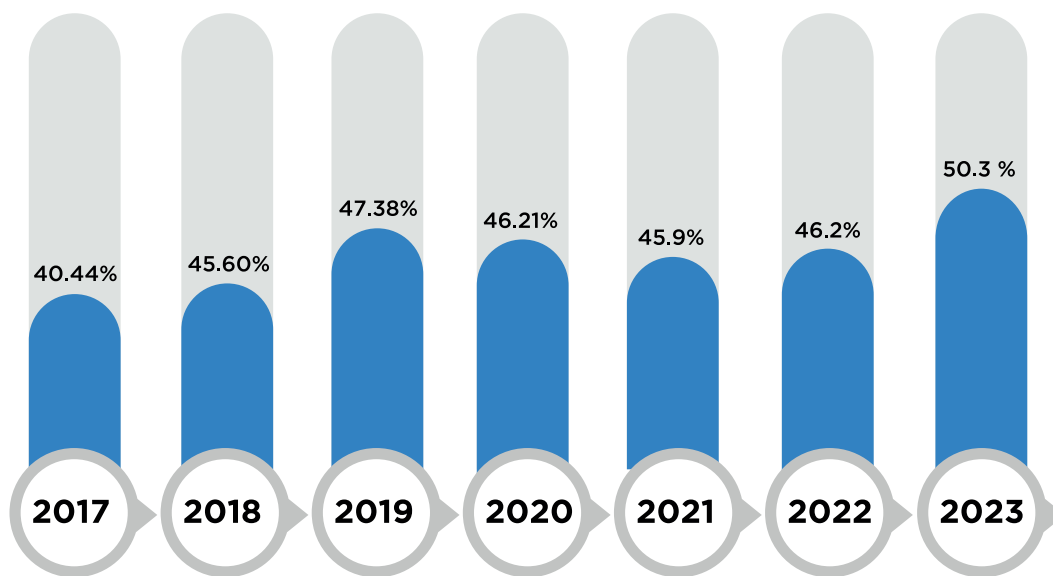
For more information on the program, visit [www.etcareerready.com](http://www.etcareerready.com)



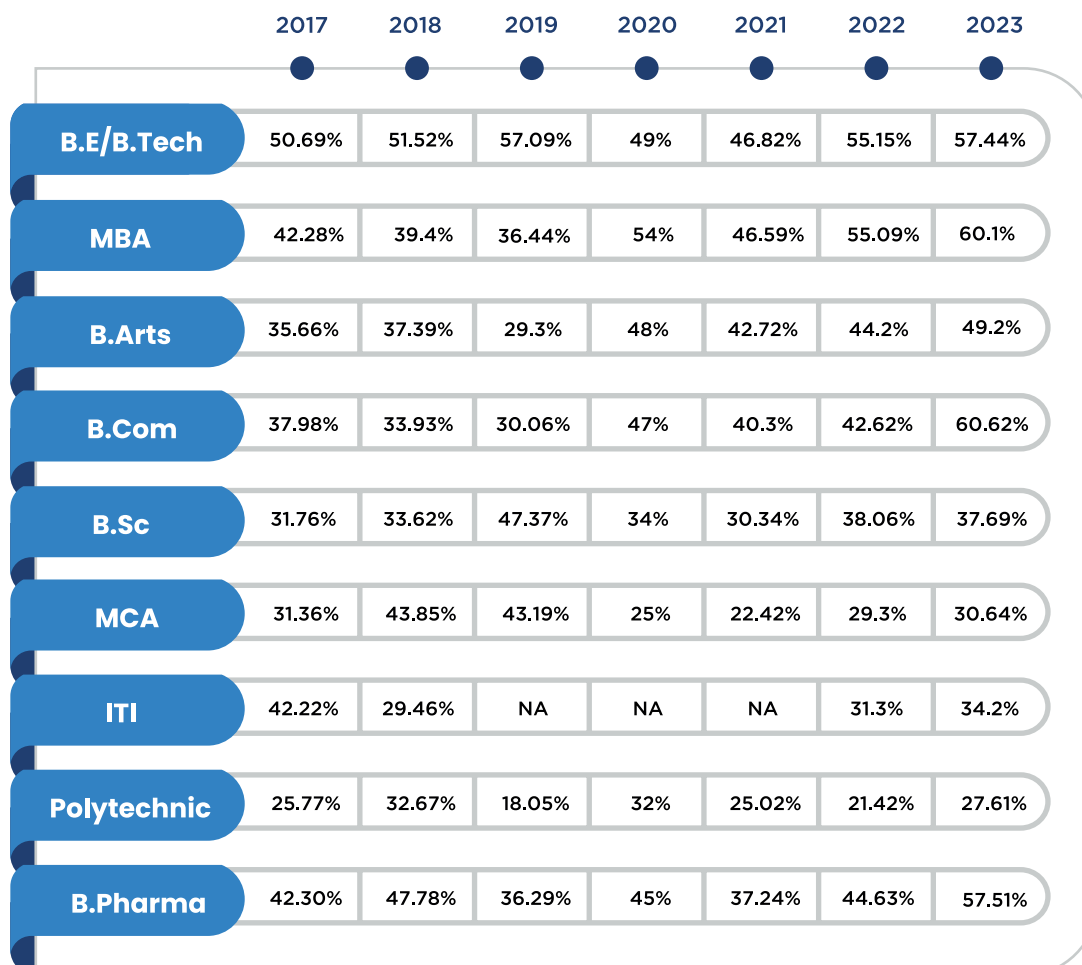
# THE JOURNEY OF INDIA SKILLS REPORT (10th Edition)

This report is the tenth edition and is a result of the evaluation of **3.75** lakh candidates who took the Wheebox National Employability Test (WNET) across India and the participation of **150** corporations from **15+** different industries in the Early Career Edition of the India Hiring Intent Survey. This 10th edition of ISR explains India's skills and talent economy by 2030, showcasing the successes of the public and private sectors in advancing the talent force locally, nationally, and internationally.

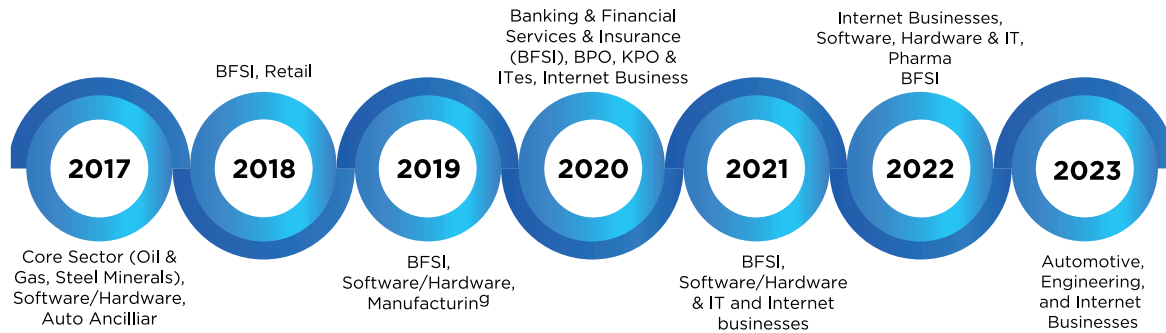
## How Employability has Changed Over the Years? 2017 - 2023



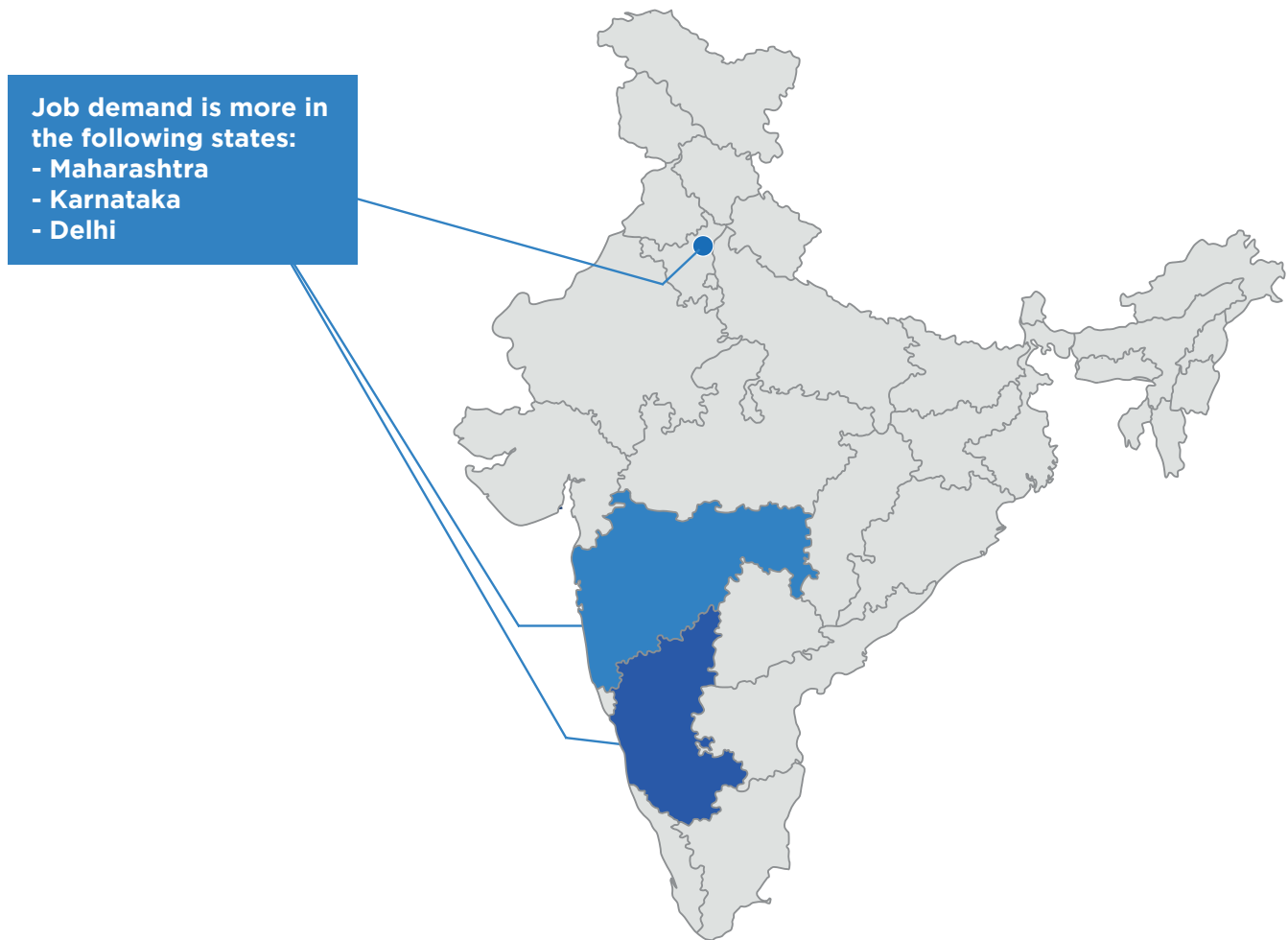
## Which Domains Have More Employable Talent? 2017 - 2023



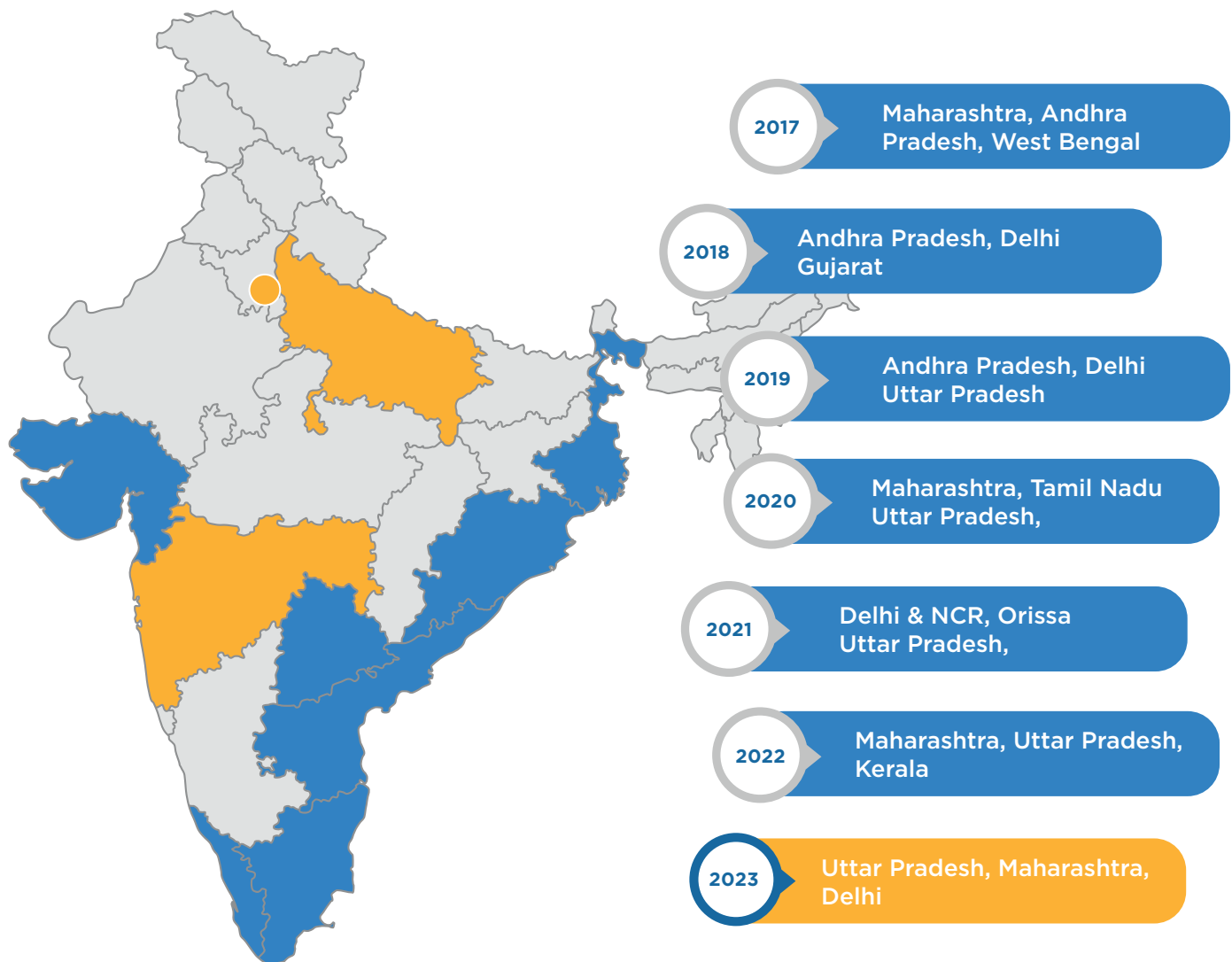
# Which Sectors Have Hired The Most? Top Sectors 2017 – 2023



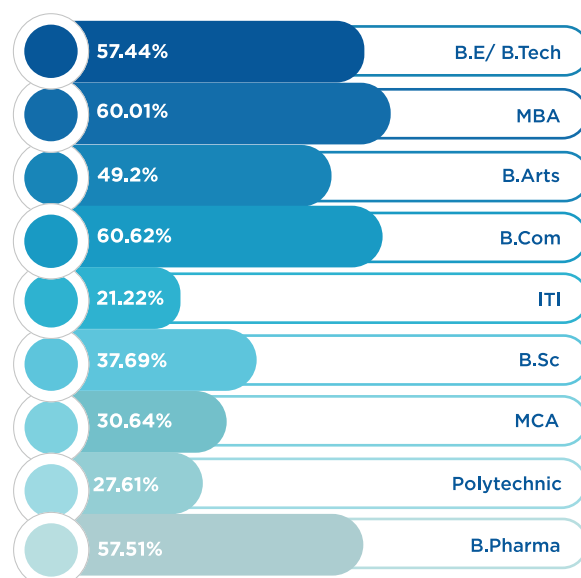
## Which states have the maximum hiring activity?



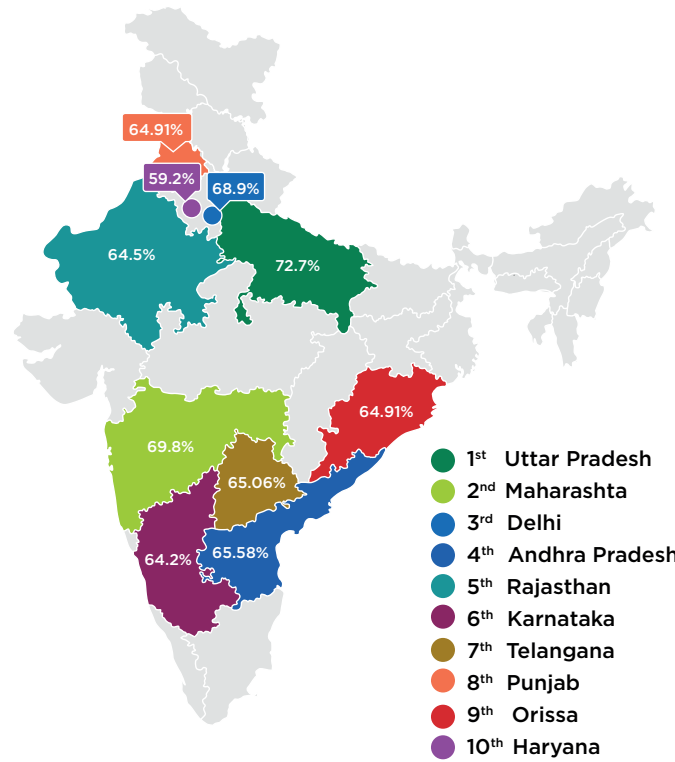
## Which Are The States With Maximum Supply Of Employable Talent? 2017 – 2023



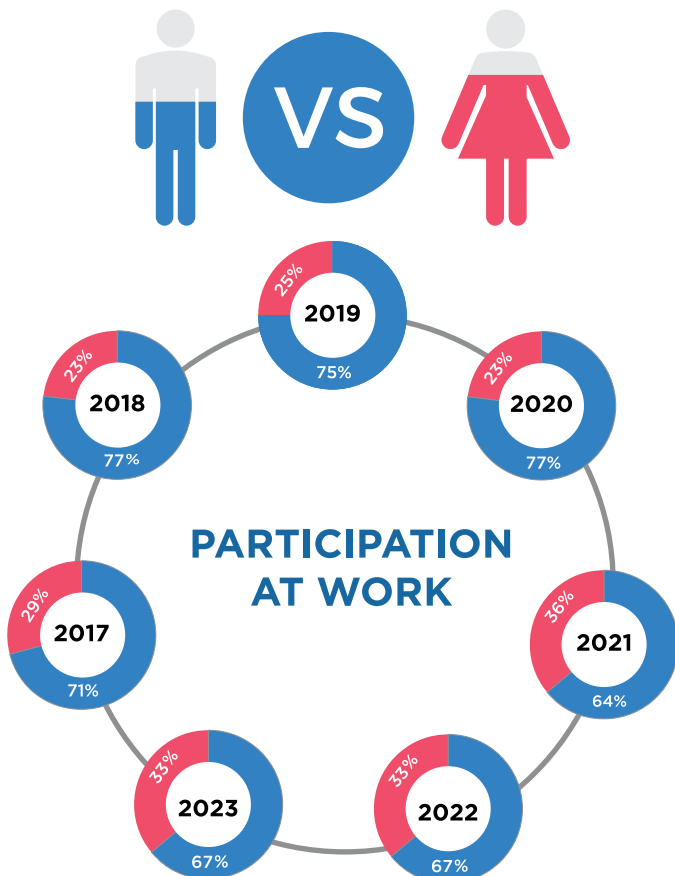
## Percentage of Test Takers who score more than 60%



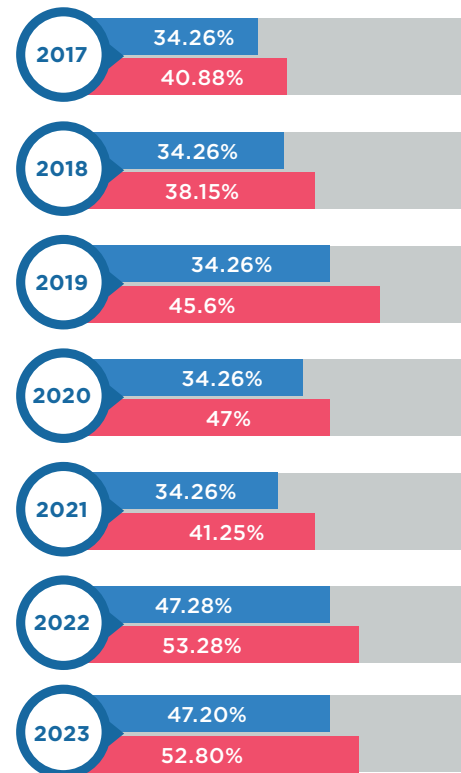
## States with Highest Employability



## Men vs Women 2017 - 2023



### EMPLOYABILITY





# POSITIONING INDIA'S TALENT FOR 2030

India is currently at a turning point on its path to prosperity. We run the risk of a full decade of economic lethargy if we don't seize this opportunity. On the other hand, the financial crisis brought on by COVID-19 is already leading to adjustments that put the economy back on a path of rapid development and should result in over 90 million people having meaningful jobs by 2030. By 2025, India's economic trajectory is proposed to aggressively push for the \$2 trillion mark, and hope happens to be the favourite word. This section will look into the jobs and talents that are in the most demand for the coming years.

## The Skills Employment Market by 2030

Some essential knowledge and abilities that, by 2030, will be required.

### Digital Literacy

When we talk about digital literacy, we mean being able to study, work, and navigate our increasingly digital world. Additionally, these skills include the ability to use hardware, software, and applications safely and confidently.

### Data Literacy

Because data is one of the most important and valuable business assets for the majority of companies, employers will want to hire people who can effectively use it.

### Critical Thinking

In this day and age, where there is information overload, social media echo chambers, and fake news, critical thinking is one of the most crucial skills to have for success.

### Emotional Intelligence

Understanding, expressing, and being able to recognize one's feelings are all crucial components of

emotional intelligence. Emotional intelligence is the knowledge of how one's emotions affect their actions, the behaviors of those around them, and one's ability to control those emotions.

### Creativity

Creativity will be one of the most valuable skills to have in the workplace of the future, especially as we continue to hand off more and more routine tasks to automated systems.

India is currently at a turning point on its path to prosperity. We run the risk of a full decade of economic lethargy if we don't seize this opportunity. To keep India's ranking as one of the most prosperous emerging economies in the world, it aims to increase worker productivity and earnings as well as those of small and medium-sized businesses and large corporations.

## Sectors that will grow the most by 2030

Here, we go over some essential knowledge and abilities that, by 2030, will be required.

### Retail

By 2030, the Indian retail sector is predicted to add over 25 million new employees, per the Retail 4.0 Report produced by Nasscom in collaboration with Technopak.

The Indian retail sector is expected to grow at an accelerated rate, reaching up to \$1.5 trillion by FY2030 as a result of shifting demand and supply variables. The expansion has been fueled by sustained digital change. The COVID-19 epidemic has proven to be a catalyst in the change of retail from the 3.0 Era into a more digitally enabled and collaborative Retail 4.0 Era, according to the research findings.



## Manufacturing

By 2030, India's strong manufacturing sector, which contributes 17% of the nation's GDP and employs more than 27.3 million people, is the source of employment for more than that number of people. Significant opportunities have emerged for the Indian manufacturing industry as a result of a ban on the importation of Chinese goods. India's industrial sector might give the global economy an annual boost of more than \$500 billion by 2030.

The manufacturing potential of India can be greatly increased to around 23 billion US dollars by the year 2030, according to the most recent EY - FICCI study, "Making India the Drone Center of the World."

## Construction

Nowadays, debates about the future development curve nearly exclusively center on existing services like digital communication and online commerce. The conventional manufacturing and construction sectors must take the lead, according to the McKinsey Global Institute's most recent research, India's Turning Point, if India is to achieve rapid economic growth over the following ten years. This is true even though these industries need to keep up their growing momentum and contain a lot of promise. The country's gross domestic product (GDP) would need to grow at an average annual rate of 8.0-8.5 percent from 2023 to 2030, which is almost twice the rate of 2019-20, in order for India to achieve its objective of creating 90 million non-agricultural jobs over the next ten years.

## Healthcare and Insurance Sector

Healthcare and allied businesses have experienced an unprecedented rise in importance among governments, policymakers, and drivers as a result of COVID-19. As a result, the amount spent on healthcare by the federal government will rise from 1.3 percent of GDP in 2019-20 to 2.1 percent in 2021-22. By 2030, India could generate a staggering \$774 billion in revenue and 12 million new jobs with an investment of \$217 billion in healthcare and related sectors. Both of these objectives are achievable. As a result, the Indian healthcare industry will develop and surpass the banking, financial services, fintech, and insurance industries to rank second in terms of investment appeal over the next ten years, just after food, agriculture, and Agritech.

## Renewable Energy Sector

India will soon reach a 50% share of non-fossil fuel energy before the goal year of 2030 and reach a renewable energy capacity of 500 gigawatts (GW). Additionally, India has pledged to achieve net-zero carbon emissions by 2070, a cumulative electric power installed rate of 50% by 2030, and a reduction in the carbon intensity of the country's economy of less than 45% by the end of the decade. The "Indian Carbon Intensity Reduction Targets and Timelines" document outlined these objectives. The market for low-carbon technologies in India by 2030 might be worth up to \$80 billion.

## IT Sector/ Electronics

Making electrical equipment is a crucial part of the "Make in India" movement and the "Digital India" project. The quantity of data that users of wireless cellular networks use each month is anticipated to soar to 600 gigabytes in 2030, per Huawei's prediction. In contrast, it is anticipated that 23% of homes will have access to broadband with speeds of at least 10 gigabits. Additionally, an eight-fold increase in household average monthly data usage on fixed networks, to 1.3 terabytes, is anticipated. A single fiber's maximum capacity will surpass 100T, and network ports will be upgraded from 400G to 800G or possibly 1.6T. According to predictions, the artificial intelligence market will reach \$100 billion by next year and continue to grow at the same rate through 2030. Both the job roles and the necessary skills will be significantly impacted by this.



## Real Estate Sector

The real estate market, which is currently at the top of the employment building and produces the second-highest employment, is where employment is currently located in India. Bengaluru attracts the most real estate investment in India, followed by Pune, Goa, Ahmedabad, Chennai, Dehradun, and Gurgaon. Blackstone, a private market investor who has already made large investments totaling 3.8 lakh crore (US\$ 50 billion) in the Indian real estate business, aims to make an additional 1.7 lakh crore (US\$ 22 billion) by the year 2030.

## FMCG

There is some consensus among industry observers as to how many of these themes will change over the next 15 years. For instance, it appears very certain that by 2030, more than 75% of people worldwide will own a mobile phone, and that the amount of money spent by middle-class consumers globally would almost triple (as growth in emerging areas will more than outweigh stagnation in developed markets). By 2030, 11% of all FMCG product sales will be attributable to the e-commerce industry. Businesses in this industry have been able to maintain their capacity to offer reliable returns to investors by coming up with innovative solutions to the problems caused by the epidemic. Investors are attracted to this industry because there is year-round demand for fast-moving consumer goods (FMCG) in even the tiniest towns across the nation.

## Connectivity & Mobility

The evolution of several modes of transportation into the current situation in the transportation sector is frequently referred to as the “evolution of modes of transport” or “smart mobility.” The demand for intelligent mobility is growing quickly. The category for car-sharing is predicted to have the highest CAGR between 2022 and 2030. Due to technological developments, the ride-sharing industry sector had the largest revenue share in 2021. The GPS market, on the other hand, is anticipated to experience a sizable CAGR between 2022 and 2030.

## Agriculture

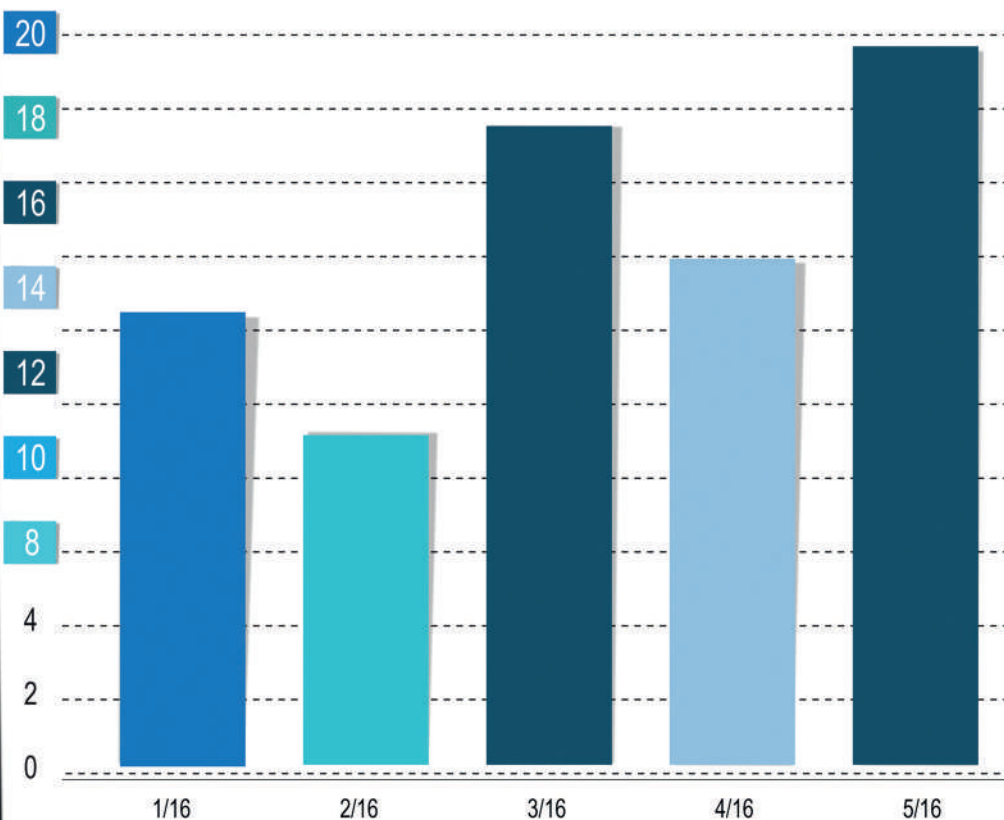
The lack of optimism over India’s chances of achieving self-sufficiency in the future undervalues the abilities of both Indian consumers and farmers. India is more than able to meet its own food requirements. A report claims that if India invests \$272 billion in Agritech and related industries by the year 2030, it may make its Agritech sector the largest private sector enterprise in

the nation. This would lead to an \$813 billion increase in revenue and 152 million new jobs.

## Preparing for the Future

You need to work on developing skills other than just technical ones. As the industrial revolution moves into a new phase and change happens more quickly, the abilities needed to succeed in the modern workplace are altering substantially. India has a successful history that it can rely on; for the past three decades, it has been one of only 18 outperforming developing countries to see steady and sustained high growth. Furthermore, large corporations will make sustainable investments emphasizing the need for employment possibilities in the fields of renewable energy.





# SUMMARY OF KEY FINDINGS

# EMPLOYABILITY IN INDIA TALENT REPORT FOR FY 2023 AND BEYOND

WNET, an exam for aspiring professionals, shows that young Indians are becoming more employable. 50.03% of the test participants who were young were determined to be highly employable in total. This is a considerable improvement over the 46.2% employability rate observed the year prior. Given that India has a big youth population, this data is favorable for the skilling ecosystem that has been actively participating in the process. Among the employable young population, 53.28% of women and 47.28% of men were deemed to be highly employable. The consistent increase of qualified female resources throughout the years demonstrates India's achievement in educating the girl child and modernizing the social norms of ancient times.

## Digital Literacy Ushers Modernization in India

India currently has more than 749 million internet users expected to hit over 900 million users in the next 5 years, making it the second-largest and fastest-growing nation in terms of internet literacy as the Metaverse ushers in a new era of technology. Currently, 43% of India's population has access to the internet and uses internet services regularly. This number is a hopeful indicator of digital adoption at the scale and velocity, required to thrive in the modern age of data. However, barely a few years back, only 19% of Indians had access to the internet, which prompted the government to launch the "Digital India" initiative. In order to cement India as a Digital giant, it appears that a sizable sum of money has been invested in one of the sectors that are expanding the quickest. The "Made in India" campaign is currently in full swing in India and drives growth in small-scale, agriculture, and trade across rural and urban India. With the vision to equip locals with access and self-employment opportunities, the campaign was well-received in many parts of the country. This campaign was a huge success; consequently, India and how things are done have seen

enormous changes. The Indian government is currently focusing on engineering and manufacturing investment and innovation, one of the most significant and rapidly expanding industries in India. The pharmaceutical sector will expand significantly during the next five years and overtake other industries as India's fastest-growing sector. Automotive innovation is on a steady climb as the demand is also rising for leaner modes of commuting like electric bikes and cars. The industry offers many opportunities for employment for those who are inclined towards the engineering and sciences disciplines. Additionally, demand is increasing for top-notch treatment and healthcare, and will do so in the future. This implies that more nurses and hospital staff will be hired on par with infrastructural developments and technological agility.

Given the significant shift in gender-based employability over time—more women have regularly been found to be highly employable than men over the past few years—the positive consequences of cultural and economic developments are encouraging. Employers expect the skill gap deficit to shrink as more individuals have access to technologies that make jobs simpler. Getting learning resources and training to the bulk of India's young professionals is now easier than ever before, thanks to the internet's reach and connectivity in India.

The most employable talent from the various fields among the surveyed students and potential professionals was found to be B.Com and MBA graduates. BE/BTech domain candidates are the third most employable, in the domain-wise employability category.

**The states with the highest concentrations of young people with highly employable skills were determined to be Uttar Pradesh, Maharashtra, Delhi, and Andhra Pradesh.**

The demand for skilled labour is being driven by the BFSI, pharmaceutical, e-commerce, and IT/ITES sectors. Freshmen hiring in these fields is projected to increase by 20% in 2023 compared to 2022.

Technology-related talents will continue to be in demand across all industries. This year has witnessed a comparable participation rate to last year, with 50.3% of women talent available across diverse industry verticals, as opposed to 33% of women participating in the labour market in 2022. In addition, men make up a larger proportion of employed professionals than women— with 67% of the workforce comprising men.

With intentions to hire more female employees in the coming year, more firms are pushing women to enter the workforce. Although there are +4% more employable female resources (53.28%) than employable male resources (47.28%), it is projected that economic advancements and new work chances would lead to an improvement in the statistics of gender-based participation.

Youth employability is generally increasing, which is encouraging for the widespread skill development, e-learning, awareness, and new employment chances that can be tapped into and benefited from in the coming years. This year's survey revealed that 50.03% of highly employable youth were found amidst the distributed demographics.

## The National Employability Test Analysis

From Our Assessment of The Talent Available, The Wheelbox National Employability Test (WNET)

In India, the overall young employability has improved to **50.03%** over the previous year. This is to state that more than 50.3% of test takers across all domains scored 60% or above on the WNET proctored survey.

**47.28%** of males nationwide were found to be employable resources.

**53.8%** of females were found to be highly employable resources nationwide.

The age range with the highest employability was found to be between 22 and 25 years old, with 59.7% of the resources across top 10 cities in this age range being found highly employable. Hubli has the highest concentration of talent in this age group of 22-25 years old with **75.97%** of applications from this region found to be highly employable.

BCom degree holders are the top demographic for highly employable resources in terms of domain, with applicants from this domain comprising 60.62% of candidates scoring above **60%** on the WNET.

65.02% of graduates in information and technology are highly employable WNET test performers, identifying the talent availability of qualified IT professionals among India's youth.

In terms of large talent availability, youth from the states of Uttar Pradesh, Maharashtra, Delhi, and Andhra Pradesh were deemed to be the most employable regions.

With 53.28% of female applicants determined to be highly employable talent compared to 47.28% of male applicants, there are more employable female resources than male candidates. The consistent rise in women's employability over the past ten years is a positive sign of radical changes in India's developing labor market. Increased participation of women at work will give industries an edge with key roles already being occupied by women as we go into 2023.

In India, 67% of the workforce is made up of men, while 33% of it is made up of women. While Rajasthan was reported to have the greatest percentage of employable females who were prepared for the workforce (**53.56%**), Uttar Pradesh state came in second with **46.51%**.

The figures for the current year indicate that, like in previous years, a majority of test takers—89%—are looking for internship employment within organizations.

**Ghaziabad** is the city with the highest concentration of male employable talent with 75% being found employable. Tirupati has the highest number of female employable talent with **47.02** found highly employable.

**Mumbai** ranked as the top state with the availability of talent with access to English as a second language and good Critical Thinking skills.

**93.50%** of candidates interested in availing internship opportunities are from the Andhra Pradesh region, followed by Rajasthan with 93.22% internship seekers.

**Bangalore** city remains the most preferred city to work for the majority of male and female candidates going into 2023.

**Andhra Pradesh** as a state is preferred by most female test takers, as the best state to find work.

**Maharashtra** has the highest concentration of highly employable candidates from the BE/BTech, Engineering domain with 69.03% scoring above 60% on the WNET.

**Karnataka** has the highest employable talent front the IT domain, followed by Tamil Nadu and then Uttar Pradesh.

**Uttar Pradesh** is identified as the state with a majority of highly employable talent across all educational disciplines and domains, and age groups as per the survey.

The Majority of candidates from Tamil Nadu responded yes to taking up jobs that paid between 0-2.6 lakhs per annum. Candidates from Andhra Pradesh constituted the majority opting for jobs that paid above 2.6 lakhs per annum, followed by Karnataka in second and Tamil Nadu in third.

# INDIA'S EMPLOYABLE YOUTH A GLOBAL MARKET

The emerging talent landscape is expected to create more job roles with internship opportunities for freshers and professionals in their early careers who will be urged to pick up new skills. Digital literacy will remain a top priority for skilling across domains and job roles. Every year, more applicants seek internship opportunities, and corporate India's ability to leverage this large talent pool will decide the country's economic strength for years to come. Increased female labor-force participation fosters healthy competition, which will eventually consolidate India's long-standing gender imbalances at all levels of society and culture.

Consistent growth in available talent across age groups, domains, and regions predicts a surplus of capable employees to fulfill current demands. As more strategic roles are opening up for candidates of all ages, B.Com and MBA graduates pose as the highly employable group domain-wise. The growth of Pharma students has also resulted in a significant boost in employability across all age groups. Generally, the positive hiring intent expressed by employers in this year's Hiring Intent Survey 2023, shows that more candidates with 1-5 experience are in demand, while the overall intent to hire more freshers in the coming year is also recorded. However, evidence of the availability of diverse prospects and increased global awareness for Indian trade predicts the creation of new vocations requiring new age skills. Skill India's goal would be centred on technology-oriented practical training and infrastructure that enables digital literacy, adoption, and agile innovation. With the success of government-led skilling and private-public partnerships, India's skill ecosystem remains the fundamental driver for preparing for a change in the ensuing digital age.

## Roadmap to Skilling for 2030

The future is bright for India's youth since there are more options for skilling inside the emerging skill ecosystem in India, whether online or through public and private businesses. There is plenty of chance to develop future skills, so long as the proper direction is delivered to early career workers during the transition from academia to the workplace. The recorded success of the Skill India movement and associated activities show promise in preparing the talent for

2030. More state-wise data is depicted in the latter sections of ISR 2023 – Tenth Edition.

As a hopeful indicator of the country's enormous potential, our youth may be transformed into future-oriented, job-ready national assets by increasing awareness of new opportunities and meeting India's growing demand for skilled labor from diverse backgrounds. This is conceivable because many academic institutions, government skilling centers, corporations, and establishments have come together under the goal of a self-sufficient nation. Skilling for the future means developing the eye of a rising global talent pool for new-age skills and innovation capacities embedded in academia and corporate life. The truth is that if Indian talent is to stay and contribute to the economy's growth, new opportunities for employment and wealth creation are on the horizon. As a result of the slowed-down innovation in many fields of Indian industry, elite data scientists and computer engineers frequently find themselves landing their dream employment with MNCs abroad. This is being addressed, however, as more Indian IT companies enter global markets, bolstering India's place in global STEM innovation and leadership. With a large youth talent pool, diverse in goals and competent in the requirements of meaningful employment, India's development with digitization and industrial prowess will be predicated on how we shape today's talent for tomorrow's needs.

Skill India, with the assistance of organizations like MSDE, PMKVY, AICTE, and numerous other partner organizations, has safeguarded the dreams of people from all over the country. A huge increase in the quality and availability of employable talent, particularly in the states of Uttar Pradesh, Maharashtra, Rajasthan, and Andhra Pradesh, attests to the success of broad government-led skilling programs. As future skills become more clear, academic and public institutions have joined corporate India on a drive to reskill and reengineer personnel for future employment and exciting new opportunities that will emerge as a result of digitalization. To leverage the positive impact of prioritizing the skilling ecosystem in India, the majority of enterprises polled this year expressed satisfaction with hiring from government skill centres and expressed a desire to retain and hire more personnel from these efforts in the coming year. As India pushes for a \$2 trillion economy by 2025, ISR 2023 complements this vision by consolidating proctored data about the talent and industry that will shape economies of the future.

**Fun Fact:** Rajasthan secured the top spot as the state with the highest availability of candidates competent with computer skills.

A close-up photograph of a person's hand holding a brown leather briefcase. The person is wearing a dark blue suit jacket and a white shirt cuff is visible. The background is a solid, light blue color. The lighting is soft, highlighting the texture of the leather and the person's hand.

**NATIONAL EMPLOYABILITY TEST ANALYSIS**

# **THE TALENT SUPPLY STORY**



# CORPORATE INDIA TURNS BACK TIME

The average age of the Indian population is 28.4 years old, with males being on average 27.2 years old and females to be on average 28.6 years old. **50.30%** of the WNET members were deemed to be extremely employable. The fast changes in the economy should be handled by skill-building efforts, education, and increasing job possibilities through infrastructure development, given that India's mean lifespan is made up mostly of a young populace. The IT sector makes up to 8% of the overall national GDP, with India serving as the primary destination for IT offshore worldwide. India's boom in technology has extended out into numerous industries and verticals, with an export valuation that is five times more than domestic expenditure on IT and BPM.

India is mostly recognized for its agricultural industry, which supplies 21% of the world's coconuts and 19% of the world's bamboo. India gains greatly from supporting the agricultural industry, as over 50% of its people are dependent on agriculture. A PLI program was recently unveiled with an overlay of \$1.4 billion for the food processing industry, with a six-year implementation period beginning in 2022. In a similar vein, demand for electric cars is increasing in an effort to combat India's urban and rural pollution issues. Even though the car sector accounts for 7.1% of India's GDP, producing vehicle components only accounts for 2.3% of India's GDP.

The production capacity is anticipated to grow in the upcoming years with an emphasis on skilled labor in electrical and product engineering due to the launch of locally supplied electric automobiles. With yearly domestic spending of \$118 billion and exports of \$12 billion in 2020–2021, the Indian electronic systems market contributes 2.9% to the GDP. It is predicted that the sector would recruit more skilled labor in the upcoming year as a result of the emergence of hybrid automobiles and energy-efficient power systems. India is the fifth-largest market in terms of aircraft passenger volume.

The aviation sector is anticipated to have a 15.9% growth in international tourist travel as globalization

develops a more linked system of travel and commuting. The travel and tourist sector, which provides jobs for around 90 million people countrywide, would benefit greatly from this. India's tourism business only accounts for 1.2% of international visitor arrivals, yet it generates \$29.9 billion in foreign currency revenues annually. With 60+ bio-incubators, 9 biotechnology parks, and 4 biotech science clusters dispersed around the country, India also has impressive biotechnology infrastructure that is expected to increase at a 14% CAGR between 2022 and 2025.

## The Assurance of Safety by Central and State Governments

The success of the COVID-19 vaccine in India, during perhaps one of the most difficult eras of the century, is a credit to India's scientific competence and public emergency response system. More than 50 million people are employed nationally in the construction and urban development sector, which accounts for 9% of the country's GDP. With a predicted rise in employment across several businesses and areas, including BFSI, Public Administration, IT, and Insurance, telecom contributes 6.5% of the total national GDP.

The Indian healthcare market is expected to grow to \$372 billion by 2022, which would increase the demand for competent healthcare professionals in the areas of nutrition, public health, and telemedicine. By 2022, it is anticipated that overall cargo traffic in Indian ports would expand by 2.9%, with the maritime sector in India handling 95% of the amount of commerce. Over the course of the upcoming year, export capacity for locally produced leather, medical equipment, foods, and textiles is anticipated to increase. 12% of all textile exports to the international market come from only India. This comes after a number of local businesses and fashion brands gained notoriety using digitization to boost their market presence.

India is now Asia's second-largest refiner, according to the oil and gas sector. By 2030, the capacity of the domestic mining and metals industry is predicted to rise to 300 metric tonnes.

Another significant boost to India's energy economy has been the 243% rise in renewable energy installation capacity during the previous 8 years. Over the past six years, it appears that government and foreign investments in India's Energy & Core industry have increased the number of people needed. Pharmaceuticals and chemicals are also anticipated to be exported at a larger rate in 2022 due to the rising rate of

industrial improvement. Nevertheless, given the nation's manufacturing potential and natural resource wealth, the economy is poised for a sustained upswing. More employment is on the horizon for India as it enters another year at the speed of light, despite the negative effects of bad urban planning, handling natural calamities, and low pay in the nation.

To tackle the aggressive growth of India's economy, we need the right people in the right places at the right time, and that's where our large youth population comes in. ISR 2023 also aims to answer these two questions in following sections:

- **Are India's young people secure enough to take on the future with pride?**
- **How can we create an independent India that adapts to the changing nature of work and continuously innovates?**

**Three lakh seventy-five thousand students from all throughout the country were represented among the applicants taking part in the WNET. The Results are Promising for the Roadmap to Skilling by 2030.**

By evaluating candidates' youth employability from the standpoint of being prepared for the demands of the business, the Wheebox National Employability Test is a scientifically curated evaluation that acts as a guide to finding and matching the available young talent in India. Wheebox has continuously researched the employment scenario of India's tremendous youth talent for nine editions of WNET. The year 2022 saw the impending entrance of a new norm where remote collaboration, contemporary workplace solutions, and tech-driven insights influenced most of the industrial activity, notwithstanding the COVID-19 pandemic's surge in unemployment.

How India responds to possibilities will depend on how prepared its youth are for the workforce, as the country continues to compete on the world stage in terms of industrial capacity, exports, and technological innovation. Indian business has demonstrated the adage "never let a crisis go to waste" by luring foreign investments at a record rate during the global pandemic of COVID-19. As we analyze the WNET 2023 findings, it becomes clear that the youth talent pool can only be fully used with timely infrastructure development and effective skilling chances.

WNET found that **50.03%** of the participating Indian youngsters were employable, and 89% of the applicants said they wanted to get an internship to launch their careers.

**There are more qualified female resources available than male resources, with 52.8% highly employable women and 47.2% highly employable men. Increased participation of women in the workforce is expected to drive significant policy changes and influence the nature of corporate India's growth as India prioritizes equality, opportunity, and access to education for all.**



## The Millennial Indian: Future-Ready or Not?

The availability of talent that is prepared for employment as 2022 approaches is demonstrated by a rise to 50.03% in the total employability of young people in India. This is a +3.8% change in the total employability of youngsters compared to the previous year, demonstrating a knowledgeable and prepared skilling infrastructure that is increasingly accelerating this development trend. The findings for this year show that applicants participated in each domain, indicating that technical career roles were the primary focus of test takers. However, a surge in employability among MBA and BCom students shows a pacy recognition of business-critical skills required in the modern workplace. Strategic, widespread skilling programs that seek to take advantage of the potential talent available for upcoming years are made possible by a vast force of workers that are ready for work in 2023, with 89% expressing the desire to land an internship to further their careers.

In February 2021, the rate of unemployment in India fell to 6.9% in both urban and rural areas, from a peak of 7.8% in February 2020. The enormous movement of young people seeking work from rural regions into cities and the recovery of businesses from the COVID-19 epidemic are also coinciding with the changes in employment and employability rates. The main takeaway, however, was how unstable the current systems have been despite the rigorous focus on education and technical training in India. The COVID-19 epidemic advocated for the aggressive adoption of new technologies and innovative methods, restructuring the way businesses as we know work. As a result of these changes observed in the skilling ecosystem, there has been a tremendous focus on digitalization in both the private and public sectors, resulting in a move to digital workplaces and an embrace of modernization across industry and academia. This year's data answered a key question that has been on the minds of industry leaders and HR professionals for a while, are the youth future-ready?

## What Makes India's Youth Future-Ready?

The demand for skilled labor and digital literacy is increasing as more businesses hire new graduates and seasoned experts. Positive hiring intent indicates that more candidates between the ages of 22 and 26 will

be hired across domains, while the availability of qualified talent across demographics and regions provides hope for corporates.

Students who performed well on the WNET's employability test are associated with regions where young people were judged to be more employable than others. It was discovered that the states of Delhi, Uttar Pradesh, and Andhra Pradesh were among the top places for having English as a second language capabilities made accessible, fueling a globally inclusive and appealing talent market. The states with the highest availability of critical thinking skills were Telangana, Punjab, and Delhi, whereas the states with the highest availability of computer skills were Rajasthan, Madhya Pradesh, and Uttar Pradesh.

The three states with the youngest people who are prepared for the workforce are Uttar Pradesh, Maharashtra, and Delhi, according to the test takers with the greatest total employability between the ages of 18-21. The figures from this year show a clear effect of the broad skill-building initiatives and job market knowledge promoted by these states' public sector and government.

Cloud based platforms and fully equipped training facilities are direct results of corporate and public sector adaptations for the vision of a digital India. MSDE's skill development operations and the ongoing retention of marketable talent across the country lay the groundwork for widespread skilling across industries to capitalize on India's large employable population. The market's employment possibilities also help with employability since they allow job searchers with new professional goals to explore a variety of specialties across changing work environments. However, given the importance of technology in India's corporate facility, a modern strategy for learning and adjusting is required, with a strong ecosystem for skill development at the core of academics. More innovation can permeate through the classrooms and make its way to corporations in the coming years if enough academic institutions are willing to adopt digital literacy and business leadership as the primary focus of curriculum development.

Students with extensive topic knowledge in various technical subjects, refined business acumen, numerical and critical thinking are highly valued, and the ability to use current technologies to navigate corporate procedures is a significant plus. While the number

of people with access to smartphones and the internet is growing, younger pupils in schools and college students place a strong emphasis on media production and content businesses. Through practical, guided feedback and digital literacy, the booming creator economy in India and the world, allows young talent to test and explore the limits of their ambitions that fuel hopes.

In reality, educational content is becoming more important, which is encouraging for India's youth's work preparation and for raising awareness of the in-demand skills. The dramatic focus on "being employed vs. self-employed," which is spreading like wildfire among young people who have big goals and access to resources like never before, and fundamental economic developments, both have an impact on the steadily rising employability of India's youth.

## Fast-growing Consumerism Encourages Locals of India

### Hopeful Indications For Agro-India

In particular, including smart farming and enhancing connectivity in the agricultural sector might greatly benefit the diversified population of this country. Smart farming involves using cutting-edge information and communication technologies in the agriculture sector to decrease labor costs and boost production. We must strike the ideal balance between the two since the world's population is growing and its resources are running out. With nearly 60% of the current Indian population considered literate, the acquisition and application of modern agro-techniques are imminent as access to resources and knowledge is expanded to rural India. As a result of increased awareness and access, a nation heavily reliant on agriculture is shifting to more sustainable and energy-efficient farming techniques. As is the case, states like Telangana have announced a series of revolutions as the government agenda, from renewable energy, water conservation, soil renewal, afforestation, sanitation, and sustainable infrastructural development on the agenda.

**The age range between 22 and 25 was found to be the most employable, with 55.67% being highly desirable.**

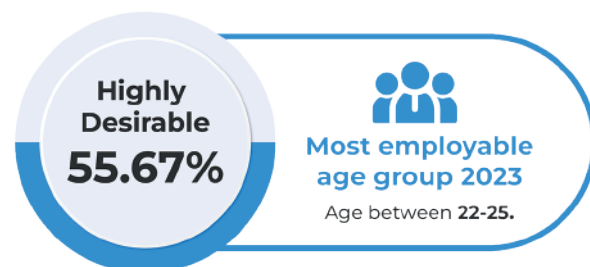
The emphasis on modern skill development is definitely meant to boost the pool of young Indians suited for jobs as demand rises in the coming year.

More understanding of soil fertility, global agricultural markets, and traditional values linked with organic living are some significant variables that could help India's resource management dilemma become more sustainable. According to the overall shift in employability between 2021 and 2022, there are additional opportunities in the industry pipelines that will reshape India's economic environment in the coming year, as more employable resources are identified in diverse domains critical to advancing innovation in agriculture, trade, and self-sustaining living. As the new year approaches, new skills are in high demand, and new roles require qualified candidates. As a result, organizations with improved capital will use a hire-train-deploy paradigm to speed up fresher job readiness.

## India's BioTech Prowess

The demand for polytechnic, Big Pharma, and biotechnology courses is also anticipated to increase over the coming year. Skilling across business verticals, when combined with technical and vocational training programs, calls for a coordinated strategy to guarantee that the enormous talent pool is made accessible when the demand arises. India's competence in biotechnology is about to become a ray of hope for the entire planet. The number of qualified B.Sc., students are increasing, with Uttar Pradesh recording the largest number of employable talent from this sector at 69.39%, followed by Kerala at 57.14%. Local talent, homegrown and groomed with the latest scientific knowledge and experience, is important to take leaps in the worlds of science, pharmacy, Ai, and engineering as India's BioTech industry enters the world stage.

## MOST EMPLOYABLE AGE GROUP 2023



Additionally, there are many young people who are prepared for the workforce in the BCom, B.Arts, MBA, and BPharma fields. This shifts the emphasis to strategic decision-making, creativity, subject knowledge, and critical thinking. Companies are anticipated to become more dependent on technology in the upcoming year, necessitating the hiring of problem-solvers and analytical thinkers to oversee daily operations. Given that skilling has been identified as pertinent to the possibilities that are coming and that infrastructure modifications are being made for policies that target holistic development for creating a workforce fit for the future, India's industrial prowess will soar with a healthy median age group. WNET's identification of a large pool of qualified BCom and MBA graduates this year positions India's industry as the emerging leader in strategy and innovation, as self-employment and entrepreneurship take on new dimensions with digital literacy.

**WITH THE HIGHEST AVERAGE OF EMPLOYABILITY SCORES, BCom, MBA & BTech GRADUATES WERE IDENTIFIED AS A HIGHLY EMPLOYABLE MAJORITY.**

When employability scores were analyzed, it became clear that BCom graduates had the highest employability rate, with 60.62% of them scoring above 60% on the WNET and being highly employable. With 78.13% of candidates with these skills found marketable in Uttar Pradesh, this is a great boost for companies looking to hire for strategic roles in the coming year. MBA grads were the second most employable sector with 60.1% found highly employable. 57.51% of BPharma graduates with job-ready skills were likewise determined to be highly employable, followed by 57.44% of highly employable BTech/BE graduates.

Engineering graduates continued to be the most employable group from any field last year, and this year BCom, MBA, and BPharma grads are sealing the top spot for employability domain-wise. When examining the influence of technical education in new career trends, this is a major plus for India's employment environment, a direct testament to widespread skilling initiatives for technical education like electricals, plumbing, construction, and many other areas that are still primarily classified as unskilled labor in India. More emphasis on AI, data sciences, and computer engineering is necessary, with new positions in this discipline being developed throughout industrial functions.

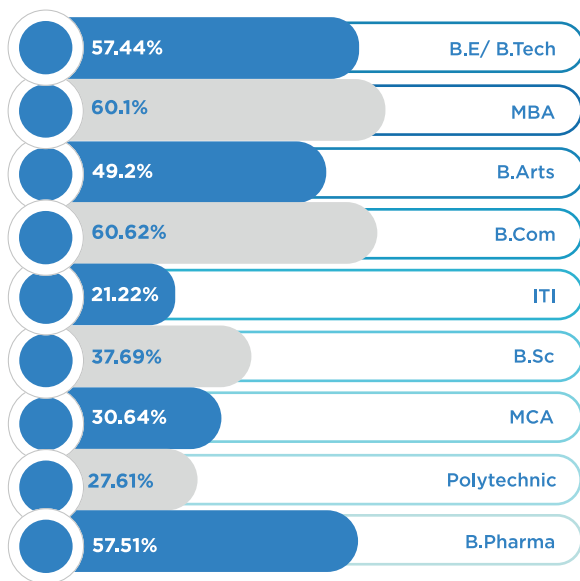
The majority of highly employable resources were also identified among graduates in information technology, computer science, and electronics and communication technology, who were yearning for an internship to acquire an advantage over the competition. The forecast of young employability in 2022 for the year 2023 is optimistic since industries such as information technology, data science, urban development, public health, robotics, food and beverage, and vehicles are experiencing persistent increases in labor demand.

**Fun Fact:** Rajasthan topped the list of talent availability for Computer Skills in this year's WNET

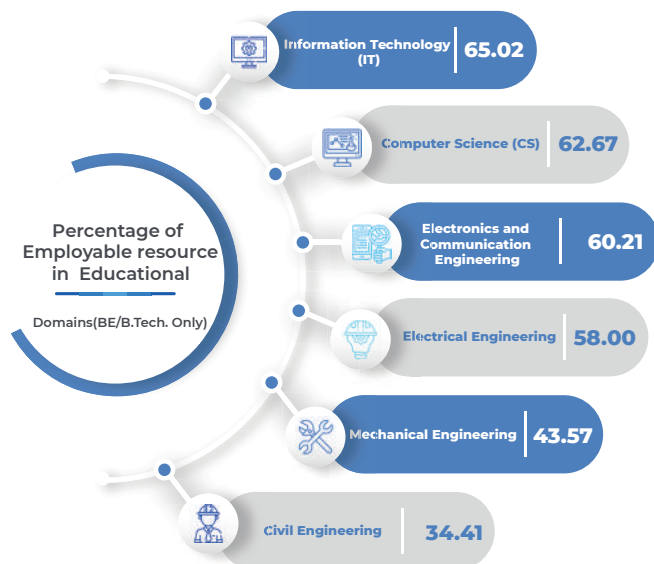


## A Promising Statistic For Young India, The Age Group With The Most Employable Talent Was Identified To Be Between 22 And 25 Years Of Age. This Age Group Is Also In High Demand By Corporates Seeking Candidates With 1-5 Years Of Work Experience For 2023 Agenda.

### Domain Wise Employability Over The Years



### Engineering Courses Wise Employability



## State Regions With The Highest Suitability For Work

Uttar Pradesh, Maharashtra, and Delhi were revealed to be the top 3 states in India when measuring the states having the most employable talent. Andhra Pradesh is the next-highest talent concentration for highly employable male and female resources overall. The remaining top 10 states for young employability are Rajasthan, Karnataka, Telangana, Punjab, Orissa, and Haryana. As appreciations, acknowledgement and advocate for the significant skill-building pushes of programs nationwide during the past 5 years, Wheelbox partners with industry leaders in giving the ISR 2022 figures for the next year. Kerala has emerged as one of the top three states for employability this year yet again. However, the lack of job opportunities and high concentration of internship seekers among all age groups is worrisome for the state infrastructure and employment opportunities to retain its youth. Due to the significant employability increment among new graduates and professionals from Andhra Pradesh, Rajasthan and Jharkhand, an influx of talent from these regions to other tiers 1 and 2 cities and increased job possibilities in these states are, a projected benefit of widespread skilling over the past few years. The top 5 states with the highest proportion of employable BE and BTech resources are Maharashtra, Karnataka and Andhra Pradesh. These states, which are making good use of private sector efforts, are greatly benefited from MSDE, NSDC projects and PMKVY program successes as well, in skilling a portion of India's emerging talent market. Despite possessing the most female employable resources of any state, Rajasthan could not reach the top 10 for available male employable resources. Rajasthan appears on this year's top 10 list of highly employable female talent, and the state also recorded top spot for the availability of computer skills and English.

## States With Limited Career Development

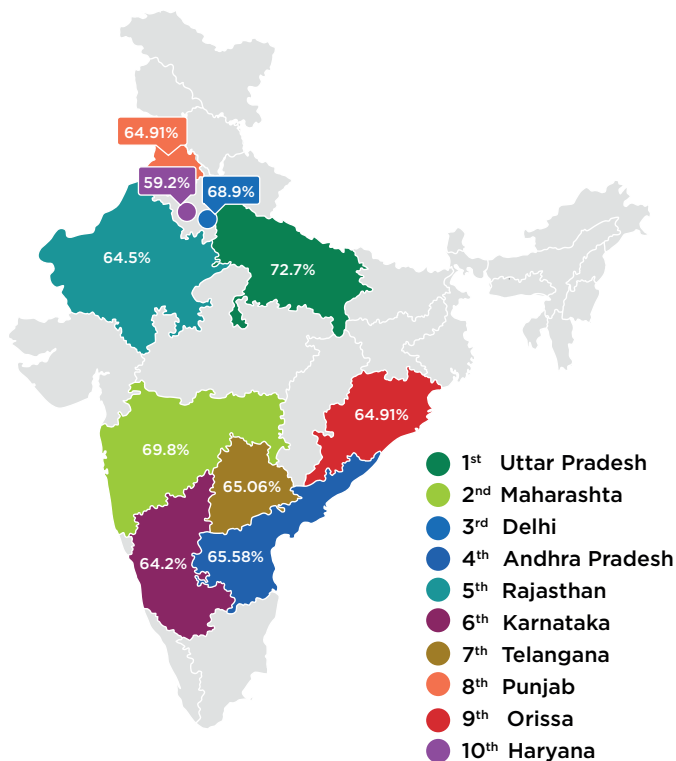
Despite Kerala being the state with access to English as a second language, critical thinking and numerical reasons, the possibilities for employment in the state are well behind these figures. The state's alarming 15.77% unemployment rate in the year 2021 was a major worry. However, many individuals are leaving Kerala for other Tier 1 and Tier 2 cities in India in pursuit of fresh employment prospects. States of Rajasthan and Jharkhand also witness a surplus of employable talent that the economy cannot sustain. These states are

also included in the top 10 states where English is taught as a second language, and computer skills are made available. Significantly, the high percentage of unemployment among those aged 26 to 29 is caused by the main cities in this region, and the insufficient infrastructure for the rapidly growing population demands. This serves as a reminder that, in order to handle the vast and highly employable youthful population, additional infrastructure development and collaboration between state governments are required. A number of affiliations and skill centres have been developed to solve this issue, and they have been successful in creating a highly employable young reserve in a number of rural and suburban areas this year.

**Fun Fact:** Both male and female job hopefuls in India choose to work in Bangalore, the Silicon Valley of India being the top destination for job seekers in 2023.

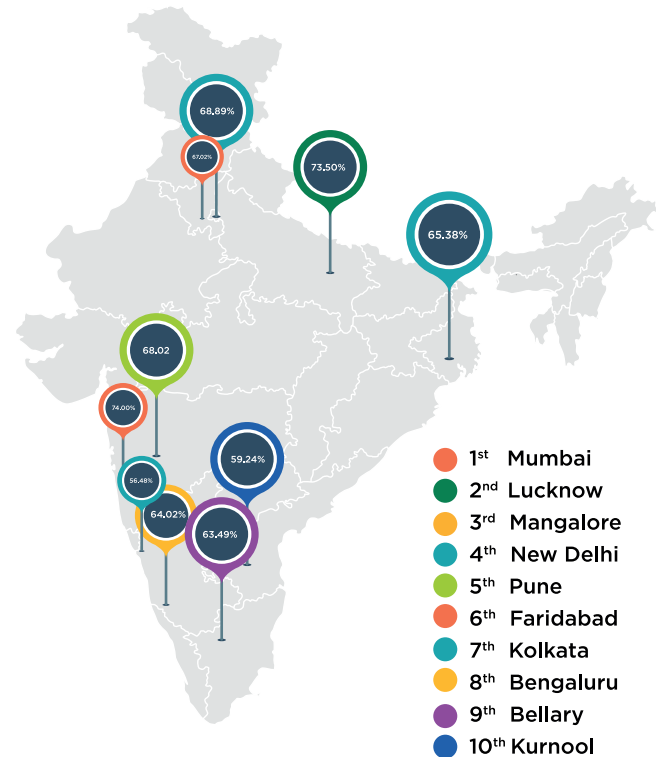
### States With Highest Employability

Top 10 States where users have scored more than 60% in WEST. (along with the percentages)

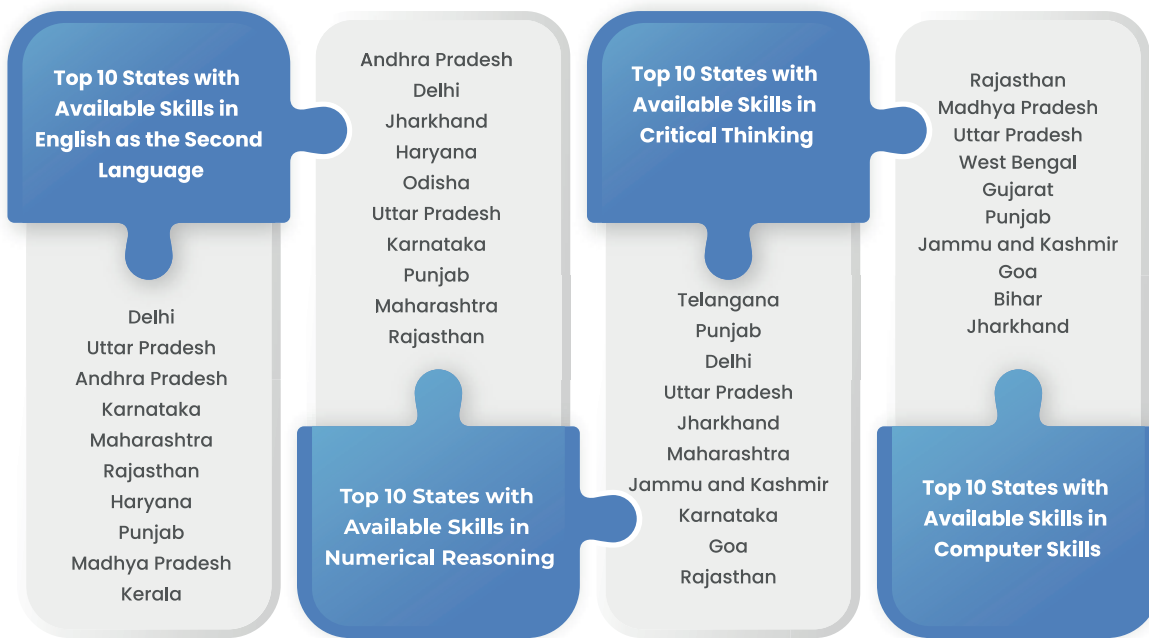


### Cities With The Highest Employability

Top 10 Cities where users have scored more than 60% in WEST-along with the percentages)



## Skills Availability State Wise



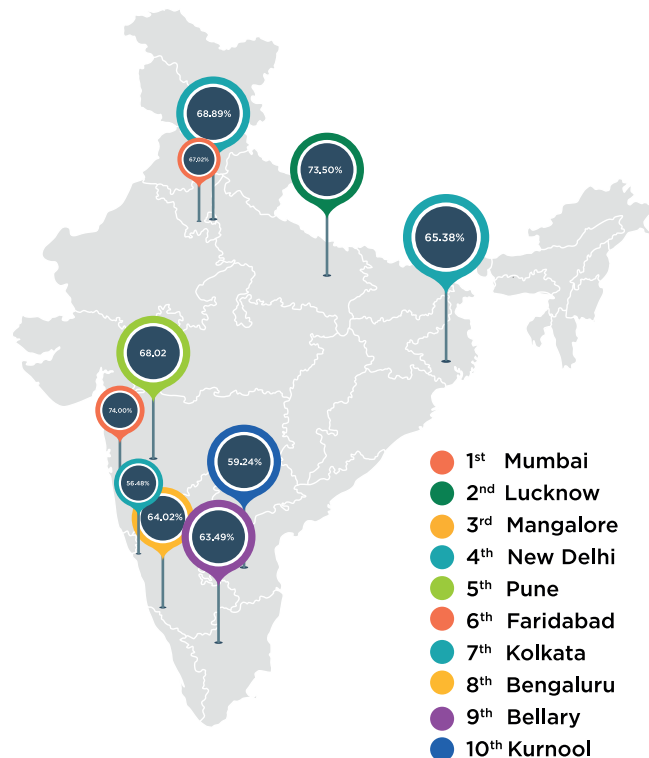
Top 10 States where users have scored more than 60% in WEST. (along with the percentages)

## A Glimpse At Urban India

Mumbai, Lucknow, and Mangalore have the most employable young talent among cities, according to research on employability trends in India's main cities. Last year, the top cities for young employability were Pune, Lucknow and Trivandrum; this year, Delhi comes in fourth while Hyderabad does not feature in the top 10 cities of highly employable youth. Pune, Faridabad, Kolkata and Bengaluru follow New Delhi as the next most employable region of test takers.

According to subsequent research, the three cities with the biggest concentrations of employable female resources are Tirupate, Ghaziabad, and Kurnool. Mangalore and Bellary round out the top 5 cities for high availability and quality of female employability. When it comes to highly employable resources between the ages of 18 and 22, Mumbai, Mangalore, and New Delhi rank as the top three states consisting of freshers, whereas Noida, Mumbai, and Thane have the greatest number of resources between the ages of 22 and 25. Majority of women choose Bengaluru, Hyderabad, and Pune as their top three favorite places to work, whereas most young men choose Bengaluru, Chennai, and Delhi. English and business communication abilities were ranked highest in Mumbai, Tirupati, and Pune, while numerical skills were placed top in Chittoor, Amalapuram, and East Godavari. Ghaziabad, New Delhia and Udupi top the list for computer abilities.

## Top Cities with Highest Employable Talent

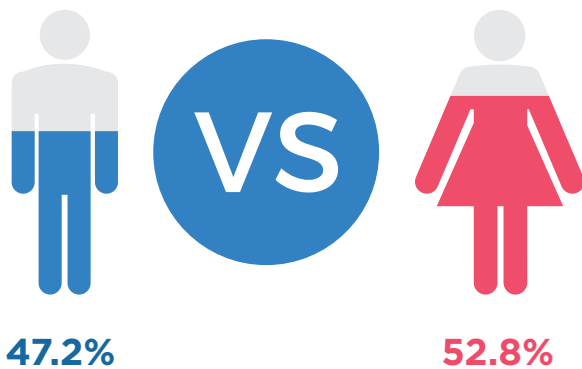




## Gender Wise Employability

According to this year's statistics comparing employability by gender, a larger proportion of female resources were found to be employable. In all states and localities, a rise to **52.8%** of young women were deemed highly employable. Male employable resource availability was at **47.2%**. The rise in female employability yet again, emphasises India's enormous improvement in terms of availability of diverse talent across regions and domains. Although, a little over **33%** of women were working, the ratio of men to women across organisations indicates that more men are employed than women. The most important conclusion is that more women are entering the workforce as a result of women in India having a high employability rank, which is demonstrated by the higher percentage of female test takers who have employment and are well-versed with needs of in-demand careers. Furthermore, the data on demand-side hiring intentions indicates that more women will enter the workforce in order to achieve gender equality and make use of India's enormous talent pool.

## Gender Wise Employability In India



## More Women Welcome Urban India's Growth

In regions of South America, Asia, and Africa, more than 2 billion women are working in the informal sector, which accounts for 36% of female participation, according to the UN. India has a large youth population that is very employable, thus the situation will eventually change. However, in India only 33% of female participation is a worry, considering more qualified female resources are without a job than males. An encouraging sign of equitable gender engagement across all businesses and sectors in India is the rise in the proportion of women who have access to

high-quality education. Additionally, if the skilling ecosystem is fully used, the great majority of employees in the informal sector will transition to the formal sector or discover self-employment to be a stable source of income.

The largest concentration of female employable resources is found in Rajasthan, Uttar Pradesh, and Andhra Pradesh, whereas the highest concentration of male employable assets is found in Odisha, Delhi, and Jammu & Kashmir. The exam results for this year showed an increase in the amount of marketable female talent in areas like Tirupati, Ghaziabad, and Kurnool. Assessing the top tier 1 and 2 cities in terms of the opportunities accessible to women, many women in regions like Rajasthan and Odisha have fewer jobs despite being more qualified than their male counterparts. Due to the unequal distribution of resources in highly developed places, the shift in corporate hiring intent will be the determinant of inclusive and progressive policies in India INC.

For instance, the poll found that Uttar Pradesh has a high employability score, with 46.51% of highly employable females and not being featured in top 10 for available male resources. Despite this, business and skill training programmes throughout India should capitalise on the fact that women are still more employable collectively, and access to digital tools is only sharpening this curve. There are several new entrants that have advanced in the rankings from last year, demonstrating the success of national and state-led skilling efforts. The top 10 cities with highly employable resources include a number of cities like Mumbai, Lucknow and Mangalore. According to this year's review, Rajasthan has the highest percentage of employable female resources but the lowest percentage of employable men, not even featuring in the top 10 for available male talent.

There is a lot of potential to take advantage of in the upcoming year thanks to the dramatic rise in employability that has been seen in several Tamil, Andhra, Rajasthan, Odisha and Kerala cities for both men and women. Cities like Ghaziabad, Tirupati, Kurnool, Mangalore, Bellary, Udupi, Mumbai and Pune are featured among the top 10 cities with the most skilled workers accessible.

## Decoding Youth's Early Career Choices

We gathered information on young people's preferred salaries, places of employment, internship preferences, and other factors in order to understand the professional choices they make when they join the workforce. The great majority of students responded in the affirmative when asked if they have access to the proper information and assistance to make an educated career selection. The following was noted when we inquired about their aspirations of companies and skill-building organizations.

**89% of test takers want to start their careers with an internship.**

The widespread access to the internet, local and central skilling activities and the They were able to pick their tastes in accordance with new trends because of widespread hiring in top-tier Indian cities. Although Bengaluru was mentioned as the most popular place for young people to find employment, there are a variety of reasons why regions like Andhra Pradesh and Uttar Pradesh lack the infrastructure necessary to hire the tremendous talent there. In order to achieve sustainable infrastructure growth in the upcoming year, both the official and informal sectors of the economy should take advantage of the talent market that is now developing in India. To do this, infrastructure capacity in both major cities and towns and suburbs should be increased. This year, Tamil Nadu, Telangana and Kerala did not make the top 10 for highly employable assets.

**Fun Fact: 89.17% of test takers own a computer at home**

## Furling Nationwide Digital Transformation

There is a lot of potential for young people to explore new avenues and professional choices given the connectedness of the internet and the attention being paid to India's talent growth on a global scale. Most students struggle to identify the in-demand careers due to the rapid improvements in technology and growing employment categories. ISR 2023 seeks to provide light on the most recent trends and skill sets needed to succeed in the Indian corporation. Building a workforce that is prepared for the future starts with giving people access to online skills and skill sets

needed to succeed in the Indian corporation. Building a workforce that is prepared for the future starts with giving people access to online skills and certifications. The provision of career counselling is growing in tandem with government-run skilling institutions like MSDE and national programmes like the Skill India Mission. Analysts predict that the Digital India strategy would increase GDP by \$1 trillion by 2025. It can have a significant impact on macroeconomic variables including GDP growth, job creation, labour productivity, company expansion, and government revenue leaks.

The increased use of social media for leisure and business is generating new opportunities in the so-called creative economy. Internet companies are recruiting more new employees, and there is a great need for students who are conversant with the fundamental ideas and have the requisite abilities. The e-commerce industry also offers young hopefuls a variety of ways to advance in their jobs. Furthermore, more online portfolios are being posted on CutShort, Naukri, Shine, LinkedIn, and other websites, demonstrating a rising interest in corporate India and the formal sector. The rise of technologies like artificial intelligence (AI), the Internet of things (IoT), cloud computing, blockchains, and robots has created new jobs, giving the government new opportunities to bolster resource accessibility and maintain social security. With such significant expenditures on digital infrastructure and global energy systems, it is predicted that India would require an initial investment of USD \$35 billion per year in order to rank among the top five global digital economies. To combat the rise of private digital currencies, the Reserve Bank of India (RBI) is getting ready to introduce a "sovereign" cryptocurrency. The Metaverse is here, and the creative economy is leveraging their access to cutting-edge software to the fullest. The government can't help but join the race. Creators and aspirants and taking to the craze surrounding NFTs, Virtual Tokenizations, Augmented Reality and User Experience Gamification. Further strengthening cybersecurity best practices will empower the Metaverse revolution to preserve data privacy and digital experience platforms with reinforced security guidelines.

In order to transform India into a nation with a strong digital economy, the Indian government launched Digital India under the direction of the Ministry of Electronics and Information Technology. Every person in the nation may participate in this effort. The campaign has shown foresight by enhancing online infrastructure and internet connection. India is poised to take the lead in implementing digital technology across

smart IoT devices, networking and digital asset management. Mobile applications and cloud computing seem to be the most significant sources of economic development and social system restructuring. Today, everyone uses digital tools, from the average business owner conducting meetings to government officials surveying chunks of forest lands. It makes it easier for us to communicate with everyone and exchange problems or information using digital means. The Digital India Programme's influence will raise socio economic and political consciousness about how to use modern digital experiences and devices, to revive India's acceptance and agility in the digital space. We aren't that far away from being a global leader, if fate has proven right by our people more than once already.

## Addressing Skilled Labor Deficit

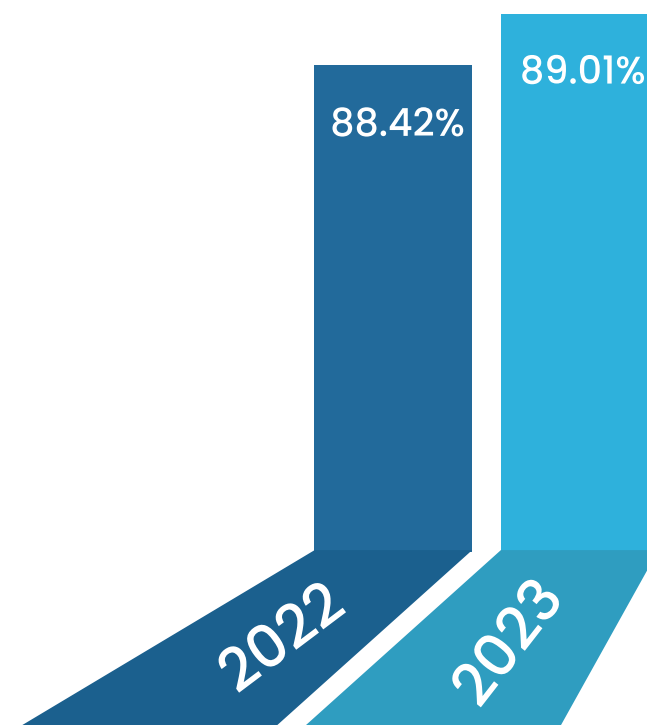
In India, there is a significant mismatch between the possibilities offered locally and the trained labor that is accessible. Therefore, tier 1 and tier 2 cities are frequently chosen as work destinations. Although the abundance of young talent is a sign of India's strength in education and skill development, many young people lack opportunities and are unclear about their career options.

**89.17%** of test takers indicated their interest in an internship, according to the WNET poll. They would be an advantageous addition to India's official economy if given the chance. This is due to the fact that a sizable fraction of young people exhibit highly marketable features. Furthermore, possibilities will be easier to get in 2023 due to a favourable hiring intention and significantly favourable demand for freshers. As it is, India will have over a million internships in 2023, and with the chances available to freshers in the post COVID19 recovery era, the country is poised to make a significant return. According to the recently issued Human Development Report (HDR) 2020, just around one in five Indians who are employed are "skilled." India ranks 129th out of 162 nations for which this data is available with a value of 21.2%. There are organized and unorganized sections of the Indian labor force. The Indian government is particularly interested in reforming the Indian labor market by giving unorganized and informal sector employees legal and social protection. The main issue, though, is that nobody is really certain about India's informal labor.

But picking a career is not the same as pursuing your interests. Students who have a keen interest in a range

of STEM (science, technology, engineering, arts, and humanities) courses should thus have access to a skill-driven ecosystem so they may improve their talents and pursue careers that are suitable for them. The pairing of digital literacy with technical education will provide the basis to skilling India for a digitally-enabled industry of the future. There is little doubt that the focus on infrastructure development programmes is meant to handle this massive influx of young talent to top tier cities in the coming years. Furthermore, the focus on Atmanirbhar Bharat and Make in India is expected to further boost self-employment, small scale industries and merchandising in developing parts of the nation's economy.

## Preference For Internship Infographic

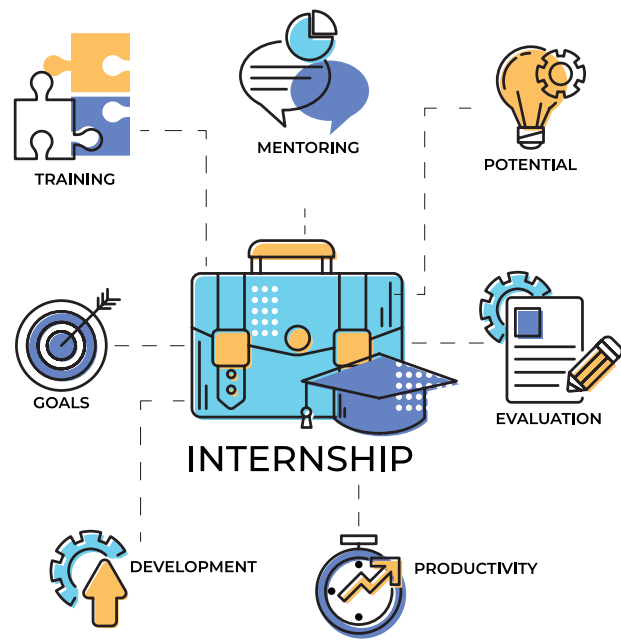


## Internship Preferences State Wise

According to this year's study, the WNET test takers' top picks for internships. The survey revealed that some Indian states and cities were preferred over others, and the reasons for this are clear. These states also have more capable infrastructure and higher employment possibilities. Cities like Bangalore, Chennai, and New Delhi are the favourite travel destinations for students from rural and urban areas since they are the most likely to be looking for chances. The states surveyed preferences for internships are listed below.

Andhra Pradesh, Rajasthan, and Jharkhand were the states with the highest percentage of students seeking internships. Karnataka and West Bengal rounded out the top 5 locations where students are actively looking for internships. Considering the vast availability of talent across domains and age groups in these regions, corporates are expected to hire train and deploy more resources to prepare liquid assets for industrial trends and new jobs emerging in the next decade. The results suggest that in the upcoming year, residents of these states may move to tier 1 and tier 2 cities due to the lack of opportunities in these regions.

93.50% of test takers from Andhra Pradesh expressed interest in receiving an internship, opportunity while among the top 10, Tamil Nadu had the fewest applicants (88.32%) who were actively looking for internships. This demonstrates a young generation that is prepared for the workforce, cognizant of the needs of corporate India, and searching for their first professional step.



## Highest Number Of Internship Seekers State Wise

Top 10 States Percentage of Users who want to avail internships



## Preferred Places to Work

According to the poll, both male and female job seekers ranked Tamil Nadu and Maharashtra as their top two favoured states. Aspiring professionals are becoming more aware of the employment climate in Chennai and Coimbatore because to the expanding prospects in these cities. In addition, the top 10 cities where people choose to work included both Chennai and Coimbatore. However, both male and female jobseekers ranked Bangalore as their top choice for a job city. Many male applicants listed any place located in one of the top 10 states as their main choice for employment.

## Preferred Places to Work

Overall Preferred Area to work by candidates



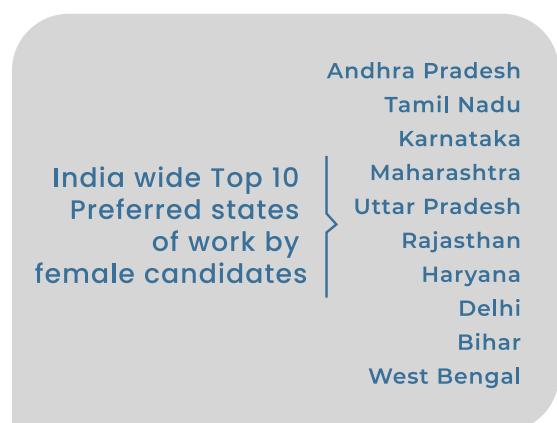
## Preferred Salary Range

With the most number of applicants wanting to work for a wage between 0 and 2 lakhs and 2 to 2.6 lakhs per year, Tamil Nadu came out on top of the list. For this pay bracket, Maharashtra came in second place, followed by Uttar Pradesh. Tamil Nadu, Uttar Pradesh, and Maharashtra top the list for individuals seeking a wage package of at least 2.6 lakhs. Given that the bulk of highly employable talent was found in these 3 states, the results bode well for recruiters and HR professionals. For those seeking their starting salary to be 2.6 lakhs per annum and above, Andhra Pradesh, Karnataka and Maharashtra top the list of available resources for this pay gap. Furthermore, the inclination towards internship opportunities are going to be the target for corporates in India looking to fill the gap in existing processes with the availability of employable talent in these regions.

**Fun Fact:** Tirupati is the city with the highest recorded female employability concentration with **47.02%** of female test takers found highly employable.

## Top 10 Preferred Cities To Work By Male Users Across India

According to the poll, both male and female job seekers ranked Tamil Nadu and Maharashtra as their



## Preferred Salary Range – State Wise

Top 5 States where Employees Prefer Salary of 0-2 lakh



We've found that overall employability has grown to 50.83% compared to previous year's 46.2% as we near the end of the Wheebox National Employability Test findings. Youth employability in the age group of 22-25 is currently at 55.67%, which is the highest employability category according to experience. Directly related to the broad skill-building efforts taking place across the country, corporates are confident in hiring freshers and experienced professionals coming through government led skilling initiatives. Due to the fact that numerous specialities and skill courses are becoming more and more popular in both urban and suburban Indian industry, the continuous annual rise in the supply of talent across the country is encouraging.

Recruitment efforts will mostly be concentrated on skill-oriented profiles in the upcoming year, which is promising given that the large age range of 22 to 25 was discovered to be highly employable across several states. However, 51.13% of India's youth ranging from 18 - 22 were found highly employable. The most

employable age bracket, which is 22 to 25, will be in great demand as the need for people with 1 to 5 years of experience is indicated by this year's Hiring Intent Survey – Early Career Edition 2023. Several states, like Uttar Pradesh, Delhi, Maharashtra, Rajasthan, Odisha, Punjab and Haryana have demonstrated consistent growth and skill development over the past several years, resulting in the generation of highly employable individuals prepared for the future of work. We examined the employability and skill investments made in high-performing states on a state-by-state basis to better understand the variables influencing the supply of talent in India.

# SKILLING FOR 2030 STATE-WISE REPORT

## Uttar Pradesh

According to estimates, Uttar Pradesh's GDP would increase by 6.78% between 2020 and 2021, reaching Rs. 17.91 trillion by the end of that year. Since then, the government has only pushed on easing regulations for agriculture, industry and IT. The state boasts a big population of talented workers and is expanding its IT infrastructure, contributing more than 8% of the country's GDP. Top markets in the state include electronics, software, and business processes. The 2013-launched UPSDM program's activities seek to teach young people in the state in the electrical, construction, healthcare, and wellness industries. The number of Skill Centers of Excellence in the UP is expanding, reaching both rural and urban areas. To further the goal of high-quality technical education and skilling in the region, the India Institute of Skills in Kanpur amalgamated with the Institute of Technical Education of Singapore.

A total of Rs. 208.04 crores were sanctioned by the MSDE for skilling across the state of Uttar Pradesh between 2016 and 2020, yielding a 24% success rate in skilling the state's young. With approximately 660 training facilities in the area, 42% of qualified individuals received job offers for special projects after completing their training. This year, the total youth employability rate was 72.7%. Additionally, UP is ranked in the top 5 for computer abilities, corporate communication, and critical thinking.

Additionally, the state is the second-most popular place for male users to work. Graduates from UP's polytechnic, MCA, BSc, BA, BCA, and BCom programmes were also seen as being highly marketable due to the state's increased supply of qualified personnel. This year, candidates from Uttar Pradesh were found to be among the majority of highly employable assets, reflecting the state's immense focus on skilling and employment. However, Uttar Pradesh appears second in the top 10 list of most readily accessible female employable resources at 46.51%, coming right after Rajasthan. The statewide educational and skilling changes during the previous 6 years have had a significant



influence on UP, which is second among the top 10 states with a highly employable bracket between the ages of 18 and 21, 22 and 26, and 26 and 29.

2,624 skilling centers have been set up under PMKVY, 50 under JSS, 37,321 under NAPS and 3,183 under ITIs for skilling in India. 51,93,909 candidates have been trained under these various skilling initiatives set up by the government until 2022 in Uttar Pradesh alone.

## Maharashtra

The predicted value of Maharashtra's GDP for the years 2020–21 is 32,24,014 crores and that figure was short-lived as the economy steadily boomed post-pandemic. The MSDE launched a number of technical and vocational training programmes in 2015 to raise living standards in both urban and rural Maharashtra. A state-run programme called the Pramod Mahajan Kausalya and Uddyokakta aims to increase employment awareness and skill development in the state. Through Industrial Training Institutes, the state's flagship programme, PMKUYA, skill training is provided to adolescents in a variety of vocational and technical courses (ITI). Since the program's start in 2015, an estimated 1 million individuals have received job offers through it.

With 69.8% of test takers in Maharashtra scoring above 60% on the WNET, the state was ranked as having the most employable talent. In addition, the state ranks in the top 10 for critical thinking, numerical reasoning, and English language proficiency. Mumbai city came in first place for the most employable talent in the age ranges of 18 to 21 with 73.18% of freshers deemed employable. Women who took the WNET test ranked the state as their top choice for employment. Additionally, Maharashtra boasts the top exam scores in the BE/BTech and MBA graduates, which supports the state's growing need for talent in IT and strategic business roles. Given the benefits of government and private sector skill-building initiatives, it is anticipated that during the following year, the employable youth talent will assume new positions in a variety of formal sector jobs.

22,28,873 candidates have been trained under the various government partnered skilling centers and initiatives since 2015 - 2022, further preparing Maharashtra's talent pool for 2030's demands.

## Delhi

Delhi is the second-most productive city in India, with a GDP that fluctuates between \$210 billion and \$369 billion. The capital city is expanding

quickly, yet it placed sixth rather than in the top five for young employability. A highly employable young demography is produced via a number of initiatives, including the Delhi Skill Development Programme (DSDP) by the Department of Social Welfare, NSDC collaborations, and PMKVY activities. MSDE has allocated Rs. 15192.79 crore for Skill India Mission for the last five (5) years. According to information available, more than Rs 12,850 crore has been granted during the last five years to 11 main Ministries/Departments. The following funds have been granted to the Skill India Mission under MSDE over the last five years. More than 9,00,512 candidates have been successfully trained and deployed by the Skill India mission and partnered organizations in Delhi alone until 2022.

Delhi ranks sixth among the top 10 states for critical thinking and English proficiency, with a youth employability percentage of 68.9%. On the other hand, New Delhi city ranks first for the availability of English as a second language, second in Numerical proficiency among the youth and third in Critical Thinking skills. The state is second on the top 10 for having the greatest proportion of employable male resources, at 51.54% employable young men. However, the state does not feature in the top 10 for available female talent citing an urgent focus on female employment to improve the conditions of workplaces in the capital. Both male and female applicants rank New Delhi among the top best locations to work. This year Delhi does not feature in any of the top 5 categories for domain-wise employability, as states like Rajasthan, Uttar Pradesh, Odisha and Maharashtra show a steep increment in available talent across educational domains.

## Andhra Pradesh

In the last four years, Andhra Pradesh has improved its social, industrial, and technical infrastructure, placing 4th among the states with the most employable young talent standing at 65.57%. With a GDP of Rs. 9.72 lakh crore a year, or \$140 billion, and a growth rate of 12.73 percent in 2022, the state is growing at an unprecedented rate. The 2014-founded Andhra Pradesh State Skill Development Corporation (APSSDC) intends to increase employability in the state through promoting skill-building activities. The project seeks to give applicants across a range of disciplines training and placements in conjunction with regional firms and foreign investors.

Additionally, the PMKVY activities have been ongoing, with funding from state and central governments has witnessed massive success in the state.



The MSDE-approved skilling initiatives contain up to 60% of candidates in short-term programmes and 40% in special projects with guaranteed employment. More than 9,96,509 candidates have been placed in jobs from such skilling initiatives from 2015 - 2022 according to government databases.

Andhra Pradesh is in the top 5 states for the availability of English skills and Numericals and has a youth employability score of 64.36% for the age group of 22-25 this year. The top 5 states with employable resources between the ages of 18 and 21 and 26 and 29 include AP as well. This is a blatant outgrowth of the emphasis brought about by skill-building projects across the state over the past five years. Andhra Pradesh is in the top 5 states that male applicants desire to live in and 93.50% of its candidates are seeking internships, making it the highest inclination by any talent pool for internships in the coming year. Users from Andhra Pradesh scored above 60% in the BE/BTech & ITI, MSc, and BCA fields, placing the state among the top 5 states with highly qualified talent in these domains.

## Rajasthan

Rajasthan tops the list for highly employable female resource, as 53.56% of female test takers were found highly employable, the highest among all states this year. Increased participation in the workforce will prove vital for female entrants in the state to seal India's vision for sustainable, equitable and progressive development in the coming years. Rajasthan is also second for the number of candidates seeking internships with 93.22% candidates expressing the desire to take up an internship at a company in the coming year. Rajasthan appears in the top 5 for available skills in BA, and BCom and BBA domains, showing the academic focus towards various in-demand job skills in these domains. Recording 1,590 skill centers under PMKVY, 8 under JSS, 9,461 under NAPS and 1649 skill centers under ITIs, the Skill India mission is taking flight in the state. Having trained and deployed over 26,01,704 candidates under the Skill India mission, Rajasthan has witnessed a dramatic increment in the availability and awareness of talent for emerging job roles and domains.

## Karnataka

Bangalore in particular is the Silicon Valley of India, and Karnataka is booming with urbanisation and garnering a lot of international investment. Karnataka's GDP was projected to reach Rs. 18.06 trillion in 2020-2021 and anticipated to increase significantly during

the fiscal year of 2022 at an 8.2% trajectory. These figures have been crossed as Karnataka diversifies its IT hubs, expanding to areas like Mangalore, Hubli and Udupi. Bangalore is the city most sought after by job seekers, with 68.02% of the state's population in the working men being the third highest employable male group across all states. By 2025, 25,000 women employees from rural areas would have received the necessary training, according to the state's chief minister's Kaushalya Karnataka Yojane project. Additionally, the PMKVY government programme taught roughly 4 lakh individuals between 2016 and 2020. Furthermore, 13,87,729 candidates have been successful trained and deployed by various government led skilling initiatives from the period of 2018 - 2022. The state has achieved a high employment rate among the youth this year as a rapidly expanding commerce and IT centre of innovation, with a 28.22% availability of highly qualified female resources, appearing in the top 10 for female employability.

In the WNET exam, 64.2% of Karnataka's youth were rated as highly employable. The hiring intention during the following year would hasten the availability of job chances in the state, with Bangalore being the most desired location for employment among male and female candidates. The top state for English as a second language, which also ranks in the top 10 for critical thinking and numerical reasoning.

Karnataka is the state with a high computer literacy, with 93.43% of users reporting having a computer at home. Karnataka is in second place for top states with BE/BTech graduates scoring above 60% on the WNET test at 68.03% and first place for top states having Polytechnic graduates, and ITI candidates scoring above 60% this year. Karnataka also features in the top 10 for available talent in MCA, BCA, BCom, and MBA domains.

**Fun Fact:** 96.44% of test takers from Karnataka own a computer at home

## Telangana

The Telangana Academy for Skill and Knowledge (TASK) announced new agreements with 26 organisations and renewed engagement with 27 organisations to offer a variety of courses aimed at educating youth with employment skills. K. T. Rama Rao, Minister of Industries and Information Technology, remarked at a TASK event in 2022 that these collaborations would benefit around 1.50 lakh youth in the state. The collaborations were with companies from various industries. As a result of successful skilling and private partnerships, Telangana has witnessed a massive increase in highly employable youth talent.

Telangana features in the top 10 list of states with highly employable youth, standing at 65.06% employability. Telangana also tops the list for skills availability in Critical Thinking among the test takers. The state also boasts of a high youth population between 18 - 21 comprising freshers deemed highly employable across domains. The state also was identified to have the 4th highest number of employable male resources at 46.99%. 89.29% of WNET test takers from Telangana are also actively seeking internships as we enter the new year of 2023. Hyderabad city, the capital of Telangana is also among the top 5 preferred cities to work for aspiring and working professionals. This year however, Telangana does not appear in the top 5 states for highly qualified talent across all education domains, although the female employability is on the rise. More than 9,01,229 candidates have been trained and placed by various Government led skilling centers in Telangana from 2018 - 2022, with an increased desire shown among corporates to hire from this talent pool.

**Fun Fact:** Hyderabad appears in top 5 most preferred cities to work for youth in India.

## Punjab

To minimise the unemployment rate in Punjab, the Punjab Skill Development Mission and the District Bureau of Employment Generation, Skill Development, and Training are offering free vocational courses to adolescents through various initiatives throughout fiscal years 2021-2022.

Under the Punjab Skill Development Mission, the Larsen and Toubro (L&T) Constructions Pilakhua, Construction Skills Training Institute (CSTI), provides 45-90 days of lodging for candidates during these courses. These courses included ITI Carpenter, Draftsman Civil, Fitter, Electronics, Wireman, Plumber, and so on.

It is believed that the skilling effort has continuously offered training and placement to 150-180 juveniles per month. To be eligible for training under this program, youth must have completed the 10th grade and be between the ages of 18 and 35. This is one example of how Punjab has risen to the top 10 status for highly employable youth talent over the past 4 years. Furthermore, candidates will be trained on various equipment such as a Rotavator, Harvester, Cultivator, and Super Seeder, with the training being provided at no cost to all Punjab candidates.

This year candidates from Punjab secured a top 10 spot for highly employable talent standing at 64.91% employable candidates. Punjab also featured among the top states with availability in English, Business Communication, Critical Thinking, Numericals and Computer skills. Punjab is also among the top states with highest availability of male and female resources, being 31.58% and 33.33% respectively. 88.89% of test takers from Punjab expressed the desire to pursue an internship in the near future. As of 2022, 1,18,002 candidates have been trained and deployed by government-led skilling efforts since 2015. The increased focus on skilling and improved employability rank of Punjab is a hopeful indicator of the government's attempt to reach all corners of the nation with the vision for Skill India by 2030.

## Orissa

Orissa has witnessed a massive incline in the number of highly employable youth demographics. With 64.91% of test takers scoring above 60% on WNET, Orissa appears in the top 10 for highly employable talent available in the country. The state tops the list for highly employable male resources with 57.89% employable men. 89.66% of candidates express the desire to seek internships in the coming year, an indication of talent emerging from the state and migrating to tier 1 and 2 cities in the coming months. Odisha also tops the list for most highly employable candidates from the MCA graduates domain. While Jammu & Kashmir, Bihar, Kerala, and Gujarat appear in top 10 for various subcategories, Odisha overtakes them all in terms of employable youth resources this year.

The Narendra Modi government at the Centre began the Skill India programme in 2015, with the goal of training over 40 crore people by 2022. However, in the eastern state, the skilling sector was completely ignored – young people avoided the government-run Industrial Training Institutes or ITIs due to the uninspired atmosphere and outdated curriculum.

The difference between now and 2020 is striking. Not only are Odisha's 49 government-run ITIs brimming with passionate young men and women, but 11 of them have made the Union Ministry of Skill Development and Entrepreneurship's list of the top 100 ITIs, which evaluated over 10,600 government and commercial ITIs on 27 characteristics. Odisha's ITI campuses now have a new design, a slew of innovative concepts, and a high enrolment, with students proudly wearing the moniker 'ITlian'. Under PMKVY initiatives alone 60,598 have been offered employment up until 2022, coming off the massive upskilling occurring in the state. From the period between 2018 to 2022, approximately 13,96,644 candidates overall have been trained and placed by government led skilling in the state of Orissa alone.

## Haryana

Haryana, which replaced Telangana the previous year, now rounds out the top ten states for high youthful employability, albeit Telangana is slightly higher on the list in terms of youth availability. The state's general employability and possibilities have increased at a consistent rate as a result of the Haryana Skill Development Mission's expansion of its operations. With an estimated GDP of \$85 billion and economic growth of 12.96%, Haryana is in the top 10 for the states with the best English, and numeracy abilities. The state earned a position in all of the evaluated criteria for available abilities, appearing in the top 15 list of states with critical thinking, business communication and computer skills as well. An impressive percentage of youth employability figures support the widespread success of skilling the state, as 61.35% of youth in the ages between 18 - 21, 57.49% between ages 22 - 25, and 51.09% of candidates in the age group between 26 - 29 found highly employable in Haryana.

The top 10 states for employment for both male and female candidates include Haryana, with 38.45% males found employable and 20.83% female talent available. With 93.86% of applicants having access to a computer at home, Haryana ranks second among the top 10 states with candidates who have a computer at home. The state is ranked last among those where applicants are looking for internships to help launch their careers. In terms of gender-based youth employability, Haryana is among the top 5 with 38.45% male and 20.83% female employable resources showing a dramatic increase in male resources from last year, while female talent availability has dropped by 2%. Regions like Gurugan are growing in prominence as the preferred destinations for many Millennials countrywide to find work

in the coming years, with more MNCs and SMEs making way to Haryana's new economic development zones.

From 2018 to 2022, the government-led skilling as part of Skill India has launched 1,304 new centres under the PMKVY, 5 under JSS initiatives, an increase to 45,912 centres under NAPS, and the opening of 396 ITIs. During the same time period, the combined efforts of partner organisations and skilling bodies trained and deployed over 15,72,206 applicants in the state of Haryana. The state's steady increase in young employability is a direct result of the state and federal governments' emphasis on skilling for the future of labour and industry.





**ACADEMIA SPEAKS**



“

“Skill Development and Employability among young graduates has become the major focus in the recent reforms initiated by the government, especially after the rolling out of the NEP 2020. Any measure to make the graduates job ready with acquisition of appropriate skills needs well researched information about the current status. The initiative of WHEEBOX in mapping the skills of the graduates and preparing a structured report in the form of ISR is certainly timely and apt. It is gratifying indeed be a partner of Whitebox and facilitate the skill mapping in universities for preparation of the ISR-2023. I am sure, as a comprehensive sources of validated information on employment and skill ecosystem,

the ISR -2023 will be an important milestone for the young graduates and the employers in the country and abroad too. The latest edition of ISR will be useful for the higher education stakeholders, institutions and policy makers and industries as well by providing much required insight to build and strengthen the employment ecosystem by addressing the issues pertaining to the demand and supply imbalances of the country.

I wish the team of Wheebox and other partnering institutions a very successful and grand releasing ceremony of ISR-2023. ”

### **Dr. Amarendra Pani**

Joint Director & Director (i/c) Research Division | Association of Indian Universities

“

Congratulations to Wheebox on their new edition of the India Skills Report. It is a comprehensive report with a sharp focus on the Roadmap to India’s Skill and Talent Economy 2030. All organizations need to follow / adopt the New Roadmap to hire New Talents.”

### **N VASUDEVAN**

Principal | K. Ramakrishnan College of Technology



“

Every industry has tremendous scope, especially considering the current market trends. The Future of India’s Skill and Talent Economy 2030, are the ability and capacity to carry out processes and to be able to use one’s knowledge in a responsible way to achieve a goal.”

### **Muralidharan R**

Principal | Rathinam College of Arts and Science (Autonomous), Coimbatore



“

India Skills Report is a valuable initiative by Wheebox. The report helps us to understand the standard of the employment skills which is very useful for the younger generation joining the workforce. The WNET, Wheebox National Employability test helps to analyze the reader to understand the employability of graduates. Also looking forward to various opportunities regarding jobs and internships.”

### **Gaurav Saini**

Director & Head CRC | Sushant University



“

“The India Skills Report, focuses on the Roadmap to India’s Skill and Talent Economy 2030. In the coming five years, Unlike any other country in the study India will have a highly skilled talent surplus by 2030.

As per the report, India is on its way to becoming a 10 trillion-dollar economy in 2030.”

### **Dr. Swaroop Lahoti**

Professor, Dept. of Pharmaceutics

Y. B. Chavan College of Pharmacy, Aurangabad.





“ India Skills Report is the most referred report on the Nation’s talent landscape. The Report gives us insights into the new job opportunities of the country and offers to students, corporations, academia. We would like to recognize and express our gratitude to everyone involved in this shared effort and initiative.”

**Susheel Chhabra**

Professor | PML SD Business School, Chandigarh

“

This edition of India Skill Report focuses on ‘The Roadmap to India’s Skill and Talent Economy 2030’, is taking a step further in the direction of improving the skills of the youth, by conducting an annual assessment of students to understand the kind and level of skills they possess. This will help us in the Hiring process.”

**Rakesh Singh**

VICE PRESIDENT – CORPORATE RELATIONS & ALUMNI AFFAIRS | Benett University



“ The Wheebox National Employability test helps to understand the skills of the youths and also makes us understand what can be done to better equip them for upcoming job market trends. Thank you Wheebox for this splendid initiative.”

**Dr. Milind Thomas**

Associate Professor | JK Lakshmipat University, Jaipur

“

The objective of India Skill Report 2023 is, By 2030, India will be amongst the youngest nations in the world with the college-going age group. The challenge of bringing industry relevant skill programmes which can enrich their skills and enable them to find decent employment. ‘The Roadmap to India’s Skill and Talent Economy 2030’ tries to articulate an ambitious vision for higher education reform and lay out a roadmap to achieving it. The India Skill Report holds a mirror to the expectations of the industry and the skill gaps in students.”

**Ankur Gupta**

Deputy Director-Corporate Resource Center | Amity University Gurugram



“ India Skill Report, helps to understand the industry interface requirements which helps the students for meeting the industry needs. The WNET Exam allows the students to understand the gap between their present skill levels and skills required to be obtained to be industry ready.”

**Dr. V.C Sathish Gandhi**

Assistant Professor of Mechanical Engineering | University College of Engineering Nagercoil

“

WNET Exam, helps the students to understand their strengths and weak points so that they can work on themselves and be industry ready.”

**Dr. Sarmishtha Sen**

“Associate Professor of Economics & Convenor, Career Counseling and Placement Cell”  
Syamsundar College





“India Skill Report, gives detailed analysis of the skills and geographic availability. It also provides detailed insights to Vocational courses and colleges towards preparing the curriculum matching with the training component as per industry demand. The Report also has a section, Gender-wise data which helps in encouraging and supporting Indian Women.”

**Deepak Kumar**

Sr.Vice President | GLA University Mathura

“

“The India Skills Report is an important benchmark to help us measure and evaluate progress against workforce challenges. It focuses on Skill Development that to quality of talent/ skill supply, which helps the academia, Government and corporate in the long run for Hiring process.”

**Dr. K V Sriram**

Associate Director-Industry Liaison, Placement & Practice School | Manipal Institute of Technology



“Please accept our sincere appreciation for providing free of cost opportunity to our students to take Wheebox National Employability Test. It is very helpful to map the students aptitude and relevant technical capability and to know their areas of improvement. A detail report provided after the test is very comprehensive and very nicely explained through the bar chart. A Great service to students community to play an important role in Nation building.”

**Prof Binod Kumar Singh**

Head – IIC & Corporate Relations | New Horizon College Of Engineering



“The ISR report highlights the standard of the employment skills which is very helpful for the younger generation. WNET Exam helps the reader to understand the employability levels of students undergoing different courses, state-wise openings and many Internships, skill level training opportunities.”

**Vinod Tejawani**

Director - Corporate Resource Center & Alumni Relations | Amity University Rajasthan, Jaipur

“

The India Skills Report is an extremely important benchmark to help us measure and evaluate progress. This also helps organizations in reskilling, certification & quick deployment of our employees.”

**Dr. Ranjan C Khunt**

Assistant Professor, Department of Chemistry | Saurashtra University Rajkot, Gujarat





**INDIA HIRING INTENT – EARLY CAREER EDITION**  
**THE DEMAND STORY**



# THE HIRING INTENT SURVEY EARLY CAREER EDITION

India Hiring Intent Survey- Early Career Edition showed a significant improvement over the previous year, showing a 0.125% increase in positive hiring intent as the forecasted talent demand for 2023.

Due to the vast pool of employable youth within the country, the positive hiring intent represents an optimistic indicator of entry-level jobs distributed for the surge of India's youth into the economy.

Freshers, or candidates without experience, will continue to be in demand in the coming year. Of the total hiring in 2023, 16% of the new hires are expected to be freshers as compared to the 17% witnessed in 2022. The marginal drop in can be attributed to anticipation of slowdown in certain sectors in the coming year.

According to all surveyed companies, talent with 1-5 years of experience will have a positive hiring intent of 38% in the next year. Demand this year is up 1% from last year's 37%, which shows a favorable intent to hire extensively from this talent demographic.

In comparison to the previous year, men make up 67% of the workforce in 2022. Since 2016, there has been a varying trend in this section of the Indian labor force.

Women's participation in the workforce in the nation decreased from around 36% in 2021 to a little over 33% in 2023.

**Maharashtra will be the leading target for competent male and female employable talent in the upcoming year, according to 100% of the companies surveyed.**

**Corporations rank Karnataka second on the list because they anticipate that 83% of businesses would be looking to hire from the state to fill job openings in the upcoming year.**

**With 69% of the businesses questioned preferring to hire from the capital, Delhi NCR is third on the corporate radar.**

According to this year's India hiring intent survey data, 31% of industries plan to hire engineers (or candidates with a B.Tech. or BE equivalent).

According to recruiting trends across all industries, 21% of employers plan to hire post-graduates or their equivalents (MCA/MSC/MA/M.com/M Tech) in the upcoming year.

Companies surveyed expressed a 20% intention to hire applicants with a graduate degree or an equivalent, such as a BA, BCA, BBA, B.Com, or BSc.

In general, the vast majority of corporations claim that just about 30% of applicants possess the abilities needed in the automotive sector. The industry's skill shortfall puts a significant load on the Indian skilling ecosystem to handle the rising demands across the country.

The automotive industry, which employs a large percentage of workforce, is likewise expected to have attrition rates ranging from **11% to 15%**, according to the majority of employers polled.

A calculated shift to a hybrid workplace with remote availability is expected to rise later on, in the forthcoming FY 2023-2024.

More than 55% of the companies polled use staff from government-sponsored skill centers, and the vast majority are satisfied with the hiring procedure and the talent they obtained in 2021 - 2022.

In 2023, 100% of pharmaceutical employers surveyed expect to hire through government-led skilling initiatives.

In 2023, 80% of Engineering and Manufacturing players anticipate hiring via government-led skilling initiatives.

According to data collected from this year's India hiring intent, the top four states with the most predicted recruiting activity in the forthcoming fiscal year of 2023 are Maharashtra, Karnataka, and Delhi NCR, followed by Tamil Nadu.

# KEY TAKEAWAYS FROM HIRING INTENT SURVEY FOR FY 2023

In a race against time, the large youth talent pool should compete with global trends to emerge job-ready since new jobs are anticipated to enter the economy at an unprecedented rate in the coming years.

Some key observations of this year's Hiring Intent Survey reveal the following benchmarks for changing recruitment priorities.

**- Early career professionals or talent that is early in their career is in demand as India Inc eyes the hire and train model.**

**- The demand for talent with no experience or freshers is expected to be driven by the automotive, engineering, and internet businesses.**

**- Due to the growing demand for niche skills, the demand for talent with master's degrees in technological fields has increased.**

**- Delhi NCR is back in the top 3 talent hubs; with companies moving from Work From Office (WFO) to Hybrid Working Models.**

**- Demand for talent from cities makes a comeback as urban India drives digital acceleration and corporate growth.**

**- More than half of the companies surveyed hire from Govt. initiated skilling centers of which the majority are happy with the quality of hire and reported that the talent matches the expectations.**

**- Engineering students are in the highest demand across all industries, with a 31% intention to hire more competent candidates in 2023.**

The Internet business, IT, automotive, pharmaceutical, core, and energy sectors are also expected to drive demand for freshers and qualified professionals in the coming years. The trend of increased need for qualified engineering and tech personnel is expected to continue in the coming year as more tech evangelists seek employees with higher skills. As more women enter the workforce, corporations have a competitive advantage in terms of obtaining and retaining competent assets. The increase in demand and interest for freshers indicates that India is on the verge of a tremendous talent uprising.

To pave the way for 2030, enterprises in India are devoting time and resources to educating their workforce on relevant technology and hiring confidence from the government-led skilling ecosystem.



# A GLIMPSE AT THE JOB MARKET OF 2023

## Key Takeaway: A Positive Hiring Intent for Talent Across Industries

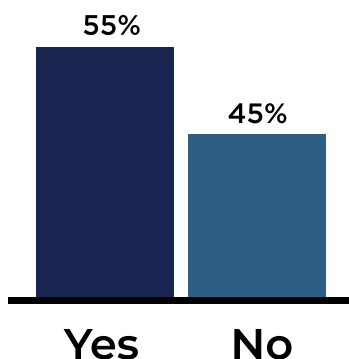
The India Hiring Intent Survey- Early Career Edition 2022 demonstrated a considerable improvement over the previous year, with a 0.125% increase in positive hiring intent as the projected talent demand for 2023.

Because of the country's large pool of employable youth, positive hiring intent represents a hopeful indicator of entry-level positions distributed for the influx of India's youth into the economy. However, the most sizable demand is for technical vocations and engineering candidates with relevant experience in job-specific disciplines.

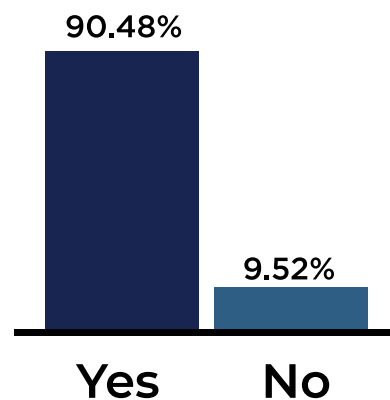
## Government Skilling Initiatives and the Hiring Intent

### Are Companies Hiring from Govt Skilling Centers?

Approximately 55% of the businesses surveyed plan to hire from government-sponsored skill centres in 2022-2023, and the great majority are impressed with the recruiting process and the skills they secured. A whopping 100% of pharmaceutical businesses polled expect to hire through govt skill training initiatives in 2023. Furthermore, 80% of Engineering and Manufacturing companies also expect to hire through govt skilling efforts. The Automotive players also expect to hire from government skill missions with 66.67% anticipated to hire from the pool. The success of India's skilling ecosystem in the past is reflected in the delight expressed by corporates about the talent they receive.



### Hires from govt. skilling centres matching expectations?



### Who is Getting Hired the Most?

Engineering graduates are in great demand and will make up the majority of the corporate agenda for the upcoming year. Graduates in information technology, electronics, and computer science are in high demand, as are mechanical engineers, and these fields are all growing rapidly. More early career professionals are anticipated to be hired in the upcoming year as result of the expansion of India's IT and digital transformation industries. The requirement for new engineering talent is anticipated to be at 31% in 2023 decreasing from around 33% in 2022, while the need for experienced professionals with up to 5 years of work experience is anticipated to increase by 1% in 2023 to 38% from the 37% reported in 2022.

## Across-Industries Talent Demand Based on Experience

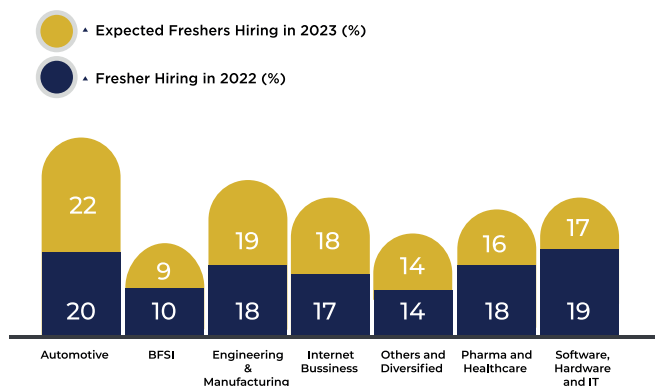
### Hiring Intent for Freshers

According to India Inc., the best course of action for the roadmap through 2023 and beyond is to hire experts early in their careers. The hiring mix of candidates with 1–5 years of experience is the greatest although freshers are still in high demand across industries and job roles.

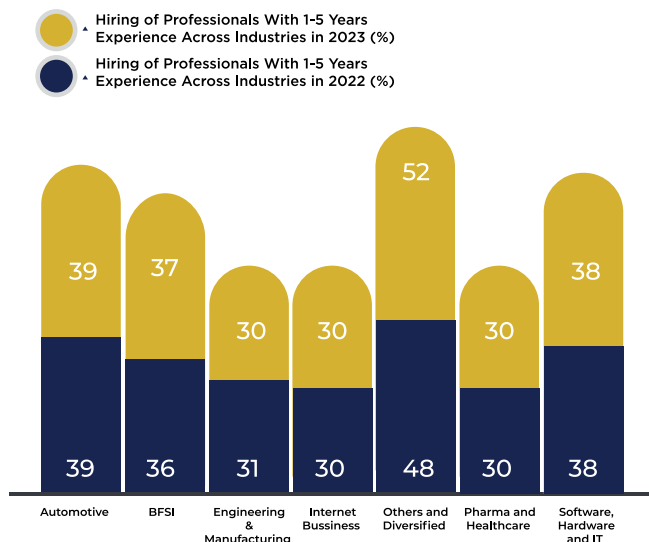
Automotive companies are the most likely to hire applicants with 1 to 5 years of experience. Retention is a key priority since, according to the general consensus of organisations polled, 16% of new recruits are anticipated to be hired in the coming year. Freshers are predicted to make up 22% of new recruits in the Automotive sector in 2023, where this trend is particularly pronounced as the highest demand for freshers. 19% of the Engineering talent mix in corporate is forecasted for the year 2023, making technical and vocational skills among freshers a rising demand in the coming years.

An 18% positive hiring intent among internet businesses are also aimed at hiring more freshers in 2023. The demand for computer talents has multiplied as India solidifies its position as the world's back office and new businesses establish GICs. As a result, Indian IT is laying the groundwork for investments and skills to create a talent pipeline for early-career professionals. As 89% of this year's WNET test takers express an interest to pursue internships, corporate India also favours these trends by expressing a positive hiring intent for freshers the coming year.

### Demand For Freshers Across Industries



### Demand For Professionals With 1-5 Years Experience Across Industries



### Competencies For the Modern Workplace

In 2023, it is anticipated that hiring will increase from the BE/BTech area and from applicants with engineering experience as the talent availability is also positive for corporates in 2023. This is due to businesses' project development needs and technical skill requirements as they adjust to the digital era. The need for people with engineering backgrounds was strongest in the automotive industry with 31% positive intent, according to a study of 150 companies and their hiring intent. Furthermore, the highly qualified talent pool of BCom, MBA, BSc and MSc graduates indicate more availability of talent for strategic roles in business development, innovation and digital transformation.

The auto sector is also transitioning to EV, necessitating a mix of IT and manufacturing capabilities. Companies in the auto industry and related industries are also attempting to develop this skill by funding early-career workers. In the upcoming year, it is anticipated that the trend of increasing need for engineering skills will continue. When it comes to driving the need for people without experience, the IT/ITes industry is closely followed by the Internet Business, BFSI, and Pharma sectors.

## Domain-wise Demand of Early Career Professionals in 2023 Across Industries

INDUSTRIES	Undergraduate or equivalent (%)	ITI (%)	Polytechnic (%)	Post graduation or equivalent (MCA/M-SC/MA/M.com/M Tech) (%)	Post graduation or equivalent (MBA, PGP, PGDM) (%)	Graduation or equivalent - BA/BCA/B-BA/B.Com/BSc.etc. (%)	Engineering or equivalent (B Tech/BE) (%)
Automotive	6	7	3	22	17	16	30
BFSI	1	0	0	18	18	22	41
IB	1	3	2	23	18	15	38
IT/Tech Software Hardware	6	4	4	25	15	20	26
Engineering / Manufacturing	7	5	6	15	16	16	35
Others / Diversified	5	2	5	21	18	29	21
Pharma / Healthcare	5	2	5	20	16	26	26
Average Percentage	4	3	4	21	17	20	31

### The Skill Gap Deficit

Out of the more than 150 businesses polled, 70% specifically acknowledged having a skills gap in their employees with a majority finding >30% qualified to meet the demands of industries like automotive and manufacturing. This demonstrates how young people just entering the workforce are unaware of contemporary job positions and needs as they emerge into the fresh wave of employment prospects in this decade. Despite having a highly employable youth population, the lack of job-specific skills in a rapidly changing industry setting is steering the focus towards training and development.

However, 30% claimed that no skill gap had been found. Employers in the Software and IT sector see the skill gap as an issue, and employers in the engineering & manufacturing sector concur. As technology changes fast, the adaptability of corporations to hire, train, deploy, engage and retain will be put to the test in the coming years. This is a sign of the evolving technology and real-world experience needed to succeed in these professions. A skill gap deficiency was also noted by BFSI firms who are looking to ramp up on more experienced professionals in the coming year. The pharmaceutical and healthcare industries showed the least evidence of a shortage, however 100% of respondents expressed their intent to leverage India's govt led skill ecosystem to fulfil the talent deficit. The skill gap was greatest in the retail industry, where the majority of respondents agreed that there was a skill gap shortfall.

### Future Skills For Early Career Professionals

The degree of technical and vocational expertise needed to succeed in today's economy has increased. The concern is whether India's skilling ecosystem is up to par given the obvious skill gap that exists across several industries. The fact that total positive hiring intent is increasing at over 1% this year is a positive sign, also demonstrating a consistent improvement as a result of the government's and the public sector's different skill-building initiatives and the public's improved access to international resources.

There are some intangible qualities, nevertheless, that will never go out of style. Employee duties are changing into more strategic ones in areas like business communication and incident response. People-driven experiences are the foundation of today's successful entrepreneurship as robots start to automate activities. The experiences of the employee as a stakeholder are almost as essential as those of the customers, if not more so. Certain abilities are more important than others in order to support a seamless corporate culture and deliver goods and services in a personalized way.

## Factors Influencing Career Choice

Candidates entering the workforce of India base their career priorities on the following key distinctive parameters.

### Domain Expertise

How skilled and knowledgeable are the candidates for specific job functions and business-critical duties?

### Job Opportunities

Are there enough job opportunities in the current economy to satisfy the influx, and interests of emerging talent in India?

### Age and Demographics

What is the median age group of talent distributed across offices in India, and how does coworker experiences influence the career choice of talent entering the workforce?

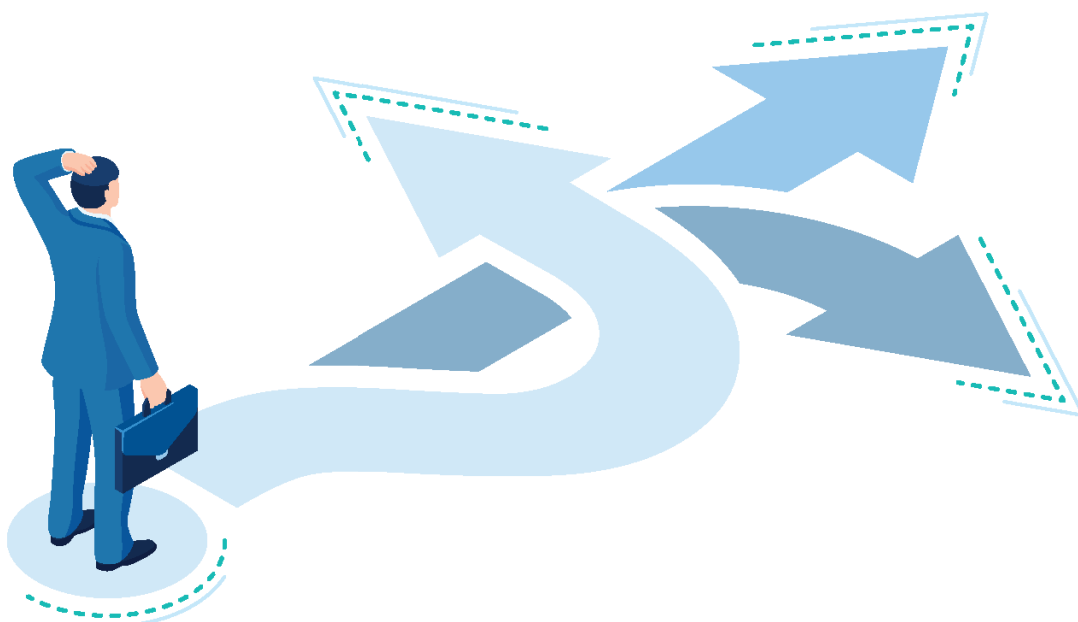
### Adaptability

Is the workplace offering avenues to continuously improve and aspire to grow in the career, with a focus on inclusive culture?

### Workplace Flexibility

Are workplace policies designed to meet the new way of digital work, and are employees offered the tools required to succeed best at their chosen professions?

**Fun Fact:** Odisha is the state with the highest percentage of employable male resources at **57.89%** found employable. Rajasthan has the highest female employability percentage at **53.56%**.



## Digital Literacy

A person is typically hired to fill a certain job role. However, as technology advances in all sectors of the economy, job duties are becoming more technologically aware. Knowledge of the most recent software stacks and cloud platforms is invaluable for a new or aspiring professional deemed to enter a modernized digital workplace. An employer's ultimate goal would be to provide seamless employee experiences and to use their learnings within the organization. This would comprise a diverse set of talents ranging from artistic endeavours like content creation and vlogging to technical expertise like AI, ML, and IoT. This shared responsibility prompts candidates to embark on a journey of discovery, where new job opportunities and career paths emerge on a daily basis. The key is on-the-job training and result driven awareness cyber security awareness camps. In today's world, digital literacy is the foundation to agile workplaces of the future, and is catching up to almost every type of work present today. What does this mean for the future of machines? Are they really going to take over?

If one wishes to compete in today's market, it is critical to improve one's comprehension of the most recent technological tools. Anyone who can provide practical solutions to everyday problems, whether they have advanced Python coding skills or basic HTML knowledge, is a valuable asset. You don't have to build a bio-tech weapon to stand out in the crowd, you just have to work well with deadlines and learn to adapt quickly to the demands of your job. We may assume that machines would be just as dutiful, whether they're AI powered or not.

The only way for aspiring professionals to be job-ready is to expose themselves to today's job demands and emerging workplace policy trends. Continuous progress in applying computer code, machine learning, and data leveraging are all critical to modernization and will be demanded of future employees in almost every discipline. Workers' technical aptitude is increased in a tech-enabled workplace by problem-solving abilities gained via hands-on project experience. The various easily accessible short-term and long-term certificates, free online video training, and remote employment opportunities all contribute to a more straightforward view of labour policy and corporate social dynamics. Workplace tenacity is overtaking traditional organizational structures. Knowledge work is being replaced by value-added work. As a result, an information-driven



economy will require fewer knowledge workers and more strategy providers of real-world solutions to business-critical and time-sensitive problems.

Skill initiatives under the Skill India Mission and different private establishments attempt to prepare India's talent for the future of work by understanding employers' growing expectations and the digital tools needed to flourish. Skill India and its multiple subsidiaries' success is a tremendous boost for the Indian economy, as talent is being developed to meet the expanding demands of broad digitization.

## The Agile Workplace Revolution

Software manages the workplace in the current day. software for managing projects. content administration. management of customers. enterprise intelligence. Management of marketing, human resources, etc. With the development of online enterprises, e-commerce, online coaching, counselling, graphic design, and banking sectors, women have increasingly dominated these areas. As more individuals recognize the significance of exposure to the in-demand skills necessary for the modernized workplace, gender roles in corporate India are gradually changing. The requirement for competent labor has steadily grown in response to demand for new age skills, computer knowledge, coding expertise, data analytics and content production. Women are advancing up the employability ladder in India's schools and universities, as the group with the greatest qualifications across areas is made up of women. Transferring from school to work is difficult in many parts of India, since societal inequalities continue to hold the great majority of India's youth hostage. More women

are likely to enter the workforce as awareness grows and the success of Skill India materialises with significant economic ramifications, resulting in an adaptive transition in workplace policy, inclusion, and diversity.

Contrarily, urban India has seen a rise in the number of women who work for themselves, as well as corporate employees and gig workers. These women work for businesses of all sizes and provide services like training, content writing, SEO, business consulting, marketing, product development, fashion design, and software development, among others. Employees and managers that are creative can identify innovative team members and propose future projects that could benefit the business and their workforce. Creativity and quick learning on the job is a critical ability that determines the chances of securing top jobs in India. It looks like digital is unlocking all kinds of creativity among people of all ages too.

### Gender Distribution Of Early Career Professionals In The Workforce

53.28% of women were determined to be highly employable, according to this year's study, compared to the statistic of 51.44% of employable women in ISR 2022. This is a lot higher than the male test-takers' demography, which was 47.28%. Male involvement still outpaces female participation in the corporate mix, though, with 67% of the workforce comprising men across all job roles in India inc. With increased demand from Business Development, Retail, BFSI, Pharma, Internet Businesses, and IT, it is anticipated that the percentage of women in the workforce would continue to rise in the coming year.

The abundance of capable female employable resources is a promising sign of the intention to hire in the upcoming year. More qualified women are anticipated to enter the formal sector in the upcoming years as educational access improves, cultural standards shift, and the value of job exposure rises.

**Fun Fact:** **94.63%** of the **3.75** lakh test takers who took the WNET test did so using Google Chrome.





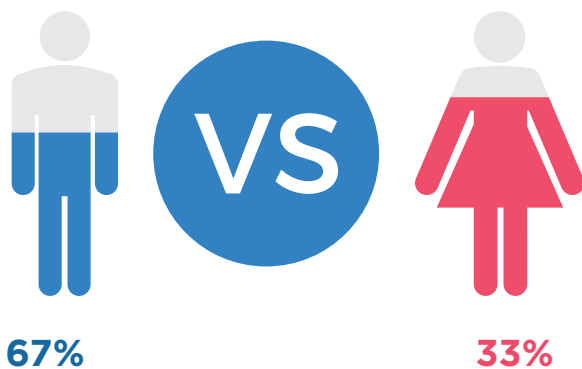
## The Role of Women Workers in Building Digital India by 2030

India has one of the lowest rates of female employment worldwide. But in the next few years, it is anticipated that the ecosystem of education and skill development would give the country priceless resources. More women are dedicating time and money to mastering computer programming, business management, engineering, business administration, and taking on initiatives in a variety of industrial verticals. The problem of gender equality and workplace participation is one of social welfare and economic progress that applies not just nationally but also to everybody in the world.

### Gender Parity A Concern:

**Male: 67% | Female: 33%**

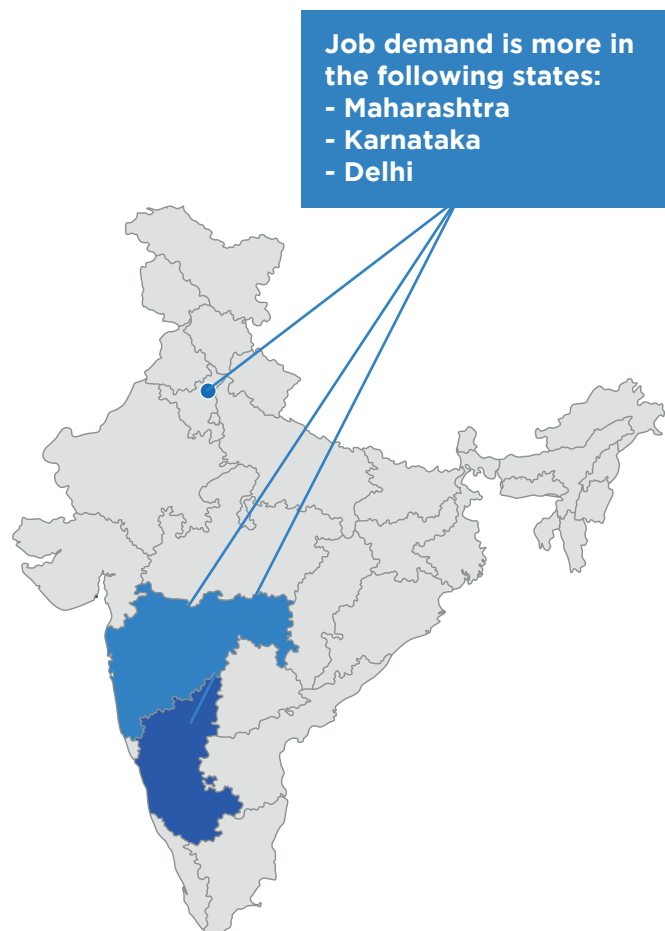
Hiring Mix of Male & Females Per Industry



Government actions and knowledge about gender roles in India are crucial to take steps in the correct direction to enhance the usability of its massive human capital, given the large number of employable women there. The gender matrix across organizations is being restructured thanks to the human resources and possibilities currently accessible. This issue has existed even before the industrial revolution. The public and corporate sectors need regular reassurance that gender parity is no longer a problem but rather a step toward giving people new options as the globe becomes more interconnected. Believing that everyone deserves equal rights, just chances, and attention when it comes to jobs and livelihoods is the first step in raising the issue's visibility. The dream of a new India requires coordinated effort from both public and private sector entities to encourage women participation in all areas of work and across diverse hierarchies in organizations.

With the introduction of remote work, women all around the nation now have more opportunity to make use of their skill sets and contribute to India's workforce. Additionally, small, medium, and big businesses are putting into practice workplace practices that take into account the requirements and goals of female employees. The taboo against working women is about to vanish into the rebellious spirit of contemporary India. Over the past five years, there has been a sharp increase in the number of self-employed men and women thanks to the challenging public and private sector measures to provide financial help with flexible ledgers. This attempt to highlight gender inequality in the nation has benefited diverse groups in various regions across the Indian subcontinent.

**Fun Fact:** The top 5 states where maximum hiring activity is forecasted are **Maharashtra, Karnataka, Delhi NCR, Tamil Nadu and Andhra Pradesh.**



## Hiring Intent By Geography

According to data gathered from this year's India hiring intent, Maharashtra, Karnataka, and Delhi NCR are the top four states with the greatest expected recruiting activity in the upcoming fiscal year of 2023, followed by Tamil Nadu.

Candidates from Maharashtra, Karnataka, Delhi and Tamil Nadu are those most in demand by employers, and these states also experience the greatest talent espionage. Maharashtra is the top destination for employers on the look out and Karnataka's corporate prowess cannot be ignored. Delhi, which placed third this year on the corporate radar, has a fair share of marketable young talent, making the area a top priority for employers in the upcoming year. Owing to significant improvements in places like Andhra Pradesh, Uttar Pradesh, Gujarat, Bihar, Haryana and Rajasthan are all in the top 10 destinations for recruiters searching for talent because of expanded reach into talent across a variety of areas. Companies in Tier 1 & Tier 2 cities in India are focusing on the budding youth population to create more job opportunities that will foster the dynamics of India's economic fortitude in the coming years.

Over the past two years, infrastructure capabilities and employment prospects have risen in Tamil Nadu's fast-growing cities of Chennai and Coimbatore. Candidates from this region are highly sought after by top companies, as indicated in the Hiring Intent study - Early Career Edition, coupled with a highly employable young population. Bangalore, the capital of Karnataka, is the most sought-after location for job seekers, and businesses in this region report a strong need for staff in a variety of fields, including customer service, BPO, data analytics, and education.

As a result, firms' recruiting intentions show a persistent interest in applicants from Karnataka, where the 2nd most hiring intent takes place, and which is also among the top states for highly employable men and women candidates. Maharashtra leads the list for the most anticipated corporate recruiting activity in India since it is one of the country's major cosmopolitan cities. Enterprises searching for quality to retain their workforces and are guaranteed of the availability of competent labor are in great demand for talent from this region. For employers looking for skilled labor, Andhra Pradesh, Telangana, and Uttar Pradesh are also growing choices.



Given the significant influx of young people from other states and the rising need for freshers and candidates with 1-5 years of experience, Indian companies are embracing a more inclusive but heterogeneous culture that aims to help freshers better adapt with experienced workforces.

## **In 2023 and beyond, India Inc's Distributed Talent is Expected to Harness Technological Innovation at Scale and Velocity to Improve Business Functions and Output.**

### **Increased Availability of Technical Talent**

This year's data also demonstrates that there is a significant skills gap in the fields of data science, cloud computing, healthcare, and finance. While e-learning and institutional collaborations try to close the gap, the rate of IT development is twice as quick as the supply of skilled specialists. While 50.03% of all WNET exam takers were determined to be highly employable, the IT domain has the highest percentage of employable talent with 65.02% being highly desired among all technical BE/BTech courses. MBA has the highest percentage of employable talent among young people, at 60.10% nationwide availability of qualified talent. This demonstrates that both academia and young people are aware of the high preference for pertinent academic fields. The majority of BTech exam takers in Maharashtra achieved scores of greater than 60% on the WNET test, which accounts for 69.03% of the test.

The age range between 22 and 25 is seen to be the most employable, with an 55.67% nationwide employability rate in this age group, followed by the range between 25 and 29 with an 51.82% rate of highly desired test takers. More young people may be equipped with the necessary skills for the jobs of the future as a result of the growing popularity of online courses and skill-development programs. The age range of 18 to 21 was shown to have the least desirable talent, but freshers are highly sought after by corporates in the coming year. With only 51.82% of test participants being highly employable. According to the India Hiring Intent Survey- Early Career Edition, industries are most interested in hiring persons between the ages of 22 and 25, with a rising demand for applicants with 1 to 5 years of experience as we enter FY 2024.

Early-career or emerging talent is still in high demand. Strict procedures should be implemented nationwide at the societal and institutional levels in order to align the enormous population overall of India's adult human resources with industrial needs. By the year 2030, the advancement of technological skills and resources will have changed the course of New India's economic growth.

## **Embracing Modernization of Industry**

As business survival will be the major emphasis in the present economic slowdown, marketing, and management consultants will be needed to cut costs and provide strategies to survive and stay in the market. This will need the hiring of marketing and M&A advisors in large numbers. The quickest sector to have grown in India's economic fortunes is telecom, whose story is just getting better. According to Zinnov estimates, India has 850 million mobile phone users, with a 15% smartphone penetration rate. All of this points to a load demand that is boosting business mobility development in India and producing a sizable increase in job opportunities.

The debate over 100% FDI in single-brand retail, which is now limited to 51%, has garnered attention in the retail sector in recent years. The liberalization of India's retail sector would lead to a stronger, more organized economy, which will help create employment, albeit the outcome is yet uncertain. Currently, only a tiny percentage of Indian retail is organized. Technology is transforming that. People will seek entertainment at home during these trying times when they are losing their jobs and don't have time to watch TV, increasing the revenue from advertising for commercial networks. Religious outlets and businesses like those that produce religious literature and goods will flourish. The number of people watching religious media networks has significantly increased over the past several years when compared to other entertaining/commercial channels. The nation has never been short on tourists or foreigners since its history and culture have always attracted travellers from all over the world. India's economy has benefited greatly from the tourist industry, particularly in terms of the foreign currency it brings in. Because of its potential and goodwill associated with India's vast cultural variety, it also contributes significantly to employment. Activities following the global pandemic have increased, and the tourism industry is expected to continue growing.

## **Realizing Digital India - A Dream Come True**

The mobile wallet market is another quickly expanding sector of the Indian economy that is related to online payment methods. Analysts predict that by 2027, the sector in India would be valued at \$429.2 billion, up from a value of \$30.1 billion in 2020. That is a CAGR growth of more than 45%, for context. India has the largest

market for UPI transactions, with connectivity spanning nationwide since technologists invented the new market. In India, the value of online gaming has also been steadily increasing, rising from 65 billion Indian rupees in 2020 to 79 billion rupees in 2021. In 2022, the massive adoption of tech across office spaces and public administration has only skyrocketed the consumption of technology, devices, the internet and digitalization. Additionally, there has been an increase in investment in online gambling over the past year, and over \$100 billion is expected to be spent on gaming in India over the next four years. The success of the Indian online gambling business may be attributed to its broad demographic appeal and backing of the local media, sports, arts, and entertainment.

## Local Talent Made Globally Inclusive

The country's car industry and India's billion-dollar industrial automation sector have both been growing rapidly. India's vehicle sector is really the fourth-largest in the world. As the nation maintains its top spot in the unit production of tractors, two-wheelers, and three-wheelers, the market is anticipated to have significant growth levels in 2023–2024. Growing innovation in electronic transportation is expected to revolutionize some of the busiest areas of the world, cities of India. The acquisition of major European brands in recent years has sent shockwaves across India's automobile market onto the world radar. Continuous research in liquid engineering, metal fabrication, and sustainable infrastructure will foster the globally inclusive growth of India's industry.

India's accelerating economic development is expected to make it the world's fastest-growing economy for the remainder of the decade. India will soon have the fifth-largest economy in the world as a result of population and economic growth. India was the only developing nation with a per capita GDP of less than \$5,000 to be rated at all, and one of just two to do so out of the top 10 in A.T. Kearney's Foreign Direct Investment Confidence Index, India is seen as "competitive," claims Kearney. To get India to the point where industrial juggernauts may enter the world market, all sectors and industries have contributed. The long-awaited resurgence in consumption has given the Indian economy a boost by reducing economic slack and supporting sales across all sectors.

Additionally, the Make in India and Atmanirbhar Bharat goals underscored the enormous opportunity to create economic strength through both small- and large-scale industries, as well as new prospects for self-employment in diverse urban and rural regions of India. However, a skills gap, notably in engineering, automotive, and manufacturing, must be actively addressed to ensure that increased demand is satisfied in the aftermath of a new India. Considering the increment in qualified talent across these domains, the skilling ecosystem is hopeful of further expanding efforts to prepare India's Skills and Talent Economy for 2030.





**INDUSTRY LEADERS SPEAK**



“

India will bring equilibrium in the current state of global market headwinds and will continue to be one of the world's biggest talent markets. In terms of hiring, we expect hiring to normalize after two years of pandemic induced volatility. Companies may start the calendar year 2023 on a cautiously optimistic note, however, we expect hiring to pick up in the following month driven by existing as well as new demand for talent. Early career professionals are expected to remain in high demand in the coming year as companies are weighing on hiring and developing the skills required instead of 'shopping' for talent. We also expect industry-academia relationship to strengthen as the window of opportunity to upskill becomes shorter.”

**Devashish Sharma**

President, Taggd

“

The new way of working is going to be the hybrid model and tier 2 to tier 3 city candidates will get more opportunities. Going forward, for many companies the location of the talent will not matter. If a talent sitting in a tier 2 city or a tier 3 city is more committed to the organisation and invested in the same, the flexibility of operating from any location will not be a concern.”

**Ranjini Chakraborty**

HR Director of Giesecke+Devrient



“

Technology, Digital and business model disruptions have forced the Organisations to rethink customer life cycle needs and ways of fulfilment. Enhancing customer experience through digital discovery is the new norm and each industry is quickly adapting to it. The new roles in digital and tech domains are in high demand across industries because that's the skill set every organisation is looking for”

**Manish Sinha**

SVP and CHRO of M&M Automotive Business



“

We are always looking for people with the mindset to solve a problem; solution statement employees, the people who can solve the industry problems are the people who can solve the nation's problems. If our employees do not want to move to big cities, we're okay with that. We will revamp your bonus structure and performance incentive programs accordingly because talent is available everywhere in India, not just in the tier 1 cities.”

**Digwanta Chakraborty**

Head HR of Trinity Life Sciences





“

The work from home model has given the organization much needed flexibility to pick up talent from anywhere, however laws, and regulations are still in a nascent stage in India and can pose challenge to the flexible working model particular for companies in BFSI.”

**Sanjev Vaid**

CHRO of Natwest Group

“

“While the market trend shows a clear inclination towards data-analytics & smart-technology based roles, I’m sure that the domain knowledge of core engineering for an organization like ours will not fade. We too are experiencing an accelerated demand for digital transformation & its impact on the talent sourcing. This is where the gig workforce has emerged as an important talent management strategy for organisations. Hiring future-ready multi-skilled professionals, a keen focus on gender-neutral roles & creative sourcing through government schemes could play a key role in closing the tech talent demand-supply gap. We may also look at second careers for qualified diversity candidates & assignment based employment offerings in the near future.

The build - buy - borrow decisions will depend on how agile our policies & culture is. The great shuffle will bring ‘interesting’ challenges & thus, opportunities to re-create/ co-create in the next few years.”



**Pooja Velhal**

Head Talent, L'ship, OD, Culture of Schaeffler

“

Whether it is technology or manufacturing, Gurgaon and Bengaluru offer a great pool of talent for electric mobility across all experience levels.”

**Manu Sharma**

HR Head of Hero Electric





## **ENGAGING TALENT WITH INDUSTRIAL DEMANDS OF 2030**

The invaluable contributions of MSDE are highlighted in this section to exemplify the leaps taken to transform and position India's skills and talent economy for 2030.



## Ministry of Skill Development and Entrepreneurship (MSDE)

The invaluable contributions of MSDE are highlighted in this section to exemplify the leaps taken to transform and position India's skills and talent economy for 2030.

### Unlocking An Industrious Advantage for Skill India Mission

The Ministry oversees planning all national skill development initiatives, closing the skilled labor supply and demand gap, creating the framework for technical and vocational education, upskilling workers, creating new skills, and fostering innovative thinking for both current and future job opportunities. The Ministry works promptly and to the highest standards to skilled individuals to realize its goal of a "Skilled India."

To carry out these initiatives, the skill development activities under MSDE programs are regulated by National Council for Vocational Education and Training (NCVET) which was constituted as an overarching regulator establishing regulations and standards to ensure quality in the TVET space. The National Skill Development Corporation (NSDC) is the strategic implementation and knowledge partner for delivering on schemes of MSDE like Pradhan Mantri Kaushal Vikas Yojana (PMKVY), the Recognition of Prior Learning program etc. There are 37 Sector Skill Councils (SSCs) which work closely with the industry to ensure industry relevant skill trainings. There are more than 14000 Industrial Training Institutes (ITIs) under DGT with 33 National Skill Training Institutes (NSTI) which support the long-term skill training ecosystem. The rural skill development training are supported by Jan Shikshan Sansthan (JSS) while organisations like NIESBUD and IIE promote entrepreneurship ensuring the youth contributes to the Prime Minister's vision of an Atmanibhar Bharat.

The Ministry also work with other Central Ministries, State Government, Departments and Organisations working under the Skill India Mission ensuring smooth coordination and convergence across all initiatives and schemes.

MSDE also focuses on close collaboration with educational institutes and academia to ensure integration of skill development initiatives with formal education as guided by the new National Education Policy introduced by the government. To accomplish skill development efforts more effectively, partnerships have been established with international organizations, businesses, and non-profits.



**Narendra Modi**

Hon'ble Prime Minister of India

“**Skilling, reskilling, and upskilling, focusing on the multidimensional approach to make our youth more competitive, is the biggest need of the hour. These endeavours are aimed at making the youngsters flexible and adaptable in the current fast-changing job market.**”

## Achievements and Reforms over the last seven years

In the last seven years, the ecosystem has been able to enhance scale and outreach with speed. To understand better, here is the comparative analysis:

### 1. Re-energizing and re-imagining the Industrial Training Institutes (ITIs): having a strong equity in skill training since pre-independence era

- In 2014, **10119** institutes were established and since then **4621** have been added, taking the total number to **14740** in 2022. This is an increment of **45.67%**.

- **24+** lakhs seats for sessions 2021-2023. **4+** lakhs seats added since 2014. Total seating capacity went up by **52%**.

- **12990** seating capacity of trainers till date. **1525** seats added since 2014. Total capacity went up by **13.3%**.

- National Skill Training Institutes (NSTIs) were opened in 2015 with 3 Extension Centers. There are **33 NSTIs (19 are exclusively for Women) and 3 Extension Centers** are working now.

- **221** courses till date (149-CTS, 54-CITS, 14- STT and 04 Advanced Diploma). 59 courses added since 2014

- MoUs under Flexi MoU Scheme have been signed under the revised scheme guidelines released in March 2019, as on 31st March 2022

- **414 ITIs have been Affiliated for short term courses under PMKVY 3.0.**

- Affiliation norms are being revised to improve and strengthen ITI ecosystem in the country and increase the ease of doing business. Powers are decentralized by forming and empowering State Skill Development & Entrepreneurship Committee in each state.

- **Online affiliation application “DGT inspection”**

- State Skill Development Empowered Committee has been created to decentralize skill development. **22 RDSDE** have been formed to ensure smooth coordination

S.No	Category of MoUs under DST	No. of MoUs signed
1	Between National Skill Training Institutes under DGT and Industry Organizations	308
2	Between Govt& Private ITIs of State & UT and Industry Organizations	2871
3	Between Industry Clusters and ITI (Under STRIVE Scheme)	32
4	Earlier Existing MoUs of DST now revised under revamped scheme	186
<b>TOTAL</b>		<b>3397</b>

### 3. Efficient and Transparent systems through IT governance

- To increase the efficient and transparent management of ITI ecosystems, Guidelines have been laid down for Online Inspection of ITIs for Accreditation and Affiliation and Online Inspections were carried out. As

- New Online Module has been developed for On-line Generation of Affiliation Order. It has reduced the human intervention and increased the transparency of the system

- The admission data transfer has been automated through API data transfer between the State admission portal and NCVT Portal.

- Examination results and center mapping data has been automated through API between Exam Agency and NCVT Portal.

- Marksheet and Certificates are now directly available to trainees in their profile in NCVT portal for download.

- CBT Answer sheets of trainees available to trainees in their profile on NCVT Portal.

### 4. Digital Skilling:

- The Directorate General of Training (DGT – <https://dgt.gov.in>) under the aegis of Ministry of Skill Development and Entrepreneurship (MSDE) has been striving ahead in this technological age by hand holding the youth across the country and at the same time ensuring their digital skilling and industry readiness.

- Digital skills are a mandatory part of the Employability Skills curriculum being imparted mandatorily under the Craftsmen Training Scheme (CTS) across the country, through the ITI network. All ITIs are equipped with IT labs for digital skilling.

- Furthermore, DGT has launched the Bharat Skills (<https://bharatskills.gov.in>), a Digital Repository for skills provides NSQF curriculum, course material, e-learning videos, question banks and mock test etc. for CTS, CITS courses in the ITI eco-system. This helps the trainers and trainees to have easy access to books, practice papers, learning videos which enable them to learn easily their topics outside the class.

- It has a Bharatskills Mobile App, where students can access the content and they can assess their skills through live mock test / question bank and simultaneous evaluation.

- DGT in association with NIMI, has also developed the Blended Learning – digital vocational education and training courses to augment learning of ITI students across the country. As a phase-1, the courses for top 6 popular ITI trades under CTS scheme (i.e. Electrician, Fitter, COPA, Mechanic Diesel, Cosmetology) has been made available.

- These courses are already hosted on [www.bharatskills.gov.in](http://www.bharatskills.gov.in). Blended Learning will act as a key tool for trainees to acquire new skills, upgrade skills as well as to test their learnings, can be accessed anytime from anywhere from internet enabled devices.

- Bharatskills (<https://bharatskills.gov.in>) portal of DGT bagged National Award (Silver) for “Excellence in Citizen Centric Delivery” by Govt. of India.

- DGT has also collaborated with industries to provide digital learning content and links to various other programs. Courses relevant to Industrial Revolution 4.0 (upskilling) etc. have been made available to the trainees free by DGT in partnership with Tech Industries like IBM, Cisco, Quest, Microsoft etc. through Bharatskills portal to make the trainees industry ready. At present, Bharatskills contents are being accessed by more than 34 lakh trainees.

### **Digital Skilling courses through eSkill India Portal (For e-courses)**

- In our collective endeavor to take skilling opportunities to the Indian youth, we cannot underscore enough the importance of e-learning.

- Towards this end, NSDC has create the e-Skill India, e-learning aggregator platform.

- The aggregator consolidates B2C e-learning portals operating over the internet in the skilling ecosystem. These portals further create and source e-learning content in a hub and spoke manner. Thus, enabling multiple e-learning players, strong in specific skilling sectors, to share their strengths as part of this aggregation exercise.

- Bringing the supply and demand side together, this provides opportunities to skill seekers to choose an e-learning course from an aggregated catalogue.

Friendly navigation prompts and search mechanisms have been provided to enable one to reach a course of choice.

- Existing NSDC candidates (scheme based or non-scheme based) can use their Candidate id authenticated from SDMS system to access the e-learning. New users may self-create their logins. eLearning opportunities aggregated may be free or paid. In case of paid courses, the payment collection is done by each participating knowledge partner directly. Student progress in e-learning courses across aggregated portals is tracked by NSDC’s aggregator.

- While the students thus benefit from the e-learning opportunities provided, they should watch out for rewards and offers for the early successes at e-Skilling!

## **5. Market-Led Demand-driven skilling aligning to Industry 4.0:**

The future skills form a substantial part of this set and requires a focused and calibrated approach for adoption in the Skill India Mission. The Government has a strong focus on development of future skills across domains such as Drone, Internet of Things (IoT), Robotics, Electric Vehicle (EV), Artificial Intelligence and Machine Learning (AI & ML), 5G technologies, Mechatronics, Cloud Computing, Block chain, Extended reality (XR) including Augmented and Virtual reality, Cyber Security, 3D Printing, VLSI design among many others which shall drive the economy forward as a manufacturing and services driver. Till date 146 future skills qualifications have already been approved by Ministry of Skill Development and Entrepreneurship to offer courses for the youth of the nation in these disciplines. Government is driving the development of qualifications in many Industry 4.0 areas such as Precision Agriculture, Predictive Maintenance, Simulation Technologies, Data Analysis, Tele-medicine and many others in above and other areas.

Fee- based training through National Skill Development Corporation (creating a pool of for-profit training partners to enable skill training across 40 sectors)

- **10848** centres opened till date under the National Skill Development Corporation (NSDC). **9100+** centres added since 2014. Growth of **524%**.

- Total of **1.5 crore** candidates trained till date. 1.3 crore trained between 2014-2021. Growth of **768%**.

## 6. Pradhan Mantri Kaushal Vikas Yojana- Flagship skill development program of MSDE

Launched in 2015 to mobilize, train, certify large number of youths to take up industry relevant skill training. RPL was one of its kind initiatives which recognized existing skilled class with a certification

- **1.42+ cr** enrolled, **1.36+ cr** trained, **1.08+ cr** certified and **24+ lakhs** placed

- **719** PMKKs established and operational covering **707** districts in **36** states/ UTs

- **53+** lakhs trained & certified under Recognition of Prior Learning (RPL) program in 38 sectors

## 7. Immediate support to healthcare sector during pandemic through Customized Crash Course Programme for COVID Warriors under PMKVY 3.0

- Close to one lakh candidates have been trained under the relevant healthcare sector job roles till date to support and ease the burden of the doctor and nurses working in the healthcare sector.

## 8. Promoting Apprenticeship Training: One of the most sustainable formats of skill development

- **22+** lakhs active apprentices engaged till date.

- **34,000+** active establishments registered on portal till date. **10,000+** added since 2018.

- **6- 12** months of on- the job training for post- graduation program

- **47** colleges partnered and **854** candidates enrolled for Degree Apprenticeship Program

- Major apprenticeship reforms were done in BTP, NAPS Guidelines, Examination, and portal procedures. Three back-to-back OMs were issued regarding the same.

- Apprenticeships training around 4.9 Lakhs apprentice are undergoing and completed apprenticeship training till the month of December of current FY.

## 9. Promoting Entrepreneurship

- **9.93** lakhs participants trained through **39,251** programmes comprising Trainers Training Programme and programmes on areas of stimulation, support, and sustenance of entrepreneurship development, including **5,000+** candidates from 145 countries.

- **4+** lakhs participants mentored and handhold for setting up/ scaling up enterprises, preparing business Plan, obtaining required financial support under Government Schemes, etc.

- 5 livelihood business incubation centres offering training and incubation support to trainees in the areas of Fashion Designing, Beauty & Wellness, Mobile Repair, Food Processing, and Electrical and Home Appliances.

- 991 new enterprises created, and 1071 existing enterprises scaled up through Pradhan Mantri Yuva Yojana (PM-YUVA).

- Online e-mentoring platform "UdyamDisha", developed to handhold and guide aspiring and existing entrepreneurs and facilitate online mentoring services.

- YouTube Channel "PM-Udyami Talks" launched to create awareness about entrepreneurship and showcase the entrepreneurial journey of beneficiaries under various programmes run by NIESBUD.

- Project on Digital Marketing & Women Entrepreneurship Development launched for Women Self Help Groups (WSHGs) covering 2020 women in 10 aspirational districts of Odisha to enable them to access the market through e-commerce platforms.

- NIESBUD accredited as a National Resource Organization (NRO) by Ministry of Rural Development for Start-up Village Entrepreneurship Programme (SVEP) of MoRD and to support the State Rural Livelihoods Mission (SRLM) for effective implementation of the scheme.

- Project undertaken in Jails of Uttarakhand for creating, fostering, and promoting the spirit of entrepreneurship among the Jail Inmates through Capacity Building, Mentoring, and Handholding Support.

- Training programmes for promoting entrepreneurship among different target groups comprising migrants, tribal, women's, marginalised population covering SC, ST, OBC, Trans genders, rag pickers being organised to provide livelihood opportunities.

## 10. Empowering Rural India through Jan Shikshan Sansthan (JSS)

- The Scheme of Jan Shikshan Sansthan (central sector scheme) provides vocational skills/training to non-literate, neo-literates, person with rudimentary level of education, school dropouts up to 12th standard in the age group of 15-45 years through NGOs at the doorsteps of the beneficiary in the rural/urban/remote unreached areas.

- At present there are 304 functional JSSs in 298 districts across 26 states and 7 union territories.

- In the last 7 years, since 2014-15, 27.12 Lakh (approx.) beneficiaries has been trained under the JSS scheme (as on 30th April 2022) which includes 85% women beneficiaries.

## 11. Vocationalisation of School Education (partnering with schools)

- **12,300+** schools have been partnered across India
- **125** NSQF aligned courses across 21 sectors have been introduced
- **13+** lakhs school students enrolled for the courses

## 12. Capacity building and extensive awareness campaigns bringing states, departments, and local organisations onboard on the skilling mandate through Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP)

- SANKALP is a centrally sponsored scheme of Ministry of Skill Development and Entrepreneurship (MSDE) loan assisted by the World Bank. It was launched on 19th January 2018 with an implementation period till March 2023. The current agreement of Government of India with the World Bank is for US\$ 250 million (Rs. 1,650 crores).

- The objectives of SANKALP are to strengthen the short-term skill ecosystem and to address key issues of skilling in the country. These objectives are met through its three key result areas namely (i) Institutional Strengthening at National, State & District level; (ii) Quality improvement of skill development programmes; and (iii) Inclusion of marginalized population in skill development programmes.

## 13. Team India @Worldskills International Competition:

WorldSkills Competition 2022 which took place from September to November 2022 in Europe, Asia and USA. India's ranking has been 11 in 2022 compared to 13th in 2019. India participated in 50 skills, won 2 silver, 3 bronze and 13 medallion of excellence.

Highlights of the Team India at WorldSkills Competition:

- First time silver by female competitor in Patisserie and confectionary skill
- First ever medal in hospitality sector i.e., bronze Hotel Reception Skill
- 19% of total Indian team were female
- 12% of total Indian team were ITI pass out candidates
- 2 bronze and 2 Medallion for excellence by ITI qualified and industry trained competitors in Prototyping modeling, Mechatronics, Auto body Repair and Automobile technology respectively.

## 14. NCVET approves 4500+ qualifications:

To bring standardization in curriculum across Skilling eco-system, more than 4500 qualifications have been approved by NCVET including Industry 4.0 and new age industry relevant qualifications.

## 15. International Mobility:

Skill India International (SII) has been envisioned with the vision to make India the "Skill Capital" of the world. It further aims to transform the country as a preferred sourcing ground for skilled & certified workers and professionals across the globe. This shall be achieved by positioning India as global source for quality talent; providing global job opportunities for resident Indians in the destination countries; providing global career mobility for overseas Indians and creating an internationally benchmarked quality skills ecosystem.

## 16. Connecting candidates to NIOS, IGNOU Courses and Apprenticeship Opportunities:

One-click solution implementation for registering the trainees in NIOS, IGNOU and Apprenticeship through API which led to ease of doing business. More than 3 lakh trainees registered in a short span of 3 months.

## 17. 21 NSTIs have been registered as NIESBUD centres for entrepreneurship courses

and 35 NSTIs as NIOS and IGNOU centres for certifications higher education and degree certification courses.

## 18. Skill Development in 48 LWE Affected Districts:

18.SFC for continuation of scheme beyond 31st March 2021 is conducted. Extension given up to 31st March 2024.

- 43 ITIs out of 47 proposed ITIs made operational.

- Evaluation Study carried out by IIPA has recognized the positive impact of Scheme as unique outreach to unserved blocks of Naxals affected Districts and has praised scheme being aligned to SDG goal number 1.3 & SDG goal number 4.3

- IIPA in its evaluation study has also noted that overall, 65.4% of the ITIs built in the study area were found to be state-of-the-art infrastructure & approximately 84.6% of the ITIs are located in the Naxals affected areas.



# 7 Years of NSDC Achievements

## Directorate General of Training (DGT)

### Industrail Training Institutes (ITIs)

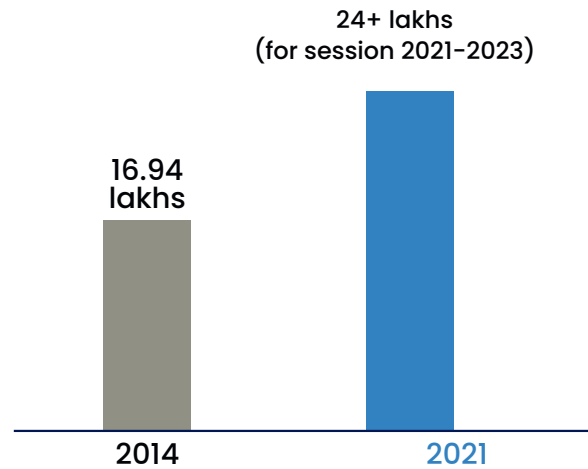
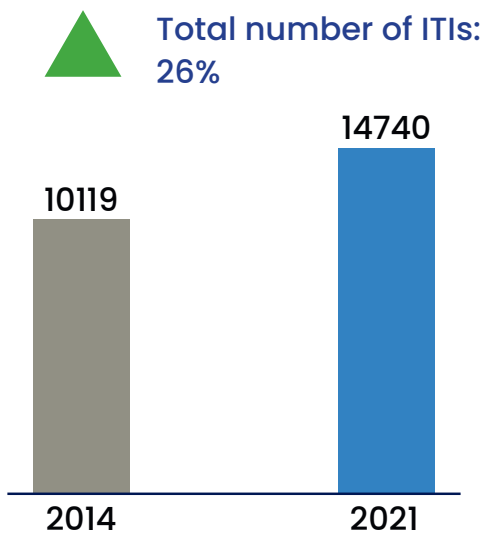
Re-energised the existing ITI ecosystem across the nation. A total of 14,740 ITIs have been opened till date with a seating capacity of 24 lakh +, 4600+ new ITIs added with 4 lakh + seats during the last six years.

Significant increase in capacity and enrollment in ITIs between May 2014 - July 2021

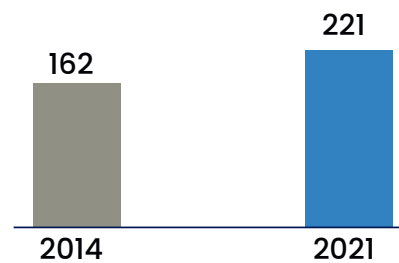
 Total seating capacity for candidates: 52%

## Scaling Up Of ITIs

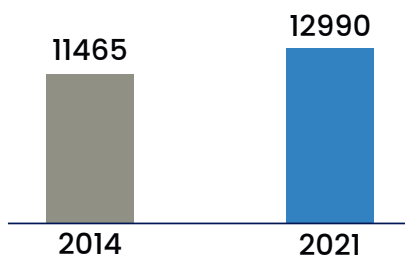
### The Aim To Establish One ITI In Each Block



 Number of trades/ courses: 12%



 Total seating capacity of Trainers: 18%



# TRANSFORMING AND BUILDING 2 TRILLION SKILLS ECONOMY

It gives me immense pleasure in partnering with Wheebox in the 10th edition of India Skills Report in partnership with CII, AICTE, AIU, Taggd, Sunstone, Pearson, AWS and ET. This section split into 8 chapters suggesting the Future of Skilling and Education towards building India a 2 trillion skill economy by 2030.

A resilient Future Ready India in 2022 stands on the cusp of massive transformation in every field and education sector is no different. The Indian Education Industry is quickly embarking on a road of digital transformation. Technological advancements have completely transformed the Indian educational system and it has seen a tremendous shift, moving from the traditional classroom to online classes and New Education policy presents a unique opportunity for India to mobilize its young population towards skilling, outcome driven education and presents a holistic approach towards quality education.

This is a golden opportunity for India to create digital disruption in economy and business. Emerging Disruptive Technologies, AI and Automation and New Business Models are emerging which makes it absolutely necessary to adopt emerging technology and remain competitive to other emerging economies.

India has one of the largest technical manpower in the world. However, compared to its population it is not significant and there is a tremendous scope of improvement in this area. If India is to be competitive with China, there is a lot of significant adoption and investment into the infrastructure and tech intervention and bold moves will be required from all stakeholders including policy makers, government and private bodies. National Council of Vocational Education and Training (NCVET), has been set up as an overarching regulator establishing regulations and standards to ensure quality in the Training, Vocational Education system in India. Efficient, transparent and accountable governance has come to be recognized as key to government reforms which are recommended towards the end of the report. This will ensure that

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**Dr. Nirmaljeet Singh Kalsi**

IAS (Retd.) (Chairperson, NCVET)

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**Higher order skills and other competencies for the future shall be drawn over the canvas of able mentorship, emerging technologies, upskilling with seamless integration and creditization of all learning be it academic, skills or experiential learning, cross disciplinarity, blended learning, and credible assessments.**

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India will not only achieve its ambitious goals for 5 Trillion Economy by 2025 and 2 Trillion Skills Economy by 2030.

To realize India reaching its true potential and becoming the second largest economy, investment in skilling and building quality infrastructure should be the priority for the coming decade. A 4 point action agenda for improving the competitiveness for the country in the global marketplace is recommended.

## Industry 4.0

Adoption for Industry 4.0 From the perspective of India, we must take a step back and observe how the entire Indian environment is organized. In 2017-2018, the Indian government unveiled an ambitious aim to



increase the manufacturing sector's contribution to GDP from around 17% at the time to over 25% by 2022. Industry 4.0 can provide the country's manufacturing sector the much-needed platform to stay competitive in the global market. Adoption for the modern manufacturing process, additive manufacturing and automation will be required for setting factories for the future which will be built from India for the world.

## Smart Logistics

Once Smart manufacturing is adopted by the industry, the goods and products required to be shipped to the end customers. The Future of Manufacturing and improving the competitiveness for the country lies in the logistics sector and adapting to the smart logistics. The sector is also constantly grappling with inefficiencies, however, because of which the cost of Indian logistics is 13 to 14 percent of GDP (in developed nations these costs amount to 8 to 10 percent of GDP).

Though a lot of best practices have been implemented by investment in logistics sector and various initiatives from the government schemes like **Pradhan Mantri Gram Sadak Yojana, industrial and freight corridors, Bharatmala and Sagarmala projects, Jal Marg Vikas and UDAN Schemes**, technology led implementation for smart logistics and tech enabled supply chain like Smart hardware for real time monitoring for the goods transported by road and ships presents great opportunity to bring the visibility in supply chain. To bring down the cost for transportation, Unmanned transportation—including drones and driverless vehicles—is another emerging area that logistics companies are exploring to widen their reach while reducing costs.

## Belt and Road

In order to reap the benefits for manufacturing and transportation by road and link the value for high value items to find the relevant markets in Asia, India should be investing more in the Belt and road initiative wherein the connect for the ports and intercontinental roads from India to 16 Eurasian countries through West Asia. One such initiative is the International North south Transport corridor and if executed properly these infrastructural pushes can pose a big challenge to China's OBOR and at the same time will give a boost to its own economic growth along with the increasing sphere of influence in world politics. If cross country roads are recommended internationally, building the infrastructure for the country is equally important.

PM Gati Shakti is a digital platform that connects 16 ministries — including Roads and Highways, Railways, Shipping, Petroleum and Gas, Power, Telecom, Shipping, and Aviation for fast tracking the application and approval process for the project and India's regional and global connectivity efforts.

## Green Factory

With the option of industry 4.0 and making India a manufacturing hub, Industrial companies will have an enormous carbon footprint. Their production and logistics operations account for more than half of all global carbon dioxide equivalent (CO<sub>2</sub>e) emissions from fuel combustion and hence it is imperative that Growth should be sustainable and balanced.

The companies engaged in manufacturing for energy intensive process like cement, textile should improve the energy consumption and utilization of energy more efficiently. Also, in order to decarbonise and Net Zero emission by factory, the incremental energy production units for the existing and new factories should be from green energy sources like solar power / Wind power.

## NEP and Skilling Intervention by NCVET Co-Creating Skill Driven Education

**Education is fundamental for achieving full human potential, developing an equitable and just society, and promoting national development. In order to mobilize and build the skilled future, the government has done a high level changes in operationalizing the implementation of National Credit Framework**

To realize the intent and objectives of National Education Policy 2020, the National Credit Framework (NCrF), has been jointly developed by a High Level Committee constituted by the Government with members from UGC, AICTE, NCVET, NIOS, CBSE, NCERT, Department of School Education and Learning & Department of Higher Education, Ministry of Education, DGT, and Ministry of Skill Development under the guidance of Shri Dharmendra Pradhan, Hon'ble Minister of Education and Minister of Skill Development & Entrepreneurship.

The implementation of Ncrf will enable multiple entry and multiple exits and provide a pathway in arts, humanities and sports ensuring flexibility of students to choose their learning trajectories. The massive transformation of Education post NEP and operationising the implementation The NCrF relies on a unified approach across the education and skilling frameworks enabling the education and skilling ecosystem in implementing a comprehensive credit-based framework. While catering to multi-disciplinarity and holistic education across sciences, social sciences, arts, humanities and sports, NCrF enables multiple entry - multiple exit (MEME) pathways in general & vocational education; ensures flexibility for students to choose their learning trajectories and career choices, including option for mid-way course correction or modification, as per their talents and interests.

The massive transformation in education can also be attributed to mass level skilling for the students enrolled in vocational educational institutions. In order to achieve global skill standards for making India "The Skill Capital of the World, Empower Youth Making VET more aspirational, dignified, paying and life-long career option Effectively address existing and future skill gaps as per Global Skill Needs /Workforce Demands Development & qualitative improvement.



## Chapter 1

# The Skills Employment Market by 2030

India is now at a crossroads to becoming a prosperous nation. If we miss this chance, we run the danger of an entire decade of economic inertia. On the other hand, the financial crisis created by COVID-19 might stimulate changes that restore the economy to a high-growth track and generate meaningful employment for 90 million people by the year 2030. This section will investigate the occupations and skills required in the most significant demand

Here we are discussing some crucial skills and aspects that will become necessary by 2030[1].

### Digital Literacy

The ability to study, work, and get about in our increasingly digital environment is what we mean when discussing digital literacy. In addition, these abilities comprise having the capability to operate hardware, software, and applications with self-assurance and safety.

### Data Literacy

Businesses will want to hire people who can successfully use data because it is one of most companies' most essential and valuable business assets.

### Critical Thinking

Critical thinking is at the top of the list of the most important talents to nurture for success in this day and age regarding issues such as information overload; social media echo chambers, and false news.

### Emotional Intelligence

An essential skill of emotional intelligence is recognizing, comprehending, and articulating one's feelings. A person's understanding of how their emotions influence their actions, the behaviors of people around them, and their capacity to control those emotions is referred to as emotional intelligence.

### Creativity

In the future workplace, creativity will be one of the most valuable abilities to possess, particularly as we continue to delegate more and more mundane duties to automated systems India is now at a crossroads to becoming a prosperous nation. If we miss this chance, we run the danger of an entire decade of economic inertia. It seeks to improve worker productivity and incomes, as well as those of small and medium enterprises and

major corporations, to maintain India's position among the most successful rising economies in the world.

## Sectors that will grow the most by 2030

### Retail

According to the Retail 4.0 Report published by Nasscom in cooperation with Technopak, the Indian retail industry is expected to produce over 25 million new employees by 2030[2].

It is anticipated that shifting demand and supply factors will accelerate the development trend, resulting in the Indian retail market reaching up to \$1.5 trillion by FY2030[3].

Sustained digital transformation has been the driving force behind the expansion. According to the research findings, "The COVID -19 pandemic has proven to be a catalyst in the transformation of Retail from the 3.0 Era into a more digitally-enabled and collaborative Retail 4.0 era[4].

### Manufacturing

Over 27.3 million people have jobs because of India's robust manufacturing industry, which is responsible for 17 percent of the country's gross domestic product and employs more than that number of people. A restriction on the entry of Chinese goods has opened up significant prospects for the Indian manufacturing sector. By the year 2030, the manufacturing industry in India may contribute more than \$500 billion yearly to the world's economy[5].

According to the most recent EY - FICCI research titled "Making India the drone center of the world," the industry of drones and the components that go into them can significantly improve India's manufacturing potential to around 23 billion US dollars by the year 2030[6].

## Construction

Nowadays, discussions concerning the next development curve are almost exclusively focused on current services such as online shopping and digital communication. However, the most recent report from the McKinsey Global Institute, titled India's Turning Point, reveals that for India to experience high economic growth over the next decade, the traditional construction and manufacturing industries must play a leading role. This is even though these sectors hold great promise and need to maintain their growth momentum.

For India to meet its goal of creating 90 million non-agricultural employment over the next decade, the country's gross domestic product (GDP) would need to expand at an average annual rate of 8.0–8.5 percent from 2023 to 2030, which is about twice the pace of 2019–20[7].

## Healthcare and Insurance Sector

Because of COVID-19, healthcare and related industries have been catapulted to the top of the priority list of governments, policymakers, and drivers in a way that has never been seen before. As a result, the central government's expenditure on healthcare will increase from 1.3 percent of GDP in 2019–20 to 2.1 percent in 2021–22. With an investment of \$217 billion in healthcare and associated areas, India can earn a stunning \$774 billion income and create 12 million employment by 2030. Both of these goals can be accomplished. As a result, the Indian healthcare sector will grow to become the second most desirable investment sector in this decade, behind only food, agriculture, and agritech, but before the banking, financial services, and insurance sectors, as well as the fintech and financial inclusion sectors.

## Renewable Energy Sector

Before the target date of 2030, India will quickly obtain a 50 percent share of its energy from non-fossil fuels and achieve a capacity of 500 gigawatts (GW) from renewable energy sources. In addition, India has committed to reducing the carbon intensity of the nation's economy by less than 45 percent by the end of the decade, achieving 50 percent cumulative electric power installed by 2030 and net-zero carbon emissions by 2070[8]. These goals were established in a document titled "Indian Carbon Intensity Reduction Targets and Timelines." By 2030, India may have a market for low-carbon technology with a potential value of up to \$80 billion.

## IT Sector/ Electronics

The production of electronic gear is an essential component of both the "Make in India" initiative and the "Digital India" program. According to Huawei's forecast, the amount of data that users of wireless cellular networks use every month is expected to skyrocket to 600 gigabytes in the year 2030. In contrast, the rate of homes with access to broadband with speeds of 10 gigabits or higher is projected to reach 23 percent. It is also anticipated that the average monthly data usage on fixed networks per household will increase by eight times, reaching 1.3 terabytes. The maximum capacity of a single fiber will go above 100T, and network ports will be increased from 400G to 800G or even 1.6T[9]. Artificial Intelligence will become a 100 billion industry till next year and as per speculations, this growth rate will be at the same pace till 2030. This will influence the job roles as well as the required skills significantly.

## Real Estate Sector

The employment building in India is now occupied by the real estate market, which is currently at the top of the employment building and generates the second-highest employment. The majority of real estate investment in India is drawn to the city of Bengaluru, followed by the cities of Pune, Goa, Ahmedabad, Chennai, Dehradun, and Gurgaon. Blackstone, a private market investor that has already made significant investments in the Indian real estate industry totaling 3.8 lakh crore (US\$ 50 billion), plans to make an additional investment of 1.7 lakh crore (US\$ 22 billion) by the year 2030.

## FMCG

There is a degree of agreement among watchers of the business on how many of these themes will develop over the next 15 years. For instance, it seems pretty sure that by the year 2030, the amount of money spent by consumers worldwide who belong to the middle class will almost triple (as growth in emerging markets will more than offset stagnation in developed markets) and that more than seventy-five percent of the population of the world will own a mobile phone. By the year 2030, the e-commerce sector will be responsible for 11 percent of the overall sales of FMCG products. By developing creative responses to the challenges posed by the epidemic, businesses operating in this sector have been able to maintain their ability to provide consistent returns to investors. Investors are drawn to this business because the demand for fast-moving consumer goods (FMCG) is constant throughout the year and extends to even the smallest towns in the country.

## Connectivity & Mobility

The term “mode of transport” is often used to refer to “smart mobility.” The evolution of several means of transportation into the current state of affairs in the transportation sector. The market rate for intelligent mobility is rising at a fast pace. It is anticipated that the automobile-sharing category will have the highest CAGR between 2022 and 2030. In 2021, the ride-sharing market sector had the most significant revenue share due to technological advancements. On the other hand, it is anticipated that the GPS market will attain a significant CAGR between 2022 and 2030.

## Agriculture

The pessimism surrounding India’s prospects for future self-sufficiency underestimates the capacity of both the Indian consumer and the Indian farmer. India is more than capable of satisfying its own food needs. According to a report, India’s agritech industry has the potential to become the largest private sector industry in the country if the country makes an investment of \$272 billion in agritech and allied segments by the year 2030[10]. This would result in an increase in revenue of \$813 billion and the creation of 152 million jobs[11].

## Conclusion

You need to work on enhancing your abilities beyond merely technical ones. The skills required for success in the modern workplace are changing significantly as we enter a new stage of the industrial revolution and the pace of change quickens. India has a successful track record on which it may rely: for the past three decades, it has been one of only 18 outperforming developing nations to see consistent and sustained high growth. Moreover, big companies will create sustainable investments emphasizing the demand for job opportunities in renewable energy sectors.

## Chapter 2

### Trends in Technologies/Business/Economics

#### The Skills Employment Market by 2030

India is predominantly a country that is focused on internal domestic needs. The complete cycle of consumption and contribution comes around 70% of national economic functions. The post-period of COVID-19 has certainly experienced better growth opportunities and development possibilities.

Observing the same trend of growth and development in India, World Bank has also given its speculations.

It has been said by the World Bank that India should prefer decreasing inequality and simultaneously focus on making and implementing new policies and regimes to support and promote economic growth.

## INDIAN ECONOMY

As per the trends, India will soon become the 3rd biggest economy by 2030[12]. The countries ahead in the race to India are the US and China. The International Monetary Fund [IMF] has also estimated that India has lost to the UK to become the 5th largest economy if we compare the market exchange rates.

As the other aspect of the picture, IHS Markit has speculated that India’s consumption spending will increase in another decade, leading the valuation to \$3 by 2030[13]. On the same note, the body has also stated that India can take over Japan as the 2nd largest economy in Asia by 2030.

Several top multinational companies see India as the best investment hub because of its large developing industrial sector and the expanding consumer market. As a result, many sectors, like manufacturing, infrastructure, services, etc., have gathered the attention of investors.

## TECHNOLOGY

If we talk about the sourcing industry, India accounts for around 55% market share, making the US \$200-250 billion globally. As per the reports of the National Association of Software and Service Companies (Nasscom), the revenue generation of India’s IT sector went up to US\$ 227 billion in FY22, with a growth rate of 15.5%. Moreover, as per the estimation of Gartner, the expenditure on IT in India will get up to US\$ 101.8 billion around 2022. The exact estimation for 2021 was around US\$81.89 billion in 2021

As per other estimations, India’s software industry will go upto US\$100 billion by 2025[14]. Most Indian companies are now looking to enhance their international investment to increase their footprint worldwide. Moreover, this will allow companies to increase their global delivery centers also.

In the year 2020, the data annotation market of India was valued at around US\$ 250 million. And in this data alone, the US market share was 60%. Moreover, as per the speculations, the market will soon reach a valuation of 7 billion by the year 2030 because of the increased domestic demand concerning AI.

The IT industry exports were around US\$149 billion for the year 2021. The complete proposition of IT export is made predominantly by the export of IT services which contributes around 51%. This shows the significant influence of IT export services on the economy. Regarding employment, 4.45 lakh new people joined the IT industry. This made the complete number of employment 50 lakh.

The SaaS sector of India comprises around 10 unicorns. Along with it, they have thousands of funded startups currently. Altogether they produce revenue of around \$3 billion per annual subscription. SaaSBoomi, a group of industry influencers and founders, gave this data. As per the report, the SaaS service industry of India can be valued at around \$1 trillion by 2030, along with half a million new job generation[15].

## BUSINESS DYNAMICS

The business dynamics of India still don't look too great. The country is still under the lower third countries worldwide in the position of the Economic Freedom Index. The credit can be given to its lack of judicial effectiveness, increasing corruption, and under defined labor laws. These factors affect the competitiveness of the country to a considerable extent. Moreover, there are other factors that India lacks, like lack of digitalization, low labor skills, and primitive financial industry. The government is trying its best to enhance infrastructure investment, but the results are slow.

India is still a tough nut to crack if we talk about doing business. As per the Index of Economic Freedom Ranking 2021 of the Asia Pacific Region, the country ranked 121st among 186 countries worldwide. In addition, the country showed its worst performance in Labour freedom and Fiscal Health aspects. The strict market regulation and several human resource management laws have led to a strict business environment.

The business environment of the country is not in its best picture. The country's lack of proper fiscal health can lead to economic uncertainty. The rules related to land ownership and jurisdiction are also lousy. Moreover, the country doesn't have a sufficiently technologically skilled labor force for the industry's increasing need.

The country got a ranking of 86th within a total of 180 countries worldwide in Corruption Perception Index 2020 in Asia Pacific Region. However, there was a decline in the position from 76th if we compare it with 2015.

## SKILLS AND LABOR

### The labor market in India remains underdeveloped

The skill development is further hindered by a detrimental educational system and cultural restrictions in women's employment. If we look at the data of year 2021, only 8.2% of India's total population got higher education for 15+ years. The literacy rate was around 75.3% which was highly lacking compared to other regional countries. The gender employment gap has also increased significantly from 2015 to 2021. In 2021, only 8.3% of working women were present compared to the 57.3% male employment rate.

The informal sector size in the country is also a matter of concern, but as per the reports, it is declining. As per the data of SBI, India's informal economy went down by 15 to 20% of GDP in the year 2020-21. On the other hand, in 2017-18, the same share was around 52%.

However, India also has the advantage of an expanded metropolitan population who are well-educated and can speak English. This population comes as a significant supporter of the technology service sector with India being the major exporter for IT/ITES and contributing 8 % for the gdp.

## Chapter 3

### Skills in Demand by 2030

Digitalization is changing the way industries work. The new technological evolutions are constantly influencing job roles and positions. And as per the speculations, in the future, this is going to change completely. Softskills will become non-negotiable in future and every job position will require them. AI and automation will become embedded in all the industries' aspects, creating the need for a workforce with more advanced skill sets. Here, we are sharing a detailed analysis of the skills that will be in demand by 2030.

## Industry-wise

### Retail

COVID-19 served as a wake-up call for India's retail industry. The sector demonstrated incredible resiliency. They switched to an online style of operation at the ideal time and embraced the digital working environment. As a result, India experienced the evolution of retail 4.0, whose base was technology.

Retail 4.0 significantly expanded the home market, creating more jobs and improving exports. At this

time, the constantly evolving supply and demand factors guarantee that the growth momentum will not change. By FY2030, the Indian marketing industry would reportedly be valued at over USD 1.5 Tn.

This will give rise to around 25 Mn jobs in the industry by 2030. Among all the job creation, the hybrid mode, which will include integration of online and offline mediums, will make around 50% share which will be 12 million. This will create \$125 billion valued exports and provide 37% retail tax, valued at around \$8 billion in the GST until 2030[16].

Customers are becoming more and more technological savvy. This has boosted the use of data-driven advanced analytics. This provides customized customer-centric products or services. As a result, the customers get what they need, providing them with a personalized approach. The retailers are also trying to decrease the cost, which has led us towards digitizing point-of-sale [PoS].

## **Manufacturing**

According to Deloitte and McKinsey's studies, demand for social, technical, emotional, and cognitive abilities will rise through 2030. The industries and their demands will also be impacted by this. The demand for talents in industries has been impacted by the use of AI in numerous domains. Such implementations will influence the industry's existing skill requirements and influence the future. Better collaboration between humans and machines will be required as a result. Under the same influence, factories' operations and functions will likewise alter[17].

In the upcoming years, the need for technically brilliant people will increase. For example, the future position can sound like an intelligent manager, competent supervisor, etc. So the need for skill building for professionals and organizations is ever-increasing.

## **Construction**

The state of employment and industrial developments in the construction sector are quite startling. The sector has recently struggled to create any sizable new job market. Instead, they are firing employees and reducing their team as needed. Do you know that six out of the ten most dangerous jobs worldwide are in the construction industry? The people who work in the sector and our construction development are both impacted by this tendency.

Future construction jobs will have very high-tech requirements. Therefore, in order to control machinery

like trucks and cranes, etc., specialists would need extensive technical abilities.

The development of technology has made it more efficient. Construction jobs will significantly shift as the current technology is witnessing a significant development era. So future jobs will require advanced skills as machines surpass human skills. Technology development is integrating automation in several domains and helping us surpass the restrictions of our capabilities in the construction industry[18].

Automation is getting into all industries. That's why the overall picture looks positive. The job classification is diverse and determined by location, salary, personality, skillset, etc. The first picture may indicate that there will be a reduction in job roles; however, in the long run, it will be beneficial as new opportunities will also be created.

## **Healthcare and Insurance Sector**

The length of the nursing career development has caused a decline in it. There are about 4 million open vacancies for nurses in the sector. If we focus on the US, 67% of the nurses work in anaesthesia. However, this is not possible in India because only medical professionals are able to treat patients at this level[19]. The areas where a doctor is not necessary and a qualified expert can handle them must be examined, nevertheless. The list of such domains in the health sector is extensive.

## **Renewable energy sector**

The sector can produce 1 million new job opportunities by 2030. Most of these job generation will come from small-scale projects. This number of new job opportunities is 10 times more than the current scenario[20]. Currently, only around 1.1 lakh people are employed in the sector. This data was given in the study done by the Council of Energy, Environment and Water along with the Natural Resources Defense Council and Skill Council for Green jobs.

## **IT Sector/ Electronics**

The most rapid changes are now occurring in the IT sector. Several new technologies are emerging, including automation and SaaS. Utilizing IT and catering to customer needs, businesses are attempting to generate digital goods. The use of mobile devices and the internet has expanded, and so have consumer expectations. Understanding client demand and expectations at this moment is essential for being relevant.

AI and SaaS are the two major advances in the IT industry. SaaS has grown in popularity as a result of its improved scalability and flexibility for businesses. Additionally, AI is being widely used in a variety of fields[21]. However, the IT industry also has a critical need for upskilling.

## Real Estate Sector

After COVID-19, the real estate market in India is approaching a recovery stage. According to CREDAI data, the Indian economy is expanding, hence the return on Indian real estate will be favourable. Right present, there is a good prognosis for the sector. Specifically, demography, real estate, technology, cities, and environment will have an impact on the Indian economy. According to predictions, the value of residential real estate in the major cities, which is currently valued at about 1.5 million units, might double[22]. By 2030, the office space will reach about 1 billion square feet[23]. The country's growing infrastructure development and the notion of investment will cause the real estate sector to grow significantly.

## FMCG

The demand for the retail sector is changing in size and shape. How people used to shop and how they are shopping now have changed significantly. Moreover, the changes in several emerging economies can become an example for us, like Central Eastern Europe, Asia, etc. The distributor churn is on an enhanced scale which can go up to 15% to 20% yearly. The community is continuously decreasing, so there is no replacement for them. Till 2030, the complete valuation of the FMCG industry will get double to 1.5 trillion, which is currently just 700 bn[24].

However, emerging technology is also going to make changes to it. This will enhance the skillset demand for basic operations of FMCG also. So organizations need to develop that skill set to stay on the growth path.

## Connectivity & Mobility

The connectivity and mobility sector won't be left untouched by developments. On the contrary, the increasing globalization and decreasing mobility will also affect it. Moreover, several professionals are already outdated in their skills with the development of 4G to 5G transmission. That's why there is an immediate need for skillset development.

## Agriculture

The main contributor to GDP and one of the most important industries in the Indian economy is agriculture.

The advancement of various technology applications and the passage of time are not unnoticed in this industry either.

Bee vectoring, precision agriculture, indoor vertical farming, livestock farming technology, minichromosome technology, farm automation, laser scarecrows, etc.[25] are some of the latest technologies that are being used.

The industry will experience significant growth as almost all villages will be connected by paved roads by 2030, electricity availability will increase, 6G will become a reality, and AI will become a potent tool.[26] Moreover, several innovative tools like IoT sensors will be introduced in the farming sector, increasing the need for skillset enhancement for the current force. However, the challenge is that most of the agricultural employment is in the unorganized sector, which several families handle in segmentation.

This makes the skill development process difficult as they don't have enough means to get the training and the resources. However, the picture indicates that India will see a positive picture in terms of production and export.

This is the golden era and decade for growth in which India is poised to become 3rd largest economy. With the technology and tech led solution, every sector there is a rapid adoption for Emerging Disruptive Technologies in fields of AI and Automation..

With the New Business Models and Networking and collaboration between startups and government bodies, India is set to become global leader in modern retail and space technology

It is worth mentioning startups are building great technology wherein an aerospace startup has launched the country's first privately made rocket – a milestone in India's effort to foster a private space industry. The rocket, called **Vikram-S**.

India also has the fair advantage of Positive Demographics and Availability of Capital wherein majority of funding comes from FII, DII, venture capitalist for muliding and shipping low cost solution wherein the tech services are built from India for the world.

With Digital India, a lot of process become digitized and many of the government best schemes like BHIM UPI 2.0, COWIN has become internationalized solution and many developed economies and some of the European countries building on the tech stack sourced from India.



## Re-skilling – Jobs that will vanish/change substantially

Reskilling will be required to pay the gap between the increasing demand for advanced skill sets and the lack of proper training. However, several jobs will be eradicated from the picture due to several new technological applications. These jobs include cashier, taxi driver, umpire, printing press operator, textile operator, bank teller, mail carrier, etc.

As per McKinsey & Company's reports, around 87% of executives said they are going through skill gaps from the year 2020. But only a few knew how they could handle it. Similarly, WEF reports said that above 40% of workers worldwide will need reskilling by 2025. The significant figure shows that the need for upskilling will be huge until 2030. So the organizations as well as governments, along with the professionals themselves, need to embrace the change[28].

## Up-skilling – Jobs that will change for factor 'x'

The country will witness the rise of various new career responsibilities including data science, cloud computing, digital marketing, machine learning, augmented reality, software development, etc., all thanks to the new technological advancement[29]. A work-from-home facilitator, an intelligent home manager, and other positions will become necessary in the new era of remote working. In contrast to what we are speculating today, the format and method of carrying out these jobs may vary.

## Ab initio skilling – Green field jobs will be created

Additionally, new green field occupations will be created as a result of the increased need for a balanced green economy and a reduced carbon footprint. Different employment categories with duties for recycling and reusing can emerge as a result of the influence of circular economy concepts. By 2030, a variety of industries, such as renewable energy sources, will significantly increase employment. The adoption of clean technology will necessitate significant skill development in a number of brand-new areas of the market. Many nations, like Australia, Brazil, and others, are working to develop a green economy.[30]

## Chapter 4

### Current Skilling Initiatives and Blending of Skills and Education

The job market, by 2030, will undergo radical changes and developments. Some jobs will be created, while some of them will be discarded. The need for a skilled workforce is increasing, which will be a dominant factor in the future. As per the speculations of McKinsey, the global job market will see a rise of 20 million to 50 million new jobs by 2030[31].

As per the skilling initiatives, the nodal agency for deriving the skilling, upskilling and reskilling initiatives become equally important where in young graduates can be trained at scale.

It is crucial to optimize our current education system to cope with the demand of the future job market and stay relevant to skills. Therefore, we must instill the required vocational and skill development programs in our secondary, high secondary, and undergraduate education. Today, we will discuss the need for upskilling and how our country is focusing on meeting that skill demand of the future through its education system.

### Understanding upskilling and re-skilling

Upskilling means enhancing the skills of a professional, while reskilling means enhancing the existing skills of a professional. Students studying secondary, higher secondary, and undergraduate courses will be tomorrow's professionals. That's why they come forward as the most sensitive population, which requires focus on skill development.

A survey was held to detect the effect of lack of skills on the CEOs. This was PwC's 22nd Annual Global survey, where 4 CEOs out of 5 said that a lack of essential skills would endanger growth[32]. Moreover, 2/3rd of the firms involved in this survey felt that the internal skill development and employee development programs could help fill the gap in required skills. However, most of them are tied because of financial limitations. Also, the required technology is an issue for internal skill development programs. However, they also acknowledge that not taking any action in this direction will harm the growth rate of their company and the industry.

## Why is there a need for upskilling for future jobs in education?

Skill development is crucial to maintain the growth rate and provide employment. However, the importance of skill development has increased because of specific industry trends. For example, we are living in the 4th industrial revolution era where AI and automation hold a significant stake[33]. These two technologies are changing the way companies and industries work. This is also affecting the arrival of new employment opportunities. That's why if today's students want to be employable in the future till 2030, they need to upskill themselves.

With the development of technology, the data by World Economic Forum has shown that just by the year 2025, 50% of the existing employees will need reskilling[34]. This also indicates that our current education system might not stay versatile for future job prospects. That's why the need for introducing standard skill development programs increases further in our educational system.

Contrary to perception, the advancement of AI will not reduce employment opportunities. Instead, it will produce new job opportunities estimated at around 133 million[35]. And this is very positive data in today's recession-affected economy. Still, we also need to understand that this increases the requirement of skills that have not yet been introduced to the professionals. And the time for such skill development available for us is pretty shorter than we are expecting. Development in a number of brand-new areas of the market. Many nations, like Australia, Brazil, and others, are working to develop a green economy.[30]

## Future of jobs in 2030

As per Decoding jobs from ISR Taggd, we find the majority of job roles are changing significantly and HR and talent acquisition head, many low and medium skilled workers are getting replaced by automation and technology. As per Decoding job 2022, the majority of employers both at government and private institutions are expected with a positive hiring sentiment and hiring intent is expected to grow by 31%. The Automotive, Internet and internet enabled business and IT /IT'S expected to rise significantly.

The top skills which will be demanded as per the future of the job towards a \$ 2 Trillion skill economy will not be limited to hard elements for the skilling but the softer element equally driv

ing the preference for HR head and talent head.

## Soft Skills

Adaptability & Flexibility , Problem-Solving, Stress Management, Emotional Intelligence

## Technical Skills

Artificial Intelligence & Machine Learning User Experience Designers Cloud Computing DataAnalytics & Data Science

We find that many of the jobs likely to experience a fall in employment are, unsurprisingly, low- or medium-skilled in nature. However, in challenge to some other studies, not all low- and medium-skilled jobs are likely to face the same fate and technology upskilling and key

## Effect of automation

The future of jobs will see a drastic change in its shaping because of automation. This will change the course of employment and required skills. The employees will be expected to have skills not to do the work they were primarily doing but to manage the automation machines that will do their work instead. As per the McKinsey Global Institute reports in 2017, the number of jobs eradicated because of automation can equal the number of jobs created. However, the question is whether our students are ready to take on new job roles. If we can't even predict the kind of job roles, how are we planning to instill those skills in the students in a brief period?

As per the report, employment availability will be complete until 2030, but the transition of roles will be very drastic. This will be even bigger than the scale of the shift we have previously seen in agriculture and manufacturing.

## Disruptions that could radically change the future of work

Several disruptions can influence the future of work till 2030[37]. Some of them are as follows;

- Reverse migration of the existing employees.
- Remote working will make skill delivery possible anytime, irrespective of the place.
- AI automation and robotic technology implementation

- De-globalisation will lead to a focus on a domestic approach
- Geographically located centers for skill development
- Resource conflicts and their scarcity.
- The changing values of employees as per their preference.
- The zero-hour contract will become a very crucial concept.

## Recent developments and initiatives for upskilling

The efforts for upskilling the education system have been very significant. There are several examples where the government has been trying to instill skill development in the students since secondary education. Recently, the government has made it mandatory the classes of coding in secondary classes. Such initiatives show that the government has realized the future skill requirement shift and is working towards finding it. Here, we are discussing similar efforts made by the government to enhance the skill development process at different levels of education delivery.

- Awareness is the very first step in India for skill development. The government of India has also recognized the need to provide vocational training. That's why the central government is now working with state governments to develop effective skill development programs. Together they have launched the Skill India Mission. Moreover, NSDC has joined 7 countries, including Japan, UAE, Saudi Arabia, Russia, Finland, Sweden, and Morocco, to provide vocational education.
- Integrating skill development and new education policy has to lead to National Education Policy (NEP) 2020[38]. This is one of the most effective plans to instill the required skills in secondary and higher secondary education students. The scheme is built in different phases where vocational education will be imparted to the students from the initial school phase. MSDE is working on a Hub and Spoke Model for this policy. NEP also includes internship programs to provide hands-on training to the students.
- NSDM is an initiative to train at least 300 million skilled people by 2022. National Skill Development Mission was started by MSDE, whose main aim is to promote skill development efforts all over the country. There are around 3,415 training centers along with 721 PMKs under the registration of NSDM.

The government is also focusing on the skill development of migrant workers. MSDE has started Pradhan Mantri Kaushal Vikas Yojna (PMKVY)[39], which provides upskilling opportunities to migrant workers and students. Currently, it is established in 116 countries in six different states. As per the data, till 10th July 2021, around 70,823 migrant workers have benefited from this program. Moreover, the policy also focuses on providing online skill development, which has led to a pilot mode of training for 15 batches.

Government is not just focusing on the urban education system. But it is also working for rural and tribal community's skill development. MSDE has initiated schemes like Pradhan Mantri Kaushal Vikas Yojana (PMKVY) along with Jan Shikshan Sansthan Scheme and National Apprenticeship Promotion Scheme (NAPS) to promote skill development training. This mainly focuses on the youth of the tribal community to make them relevant for today's employment.

PM Narendra Modi also came to address the nation on the occasion of NEP 2020, completing one year. Here, he also mentioned and launched several other initiatives like National Digital Education Architecture (NDEAR) and National Education Technology Forum (NETF), specifically designed for first-year of engineering courses. These courses will be given in regional languages to enhance the skill development of the country. Moreover, another initiative, Structured Assessment for Analyzing Learning Levels (SAFAL), has also been organized, focusing on grades 3, 5, and 8 in CBSE schools[40]. It is a competency assessment framework to provide the students with the right direction of learning.

The government is also focusing on multidisciplinary education and research enhancement in the field of technical skills. For this purpose, Technical Education Quality Improvement Programme (TEQIP) has been initiated. Its phase three was concluded in September of 2021. The Ministry of Education started this initiative to boost the technical skills of the youth in India along with aid from the World Bank. In the budget of 2021-22, the government also dedicated Rs. 10 crores for Multidisciplinary Education Research Improvement in Technical Education (MERITE)[41].

There are several other initiatives and policies taken by NSDC[42], such as Pradhan Mantri Kaushal Vikas Yojana (PMKVY), Rozgar Mela, Pradhan Mantri Kaushal Kendras (PMKK), Capacity Building Scheme, Udaan, School Initiatives and Higher Education, India International Skill Centres (IISCs) and Pre Departure Orientation Training (PDOT). Further,

other schemes have been initiated by DGT, such as Craftsmen Training Scheme (CTS), Crafts Instructor Training Scheme (CITS), Apprenticeship Training under the Apprentices Act, 1961, Advanced Vocational Training Scheme (AVTS), Vocational Training Programme For Women, Flexi MoUs, STRIVE, Initiatives in the North East and LWE Regions and Trade Testing[43].

- Moreover, NEP has also suggested that skills must be integrated with higher education. Also, Academic bank of Credit ensures that students can get lifelong learning opportunities without having to go physically to a university.

## Bottom line

The need for skill development has increased significantly if we consider the upcoming job market. The job market of 2030 is undoubtedly going to be very competitive. The government has recognized the need for further skill development, but the initiatives are still underwhelming. There are several schemes that the government has started for entrepreneurship, such as Pradhan Mantri “Yuva” Yojna. Moreover, other schemes like Academic Equivalence to Vocational Qualifications, SANKALP, Indian Institutes of Skills (IISs), and Skill Loan Schemes are being practiced in India to improve the skill set of the youth[44].

The future jobs of 2030 are going to be demanding. The influence of AI and automation will be very significant. Therefore, we must prepare our students for future jobs by instilling these skills. Moreover, the point of mention is that we don't have the expected time. Industries are developing continuously, and the lack of skills can create a severe obstacle in the path of growth. That's why initiatives like NEP 2020 are remarkable, as they prepare students from an early age. Other means of enhancing skill development also exist, like EDX, courser, etc., which offer upskilling opportunities to students and working professionals.

## Chapter 5

### Industry Readiness for 2030

The ability and capacity to carry out procedures and apply one's knowledge responsibly to attain a goal are the abilities and capacities that make up skills. A comprehensive notion of competence involves mobilizing knowledge, skills, attitudes, and values to handle complex demands and includes skills as an integral component. The economic crisis created by COVID-19 might stimulate changes that restore the economy to a high

growth track and generate meaningful employment for 90 million people by the year 2030; failing to take advantage of this chance could jeopardize an entire decade of economic stagnation. The McKinsey Global Institute has released a new study outlining a potential change plan that might be executed over the next 12 to 18 months.[45] It seeks to improve worker productivity and incomes, as well as those of small and medium enterprises and major corporations, with the goal of maintaining India's position among the most successful rising economies in the world.

### Skills for 2030

The nation needs to achieve more incredible employment growth between 2023 and 2030, at a rate of 12 million nonfarm jobs yearly, as opposed to the only four million jobs produced annually between the years 2012 and 2018.[46]

India's primary industries, such as manufacturing and construction, need to improve their performance for the country to go back on track toward high economic development and become the 3rd largest economy by 2030. Manufacturing productivity can produce 11 million new jobs in the coming decade; construction could make 24 million new opportunities; labor-intensive service sectors and knowledge-intensive service sectors both have the potential to create 22 million and 30 million new jobs, respectively.

### The Mission “Industry Demand 2030”

The fourth industrial revolution was still in its infancy until the pandemic suddenly appeared two years ago. It sped up the process in all kinds of businesses. Those industries who had been hesitant to accept new technology before the Covid Virus caused an undersea current to force them to quickly discard outmoded rules and practices to live in a potentially catastrophic situation. Consequently, business professionals were exposed to cutting-edge technology and a novel approach to managing industrial operations known as “the hybrid model.”

### Capacity

A significant cultural change has occurred in the working environment. A hybrid work model is likely to exist in its entire form in only ten years, even though this may seem like a hypothetical vision in the present day: Technologies like Artificial Intelligence and machine learning. By 2030, cloud computing, algorithms, automation, and analytical reasoning are all

expected to be the primary methods by which people are displaced from mundane and repetitive professions.

## Cognitive flexibility

The proliferation of digital technology implies that you will need to be able to take advantage of the many possibilities and overcome the myriad of obstacles that come along with it.[47]

Do you have the capacity to adjust well to new circumstances and juggle some complicated thoughts in your head simultaneously? If this is the case, you are demonstrating skills characteristic of advanced multitaskers and qualities that employers and recruiters highly prize.

## Digital literacy and computational thinking

As the world continues to depend on highly sophisticated technologies that are constantly evolving, there will be an increased need for individuals who are proficient in digital abilities.

You have almost certainly heard of STEM, but are you familiar with SMAC, which stands for social, mobile, analytics, and cloud? [48] Being digitally literate offers capabilities beyond what was once thought possible when it comes to emerging technologies such as artificial intelligence (AI), machine learning, the Internet of Things (IoT), and data science. Although it may seem that we are being inundated with digital buzzwords, this is not the case.

## Judgment and decision-making

Even though robots and automation technologies may be superior to people in some other respects, such as the performance of computations and the resolution of diagnostic problems, humans will continue to handle the subjective aspects of data analytics.

## Gender inclusivity

When we talk about “gender inclusion,” we’re talking about more than simply employing more women or paying them equally. It is about acknowledging the contributions and efforts of all workers, regardless of their gender, and accepting the ideas and points of view they bring to the table.

In addition to being “fair” and “the right thing to do,” achieving gender equality in the workplace is

essential not just because it is “the right thing to do” but also because it is connected to a nation’s overall economic success. Increased national productivity and expanded economic development are two outcomes of workplace gender equality.

## Changes in Education System in India

Another word for change is the concept of reformation. It is an indication that things are progressing. The same may be said about the state of education in India. It is regenerating even if it is proceeding slowly and gradually. Over the last ten years, India’s educational system has seen significant transformations. How students learn and engage with the material being taught has been altered due to the proliferation of blended learning, online classrooms, Digital on demand proctored assessment and experiential learning.[49] There has been a significant paradigm change in the education system. As a result, online education continuous comprehensive assessment and blended classrooms are now considered the standard method of instruction at all educational levels. The best way to educate students nowadays is via hands-on experience and group projects. These shifts have affected the educational system in India.

## Conclusion

The time has come for India to set its economic development on a path that is both quicker and more sustainable in fulfilling the hopes and dreams of its increasingly large labor force. India needs to create at least 90 million new nonfarm jobs in the decade leading up to 2030 to absorb the 60 million new workers. They will enter the workforce as a result of current demographic trends.[50] In addition, India needs to create jobs for an additional 30 million workers who could transition from agricultural labor to work in non-agricultural industries that are more productive. If an extra 55 million women entered the labor field, at least partly rectifying their underrepresentation throughout history, India’s need to create jobs would become an even higher priority for the country.[51]

## Chapter 6

### India Skills Mission

Industry 4.0 is going to change the way we see businesses and the way we work till 2030. Technology will play a crucial role in it and influence every industry and sector of our economy. From manufacturing and construction to IT and consulting, everything will change. This new picture will also require a new skill set to manage the operations. This skillset demand will be very different from our current industry skill set demands. Therefore, a severe need for skill development has come across till 2030.

### Time to realize the need for skill development

As per the Report of National Policy for Skill Development and Entrepreneurship in 2015, India will encounter a severe crisis for skillset availability. The report also signifies that other countries such as Japan, South Korea, the UK, and Russia have started skill development initiatives where around 80%, 96%, 68%, and 75% youth of the country have been trained[51]. However, in India, the scenario is bleak. Even after several efforts, only 4.69% of the Indian workforce has been trained.

Moreover, our education system is not capable enough to teach the kids and prepare them for the corporate world. [51] A recent report by UNICEF speculates that India will have around 30 crore secondary school graduates by 2030, which will be the highest among the South Asian Nations. However, half of them will not even have the basic skills to be employable in the future.

### What should we aim for till 2030 in the aspect of skill development?

Two factors that need the most emphasis on skill development are increasing employability and decreasing the lack of scarce technical skills. Until 2030, the industries will reshape where scarce and specialized technical skills will become necessary[51]. Moreover, the evolving technology will change the functional and operational aspects of the industries, that's why the job roles will also change. If the right skillset cannot meet the demands of the businesses, then it will affect their growth and economy. As a result, severe unemployment issues may arise. So to combat these issues, we need to emphasize making our workforce more skilled in specialized domains and enhancing employment opportunities.

### Efforts made by the government-Skill India Mission

The government has realized the need for skill development to meet the demands of industry 4.0 till 2030. Their main initiative to combat the issue is the Skill India Mission. The objectives of this mission are as follows;

- To help the talented youth develop their skills in the country by creating a platform that provides all the required resources.
- It aims to impart updated training as per the latest trends and relevant to the industry.
- It aims to diversify the training programs to meet the requirement of different industries and businesses[51].
- Moreover, its motive is to channel investments for financial skill development in a sustainable manner.
- It wants to build a powerful partnership between private and public social partners for skill development and prepare the country's workforce for industry 4.0[51].

### Features of Skill India Mission

To accomplish its objectives, Skill India Mission has come with several features and action plans such as[51];

- The program focuses on uplifting the existing workforce from the very down level to surpass the gap between high-end technical roles and the current economy. Weavers, nurses, etc., are equally emphasized for skill development.
  - It has a particular investment and training focus on new domains such as construction, transportation, tourism, textiles, banking, etc. These are the sectors in high demand in the country currently, but the availability of skills is scarce.
  - The imparted training under this program will be designed per international standards to ensure that the workforce gets the most updated curriculum to prepare them for industry 4.0.
  - One crucial aspect of the Skill India Mission is to initiate "Rural India Skill". The program will also focus on soft and interpersonal skills, which will become mandatory till 2030 for every job position[51].
  - The training delivery will be done through new and innovative ways, including games, brainstorming sessions, group discussions, etc.
- The resultant benefits of skill development will bring more employability. Moreover, it will enhance the living

standard of the workforce. The program will focus on the grass-root level development to match the gap between skillset requirements and the evolving job environment. Also, this program offers salary beneficiaries a loan up to Rs. 1 crore to Rs. 3.5 crore, which will boost innovation and entrepreneurship[51].

## Conclusion

Skill development is an integral part of workforce development. However, the need for training has become more crucial to align with the changes happening around the world. Technology is changing the way industries work. If we continue the growth and development of our economy while standing strong among international competition, then we need to emphasize technical skill development. Skill India Mission is one initiative started by our government to meet future demands.

## Chapter 7

### Policy changes and recommendations for creating USD 2 Trillion Skills Economy

According to the World Economic Forum, making widespread investments in the future's skills for today's and tomorrow's next-generation workforce may provide an additional USD 8.3 trillion in enhanced productivity to the global economy by 2030.[51] According to the World Economic Forum (WEF), there are global inequities in lifelong learning and childhood education; a pandemic that closed schools and workplaces; rapid technological change; all of these factors highlight the necessity of doubling down on reskilling, upskilling, and the future of learning.

#### Investing in Four Pillar For growth for a Automated, Integrated, connected and sustainable Economy

### Industry 4.0

India should realize the true potential, significant investment shall be made for making future factory and driving the cost for manufacturing low. Industry 4.0, at its very basic, is about incorporating artificial intelligence (AI), robotics, quantum computing, additive manufacturing and the Internet of Things (IoT) into everyday practices in manufacturing. A focus on Industry 4.0 will enable industry to focus on key functional pillars such as technology, integration / collaboration, and processes. This includes an emphasis on mega trends Cloud computing, Big Data and Cyber Security that are expected to be key enablers for smart manufacturing.

### Smart Logistics

The Indian logistics sector provides livelihood to more than 22 million people, and improving the sector will facilitate 10 per cent lower indirect logistics cost, which will spike 5 to 8 per cent in growth of exports. Indian logistics industry accounts for around 14.4 percent of the country's GDP, but its overall cost is around 14 percent of the GDP, whereas the BRICS average is 11 per cent. By focusing more on adopting modern best practices like telematics, drone delivery and automation will bring the cost of delivery low and make the products competitive in the global marketplace.

### Belt and Road

In order to reap the benefits for manufacturing and transportation by road and link the value for high value items to find the relevant markets in Asia, India should be investing more in the Belt and road initiative wherein the connect for the ports and intercontinental roads from India to 16 Eurasian countries through West Asia. Two such initiative is the International North south Transport corridor and Silk Road and if executed properly these infrastructural pushes can pose a big challenge to China's OBOR and at the same time will give a boost to its own economic growth along with the increasing sphere of influence in world politics. If cross country roads are recommended internationally, building the infrastructure for the country is equally important.

Fast tracking the infrastructure projects is also one of the key drivers for rapid growth in the sector and PM Gati Shakti is a digital platform that connects 16 ministries – including Roads and Highways, Railways, Shipping, Petroleum and Gas, Power, Telecom, Shipping, and Aviation for fast tracking the application and approval process for the project and India's regional and global connectivity efforts. Similar such initiatives will be propelling the key growth for India towards a 2 trillion skill based economy by 2030.

### Green Factory

India's announcement that it aims to reach net zero emissions by 2070 and to meet fifty percent of its electricity requirements from renewable energy sources by 2030 is a hugely significant moment for the global fight against climate change. India is pioneering a new model of economic development that could avoid the carbon-intensive approaches that many countries have pursued in the past – and provide a blueprint for other developing economies.

## Female participation in Workforce :

India female participation in the workforce currently stands at 25 % as compared to 67 % participation from male counterparts. Interestingly the employability for female talent is around 4 % more than male.

If India aspires to become global leaders in providing skilled talent, then it is recommended more policy level changes and formulation for workforce participation from employees both in private sector and government sector should increase,

## Female participation in STEM education

Developing and enhancing human skills and capabilities through education, learning and meaningful work are key drivers of economic success, of individual well-being. Support high-quality academic programs that prepare students for STEM teaching, and expand good models to more universities for leveraging more new age jobs

With India population of with 2.14 million graduates in STEM Fields presents a great opportunity to capture the emerging / High Tech Jobs New advancements and discoveries in science and technology, the constant stream of innovative technologies that improve work activities, such as automation and artificial intelligence, further disrupt the industry and growing demand for India's STEM Graduates. Science, technology, engineering, and mathematics (STEM) are vital to competitiveness and this talent can be made ready for the Digital Jobs due to their exposure and understanding for Computing, Programming and Numerical Literacy.

According to a World Bank report that provides a rich overview of global patterns of gender gaps in STEM education, merely **18% of girls** enrolled at the tertiary level are pursuing studies in the field of STEM, as compared to **35% of boys. Women, in fact, account for only 33%** of researchers, 22% of professionals working in artificial intelligence and 28% of engineering students across the world. Bridge skill gaps by carrying assessment and more female participation in workforce · Improving persistence and student success in STEM undergraduate education can produce significant returns in the Digital Jobs.

## Female participation in Skilling to increase wages and pay parity

Indian women earned, on an average, 48% less compared to their male counterparts in 1993-94. Since then, the gap declined to 28% in 2018-19 as in the labor force survey data of the National Sample Survey Office (NSSO). The pandemic reversed decades of progress as preliminary estimates from the Periodic Labour Force Survey (PLFS) 2020-21 show an increase in the gap by 7% between 2018-19 and 2020-21. Though the increase is gradual, female participation is encouraged more in STEM Education. Providing micro loans and supporting female entrepreneurship, supporting market linkage solutions for women made products and market connect can help in a big way for India's journey towards a \$2 trillion skill economy.

## - Female migration to skilled high paying jobs

Of the 45 crore migrants that the 2011 Census records, 31 crore are women; which means 67% of the migrants are women. There are about 21 crore marriage migrants. [50] While women who migrate with their family are roughly about 11% of all women migrants, or four crore. Women who are solo work migrants are roughly about 3% or 73 lakhs. If India aspires to become a global workforce, the participation rate for females in high paying jobs led by skilling, upskilling and reskilling should definitely be emphasized upon.

## Tech enabled mass scale learning and Assessment

Two different manifestations of commercial value may be derived from changing learning. The first one is brought about by cost and value: trying to maximize efficiency by elevating levels of consistency, quality, and productivity (cost) and broadening possibilities that propel individual, team, and organizational performance (value). Building strategic skills that promote organizational agility enables a company to realize its full potential better and compete more effectively. [51]

The adoption for fast testing measurement for **skill and talent potential** with Digital assessment coupled with remote proctoring to measure competencies and skilling level for different job roles. Today, modern assessment platforms possess capability to have testing at scale and concurrency for a pan state level and country level testing for various job rules that could be monitored and administered remotely. One such company is Wheelbox Remote proctoring technology



that helps institutions and government bodies to test the candidates on mass level. Wheebox also engaged with UP Skill development for mass level testing on mobile wherein post successful assessment the student is career counseled on the possible career options available post successful completion of skilling program.

## **Access to High Speed Bandwidth and Devices for Mass level Skilling**

With the proliferation of the internet and 720 Million+ active mobile connection, the access to the devices and high speed internet and mobile first solution is required for upskilling. Many of the edtech companies have rolled the service like Byju's Education for All wherein the communities can contribute the devices for mass level skilling. The Edtech, technology education focused companies must synergize to grant cloud credits, platform usage at affordable pricing for mass adoption. Wheebox has also launched a synergistic partnership with technology, cloud partners to build the future for Digital first university " Digiverse" with companies.

## **Social Volunteering and Purpose Based Education**

Volunteerism, or the donation of one's time and skills to fill a need in the society. With the implementation of NEP, credit accumulation in academic bank of credit will be a great step in encouraging social volunteering in education at school. As per the new education credentialing, Project work or field work will be given due academic credits in the new education policy. One way in which this value has been passed on to younger generations is through the inclusion of community service and service-learning opportunities in our schools, where young people begin to develop their roles as active members of the community who make contributions to addressing community needs.

## **Building a Culture of Lifelong Learning**

Getting some work experience is one of the most crucial things you can do when you start your employment as a recent graduate. It is in your best interest to start accumulating experience for your resume as soon as feasible. To have employment experience, one does not necessarily need to have worked in an office for a large firm. You might gain experience by freelancing or an internship at a smaller company. Any opportunity you have had to gain skills that

are applicable to a field in which you wish to work in the future will look very good on your resume.

It may help you exhibit your devotion and talents to a potential employer while at the same time emphasizing the skills that are both acceptable and transferrable to the role you are looking for. Participating in an internship is one of the most effective approaches to getting that all-important work experience.

The level of instruction, the curricula, and the skills taught should all be improved if India sees an increase in its overall production. Suppose the skill necessary for human power training is not created. In that case, employment in the official and informal sectors will be at risk in the days ahead. The school system for skill development requires a comprehensive revision, which includes a redoubling of funding in various centers dedicated to skill development. To make considerable progress in educational and professional growth, the business sector must take an active part.[51]

Upgrading the education and training structures cost-effectively and sequentially that match their stage of development, in the long run, is an absolute need in the current political and economic climate.

## **Role of Communications**

Employers frequently discover success prospects in the communications sector. Even so, individuals frequently encounter possibilities to fail in it. They must be meticulous when creating policies and procedures pertaining to internships and when releasing pertinent information to the general public. A business won't want to be known for breaching promises made to interns or using their work for personal gain. Clarifying what the programme offers and how interns would benefit from joining can help attract great applications.

Employers who offer internships should create standard disclosure forms that prospective interns must sign to acknowledge, among other things, that no job is being provided in connection with the successful or unsuccessful completion of the internship. These forms should be provided to prospective interns by employers who offer apprenticeships.

## **Recommendations for creating USD 2 Trillion economy**

Recommendations for creating USD 2 Trillion economy "The world is confronting an emergency in terms of re-skilling. More than one billion individuals will need to update their skills by 2030.

The underlying point was that individuals, organizations, and governments all across the globe must collaborate to guarantee that no one falls further behind than anyone else.[51] Therefore, it is necessary to undergo a learning transformation that emphasizes the relationship between constant re/up/out skilling, on the one hand, and real work, on the other: These are two aspects of the same whole.

The challenge for learning and development teams is to get ready for a future of super learning, which will be centered on skills and capabilities at the individual, team, and organization levels; will be powered by data; and will integrate “learning in the flow of work” across functions and businesses. To undergo this change is to set out on a trip that will need multiple phases that have been well planned. The only place to begin is at the beginning of the process. The process is a “super” workforce that is robust and adaptive to existing and upcoming disruptors.

## Conclusion

The unemployment problem is one that India is attempting to address at the moment. Suppose there is not a fundamental shift in how skills are developed. In that case, the number of people without jobs will continue to rise over the next few days, not just in India but worldwide. In this age of technology, the level of expertise necessary to do the work at hand is undergoing significant shifts.

It is concluded that technologically sophisticated subjects need to be included in the curriculum for skill development, which calls for a complete overhaul. The landscape of education is shifting due to the fourth industrial revolution; as a result, the development of skills should be an essential component of the curriculum. The conventional curriculum will be of diminishing use in the future decade. The story of expertise and high-quality education for a GDP of USD 5 Trillion is the key to the road plan.

## Chapter 8

### Action Agenda with timelines to achieve the vision of Indian Skills 2030

We are living in a time of fluctuations. Inflation and the post-pandemic situation have caused severe ups and downs in people’s lives. Everyone now has lived through one global crisis. However, this hasn’t just affected the emotional well-being of humankind. But it has also brought an imbalance in the economy and employment. However, one silver lining is the

emergence of much more resilient systems. Technological evolution has enabled overcoming such major setbacks and staying strong.

However, this same technological advancement, paired with the changing external factors, has influenced changes in shaping jobs in the future. Just after a decade, we will witness completely reformed jobs. And this will impact the requirement and viability of the skillset also. This will create new employment opportunities.

However, another aspect of this picture raises concern regarding the increased unemployment among people with current skill sets. Also, the gap between the required skillset of industry 4.0 till 2030 and the available one raises further concerns. That’s why recognizing this need, industries and government has started in the direction of combating this skill set gap.

India has one crucial advantage of having a young demographic population comprising around 60% of the total population. However, this also increases the bar of implementing a resolution for the skill development action plan.

### Why is skill development required?

For better job creation, skill development is an integral factor for India. However, per the government data of ASSOCHAM study in 2017, only 10% of the fresh graduates of our country possess skills that make them employable in the corporate sector.[51] The other 90% do not have the average required skillset for the corporate world. Currently, the GDP of India is undergoing development with a growth rate of 6% to 8%.

If this scenario continues, we will face increased unemployment and a significant setback to the industry and economy growth rate. In addition, the organizations will face decreased productivity and work efficiency due to a lack of the required skill set. This will impact our complete import and export cycle and not fulfill domestic demand.

The decreased growth rate will impact the national economy collectively. That’s why there is a significant need for a skill development action plan that should be implemented worldwide. In addition, government, organizations, and the workforce must ensure that industry 4.0 is greeted with good development of human resources in our country. Only then will we be able to get the best out of industry 4.0; otherwise, it can lead us to be years behind in our economic growth.

## **Actions that should be taken to make our skillset future-ready**

The government and industries understand the need to take action for skill development. They have taken several measures to accomplish the goal and prepare our workforce for 2030. Here, we are discussing the action plan and the measures that can be taken to up-skill our workforce.

### **Hybrid technological approach**

We all understand how digitalization is changing the economy and environment that we live in. Technology has become embedded in our lives, from eating to shopping or going out. AI and automation technology are one of the most crucial aspects of today's digitalization. However, we need to understand that we can implement a similar technological advancement phenomenon as the developed countries because the Indian market is not mature now.

For instance, even now, around 190 million adults don't have bank accounts, so how can we say that till 2030, every aspect of our economy and working will be changed? Instead, the technology leadership development will build new markets.[51] Moreover, around 77% of workers in India belong to the informal economy. So we must also focus on the informal section to implement technology intervention. Moreover, 90 million Indians are still under-skilled and not qualified. [51]

This data indicates that we can't focus only on the skills to make them more skilled. If we want to embrace 2030 completely, we must start an extensive training program for the informal sector workforce. The growing competition will soon take them out of that sector, forcing them to look for new jobs after a few years.

This can be accomplished by enhancing the quality of our education system. As per QS world university's ranking, only three Indian Universities were in the list of the top 200 and none in the top 100.[51] Also, Global Business Coalition for Education says that India will have the maximum number of secondary school graduates in South Asia. However, 50% will not even have the basic skills to enter the job market. So the significant demand of today is to focus on our education delivery system for better skill development.

### **Increasing the accessibility and sorting the job responsibilities**

One major cause of lack of skillset is not utilizing the existing one properly. We need a more optimized

approach to make our workforce future-ready. For instance, there is a significant lack of around 600,000 doctors and 2.5 million nurses in India.[51] The primary cause is the unavailability of competent candidates.

However, currently, our doctors do a lot of work that a nurse can easily do. They are given responsibilities that are underqualified for their skillset. This causes significant wastage of their potential.

That's why we need to optimize our working responsibilities, especially in the government sector. Then, the available skillset can be trained further for better technologically advanced skills.

## **What government has done till now?**

Let's examine the government's initiatives to make our workforce future-ready by 2030.

### **Initiative by Sri-CHRO**

The machine shops and foundry are facing a significant shortage of workforce. However, retention and new hiring have become challenging as people are not interested in the work. So to avoid such attrition conditions, they have set up training centers in Coimbatore. Moreover, they have a standard hiring process. The training center allows the development of existing skillsets to meet the demands. This is an ideal instance of how we can combat the bridge between the workforce and demand till 2030.

### **Upskilling in the government sector**

Our Prime Minister is already emphasizing the essential need for skill development. As per the report of NITI Aayog presented in December 2018, 5.4% of Indian workers have undergone training[51]. On one aspect, this is a good sign. However, this is not enough to make any significant impact. The government also understands this issue and has started several training and development programs like Pradhan Mantri Kaushal Kendras, SANKALP, Craftsman training scheme, etc.

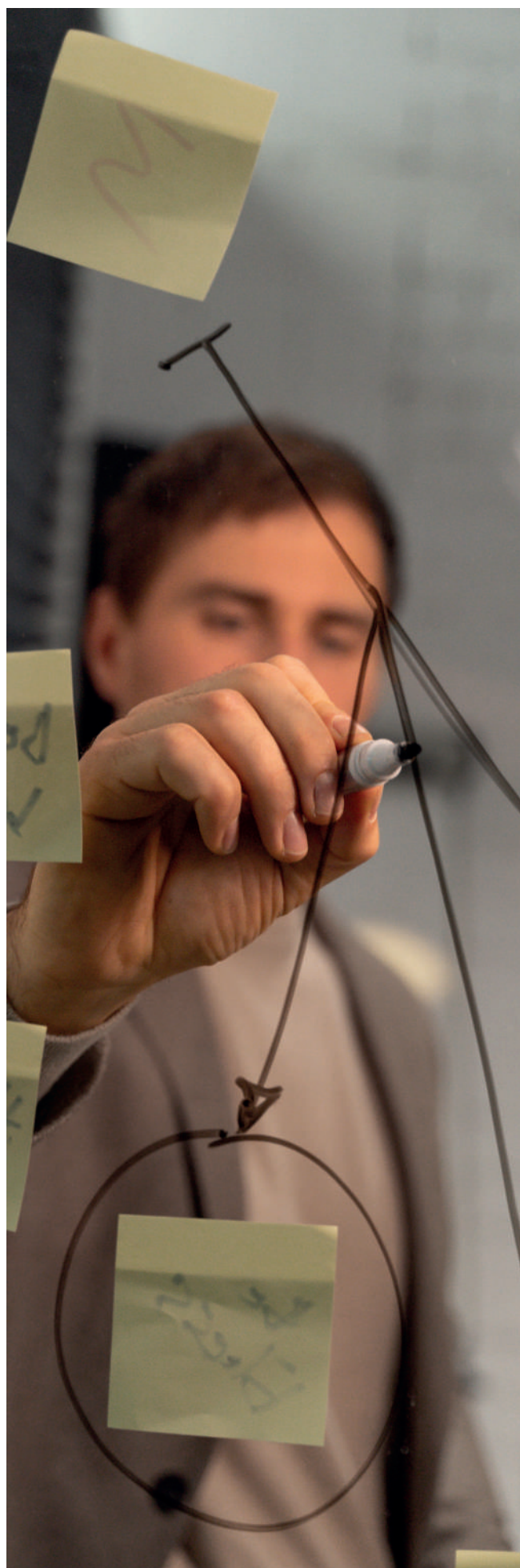
### **Bottom line**

We severe need to take steps in skill development and training domain to balance the scarcity of skills. Moreover, we must formulate our plans per future needs and not just the current scenario. There is a large population of the workforce that hasn't even reached the basic level yet. But if we want to build a balanced economy, we certainly can't ignore this section.

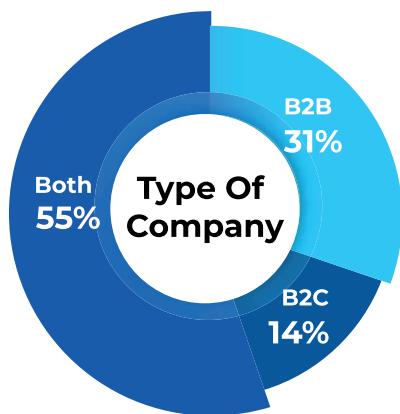
# APPENDIX

## Survey Methodology and Data Analysis

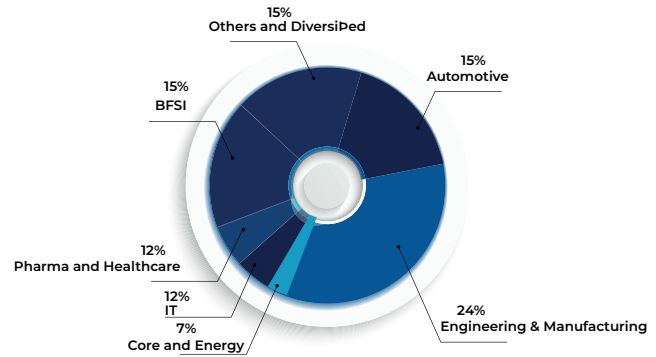
The India Skills Report is a synthesis of two independent and complementary studies: the Wheebox National Employability Test, which examined young employability, and the India Hiring Intent Survey - Early Career Edition 2023, a primary research survey done for 150+ corporates across 15 industries. The Wheebox National Employability Test, or WNET, examined students' employability by assessing their work-readiness for India's changing employment market. The 2022 India Recruiting Intent Survey investigated the hiring trends and preferences of employers in key industries for the upcoming year 2023. Through an online skill evaluation across the country, we reached out to over 3,75,000 students from various domains and educational backgrounds for WNET. All responses were gathered online via a structured survey that included demographic information from respondents. To represent data in this report, responses were examined and analysed using statistical procedures. To prevent the danger of data polarisation, assessment scores on all demographic factors were obtained. Students were given specific questions about their education, and a psychometric evaluation was administered to help us determine their non-technical skill profile. The survey results were analysed based on various parameters such as educational domain, specific skill oriented employability, state specific employability, resulting in the top 10 states, city specific employability, identifying the top 10 cities in terms of employability, gender specific employability, expected salary ranges, interest in internship opportunities, and user data. The Hiring Intent Survey - Early Career Edition was conducted by Taggd and PeopleStrong, who contacted over 150 organisations and corporations from 15 different industries. Between September and November, an online survey garnered 150+ completed replies, which were considered for the analysis.



## Participation by Company Type



## Participation by Industry Work Force



## India Skills Report 2023 Team



**Shweta Jha**  
Head of Intellectual Properties  
Wheebox



**Prashant Choudhary**  
Head of Product Management  
Wheebox



**Rishabh Lakhotia**  
Head of Marketing  
Wheebox



**Elim Panda**  
Manager, Marketing  
Taggd

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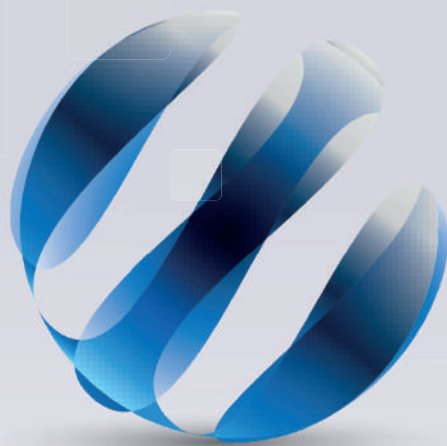
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**WHEEBOX CORPORATE OFFICE**

Ocus Quantum, Unit No. 601-610, 6th Floor, Sector 51, Gurugram, Haryana 122003  
Email: [info@wheebox.com](mailto:info@wheebox.com)